

Chemical Analysis Report

SW-DIST-2018-07-13-02

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

Event Description: **Wares, Wares, Mill, Gap, & Nonsense**
Request ID: **RQ-2018-07-09-04**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:

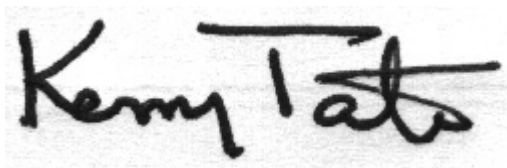
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
Attn: Ben Paswater

For additional information please contact

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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 06-AUG-2018 12:51

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: GAP CREEK @ 45th ST

Collection Date/Time: 07/12/2018 11:30

Field ID: G2SW0030

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2007445	EPA 180.1 Rev. 2.0	Turbidity	3.0	A	NTU	P348434	
	EPA 300.0 Rev. 2.1	Chloride	37		mg Cl/L	P348905	
		Sulfate	63		mg SO4/L	P348913	
	SM 2120 B	Color (true)	69	A	PCU	P348424	
	SM 2320 B-97	Total Alkalinity	141		mg CaCO3/L	P348680	
	SM 2540 C-97	TDS	344		mg/L	P348938	
	SM 2540 D-97	TSS	3	IA	mg/L	P349043	
	SM 4500 F-C-97	Fluoride	0.48		mg F/L	P348684	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.14		mg N/L	P348995	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.95		mg N/L	P348613	
2007447	EPA 353.2 Rev. 2.0	NO2NO3-N	0.19		mg N/L	P348589	
	EPA 365.1 Rev. 2.0	Total-P	0.37		mg P/L	P348661	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P348655	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.31		mg P/L	P348427	
2007449	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.31		mg P/L	P348427	

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: WARES CREEK @ 36th AVE

Collection Date/Time: 07/12/2018 12:00

Field ID: G2SW0031

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2007446	EPA 180.1 Rev. 2.0	Turbidity	0.80		NTU	P348434	
	EPA 300.0 Rev. 2.1	Chloride	44		mg Cl/L	P348905	
		Sulfate	89		mg SO4/L	P348913	
	SM 2120 B	Color (true)	32		PCU	P348424	
	SM 2320 B-97	Total Alkalinity	171		mg CaCO3/L	P348680	
	SM 2540 C-97	TDS	404		mg/L	P348938	
	SM 2540 D-97	TSS	2	I	mg/L	P349043	
	SM 4500 F-C-97	Fluoride	0.50		mg F/L	P348684	
2007448	EPA 350.1 Rev. 2.0	Ammonia-N	0.018		mg N/L	P348995	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.53		mg N/L	P348613	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.053		mg N/L	P348589	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P348661	
	SM 5310 B-00	Organic Carbon	9.1		mg C/L	P348822	
2007450	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.097		mg P/L	P348427	

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: WARES CREEK @ 9th AVE

Collection Date/Time: 07/12/2018 12:30

Field ID: G2SW0029

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2007451	EPA 180.1 Rev. 2.0	Turbidity	2.2		NTU	P348434	
	SM 2320 B-97	Total Alkalinity	126		mg CaCO3/L	P348680	
	SM 2540 D-97	TSS	3	IA	mg/L	P349047	
	SM 4500 F-C-97	Fluoride	0.45		mg F/L	P348684	
2007453	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P348775	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.78		mg N/L	P348612	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.067		mg N/L	P348575	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P348662	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P348824	
2007455	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.14		mg P/L	P348428	

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: MILL CREEK @ UPPER MANATEE RVR RD

