

Chemical Analysis Report

SW-DIST-2018-02-21-01

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

Event Description: **WOLF SIMS Mckay Rice**

Request ID: **RQ-2018-02-19-13**

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

Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 14-MAR-2018 13:22



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: Wolf Branch Canal @ Manns Harbor Dr Boat Lift

Collection Date/Time: 02/20/2018 10:47

Field ID: G1SW0092

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1969164	EPA 180.1 Rev. 2.0	Turbidity	2.4		NTU	P340363	
	SM 2320 B-97	Total Alkalinity	117		mg CaCO3/L	P340617	
	SM 2540 D-97	TSS	4	I	mg/L	P340557	
	SM 4500 F-C-97	Fluoride	1.0		mg F/L	P340619	
1969167	EPA 350.1 Rev. 2.0	Ammonia-N	0.085		mg N/L	P340681	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.68		mg N/L	P340511	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.026		mg N/L	P340658	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P340516	
	SM 5310 B-00	Organic Carbon	5.1		mg C/L	P340502	
1969170	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.14		mg P/L	P340389	

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Wolf Branch Canal @ Manns Harbor Dr Boat Lift

Collection Date/Time: 02/20/2018 10:47

Field ID: G1SW0092

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1969190	EPA 8321B	2,4-D	0.0027	I	ug/L	P340165	
		Sucralose**	0.77		ug/L	P340390	
		Bentazon	0.0062		ug/L	P340165	
		MCP	0.0020	U	ug/L	P340165	MS
		Triclopyr**	0.0040	U	ug/L	P340165	
		Imidacloprid	0.0034	I	ug/L	P340165	
		Diuron	0.0020	I	ug/L	P340165	
		Primidone**	0.0040	U	ug/L	P340165	
		Linuron	0.0040	U	ug/L	P340165	
		Acetaminophen**	0.0080	U	ug/L	P340165	
		Fenuron	0.0080	U	ug/L	P340165	
		Imazapyr**	0.0063	I	ug/L	P340165	MS
		Carbamazepine**	0.0017		ug/L	P340165	
		Fluridone**	0.017		ug/L	P340165	

Sample Location: Rice @ Balm Rvreview

Collection Date/Time: 02/20/2018 11:30

Field ID: G2SW0032

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1969191	EPA 8321B	2,4-D	0.0033	I	ug/L	P340165	
		Sucralose**	2.1		ug/L	P340390	
		Bentazon	0.055		ug/L	P340165	
		MCP	0.0020	U	ug/L	P340165	MS
		Triclopyr**	0.0040	U	ug/L	P340165	
		Imidacloprid	0.031		ug/L	P340165	

Field ID: G2SW0032

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1969191	EPA 8321B	Diuron	0.053		ug/L	P340165	
		Primidone**	0.026		ug/L	P340165	
		Linuron	0.0040	U	ug/L	P340165	
		Acetaminophen**	0.0080	U	ug/L	P340165	
		Fenuron	0.045		ug/L	P340165	
		Imazapyr**	0.15		ug/L	P340165	MS
		Carbamazepine**	0.0072		ug/L	P340165	
		Fluridone**	0.0054		ug/L	P340165	

Sample Location: Biggest flowing Ditch @ 45th

Collection Date/Time: 02/20/2018 09:23

Field ID: G1SW0093

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1969165	EPA 180.1 Rev. 2.0	Turbidity	2.4		NTU	P340363	
	SM 2320 B-97	Total Alkalinity	306		mg CaCO3/L	P340875	
	SM 2540 D-97	TSS	2	U	mg/L	P340555	
	SM 4500 F-C-97	Fluoride	0.26		mg F/L	P341122	
1969168	EPA 350.1 Rev. 2.0	Ammonia-N	0.74		mg N/L	P340858	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.8		mg N/L	P340510	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.84		mg N/L	P340584	
	EPA 365.1 Rev. 2.0	Total-P	0.25		mg P/L	P340561	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P340642	
1969171	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.20		mg P/L	P340387	

Ref. Method and Comment:

