

Chemical Analysis Report

WQAP-2017-11-09-01

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

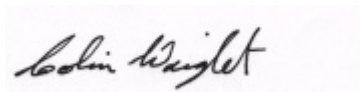
Event Description: **Yucca & 3 Alligators**
Request ID: **RQ-2017-11-13-05**
Customer: **WQAP**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2295 Victoria Ave.
Suite 364
Fort Myers, FL 33901
Attn: Ben Paswater

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Certified by: Colin Wright, Program Administrator

Date Certified: 05-DEC-2017 13:36

A handwritten signature in black ink, appearing to read "Colin Wright", is written over a light gray 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: Metals, 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: Alligator Creek North Prong above CR768

Collection Date/Time: 11/08/2017 11:45

Field ID: G2SD110817-1

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1945197	EPA 180.1 Rev. 2.0	Turbidity	8.2	A	NTU	P335052	
	EPA 300.0 Rev. 2.1	Chloride	52		mg Cl/L	P335191	
		Sulfate	66		mg SO4/L	P335193	
	SM 2120 B	Color (true)	40		PCU	P335044	
	SM 2320 B-97	Total Alkalinity	225		mg CaCO3/L	P335401	
	SM 2540 C-97	TDS	424	A	mg/L	P335488	
	SM 2540 D-97	TSS	2	I	mg/L	P335273	
	SM 4500 F-C-97	Fluoride	0.23		mg F/L	P335403	
1945200	EPA 350.1 Rev. 2.0	Ammonia-N	0.044		mg N/L	P335895	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.48		mg N/L	P335809	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.15		mg N/L	P335697	
	EPA 365.1 Rev. 2.0	Total-P	0.026		mg P/L	P335387	
	SM 5310 B-00	Organic Carbon	7.9		mg C/L	P335609	
1945203	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P335082	
1945229	EPA 200.7 Rev. 4.4	Calcium	112		mg/L	P335286	
		Iron	1.14E+03		ug/L	P335286	
		Magnesium	7.06		mg/L	P335286	
		Potassium	1.0	I	mg/L	P335286	
		Sodium	33.1		mg/L	P335286	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P335286	
		Arsenic	1.30		ug/L	P335286	
		Cadmium	0.020	U	ug/L	P335286	
		Chromium	0.40	U	ug/L	P335286	
		Copper	0.20	U	ug/L	P335286	
		Lead	0.050	U	ug/L	P335286	
		Nickel	0.39	I	ug/L	P335286	
		Silver	0.010	U	ug/L	P335286	

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: Alligator Creek North Prong above CR768

Collection Date/Time: 11/08/2017 11:45

Field ID: G2SD110817-1

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1945227	EPA 8321B	Sucralose**	0.31		ug/L	P335143	
	USGS O-2060-01	2,4-D	0.064		ug/L	P334865	
		Diuron	8.0E-04	U	ug/L	P334865	
		Fenuron	0.0080	U	ug/L	P334865	
		Imidacloprid	8.0E-04	U	ug/L	P334865	
		Bentazon	0.0010	I	ug/L	P334865	
		Linuron	0.0040	U	ug/L	P334865	
		Acetaminophen**	0.0080	U	ug/L	P334865	
		MCP	0.15		ug/L	P334865	
		Carbamazepine**	6.5E-04	I	ug/L	P334865	

Field ID: G2SD110817-1

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1945227	USGS O-2060-01	Triclopyr**	0.0040	U	ug/L	P334865	
		Primidone**	0.0040	U	ug/L	P334865	
		Fluridone**	4.0E-04	U	ug/L	P334865	

