

Chemical Analysis Report

SE-DIST-2018-11-01-01

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

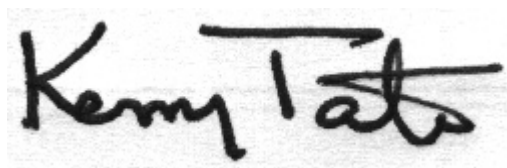
Event Description: **SMP- Dade**
Request ID: **RQ-2018-10-29-19**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 27-NOV-2018 13:00

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first name.

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: Snake Creek Canal (North Fork) @ Stirling

Collection Date/Time: 10/31/2018 11:50

Field ID: G4SE0049

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2038152	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P354072	
	EPA 300.0 Rev. 2.1	Chloride	79		mg Cl/L	P355053	
		Sulfate	1.4		mg SO4/L	P355058	
	SM 2120 B	Color (true)	42		PCU	P354450	
	SM 2320 B-97	Total Alkalinity	249		mg CaCO3/L	P354358	
	SM 2540 C-97	TDS	403		mg/L	P354607	
	SM 2540 D-97	TSS	3	I	mg/L	P354528	
	SM 4500 F-C-97	Fluoride	0.30		mg F/L	P354364	
2038153	EPA 350.1 Rev. 2.0	Ammonia-N	0.22		mg N/L	P354509	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P354344	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P354296	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P354225	
	SM 5310 B-00	Organic Carbon	17		mg C/L	P354326	
2038154	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P354083	

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: Snake Creek Canal (North Fork) @ Stirling

Collection Date/Time: 10/31/2018 11:50

Field ID: DUPE

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2038143	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P354072	
	EPA 300.0 Rev. 2.1	Chloride	78		mg Cl/L	P355053	
		Sulfate	1.4		mg SO4/L	P355058	
	SM 2120 B	Color (true)	42		PCU	P354450	
	SM 2320 B-97	Total Alkalinity	250		mg CaCO3/L	P354358	
	SM 2540 C-97	TDS	415		mg/L	P354607	
	SM 2540 D-97	TSS	3	I	mg/L	P354528	
	SM 4500 F-C-97	Fluoride	0.30		mg F/L	P354364	
2038144	EPA 350.1 Rev. 2.0	Ammonia-N	0.22		mg N/L	P354509	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P354291	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P354296	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P354225	
	SM 5310 B-00	Organic Carbon	17		mg C/L	P354326	
2038145	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P354083	

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: Wagner Creek ((WC-02))

Collection Date/Time: 10/31/2018 14:35

Field ID: G4SEWC02

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2038149	EPA 180.1 Rev. 2.0	Turbidity	1.5		NTU	P354072	
	SM 2320 B-97	Total Alkalinity	164		mg CaCO3/L	P354556	
	SM 2540 D-97	TSS	3	UA	mg/L	P354533	
	SM 4500 F-C-97	Fluoride	0.65		mg F/L	P354932	
2038150	EPA 350.1 Rev. 2.0	Ammonia-N	0.10		mg N/L	P354271	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.51		mg N/L	P354343	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P354231	
	EPA 365.1 Rev. 2.0	Total-P	0.027		mg P/L	P354156	
	SM 5310 B-00	Organic Carbon	4.8		mg C/L	P354205	
2038151	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.015		mg P/L	P354085	
2038172	EPA 8321B	2,4-D	0.0054	I	ug/L	P354119	
		Sucralose**	0.13		ug/L	P354052	
		Bentazon	0.0026	I	ug/L	P354119	
		MCP	0.0020	U	ug/L	P354119	MS
		Triclopyr**	0.0040	U	ug/L	P354119	
		Imidacloprid	0.0020	U	ug/L	P354119	MS
		Diuron	0.0034	I	ug/L	P354119	
		Pyraclostrobin**	0.0020	U	ug/L	P354119	
		Primidone**	0.0040	U	ug/L	P354119	
		Linuron	0.0040	U	ug/L	P354119	
		Acetaminophen**	0.075		ug/L	P354119	
		Fenuron	0.016	U	ug/L	P354119	
		Imazapyr**	0.037		ug/L	P354119	
		Carbamazepine**	0.0017	I	ug/L	P354119	
		Fluridone**	0.0026		ug/L	P354119	
		Hydrocodone**	8.0E-04	U	ug/L	P354119	
		Naproxen**	0.0080	U	ug/L	P354119	
		Ibuprofen**	0.020	U	ug/L	P354119	
		AMPA**	0.10	UJ	ug/L	P354052	SUR

