

Chemical Analysis Report

WQAP-2017-03-28-03

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

Event Description: **Sims Branch**
Request ID: **RQ-2017-03-27-67**
Customer: **WQAP**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
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Certified by: Colin Wright, Program Administrator

Date Certified: 17-APR-2017 14:02

A handwritten signature in black ink, appearing to read "Colin Wright", is positioned on a light-colored rectangular 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: SIMS BRANCH

Collection Date/Time: 03/27/2017 13:20

Field ID: G1SW0056

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1883734	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P322451	
	SM 2320 B-97	Total Alkalinity	136		mg CaCO3/L	P322686	
	SM 2540 D-97	TSS	4	I	mg/L	P322699	
	SM 4500 F-C-97	Fluoride	1.0		mg F/L	P322692	
1883735	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P322424	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.46		mg N/L	P322455	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.16		mg N/L	P322649	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P322395	
	SM 5310 B-00	Organic Carbon	3.8		mg C/L	P322431	
1883736	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.12		mg P/L	P322363	

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: SIMS BRANCH

Collection Date/Time: 03/27/2017 13:20

Field ID: G1SW0056

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1883741	EPA 8321B	Sucralose**	8.2		ug/L	P322291	
	USGS O-2060-01	2,4-D	0.0040	U	ug/L	P322144	MS
		Diuron	0.0051	I	ug/L	P322144	
		Fenuron	0.0080	U	ug/L	P322144	
		2,4,5-T	0.0040	U	ug/L	P322144	
		Acifluorfen	0.010	U	ug/L	P322144	
		Imidacloprid	0.011	I	ug/L	P322144	
		Bentazon	0.056		ug/L	P322144	
		Linuron	0.0040	U	ug/L	P322144	RPD
		Acetaminophen**	0.010	U	ug/L	P322144	
		Carbamazepine**	0.027		ug/L	P322144	
		Silvex	0.0040	U	ug/L	P322144	MS
		Primidone**	0.050		ug/L	P322144	
		Fluridone**	9.2E-04	I	ug/L	P322144	

Ref. Method and Comment:

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P322451

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P322424

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P322424

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322455

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322649

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322395

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P322363

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

Reference Method: EPA 8321B
Batch ID: P322291

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2320 B-97
Batch ID: P322686

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

Reference Method: SM 2540 D-97
Batch ID: P322699

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P322692

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P322431

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

Reference Method: USGS O-2060-01
Batch ID: P322144

Component	Result	Code	Units
2,4,5-T	0.0040	U	ug/L
2,4-D	0.0040	U	ug/L
Acetaminophen	0.010	U	ug/L
Acifluorfen	0.010	U	ug/L
Bentazon	0.0040	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	0.0040	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	0.0040	U	ug/L
Linuron	0.0040	U	ug/L
Primidone	0.0080	U	ug/L
Silvex	0.0040	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P322424

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322455

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322649

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322395

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P322363

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P322363

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

Reference Method: EPA 8321B
 Batch ID: P322291

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	94.3		P	40 - 140

Reference Method: SM 2320 B-97
 Batch ID: P322686

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 108

Reference Method: SM 4500 F-C-97
 Batch ID: P322692

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.4		P	92 - 103

Reference Method: SM 5310 B-00
 Batch ID: P322431

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.0		P	85 - 115

Reference Method: USGS O-2060-01
 Batch ID: P322144

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4,5-T	86.4		P	40 - 140
2,4-D	105		P	40 - 140
Acetaminophen	66.4		P	40 - 140
Acifluorfen	68.8		P	40 - 140
Bentazon	125		P	40 - 140
Carbamazepine	111		P	40 - 140
Diuron	78.4		P	40 - 140
Fenuron	85.2		P	40 - 140
Fluridone	78.0		P	40 - 140
Imidacloprid	83.6		P	40 - 160
Linuron	82.8		P	40 - 140
Primidone	86.0		P	40 - 140
Silvex	122		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P322424

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

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P322424

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1883860	Ammonia-N	108	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P322455

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1883950	Kjeldahl Nitrogen	99.2	99.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P322649

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1883640	NO2NO3-N	104	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P322395