Sample Location: Alligator Cr South Branch @ SR768

Collection Date/Time: 11/08/2017 11:25

Field ID: G2SD110817-2

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1945198	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P335052	
	EPA 300.0 Rev. 2.1	Chloride	24	A	mg Cl/L	P335191	
		Sulfate	3.6	A	mg SO4/L	P335193	
	SM 2120 B	Color (true)	62		PCU	P335044	
	SM 2320 B-97	Total Alkalinity	41		mg CaCO3/L	P335401	
	SM 2540 C-97	TDS	113		mg/L	P335488	
	SM 2540 D-97	TSS	5	I	mg/L	P335273	
	SM 4500 F-C-97	Fluoride	0.048	I	mg F/L	P335403	
1945201	EPA 350.1 Rev. 2.0	Ammonia-N	0.12		mg N/L	P335895	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.99		mg N/L	P335809	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.030		mg N/L	P335697	
	EPA 365.1 Rev. 2.0	Total-P	0.044		mg P/L	P335387	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P335609	
1945204	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.006	I	mg P/L	P335082	
1945230	EPA 200.7 Rev. 4.4	Calcium	17.3		mg/L	P335286	
		Iron	480		ug/L	P335286	
		Magnesium	2.78		mg/L	P335286	
		Potassium	0.70	I	mg/L	P335286	
		Sodium	12.7		mg/L	P335286	
		Zinc	5.0	U	ug/L	P335286	
	EPA 200.8 Rev. 5.4	Arsenic	0.74		ug/L	P335286	
		Cadmium	0.020	U	ug/L	P335286	
		Chromium	0.40	U	ug/L	P335286	
		Copper	0.23	I	ug/L	P335286	
		Lead	0.17	I	ug/L	P335286	
		Nickel	0.20	U	ug/L	P335286	
		Silver	0.010	U	ug/L	P335286	

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: Alligator Cr South Branch @ SR768

Collection Date/Time: 11/08/2017 11:25

Field ID: G2SD110817-2

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1945228	EPA 8321B	Sucralose**	0.010	U	ug/L	P335143	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P334865	
		Diuron	8.0E-04	U	ug/L	P334865	
		Fenuron	0.0080	U	ug/L	P334865	

Field ID: G2SD110817-2

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1945228	USGS O-2060-01	Imidacloprid	8.0E-04	U	ug/L	P334865	
		Bentazon	8.0E-04	U	ug/L	P334865	
		Linuron	0.0040	U	ug/L	P334865	
		Acetaminophen**	0.0080	U	ug/L	P334865	
		MCP	0.0020	U	ug/L	P334865	
		Carbamazepine**	4.0E-04	U	ug/L	P334865	
		Triclopyr**	0.0040	U	ug/L	P334865	
		Primidone**	0.0040	U	ug/L	P334865	
		Fluridone**	5.0E-04	I	ug/L	P334865	

Sample Location: Yucca Pen Creek @ Burnt Store Rd.

Collection Date/Time: 11/08/2017 09:30

Field ID: G2SD110817-3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1945191	EPA 180.1 Rev. 2.0	Turbidity	0.80		NTU	P335052	
	EPA 300.0 Rev. 2.1	Chloride	49		mg Cl/L	P335191	
		Sulfate	2.9		mg SO4/L	P335193	
	SM 2120 B	Color (true)	62		PCU	P335044	
	SM 2320 B-97	Total Alkalinity	115		mg CaCO3/L	P335401	
	SM 2540 C-97	TDS	245		mg/L	P335488	
	SM 2540 D-97	TSS	2	U	mg/L	P335273	
	SM 4500 F-C-97	Fluoride	0.058	I	mg F/L	P335403	
1945193	EPA 350.1 Rev. 2.0	Ammonia-N	0.076		mg N/L	P335895	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P335809	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.019		mg N/L	P335652	
	EPA 365.1 Rev. 2.0	Total-P	0.022		mg P/L	P335387	
	SM 5310 B-00	Organic Carbon	17		mg C/L	P335609	
1945195	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.011		mg P/L	P335082	

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: 2081 @ Burnt Store Road

Collection Date/Time: 11/08/2017 09:45

Field ID: G2SD110817-4

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1945192	EPA 180.1 Rev. 2.0	Turbidity	4.8		NTU	P335052	
	EPA 300.0 Rev. 2.1	Chloride	37		mg Cl/L	P335191	
		Sulfate	14		mg SO4/L	P335193	
	SM 2120 B	Color (true)	69		PCU	P335044	
	SM 2320 B-97	Total Alkalinity	175		mg CaCO3/L	P335401	
	SM 2540 C-97	TDS	284		mg/L	P335488	
	SM 2540 D-97	TSS	3	I	mg/L	P335273	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P335403	
1945194	EPA 350.1 Rev. 2.0	Ammonia-N	0.027		mg N/L	P335895	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.61		mg N/L	P335809	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.067		mg N/L	P335652	