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Sims Branch @ Port Redwing

Collection Date/Time: 02/20/2018 10:05

Field ID: G1SW0056

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1969166	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P340363	
	SM 2320 B-97	Total Alkalinity	125		mg CaCO3/L	P340617	
	SM 2540 D-97	TSS	6	IA	mg/L	P340557	
	SM 4500 F-C-97	Fluoride	1.0		mg F/L	P340619	
1969169	EPA 350.1 Rev. 2.0	Ammonia-N	0.055		mg N/L	P340681	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.54		mg N/L	P340511	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.18		mg N/L	P340664	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P340516	
	SM 5310 B-00	Organic Carbon	4.2		mg C/L	P340502	
1969172	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.13		mg P/L	P340389	

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Sims Branch @ Port Redwing

Collection Date/Time: 02/20/2018 10:05

Field ID: G1SW0056

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1969192	EPA 8321B	2,4-D	0.0034	I	ug/L	P340165	
		Sucralose**	7.1		ug/L	P340390	
		Bentazon	0.0016	I	ug/L	P340165	
		MCP	0.0020	U	ug/L	P340165	MS
		Triclopyr**	0.0040	U	ug/L	P340165	
		Imidacloprid	0.0099		ug/L	P340165	
		Diuron	0.0041	I	ug/L	P340165	
		Primidone**	0.041		ug/L	P340165	
		Linuron	0.0040	U	ug/L	P340165	
		Acetaminophen**	0.0080	U	ug/L	P340165	
		Fenuron	0.0080	U	ug/L	P340165	
		Imazapyr**	0.0040	U	ug/L	P340165	MS
		Carbamazepine**	0.031		ug/L	P340165	
		Fluridone**	0.0019	I	ug/L	P340165	

Sample Location: Biggest flowing Ditch @ 45th

Collection Date/Time: 02/20/2018 09:23

Field ID: G1SW0093

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1969345	EPA 8321B	2,4-D	0.0020	U	ug/L	P340347	
		Sucralose**	2.1		ug/L	P340390	
		Bentazon	0.020		ug/L	P340347	MS
		MCP	0.0035	I	ug/L	P340347	MS
		Triclopyr**	0.0040	U	ug/L	P340347	
		Imidacloprid	0.018		ug/L	P340347	
		Diuron	0.0020	U	ug/L	P340347	
		Primidone**	0.0040	U	ug/L	P340347	
		Linuron	0.0040	U	ug/L	P340347	
		Acetaminophen**	0.0080	U	ug/L	P340347	
		Fenuron	0.0080	U	ug/L	P340347	
		Imazapyr**	0.024		ug/L	P340347	
		Carbamazepine**	0.0062		ug/L	P340347	
		Fluridone**	8.0E-04	U	ug/L	P340347	

Ref. Method and Comment:
EPA 8321B: Fenuron was detected in the method blank slightly above the MDL.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P340363

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340681

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340858

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340510

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340511

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340584

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340658

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340664

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340516

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340561

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340387

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340389

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

Reference Method: EPA 8321B
Batch ID: P340165

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	0.0080	U	ug/L
Fluridone	8.0E-04	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
Primidone	0.0040	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P340347

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	0.023	I	ug/L
Fluridone	8.0E-04	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
Primidone	0.0040	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P340390

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P340617

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

Reference Method: SM 2320 B-97
Batch ID: P340875

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

Reference Method: SM 2540 D-97
Batch ID: P340555

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P340557

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P340619

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P341122

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P340502

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

Reference Method: SM 5310 B-00
Batch ID: P340642

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340681

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340681

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340858

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: P340510

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340511

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340584

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340658

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340664

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: P340516

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340561

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340387

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340389

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.6		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P340165

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	76.9		P	40 - 150
Acetaminophen	101		P	30 - 150
Bentazon	123		P	30 - 150
Carbamazepine	89.2		P	40 - 150
Diuron	82.2		P	40 - 150
Fenuron	111		P	40 - 150
Fluridone	81.9		P	40 - 150
Imazapyr	76.8		P	40 - 150
Imidacloprid	94.8		P	40 - 160
Linuron	86.0		P	40 - 150
MCP	69.9		P	40 - 150
Primidone	91.2		P	40 - 150
Triclopyr	76.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P340347

