

Chemical Analysis Report

NE-DIST-2018-08-29-01

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

Event Description: **LSJR West**
Request ID: **RQ-2018-08-27-20**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 14-SEP-2018 11:10

A handwritten signature in black ink, appearing to read "Liang Lin", 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: Williamson Creek at Hugh Edwards

Collection Date/Time: 08/28/2018 11:00

Field ID: 20030429DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2020760	EPA 8321B	2,4-D	0.013		ug/L	P350709	MS
		Bentazon	8.0E-04	U	ug/L	P350709	
		MCP	0.0020	U	ug/L	P350709	MS
		Triclopyr**	0.0040	U	ug/L	P350709	MS
		Imidacloprid	0.020		ug/L	P350709	
		Diuron	0.0030	I	ug/L	P350709	
		Pyraclostrobin**	0.0020	U	ug/L	P350709	
		Primidone**	0.0040	U	ug/L	P350709	
		Linuron	0.0040	U	ug/L	P350709	
		Acetaminophen**	0.029	I	ug/L	P350709	
		Fenuron	0.016	U	ug/L	P350709	
		Imazapyr**	0.11		ug/L	P350709	
		Carbamazepine**	8.0E-04	U	ug/L	P350709	
		Fluridone**	0.0076		ug/L	P350709	
		Hydrocodone**	8.0E-04	U	ug/L	P350709	
		Naproxen**	0.0080	U	ug/L	P350709	
		Ibuprofen**	0.020	U	ug/L	P350709	
		Sucralose**	0.18		ug/L	P350691	
		Acesulfame K**	0.10	U	ug/L	P350691	

Sample Location: Williamson Creek at Hugh Edwards

Collection Date/Time: 08/28/2018 10:55

Field ID: 20030429

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2020761	EPA 8321B	2,4-D	0.015		ug/L	P350709	MS
		Bentazon	8.0E-04	U	ug/L	P350709	
		MCP	0.0020	U	ug/L	P350709	MS
		Triclopyr**	0.0040	U	ug/L	P350709	MS
		Imidacloprid	0.025		ug/L	P350709	
		Diuron	0.0026	I	ug/L	P350709	
		Pyraclostrobin**	0.0020	U	ug/L	P350709	
		Primidone**	0.0040	U	ug/L	P350709	
		Linuron	0.0040	U	ug/L	P350709	
		Acetaminophen**	0.032		ug/L	P350709	
		Fenuron	0.016	U	ug/L	P350709	
		Imazapyr**	0.12		ug/L	P350709	
		Carbamazepine**	8.0E-04	U	ug/L	P350709	
		Fluridone**	0.0093		ug/L	P350709	
		Hydrocodone**	8.0E-04	U	ug/L	P350709	
		Naproxen**	0.0080	U	ug/L	P350709	
		Ibuprofen**	0.020	U	ug/L	P350709	
		Sucralose**	0.18		ug/L	P350691	
		Acesulfame K**	0.10	U	ug/L	P350691	

Sample Location: Wills Br. at Lane Ave

Collection Date/Time: 08/28/2018 10:05

Field ID: 20030095

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2020762	EPA 8321B	2,4-D	0.014		ug/L	P350709	MS
		Bentazon	0.0068		ug/L	P350709	
		MCP	0.0027	I	ug/L	P350709	MS
		Triclopyr**	0.0040	U	ug/L	P350709	MS
		Imidacloprid	0.010		ug/L	P350709	
		Diuron	0.024		ug/L	P350709	
		Pyraclostrobin**	0.0020	U	ug/L	P350709	
		Primidone**	0.0082	I	ug/L	P350709	
		Linuron	0.0040	U	ug/L	P350709	
		Acetaminophen**	0.012	I	ug/L	P350709	
		Fenuron	0.016	U	ug/L	P350709	
		Imazapyr**	0.055		ug/L	P350709	
		Carbamazepine**	0.0062		ug/L	P350709	
		Fluridone**	0.013		ug/L	P350709	
		Hydrocodone**	8.7E-04	I	ug/L	P350709	
		Naproxen**	0.20		ug/L	P350709	
		Ibuprofen**	0.12		ug/L	P350709	
		Sucralose**	1.5		ug/L	P350691	
		Acesulfame K**	0.68		ug/L	P350691	