Field ID: G2SD110817-4

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1945194	EPA 365.1 Rev. 2.0	Total-P	0.044		mg P/L	P335387	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P335609	
1945196	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.015		mg P/L	P335082	

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: Field Blank

Collection Date/Time: 11/08/2017 11:30

Field ID: G2SD110817-5

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1945199	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P335052	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P335191	
		Sulfate	0.20	U	mg SO4/L	P335193	
	SM 2120 B	Color (true)	2.5	U	PCU	P335044	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P335401	
	SM 2540 C-97	TDS	15	U	mg/L	P335488	
	SM 2540 D-97	TSS	2	U	mg/L	P335274	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P335403	
1945202	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P335895	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P335809	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P335697	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P335387	
	SM 5310 B-00	Organic Carbon	1.4		mg C/L	P335609	
1945205	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P335082	
1945231	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P335286	
		Iron	30	U	ug/L	P335286	
		Magnesium	0.040	U	mg/L	P335286	
		Potassium	0.30	U	mg/L	P335286	
		Sodium	0.50	U	mg/L	P335286	
		Zinc	5.0	U	ug/L	P335286	
	EPA 200.8 Rev. 5.4	Arsenic	0.050	U	ug/L	P335286	
		Cadmium	0.020	U	ug/L	P335286	
		Chromium	0.40	U	ug/L	P335286	
		Copper	0.20	U	ug/L	P335286	
		Lead	0.050	U	ug/L	P335286	
		Nickel	0.20	U	ug/L	P335286	
		Silver	0.010	U	ug/L	P335286	

Ref. Method and Comment:

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

SM 5310 B-00: The result was confirmed on 11/21/2017.

Quality Assurance Report

Method Blank Results

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P335052

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P335286

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P335286

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335191

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335193

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P335895

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335809

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: P335652

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335697

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P335387

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P335082

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

Reference Method: EPA 8321B
Batch ID: P335143

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P335044

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P335401

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

Reference Method: SM 2540 C-97
Batch ID: P335488

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P335273

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 D-97
 Batch ID: P335274

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
 Batch ID: P335403

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
 Batch ID: P335609

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

Reference Method: USGS O-2060-01
 Batch ID: P334865

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	8.0E-04	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	8.0E-04	U	ug/L
Linuron	0.0040	U	ug/L
MCP	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P335286

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Iron	103		P	85 - 115
Magnesium	104		P	85 - 115
Potassium	97.8		P	85 - 115
Sodium	104		P	85 - 115
Zinc	99.7		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P335286

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	99.2		P	85 - 115
Cadmium	105		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P335286

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chromium	99.6		P	85 - 115
Copper	98.4		P	85 - 115
Lead	98.1		P	85 - 115
Nickel	99.0		P	85 - 115
Silver	102		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P335191

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

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P335193

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P335895

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P335809

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P335652

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P335697

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P335387

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	98.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P335082

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: P335082

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.0		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P335143

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	122		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P335401

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

Reference Method: SM 4500 F-C-97
Batch ID: P335403

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.2		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P335609

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.0		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P334865

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	83.1		P	40 - 150
Acetaminophen	97.4		P	30 - 150
Bentazon	78.0		P	30 - 150
Carbamazepine	80.6		P	40 - 150
Diuron	84.9		P	40 - 150
Fenuron	84.4		P	40 - 150
Fluridone	77.9		P	40 - 150
Imidacloprid	78.9		P	40 - 160
Linuron	85.2		P	40 - 150
MCP	86.6		P	40 - 150
Primidone	82.6		P	40 - 150
Triclopyr	83.9		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P335286

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1944935	Calcium	101		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P335286

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1944935	Iron	102	104	P/P	80 - 120
1944935	Magnesium	101		P	80 - 120
1944935	Potassium	96.4	98.6	P/P	80 - 120
1944935	Sodium	102		P	80 - 120
1944935	Zinc	94.5	94.1	P/P	80 - 120
1945239	Calcium	102		P	80 - 120
1945239	Iron	102		P	80 - 120
1945239	Magnesium	103		P	80 - 120
1945239	Potassium	95.6		P	80 - 120
1945239	Sodium	98.0		P	80 - 120
1945239	Zinc	96.8		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P335286

