

Chemical Analysis Report

NE-DIST-2017-07-12-02

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

Event Description: **Suwannee North 2**
Request ID: **RQ-2017-07-10-09**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Jacksonville, FL 32256-7577
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 02-AUG-2017 10:22

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

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: FALLING CREEK @ US 441

Collection Date/Time: 07/11/2017 08:45

Field ID: G1NE0279 07112017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1912937	EPA 180.1 Rev. 2.0	Turbidity	1.5		NTU	P328388	
	EPA 300.0 Rev. 2.1	Chloride	8.8		mg Cl/L	P328553	
		Sulfate	0.63		mg SO4/L	P328556	
	SM 2120 B	Color (true)	650		PCU	P328368	
	SM 2320 B-97	Total Alkalinity	4.4		mg CaCO3/L	P328661	
	SM 2540 C-97	TDS	104		mg/L	P328643	RPD
	SM 2540 D-97	TSS	2	I	mg/L	P328734	
	SM 4500 F-C-97	Fluoride	0.061	I	mg F/L	P328820	
1912940	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P328590	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P328616	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	I	mg N/L	P328674	
	EPA 365.1 Rev. 2.0	Total-P	0.082		mg P/L	P328697	
	SM 5310 B-00	Organic Carbon	52		mg C/L	P328861	
1912943	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.058		mg P/L	P328501	

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: Precision data and batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: FALLING CREEK @ US 441

Collection Date/Time: 07/11/2017 08:45

Field ID: G1NE0279 07112017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1912971	EPA 8321B	Sucralose**	0.010	U	ug/L	P328402	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P328373	
		Diuron	8.0E-04	U	ug/L	P328373	
		Fenuron	0.0080	U	ug/L	P328373	
		Imidacloprid	8.0E-04	U	ug/L	P328373	MS
		Bentazon	8.0E-04	U	ug/L	P328373	
		Linuron	0.0040	U	ug/L	P328373	
		Acetaminophen**	0.0080	U	ug/L	P328373	
		MCP	0.0020	U	ug/L	P328373	
		Carbamazepine**	4.0E-04	U	ug/L	P328373	
		Triclopyr**	0.0040	U	ug/L	P328373	
		Primidone**	0.0040	U	ug/L	P328373	
		Fluridone**	4.0E-04	U	ug/L	P328373	RPD

Ref. Method and Comment:

USGS O-2060-01: MS accuracy for diuron could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: DEEP CREEK @ US 441

Collection Date/Time: 07/11/2017 09:15

Field ID: G1NE0267 07112017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1912938	EPA 180.1 Rev. 2.0	Turbidity	0.80		NTU	P328388	
	EPA 300.0 Rev. 2.1	Chloride	8.0		mg Cl/L	P328553	
		Sulfate	0.36	I	mg SO4/L	P328556	

Field ID: G1NE0267 07112017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1912938	SM 2120 B	Color (true)	1.0E+03		PCU	P328368	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P328661	
	SM 2540 C-97	TDS	118		mg/L	P328643	RPD
	SM 2540 D-97	TSS	3	I	mg/L	P328734	
	SM 4500 F-C-97	Fluoride	0.073	I	mg F/L	P328820	
1912941	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P328590	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P328616	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P328674	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P328697	
	SM 5310 B-00	Organic Carbon	84		mg C/L	P328861	
1912944	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.10		mg P/L	P328501	
1912965	EPA 8321B	Sucralose**	0.010	U	ug/L	P328402	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P328373	
		Diuron	8.0E-04	U	ug/L	P328373	
		Fenuron	0.0080	U	ug/L	P328373	
		Imidacloprid	8.0E-04	U	ug/L	P328373	MS
		Bentazon	8.0E-04	U	ug/L	P328373	
		Linuron	0.0040	U	ug/L	P328373	
		Acetaminophen**	0.0080	UJ	ug/L	P328373	SUR
		MCP	0.0020	U	ug/L	P328373	
		Carbamazepine**	4.0E-04	U	ug/L	P328373	
		Triclopyr**	0.0040	U	ug/L	P328373	
		Primidone**	0.0040	U	ug/L	P328373	
		Fluridone**	4.0E-04	U	ug/L	P328373	RPD

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: Precision data and batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

USGS O-2060-01: Refer to the narrative for an explanation of QC Codes. Acetaminophen-d4 surrogate spike recovery exceeding the control limits.