Collection Date/Time: 07/12/2018 10:10

Field ID: G2SW0040

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2007452	EPA 180.1 Rev. 2.0	Turbidity	6.6		NTU	P348434	
	SM 2320 B-97	Total Alkalinity	61		mg CaCO3/L	P348680	
	SM 2540 D-97	TSS	7	IA	mg/L	P349046	
	SM 4500 F-C-97	Fluoride	0.20		mg F/L	P348684	
2007454	EPA 350.1 Rev. 2.0	Ammonia-N	0.024		mg N/L	P348995	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P348639	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.047		mg N/L	P348665	
	EPA 365.1 Rev. 2.0	Total-P	0.23		mg P/L	P348661	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P348822	
2007456	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.13		mg P/L	P348427	

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: MILL CREEK @ UPPER MANATEE RVR RD

Collection Date/Time: 07/12/2018 10:10

Field ID: G2SW0040

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2007471	EPA 8321B	2,4-D	0.056		ug/L	P348391	
		Bentazon	0.069		ug/L	P348391	
		MCP	0.017		ug/L	P348391	MS
		Triclopyr**	0.0040	U	ug/L	P348391	MS
		Imidacloprid	0.23		ug/L	P348391	
		Diuron	0.17		ug/L	P348391	
		Pyraclostrobin**	0.0020	U	ug/L	P348391	
		Primidone**	0.012	I	ug/L	P348391	
		Linuron	0.0040	U	ug/L	P348391	
		Acetaminophen**	0.0080	U	ug/L	P348391	
		Fenuron	0.016	U	ug/L	P348391	
		Imazapyr**	0.35		ug/L	P348391	
		Carbamazepine**	0.0020		ug/L	P348391	
		Fluridone**	0.080		ug/L	P348391	
		Hydrocodone**	8.0E-04	U	ug/L	P348391	
		Sucralose**	3.9		ug/L	P348298	MS, RPD

Sample Location: NONSENSE CRK @ LINGERLODGE

Collection Date/Time: 07/12/2018 11:00

Field ID: G2SW0041

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2007472	EPA 8321B	2,4-D	0.077		ug/L	P343391	
		Bentazon	0.031		ug/L	P343391	
		MCP	0.011		ug/L	P343391	
		Triclopyr**	0.0040	U	ug/L	P343391	
		Imidacloprid	0.11		ug/L	P348391	
		Diuron	0.027		ug/L	P348391	
		Pyraclostrobin**	0.0020	U	ug/L	P348391	
		Primidone**	0.0040	U	ug/L	P348391	
		Linuron	0.0040	U	ug/L	P348391	
		Acetaminophen**	0.0080	U	ug/L	P348391	
		Fenuron	0.016	U	ug/L	P348391	
		Imazapyr**	0.35		ug/L	P348391	
		Carbamazepine**	4.0E-04	U	ug/L	P348391	
		Fluridone**	0.073		ug/L	P348391	
		Hydrocodone**	8.0E-04	U	ug/L	P348391	
		Sucralose**	0.17		ug/L	P348298	MS, RPD

Sample Location: NONSENSE CRK @ TARA PRESERVE

Collection Date/Time: 07/12/2018 10:50

Field ID: G2SW0015

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2007473	EPA 8321B	2,4-D	0.065		ug/L	P343391	
		Bentazon	0.025		ug/L	P343391	
		MCP	0.010		ug/L	P343391	
		Triclopyr**	0.0040	U	ug/L	P343391	
		Imidacloprid	0.091		ug/L	P348391	
		Diuron	0.038		ug/L	P348391	
		Pyraclostrobin**	0.0020	U	ug/L	P348391	
		Primidone**	0.0040	U	ug/L	P348391	
		Linuron	0.0040	U	ug/L	P348391	
		Acetaminophen**	0.0080	U	ug/L	P348391	
		Fenuron	0.016	U	ug/L	P348391	
		Imazapyr**	0.35		ug/L	P348391	
		Carbamazepine**	4.0E-04	U	ug/L	P348391	
		Fluridone**	0.064		ug/L	P348391	
		Hydrocodone**	8.0E-04	U	ug/L	P348391	
		Sucralose**	0.14		ug/L	P348298	MS, RPD