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1944935	Arsenic	99.6	98.9	P/P	80 - 120
1944935	Cadmium	104	103	P/P	80 - 120
1944935	Chromium	97.0	95.7	P/P	80 - 120
1944935	Copper	93.2	92.0	P/P	80 - 120
1944935	Lead	100	95.8	P/P	80 - 120
1944935	Nickel	94.8	94.1	P/P	80 - 120
1944935	Silver	101	99.9	P/P	80 - 120
1945239	Arsenic	96.0		P	80 - 120
1945239	Cadmium	100		P	80 - 120
1945239	Chromium	96.8		P	80 - 120
1945239	Copper	96.1		P	80 - 120
1945239	Lead	95.4		P	80 - 120
1945239	Nickel	95.5		P	80 - 120
1945239	Silver	100		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P335191

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945177	Chloride	98.8		P	90 - 110
1945198	Chloride	95.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P335193

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945177	Sulfate	100		P	90 - 110
1945198	Sulfate	99.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P335895

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945178	Ammonia-N	109	104	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335809

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945200	Kjeldahl Nitrogen	104	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335652

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945179	NO2NO3-N	106	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335697

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945201	NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P335387

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945200	Total-P	99.5	96.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P335082

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945037	O-Phosphate-P	101	96.7	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P335143

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1946400	Sucralose	115	142	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P335403

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1944926	Fluoride	101	97.8	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P335609

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945182	Organic Carbon	100	100	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P334865

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945213	2,4-D	75.2	77.4	P/P	40 - 150
1945213	Acetaminophen	129	120	P/P	30 - 150
1945213	Bentazon	50.0	53.0	P/P	30 - 150
1945213	Carbamazepine	116	110	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
 Batch ID: P334865

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945213	Diuron	130	122	P/P	40 - 150
1945213	Fenuron	113	112	P/P	40 - 150
1945213	Fluridone	98.0	104	P/P	40 - 150
1945213	Imidacloprid	133	129	P/P	40 - 160
1945213	Linuron	110	106	P/P	40 - 150
1945213	MCP	76.6	81.1	P/P	40 - 150
1945213	Primidone	128	125	P/P	40 - 150
1945213	Triclopyr	71.0	73.7	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P335052

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945197	Turbidity	0.122	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P335286

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944935	Calcium	0.766	Spike	P	0 - 20
1944935	Iron	1.88	Spike	P	0 - 20
1944935	Magnesium	2.61	Spike	P	0 - 20
1944935	Potassium	1.77	Spike	P	0 - 20
1944935	Sodium	0.191	Spike	P	0 - 20
1944935	Zinc	0.485	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P335286

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944935	Arsenic	0.710	Spike	P	0 - 20
1944935	Cadmium	1.03	Spike	P	0 - 20
1944935	Chromium	1.35	Spike	P	0 - 20
1944935	Copper	1.29	Spike	P	0 - 20
1944935	Lead	4.52	Spike	P	0 - 20
1944935	Nickel	0.683	Spike	P	0 - 20
1944935	Silver	0.992	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P335191

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945198	Chloride	0.297	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335193

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945198	Sulfate	0.270	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P335895

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945178	Ammonia-N	4.34	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335809

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945200	Kjeldahl Nitrogen	1.10	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335652

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945179	NO2NO3-N	0.306	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335697

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945201	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P335387

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945200	Total-P	2.67	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P335082

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945037	O-Phosphate-P	4.15	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P335143

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1946400	Sucralose	4.04	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2120 B
 Batch ID: P335044

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945175	Color (true)	6.97	Sample	P	0 - 20

Reference Method: SM 2320 B-97
 Batch ID: P335401

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944926	Total Alkalinity	0.0239	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
 Batch ID: P335488

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945197	TDS	3.54	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P335403

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944926	Fluoride	1.93	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
 Batch ID: P335609

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945182	Organic Carbon	0.0455	Spike	P	0 - 20

