

Chemical Analysis Report

NE-DIST-2017-12-07-02

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

Event Description: **LSJR East**
Request ID: **RQ-2017-12-04-35**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Jacksonville, FL 32256-7577
Attn: Jeremy Parrish

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Liang Lin, Environmental Administrator

Date Certified: 02-JAN-2018 17:50

A handwritten signature in black ink, appearing to read "Liang Lin", on a light-colored background.

NON-CONFORMANCE REPORT INCLUDED

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 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: Greenfield Creek @ Atlantic Blvd.

Collection Date/Time: 12/06/2017 10:20

Field ID: G2NE0664 12062017

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1951778	EPA 180.1 Rev. 2.0	Turbidity	8.1	A	NTU	P336599	
	EPA 300.0 Rev. 2.1	Chloride	1.0E+04		mg Cl/L	P336892	
		Sulfate	1.4E+03		mg SO4/L	P336895	
	SM 2120 B	Color (true)	130		PCU	P336622	
	SM 2320 B-97	Total Alkalinity	90		mg CaCO3/L	P337102	
	SM 2540 C-97	TDS	1.76E+04		mg/L	P337017	
	SM 2540 D-97	TSS	14		mg/L	P336781	
	SM 4500 F-C-97	Fluoride	0.68		mg F/L	P337103	
1951782	EPA 350.1 Rev. 2.0	Ammonia-N	0.033		mg N/L	P337499	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.74		mg N/L	P336903	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.19		mg N/L	P337117	
	EPA 365.1 Rev. 2.0	Total-P	0.081		mg P/L	P336881	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P336870	
1951786	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.052		mg P/L	P336593	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Newcastle Creek @ Ft. Caroline Rd.

Collection Date/Time: 12/06/2017 13:00

Field ID: G2NE0880 12062017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1951779	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P336599	
	EPA 300.0 Rev. 2.1	Chloride	42		mg Cl/L	P336892	
		Sulfate	39		mg SO4/L	P336895	
	SM 2120 B	Color (true)	13		PCU	P336622	
	SM 2320 B-97	Total Alkalinity	55		mg CaCO3/L	P336990	
	SM 2540 C-97	TDS	182		mg/L	P337017	
	SM 2540 D-97	TSS	2		mg/L	P336777	
	SM 4500 F-C-97	Fluoride	0.075		mg F/L	P337106	
1951783	EPA 350.1 Rev. 2.0	Ammonia-N	0.092		mg N/L	P337342	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.36		mg N/L	P336908	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.37		mg N/L	P336738	
	EPA 365.1 Rev. 2.0	Total-P	0.033		mg P/L	P336886	
	SM 5310 B-00	Organic Carbon	2.9		mg C/L	P336822	
1951787	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.020		mg P/L	P336592	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Puncheon Br. @ Gate PKWY N

Collection Date/Time: 12/06/2017 08:52

Field ID: G2NE0875 12062017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
-----------	-------------	-----------	--------	------	-------	----------	----------

Field ID: G2NE0875 12062017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1951780	EPA 180.1 Rev. 2.0	Turbidity	27		NTU	P336599	
	EPA 300.0 Rev. 2.1	Chloride	29		mg Cl/L	P336892	
		Sulfate	22		mg SO4/L	P336895	
	SM 2120 B	Color (true)	90	A	PCU	P336625	
	SM 2320 B-97	Total Alkalinity	31		mg CaCO3/L	P336990	
	SM 2540 C-97	TDS	142		mg/L	P337017	
	SM 2540 D-97	TSS	41		mg/L	P336777	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P337106	
1951784	EPA 350.1 Rev. 2.0	Ammonia-N	0.19		mg N/L	P337342	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P336908	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.085		mg N/L	P336738	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P336886	
	SM 5310 B-00	Organic Carbon	18		mg C/L	P336822	
1951788	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.01	I	mg P/L	P336592	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Puncheon Br. @ Gate PKWY N

Collection Date/Time: 12/06/2017 08:52

Field ID: G2NE0875 12062017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1951805	EPA 8321B	Sucralose**	0.91		ug/L	P336557	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P336466	
		Diuron	0.010		ug/L	P336466	
		Fenuron	0.0080	U	ug/L	P336466	
		Imidacloprid	0.0065		ug/L	P336466	
		Bentazon	0.0085		ug/L	P336466	
		Linuron	0.0040	U	ug/L	P336466	
		Acetaminophen**	0.0080	U	ug/L	P336466	
		MCP	0.0020	U	ug/L	P336466	
		Carbamazepine**	0.0042		ug/L	P336466	
		Triclopyr**	0.0040	U	ug/L	P336466	
		Primidone**	0.0040	U	ug/L	P336466	
		Fluridone**	0.0078		ug/L	P336466	

Sample Location: Strawberry Creek @ Lone Star Rd.

