

Chemical Analysis Report

NE-DIST-2017-06-01-01

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

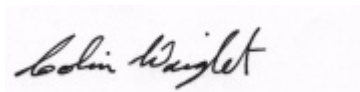
Event Description: **UEC South**
Request ID: **RQ-2017-05-29-09**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Colin Wright, Program Administrator

Date Certified: 29-JUN-2017 11:57

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on 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: PELLICER CREEK @ FAVER DYKES BOAT RAMP

Collection Date/Time: 05/31/2017 10:10

Field ID: G5NE0564 05312017

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1902808	EPA 180.1 Rev. 2.0	Turbidity	13		NTU	P326118	
	SM 2320 B-97	Total Alkalinity	114		mg CaCO3/L	P326354	
	SM 2540 D-97	TSS	31	A	mg/L	P326744	
	SM 4500 F-C-97	Fluoride	0.95		mg F/L	P326357	
1902809	EPA 350.1 Rev. 2.0	Ammonia-N	0.051		mg N/L	P326132	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.86		mg N/L	P326135	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P326205	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P326210	
	SM 5310 B-00	Organic Carbon	8.7		mg C/L	P326317	
1902810	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.061		mg P/L	P326146	

Sample Location: PELLICER CREEK @ US 1

Collection Date/Time: 05/31/2017 09:15

Field ID: G5NE0034 05312017

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1902821	EPA 8321B	Sucralose**	0.010	U	ug/L	P326155	
	USGS O-2060-01	2,4-D	8.0E-04	U	ug/L	P326112	
		Diuron	8.0E-04	U	ug/L	P326112	
		Fenuron	0.0062	I	ug/L	P326112	MS, RPD
		Imidacloprid	0.0013	I	ug/L	P326112	MS
		Bentazon	8.0E-04	I	ug/L	P326112	MS
		Linuron	0.0040	U	ug/L	P326112	
		Acetaminophen**	0.0080	U	ug/L	P326112	
		MCP	0.0020	U	ug/L	P326112	
		Carbamazepine**	4.0E-04	U	ug/L	P326112	
		Triclopyr**	0.0040	U	ug/L	P326112	
		Primidone**	0.0040	U	ug/L	P326112	
		Fluridone**	4.0E-04	U	ug/L	P326112	

Ref. Method and Comment:

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

Sample Location: PELLICER CREEK @ US 1 DUP

Collection Date/Time: 05/31/2017 09:20

Field ID: G5NE0034 05312017

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1902822	EPA 8321B	Sucralose**	0.010	U	ug/L	P326155	
	USGS O-2060-01	2,4-D	8.0E-04	U	ug/L	P326112	
		Diuron	8.0E-04	U	ug/L	P326112	
		Fenuron	0.0075	I	ug/L	P326112	MS, RPD
		Imidacloprid	8.0E-04	I	ug/L	P326112	MS
		Bentazon	8.0E-04	I	ug/L	P326112	MS
		Linuron	0.0040	U	ug/L	P326112	
		Acetaminophen**	0.0080	U	ug/L	P326112	
		MCP	0.0020	U	ug/L	P326112	

Field ID: G5NE0034 05312017

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1902822	USGS O-2060-01	Carbamazepine**	4.0E-04	U	ug/L	P326112	
		Triclopyr**	0.0040	U	ug/L	P326112	
		Primidone**	0.0040	U	ug/L	P326112	
		Fluridone**	4.0E-04	U	ug/L	P326112	

Ref. Method and Comment:

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

Sample Location: CRACKER BRANCH @ CR 204

Collection Date/Time: 05/31/2017 09:45

Field ID: G5NE0079 05312017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1902811	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P326118	
	EPA 300.0 Rev. 2.1	Chloride	1.2E+03		mg Cl/L	P326786	
		Sulfate	210		mg SO4/L	P326789	
	SM 2120 B	Color (true)	36	A	PCU	P326233	
	SM 2320 B-97	Total Alkalinity	97		mg CaCO3/L	P326248	
	SM 2540 C-97	TDS	2.35E+03		mg/L	P326996	
	SM 2540 D-97	TSS	4	I	mg/L	P326742	
	SM 4500 F-C-97	Fluoride	0.21		mg F/L	P326418	
1902812	EPA 350.1 Rev. 2.0	Ammonia-N	0.028		mg N/L	P326183	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37		mg N/L	P326134	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.045		mg N/L	P326154	
	EPA 365.1 Rev. 2.0	Total-P	0.22		mg P/L	P326139	
	SM 5310 B-00	Organic Carbon	5.0		mg C/L	P326191	
1902813	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.16		mg P/L	P326147	
1902824	EPA 200.7 Rev. 4.4	Calcium	90.8		mg/L	P326217	
		Iron	200		ug/L	P326217	
		Magnesium	84.8		mg/L	P326217	
		Potassium	22.8		mg/L	P326217	
		Sodium	664		mg/L	P326217	
		Zinc	5.0	U	ug/L	P326217	
	EPA 200.8 Rev. 5.4	Arsenic	0.41		ug/L	P326217	
		Cadmium	0.020	U	ug/L	P326217	
		Chromium	0.40	U	ug/L	P326217	
		Copper	0.20	U	ug/L	P326217	
		Lead	0.075	I	ug/L	P326217	
		Nickel	0.20	U	ug/L	P326217	
		Silver	0.010	U	ug/L	P326217	