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	70.4		P	40 - 150
Acetaminophen	94.7		P	30 - 150
Bentazon	87.0		P	30 - 150
Carbamazepine	113		P	40 - 150
Diuron	63.0		P	40 - 150
Fenuron	96.6		P	40 - 150
Fluridone	68.5		P	40 - 150
Imazapyr	64.2		P	40 - 150
Imidacloprid	90.7		P	40 - 160
Linuron	70.8		P	40 - 150
MCP	80.1		P	40 - 150
Primidone	86.2		P	40 - 150
Triclopyr	67.3		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P340390

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	108		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P340617

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	95 - 108

Reference Method: SM 2320 B-97
Batch ID: P340875

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P340619

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	93.8		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P341122

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.7		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P340502

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.6		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P340642

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	93.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340681

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968367	Ammonia-N	102	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340858

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969144	Ammonia-N	97.1	99.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340510

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340510

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969215	Kjeldahl Nitrogen	110	111	P/F	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340511

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969209	Kjeldahl Nitrogen	109	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340584

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969150	NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340658

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1967162	NO2NO3-N	103	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340664

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969169	NO2NO3-N	104	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340516

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969063	Total-P	92.0	92.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340561

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969207	Total-P	94.4	97.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340387

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969089	O-Phosphate-P	92.2	93.7	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P340165

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968488	2,4-D	51.0	56.1	P/P	40 - 150
1968488	Acetaminophen	130	108	P/P	30 - 150
1968488	Bentazon	32.0	34.0	P/P	30 - 150
1968488	Carbamazepine	82.7	75.0	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P340165

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968488	Diuron	72.2	60.7	P/P	40 - 150
1968488	Fenuron	86.5	75.9	P/P	40 - 150
1968488	Fluridone	66.8	53.7	P/P	40 - 150
1968488	Imazapyr	20.3	20.7	F/F	40 - 150
1968488	Imidacloprid	144	127	P/P	40 - 160
1968488	Linuron	88.8	63.2	P/P	40 - 150
1968488	MCP	36.5	39.1	F/F	40 - 150
1968488	Primidone	87.0	75.9	P/P	40 - 150
1968488	Triclopyr	43.9	47.9	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P340347

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969261	2,4-D	43.7	45.9	P/P	40 - 150
1969261	Acetaminophen	120	131	P/P	30 - 150
1969261	Bentazon	16.2	14.8	F/F	30 - 150
1969261	Carbamazepine	112	109	P/P	40 - 150
1969261	Diuron	60.2	62.6	P/P	40 - 150
1969261	Fenuron	96.7	92.8	P/P	40 - 150
1969261	Fluridone	64.2	66.3	P/P	40 - 150
1969261	Imazapyr	81.0	81.0	P/P	40 - 150
1969261	Imidacloprid	138	156	P/P	40 - 160
1969261	Linuron	73.4	76.2	P/P	40 - 150
1969261	MCP	37.1	36.9	F/F	40 - 150
1969261	Primidone	108	131	P/P	40 - 150
1969261	Triclopyr	46.0	46.8	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P340390

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968751	Sucralose	117	118	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P340619

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968447	Fluoride	98.4	94.4	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P340502

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1967992	Organic Carbon	101	100	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P340642

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969005	Organic Carbon	95.1	97.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P340363

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969135	Turbidity	4.03	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340681

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968367	Ammonia-N	0.0708	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340858

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969144	Ammonia-N	1.53	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340510

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969215	Kjeldahl Nitrogen	0.878	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340511

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969209	Kjeldahl Nitrogen	3.37	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340584

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969150	NO2NO3-N	0.432	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340658

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1967162	NO2NO3-N	0.966	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340664

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969169	NO2NO3-N	1.02	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340516

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969063	Total-P	0.348	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340561

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969207	Total-P	2.45	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340387

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969089	O-Phosphate-P	1.48	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340389

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969170	O-Phosphate-P	0.298	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P340165

