

Chemical Analysis Report

SO-DIST-2024-06-18-01

Florida DEP Laboratory
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DOH Accreditation E31780

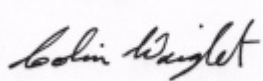
Event Description: **SCCF ALGAL DYNAMICS STUDY**
Request ID: **RQ-2024-05-06-11**
Customer: **SO-DIST**
Project ID: **DISCRTNARY**

Send Reports to:
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FLDEP South District Office
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Certified by: Colin Wright, Program Administrator

Date Certified: 11-JUL-2024 11:12



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: 26.71393, -81.56266

Collection Date/Time: 06/17/2024 09:45

Field ID: CLEW04

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2494493	EPA 350.1 Rev. 2.0	Ammonia-N	0.27		mg N/L	P447095	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P446934	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P447044	
	EPA 365.1 Rev. 2.0	Total-P	0.27		mg P/L	P447009	
2494498	EPA 350.1 Rev. 2.0 dissolved	Ammonia-N	0.27		mg N/L	P447095	
	EPA 351.2 Rev. 2.0 dissolved	Kjeldahl Nitrogen	1.3		mg N/L	P446934	
2494503	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.22		mg P/L	P446655	

Ref. Method and Comment:
EPA 350.1 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 350.1 Rev. 2.0 dissolved: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: 26.69315, 81.79630

Collection Date/Time: 06/17/2024 11:15

Field ID: ORANGE

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2494494	EPA 350.1 Rev. 2.0	Ammonia-N	0.17		mg N/L	P447095	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P446934	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.20		mg N/L	P447044	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P447009	
2494499	EPA 350.1 Rev. 2.0 dissolved	Ammonia-N	0.16	A	mg N/L	P447095	
	EPA 351.2 Rev. 2.0 dissolved	Kjeldahl Nitrogen	0.95		mg N/L	P446934	
2494504	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.11		mg P/L	P446655	

Ref. Method and Comment:

EPA 350.1 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0 dissolved: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: 26.70324, 81.80525

Collection Date/Time: 06/17/2024 11:35

Field ID: POPASH

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2494495	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P447095	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P446934	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P447262	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P446801	
2494500	EPA 350.1 Rev. 2.0 dissolved	Ammonia-N	0.11		mg N/L	P447095	
	EPA 351.2 Rev. 2.0 dissolved	Kjeldahl Nitrogen	0.94		mg N/L	P446934	
2494505	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.11		mg P/L	P446655	

Ref. Method and Comment:
EPA 350.1 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 350.1 Rev. 2.0 dissolved: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: 26.65737, 81.89425

Collection Date/Time: 06/17/2024 12:35

Field ID: HANCOCK

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2494496	EPA 350.1 Rev. 2.0	Ammonia-N	0.074		mg N/L	P447095	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.99		mg N/L	P446934	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.18		mg N/L	P447044	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P446801	
2494501	EPA 350.1 Rev. 2.0 dissolved	Ammonia-N	0.073		mg N/L	P447095	
	EPA 351.2 Rev. 2.0 dissolved	Kjeldahl Nitrogen	0.80		mg N/L	P446934	
2494506	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.15		mg P/L	P446655	

Ref. Method and Comment:
EPA 350.1 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 350.1 Rev. 2.0 dissolved: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0 dissolved: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: CLEW07

Collection Date/Time: 06/17/2024 13:45

Field ID: FB_06172024

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2494520	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P447028	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P446935	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P446858	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P446801	
2494521	EPA 350.1 Rev. 2.0 dissolved	Ammonia-N	0.002	U	mg N/L	P447096	
	EPA 351.2 Rev. 2.0 dissolved	Kjeldahl Nitrogen	0.080	U	mg N/L	P447193	
2494522	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P446656	

Ref. Method and Comment:
EPA 351.2 Rev. 2.0 dissolved: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: 26.57761, -81.89881

Collection Date/Time: 06/17/2024 10:50

Field ID: WHISKEY

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2494508	EPA 350.1 Rev. 2.0	Ammonia-N	0.23		mg N/L	P447096	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P446935	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.10		mg N/L	P447262	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P447347	
2494512	EPA 350.1 Rev. 2.0 dissolved	Ammonia-N	0.23		mg N/L	P447096	
	EPA 351.2 Rev. 2.0 dissolved	Kjeldahl Nitrogen	0.87		mg N/L	P446935	
2494516	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.083		mg P/L	P446656	