MS accuracy for diuron could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: LITTLE CREEK @ US 441

Collection Date/Time: 07/11/2017 09:40

Field ID: G1NE0251 07112017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1912939	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P328388	
	EPA 300.0 Rev. 2.1	Chloride	7.9		mg Cl/L	P328553	
		Sulfate	0.68		mg SO4/L	P328556	
	SM 2120 B	Color (true)	840		PCU	P328368	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P328661	
	SM 2540 C-97	TDS	129		mg/L	P328643	RPD
	SM 2540 D-97	TSS	3	I	mg/L	P328734	
1912942	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P328820	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P328590	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.8		mg N/L	P328616	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	I	mg N/L	P328674	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P328698	

Field ID: G1NE0251 07112017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1912942	SM 5310 B-00	Organic Carbon	82		mg C/L	P328861	
1912945	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.14		mg P/L	P328501	
1912966	EPA 8321B	Sucralose**	0.010	U	ug/L	P328402	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P328373	
		Diuron	8.0E-04	U	ug/L	P328373	
		Fenuron	0.0080	U	ug/L	P328373	
		Imidacloprid	8.0E-04	U	ug/L	P328373	MS
		Bentazon	8.0E-04	U	ug/L	P328373	
		Linuron	0.0040	U	ug/L	P328373	
		Acetaminophen**	0.0080	U	ug/L	P328373	
		MCP	0.0020	U	ug/L	P328373	
		Carbamazepine**	4.0E-04	U	ug/L	P328373	
		Triclopyr**	0.0040	U	ug/L	P328373	
		Primidone**	0.0040	U	ug/L	P328373	
		Fluridone**	4.0E-04	U	ug/L	P328373	RPD

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: Precision data and batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

USGS O-2060-01: MS accuracy for diuron could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: HUNTERS CREEK @ SR 135

Collection Date/Time: 07/11/2017 10:00

Field ID: G1NE0384 07112017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1912972	EPA 8321B	Sucralose**	0.010	U	ug/L	P328402	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P328403	
		Diuron	8.0E-04	U	ug/L	P328403	
		Fenuron	0.0080	UJ	ug/L	P328403	RPD
		Imidacloprid	8.0E-04	UJ	ug/L	P328403	MS
		Bentazon	8.0E-04	U	ug/L	P328403	
		Linuron	0.0040	U	ug/L	P328403	
		Acetaminophen**	0.0080	U	ug/L	P328403	
		MCP	0.0020	U	ug/L	P328403	
		Carbamazepine**	4.0E-04	U	ug/L	P328403	
		Triclopyr**	0.0040	U	ug/L	P328403	
		Primidone**	0.0040	U	ug/L	P328403	
		Fluridone**	4.0E-04	U	ug/L	P328403	

Ref. Method and Comment:

USGS O-2060-01: Refer to the narrative for an explanation of QC Codes.

Sample Location: SWIFT CREEK @ CR 25A

Collection Date/Time: 07/11/2017 10:35

Field ID: G1NE0327 07112017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1912969	EPA 8321B	Sucralose**	0.010	U	ug/L	P328402	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P328373	