Ref. Method and Comment:

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

EPA 8321B: Results confirmed in re-extraction.

Sample Location: Miami (C-6) @ S26

Collection Date/Time: 10/31/2018 15:15

Field ID: G4SE0024

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2038146	EPA 180.1 Rev. 2.0	Turbidity	0.90		NTU	P354072	
	SM 2320 B-97	Total Alkalinity	181		mg CaCO3/L	P354555	
	SM 2540 D-97	TSS	2	I	mg/L	P354531	
	SM 4500 F-C-97	Fluoride	0.40		mg F/L	P354932	
2038147	EPA 350.1 Rev. 2.0	Ammonia-N	0.20		mg N/L	P354271	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.75		mg N/L	P354343	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.10		mg N/L	P354231	
	EPA 365.1 Rev. 2.0	Total-P	0.021		mg P/L	P354156	
	SM 5310 B-00	Organic Carbon	7.9		mg C/L	P354326	
2038148	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.014		mg P/L	P354085	
2038171	EPA 8321B	2,4-D	0.0020	U	ug/L	P354119	
		Sucralose**	0.11		ug/L	P354052	
		Bentazon	0.0034		ug/L	P354119	
		MCP	0.0020	U	ug/L	P354119	MS
		Triclopyr**	0.0040	U	ug/L	P354119	
		Imidacloprid	0.0020	U	ug/L	P354119	MS
		Diuron	0.0032	I	ug/L	P354119	
		Pyraclostrobin**	0.0020	U	ug/L	P354119	
		Primidone**	0.0040	U	ug/L	P354119	
		Linuron	0.0040	U	ug/L	P354119	
		Acetaminophen**	0.0080	U	ug/L	P354119	
		Fenuron	0.016	U	ug/L	P354119	
		Imazapyr**	0.079		ug/L	P354119	
		Carbamazepine**	0.0011	I	ug/L	P354119	
		Fluridone**	0.0048		ug/L	P354119	
		Hydrocodone**	8.0E-04	U	ug/L	P354119	
		Naproxen**	0.0080	U	ug/L	P354119	
		Ibuprofen**	0.020	U	ug/L	P354119	
		Acesulfame K**	0.15	I	ug/L	P354052	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P354072

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355053

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355058

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P354271

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P354509

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354291

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354343

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354344

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P354231

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P354296

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P354156

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P354225

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P354083

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P354085

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

Reference Method: EPA 8321B
Batch ID: P354052

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

Reference Method: EPA 8321B
Batch ID: P354119

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
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P354119

Component	Result	Code	Units
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: P354450

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P354358

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

Reference Method: SM 2320 B-97
Batch ID: P354555

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

Reference Method: SM 2320 B-97
Batch ID: P354556

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

Reference Method: SM 2540 C-97
Batch ID: P354607

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P354528

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P354531

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P354533

Component	Result	Code	Units
TSS	3	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P354364

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P354932

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P354205

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

Reference Method: SM 5310 B-00
Batch ID: P354326

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: P355053

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355058

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P354271

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P354509

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354291

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354343

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354344

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P354231

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P354296

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P354156

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: P354225

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P354083

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P354085

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

Reference Method: EPA 8321B
Batch ID: P354052

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	83.2		P	40 - 150
AMPA	104		P	40 - 150
Sucralose	88.1		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P354119