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1883642	Total-P	108	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P322363

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1883863	O-Phosphate-P	95.9	97.0	P/P	90 - 110

Reference Method: EPA 8321B
 Batch ID: P322291

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1883597	Sucralose	100	107	P/P	40 - 140

Reference Method: SM 4500 F-C-97
 Batch ID: P322692

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1883858	Fluoride	94.3	96.7	P/P	91 - 105

Reference Method: SM 5310 B-00
 Batch ID: P322431

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1883640	Organic Carbon	96.3	97.1	P/P	85 - 115

Reference Method: USGS O-2060-01
 Batch ID: P322144

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1883627	2,4,5-T	114	101	P/P	40 - 140
1883627	2,4-D	156	122	F/P	40 - 140
1883627	Acetaminophen	80.4	76.8	P/P	40 - 140
1883627	Acifluorfen	120	118	P/P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P322144

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1883627	Carbamazepine	59.6	50.8	P/P	40 - 140
1883627	Diuron	47.2	48.4	P/P	40 - 140
1883627	Fenuron	52.0	47.2	P/P	40 - 140
1883627	Fluridone	40.8	48.8	P/P	40 - 140
1883627	Imidacloprid	109	94.8	P/P	40 - 160
1883627	Linuron	54.4	80.4	P/P	40 - 140
1883627	Primidone	60.0	66.4	P/P	40 - 140
1883627	Silvex	168	151	F/F	40 - 140

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P322451

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1883714	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P322424

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1883860	Ammonia-N	0.811	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322455

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1883950	Kjeldahl Nitrogen	0.0360	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322649

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1883640	NO2NO3-N	1.46	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322395

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1883642	Total-P	0.232	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P322363

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1883863	O-Phosphate-P	1.04	Spike	P	0 - 20

Reference Method: EPA 8321B
 Batch ID: P322291

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1883597	Sucralose	6.76	Spike	P	0 - 30

Reference Method: SM 2320 B-97
 Batch ID: P322686

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1883858	Total Alkalinity	0.199	Sample	P	0 - 4.8

Reference Method: SM 4500 F-C-97
 Batch ID: P322692

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1883858	Fluoride	1.47	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
 Batch ID: P322431

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1883640	Organic Carbon	0.796	Spike	P	0 - 20

Reference Method: USGS O-2060-01
 Batch ID: P322144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1883627	2,4,5-T	11.9	Spike	P	0 - 30
1883627	2,4-D	22.1	Spike	P	0 - 30
1883627	Acetaminophen	4.58	Spike	P	0 - 30
1883627	Acifluorfen	1.01	Spike	P	0 - 30
1883627	Bentazon	8.87	Spike	P	0 - 30
1883627	Carbamazepine	15.6	Spike	P	0 - 30
1883627	Diuron	2.51	Spike	P	0 - 30
1883627	Fenuron	9.68	Spike	P	0 - 30
1883627	Fluridone	12.4	Spike	P	0 - 30
1883627	Imidacloprid	14.1	Spike	P	0 - 30
1883627	Linuron	38.6	Spike	F	0 - 30
1883627	Primidone	10.1	Spike	P	0 - 30
1883627	Silvex	10.6	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 1883741
Field Sample ID: G1SW0056

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	102	P	40 - 150
USGS O-2060-01	2,4-D-d3	115	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	68.2	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	85.4	P	40 - 160
USGS O-2060-01	Diuron-d6	82.8	P	40 - 150
USGS O-2060-01	Primidone-d5	76.4	P	40 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A75426
Included Lab Sample IDs: 1883736

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.5	97.3	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A75437
Included Lab Sample IDs: 1883735

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

Reference Method: SM 5310 B-00
Run ID: A75441
Included Lab Sample IDs: 1883735

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.0	96.0	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A75454
Included Lab Sample IDs: 1883734

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

Reference Method: EPA 8321B
Run ID: A75457
Included Lab Sample IDs: 1883741

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	89.5	102	P/P	60 - 150

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A75458
Included Lab Sample IDs: 1883735

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	106	107	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A75489

Included Lab Sample IDs: 1883735

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	98.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A75520