Reference Method: USGS O-2060-01
 Batch ID: P334865

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945213	2,4-D	2.84	Spike	P	0 - 30
1945213	Acetaminophen	7.41	Spike	P	0 - 30
1945213	Bentazon	5.81	Spike	P	0 - 30
1945213	Carbamazepine	5.48	Spike	P	0 - 30
1945213	Diuron	6.11	Spike	P	0 - 30
1945213	Fenuron	1.16	Spike	P	0 - 30
1945213	Fluridone	6.21	Spike	P	0 - 30
1945213	Imidacloprid	2.87	Spike	P	0 - 30
1945213	Linuron	3.53	Spike	P	0 - 30
1945213	MCP	5.76	Spike	P	0 - 30
1945213	Primidone	2.14	Spike	P	0 - 30
1945213	Triclopyr	3.68	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: 1945227

Field Sample ID: G2SD110817-1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	81.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	77.1	P	30 - 160
EPA 8321B	Diuron-d6	49.8	P	30 - 160
EPA 8321B	Primidone-d5	93.7	P	30 - 160
EPA 8321B	Sucralose-d6	153	P	40 - 160
USGS O-2060-01	2,4-D-d3	67.0	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	81.4	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	77.1	P	30 - 160
USGS O-2060-01	Diuron-d6	49.8	P	30 - 160
USGS O-2060-01	Primidone-d5	93.7	P	30 - 160
USGS O-2060-01	Sucralose-d6	153	P	40 - 160

Lab Sample ID: 1945228

Field Sample ID: G2SD110817-2

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	114	P	30 - 160
EPA 8321B	Carbamazepine-d10	97.2	P	30 - 160
EPA 8321B	Diuron-d6	84.6	P	30 - 160
EPA 8321B	Primidone-d5	131	P	30 - 160
EPA 8321B	Sucralose-d6	75.6	P	40 - 160
USGS O-2060-01	2,4-D-d3	60.8	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	114	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	97.2	P	30 - 160
USGS O-2060-01	Diuron-d6	84.6	P	30 - 160
USGS O-2060-01	Primidone-d5	131	P	30 - 160
USGS O-2060-01	Sucralose-d6	75.6	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A80175

Included Lab Sample IDs: 1945191, 1945192, 1945197, 1945198, 1945199

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	103	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A80181

Included Lab Sample IDs: 1945191, 1945192, 1945197, 1945198, 1945199

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A80192

Included Lab Sample IDs: 1945195, 1945196, 1945203, 1945204, 1945205

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A80230

Included Lab Sample IDs: 1945191, 1945192, 1945197, 1945198, 1945199

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	103	P/P	90 - 110
Chloride	102	101	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A80279

Included Lab Sample IDs: 1945227, 1945228

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	97.8	92.0	P/P	50 - 150
Acetaminophen	137	133	P/P	60 - 150
Bentazon	89.4	86.3	P/P	50 - 150
Carbamazepine	116	115	P/P	60 - 150
Diuron	144	146	P/P	60 - 150
Fenuron	113	111	P/P	60 - 150
Fluridone	114	113	P/P	60 - 160
Imidacloprid	111	109	P/P	60 - 150
Linuron	126	117	P/P	60 - 150
MCPP	95.5	97.6	P/P	50 - 150
Primidone	112	120	P/P	60 - 150
Triclopyr	93.2	90.0	P/P	50 - 150

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A80293

Included Lab Sample IDs: 1945229, 1945230, 1945231

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	101	P/P	90 - 110
Calcium	103	101	P/P	90 - 110
Iron	100	101	P/P	90 - 110
Iron	102	100	P/P	90 - 110
Magnesium	100	101	P/P	90 - 110
Magnesium	102	100	P/P	90 - 110
Potassium	97.9	98.2	P/P	90 - 110
Potassium	99.2	97.9	P/P	90 - 110
Sodium	102	99.7	P/P	90 - 110
Sodium	99.7	100	P/P	90 - 110
Zinc	102	99.0	P/P	90 - 110
Zinc	99.0	97.7	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A80300

Included Lab Sample IDs: 1945191, 1945192, 1945197, 1945198, 1945199

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	99.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97

Run ID: A80300

Included Lab Sample IDs: 1945191, 1945192, 1945197, 1945198, 1945199

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.1	99.1	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A80378

Included Lab Sample IDs: 1945193, 1945194, 1945200, 1945201, 1945202

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A80390

Included Lab Sample IDs: 1945193, 1945194

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A80391

Included Lab Sample IDs: 1945193, 1945194, 1945200, 1945201, 1945202

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	99.2	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A80408