Sample Location: 26.54335, -81.94011

Collection Date/Time: 06/17/2024 11:08

Field ID: CLEW09

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2494509	EPA 350.1 Rev. 2.0	Ammonia-N	0.027		mg N/L	P447096	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P446935	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.18		mg N/L	P447262	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P447347	
2494513	EPA 350.1 Rev. 2.0 dissolved	Ammonia-N	0.029		mg N/L	P447096	
	EPA 351.2 Rev. 2.0 dissolved	Kjeldahl Nitrogen	0.87		mg N/L	P446935	
2494517	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.090		mg P/L	P446656	

Sample Location: 26.52328, -82.00864

Collection Date/Time: 06/17/2024 11:40

Field ID: CLEW10

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2494510	EPA 350.1 Rev. 2.0	Ammonia-N	0.011	I	mg N/L	P447622	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.77		mg N/L	P447083	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009		mg N/L	P446928	
	EPA 365.1 Rev. 2.0	Total-P	0.054		mg P/L	P446790	
2494514	EPA 350.1 Rev. 2.0 dissolved	Ammonia-N	0.011		mg N/L	P447025	
	EPA 351.2 Rev. 2.0 dissolved	Kjeldahl Nitrogen	0.53		mg N/L	P447083	
2494518	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.022		mg P/L	P446654	

Sample Location: 26.47219, -82.01621

Collection Date/Time: 06/17/2024 12:13

Field ID: CLEW11

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2494511	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P447025	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.46		mg N/L	P447081	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P446928	
	EPA 365.1 Rev. 2.0	Total-P	0.026		mg P/L	P446790	
2494515	EPA 350.1 Rev. 2.0 dissolved	Ammonia-N	0.008		mg N/L	P447025	
	EPA 351.2 Rev. 2.0 dissolved	Kjeldahl Nitrogen	0.40	I	mg N/L	P447081	
2494519	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P446654	

Ref. Method and Comment:
EPA 350.1 Rev. 2.0: The result was confirmed on 06/25/2024.
EPA 350.1 Rev. 2.0 dissolved: The result was confirmed on 06/25/2024.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447025

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447028

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447095

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447096

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447622

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

Reference Method: EPA 350.1 Rev. 2.0 dissolved
Batch ID: P447025

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

Reference Method: EPA 350.1 Rev. 2.0 dissolved
Batch ID: P447095

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

Reference Method: EPA 350.1 Rev. 2.0 dissolved
Batch ID: P447096

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P446934

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P446935

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P447081

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P447083

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

Reference Method: EPA 351.2 Rev. 2.0 dissolved
Batch ID: P446934

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

Reference Method: EPA 351.2 Rev. 2.0 dissolved
Batch ID: P446935

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

Reference Method: EPA 351.2 Rev. 2.0 dissolved
Batch ID: P447081

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

Reference Method: EPA 351.2 Rev. 2.0 dissolved
Batch ID: P447083

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

Reference Method: EPA 351.2 Rev. 2.0 dissolved
Batch ID: P447193

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P446858

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: P446928

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P447044

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P447262

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P446790

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P446801

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P447009

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P447347

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P446654

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P446655

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P446656

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447025

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447028

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447095

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447096

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447622

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0 dissolved
Batch ID: P447025

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0 dissolved
Batch ID: P447095

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0 dissolved
Batch ID: P447096

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P446934

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	94.5		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P446935

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P447081

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P447083

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

Reference Method: EPA 351.2 Rev. 2.0 dissolved
Batch ID: P446934

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	94.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0 dissolved
Batch ID: P446935

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0 dissolved
Batch ID: P447081

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

Reference Method: EPA 351.2 Rev. 2.0 dissolved
Batch ID: P447083

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

Reference Method: EPA 351.2 Rev. 2.0 dissolved
Batch ID: P447193

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P446858

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P446928

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P447044

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: P447262

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	96.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P446790

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P446801

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P447009

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P447347

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P446654

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P446655

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P446656

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447025

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494510	Ammonia-N	96.4	98.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447028

