

Chemical Analysis Report

NE-DIST-2017-11-21-01

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

Event Description: **LSJR North**
Request ID: **RQ-2017-11-20-08**
Customer: **NE-DIST**
Project ID: **SMP**

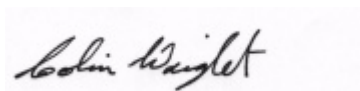
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This Report replaces the previous Report Serial Number: 0100922

Revision certified by: Colin Wright, Program Administrator

Date Certified: 22-MAR-2018 08:55

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

Report Comments:

Collection time was corrected from 09:30 to 09:35 at the request of the customer.

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: Trout River @ US 17

Collection Date/Time: 11/20/2017 09:35

Field ID: G2NE0123

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1947978	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P335795	
	SM 2320 B-97	Total Alkalinity	58		mg CaCO3/L	P336242	
	SM 2540 D-97	TSS	17		mg/L	P336298	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P336246	
1947979	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P336337	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P336179	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.42		mg N/L	P336039	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P336068	
	SM 5310 B-00	Organic Carbon	25		mg C/L	P336197	
1947980	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.097		mg P/L	P335744	
1947984	EPA 8321B	Sucralose**	0.80		ug/L	P335805	
	USGS O-2060-01	2,4-D	0.011	Q	ug/L	P336263	
		Diuron	0.0055		ug/L	P335693	
		Fenuron	0.0080	U	ug/L	P335693	
		Imidacloprid	0.0061		ug/L	P335693	MS
		Bentazon	0.0086	Q	ug/L	P336263	
		Linuron	0.0040	U	ug/L	P335693	
		Acetaminophen**	0.0080	U	ug/L	P335693	
		MCP	0.0020	UQ	ug/L	P336263	
		Carbamazepine**	7.6E-04	I	ug/L	P335693	
		Triclopyr**	0.0040	UQ	ug/L	P336263	
		Primidone**	0.0040	U	ug/L	P335693	
		Fluridone**	0.0039		ug/L	P335693	

Ref. Method and Comment:

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

USGS O-2060-01: Sample required re-extraction beyond normal holding time due to reagent performance inconsistencies.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P335795

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P336337

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P336179

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P336039

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P336068

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P335744

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

Reference Method: EPA 8321B
Batch ID: P335805

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2320 B-97
Batch ID: P336242

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

Reference Method: SM 2540 D-97
Batch ID: P336298

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P336246

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P336197

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

Reference Method: USGS O-2060-01
Batch ID: P335693

Component	Result	Code	Units
Acetaminophen	0.0080	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	8.0E-04	U	ug/L
Fenuron	0.0080	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: USGS O-2060-01
Batch ID: P335693

Component	Result	Code	Units
Fluridone	4.0E-04	U	ug/L
Imidacloprid	8.0E-04	U	ug/L
Linuron	0.0040	U	ug/L
Primidone	0.0040	U	ug/L

Reference Method: USGS O-2060-01
Batch ID: P336263

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
MCPP	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P336337

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336179

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P336039

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P336068

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: P335744

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

Reference Method: EPA 8321B
Batch ID: P335805

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

Reference Method: EPA 8321B
Batch ID: P335805

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	73.8		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P336242

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

Reference Method: SM 4500 F-C-97
Batch ID: P336246

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.5		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P336197

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	101		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P335693

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetaminophen	105		P	30 - 150
Carbamazepine	100		P	40 - 150
Diuron	114		P	40 - 150
Fenuron	103		P	40 - 150
Fluridone	101		P	40 - 150
Imidacloprid	90.7		P	40 - 160
Linuron	102		P	40 - 150
Primidone	88.9		P	40 - 150

Reference Method: USGS O-2060-01
Batch ID: P336263

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	113		P	40 - 150
Bentazon	83.2		P	30 - 150
MCP	111		P	40 - 150
Triclopyr	107		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P336337

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1947979	Ammonia-N	102	103	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336179

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1948019	Kjeldahl Nitrogen	101	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P336039