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	94.5		P	40 - 150
Acetaminophen	94.2		P	30 - 150
Bentazon	71.6		P	30 - 150
Carbamazepine	85.4		P	40 - 150
Diuron	74.5		P	40 - 150
Fenuron	120		P	40 - 150
Fluridone	115		P	40 - 150
Hydrocodone	101		P	40 - 150
Ibuprofen	89.6		P	40 - 150
Imazapyr	91.8		P	40 - 150
Imidacloprid	111		P	40 - 160
Linuron	87.3		P	40 - 150
MCPP	108		P	40 - 150
Naproxen	91.3		P	40 - 150
Primidone	100		P	40 - 150
Pyraclostrobin	62.4		P	40 - 150
Triclopyr	105		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2120 B
Batch ID: P354450

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P354358

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

Reference Method: SM 2320 B-97
Batch ID: P354555

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 107

Reference Method: SM 2320 B-97
Batch ID: P354556

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P354364

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P354932

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.1		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P354205

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	92.8		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P354326

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355053

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037915	Chloride	99.3		P	90 - 110
2038130	Chloride	98.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355058

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037915	Sulfate	98.1		P	90 - 110
2038130	Sulfate	95.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P354271

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2036297	Ammonia-N	100	98.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P354509

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038204	Ammonia-N	101	99.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354291

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038055	Kjeldahl Nitrogen	98.2	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354343

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038147	Kjeldahl Nitrogen	98.7	97.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354344

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038203	Kjeldahl Nitrogen	100	96.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P354231

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038147	NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P354296

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038190	NO2NO3-N	102	103	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P354156

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038150	Total-P	100	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P354225

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038101	Total-P	101	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P354083

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038301	O-Phosphate-P	96.6	98.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P354085

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038148	O-Phosphate-P	95.8	98.2	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P354052

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038088	Acesulfame K	106	108	P/P	40 - 150
2038088	AMPA	77.4	72.5	P/P	40 - 150
2038088	Sucralose	81.4	103	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P354119

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038797	2,4-D	124	118	P/P	40 - 150
2038797	Acetaminophen	109	103	P/P	30 - 150
2038797	Bentazon	44.6	43.8	P/P	30 - 150
2038797	Carbamazepine	77.5	82.0	P/P	40 - 150
2038797	Diuron	59.4	63.8	P/P	40 - 150
2038797	Fenuron	108	126	P/P	40 - 150
2038797	Fluridone	117	123	P/P	40 - 150
2038797	Hydrocodone	125	134	P/P	40 - 150
2038797	Ibuprofen	71.6	68.7	P/P	40 - 150
2038797	Imazapyr	130	143	P/P	40 - 150
2038797	Imidacloprid	175	200	F/F	40 - 160
2038797	Linuron	80.2	81.4	P/P	40 - 150
2038797	MCPP	152	129	F/P	40 - 150
2038797	Naproxen	90.3	104	P/P	40 - 150
2038797	Primidone	105	106	P/P	40 - 150
2038797	Pyraclostrobin	64.8	67.2	P/P	40 - 150
2038797	Triclopyr	136	133	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P354364

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038075	Fluoride	101	101	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P354932

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2039192	Fluoride	98.4	97.7	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P354205

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037757	Organic Carbon	91.0	93.1	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P354326

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038052	Organic Carbon	97.4	95.8	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P354072

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038130	Turbidity	4.33	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355053

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037915	Chloride	0.165	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355058

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037915	Sulfate	0.664	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P354271

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2036297	Ammonia-N	1.34	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P354509

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038204	Ammonia-N	1.28	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354291

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038055	Kjeldahl Nitrogen	4.19	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354343

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038147	Kjeldahl Nitrogen	0.875	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354344

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038203	Kjeldahl Nitrogen	2.18	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P354231

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038147	NO2NO3-N	0.327	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P354296

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038190	NO2NO3-N	0.487	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P354156