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494636	Ammonia-N	93.6	95.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447096

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494513	Ammonia-N	92.8	94.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447622

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494514	Ammonia-N	97.8	99.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0 dissolved
Batch ID: P447025

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494510	Ammonia-N	96.4	98.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0 dissolved
Batch ID: P447096

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494513	Ammonia-N	92.8	94.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P446934

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494493	Kjeldahl Nitrogen	94.1	95.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P446935

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494513	Kjeldahl Nitrogen	96.4	96.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P447081

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494511	Kjeldahl Nitrogen	96.7	105	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P447083

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494460	Kjeldahl Nitrogen	101	107	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0 dissolved
Batch ID: P446934

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494493	Kjeldahl Nitrogen	94.1	95.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0 dissolved
Batch ID: P446935

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494513	Kjeldahl Nitrogen	96.4	96.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0 dissolved
Batch ID: P447081

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494511	Kjeldahl Nitrogen	96.7	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0 dissolved
Batch ID: P447083

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494460	Kjeldahl Nitrogen	101	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P446858

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494538	NO2NO3-N	91.6	90.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P446928

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494510	NO2NO3-N	99.0	97.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P447044

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494408	NO2NO3-N	96.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P447262

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2497787	NO2NO3-N	92.8	93.8	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P446790

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494460	Total-P	94.2	95.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P446801

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494497	Total-P	102	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P447009

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2495203	Total-P	98.3	99.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P447347

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2497485	Total-P	104	99.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P446654

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494202	O-Phosphate-P	96.1	96.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P446655

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494258	O-Phosphate-P	98.9	98.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P446656

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494517	O-Phosphate-P	98.2	99.2	P/P	90 - 110

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447025

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494510	Ammonia-N	1.38	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447028

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494636	Ammonia-N	1.96	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447095

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494499	Ammonia-N	0.369	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447096

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494513	Ammonia-N	1.32	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447622

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494514	Ammonia-N	1.14	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0 dissolved
Batch ID: P447025

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494510	Ammonia-N	1.38	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0 dissolved
Batch ID: P447095

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494499	Ammonia-N	0.369	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0 dissolved
Batch ID: P447096

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494513	Ammonia-N	1.32	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P446934

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494493	Kjeldahl Nitrogen	0.826	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P446935

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494513	Kjeldahl Nitrogen	0.157	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P447081

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494511	Kjeldahl Nitrogen	6.93	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P447083

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494460	Kjeldahl Nitrogen	4.94	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0 dissolved
Batch ID: P446934

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494493	Kjeldahl Nitrogen	0.826	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0 dissolved
Batch ID: P446935

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494513	Kjeldahl Nitrogen	0.157	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0 dissolved
Batch ID: P447081

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494511	Kjeldahl Nitrogen	6.93	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0 dissolved
Batch ID: P447083

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494460	Kjeldahl Nitrogen	4.94	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0 dissolved
Batch ID: P447193

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2495026	Kjeldahl Nitrogen	2.88	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P446858

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494538	NO2NO3-N	1.01	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P446928

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494510	NO2NO3-N	1.46	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P447044

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494408	NO2NO3-N	0.211	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P447262

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2497787	NO2NO3-N	1.03	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P446790

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494460	Total-P	0.797	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P446801

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494497	Total-P	0.664	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P447009

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2495203	Total-P	0.797	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P447347

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2497485	Total-P	2.61	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P446654

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494202	O-Phosphate-P	0.326	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P446655

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494258	O-Phosphate-P	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P446656

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494517	O-Phosphate-P	0.531	Spike	P	0 - 20

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A126207

Included Lab Sample IDs: 2494503, 2494504, 2494505, 2494506, 2494507, 2494516, 2494517, 2494518, 2494519, 2494522

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.1	96.0	P/P	90 - 110
O-Phosphate-P	97.4	96.1	P/P	90 - 110
O-Phosphate-P	97.6	97.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A126304

Included Lab Sample IDs: 2494510, 2494511

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.0	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A126316

Included Lab Sample IDs: 2494495, 2494496, 2494497

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	103	P/P	90 - 110
Total-P	102	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A126341

Included Lab Sample IDs: 2494511, 2494520

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	101	P/P	90 - 110
Ammonia-N	101	99.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0 dissolved