Collection Date/Time: 12/06/2017 11:10

Field ID: G2NE0762 12062017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1951781	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P336599	
	EPA 300.0 Rev. 2.1	Chloride	33		mg Cl/L	P336892	
		Sulfate	25		mg SO4/L	P336895	
	SM 2120 B	Color (true)	100		PCU	P336622	
	SM 2320 B-97	Total Alkalinity	36		mg CaCO3/L	P336990	

Field ID: G2NE0762 12062017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1951781	SM 2540 C-97	TDS	159		mg/L	P337017	
	SM 2540 D-97	TSS	2	U	mg/L	P336777	
	SM 4500 F-C-97	Fluoride	0.038	I	mg F/L	P337106	
1951785	EPA 350.1 Rev. 2.0	Ammonia-N	0.14		mg N/L	P337342	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.58		mg N/L	P336908	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.22		mg N/L	P336739	
	EPA 365.1 Rev. 2.0	Total-P	0.051		mg P/L	P336886	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P336823	
1951789	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.026		mg P/L	P336592	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Non-Conformance Report

NCR ID: 6839

Event(s)

NE-DIST-2017-12-07-02

Job(s)

TLH-2017-12-07-94

Sample(s)

1951796

Test(s)

NCR Type: ANALYSIS

NCR Category: Analytical Measurement

Observation: Sample field ID G2NE0664 12062017 for Test ID CHLSUITE-W was contaminated during the analysis.

Resolution: The customer, Jeremy Parish was contacted. The data will be reported with a J qualifier.

Authorized by/Date: 0

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
 Please address questions to:

Chemistry Colin Wright (850) 245-8085
 Biology Cheryl Swanson (850) 245-8177

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P336599

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P336892

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P336895

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337342

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337499

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336903

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336908

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P336738

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P336739

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337117

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P336881

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P336886

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: P336592

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P336593

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

Reference Method: EPA 8321B
Batch ID: P336557

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P336622

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P336625

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P336990

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

Reference Method: SM 2320 B-97
Batch ID: P337102

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

Reference Method: SM 2540 C-97
Batch ID: P337017

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P336777

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P336781

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P337103

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P337106

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P336822

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

Reference Method: SM 5310 B-00
Batch ID: P336823

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

Reference Method: SM 5310 B-00
Batch ID: P336870

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

Reference Method: USGS O-2060-01
Batch ID: P336466

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	8.0E-04	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	8.0E-04	U	ug/L
Linuron	0.0040	U	ug/L
MCP	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336892

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336895

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337342

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337499

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336903

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336908

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P336738

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P336739

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337117

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	108		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P336881

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: P336886

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P336592

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P336593

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

Reference Method: EPA 8321B
Batch ID: P336557

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	129		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P336990

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	95 - 108

Reference Method: SM 2320 B-97
Batch ID: P337102

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P337103

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.0		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P337106

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.5		P	92 - 103

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P336822

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

Reference Method: SM 5310 B-00
Batch ID: P336823

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

Reference Method: SM 5310 B-00
Batch ID: P336870

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.8		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P336466

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	99.7		P	40 - 150
Acetaminophen	88.6		P	30 - 150
Bentazon	92.7		P	30 - 150
Carbamazepine	93.9		P	40 - 150
Diuron	81.1		P	40 - 150
Fenuron	95.1		P	40 - 150
Fluridone	93.2		P	40 - 150
Imidacloprid	91.9		P	40 - 160
Linuron	83.6		P	40 - 150
MCP	91.3		P	40 - 150
Primidone	99.8		P	40 - 150
Triclopyr	91.0		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336892

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951748	Chloride	99.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336895

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951748	Sulfate	101		P	90 - 110
1951781	Sulfate	98.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337342

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
---------------	-----------	---------	---------	-----------	----------------

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337342

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951709	Ammonia-N	99.2	97.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337499

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1952197	Ammonia-N	110	109	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336903

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951523	Kjeldahl Nitrogen	101	99.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336908

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951783	Kjeldahl Nitrogen	96.3	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P336738