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038150	Total-P	3.39	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P354225

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038101	Total-P	6.00	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P354083

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038301	O-Phosphate-P	2.35	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P354085

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038148	O-Phosphate-P	2.17	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P354052

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038088	Acesulfame K	0.918	Spike	P	0 - 30
2038088	AMPA	6.60	Spike	P	0 - 30
2038088	Sucralose	16.7	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P354119

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P354119

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038797	2,4-D	4.98	Spike	P	0 - 30
2038797	Acetaminophen	5.37	Spike	P	0 - 30
2038797	Bentazon	1.82	Spike	P	0 - 30
2038797	Carbamazepine	5.63	Spike	P	0 - 30
2038797	Diuron	7.05	Spike	P	0 - 30
2038797	Fenuron	15.7	Spike	P	0 - 30
2038797	Fluridone	4.74	Spike	P	0 - 30
2038797	Hydrocodone	6.83	Spike	P	0 - 30
2038797	Ibuprofen	4.11	Spike	P	0 - 30
2038797	Imazapyr	9.15	Spike	P	0 - 30
2038797	Imidacloprid	13.4	Spike	P	0 - 30
2038797	Linuron	1.53	Spike	P	0 - 30
2038797	MCP	16.4	Spike	P	0 - 30
2038797	Naproxen	13.9	Spike	P	0 - 30
2038797	Primidone	1.06	Spike	P	0 - 30
2038797	Pyraclostrobin	3.70	Spike	P	0 - 30
2038797	Triclopyr	2.46	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P354450

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038200	Color (true)	1.34	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P354358

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038075	Total Alkalinity	0.592	Sample	P	0 - 1.6

Reference Method: SM 2320 B-97
Batch ID: P354555

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038712	Total Alkalinity	0.586	Sample	P	0 - 1.6

Reference Method: SM 2320 B-97
Batch ID: P354556

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037844	Total Alkalinity	1.23	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P354607

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: SM 2540 C-97
Batch ID: P354607

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038099	TDS	5.33	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P354364

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038075	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 4500 F-C-97
Batch ID: P354932

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2039192	Fluoride	0.476	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P354205

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037757	Organic Carbon	1.47	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P354326

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038052	Organic Carbon	0.948	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: 2038171
Field Sample ID: G4SE0024

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	93.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	134	P	30 - 160
EPA 8321B	Carbamazepine-d10	82.0	P	30 - 160
EPA 8321B	Diuron-d6	86.4	P	30 - 160
EPA 8321B	Endothall-d6	85.2	P	40 - 160
EPA 8321B	Endothall-d6	85.2	P	40 - 160
EPA 8321B	Ibuprofen-d3	69.6	P	30 - 160
EPA 8321B	Primidone-d5	102	P	30 - 160
EPA 8321B	Sucralose-d6	78.7	P	40 - 160
EPA 8321B	Sucralose-d6	78.7	P	40 - 160

Lab Sample ID: 2038172
Field Sample ID: G4SEWC02

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	124	P	30 - 160
EPA 8321B	Acetaminophen-d4	110	P	30 - 160
EPA 8321B	Carbamazepine-d10	76.0	P	30 - 160
EPA 8321B	Diuron-d6	79.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	0.0	F	40 - 160
EPA 8321B	Glyphosate 13C 15N	0.0	F	40 - 160
EPA 8321B	Ibuprofen-d3	90.8	P	30 - 160
EPA 8321B	Primidone-d5	91.8	P	30 - 160
EPA 8321B	Sucralose-d6	115	P	40 - 160
EPA 8321B	Sucralose-d6	115	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A87461

Included Lab Sample IDs: 2038143, 2038146, 2038149, 2038152

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A87463

Included Lab Sample IDs: 2038145, 2038148, 2038151, 2038154

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	99.0	P/P	90 - 110
O-Phosphate-P	99.3	101	P/P	90 - 110
O-Phosphate-P	99.9	99.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A87506