Sample Location: Wills Br. North Fork at Old Middleburg Rd

Collection Date/Time: 08/28/2018 09:25

Field ID: 20030582

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2020705	EPA 180.1 Rev. 2.0	Turbidity	3.4	A	NTU	P350969	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P350988	
		Sulfate	18		mg SO4/L	P350991	
	SM 2120 B	Color (true)	83	A	PCU	P350927	
	SM 2320 B-97	Total Alkalinity	63		mg CaCO3/L	P351050	
	SM 2540 C-97	TDS	154		mg/L	P351240	
	SM 2540 D-97	TSS	3	I	mg/L	P351071	
	SM 4500 F-C-97	Fluoride	0.057	I	mg F/L	P351053	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.034		mg N/L	P350981	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.55		mg N/L	P351023	
2020707	EPA 353.2 Rev. 2.0	NO2NO3-N	0.40		mg N/L	P351128	
	EPA 365.1 Rev. 2.0	Total-P	0.045		mg P/L	P350957	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P351337	
2020709	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.026		mg P/L	P350920	
2020758	EPA 8321B	2,4-D	0.043		ug/L	P350709	MS
		Bentazon	0.0084		ug/L	P350709	
		MCP	0.0024	I	ug/L	P350709	MS
		Triclopyr**	0.0040	U	ug/L	P350709	MS
		Imidacloprid	0.0073	I	ug/L	P350709	
		Diuron	0.033		ug/L	P350709	
		Pyraclostrobin**	0.0020	U	ug/L	P350709	
		Primidone**	0.0040	U	ug/L	P350709	
		Linuron	0.0040	U	ug/L	P350709	
		Acetaminophen**	0.0080	U	ug/L	P350709	
		Fenuron	0.016	U	ug/L	P350709	
		Imazapyr**	0.077		ug/L	P350709	
		Carbamazepine**	8.0E-04	U	ug/L	P350709	
		Fluridone**	0.018		ug/L	P350709	
		Hydrocodone**	8.0E-04	U	ug/L	P350709	
		Naproxen**	0.0080	U	ug/L	P350709	
		Ibuprofen**	0.020	U	ug/L	P350709	
		Sucralose**	0.24		ug/L	P350691	
		Acesulfame K**	0.10	U	ug/L	P350691	

Ref. Method and Comment:

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

**Sample Location: Williamson Creek at Jammes Road,
Jacksonville**

Collection Date/Time: 08/28/2018 10:30

Field ID: 20030618

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2020706	EPA 180.1 Rev. 2.0	Turbidity	4.5		NTU	P350969	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P350988	
		Sulfate	16		mg SO4/L	P350991	
	SM 2120 B	Color (true)	42		PCU	P350927	
	SM 2320 B-97	Total Alkalinity	90		mg CaCO3/L	P351050	
	SM 2540 C-97	TDS	157		mg/L	P351240	
	SM 2540 D-97	TSS	2	I	mg/L	P351071	
	SM 4500 F-C-97	Fluoride	0.084	I	mg F/L	P351053	
2020708	EPA 350.1 Rev. 2.0	Ammonia-N	0.058		mg N/L	P350981	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.48		mg N/L	P351023	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.25		mg N/L	P351128	
	EPA 365.1 Rev. 2.0	Total-P	0.056		mg P/L	P350957	
	SM 5310 B-00	Organic Carbon	7.3		mg C/L	P351337	
2020710	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.029		mg P/L	P350920	
2020759	EPA 8321B	2,4-D	0.012		ug/L	P350709	MS
		Bentazon	8.0E-04	U	ug/L	P350709	
		MCP	0.0028	I	ug/L	P350709	MS
		Triclopyr**	0.0040	U	ug/L	P350709	MS
		Imidacloprid	0.027		ug/L	P350709	
		Diuron	0.0035	I	ug/L	P350709	
		Pyraclostrobin**	0.0020	U	ug/L	P350709	
		Primidone**	0.0040	U	ug/L	P350709	
		Linuron	0.0040	U	ug/L	P350709	
		Acetaminophen**	0.0080	U	ug/L	P350709	
		Fenuron	0.016	U	ug/L	P350709	
		Imazapyr**	0.11		ug/L	P350709	
		Carbamazepine**	8.0E-04	U	ug/L	P350709	
		Fluridone**	0.0078		ug/L	P350709	
		Hydrocodone**	8.0E-04	U	ug/L	P350709	
		Naproxen**	0.0080	U	ug/L	P350709	
		Ibuprofen**	0.020	U	ug/L	P350709	
		Sucralose**	0.15		ug/L	P350691	
		Acesulfame K**	0.10	U	ug/L	P350691	