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P348434

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348905

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348913

Component	Result	Code	Units
Sulfate	0.20	U	mg SO ₄ /L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348775

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348995

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348612

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348613

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348639

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348575

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348589

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348665

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P348661

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P348662

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P348427

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P348428

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

Reference Method: EPA 8321B
Batch ID: P348298

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P348391

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	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
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P348391

Component	Result	Code	Units
Linuron	0.0040	U	ug/L
MCPP	0.0020	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: P348424

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P348680

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

Reference Method: SM 2540 C-97
Batch ID: P348938

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P349043

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P349046

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P349047

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P348684

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P348655

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P348655

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

Reference Method: SM 5310 B-00
Batch ID: P348822

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

Reference Method: SM 5310 B-00
Batch ID: P348824

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: P348905

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348913

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348775

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348995

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: P348612

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348613

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348639

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348575

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348589

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348665

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: P348661

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P348662

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P348427

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P348428

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.9		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P348298

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	116		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P348391

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	65.0		P	40 - 150
Acetaminophen	100		P	30 - 150
Bentazon	76.4		P	30 - 150
Carbamazepine	79.8		P	40 - 150
Diuron	75.6		P	40 - 150
Fenuron	107		P	40 - 150
Fluridone	92.9		P	40 - 150
Hydrocodone	101		P	40 - 150
Imazapyr	94.7		P	40 - 150
Imidacloprid	110		P	40 - 160
Linuron	93.2		P	40 - 150
MCPP	97.9		P	40 - 150
Primidone	114		P	40 - 150
Pyraclostrobin	90.1		P	40 - 150
Triclopyr	86.9		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2120 B
Batch ID: P348424

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.0		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P348680

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

Reference Method: SM 4500 F-C-97
Batch ID: P348684

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

Reference Method: SM 5310 B-00
Batch ID: P348655

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.6		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P348822

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.5		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P348824

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348905

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007428	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348913

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007428	Sulfate	98.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348775

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007453	Ammonia-N	99.7	98.9	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348995

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007435	Ammonia-N	99.1	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348612

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006784	Kjeldahl Nitrogen	94.6	98.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348613

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007448	Kjeldahl Nitrogen	98.5	107	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348639

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007573	Kjeldahl Nitrogen	99.4	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348575

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006778	NO2NO3-N	102	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348589

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007429	NO2NO3-N	101	102	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348665

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007454	NO2NO3-N	98.6	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P348661

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007448	Total-P	99.6	95.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P348662

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007453	Total-P	99.7	91.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P348427

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007544	O-Phosphate-P	92.9	92.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P348428

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007328	O-Phosphate-P	94.1	94.8	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P348298

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2006741	Sucralose	162	107	F/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P348391

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007965	2,4-D	119	121	P/P	40 - 150
2007965	Acetaminophen	96.2	90.0	P/P	30 - 150
2007965	Bentazon	65.5	62.6	P/P	30 - 150
2007965	Carbamazepine	61.5	59.0	P/P	40 - 150
2007965	Diuron	51.8	51.4	P/P	40 - 150
2007965	Fenuron	71.2	65.1	P/P	40 - 150
2007965	Fluridone	83.5	79.3	P/P	40 - 150
2007965	Hydrocodone	69.6	64.1	P/P	40 - 150
2007965	Imazapyr	73.3	75.6	P/P	40 - 150
2007965	Imidacloprid	112	104	P/P	40 - 160
2007965	Linuron	78.8	76.4	P/P	40 - 150
2007965	MCPP	150	160	F/F	40 - 150
2007965	Primidone	86.4	78.7	P/P	40 - 150
2007965	Pyraclostrobin	86.4	89.4	P/P	40 - 150
2007965	Triclopyr	174	193	F/F	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P348684

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007096	Fluoride	96.6	97.2	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P348655

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007241	Organic Carbon	100	97.8	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P348822