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951750	NO2NO3-N	103	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P336739

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951785	NO2NO3-N	100		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337117

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951782	NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P336881

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951530	Total-P	91.5	90.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P336886

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951752	Total-P	94.3	100	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P336592

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951653	O-Phosphate-P	103	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P336593

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951786	O-Phosphate-P	95.2	96.8	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P336557

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951718	Sucralose	97.3	100	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P337103

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1952193	Fluoride	92.1	93.6	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P337106

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951838	Fluoride	97.9	98.5	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P336822

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951605	Organic Carbon	103	99.1	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P336823

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951785	Organic Carbon	95.4	95.4	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P336870

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951782	Organic Carbon	91.3	91.7	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P336466

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951659	2,4-D	88.4	83.8	P/P	40 - 150
1951659	Acetaminophen	104	112	P/P	30 - 150
1951659	Bentazon	76.5	72.8	P/P	30 - 150
1951659	Carbamazepine	107	110	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P336466

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1951659	Diuron	91.6	92.8	P/P	40 - 150
1951659	Fenuron	105	108	P/P	40 - 150
1951659	Fluridone	103	108	P/P	40 - 150
1951659	Imidacloprid	114	123	P/P	40 - 160
1951659	Linuron	97.3	101	P/P	40 - 150
1951659	MCP	84.2	80.5	P/P	40 - 150
1951659	Primidone	112	115	P/P	40 - 150
1951659	Triclopyr	77.8	75.5	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P336599

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951778	Turbidity	1.73	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336892

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951748	Chloride	3.42	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336895

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951748	Sulfate	3.35	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337342

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951709	Ammonia-N	1.83	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337499

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1952197	Ammonia-N	0.217	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336903

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951523	Kjeldahl Nitrogen	1.31	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336908

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951783	Kjeldahl Nitrogen	4.83	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P336738

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951750	NO2NO3-N	1.47	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P336739

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951785	NO2NO3-N	0.475	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337117

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951782	NO2NO3-N	0.250	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P336881

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951530	Total-P	0.943	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P336886

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951752	Total-P	5.57	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P336592

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951653	O-Phosphate-P	2.56	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P336593

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951786	O-Phosphate-P	1.08	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P336557

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951718	Sucralose	3.09	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P336622

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951747	Color (true)	1.39	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P336625

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951780	Color (true)	18.4	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P336990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951838	Total Alkalinity	0.704	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P337102

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1952193	Total Alkalinity	0.434	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P337017

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951815	TDS	1.93	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P337103

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1952193	Fluoride	0.946	Spike	P	0 - 3.0

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P337106

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951838	Fluoride	0.490	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P336822

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951605	Organic Carbon	3.29	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P336823

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951785	Organic Carbon	0.0293	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P336870

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951782	Organic Carbon	0.328	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P336466

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1951659	2,4-D	5.37	Spike	P	0 - 30
1951659	Acetaminophen	7.50	Spike	P	0 - 30
1951659	Bentazon	4.80	Spike	P	0 - 30
1951659	Carbamazepine	2.68	Spike	P	0 - 30
1951659	Diuron	1.30	Spike	P	0 - 30
1951659	Fenuron	3.48	Spike	P	0 - 30
1951659	Fluridone	5.21	Spike	P	0 - 30
1951659	Imidacloprid	6.59	Spike	P	0 - 30
1951659	Linuron	3.27	Spike	P	0 - 30
1951659	MCPP	4.48	Spike	P	0 - 30
1951659	Primidone	3.00	Spike	P	0 - 30
1951659	Triclopyr	2.93	Spike	P	0 - 30

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Quality Assurance Report Surrogates

Lab Sample ID: 1951805
Field Sample ID: G2NE0875 12062017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	138	P	30 - 160
EPA 8321B	Carbamazepine-d10	119	P	30 - 160
EPA 8321B	Diuron-d6	109	P	30 - 160
EPA 8321B	Primidone-d5	95.6	P	30 - 160
EPA 8321B	Sucralose-d6	64.8	P	40 - 160
USGS O-2060-01	2,4-D-d3	76.4	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	138	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	119	P	30 - 160
USGS O-2060-01	Diuron-d6	109	P	30 - 160
USGS O-2060-01	Primidone-d5	95.6	P	30 - 160
USGS O-2060-01	Sucralose-d6	64.8	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A80761
Included Lab Sample IDs: 1951786, 1951787, 1951788, 1951789