Ref. Method and Comment:

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

Quality Assurance Report

Method Blank Results

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P326118

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P326217

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: P326217

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: P326786

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326789

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326132

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326183

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326134

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326135

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326154

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326205

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326139

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326210

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326146

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326147

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

Reference Method: EPA 8321B
Batch ID: P326155

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2120 B
Batch ID: P326233

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P326248

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

Reference Method: SM 2320 B-97
Batch ID: P326354

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

Reference Method: SM 2540 C-97
Batch ID: P326996

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P326742

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P326744

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P326357

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P326418

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P326191

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

Quality Assurance Report Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P326317

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

Reference Method: USGS O-2060-01
Batch ID: P326112

Component	Result	Code	Units
2,4-D	8.0E-04	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	0.0040	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	8.0E-04	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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P326217

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Iron	106		P	85 - 115
Magnesium	103		P	85 - 115
Potassium	99.6		P	85 - 115
Sodium	101		P	85 - 115
Zinc	99.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P326217

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	91.0		P	85 - 115
Cadmium	98.7		P	85 - 115
Chromium	90.5		P	85 - 115
Copper	96.5		P	85 - 115
Lead	91.6		P	85 - 115
Nickel	97.9		P	85 - 115
Silver	94.8		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326786

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326789

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326132

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326183

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326134

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326135

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326154

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: P326205

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326139

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326210

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326146

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.6		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326147

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

Reference Method: EPA 8321B
Batch ID: P326155

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	49.0		P	40 - 140

Reference Method: SM 2320 B-97
Batch ID: P326248

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

Reference Method: SM 2320 B-97
Batch ID: P326354

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

Reference Method: SM 4500 F-C-97
Batch ID: P326357

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.6		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P326418

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P326191

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

Reference Method: SM 5310 B-00
Batch ID: P326317

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.3		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: USGS O-2060-01
Batch ID: P326112

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	101		P	40 - 140
Acetaminophen	97.0		P	40 - 140
Bentazon	76.8		P	40 - 140
Carbamazepine	121		P	40 - 140
Diuron	116		P	40 - 140
Fenuron	112		P	40 - 140
Fluridone	127		P	40 - 140
Imidacloprid	108		P	40 - 160
Linuron	107		P	40 - 140
MCPP	100		P	40 - 140
Primidone	115		P	40 - 140
Triclopyr	101		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P326217

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902426	Calcium	107		P	80 - 120
1902426	Iron	104		P	80 - 120
1902426	Magnesium	104		P	80 - 120
1902426	Potassium	96.7		P	80 - 120
1902426	Sodium	102		P	80 - 120
1902426	Zinc	96.3		P	80 - 120
1903011	Calcium	107		P	80 - 120
1903011	Iron	106	105	P/P	80 - 120
1903011	Magnesium	105		P	80 - 120
1903011	Potassium	99.0	99.1	P/P	80 - 120
1903011	Sodium	103		P	80 - 120
1903011	Zinc	98.5	98.7	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P326217

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902426	Arsenic	95.1		P	80 - 120
1902426	Cadmium	99.0		P	80 - 120
1902426	Chromium	95.1		P	80 - 120
1902426	Copper	91.9		P	80 - 120
1902426	Lead	94.3		P	80 - 120
1902426	Nickel	93.3		P	80 - 120
1902426	Silver	95.0		P	80 - 120
1903011	Arsenic	97.4	98.4	P/P	80 - 120
1903011	Cadmium	101	103	P/P	80 - 120
1903011	Chromium	94.0	94.8	P/P	80 - 120
1903011	Copper	93.2	94.5	P/P	80 - 120
1903011	Lead	98.8	100	P/P	80 - 120
1903011	Nickel	95.0	95.9	P/P	80 - 120
1903011	Silver	94.7	95.6	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326786

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902601	Chloride	97.9		P	90 - 110
1902602	Chloride	99.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326789

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902601	Sulfate	94.5		P	90 - 110
1902602	Sulfate	97.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326132