Included Lab Sample IDs: 2038171

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	91.0	63.3	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A87510

Included Lab Sample IDs: 2038171

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	82.4	79.9	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A87521

Included Lab Sample IDs: 2038172

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	142	132	P/P	60 - 160

Reference Method: SM 5310 B-00

Run ID: A87523

Included Lab Sample IDs: 2038150

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.4	93.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A87531

Included Lab Sample IDs: 2038147, 2038150

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

Reference Method: EPA 8321B

Run ID: A87535

Included Lab Sample IDs: 2038172

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

Reference Method: EPA 8321B
Run ID: A87535
Included Lab Sample IDs: 2038172

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	85.5	80.8	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A87544
Included Lab Sample IDs: 2038147, 2038150

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A87556
Included Lab Sample IDs: 2038147, 2038150

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A87560
Included Lab Sample IDs: 2038144, 2038153

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A87578
Included Lab Sample IDs: 2038144, 2038153

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	99.5	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A87585
Included Lab Sample IDs: 2038144, 2038147, 2038153

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.4	97.4	P/P	90 - 110
Organic Carbon	96.8	96.4	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A87599
Included Lab Sample IDs: 2038143, 2038152

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A87599
Included Lab Sample IDs: 2038143, 2038152

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: A87599

Included Lab Sample IDs: 2038143, 2038152

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

Reference Method: EPA 8321B

Run ID: A87626

Included Lab Sample IDs: 2038171, 2038172

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	101	94.0	P/P	50 - 150
Bentazon	106	112	P/P	50 - 160
Ibuprofen	106	72.0	P/P	50 - 160
MCP	99.3	98.9	P/P	50 - 150
Naproxen	96.8	87.7	P/P	50 - 160
Triclopyr	99.2	103	P/P	50 - 160

Reference Method: SM 2120 B

Run ID: A87642

Included Lab Sample IDs: 2038143, 2038152

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.8	101	P/P	90 - 115

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A87646

Included Lab Sample IDs: 2038144, 2038147, 2038150

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	101	P/P	90 - 110
Kjeldahl Nitrogen	101	100	P/P	90 - 110
Kjeldahl Nitrogen	101	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A87660

Included Lab Sample IDs: 2038153

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	105	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A87674

Included Lab Sample IDs: 2038144, 2038153

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

Reference Method: SM 2320 B-97

Run ID: A87701

Included Lab Sample IDs: 2038146, 2038149

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.4	P/P	90 - 110
Total Alkalinity	102	99.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A87708

Included Lab Sample IDs: 2038171, 2038172

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	99.1	110	P/P	60 - 160
Carbamazepine	103	110	P/P	60 - 160
Diuron	107	108	P/P	60 - 150
Fenuron	114	121	P/P	60 - 150
Fluridone	114	124	P/P	60 - 160
Hydrocodone	104	100	P/P	60 - 150
Imazapyr	114	82.3	P/P	50 - 150
Imidacloprid	110	111	P/P	60 - 160
Linuron	122	121	P/P	60 - 150
Primidone	105	99.2	P/P	60 - 160
Pyraclostrobin	102	99.2	P/P	60 - 150