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.7	99.5	P/P	90 - 110
O-Phosphate-P	99.4	98.7	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A80763
Included Lab Sample IDs: 1951778, 1951779, 1951780, 1951781

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

Reference Method: SM 2120 B
Run ID: A80772
Included Lab Sample IDs: 1951778, 1951779, 1951780, 1951781

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	99.5	P/P	85 - 115
Color (true)	99.1	101	P/P	85 - 115

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A80816
Included Lab Sample IDs: 1951783, 1951784, 1951785

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	100	P/P	90 - 110
NO2NO3-N	100	100	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A80848
Included Lab Sample IDs: 1951783, 1951784, 1951785

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

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A80848

Included Lab Sample IDs: 1951783, 1951784, 1951785

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	101	P/P	90 - 110
Organic Carbon	101	99.8	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A80862

Included Lab Sample IDs: 1951782

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.4	94.6	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A80867

Included Lab Sample IDs: 1951805

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	95.5	99.5	P/P	50 - 150
Acetaminophen	104	104	P/P	60 - 150
Bentazon	95.4	95.7	P/P	50 - 150
Carbamazepine	109	109	P/P	60 - 150
Diuron	103	107	P/P	60 - 150
Fenuron	102	106	P/P	60 - 150
Fluridone	113	114	P/P	60 - 160
Imidacloprid	95.9	104	P/P	60 - 150
Linuron	108	108	P/P	60 - 150
MCP	98.6	99.6	P/P	50 - 150
Primidone	108	91.1	P/P	60 - 150
Triclopyr	92.3	98.4	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A80872

Included Lab Sample IDs: 1951778, 1951779, 1951780, 1951781

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	105	P/P	90 - 110
Chloride	105	108	P/P	90 - 110
Sulfate	100	102	P/P	90 - 110
Sulfate	102	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A80897

Included Lab Sample IDs: 1951782, 1951783

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	105	102	P/P	90 - 110
Total-P	99.8	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A80902

Included Lab Sample IDs: 1951784, 1951785

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A80902

Included Lab Sample IDs: 1951784, 1951785

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

Reference Method: SM 2320 B-97

Run ID: A80909

Included Lab Sample IDs: 1951779, 1951780, 1951781

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.3	101	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A80962

Included Lab Sample IDs: 1951778

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	98.4	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A80962

Included Lab Sample IDs: 1951778, 1951779, 1951780, 1951781

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	99.5	P/P	90 - 110
Fluoride	99.1	99.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A80967

Included Lab Sample IDs: 1951782

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A80972

Included Lab Sample IDs: 1951782

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	98.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A80979

Included Lab Sample IDs: 1951783, 1951784, 1951785

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.2	98.7	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A81055

Included Lab Sample IDs: 1951805

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	86.6	105	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A81069

Included Lab Sample IDs: 1951783, 1951784, 1951785

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	101	P/P	90 - 110
Ammonia-N	99.1	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A81135

Included Lab Sample IDs: 1951782

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	103	100	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 SMP	MS
EPA 180.1 Rev. 2.0	Turbidity				1.73	
EPA 300.0 Rev. 2.1	Chloride	102	99.8		3.42	
	Sulfate	101	101 98.9		3.35	
EPA 350.1 Rev. 2.0	Ammonia-N	100	99.2 97.0			1.83
	Ammonia-N	107	110 109			0.217
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.8	101 99.3			1.31
	Kjeldahl Nitrogen	102	96.3 103			4.83
EPA 353.2 Rev. 2.0	NO2NO3-N	104	103 102			1.47
	NO2NO3-N	106	100			0.475
	NO2NO3-N	108	104 104			0.250
EPA 365.1 Rev. 2.0	Total-P	102	91.5 90.6			0.943
	Total-P	99.0	94.3 100			5.57
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.1	103 100			2.56
	O-Phosphate-P	99.8	95.2 96.8			1.08
EPA 8321B	Sucralose	129	97.3 100			3.09
SM 2120 B	Color (true)				1.39	
	Color (true)				18.4	
SM 2320 B-97	Total Alkalinity	101			0.704	
	Total Alkalinity	100			0.434	
SM 2540 C-97	TDS				1.93	
SM 4500 F-C-97	Fluoride	96.0	92.1 93.6			0.946
	Fluoride	97.5	97.9 98.5			0.490
SM 5310 B-00	Organic Carbon	99.8	103 99.1			3.29
	Organic Carbon	97.8	95.4 95.4			0.0293
	Organic Carbon	95.8	91.3 91.7			0.328
USGS O-2060-01	2,4-D	99.7	88.4 83.8			5.37
	Acetaminophen	88.6	112 104			7.50
	Bentazon	92.7	76.5 72.8			4.80
	Carbamazepine	93.9	110 107			2.68
	Diuron	81.1	92.8 91.6			1.30
	Fenuron	95.1	108 105			3.48