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968488	2,4-D	8.17	Spike	P	0 - 30
1968488	Acetaminophen	18.1	Spike	P	0 - 30
1968488	Bentazon	5.30	Spike	P	0 - 30
1968488	Carbamazepine	9.60	Spike	P	0 - 30
1968488	Diuron	11.7	Spike	P	0 - 30
1968488	Fenuron	13.0	Spike	P	0 - 30
1968488	Fluridone	20.4	Spike	P	0 - 30
1968488	Imazapyr	0.614	Spike	P	0 - 30
1968488	Imidacloprid	8.00	Spike	P	0 - 30
1968488	Linuron	22.8	Spike	P	0 - 30
1968488	MCP	6.91	Spike	P	0 - 30
1968488	Primidone	13.6	Spike	P	0 - 30
1968488	Triclopyr	8.78	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P340347

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969261	2,4-D	3.38	Spike	P	0 - 30
1969261	Acetaminophen	8.04	Spike	P	0 - 30
1969261	Bentazon	3.35	Spike	P	0 - 30
1969261	Carbamazepine	2.97	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P340347

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969261	Diuron	3.91	Spike	P	0 - 30
1969261	Fenuron	0.416	Spike	P	0 - 30
1969261	Fluridone	3.16	Spike	P	0 - 30
1969261	Imazapyr	5.38	Spike	P	0 - 30
1969261	Imidacloprid	9.78	Spike	P	0 - 30
1969261	Linuron	3.70	Spike	P	0 - 30
1969261	MCP	0.532	Spike	P	0 - 30
1969261	Primidone	18.8	Spike	P	0 - 30
1969261	Triclopyr	1.83	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P340390

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968751	Sucralose	0.439	Spike	P	0 - 30

Reference Method: SM 2320 B-97
Batch ID: P340617

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968447	Total Alkalinity	0.113	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P340875

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969661	Total Alkalinity	0.0134	Sample	P	0 - 4.8

Reference Method: SM 4500 F-C-97
Batch ID: P340619

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968447	Fluoride	2.90	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P341122

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969250	Fluoride	0.926	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P340502

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1967992	Organic Carbon	0.670	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P340642

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969005	Organic Carbon	1.67	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: 1969190
Field Sample ID: G1SW0092

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	38.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	126	P	30 - 160
EPA 8321B	Carbamazepine-d10	107	P	30 - 160
EPA 8321B	Diuron-d6	91.5	P	30 - 160
EPA 8321B	Primidone-d5	109	P	30 - 160
EPA 8321B	Sucralose-d6	82.7	P	40 - 160

Lab Sample ID: 1969191
Field Sample ID: G2SW0032

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	57.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	130	P	30 - 160
EPA 8321B	Carbamazepine-d10	104	P	30 - 160
EPA 8321B	Diuron-d6	81.8	P	30 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Sucralose-d6	116	P	40 - 160

Lab Sample ID: 1969192
Field Sample ID: G1SW0056

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	38.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	115	P	30 - 160
EPA 8321B	Carbamazepine-d10	98.0	P	30 - 160
EPA 8321B	Diuron-d6	80.4	P	30 - 160
EPA 8321B	Primidone-d5	104	P	30 - 160
EPA 8321B	Sucralose-d6	81.2	P	40 - 160

Lab Sample ID: 1969345
Field Sample ID: G1SW0093

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	46.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	142	P	30 - 160
EPA 8321B	Carbamazepine-d10	79.1	P	30 - 160
EPA 8321B	Diuron-d6	55.0	P	30 - 160
EPA 8321B	Primidone-d5	90.2	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1969345
Field Sample ID: G1SW0093

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	129	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A82216
Included Lab Sample IDs: 1969164, 1969165, 1969166

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A82222
Included Lab Sample IDs: 1969170, 1969171, 1969172

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	101	P/P	90 - 110
O-Phosphate-P	101	100	P/P	90 - 110
O-Phosphate-P	101	99.8	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A82257
Included Lab Sample IDs: 1969167, 1969169

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A82271
Included Lab Sample IDs: 1969167, 1969169

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

Reference Method: EPA 8321B
Run ID: A82285
Included Lab Sample IDs: 1969190, 1969191, 1969192