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007448	Organic Carbon	96.2	95.1	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P348824

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007453	Organic Carbon	96.6	96.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P348434

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007445	Turbidity	0.338	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348905

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007428	Chloride	1.45	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348913

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007428	Sulfate	0.487	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348775

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007453	Ammonia-N	0.767	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348995

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007435	Ammonia-N	0.0279	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348612

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006784	Kjeldahl Nitrogen	2.65	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348613

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007448	Kjeldahl Nitrogen	5.89	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348639

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007573	Kjeldahl Nitrogen	5.42	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348575

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006778	NO2NO3-N	0.707	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348589

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007429	NO2NO3-N	0.494	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348665

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007454	NO2NO3-N	1.63	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P348661

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007448	Total-P	2.90	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P348662

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007453	Total-P	7.09	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P348427

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007544	O-Phosphate-P	0.108	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P348428

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007328	O-Phosphate-P	0.580	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P348298

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2006741	Sucralose	34.5	Spike	F	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P348391

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007965	2,4-D	1.56	Spike	P	0 - 30
2007965	Acetaminophen	6.71	Spike	P	0 - 30
2007965	Bentazon	2.71	Spike	P	0 - 30
2007965	Carbamazepine	4.17	Spike	P	0 - 30
2007965	Diuron	0.777	Spike	P	0 - 30
2007965	Fenuron	8.95	Spike	P	0 - 30
2007965	Fluridone	5.04	Spike	P	0 - 30
2007965	Hydrocodone	8.17	Spike	P	0 - 30
2007965	Imazapyr	0.964	Spike	P	0 - 30
2007965	Imidacloprid	5.92	Spike	P	0 - 30
2007965	Linuron	3.04	Spike	P	0 - 30
2007965	MCPP	6.23	Spike	P	0 - 30
2007965	Primidone	9.34	Spike	P	0 - 30
2007965	Pyraclostrobin	3.42	Spike	P	0 - 30
2007965	Triclopyr	9.96	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P348424

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007445	Color (true)	0.848	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P348680

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007096	Total Alkalinity	0.457	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P348938

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007428	TDS	3.11	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P348684

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007096	Fluoride	0.516	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P348655

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007241	Organic Carbon	1.69	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P348822

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007448	Organic Carbon	0.779	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P348824

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007453	Organic Carbon	0.162	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: 2007471

Field Sample ID: G2SW0040

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	85.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	81.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	54.7	P	30 - 160
EPA 8321B	Diuron-d6	52.0	P	30 - 160
EPA 8321B	Primidone-d5	77.5	P	30 - 160
EPA 8321B	Sucralose-d6	111	P	40 - 160

Lab Sample ID: 2007472

Field Sample ID: G2SW0041

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	111	P	30 - 160
EPA 8321B	Acetaminophen-d4	93.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	56.6	P	30 - 160
EPA 8321B	Diuron-d6	50.8	P	30 - 160
EPA 8321B	Primidone-d5	80.0	P	30 - 160
EPA 8321B	Sucralose-d6	116	P	40 - 160

Lab Sample ID: 2007473

Field Sample ID: G2SW0015

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	106	P	30 - 160
EPA 8321B	Acetaminophen-d4	96.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	63.3	P	30 - 160
EPA 8321B	Diuron-d6	56.1	P	30 - 160
EPA 8321B	Primidone-d5	78.2	P	30 - 160
EPA 8321B	Sucralose-d6	111	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A85221

Included Lab Sample IDs: 2007445, 2007446

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A85222

Included Lab Sample IDs: 2007449, 2007450, 2007455, 2007456

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.1	94.2	P/P	90 - 110
O-Phosphate-P	98.2	98.0	P/P	90 - 110
O-Phosphate-P	98.4	98.2	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A85224