Ref. Method and Comment:

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

Sample Location: McCoy CR at Myrtle Ave

Collection Date/Time: 08/28/2018 08:50

Field ID: 20030693

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2020763	EPA 8321B	2,4-D	0.097		ug/L	P350923	
		Bentazon	0.015		ug/L	P350923	MS
		MCP	0.019		ug/L	P350923	
		Triclopyr**	0.0040	U	ug/L	P350923	
		Imidacloprid	0.051		ug/L	P350923	
		Diuron	0.018		ug/L	P350923	
		Pyraclostrobin**	0.0020	U	ug/L	P350923	
		Primidone**	0.0040	U	ug/L	P350923	
		Linuron	0.0040	U	ug/L	P350923	
		Acetaminophen**	0.0080	U	ug/L	P350923	
		Fenuron	0.016	U	ug/L	P350923	
		Imazapyr**	0.12		ug/L	P350923	
		Carbamazepine**	8.0E-04	U	ug/L	P350923	
		Fluridone**	0.011		ug/L	P350923	
		Hydrocodone**	8.0E-04	U	ug/L	P350923	
		Naproxen**	0.0080	U	ug/L	P350923	
		Ibuprofen**	0.020	U	ug/L	P350923	
		Sucralose**	0.10		ug/L	P350691	
		Acesulfame K**	0.10	U	ug/L	P350691	

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P350969

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P350988

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P350991

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P350981

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P351023

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P351128

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P350957

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P350920

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

Reference Method: EPA 8321B
Batch ID: P350691

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P350709

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	8.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	4.0E-04	U	ug/L
Hydrocodone	8.0E-04	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B

Batch ID: P350923

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	8.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.017	I	ug/L
Fluridone	4.0E-04	U	ug/L
Hydrocodone	8.0E-04	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B

Batch ID: P350927

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97

Batch ID: P351050

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-97
Batch ID: P351240

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P351071

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P351053

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P351337

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P350988

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P350991

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P350981

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P351023

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P351128

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P350957

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: P350920

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

Reference Method: EPA 8321B
Batch ID: P350691

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	101		P	40 - 150
Sucralose	122		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P350709

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	96.9		P	40 - 150
Acetaminophen	99.9		P	30 - 150
Bentazon	104		P	30 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P350709

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbamazepine	74.9		P	40 - 150
Diuron	69.4		P	40 - 150
Fenuron	82.4		P	40 - 150
Fluridone	78.6		P	40 - 150
Hydrocodone	87.9		P	40 - 150
Ibuprofen	107		P	40 - 150
Imazapyr	84.9		P	40 - 150
Imidacloprid	100		P	40 - 160
Linuron	64.0		P	40 - 150
MCPP	116		P	40 - 150
Naproxen	123		P	40 - 150
Primidone	101		P	40 - 150
Pyraclostrobin	71.7		P	40 - 150
Triclopyr	112		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P350923

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	67.7		P	40 - 150
Acetaminophen	113		P	30 - 150
Bentazon	59.1		P	30 - 150
Carbamazepine	70.4		P	40 - 150
Diuron	65.8		P	40 - 150
Fenuron	93.5		P	40 - 150
Fluridone	86.7		P	40 - 150
Hydrocodone	110		P	40 - 150
Ibuprofen	72.9		P	40 - 150
Imazapyr	91.0		P	40 - 150
Imidacloprid	105		P	40 - 160
Linuron	60.5		P	40 - 150
MCPP	73.5		P	40 - 150
Naproxen	94.1		P	40 - 150
Primidone	105		P	40 - 150
Pyraclostrobin	72.9		P	40 - 150
Triclopyr	49.2		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P350927

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.4		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P351050

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 107

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P351053

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.7		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P351337

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P350988

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2020690	Chloride	90.2		P	90 - 110
2020743	Chloride	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P350991

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2020690	Sulfate	97.5		P	90 - 110
2020743	Sulfate	106		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P350981

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2020701	Ammonia-N	98.2	99.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P351023

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2020701	Kjeldahl Nitrogen	105	109	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P351128

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2020692	NO2NO3-N	99.6	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P350957

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2020708	Total-P	96.4	95.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P350920

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2020702	O-Phosphate-P	97.3	96.2	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P350691

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2019942	Acesulfame K	89.7	94.1	P/P	40 - 150
2019942	Sucralose	117	118	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P350709

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2019942	2,4-D	168	151	F/F	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P350709