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	96.4	94.1	P/P	50 - 150
Acetaminophen	107	117	P/P	60 - 150
Bentazon	130	109	P/P	50 - 150
Carbamazepine	124	94.4	P/P	60 - 150
Diuron	134	129	P/P	60 - 150
Fenuron	121	119	P/P	60 - 150
Fluridone	121	123	P/P	60 - 160
Imazapyr	84.1	92.4	P/P	50 - 150
Imidacloprid	111	111	P/P	60 - 150
Linuron	121	121	P/P	60 - 150
MCPP	101	86.0	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A82285

Included Lab Sample IDs: 1969190, 1969191, 1969192

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Primidone	116	111	P/P	60 - 150
Triclopyr	104	94.1	P/P	50 - 150

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A82286

Included Lab Sample IDs: 1969168

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.5	99.5	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A82295

Included Lab Sample IDs: 1969164, 1969166

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	97.7	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A82295

Included Lab Sample IDs: 1969164, 1969166

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	96.6	97.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82296

Included Lab Sample IDs: 1969168

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

Reference Method: SM 5310 B-00

Run ID: A82308

Included Lab Sample IDs: 1969168

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.4	96.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A82310

Included Lab Sample IDs: 1969167, 1969168, 1969169

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	107	109	P/P	90 - 110
Kjeldahl Nitrogen	109	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A82314

Included Lab Sample IDs: 1969167, 1969169

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A82314

Included Lab Sample IDs: 1969167, 1969169

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	100	P/P	90 - 110
NO2NO3-N	99.0	99.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A82317

Included Lab Sample IDs: 1969167, 1969169

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

Reference Method: EPA 8321B

Run ID: A82357

Included Lab Sample IDs: 1969345

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	92.1	96.9	P/P	50 - 150
Acetaminophen	109	112	P/P	60 - 150
Bentazon	94.5	112	P/P	50 - 150
Carbamazepine	114	131	P/P	60 - 150
Diuron	93.4	102	P/P	60 - 150
Fenuron	108	108	P/P	60 - 150
Fluridone	105	107	P/P	60 - 160
Imazapyr	94.1	119	P/P	50 - 150
Imidacloprid	95.7	106	P/P	60 - 150
Linuron	103	107	P/P	60 - 150
MCPP	99.7	83.4	P/P	50 - 150
Primidone	97.4	97.7	P/P	60 - 150
Triclopyr	105	99.4	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A82391

Included Lab Sample IDs: 1969168

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

Reference Method: SM 2320 B-97

Run ID: A82400

Included Lab Sample IDs: 1969165

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	99.1	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A82414

Included Lab Sample IDs: 1969190, 1969191, 1969192, 1969345

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	102	106	P/P	60 - 150
Sucralose	106	103	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97

Run ID: A82484

Included Lab Sample IDs: 1969165

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.2	100	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				4.03	
EPA 350.1 Rev. 2.0	Ammonia-N	98.4	102 102			0.0708
	Ammonia-N	100	97.1 99.1			1.53
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	108	110 111			0.878
	Kjeldahl Nitrogen	109	109 104			3.37
EPA 353.2 Rev. 2.0	NO2NO3-N	102	100 101			0.432
	NO2NO3-N	103	103 104			0.966
	NO2NO3-N	104	104 106			1.02
EPA 365.1 Rev. 2.0	Total-P	101	92.0 92.3			0.348
	Total-P	99.6	94.4 97.7			2.45
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.5	92.2 93.7			1.48
	O-Phosphate-P	98.6				0.298
EPA 8321B	2,4-D	76.9	51.0 56.1			8.17
	2,4-D	70.4	43.7 45.9			3.38
	Acetaminophen	101	130 108			18.1
	Acetaminophen	94.7	120 131			8.04
	Bentazon	123	32.0 34.0			5.30
	Bentazon	87.0	16.2 14.8			3.35
	Carbamazepine	89.2	82.7 75.0			9.60
	Carbamazepine	113	112 109			2.97
	Diuron	82.2	72.2 60.7			11.7
	Diuron	63.0	60.2 62.6			3.91
	Fenuron	111	86.5 75.9			13.0
	Fenuron	96.6	96.7 92.8			0.416
	Fluridone	81.9	66.8 53.7			20.4
	Fluridone	68.5	64.2 66.3			3.16
	Imazapyr	76.8	20.3 20.7			0.614
	Imazapyr	64.2	81.0 81.0			5.38
	Imidacloprid	94.8	144 127			8.00
	Imidacloprid	90.7	138 156			9.78
	Linuron	86.0	88.8 63.2			22.8
	Linuron	70.8	73.4 76.2			3.70
	MCPP	69.9	36.5 39.1			6.91
	MCPP	80.1	37.1 36.9			0.532
	Primidone	91.2	87.0 75.9			13.6
	Primidone	86.2	108 131			18.8
	Sucralose	108	117 118			0.439
	Triclopyr	76.0	43.9 47.9			8.78
	Triclopyr	67.3	46.0 46.8			1.83