Included Lab Sample IDs: 2007445, 2007446, 2007451, 2007452

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	99.0	P/P	95 - 105

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A85268

Included Lab Sample IDs: 2007453

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A85276

Included Lab Sample IDs: 2007447, 2007448

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

Reference Method: SM 5310 B-00

Run ID: A85307

Included Lab Sample IDs: 2007447

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.2	97.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A85308

Included Lab Sample IDs: 2007454

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

Reference Method: SM 2320 B-97

Run ID: A85314

Included Lab Sample IDs: 2007445, 2007446, 2007451, 2007452

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

Reference Method: SM 2320 B-97

Run ID: A85314

Included Lab Sample IDs: 2007445, 2007446, 2007451, 2007452

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

Reference Method: SM 4500 F-C-97

Run ID: A85314

Included Lab Sample IDs: 2007445, 2007446, 2007451, 2007452

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

Reference Method: EPA 8321B

Run ID: A85319

Included Lab Sample IDs: 2007471, 2007472, 2007473

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	130	149	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A85336

Included Lab Sample IDs: 2007447, 2007448, 2007453, 2007454

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.2	P/P	90 - 110
Total-P	98.8	100	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A85337

Included Lab Sample IDs: 2007445, 2007446

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	102	P/P	90 - 110
Sulfate	104	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A85346

Included Lab Sample IDs: 2007453

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.6	99.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A85351

Included Lab Sample IDs: 2007447, 2007448, 2007454

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.0	95.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A85352

Included Lab Sample IDs: 2007453

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.9	93.9	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A85362

Included Lab Sample IDs: 2007448, 2007453, 2007454

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.2	99.2	P/P	90 - 110
Organic Carbon	97.0	95.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A85415

Included Lab Sample IDs: 2007447, 2007448, 2007454

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

Reference Method: EPA 8321B

Run ID: A85612

Included Lab Sample IDs: 2007471, 2007472, 2007473

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	102	107	P/P	50 - 150
Bentazon	111	127	P/P	50 - 150
MCP	108	120	P/P	50 - 150
Triclopyr	98.7	118	P/P	50 - 160
Triclopyr	99.6	119	P/P	50 - 160

Reference Method: EPA 8321B

Run ID: A85626

Included Lab Sample IDs: 2007471, 2007472, 2007473

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	109	105	P/P	60 - 150
Acetaminophen	111	109	P/P	60 - 150
Carbamazepine	108	109	P/P	60 - 150
Carbamazepine	112	108	P/P	60 - 150
Diuron	91.5	95.7	P/P	60 - 150
Diuron	95.7	94.2	P/P	60 - 150
Fenuron	106	103	P/P	60 - 150
Fenuron	107	106	P/P	60 - 150
Fluridone	109	109	P/P	60 - 160
Fluridone	110	109	P/P	60 - 160
Hydrocodone	109	109	P/P	60 - 150
Hydrocodone	109	105	P/P	60 - 150
Imazapyr	91.7	92.4	P/P	50 - 150
Imazapyr	92.4	96.0	P/P	50 - 150
Imidacloprid	104	105	P/P	60 - 150
Imidacloprid	110	104	P/P	60 - 150
Linuron	104	110	P/P	60 - 150
Linuron	108	104	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A85626