Field ID: G1NE0327 07112017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1912969	USGS O-2060-01	Diuron	0.0022	I	ug/L	P328373	
		Fenuron	0.0080	U	ug/L	P328373	
		Imidacloprid	8.0E-04	U	ug/L	P328373	MS
		Bentazon	8.0E-04	U	ug/L	P328373	
		Linuron	0.0040	U	ug/L	P328373	
		Acetaminophen**	0.0080	U	ug/L	P328373	
		MCP	0.0020	U	ug/L	P328373	
		Carbamazepine**	4.0E-04	U	ug/L	P328373	
		Triclopyr**	0.0040	U	ug/L	P328373	
		Primidone**	0.0040	U	ug/L	P328373	
		Fluridone**	4.0E-04	U	ug/L	P328373	RPD

Ref. Method and Comment:

USGS O-2060-01: MS accuracy for diuron could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: CAMP BRANCH @ CR 25A

Collection Date/Time: 07/11/2017 10:50

Field ID: G1NE0269 07112017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1912970	EPA 8321B	Sucralose**	0.010	U	ug/L	P328402	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P328373	
		Diuron	8.0E-04	U	ug/L	P328373	
		Fenuron	0.0080	U	ug/L	P328373	
		Imidacloprid	8.0E-04	U	ug/L	P328373	MS
		Bentazon	8.0E-04	U	ug/L	P328373	
		Linuron	0.0040	U	ug/L	P328373	
		Acetaminophen**	0.0080	U	ug/L	P328373	
		MCP	0.0020	U	ug/L	P328373	
		Carbamazepine**	4.0E-04	U	ug/L	P328373	
		Triclopyr**	0.0040	U	ug/L	P328373	
		Primidone**	0.0040	U	ug/L	P328373	
		Fluridone**	0.0046		ug/L	P328373	RPD

Ref. Method and Comment:

USGS O-2060-01: MS accuracy for diuron could not be assessed due to high concentration of parameter in the spiked sample.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P328388

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P328553

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328556

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P328590

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328616

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P328674

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328697

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328698

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328501

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

Reference Method: EPA 8321B
Batch ID: P328402

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P328368

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P328661

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

Reference Method: SM 2540 C-97
Batch ID: P328643

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P328734

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P328820

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P328861

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

Reference Method: USGS O-2060-01
Batch ID: P328373

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

Reference Method: USGS O-2060-01
Batch ID: P328403

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

Quality Assurance Report Method Blank Results

Reference Method: USGS O-2060-01
Batch ID: P328403

Component	Result	Code	Units
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
MCPP	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: P328553

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328556

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P328590

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328616

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P328674

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328697

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328698

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328698

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	95.4		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328501

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

Reference Method: EPA 8321B
Batch ID: P328402

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	89.0		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P328661

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P328820

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.9		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P328861

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.0		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P328373

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	97.2		P	40 - 150
Acetaminophen	134		P	30 - 150
Bentazon	94.8		P	40 - 150
Carbamazepine	118		P	40 - 150
Diuron	105		P	40 - 150
Fenuron	97.2		P	40 - 150
Fluridone	102		P	40 - 150
Imidacloprid	72.5		P	40 - 160
Linuron	109		P	40 - 150
MCPP	95.4		P	40 - 150
Primidone	102		P	40 - 150
Triclopyr	83.5		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: USGS O-2060-01
Batch ID: P328403

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	91.1		P	40 - 150
Acetaminophen	148		P	30 - 150
Bentazon	87.1		P	40 - 150
Carbamazepine	123		P	40 - 150
Diuron	106		P	40 - 150
Fenuron	109		P	40 - 150
Fluridone	123		P	40 - 150
Imidacloprid	76.0		P	40 - 160
Linuron	111		P	40 - 150
MCPP	95.6		P	40 - 150
Primidone	107		P	40 - 150
Triclopyr	96.1		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328553

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1912890	Chloride	98.7		P	90 - 110
1913066	Chloride	99.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328556

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1912890	Sulfate	98.2		P	90 - 110
1913066	Sulfate	98.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P328590

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1912940	Ammonia-N	102	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328616

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1912891	Kjeldahl Nitrogen	99.3	90.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P328674

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1912894	NO2NO3-N	96.2	90.8	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328697

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1912800	Total-P	97.5	96.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328698