Reference Method: SM 4500 F-C-97

Run ID: A87869

Included Lab Sample IDs: 2038146, 2038149

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A87936

Included Lab Sample IDs: 2038143, 2038152

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

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 180.1 Rev. 2.0	Turbidity				4.33	
EPA 300.0 Rev. 2.1	Chloride	102	99.3	98.0	0.165	
	Sulfate	101	98.1	95.4	0.664	
EPA 350.1 Rev. 2.0	Ammonia-N	99.3	100	98.4		1.34
	Ammonia-N	97.8	101	99.6		1.28
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	98.2	104		4.19
	Kjeldahl Nitrogen	94.5	98.7	97.6		0.875
	Kjeldahl Nitrogen	100	100	96.8		2.18
EPA 353.2 Rev. 2.0	NO2NO3-N	100	101	102		0.327
	NO2NO3-N	102	102	103		0.487
EPA 365.1 Rev. 2.0	Total-P	102	100	97.0		3.39
	Total-P	98.1	101	108		6.00
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	103	96.6	98.9		2.35
	O-Phosphate-P	101	95.8	98.2		2.17
EPA 8321B	2,4-D	94.5	124	118		4.98
	Acesulfame K	83.2	106	108		0.918
	Acetaminophen	94.2	109	103		5.37
	AMPA	104	77.4	72.5		6.60
	Bentazon	71.6	44.6	43.8		1.82
	Carbamazepine	85.4	77.5	82.0		5.63
	Diuron	74.5	59.4	63.8		7.05
	Fenuron	120	108	126		15.7
	Fluridone	115	117	123		4.74
	Hydrocodone	101	125	134		6.83
	Ibuprofen	89.6	71.6	68.7		4.11
	Imazapyr	91.8	130	143		9.15
	Imidacloprid	111	175	200		13.4
	Linuron	87.3	80.2	81.4		1.53
	MCP	108	152	129		16.4
	Naproxen	91.3	90.3	104		13.9
	Primidone	100	105	106		1.06
	Pyraclostrobin	62.4	64.8	67.2		3.70
	Sucralose	88.1	81.4	103		16.7
	Triclopyr	105	136	133		2.46
SM 2120 B	Color (true)	100			1.34	
SM 2320 B-97	Total Alkalinity	103			0.592	
	Total Alkalinity	102			0.586	
	Total Alkalinity	102			1.23	
SM 2540 C-97	TDS				5.33	
SM 4500 F-C-97	Fluoride	102	101	101		0.0
	Fluoride	96.1	98.4	97.7		0.476
SM 5310 B-00	Organic Carbon	92.8	91.0	93.1		1.47
	Organic Carbon	97.0	97.4	95.8		0.948

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2038143, 2038146, 2038149, 2038152
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2038143, 2038152
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2038143, 2038152

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2038144, 2038147, 2038150, 2038153
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2038144, 2038147, 2038150, 2038153
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2038144, 2038147, 2038150, 2038153
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2038144, 2038147, 2038150, 2038153
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2038145, 2038148, 2038151, 2038154
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2038171, 2038172
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2038171, 2038172
SM 2120 B / E31780	True Color measured at 450 nm	2038143, 2038152
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2038143, 2038146, 2038149, 2038152
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2038143, 2038152
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2038143, 2038146, 2038149, 2038152
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2038143, 2038146, 2038149, 2038152
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2038144, 2038147, 2038150, 2038153