Run ID: A126341

Included Lab Sample IDs: 2494514, 2494515

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A126347

Included Lab Sample IDs: 2494493, 2494494, 2494496, 2494497

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.5	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A126349

Included Lab Sample IDs: 2494493, 2494494

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A126353

Included Lab Sample IDs: 2494493, 2494494, 2494495, 2494496, 2494497, 2494508, 2494509, 2494520

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	99.1	P/P	90 - 110
Kjeldahl Nitrogen	94.2	101	P/P	90 - 110
Kjeldahl Nitrogen	98.6	94.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0 dissolved

Run ID: A126353

Included Lab Sample IDs: 2494498, 2494499, 2494500, 2494501, 2494502, 2494512, 2494513

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.2	101	P/P	90 - 110
Kjeldahl Nitrogen	98.6	94.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A126371

Included Lab Sample IDs: 2494493, 2494494, 2494495, 2494496, 2494497, 2494508, 2494509

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.2	96.6	P/P	90 - 110
Ammonia-N	97.4	97.7	P/P	90 - 110
Ammonia-N	97.7	97.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0 dissolved

Run ID: A126371

Included Lab Sample IDs: 2494498, 2494499, 2494500, 2494501, 2494502, 2494512, 2494513, 2494521

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.2	96.6	P/P	90 - 110
Ammonia-N	97.4	97.7	P/P	90 - 110
Ammonia-N	97.7	97.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A126380

Included Lab Sample IDs: 2494510, 2494511

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	94.5	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A126390

Included Lab Sample IDs: 2494520

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A126413

Included Lab Sample IDs: 2494510, 2494511

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.1	105	P/P	90 - 110
Kjeldahl Nitrogen	99.8	103	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0 dissolved

Run ID: A126413

Included Lab Sample IDs: 2494514, 2494515

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.7	99.4	P/P	90 - 110
Kjeldahl Nitrogen	99.8	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A126420

Included Lab Sample IDs: 2494495, 2494508, 2494509

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	92.5	96.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0 dissolved

Run ID: A126443

Included Lab Sample IDs: 2494521

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	91.7	96.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A126516

Included Lab Sample IDs: 2494508, 2494509

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A126571

Included Lab Sample IDs: 2494510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.8	99.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A12686

Included Lab Sample IDs: 2494520

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	96.0	95.0	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report

Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 350.1 Rev. 2.0	Ammonia-N	95.6	96.4	98.0	0.369	1.38
	Ammonia-N	95.6	93.6	95.6		1.96
	Ammonia-N	94.2				
	Ammonia-N	95.0	92.8	94.8		1.32
	Ammonia-N	94.6	97.8	99.2		1.14
EPA 350.1 Rev. 2.0 dissolved	Ammonia-N	95.6	96.4	98.0	0.369	1.38
	Ammonia-N	94.2				
	Ammonia-N	95.0	92.8	94.8		1.32
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	94.5	94.1	95.5		0.826
	Kjeldahl Nitrogen	99.5	96.4	96.7		0.157
	Kjeldahl Nitrogen	101	96.7	105		6.93
	Kjeldahl Nitrogen	100	101	107		4.94
EPA 351.2 Rev. 2.0 dissolved	Kjeldahl Nitrogen	94.5	94.1	95.5		0.826
	Kjeldahl Nitrogen	99.5	96.4	96.7		0.157
	Kjeldahl Nitrogen	101	96.7	105		6.93
	Kjeldahl Nitrogen	100	101	107		4.94
	Kjeldahl Nitrogen	100				2.88
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5	91.6	90.6		1.01
	NO2NO3-N	98.5	99.0	97.5		1.46
	NO2NO3-N	102	96.5			0.211
	NO2NO3-N	96.0	92.8	93.8		1.03
EPA 365.1 Rev. 2.0	Total-P	99.7	94.2	95.0		0.797
	Total-P	102	102	101		0.664
	Total-P	97.2	98.3	99.1		0.797
	Total-P	102	104	99.9		2.61
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	96.1	96.6		0.326
	O-Phosphate-P	103	98.9	98.9		0.0
	O-Phosphate-P	103	98.2	99.2		0.531