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1913024	Total-P	96.6	93.9	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P328402

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1912913	Sucralose	118	114	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P328820

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1913130	Fluoride	100	100	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P328861

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1912852	Organic Carbon	99.0		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P328373

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1912651	2,4-D	101	114	P/P	40 - 150
1912651	Acetaminophen	113	106	P/P	30 - 150
1912651	Bentazon	85.2	84.1	P/P	40 - 150
1912651	Carbamazepine	137	130	P/P	40 - 150
1912651	Fenuron	87.8	87.0	P/P	40 - 150
1912651	Fluridone	55.9	83.1	P/P	40 - 150
1912651	Imidacloprid	157	172	P/F	40 - 160
1912651	Linuron	95.9	111	P/P	40 - 150
1912651	MCP	104	103	P/P	40 - 150
1912651	Primidone	106	94.0	P/P	40 - 150
1912651	Triclopyr	101	91.5	P/P	40 - 150

Reference Method: USGS O-2060-01
Batch ID: P328403

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1912972	2,4-D	120	122	P/P	40 - 150
1912972	Acetaminophen	105	112	P/P	30 - 150
1912972	Bentazon	92.8	85.9	P/P	40 - 150
1912972	Carbamazepine	128	128	P/P	40 - 150
1912972	Diuron	101	98.9	P/P	40 - 150
1912972	Fenuron	71.9	98.7	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P328403

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1912972	Fluridone	79.8	71.2	P/P	40 - 150
1912972	Imidacloprid	158	202	P/F	40 - 160
1912972	Linuron	109	106	P/P	40 - 150
1912972	MCP	111	104	P/P	40 - 150
1912972	Primidone	104	115	P/P	40 - 150
1912972	Triclopyr	109	102	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P328388

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1912896	Turbidity	1.89	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328553

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1912890	Chloride	0.750	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328556

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1912890	Sulfate	2.30	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P328590

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1912940	Ammonia-N	0.227	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328616

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1912891	Kjeldahl Nitrogen	6.93	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P328674

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1912894	NO2NO3-N	4.69	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328697

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1912800	Total-P	1.07	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328698

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1913024	Total-P	2.18	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P328402

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1912913	Sucralose	3.37	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P328368

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1912850	Color (true)	3.35	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P328661

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1912682	Total Alkalinity	0.253	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P328643

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1912890	TDS	10.2	Sample	F	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P328820

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1913130	Fluoride	0.0	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P328861

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1912852	Organic Carbon	0.315	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P328373

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1912651	2,4-D	6.78	Spike	P	0 - 30
1912651	Acetaminophen	5.91	Spike	P	0 - 30
1912651	Bentazon	1.30	Spike	P	0 - 30
1912651	Carbamazepine	5.59	Spike	P	0 - 30
1912651	Diuron	6.58	Spike	P	0 - 30
1912651	Fenuron	0.824	Spike	P	0 - 30
1912651	Fluridone	39.1	Spike	F	0 - 30
1912651	Imidacloprid	9.24	Spike	P	0 - 30
1912651	Linuron	14.3	Spike	P	0 - 30
1912651	MCP	1.64	Spike	P	0 - 30
1912651	Primidone	11.9	Spike	P	0 - 30
1912651	Triclopyr	9.39	Spike	P	0 - 30

Reference Method: USGS O-2060-01
Batch ID: P328403

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1912972	2,4-D	1.82	Spike	P	0 - 30
1912972	Acetaminophen	6.81	Spike	P	0 - 30
1912972	Bentazon	7.66	Spike	P	0 - 30
1912972	Carbamazepine	0.298	Spike	P	0 - 30
1912972	Diuron	1.88	Spike	P	0 - 30
1912972	Fenuron	31.4	Spike	F	0 - 30
1912972	Fluridone	11.4	Spike	P	0 - 30
1912972	Imidacloprid	24.4	Spike	P	0 - 30
1912972	Linuron	2.67	Spike	P	0 - 30
1912972	MCP	6.43	Spike	P	0 - 30
1912972	Primidone	10.3	Spike	P	0 - 30
1912972	Triclopyr	6.65	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