Included Lab Sample IDs: 1945229, 1945230, 1945231

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	95.3	94.1	P/P	90 - 110
Arsenic	95.4	95.3	P/P	90 - 110
Cadmium	96.3	97.1	P/P	90 - 110
Cadmium	97.1	93.9	P/P	90 - 110
Chromium	95.4	93.5	P/P	90 - 110
Chromium	95.4	95.4	P/P	90 - 110
Copper	95.9	95.3	P/P	90 - 110
Copper	96.6	95.9	P/P	90 - 110
Lead	95.4	93.7	P/P	90 - 110
Lead	95.7	95.4	P/P	90 - 110
Nickel	95.3	94.8	P/P	90 - 110
Nickel	95.9	95.3	P/P	90 - 110
Silver	104	105	P/P	90 - 110
Silver	105	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A80428

Included Lab Sample IDs: 1945200, 1945201, 1945202

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A80513

Included Lab Sample IDs: 1945193, 1945194, 1945200, 1945201, 1945202

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

Reference Method: EPA 8321B

Run ID: A80536

Included Lab Sample IDs: 1945227

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	79.8	81.7	P/P	60 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A80551

Included Lab Sample IDs: 1945193, 1945194, 1945200, 1945201, 1945202

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

Reference Method: EPA 8321B

Run ID: A80568

Included Lab Sample IDs: 1945228

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	123	101	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 SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						0.122	
EPA 200.7 Rev. 4.4	Calcium	105	101	102				0.766
	Iron	103	102	104	102			1.88
	Magnesium	104	101	103				2.61
	Potassium	97.8	96.4	98.6	95.6			1.77
	Sodium	104	102	98.0				0.191
	Zinc	99.7	94.5	94.1	96.8			0.485
EPA 200.8 Rev. 5.4	Arsenic	99.2	99.6	98.9	96.0			0.710
	Cadmium	105	104	103	100			1.03
	Chromium	99.6	97.0	95.7	96.8			1.35
	Copper	98.4	93.2	92.0	96.1			1.29
	Lead	98.1	100	95.8	95.4			4.52
	Nickel	99.0	94.8	94.1	95.5			0.683
	Silver	102	101	99.9	100			0.992
EPA 300.0 Rev. 2.1	Chloride	97.8	95.9	98.8			0.297	
	Sulfate	98.3	99.1	100			0.270	
EPA 350.1 Rev. 2.0	Ammonia-N	109	109	104				4.34
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	104	103				1.10

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 353.2 Rev. 2.0	NO2NO3-N	104	106	106		0.306
	NO2NO3-N	106	104	104		0.0
EPA 365.1 Rev. 2.0	Total-P	98.0	99.5	96.7		2.67
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.0	101	96.7		4.15
EPA 8321B	Sucralose	122	115	142		4.04
SM 2120 B	Color (true)				6.97	
SM 2320 B-97	Total Alkalinity	102			0.0239	
SM 2540 C-97	TDS				3.54	
SM 4500 F-C-97	Fluoride	95.2	101	97.8		1.93
SM 5310 B-00	Organic Carbon	99.0	100	100		0.0455
USGS O-2060-01	2,4-D	83.1	75.2	77.4		2.84
	Acetaminophen	97.4	129	120		7.41
	Bentazon	78.0	50.0	53.0		5.81
	Carbamazepine	80.6	116	110		5.48
	Diuron	84.9	130	122		6.11
	Fenuron	84.4	113	112		1.16
	Fluridone	77.9	98.0	104		6.21
	Imidacloprid	78.9	133	129		2.87
	Linuron	85.2	110	106		3.53
	MCPP	86.6	76.6	81.1		5.76
	Primidone	82.6	128	125		2.14
	Triclopyr	83.9	71.0	73.7		3.68

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1945191, 1945192, 1945197, 1945198, 1945199
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1945229, 1945230, 1945231
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1945229, 1945230, 1945231
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1945191, 1945192, 1945197, 1945198, 1945199
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1945191, 1945192, 1945197, 1945198, 1945199
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1945193, 1945194, 1945200, 1945201, 1945202
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1945193, 1945194, 1945200, 1945201, 1945202
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1945193, 1945194, 1945200, 1945201, 1945202
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1945193, 1945194, 1945200, 1945201, 1945202
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1945195, 1945196, 1945203, 1945204, 1945205
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1945227, 1945228
SM 2120 B / E31780	True Color measured at 450 nm	1945191, 1945192, 1945197, 1945198, 1945199
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1945191, 1945192, 1945197, 1945198, 1945199
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1945191, 1945192, 1945197, 1945198, 1945199
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1945191, 1945192, 1945197, 1945198, 1945199