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	11/01/2018			11/01/2018 16:10	Megan Treadwell	2038143, 2038146, 2038149, 2038152
EPA 300.0 Rev. 2.1	11/01/2018			11/22/2018 01:00	Lipi Saha	2038143
	11/01/2018			11/22/2018 01:12	Lipi Saha	2038152
EPA 350.1 Rev. 2.0	11/01/2018			11/06/2018 13:01	Julia Storbeck	2038147
	11/01/2018			11/06/2018 13:16	Julia Storbeck	2038150
	11/01/2018			11/08/2018 14:59	Ping Hua	2038144
	11/01/2018			11/08/2018 15:01	Ping Hua	2038153
EPA 351.2 Rev. 2.0	11/01/2018	11/06/2018 12:30	Adrian Shelby	11/08/2018 13:55	Joseph Suarez	2038144
	11/01/2018	11/07/2018 11:50	Adrian Shelby	11/08/2018 13:14	Joseph Suarez	2038147
	11/01/2018	11/07/2018 11:50	Adrian Shelby	11/08/2018 13:22	Joseph Suarez	2038150
	11/01/2018	11/07/2018 11:50	Adrian Shelby	11/09/2018 09:34	Joseph Suarez	2038153
EPA 353.2 Rev. 2.0	11/01/2018			11/05/2018 14:02	Lauren Bottorf	2038147
	11/01/2018			11/05/2018 14:08	Lauren Bottorf	2038150
	11/01/2018			11/06/2018 12:52	Lauren Bottorf	2038144
	11/01/2018			11/06/2018 12:53	Lauren Bottorf	2038153
EPA 365.1 Rev. 2.0	11/01/2018	11/02/2018 12:40	Sima Feizi	11/05/2018 14:57	Beverly Y. Sanders	2038147
	11/01/2018	11/02/2018 12:40	Sima Feizi	11/05/2018 14:58	Beverly Y. Sanders	2038150
	11/01/2018	11/05/2018 11:55	Sima Feizi	11/06/2018 16:51	Beverly Y. Sanders	2038144
	11/01/2018	11/05/2018 11:55	Sima Feizi	11/06/2018 16:52	Beverly Y. Sanders	2038153
EPA 365.1 Rev. 2.0 dissolved	11/01/2018			11/01/2018 15:06	Julia Storbeck	2038148
	11/01/2018			11/01/2018 15:13	Julia Storbeck	2038154
	11/01/2018			11/01/2018 15:14	Julia Storbeck	2038145
	11/01/2018			11/01/2018 15:43	Julia Storbeck	2038151
EPA 8321B	11/01/2018	11/02/2018 10:15	Rebecca Ware	11/02/2018 10:39	Rebecca Ware	2038172
	11/01/2018	11/02/2018 12:30	Rebecca Ware	11/02/2018 15:31	Rebecca Ware	2038171
	11/01/2018	11/02/2018 12:30	Rebecca Ware	11/04/2018 16:23	Mohammad Ghaffari	2038171
	11/01/2018	11/02/2018 12:30	Rebecca Ware	11/05/2018 15:19	Mohammad Ghaffari	2038172
	11/01/2018	11/07/2018 10:00	Hoor Shaik	11/08/2018 19:03	Juyoung Kim	2038171
	11/01/2018	11/07/2018 10:00	Hoor Shaik	11/08/2018 19:38	Juyoung Kim	2038172
	11/01/2018	11/07/2018 10:00	Hoor Shaik	11/10/2018 02:56	Juyoung Kim	2038171
	11/01/2018	11/07/2018 10:00	Hoor Shaik	11/10/2018 03:31	Juyoung Kim	2038172
SM 2120 B	11/01/2018			11/01/2018 15:24	Chelsea Hernandez	2038143
	11/01/2018			11/01/2018 15:25	Chelsea Hernandez	2038152
SM 2320 B-97	11/01/2018			11/07/2018 09:20	Dale L. Simmons	2038143
	11/01/2018			11/07/2018 09:32	Dale L. Simmons	2038152
	11/01/2018			11/09/2018 05:42	Dale L. Simmons	2038146
	11/01/2018			11/09/2018 10:15	Dale L. Simmons	2038149
SM 2540 C-97	11/01/2018			11/06/2018 15:10	Yijie Li	2038143, 2038152
SM 2540 D-97	11/01/2018			11/06/2018 15:10	Yijie Li	2038143, 2038146, 2038149, 2038152
SM 4500 F-C-97	11/01/2018			11/07/2018 09:20	Dale L. Simmons	2038143

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-97	11/01/2018			11/07/2018 09:32	Dale L. Simmons	2038152
	11/01/2018			11/15/2018 01:41	Dale L. Simmons	2038146
	11/01/2018			11/15/2018 02:09	Dale L. Simmons	2038149
SM 5310 B-00	11/01/2018			11/03/2018 11:50	Megan Treadwell	2038150
	11/01/2018			11/06/2018 04:54	Megan Treadwell	2038144
	11/01/2018			11/06/2018 05:06	Megan Treadwell	2038147
	11/01/2018			11/06/2018 05:45	Megan Treadwell	2038153