Lab Sample ID: 1912965
Field Sample ID: G1NE0267 07112017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	42.9	P	40 - 160
USGS O-2060-01	2,4-D-d3	110	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	162	F	30 - 160
USGS O-2060-01	Acetaminophen-d4	162	F	30 - 160
USGS O-2060-01	Carbamazepine-d10	92.9	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	92.9	P	30 - 160
USGS O-2060-01	Diuron-d6	69.1	P	30 - 160
USGS O-2060-01	Diuron-d6	69.1	P	30 - 160
USGS O-2060-01	Primidone-d5	54.3	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1912965
Field Sample ID: G1NE0267 07112017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	Primidone-d5	54.3	P	30 - 160

Lab Sample ID: 1912966
Field Sample ID: G1NE0251 07112017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	44.7	P	40 - 160
USGS O-2060-01	2,4-D-d3	133	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	159	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	159	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	97.5	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	97.5	P	30 - 160
USGS O-2060-01	Diuron-d6	72.4	P	30 - 160
USGS O-2060-01	Diuron-d6	72.4	P	30 - 160
USGS O-2060-01	Primidone-d5	70.1	P	30 - 160
USGS O-2060-01	Primidone-d5	70.1	P	30 - 160

Lab Sample ID: 1912969
Field Sample ID: G1NE0327 07112017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	114	P	40 - 160
USGS O-2060-01	2,4-D-d3	144	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	94.8	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	94.8	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	121	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	121	P	30 - 160
USGS O-2060-01	Diuron-d6	87.2	P	30 - 160
USGS O-2060-01	Diuron-d6	87.2	P	30 - 160
USGS O-2060-01	Primidone-d5	106	P	30 - 160
USGS O-2060-01	Primidone-d5	106	P	30 - 160

Lab Sample ID: 1912970
Field Sample ID: G1NE0269 07112017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	86.2	P	40 - 160
USGS O-2060-01	2,4-D-d3	151	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	95.0	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	95.0	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	125	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	125	P	30 - 160
USGS O-2060-01	Diuron-d6	92.6	P	30 - 160
USGS O-2060-01	Diuron-d6	92.6	P	30 - 160
USGS O-2060-01	Primidone-d5	107	P	30 - 160
USGS O-2060-01	Primidone-d5	107	P	30 - 160

Lab Sample ID: 1912971
Field Sample ID: G1NE0279 07112017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	63.9	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1912971
Field Sample ID: G1NE0279 07112017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	2,4-D-d3	130	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	150	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	150	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	107	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	107	P	30 - 160
USGS O-2060-01	Diuron-d6	68.8	P	30 - 160
USGS O-2060-01	Diuron-d6	68.8	P	30 - 160
USGS O-2060-01	Primidone-d5	81.9	P	30 - 160
USGS O-2060-01	Primidone-d5	81.9	P	30 - 160

Lab Sample ID: 1912972
Field Sample ID: G1NE0384 07112017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	117	P	40 - 160
USGS O-2060-01	2,4-D-d3	135	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	86.0	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	114	P	30 - 160
USGS O-2060-01	Diuron-d6	94.4	P	30 - 160
USGS O-2060-01	Primidone-d5	80.7	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B
Run ID: A77661
Included Lab Sample IDs: 1912937, 1912938, 1912939

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	104	106	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A77662
Included Lab Sample IDs: 1912943, 1912944, 1912945

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.3	98.1	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A77668
Included Lab Sample IDs: 1912937, 1912938, 1912939

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A77695
Included Lab Sample IDs: 1912937, 1912938, 1912939

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A77695

Included Lab Sample IDs: 1912937, 1912938, 1912939

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sulfate	103	104	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A77748