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2019942	Acetaminophen	125	119	P/P	30 - 150
2019942	Bentazon	91.9	83.2	P/P	30 - 150
2019942	Carbamazepine	72.0	69.8	P/P	40 - 150
2019942	Diuron	61.8	61.6	P/P	40 - 150
2019942	Fenuron	57.7	55.8	P/P	40 - 150
2019942	Fluridone	80.4	67.4	P/P	40 - 150
2019942	Hydrocodone	82.9	79.2	P/P	40 - 150
2019942	Ibuprofen	95.9	90.0	P/P	40 - 150
2019942	Imazapyr	107	101	P/P	40 - 150
2019942	Imidacloprid	129	131	P/P	40 - 160
2019942	Linuron	67.0	59.5	P/P	40 - 150
2019942	MCP	177	155	F/F	40 - 150
2019942	Naproxen	133	127	P/P	40 - 150
2019942	Primidone	80.9	69.3	P/P	40 - 150
2019942	Pyraclostrobin	71.2	70.6	P/P	40 - 150
2019942	Triclopyr	215	217	F/F	40 - 150

Reference Method: EPA 8321B
Batch ID: P350923

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2020945	2,4-D	99.8	107	P/P	40 - 150
2020945	Acetaminophen	127	126	P/P	30 - 150
2020945	Bentazon	20.8	18.4	F/F	30 - 150
2020945	Carbamazepine	56.4	48.5	P/P	40 - 150
2020945	Diuron	46.5	45.9	P/P	40 - 150
2020945	Fenuron	44.4	40.2	P/P	40 - 150
2020945	Fluridone	60.6	59.1	P/P	40 - 150
2020945	Hydrocodone	95.7	89.5	P/P	40 - 150
2020945	Ibuprofen	77.2	84.0	P/P	40 - 150
2020945	Imazapyr	88.1	81.6	P/P	40 - 150
2020945	Imidacloprid	96.2	84.6	P/P	40 - 160
2020945	Linuron	55.3	53.4	P/P	40 - 150
2020945	MCP	109	114	P/P	40 - 150
2020945	Naproxen	119	107	P/P	40 - 150
2020945	Primidone	62.1	61.0	P/P	40 - 150
2020945	Pyraclostrobin	79.4	73.4	P/P	40 - 150
2020945	Triclopyr	118	124	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P351053

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2020698	Fluoride	98.6	98.6	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P351337

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2020647	Organic Carbon	92.6	92.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P350969

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020705	Turbidity	1.75	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P350988

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020690	Chloride	0.898	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P350991

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020690	Sulfate	0.576	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P350981

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020701	Ammonia-N	1.34	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P351023

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020701	Kjeldahl Nitrogen	2.76	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P351128

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020692	NO2NO3-N	1.85	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P350957

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020708	Total-P	1.09	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P350920

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020702	O-Phosphate-P	1.14	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P350691

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2019942	Acesulfame K	4.74	Spike	P	0 - 30
2019942	Sucralose	0.944	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P350709

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2019942	2,4-D	10.6	Spike	P	0 - 30
2019942	Acetaminophen	4.47	Spike	P	0 - 30
2019942	Bentazon	9.34	Spike	P	0 - 30
2019942	Carbamazepine	3.17	Spike	P	0 - 30
2019942	Diuron	0.337	Spike	P	0 - 30
2019942	Fenuron	3.43	Spike	P	0 - 30
2019942	Fluridone	17.6	Spike	P	0 - 30
2019942	Hydrocodone	4.54	Spike	P	0 - 30
2019942	Ibuprofen	6.34	Spike	P	0 - 30
2019942	Imazapyr	5.58	Spike	P	0 - 30
2019942	Imidacloprid	1.86	Spike	P	0 - 30
2019942	Linuron	11.9	Spike	P	0 - 30
2019942	MCP	13.3	Spike	P	0 - 30
2019942	Naproxen	4.53	Spike	P	0 - 30
2019942	Primidone	15.5	Spike	P	0 - 30
2019942	Pyraclostrobin	0.934	Spike	P	0 - 30
2019942	Triclopyr	1.07	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P350923