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	MS
			LCS	SMP		
USGS O-2060-01	Fluridone	93.2	108	103		5.21
	Imidacloprid	91.9	123	114		6.59
	Linuron	83.6	101	97.3		3.27
	MCP	91.3	84.2	80.5		4.48
	Primidone	99.8	115	112		3.00
	Triclopyr	91.0	77.8	75.5		2.93

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1951778, 1951779, 1951780, 1951781
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1951778, 1951779, 1951780, 1951781
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1951778, 1951779, 1951780, 1951781
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1951782, 1951783, 1951784, 1951785
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1951782, 1951783, 1951784, 1951785
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1951782, 1951783, 1951784, 1951785
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1951782, 1951783, 1951784, 1951785
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1951786, 1951787, 1951788, 1951789
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1951805
SM 2120 B / E31780	True Color measured at 450 nm	1951778, 1951779, 1951780, 1951781
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1951778, 1951779, 1951780, 1951781
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1951778, 1951779, 1951780, 1951781
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1951778, 1951779, 1951780, 1951781
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1951778, 1951779, 1951780, 1951781
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1951782, 1951783, 1951784, 1951785
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1951805
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1951805

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	12/07/2017			12/07/2017 14:30	DeAsia Armster	1951778
	12/07/2017			12/07/2017 14:33	DeAsia Armster	1951779
	12/07/2017			12/07/2017 16:28	DeAsia Armster	1951780, 1951781
EPA 300.0 Rev. 2.1	12/07/2017			12/12/2017	Julia Storbeck	1951778, 1951779, 1951780, 1951781
EPA 350.1 Rev. 2.0	12/07/2017			12/20/2017	Sofia Elnemr	1951783, 1951784, 1951785
	12/07/2017			12/26/2017	Sofia Elnemr	1951782
	12/07/2017	12/13/2017	Adrian Shelby	12/18/2017	Joseph Suarez	1951782, 1951783, 1951784, 1951785
EPA 353.2 Rev. 2.0	12/07/2017			12/11/2017	Lauren Bottorf	1951783, 1951784, 1951785
	12/07/2017			12/18/2017	Beverly Y. Sanders	1951782
	12/07/2017	12/13/2017	Sima Feizi	12/14/2017	Lipi Saha	1951782, 1951783, 1951784, 1951785
EPA 365.1 Rev. 2.0	12/07/2017			12/07/2017 13:41	Megan Treadwell	1951788, 1951789
EPA 365.1 Rev. 2.0 dissolved	12/07/2017			12/07/2017 13:42	Megan Treadwell	1951787
	12/07/2017			12/07/2017 13:57	Megan Treadwell	1951786
	12/07/2017	12/20/2017	Juyoung Kim	12/20/2017	Juyoung Kim	1951805
EPA 8321B SM 2120 B	12/07/2017			12/07/2017 16:17	Tanya Welborn	1951778
	12/07/2017			12/07/2017 16:18	Tanya Welborn	1951779
	12/07/2017			12/07/2017 16:20	Tanya Welborn	1951781
	12/07/2017			12/07/2017 16:41	Tanya Welborn	1951780
SM 2320 B-97	12/07/2017			12/14/2017	Dale L. Simmons	1951779, 1951780, 1951781
	12/07/2017			12/17/2017	Dale L. Simmons	1951778
SM 2540 C-97	12/07/2017			12/08/2017	DeAsia Armster	1951778, 1951779, 1951780, 1951781
SM 2540 D-97	12/07/2017			12/08/2017	DeAsia Armster	1951778, 1951779, 1951780, 1951781
SM 4500 F-C-97	12/07/2017			12/17/2017	Dale L. Simmons	1951778
	12/07/2017			12/18/2017	Dale L. Simmons	1951779, 1951780, 1951781
	12/07/2017			12/12/2017	Ping Hua	1951782, 1951783, 1951784, 1951785
SM 5310 B-00	12/07/2017			12/13/2017	Julie Michelle Frank	1951805
USGS O-2060-01	12/07/2017	12/11/2017	Hoor Shaik			