Included Lab Sample IDs: 1912940, 1912941, 1912942

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

Reference Method: SM 2320 B-97

Run ID: A77776

Included Lab Sample IDs: 1912937, 1912938, 1912939

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

Reference Method: EPA 8321B

Run ID: A77777

Included Lab Sample IDs: 1912965, 1912966, 1912969, 1912970, 1912971, 1912972

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	122	140	P/P	60 - 160
Sucralose	140	145	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A77778

Included Lab Sample IDs: 1912940, 1912941, 1912942

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A77801

Included Lab Sample IDs: 1912940, 1912941, 1912942

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.6	98.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A77814

Included Lab Sample IDs: 1912940, 1912941, 1912942

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.5	98.9	P/P	90 - 110
Total-P	98.6	97.5	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A77832

Included Lab Sample IDs: 1912937, 1912938, 1912939

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

Reference Method: SM 4500 F-C-97

Run ID: A77832

Included Lab Sample IDs: 1912937, 1912938, 1912939

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

Reference Method: SM 5310 B-00

Run ID: A77848

Included Lab Sample IDs: 1912940, 1912941, 1912942

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.8	98.4	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A77880

Included Lab Sample IDs: 1912965, 1912966, 1912969, 1912970, 1912971, 1912972

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	83.5	95.5	P/P	50 - 150
2,4-D	95.5	106	P/P	50 - 150
Acetaminophen	102	112	P/P	60 - 150
Acetaminophen	112	114	P/P	60 - 150
Bentazon	79.6	80.6	P/P	50 - 150
Bentazon	80.6	77.5	P/P	50 - 150
Carbamazepine	103	119	P/P	60 - 150
Carbamazepine	119	118	P/P	60 - 150
Diuron	101	103	P/P	60 - 150
Diuron	103	99.5	P/P	60 - 150
Fenuron	97.4	98.3	P/P	60 - 150
Fenuron	98.3	99.4	P/P	60 - 150
Fluridone	102	101	P/P	60 - 160
Fluridone	106	102	P/P	60 - 160
Imidacloprid	71.4	94.3	P/P	60 - 150
Imidacloprid	94.0	71.4	P/P	60 - 150
Linuron	103	113	P/P	60 - 150
Linuron	113	87.3	P/P	60 - 150
MCPPP	97.3	99.8	P/P	50 - 150
MCPPP	97.4	97.3	P/P	50 - 150
Primidone	111	109	P/P	60 - 150
Primidone	97.4	111	P/P	60 - 150
Triclopyr	96.7	102	P/P	50 - 150
Triclopyr	98.8	96.7	P/P	50 - 150

* 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				1.89	
EPA 300.0 Rev. 2.1	Chloride	102	98.7 99.7		0.750	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 300.0 Rev. 2.1	Sulfate	99.9	98.2	98.7		2.30	
EPA 350.1 Rev. 2.0	Ammonia-N	102	102	101			0.227
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	99.3	90.3			6.93
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.5	96.2	90.8			4.69
EPA 365.1 Rev. 2.0	Total-P	94.6	97.5	96.3			1.07
	Total-P	95.4	96.6	93.9			2.18
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	103					
EPA 8321B	Sucralose	89.0	118	114			3.37
SM 2120 B	Color (true)					3.35	
SM 2320 B-97	Total Alkalinity	102				0.253	
SM 2540 C-97	TDS					10.2	
SM 4500 F-C-97	Fluoride	98.9	100	100			0.0
SM 5310 B-00	Organic Carbon	96.0	99.0				0.315
USGS O-2060-01	2,4-D	97.2	101	114			6.78
	2,4-D	91.1	120	122			1.82
	Acetaminophen	134	113	106			5.91
	Acetaminophen	148	105	112			6.81
	Bentazon	94.8	85.2	84.1			1.30
	Bentazon	87.1	92.8	85.9			7.66
	Carbamazepine	118	137	130			5.59
	Carbamazepine	123	128	128			0.298
	Diuron	105					6.58
	Diuron	106	101	98.9			1.88
	Fenuron	97.2	87.8	87.0			0.824
	Fenuron	109	71.9	98.7			31.4
	Fluridone	102	55.9	83.1			39.1
	Fluridone	123	79.8	71.2			11.4
	Imidacloprid	72.5	157	172			9.24
	Imidacloprid	76.0	158	202			24.4
	Linuron	109	95.9	111			14.3
	Linuron	111	109	106			2.67
	MCPP	95.4	104	103			1.64
	MCPP	95.6	111	104			6.43
	Primidone	102	106	94.0			11.9
	Primidone	107	104	115			10.3
	Triclopyr	83.5	101	91.5			9.39
	Triclopyr	96.1	109	102			6.65