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020945	2,4-D	6.51	Spike	P	0 - 30
2020945	Acetaminophen	0.965	Spike	P	0 - 30
2020945	Bentazon	12.5	Spike	P	0 - 30
2020945	Carbamazepine	15.0	Spike	P	0 - 30
2020945	Diuron	1.47	Spike	P	0 - 30
2020945	Fenuron	9.95	Spike	P	0 - 30
2020945	Fluridone	2.48	Spike	P	0 - 30
2020945	Hydrocodone	6.75	Spike	P	0 - 30
2020945	Ibuprofen	8.41	Spike	P	0 - 30
2020945	Imazapyr	6.95	Spike	P	0 - 30
2020945	Imidacloprid	12.8	Spike	P	0 - 30
2020945	Linuron	3.57	Spike	P	0 - 30
2020945	MCP	3.79	Spike	P	0 - 30
2020945	Naproxen	10.8	Spike	P	0 - 30
2020945	Primidone	1.79	Spike	P	0 - 30
2020945	Pyraclostrobin	7.90	Spike	P	0 - 30
2020945	Triclopyr	4.43	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2120 B
 Batch ID: P350927

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020705	Color (true)	2.56	Sample	P	0 - 20

Reference Method: SM 2320 B-97
 Batch ID: P351050

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020698	Total Alkalinity	0.556	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
 Batch ID: P351240

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020698	TDS	4.15	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P351053

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020698	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
 Batch ID: P351337

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020647	Organic Carbon	0.263	Spike	P	0 - 20

* 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: 2020758
Field Sample ID: 20030582

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	139	P	30 - 160
EPA 8321B	Acetaminophen-d4	94.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.5	P	30 - 160
EPA 8321B	Diuron-d6	78.1	P	30 - 160
EPA 8321B	Endothall-d6	130	P	40 - 160
EPA 8321B	Ibuprofen-d3	104	P	30 - 160
EPA 8321B	Primidone-d5	68.5	P	30 - 160
EPA 8321B	Sucralose-d6	114	P	40 - 160

Lab Sample ID: 2020759
Field Sample ID: 20030618

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	137	P	30 - 160
EPA 8321B	Acetaminophen-d4	113	P	30 - 160
EPA 8321B	Carbamazepine-d10	79.5	P	30 - 160
EPA 8321B	Diuron-d6	79.1	P	30 - 160
EPA 8321B	Endothall-d6	137	P	40 - 160
EPA 8321B	Ibuprofen-d3	114	P	30 - 160
EPA 8321B	Primidone-d5	73.7	P	30 - 160
EPA 8321B	Sucralose-d6	110	P	40 - 160

Lab Sample ID: 2020760
Field Sample ID: 20030429DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	129	P	30 - 160
EPA 8321B	Acetaminophen-d4	106	P	30 - 160
EPA 8321B	Carbamazepine-d10	72.2	P	30 - 160
EPA 8321B	Diuron-d6	69.7	P	30 - 160
EPA 8321B	Endothall-d6	118	P	40 - 160
EPA 8321B	Ibuprofen-d3	103	P	30 - 160
EPA 8321B	Primidone-d5	69.7	P	30 - 160
EPA 8321B	Sucralose-d6	113	P	40 - 160

Lab Sample ID: 2020761
Field Sample ID: 20030429

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	138	P	30 - 160
EPA 8321B	Acetaminophen-d4	121	P	30 - 160
EPA 8321B	Carbamazepine-d10	76.7	P	30 - 160
EPA 8321B	Diuron-d6	76.2	P	30 - 160
EPA 8321B	Endothall-d6	129	P	40 - 160
EPA 8321B	Ibuprofen-d3	106	P	30 - 160
EPA 8321B	Primidone-d5	77.3	P	30 - 160
EPA 8321B	Sucralose-d6	115	P	40 - 160

Lab Sample ID: 2020762
Field Sample ID: 20030095

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
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Quality Assurance Report Surrogates

Lab Sample ID: 2020762
Field Sample ID: 20030095

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	127	P	30 - 160
EPA 8321B	Acetaminophen-d4	112	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.2	P	30 - 160
EPA 8321B	Diuron-d6	87.4	P	30 - 160
EPA 8321B	Endothall-d6	124	P	40 - 160
EPA 8321B	Ibuprofen-d3	116	P	30 - 160
EPA 8321B	Primidone-d5	74.0	P	30 - 160
EPA 8321B	Sucralose-d6	107	P	40 - 160

Lab Sample ID: 2020763
Field Sample ID: 20030693

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	97.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	123	P	30 - 160
EPA 8321B	Carbamazepine-d10	57.4	P	30 - 160
EPA 8321B	Diuron-d6	56.4	P	30 - 160
EPA 8321B	Endothall-d6	110	P	40 - 160
EPA 8321B	Ibuprofen-d3	65.5	P	30 - 160
EPA 8321B	Primidone-d5	88.4	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A86187