Reference Method Descriptions

Method	Description	Associated Samples
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2494493, 2494494, 2494495, 2494496, 2494497, 2494508, 2494509, 2494510, 2494511, 2494520
EPA 350.1 Rev. 2.0 dissolved	Ammonia, dissolved, in filtered, aqueous matrices as mg N/L	2494498, 2494499, 2494500, 2494501, 2494502, 2494512, 2494513, 2494514, 2494515, 2494521
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2494493, 2494494, 2494495, 2494496, 2494497, 2494508, 2494509, 2494510, 2494511, 2494520
EPA 351.2 Rev. 2.0 dissolved	Total Kjeldahl Nitrogen, dissolved, in filtered, aqueous matrices	2494498, 2494499, 2494500, 2494501, 2494502, 2494512, 2494513, 2494514, 2494515, 2494521
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2494493, 2494494, 2494495, 2494496, 2494497, 2494508, 2494509, 2494510, 2494511, 2494520
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2494493, 2494494, 2494495, 2494496, 2494497, 2494508, 2494509, 2494510, 2494511, 2494520
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2494503, 2494504, 2494505, 2494506, 2494507, 2494516, 2494517, 2494518, 2494519, 2494522

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 350.1 Rev. 2.0	06/18/2024			06/25/2024 12:32	Khloe J Berg	2494511
	06/18/2024			06/25/2024 13:51	Khloe J Berg	2494520
	06/18/2024			06/26/2024 12:03	Ping Hua	2494494
	06/18/2024			06/26/2024 12:05	Ping Hua	2494495
	06/18/2024			06/26/2024 12:08	Ping Hua	2494496
	06/18/2024			06/26/2024 12:11	Ping Hua	2494497
	06/18/2024			06/26/2024 12:29	Ping Hua	2494509
	06/18/2024			06/26/2024 13:43	Ping Hua	2494493
	06/18/2024			06/26/2024 13:47	Ping Hua	2494508
	06/18/2024			07/10/2024 13:55	Khloe J Berg	2494510
EPA 350.1 Rev. 2.0 dissolved	06/18/2024			06/25/2024 12:31	Khloe J Berg	2494514
	06/18/2024			06/25/2024 12:34	Khloe J Berg	2494515
	06/18/2024			06/26/2024 12:04	Ping Hua	2494500
	06/18/2024			06/26/2024 12:07	Ping Hua	2494501
	06/18/2024			06/26/2024 12:09	Ping Hua	2494502
	06/18/2024			06/26/2024 12:37	Ping Hua	2494521
	06/18/2024			06/26/2024 13:41	Ping Hua	2494499
	06/18/2024			06/26/2024 13:44	Ping Hua	2494498
	06/18/2024			06/26/2024 13:45	Ping Hua	2494512
	06/18/2024			06/26/2024 13:48	Ping Hua	2494513
EPA 351.2 Rev. 2.0	06/18/2024	06/24/2024 08:49	Simonne.V. Calhoun	06/25/2024 15:19	Ping Hua	2494493
	06/18/2024	06/24/2024 08:49	Simonne.V. Calhoun	06/25/2024 15:24	Ping Hua	2494494
	06/18/2024	06/24/2024 08:49	Simonne.V. Calhoun	06/25/2024 15:25	Ping Hua	2494495
	06/18/2024	06/24/2024 08:49	Simonne.V. Calhoun	06/25/2024 15:27	Ping Hua	2494496
	06/18/2024	06/24/2024 08:49	Simonne.V. Calhoun	06/25/2024 15:42	Ping Hua	2494497
	06/18/2024	06/24/2024 08:49	Simonne.V. Calhoun	06/25/2024 15:45	Ping Hua	2494508
	06/18/2024	06/24/2024 08:49	Simonne.V. Calhoun	06/25/2024 15:46	Ping Hua	2494509
	06/18/2024	06/24/2024 08:49	Simonne.V. Calhoun	06/25/2024 15:58	Ping Hua	2494520
	06/18/2024	06/27/2024 10:40	Ping Hua	06/28/2024 10:23	Robyn Blevins	2494511
	06/18/2024	06/27/2024 10:40	Ping Hua	06/28/2024 11:19	Robyn Blevins	2494510
EPA 351.2 Rev. 2.0 dissolved	06/18/2024	06/24/2024 08:49	Simonne.V. Calhoun	06/25/2024 15:29	Ping Hua	2494498
	06/18/2024	06/24/2024 08:49	Simonne.V. Calhoun	06/25/2024 15:30	Ping Hua	2494499
	06/18/2024	06/24/2024 08:49	Simonne.V. Calhoun	06/25/2024 15:32	Ping Hua	2494500
	06/18/2024	06/24/2024 08:49	Simonne.V. Calhoun	06/25/2024 15:34	Ping Hua	2494501
	06/18/2024	06/24/2024 08:49	Simonne.V. Calhoun	06/25/2024 15:43	Ping Hua	2494502
	06/18/2024	06/24/2024 08:49	Simonne.V. Calhoun	06/25/2024 15:48	Ping Hua	2494512
	06/18/2024	06/24/2024 08:49	Simonne.V. Calhoun	06/25/2024 15:50	Ping Hua	2494513
	06/18/2024	06/27/2024 10:40	Ping Hua	06/28/2024 10:27	Robyn Blevins	2494515
	06/18/2024	06/27/2024 10:40	Ping Hua	06/28/2024 12:57	Robyn Blevins	2494514
	06/18/2024	06/28/2024 07:22	Simonne.V. Calhoun	07/01/2024 11:59	Ping Hua	2494521