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1912937, 1912938, 1912939
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1912937, 1912938, 1912939
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1912937, 1912938, 1912939
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1912940, 1912941, 1912942
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1912940, 1912941, 1912942
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1912940, 1912941, 1912942

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1912940, 1912941, 1912942
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1912943, 1912944, 1912945
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1912965, 1912966, 1912969, 1912970, 1912971, 1912972
SM 2120 B / E31780	True Color measured at 450 nm	1912937, 1912938, 1912939
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1912937, 1912938, 1912939
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1912937, 1912938, 1912939
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1912937, 1912938, 1912939
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1912937, 1912938, 1912939
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1912940, 1912941, 1912942
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1912965, 1912966, 1912969, 1912970, 1912971, 1912972
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1912965, 1912966, 1912969, 1912970, 1912971, 1912972

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	07/12/2017			07/12/2017 17:13	DeAsia Armster	1912937, 1912938, 1912939
EPA 300.0 Rev. 2.1	07/12/2017			07/14/2017	Julia Storbeck	1912937, 1912938, 1912939
EPA 350.1 Rev. 2.0	07/12/2017			07/14/2017	Sofia Elnemr	1912940, 1912941, 1912942
EPA 351.2 Rev. 2.0	07/12/2017	07/18/2017	Adrian Shelby	07/19/2017	Joseph Suarez	1912940, 1912941, 1912942
EPA 353.2 Rev. 2.0	07/12/2017			07/18/2017	Beverly Y. Sanders	1912940, 1912941, 1912942
EPA 365.1 Rev. 2.0	07/12/2017	07/18/2017	Vijayalakshmi Reddy	07/19/2017	Lipi Saha	1912940, 1912941, 1912942
EPA 365.1 Rev. 2.0 dissolved	07/12/2017			07/12/2017 14:49	Lipi Saha	1912943
	07/12/2017			07/12/2017 14:50	Lipi Saha	1912944
	07/12/2017			07/12/2017 14:51	Lipi Saha	1912945
EPA 8321B	07/12/2017	07/14/2017	Mohammad Ghaffari	07/14/2017	Mohammad Ghaffari	1912965, 1912966, 1912969, 1912970, 1912971, 1912972
SM 2120 B	07/12/2017			07/12/2017 15:24	Tanya Welborn	1912937, 1912938
	07/12/2017			07/12/2017 15:25	Tanya Welborn	1912939
SM 2320 B-97	07/12/2017			07/15/2017	Dale L. Simmons	1912937, 1912938, 1912939
SM 2540 C-97	07/12/2017			07/13/2017	Yijie Li	1912937, 1912938, 1912939
SM 2540 D-97	07/12/2017			07/13/2017	Yijie Li	1912937, 1912938, 1912939
SM 4500 F-C-97	07/12/2017			07/20/2017	Dale L. Simmons	1912937, 1912938, 1912939
SM 5310 B-00	07/12/2017			07/20/2017	Sofia Elnemr	1912940, 1912941, 1912942
USGS O-2060-01	07/12/2017	07/13/2017	Hoor Shaik	07/21/2017	Juyoung Kim	1912965, 1912966, 1912969, 1912970, 1912971
	07/12/2017	07/17/2017	Hoor Shaik	07/21/2017	Juyoung Kim	1912972