Included Lab Sample IDs: 2020709, 2020710

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

Reference Method: EPA 8321B

Run ID: A86190

Included Lab Sample IDs: 2020758, 2020759, 2020760, 2020761, 2020762, 2020763

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	85.8	84.4	P/P	60 - 160

Reference Method: SM 2120 B

Run ID: A86191

Included Lab Sample IDs: 2020705, 2020706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.5	99.3	P/P	90 - 115

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A86194

Included Lab Sample IDs: 2020705, 2020706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	104	P/P	90 - 110
Sulfate	101	103	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A86212

Included Lab Sample IDs: 2020705, 2020706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	102	101	P/P	95 - 105

Reference Method: EPA 8321B

Run ID: A86218

Included Lab Sample IDs: 2020758, 2020759, 2020760, 2020761, 2020762, 2020763

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	85.6	94.1	P/P	60 - 160
Sucralose	93.4	85.6	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A86219

Included Lab Sample IDs: 2020758, 2020759, 2020760, 2020761, 2020762

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	87.1	84.5	P/P	50 - 150
Acetaminophen	109	106	P/P	60 - 160
Bentazon	94.6	84.2	P/P	50 - 160
Carbamazepine	109	102	P/P	60 - 160
Diuron	96.2	104	P/P	60 - 150
Fenuron	97.8	107	P/P	60 - 150
Fluridone	91.9	83.4	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A86219

Included Lab Sample IDs: 2020758, 2020759, 2020760, 2020761, 2020762

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Hydrocodone	105	97.5	P/P	60 - 150
Ibuprofen	134	124	P/P	50 - 160
Imazapyr	79.5	90.1	P/P	50 - 150
Imidacloprid	85.2	94.8	P/P	60 - 150
Linuron	104	106	P/P	60 - 150
MCP	98.8	90.2	P/P	50 - 150
Naproxen	93.1	146	P/P	50 - 160
Primidone	99.6	101	P/P	60 - 150
Pyraclostrobin	92.4	95.6	P/P	60 - 150
Triclopyr	97.9	84.6	P/P	50 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A86220

Included Lab Sample IDs: 2020707, 2020708

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	95.6	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A86222

Included Lab Sample IDs: 2020708

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	98.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A86233

Included Lab Sample IDs: 2020707

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

Reference Method: SM 2320 B-97

Run ID: A86252

Included Lab Sample IDs: 2020705, 2020706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	104	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A86252

Included Lab Sample IDs: 2020705, 2020706

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

Reference Method: EPA 8321B

Run ID: A86253

Included Lab Sample IDs: 2020763

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

Reference Method: EPA 8321B
Run ID: A86253
Included Lab Sample IDs: 2020763

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	69.0	68.2	P/P	50 - 150
Acetaminophen	114	111	P/P	60 - 160
Bentazon	65.6	62.4	P/P	50 - 160
Carbamazepine	75.6	71.8	P/P	60 - 160
Diuron	78.2	63.2	P/P	60 - 150
Fenuron	94.1	97.0	P/P	60 - 150
Fluridone	72.5	72.9	P/P	60 - 160
Hydrocodone	108	99.0	P/P	60 - 150
Ibuprofen	125	138	P/P	50 - 160
Imazapyr	87.9	78.5	P/P	50 - 150
Imidacloprid	78.8	75.4	P/P	60 - 150
Linuron	82.4	83.9	P/P	60 - 150
MCPP	68.8	72.5	P/P	50 - 150
Naproxen	69.7	75.0	P/P	50 - 160
Primidone	94.4	92.9	P/P	60 - 150
Pyraclostrobin	97.7	93.3	P/P	60 - 150
Triclopyr	83.9	84.3	P/P	50 - 160

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A86268
Included Lab Sample IDs: 2020707, 2020708

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	106	108	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A86298
Included Lab Sample IDs: 2020707, 2020708

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

Reference Method: SM 5310 B-00
Run ID: A86377
Included Lab Sample IDs: 2020707, 2020708