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1947908	NO2NO3-N	106	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P336068

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1948021	Total-P	100	99.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P335744

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1947819	O-Phosphate-P	101	97.0	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P335805

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1947930	Sucralose	107	115	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P336246

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1948163	Fluoride	98.3	101	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P336197

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1947934	Organic Carbon	96.7	98.0	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P335693

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1947629	Acetaminophen	99.0	107	P/P	30 - 150
1947629	Carbamazepine	71.7	72.7	P/P	40 - 150
1947629	Diuron	75.2	76.1	P/P	40 - 150
1947629	Fenuron	72.1	69.1	P/P	40 - 150
1947629	Fluridone	87.6	89.9	P/P	40 - 150
1947629	Imidacloprid	178	182	F/F	40 - 160
1947629	Linuron	89.7	89.4	P/P	40 - 150
1947629	Primidone	80.4	82.4	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P336263

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1947129	2,4-D	75.9	83.8	P/P	40 - 150
1947129	Bentazon	49.7	57.0	P/P	30 - 150
1947129	MCP	64.8	68.5	P/P	40 - 150
1947129	Triclopyr	54.0	68.8	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P335795

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1947907	Turbidity	3.54	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P336337

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1947979	Ammonia-N	0.889	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336179

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1948019	Kjeldahl Nitrogen	2.90	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P336039

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1947908	NO2NO3-N	1.61	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P336068

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1948021	Total-P	0.740	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P335744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1947819	O-Phosphate-P	3.84	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P335805

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1947930	Sucralose	6.99	Spike	P	0 - 30

Reference Method: SM 2320 B-97
Batch ID: P336242

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1948163	Total Alkalinity	0.0237	Sample	P	0 - 4.8

Reference Method: SM 4500 F-C-97
Batch ID: P336246

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1948163	Fluoride	1.42	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P336197

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1947934	Organic Carbon	0.944	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P335693

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1947629	Acetaminophen	7.80	Spike	P	0 - 30
1947629	Carbamazepine	1.45	Spike	P	0 - 30
1947629	Diuron	1.20	Spike	P	0 - 30
1947629	Fenuron	4.24	Spike	P	0 - 30
1947629	Fluridone	2.62	Spike	P	0 - 30
1947629	Imidacloprid	1.82	Spike	P	0 - 30
1947629	Linuron	0.279	Spike	P	0 - 30
1947629	Primidone	2.47	Spike	P	0 - 30

Reference Method: USGS O-2060-01
Batch ID: P336263

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1947129	2,4-D	9.89	Spike	P	0 - 30
1947129	Bentazon	13.7	Spike	P	0 - 30
1947129	MCP	5.52	Spike	P	0 - 30
1947129	Triclopyr	24.0	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: 1947984
Field Sample ID: G2NE0123

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	155	P	30 - 160
EPA 8321B	Carbamazepine-d10	89.5	P	30 - 160
EPA 8321B	Diuron-d6	71.1	P	30 - 160
EPA 8321B	Primidone-d5	83.0	P	30 - 160
EPA 8321B	Sucralose-d6	158	P	40 - 160
USGS O-2060-01	2,4-D-d3	74.8	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	155	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	89.5	P	30 - 160
USGS O-2060-01	Diuron-d6	71.1	P	30 - 160
USGS O-2060-01	Primidone-d5	83.0	P	30 - 160
USGS O-2060-01	Sucralose-d6	158	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A80443
Included Lab Sample IDs: 1947980

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.4	99.6	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A80463
Included Lab Sample IDs: 1947978

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

Reference Method: USGS O-2060-01
Run ID: A80505
Included Lab Sample IDs: 1947984

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	111	111	P/P	60 - 150
Carbamazepine	108	106	P/P	60 - 150
Diuron	114	116	P/P	60 - 150
Fenuron	106	109	P/P	60 - 150
Fluridone	114	113	P/P	60 - 160
Imidacloprid	96.5	99.0	P/P	60 - 150
Linuron	105	112	P/P	60 - 150
Primidone	96.8	107	P/P	60 - 150