Included Lab Sample IDs: 2007471, 2007472, 2007473

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Primidone	105	113	P/P	60 - 150
Primidone	92.1	105	P/P	60 - 150
Pyraclostrobin	105	114	P/P	60 - 150
Pyraclostrobin	114	106	P/P	60 - 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		Precision	
					LCS	MS
EPA 180.1 Rev. 2.0	Turbidity				0.338	
EPA 300.0 Rev. 2.1	Chloride	101	101		1.45	
	Sulfate	99.6	98.4		0.487	
EPA 350.1 Rev. 2.0	Ammonia-N	99.0	99.7	98.9		0.767
	Ammonia-N	103	99.1	99.0		0.0279
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	94.6	98.7		2.65
	Kjeldahl Nitrogen	104	98.5	107		5.89
	Kjeldahl Nitrogen	106	99.4	107		5.42
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5	102	103		0.707
	NO2NO3-N	100	101	102		0.494
	NO2NO3-N	100	98.6	101		1.63
EPA 365.1 Rev. 2.0	Total-P	99.4	99.6	95.9		2.90
	Total-P	101	99.7	91.4		7.09
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	95.4	92.9	92.8		0.108
	O-Phosphate-P	97.9	94.1	94.8		0.580
EPA 8321B	2,4-D	65.0	119	121		1.56
	Acetaminophen	100	96.2	90.0		6.71
	Bentazon	76.4	65.5	62.6		2.71
	Carbamazepine	79.8	61.5	59.0		4.17
	Diuron	75.6	51.8	51.4		0.777
	Fenuron	107	71.2	65.1		8.95
	Fluridone	92.9	83.5	79.3		5.04
	Hydrocodone	101	69.6	64.1		8.17
	Imazapyr	94.7	73.3	75.6		0.964
	Imidacloprid	110	112	104		5.92
	Linuron	93.2	78.8	76.4		3.04
	MCPP	97.9	150	160		6.23
	Primidone	114	86.4	78.7		9.34
	Pyraclostrobin	90.1	86.4	89.4		3.42
	Sucralose	116	162	107		34.5
	Triclopyr	86.9	174	193		9.96
SM 2120 B	Color (true)	98.0			0.848	
SM 2320 B-97	Total Alkalinity	102			0.457	
SM 2540 C-97	TDS				3.11	
SM 4500 F-C-97	Fluoride	98.6	96.6	97.2		0.516
SM 5310 B-00	Organic Carbon	97.6	100	97.8		1.69
	Organic Carbon	97.5	96.2	95.1		0.779
	Organic Carbon	94.8	96.6	96.4		0.162

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2007445, 2007446, 2007451, 2007452
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2007445, 2007446
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2007445, 2007446
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2007447, 2007448, 2007453, 2007454
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2007447, 2007448, 2007453, 2007454
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2007447, 2007448, 2007453, 2007454

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	2007447, 2007448, 2007453, 2007454
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2007449, 2007450, 2007455, 2007456
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2007471, 2007472, 2007473
SM 2120 B / E31780	True Color measured at 450 nm	2007445, 2007446
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2007445, 2007446, 2007451, 2007452
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2007445, 2007446
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2007445, 2007446, 2007451, 2007452
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2007445, 2007446, 2007451, 2007452
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2007447, 2007448, 2007453, 2007454