Included Lab Sample IDs: 1883735

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.0	98.5	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A75529

Included Lab Sample IDs: 1883741

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4,5-T	89.0	91.8	P/P	50 - 150
2,4-D	111	119	P/P	50 - 150
Acifluorfen	122	108	P/P	50 - 150
Bentazon	95.2	102	P/P	50 - 150
Silvex	107	103	P/P	50 - 150

Reference Method: SM 2320 B-97

Run ID: A75542

Included Lab Sample IDs: 1883734

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

Reference Method: SM 4500 F-C-97

Run ID: A75542

Included Lab Sample IDs: 1883734

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.5	102	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A75606

Included Lab Sample IDs: 1883741

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	127	121	P/P	60 - 150
Carbamazepine	143	143	P/P	60 - 150
Diuron	109	125	P/P	60 - 150
Fenuron	111	112	P/P	60 - 150
Fluridone	104	107	P/P	60 - 150
Imidacloprid	110	100	P/P	60 - 150
Linuron	148	108	P/P	60 - 150
Primidone	111	116	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		LCS	Precision	MS
						SMP	
EPA 180.1 Rev. 2.0	Turbidity					0.0	
EPA 350.1 Rev. 2.0	Ammonia-N	100	108	106			0.811
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.0	99.2	99.1			0.0360
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102	104	102			1.46
EPA 365.1 Rev. 2.0	Total-P	103	108	107			0.232
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	95.9	97.0			1.04
EPA 8321B	Sucralose	94.3	100	107			6.76
SM 2320 B-97	Total Alkalinity	103				0.199	
SM 4500 F-C-97	Fluoride	96.4	94.3	96.7			1.47
SM 5310 B-00	Organic Carbon	98.0	96.3	97.1			0.796
USGS O-2060-01	2,4,5-T	86.4	114	101			11.9
	2,4-D	105	156	122			22.1
	Acetaminophen	66.4	80.4	76.8			4.58
	Acifluorfen	68.8	120	118			1.01
	Bentazon	125					8.87
	Carbamazepine	111	59.6	50.8			15.6
	Diuron	78.4	47.2	48.4			2.51
	Fenuron	85.2	52.0	47.2			9.68
	Fluridone	78.0	40.8	48.8			12.4
	Imidacloprid	83.6	109	94.8			14.1
	Linuron	82.8	54.4	80.4			38.6
	Primidone	86.0	60.0	66.4			10.1
	Silvex	122	168	151			10.6

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1883734
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1883735
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1883735
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1883735
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1883735
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1883736
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1883741
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1883734
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1883734
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1883734
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1883735
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1883741
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1883741

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	03/28/2017			03/28/2017 16:08	Blanca Fach	1883734
EPA 350.1 Rev. 2.0	03/28/2017			03/29/2017	Julie Michelle Frank	1883735
EPA 351.2 Rev. 2.0	03/28/2017	03/30/2017	Adrian Shelby	03/31/2017	Joseph Suarez	1883735
EPA 353.2 Rev. 2.0	03/28/2017			04/03/2017	Beverly Y. Sanders	1883735
EPA 365.1 Rev. 2.0	03/28/2017	03/29/2017	Vijayalakshmi Reddy	03/30/2017	Christopher Armour	1883735
EPA 365.1 Rev. 2.0 dissolved	03/28/2017			03/28/2017 16:37	Virginia P. Brown	1883736
EPA 8321B	03/28/2017	03/29/2017	Mohammad Ghaffari	03/29/2017	Mohammad Ghaffari	1883741
SM 2320 B-97	03/28/2017			03/30/2017	Dale L. Simmons	1883734
SM 2540 D-97	03/28/2017			03/30/2017	Sima Feizi	1883734
SM 4500 F-C-97	03/28/2017			03/30/2017	Dale L. Simmons	1883734
SM 5310 B-00	03/28/2017			03/29/2017	Julie Michelle Frank	1883735
USGS O-2060-01	03/28/2017	03/29/2017	Hoor Shaik	03/30/2017	Juyoung Kim	1883741
	03/28/2017	03/29/2017	Hoor Shaik	04/02/2017	Juyoung Kim	1883741