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1945191, 1945192, 1945197, 1945198, 1945199
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1945193, 1945194, 1945200, 1945201, 1945202
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1945227, 1945228
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1945227, 1945228

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	11/09/2017			11/09/2017 14:56	DeAsia Armster	1945191, 1945192, 1945197, 1945198, 1945199
EPA 200.7 Rev. 4.4	11/09/2017	11/14/2017	Elliott D. Healy	11/15/2017	Betina Topolski	1945229, 1945230, 1945231
EPA 200.8 Rev. 5.4	11/09/2017	11/14/2017	Elliott D. Healy	11/20/2017	Robert K Palmer	1945229, 1945230, 1945231
EPA 300.0 Rev. 2.1	11/09/2017			11/14/2017	Julia Storbeck	1945191, 1945192, 1945197, 1945198, 1945199
EPA 350.1 Rev. 2.0	11/09/2017			11/22/2017	Sofia Elnemr	1945193, 1945194, 1945200, 1945201, 1945202
EPA 351.2 Rev. 2.0	11/09/2017	11/22/2017	Adrian Shelby	11/27/2017	Joseph Suarez	1945193, 1945194, 1945200, 1945201, 1945202
EPA 353.2 Rev. 2.0	11/09/2017			11/20/2017	Beverly Y. Sanders	1945193, 1945194
	11/09/2017			11/21/2017	Lauren Bottorf	1945200, 1945201, 1945202
EPA 365.1 Rev. 2.0	11/09/2017	11/16/2017	Sima Feizi	11/20/2017	Lipi Saha	1945193, 1945194, 1945200, 1945201, 1945202
EPA 365.1 Rev. 2.0 dissolved	11/09/2017			11/09/2017 15:16	Megan Treadwell	1945195
	11/09/2017			11/09/2017 15:17	Megan Treadwell	1945196, 1945203
	11/09/2017			11/09/2017 15:18	Megan Treadwell	1945204
	11/09/2017			11/09/2017 15:19	Megan Treadwell	1945205
EPA 8321B	11/09/2017	11/22/2017	Mohammad Ghaffari	11/23/2017	Mohammad Ghaffari	1945227
	11/09/2017	11/22/2017	Mohammad Ghaffari	11/29/2017	Mohammad Ghaffari	1945228
SM 2120 B	11/09/2017			11/09/2017 14:58	Tanya Welborn	1945191
	11/09/2017			11/09/2017 14:59	Tanya Welborn	1945192
	11/09/2017			11/09/2017 15:00	Tanya Welborn	1945197
	11/09/2017			11/09/2017 15:01	Tanya Welborn	1945198
	11/09/2017			11/09/2017 15:02	Tanya Welborn	1945199
SM 2320 B-97	11/09/2017			11/15/2017	Dale L. Simmons	1945191, 1945192
	11/09/2017			11/16/2017	Dale L. Simmons	1945197, 1945198, 1945199
SM 2540 C-97	11/09/2017			11/13/2017	DeAsia Armster	1945191, 1945192, 1945197, 1945198, 1945199
SM 2540 D-97	11/09/2017			11/13/2017	DeAsia Armster	1945191, 1945192, 1945197, 1945198, 1945199
SM 4500 F-C-97	11/09/2017			11/15/2017	Dale L. Simmons	1945191, 1945192
	11/09/2017			11/16/2017	Dale L. Simmons	1945197, 1945198, 1945199
SM 5310 B-00	11/09/2017			11/17/2017	Ping Hua	1945193, 1945194, 1945200
	11/09/2017			11/18/2017	Ping Hua	1945201, 1945202
USGS O-2060-01	11/09/2017	11/14/2017	Hoor Shaik	11/15/2017	Julie Michelle Frank	1945227, 1945228
	11/09/2017	11/14/2017	Hoor Shaik	11/16/2017	Julie Michelle Frank	1945227, 1945228