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	07/13/2018			07/13/2018 16:55	Tanya Welborn	2007445, 2007446, 2007451, 2007452
EPA 300.0 Rev. 2.1	07/13/2018			07/21/2018 00:02	Lipi Saha	2007445
	07/13/2018			07/21/2018 00:14	Lipi Saha	2007446
EPA 350.1 Rev. 2.0	07/13/2018			07/19/2018 11:38	Ping Hua	2007453
	07/13/2018			07/23/2018 11:20	Ping Hua	2007447
	07/13/2018			07/23/2018 11:21	Ping Hua	2007448
	07/13/2018			07/23/2018 11:23	Ping Hua	2007454
EPA 351.2 Rev. 2.0	07/13/2018	07/18/2018 15:30	Adrian Shelby	07/19/2018 12:10	Joseph Suarez	2007453
	07/13/2018	07/18/2018 15:30	Adrian Shelby	07/19/2018 15:03	Joseph Suarez	2007447
	07/13/2018	07/18/2018 15:30	Adrian Shelby	07/19/2018 15:05	Joseph Suarez	2007448
	07/13/2018	07/18/2018 15:30	Adrian Shelby	07/19/2018 15:15	Joseph Suarez	2007454
EPA 353.2 Rev. 2.0	07/13/2018			07/17/2018 12:03	Lauren Bottorf	2007453
	07/13/2018			07/17/2018 13:24	Lauren Bottorf	2007447
	07/13/2018			07/17/2018 13:25	Lauren Bottorf	2007448
	07/13/2018			07/18/2018 11:20	Lauren Bottorf	2007454
EPA 365.1 Rev. 2.0	07/13/2018	07/18/2018 14:10	Sima Feizi	07/19/2018 10:00	Beverly Y. Sanders	2007448
	07/13/2018	07/18/2018 14:10	Sima Feizi	07/19/2018 10:12	Beverly Y. Sanders	2007447
	07/13/2018	07/18/2018 14:10	Sima Feizi	07/19/2018 10:13	Beverly Y. Sanders	2007454
	07/13/2018	07/18/2018 14:10	Sima Feizi	07/19/2018 10:16	Beverly Y. Sanders	2007453
EPA 365.1 Rev. 2.0 dissolved	07/13/2018			07/13/2018 15:59	Julia Storbeck	2007449
	07/13/2018			07/13/2018 16:03	Julia Storbeck	2007456
	07/13/2018			07/13/2018 16:09	Julia Storbeck	2007455
	07/13/2018			07/13/2018 16:38	Julia Storbeck	2007450
EPA 8321B	07/13/2018	07/16/2018 11:30	Juyoung Kim	07/17/2018 09:22	Mohammad Ghaffari	2007471
	07/13/2018	07/16/2018 11:30	Juyoung Kim	07/17/2018 09:36	Mohammad Ghaffari	2007472
	07/13/2018	07/16/2018 11:30	Juyoung Kim	07/17/2018 09:51	Mohammad Ghaffari	2007473
	07/13/2018	07/18/2018 10:30	Hoor Shaik	07/24/2018 04:35	Juyoung Kim	2007471
	07/13/2018	07/18/2018 10:30	Hoor Shaik	07/24/2018 05:44	Juyoung Kim	2007472
	07/13/2018	07/18/2018 10:30	Hoor Shaik	07/24/2018 06:18	Juyoung Kim	2007473
	07/13/2018	07/18/2018 10:30	Hoor Shaik	07/26/2018 09:12	Juyoung Kim	2007471
	07/13/2018	07/18/2018 10:30	Hoor Shaik	07/26/2018 09:46	Juyoung Kim	2007472
	07/13/2018	07/18/2018 10:30	Hoor Shaik	07/26/2018 10:21	Juyoung Kim	2007473
SM 2120 B	07/13/2018			07/13/2018 16:27	Tanya Welborn	2007445, 2007446
SM 2320 B-97	07/13/2018			07/18/2018 04:25	Dale L. Simmons	2007445
	07/13/2018			07/18/2018 04:35	Dale L. Simmons	2007446
	07/13/2018			07/18/2018 04:46	Dale L. Simmons	2007452
	07/13/2018			07/18/2018 05:45	Dale L. Simmons	2007451
SM 2540 C-97	07/13/2018			07/18/2018 16:21	Yijie Li	2007445, 2007446
SM 2540 D-97	07/13/2018			07/18/2018 16:21	Yijie Li	2007445, 2007446, 2007451, 2007452
SM 4500 F-C-97	07/13/2018			07/18/2018 04:25	Dale L. Simmons	2007445

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	07/13/2018			07/18/2018 04:35	Dale L. Simmons	2007446
	07/13/2018			07/18/2018 04:46	Dale L. Simmons	2007452
	07/13/2018			07/18/2018 05:45	Dale L. Simmons	2007451
SM 5310 B-00	07/13/2018			07/18/2018 10:31	Megan Treadwell	2007447
	07/13/2018			07/18/2018 17:59	Megan Treadwell	2007448
	07/13/2018			07/18/2018 19:00	Megan Treadwell	2007454
	07/13/2018			07/19/2018 09:26	Megan Treadwell	2007453