Reference Method: EPA 8321B
Run ID: A80568
Included Lab Sample IDs: 1947984

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	102	123	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A80575

Included Lab Sample IDs: 1947979

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A80605

Included Lab Sample IDs: 1947979

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

Reference Method: SM 5310 B-00

Run ID: A80633

Included Lab Sample IDs: 1947979

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	99.7	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A80654

Included Lab Sample IDs: 1947978

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.6	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A80654

Included Lab Sample IDs: 1947978

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

Reference Method: USGS O-2060-01

Run ID: A80693

Included Lab Sample IDs: 1947984

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	91.6	94.2	P/P	50 - 150
Bentazon	102	104	P/P	50 - 150
MCP	95.4	100	P/P	50 - 150
Triclopyr	93.3	93.0	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A80695

Included Lab Sample IDs: 1947979

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.7	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A80699

Included Lab Sample IDs: 1947979

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.7	94.6	P/P	90 - 110

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity				3.54	
EPA 350.1 Rev. 2.0	Ammonia-N	104	102 103			0.889
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.6	101 105			2.90
EPA 353.2 Rev. 2.0	NO2NO3-N	104	106 104			1.61
EPA 365.1 Rev. 2.0	Total-P	101	100 99.7			0.740
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	101 97.0			3.84
EPA 8321B	Sucralose	73.8	107 115			6.99
SM 2320 B-97	Total Alkalinity	102			0.0237	
SM 4500 F-C-97	Fluoride	99.5	98.3 101			1.42
SM 5310 B-00	Organic Carbon	101	96.7 98.0			0.944
USGS O-2060-01	2,4-D	113	75.9 83.8			9.89
	Acetaminophen	105	99.0 107			7.80
	Bentazon	83.2	49.7 57.0			13.7
	Carbamazepine	100	71.7 72.7			1.45
	Diuron	114	75.2 76.1			1.20
	Fenuron	103	72.1 69.1			4.24
	Fluridone	101	87.6 89.9			2.62
	Imidacloprid	90.7	178 182			1.82
	Linuron	102	89.7 89.4			0.279
	MCP	111	64.8 68.5			5.52
	Primidone	88.9	80.4 82.4			2.47
	Triclopyr	107	54.0 68.8			24.0

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1947978
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1947979
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1947979
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1947979
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1947979
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1947980
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1947984
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1947978

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1947978
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1947978
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1947979
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1947984
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1947984

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	11/21/2017			11/21/2017 16:18	DeAsia Armster	1947978
EPA 350.1 Rev. 2.0	11/21/2017			12/04/2017	Sofia Elnemr	1947979
EPA 351.2 Rev. 2.0	11/21/2017	12/01/2017	Adrian Shelby	12/04/2017	Joseph Suarez	1947979
EPA 353.2 Rev. 2.0	11/21/2017			11/29/2017	Beverly Y. Sanders	1947979
EPA 365.1 Rev. 2.0	11/21/2017	11/29/2017	Sima Feizi	11/30/2017	Lipi Saha	1947979
EPA 365.1 Rev. 2.0 dissolved	11/21/2017			11/21/2017 15:07	Megan Treadwell	1947980
EPA 8321B	11/21/2017	11/28/2017	Juyoung Kim	11/29/2017	Juyoung Kim	1947984
SM 2320 B-97	11/21/2017			12/02/2017	Dale L. Simmons	1947978
SM 2540 D-97	11/21/2017			11/25/2017	Yijie Li	1947978
SM 4500 F-C-97	11/21/2017			12/02/2017	Dale L. Simmons	1947978
SM 5310 B-00	11/21/2017			11/29/2017	Ping Hua	1947979
USGS O-2060-01	11/21/2017	11/22/2017	Hoor Shaik	11/24/2017	Julie Michelle Frank	1947984
	11/21/2017	12/04/2017	Hoor Shaik	12/05/2017	Julie Michelle Frank	1947984