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902273	Ammonia-N	109	110	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326183

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902736	Ammonia-N	98.2	98.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326134

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902738	Kjeldahl Nitrogen	103	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326135

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902859	Kjeldahl Nitrogen	102	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326154

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902846	NO2NO3-N	108	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326205

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902485	NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326139

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902812	Total-P	103	98.2	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326210

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902877	Total-P	96.8	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326146

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902726	O-Phosphate-P	94.9	94.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326147

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902743	O-Phosphate-P	96.7	96.7	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P326155

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902433	Sucralose	108	93.0	P/P	40 - 140

Reference Method: SM 4500 F-C-97
Batch ID: P326357

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902394	Fluoride	97.3	98.8	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P326418

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902601	Fluoride	100	102	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P326191

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902538	Organic Carbon	97.8	97.8	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P326317

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902483	Organic Carbon	93.0	93.1	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P326112

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902999	2,4-D	101	100	P/P	40 - 140
1902999	Acetaminophen	117	124	P/P	40 - 140
1902999	Bentazon	37.6	39.4	F/F	40 - 140
1902999	Carbamazepine	100	105	P/P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
 Batch ID: P326112

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902999	Diuron	85.6	96.2	P/P	40 - 140
1902999	Fenuron	182	78.2	F/P	40 - 140
1902999	Imidacloprid	179	205	F/F	40 - 160
1902999	Linuron	104	109	P/P	40 - 140
1902999	MCPP	75.4	86.0	P/P	40 - 140
1902999	Primidone	97.2	104	P/P	40 - 140
1902999	Triclopyr	86.2	88.0	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P326118

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902734	Turbidity	6.64	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P326217

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1903011	Calcium	1.20	Spike	P	0 - 20
1903011	Iron	0.847	Spike	P	0 - 20
1903011	Magnesium	0.378	Spike	P	0 - 20
1903011	Potassium	0.0319	Spike	P	0 - 20
1903011	Sodium	0.806	Spike	P	0 - 20
1903011	Zinc	0.202	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P326217

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1903011	Arsenic	0.968	Spike	P	0 - 20
1903011	Cadmium	1.70	Spike	P	0 - 20
1903011	Chromium	0.895	Spike	P	0 - 20
1903011	Copper	1.24	Spike	P	0 - 20
1903011	Lead	1.20	Spike	P	0 - 20
1903011	Nickel	0.929	Spike	P	0 - 20
1903011	Silver	1.03	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P326786

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902601	Chloride	0.796	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326789

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902601	Sulfate	0.830	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326132

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902273	Ammonia-N	0.437	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326183

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902736	Ammonia-N	0.0648	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326134

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902738	Kjeldahl Nitrogen	0.483	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326135

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902859	Kjeldahl Nitrogen	0.987	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326154

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902846	NO2NO3-N	1.06	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326205

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902485	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326139

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902812	Total-P	3.25	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326210

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902877	Total-P	5.40	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326146

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902726	O-Phosphate-P	0.294	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326147

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902743	O-Phosphate-P	0.0	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P326155

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902433	Sucralose	14.9	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P326233

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902811	Color (true)	0.196	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P326248

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902601	Total Alkalinity	0.547	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P326354

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902751	Total Alkalinity	0.0219	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P326996

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902963	TDS	0.491	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 2540 D-97
 Batch ID: P326744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902808	TSS	1.27	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P326357

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902394	Fluoride	0.986	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
 Batch ID: P326418

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902601	Fluoride	1.47	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
 Batch ID: P326191

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902538	Organic Carbon	0.0511	Spike	P	0 - 20

Reference Method: SM 5310 B-00
 Batch ID: P326317

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902483	Organic Carbon	0.0942	Spike	P	0 - 20

Reference Method: USGS O-2060-01
 Batch ID: P326112

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902999	2,4-D	0.220	Spike	P	0 - 30
1902999	Acetaminophen	5.80	Spike	P	0 - 30
1902999	Bentazon	2.51	Spike	P	0 - 30
1902999	Carbamazepine	5.26	Spike	P	0 - 30
1902999	Diuron	10.7	Spike	P	0 - 30
1902999	Fenuron	72.9	Spike	F	0 - 30
1902999	Fluridone	4.73	Spike	P	0 - 30
1902999	Imidacloprid	11.0	Spike	P	0 - 30
1902999	Linuron	4.90	Spike	P	0 - 30
1902999	MCP	13.1	Spike	P	0 - 30
1902999	Primidone	6.37	Spike	P	0 - 30
1902999	Triclopyr	2.07	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: 1902821
Field Sample ID: G5NE0034 05312017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	89.0	P	40 - 160
USGS O-2060-01	2,4-D-d3	102	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	120	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	114	P	30 - 160
USGS O-2060-01	Diuron-d6	99.7	P	30 - 160
USGS O-2060-01	Primidone-d5	124	P	30 - 150