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 353.2 Rev. 2.0	06/18/2024			06/20/2024 15:32	Fadila Guebre	2494520
	06/18/2024			06/21/2024 14:38	Fadila Guebre	2494510
	06/18/2024			06/21/2024 14:44	Fadila Guebre	2494511
	06/18/2024			06/25/2024 14:05	Fadila Guebre	2494493
	06/18/2024			06/25/2024 14:07	Fadila Guebre	2494494
	06/18/2024			06/25/2024 14:08	Fadila Guebre	2494496
	06/18/2024			06/25/2024 14:09	Fadila Guebre	2494497
	06/18/2024			06/28/2024 14:55	Fadila Guebre	2494495
	06/18/2024			06/28/2024 14:56	Fadila Guebre	2494508
	06/18/2024			06/28/2024 14:58	Fadila Guebre	2494509
EPA 365.1 Rev. 2.0	06/18/2024	06/20/2024 14:28	Josephine W Gitau	06/24/2024 10:27	James L Waggeberby	2494497
	06/18/2024	06/20/2024 14:28	Josephine W Gitau	06/24/2024 10:31	James L Waggeberby	2494495
	06/18/2024	06/20/2024 14:28	Josephine W Gitau	06/24/2024 10:32	James L Waggeberby	2494496
	06/18/2024	06/20/2024 14:28	Josephine W Gitau	06/25/2024 14:42	Simonne.V. Calhoun	2494510
	06/18/2024	06/20/2024 14:28	Josephine W Gitau	06/25/2024 14:43	Simonne.V. Calhoun	2494511
	06/18/2024	06/20/2024 14:28	Josephine W Gitau	06/27/2024 12:02	Simonne.V. Calhoun	2494520
	06/18/2024	06/25/2024 13:47	Adam P Silver	06/25/2024 17:38	Elise M. Gillis	2494493
	06/18/2024	06/25/2024 13:47	Adam P Silver	06/25/2024 17:39	Elise M. Gillis	2494494
	06/18/2024	07/02/2024 14:47	Josephine W Gitau	07/08/2024 10:32	James L Waggeberby	2494508
	06/18/2024	07/02/2024 14:47	Josephine W Gitau	07/08/2024 10:33	James L Waggeberby	2494509
EPA 365.1 Rev. 2.0 dissolved	06/18/2024			06/18/2024 14:40	James L Waggeberby	2494518
	06/18/2024			06/18/2024 14:41	James L Waggeberby	2494519
	06/18/2024			06/18/2024 14:56	James L Waggeberby	2494503
	06/18/2024			06/18/2024 14:57	James L Waggeberby	2494504
	06/18/2024			06/18/2024 15:03	James L Waggeberby	2494505, 2494506
	06/18/2024			06/18/2024 15:06	James L Waggeberby	2494517
	06/18/2024			06/18/2024 15:09	James L Waggeberby	2494507, 2494516
	06/18/2024			06/18/2024 15:10	James L Waggeberby	2494522