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.6	93.2	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 180.1 Rev. 2.0	Turbidity					1.75	
EPA 300.0 Rev. 2.1	Chloride	105	90.2	104		0.898	
	Sulfate	104	97.5	106		0.576	
EPA 350.1 Rev. 2.0	Ammonia-N	103	98.2	99.6			1.34
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	108	105	109			2.76
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100	99.6	102			1.85
EPA 365.1 Rev. 2.0	Total-P	95.4	96.4	95.2			1.09
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	97.3	96.2			1.14
EPA 8321B	2,4-D	96.9	168	151			10.6
	2,4-D	67.7	99.8	107			6.51
	Acesulfame K	101	89.7	94.1			4.74
	Acetaminophen	99.9	125	119			4.47
	Acetaminophen	113	127	126			0.965
	Bentazon	104	91.9	83.2			9.34
	Bentazon	59.1	20.8	18.4			12.5
	Carbamazepine	74.9	72.0	69.8			3.17
	Carbamazepine	70.4	56.4	48.5			15.0
	Diuron	69.4	61.8	61.6			0.337
	Diuron	65.8	46.5	45.9			1.47
	Fenuron	82.4	57.7	55.8			3.43
	Fenuron	93.5	44.4	40.2			9.95
	Fluridone	78.6	80.4	67.4			17.6
	Fluridone	86.7	60.6	59.1			2.48
	Hydrocodone	87.9	82.9	79.2			4.54
	Hydrocodone	110	95.7	89.5			6.75
	Ibuprofen	107	95.9	90.0			6.34
	Ibuprofen	72.9	84.0	77.2			8.41
	Imazapyr	84.9	107	101			5.58
	Imazapyr	91.0	88.1	81.6			6.95
	Imidacloprid	100	129	131			1.86
	Imidacloprid	105	96.2	84.6			12.8
	Linuron	64.0	67.0	59.5			11.9
	Linuron	60.5	55.3	53.4			3.57
	MCPP	116	177	155			13.3
	MCPP	73.5	114	109			3.79
	Naproxen	123	133	127			4.53
	Naproxen	94.1	119	107			10.8
	Primidone	101	80.9	69.3			15.5
	Primidone	105	62.1	61.0			1.79
	Pyraclostrobin	71.7	71.2	70.6			0.934
	Pyraclostrobin	72.9	79.4	73.4			7.90
	Sucralose	122	117	118			0.944
	Triclopyr	112	215	217			1.07
	Triclopyr	49.2	118	124			4.43
SM 2120 B	Color (true)	98.4				2.56	
SM 2320 B-97	Total Alkalinity	103				0.556	
SM 2540 C-97	TDS					4.15	
SM 4500 F-C-97	Fluoride	98.7	98.6	98.6			0.0
SM 5310 B-00	Organic Carbon	95.4	92.6	92.2			0.263

Reference Method Descriptions

Method / DoH Cert #

Description

Associated Samples

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2020705, 2020706
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2020705, 2020706
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2020705, 2020706
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2020707, 2020708
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2020707, 2020708
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2020707, 2020708
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2020707, 2020708
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2020709, 2020710
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2020758, 2020759, 2020760, 2020761, 2020762, 2020763
SM 2120 B / E31780	True Color measured at 450 nm	2020705, 2020706
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2020705, 2020706
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2020705, 2020706
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2020705, 2020706
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2020705, 2020706
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2020707, 2020708