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
SM 2320 B-97	Total Alkalinity	101				0.113	
	Total Alkalinity	100				0.0134	
SM 4500 F-C-97	Fluoride	93.8	98.4	94.4			2.90
	Fluoride	94.7					0.926
SM 5310 B-00	Organic Carbon	99.6	101	100			0.670
	Organic Carbon	93.8	95.1	97.1			1.67

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1969164, 1969165, 1969166
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1969167, 1969168, 1969169
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1969167, 1969168, 1969169
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1969167, 1969168, 1969169
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1969167, 1969168, 1969169
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1969170, 1969171, 1969172
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1969190, 1969191, 1969192, 1969345
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1969190, 1969191, 1969192, 1969345
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1969164, 1969165, 1969166
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1969164, 1969165, 1969166
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1969164, 1969165, 1969166
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1969167, 1969168, 1969169

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	02/21/2018			02/21/2018 15:50	Sima Feizi	1969164, 1969165, 1969166
EPA 350.1 Rev. 2.0	02/21/2018			02/27/2018	Ping Hua	1969167, 1969169
	02/21/2018			03/01/2018	Ping Hua	1969168
EPA 351.2 Rev. 2.0	02/21/2018	02/23/2018	Adrian Shelby	02/27/2018	Joseph Suarez	1969167, 1969168, 1969169
EPA 353.2 Rev. 2.0	02/21/2018			02/26/2018	Lauren Bottorf	1969168
	02/21/2018			02/27/2018	Lauren Bottorf	1969167, 1969169
EPA 365.1 Rev. 2.0	02/21/2018	02/23/2018	Sima Feizi	02/26/2018	Beverly Y. Sanders	1969167, 1969169
	02/21/2018	02/26/2018	Sima Feizi	02/27/2018	Beverly Y. Sanders	1969168
EPA 365.1 Rev. 2.0 dissolved	02/21/2018			02/21/2018 15:26	Megan Treadwell	1969170
	02/21/2018			02/21/2018 15:38	Megan Treadwell	1969172
	02/21/2018			02/21/2018 15:50	Megan Treadwell	1969171
EPA 8321B	02/21/2018	02/21/2018	Hoor Shaik	02/23/2018	Julie Michelle Frank	1969190, 1969191, 1969192
	02/21/2018	02/21/2018	Hoor Shaik	02/24/2018	Julie Michelle Frank	1969190, 1969191, 1969192
	02/21/2018	02/22/2018	Hoor Shaik	02/28/2018	Julie Michelle Frank	1969345
	02/21/2018	02/22/2018	Julie Michelle Frank	03/02/2018	Juyoung Kim	1969190, 1969191, 1969192, 1969345
SM 2320 B-97	02/21/2018			02/27/2018	Dale L. Simmons	1969164, 1969166
	02/21/2018			03/02/2018	Lauren Bottorf	1969165
SM 2540 D-97	02/21/2018			02/23/2018	DeAsia Armster	1969164, 1969165, 1969166
SM 4500 F-C-97	02/21/2018			02/27/2018	Dale L. Simmons	1969164, 1969166
	02/21/2018			03/07/2018	Dale L. Simmons	1969165
SM 5310 B-00	02/21/2018			02/23/2018	Megan Treadwell	1969167, 1969169
	02/21/2018			02/26/2018	Megan Treadwell	1969168