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	08/29/2018			08/29/2018 15:21	Megan Treadwell	2020705, 2020706
EPA 300.0 Rev. 2.1	08/29/2018			08/31/2018 03:30	Lipi Saha	2020705
	08/29/2018			08/31/2018 03:42	Lipi Saha	2020706
EPA 350.1 Rev. 2.0	08/29/2018			08/30/2018 15:34	Adrian Shelby	2020707
	08/29/2018			08/30/2018 15:36	Adrian Shelby	2020708
EPA 351.2 Rev. 2.0	08/29/2018	08/31/2018 15:00	Adrian Shelby	09/04/2018 10:28	Joseph Suarez	2020707
	08/29/2018	08/31/2018 15:00	Adrian Shelby	09/04/2018 10:30	Joseph Suarez	2020708
EPA 353.2 Rev. 2.0	08/29/2018			09/05/2018 14:25	Lauren Bottorf	2020707
	08/29/2018			09/05/2018 14:26	Lauren Bottorf	2020708
EPA 365.1 Rev. 2.0	08/29/2018	08/30/2018 11:37	Sima Feizi	08/31/2018 08:25	Beverly Y. Sanders	2020708
	08/29/2018	08/30/2018 11:37	Sima Feizi	08/31/2018 12:10	Beverly Y. Sanders	2020707
EPA 365.1 Rev. 2.0 dissolved	08/29/2018			08/29/2018 15:52	Julia Storbeck	2020709
	08/29/2018			08/29/2018 15:54	Julia Storbeck	2020710
EPA 8321B	08/29/2018	08/29/2018 11:50	Mohammad Ghaffari	08/29/2018 17:18	Mohammad Ghaffari	2020758
	08/29/2018	08/29/2018 11:50	Mohammad Ghaffari	08/29/2018 17:33	Mohammad Ghaffari	2020759
	08/29/2018	08/29/2018 11:50	Mohammad Ghaffari	08/29/2018 17:47	Mohammad Ghaffari	2020760
	08/29/2018	08/29/2018 11:50	Mohammad Ghaffari	08/29/2018 18:02	Mohammad Ghaffari	2020761
	08/29/2018	08/29/2018 11:50	Mohammad Ghaffari	08/30/2018 08:04	Mohammad Ghaffari	2020762
	08/29/2018	08/29/2018 11:50	Mohammad Ghaffari	08/30/2018 08:19	Mohammad Ghaffari	2020763
	08/29/2018	08/29/2018 11:50	Mohammad Ghaffari	08/30/2018 17:53	Mohammad Ghaffari	2020758
	08/29/2018	08/29/2018 11:50	Mohammad Ghaffari	08/30/2018 18:08	Mohammad Ghaffari	2020759
	08/29/2018	08/29/2018 11:50	Mohammad Ghaffari	08/30/2018 18:23	Mohammad Ghaffari	2020760
	08/29/2018	08/29/2018 11:50	Mohammad Ghaffari	08/30/2018 18:52	Mohammad Ghaffari	2020761
	08/29/2018	08/29/2018 11:50	Mohammad Ghaffari	08/30/2018 19:07	Mohammad Ghaffari	2020762
	08/29/2018	08/29/2018 11:50	Mohammad Ghaffari	08/30/2018 19:21	Mohammad Ghaffari	2020763
	08/29/2018	08/29/2018 13:00	Hoor Shaik	08/30/2018 13:34	Juyoung Kim	2020758
	08/29/2018	08/29/2018 13:00	Hoor Shaik	08/30/2018 14:08	Juyoung Kim	2020759
	08/29/2018	08/29/2018 13:00	Hoor Shaik	08/30/2018 14:43	Juyoung Kim	2020760
	08/29/2018	08/29/2018 13:00	Hoor Shaik	08/30/2018 15:17	Juyoung Kim	2020761
	08/29/2018	08/29/2018 13:00	Hoor Shaik	08/30/2018 15:52	Juyoung Kim	2020762
	08/29/2018	08/29/2018 13:00	Hoor Shaik	08/31/2018 06:17	Juyoung Kim	2020758
	08/29/2018	08/29/2018 13:00	Hoor Shaik	08/31/2018 06:51	Juyoung Kim	2020759
	08/29/2018	08/29/2018 13:00	Hoor Shaik	08/31/2018 07:26	Juyoung Kim	2020760
	08/29/2018	08/29/2018 13:00	Hoor Shaik	08/31/2018 08:00	Juyoung Kim	2020761
	08/29/2018	08/29/2018 13:00	Hoor Shaik	08/31/2018 08:35	Juyoung Kim	2020762
	08/29/2018	08/31/2018 13:30	Hoor Shaik	09/01/2018 12:35	Juyoung Kim	2020763
	08/29/2018	08/31/2018 13:30	Hoor Shaik	09/02/2018 01:17	Juyoung Kim	2020763
SM 2120 B	08/29/2018			08/29/2018 15:58	DeAsia Armster	2020706
	08/29/2018			08/29/2018 16:03	DeAsia Armster	2020705
SM 2320 B-97	08/29/2018			08/31/2018 10:09	Dale L. Simmons	2020705

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2320 B-97	08/29/2018			08/31/2018 10:20	Dale L. Simmons	2020706
SM 2540 C-97	08/29/2018			08/30/2018 14:22	Yijie Li	2020705, 2020706
SM 2540 D-97	08/29/2018			08/30/2018 14:22	Yijie Li	2020705, 2020706
SM 4500 F-C-97	08/29/2018			08/31/2018 10:09	Dale L. Simmons	2020705
	08/29/2018			08/31/2018 10:20	Dale L. Simmons	2020706
SM 5310 B-00	08/29/2018			09/08/2018 00:49	Megan Treadwell	2020707
	08/29/2018			09/08/2018 01:02	Megan Treadwell	2020708