Lab Sample ID: 1902822
Field Sample ID: G5NE0034 05312017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	101	P	40 - 150
USGS O-2060-01	2,4-D-d3	111	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	137	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	121	P	30 - 160
USGS O-2060-01	Diuron-d6	105	P	30 - 160
USGS O-2060-01	Primidone-d5	135	P	30 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A76814
Included Lab Sample IDs: 1902808, 1902811

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	102	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A76815
Included Lab Sample IDs: 1902809

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A76820
Included Lab Sample IDs: 1902810, 1902813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.6	P/P	90 - 110
O-Phosphate-P	99.6	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A76822
Included Lab Sample IDs: 1902812

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A76841

Included Lab Sample IDs: 1902812

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

Reference Method: SM 5310 B-00

Run ID: A76846

Included Lab Sample IDs: 1902812

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.8	97.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A76848

Included Lab Sample IDs: 1902812

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A76855

Included Lab Sample IDs: 1902809

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

Reference Method: SM 2120 B

Run ID: A76865

Included Lab Sample IDs: 1902811

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	104	P/P	85 - 115

Reference Method: SM 2320 B-97

Run ID: A76873

Included Lab Sample IDs: 1902811

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	104	101	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A76878

Included Lab Sample IDs: 1902821, 1902822

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	69.9	96.8	P/P	60 - 160
Sucralose	87.5	78.8	P/P	60 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A76886

Included Lab Sample IDs: 1902809, 1902812

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A76899

Included Lab Sample IDs: 1902824

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	91.4	92.9	P/P	90 - 110
Cadmium	96.0	96.2	P/P	90 - 110
Silver	95.4	95.0	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A76900

Included Lab Sample IDs: 1902824

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	106	104	P/P	90 - 110
Iron	104	103	P/P	90 - 110
Magnesium	102	103	P/P	90 - 110
Potassium	102	101	P/P	90 - 110
Sodium	101	103	P/P	90 - 110
Zinc	101	101	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A76902

Included Lab Sample IDs: 1902809

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.8	95.5	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A76915

Included Lab Sample IDs: 1902808

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A76915

Included Lab Sample IDs: 1902808

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.5	99.1	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A76936

Included Lab Sample IDs: 1902824

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	95.4	94.8	P/P	90 - 110
Copper	95.0	94.6	P/P	90 - 110
Lead	94.2	94.0	P/P	90 - 110
Nickel	94.6	93.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A76937

Included Lab Sample IDs: 1902809

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

Reference Method: SM 4500 F-C-97

Run ID: A76939

Included Lab Sample IDs: 1902811

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

Reference Method: USGS O-2060-01

Run ID: A76951

Included Lab Sample IDs: 1902821, 1902822

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	124	113	P/P	50 - 150
Acetaminophen	102	102	P/P	60 - 150
Bentazon	124	115	P/P	50 - 150
Carbamazepine	114	116	P/P	60 - 150
Diuron	114	113	P/P	60 - 150
Fenuron	107	106	P/P	60 - 150
Fluridone	125	126	P/P	60 - 160
Imidacloprid	108	104	P/P	60 - 150
Linuron	112	114	P/P	60 - 150
MCPP	115	102	P/P	50 - 150
Primidone	124	112	P/P	60 - 150
Triclopyr	117	106	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A77076

Included Lab Sample IDs: 1902811

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	98.6	P/P	90 - 110
Sulfate	108	99.9	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						6.64	
EPA 200.7 Rev. 4.4	Calcium	105		107	107			1.20
	Iron	106		104	106	105		0.847
	Magnesium	103		104	105			0.378
	Potassium	99.6		96.7	99.0	99.1		0.0319
	Sodium	101		102	103			0.806

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
EPA 200.7 Rev. 4.4	Zinc	99.8	96.3	98.5	98.7		0.202
EPA 200.8 Rev. 5.4	Arsenic	91.0	95.1	97.4	98.4		0.968
	Cadmium	98.7	99.0	101	103		1.70
	Chromium	90.5	95.1	94.0	94.8		0.895
	Copper	96.5	91.9	93.2	94.5		1.24
	Lead	91.6	94.3	98.8	100		1.20
	Nickel	97.9	93.3	95.0	95.9		0.929
	Silver	94.8	95.0	94.7	95.6		1.03
EPA 300.0 Rev. 2.1	Chloride	101	97.9	99.8		0.796	
	Sulfate	99.5	94.5	97.6		0.830	
EPA 350.1 Rev. 2.0	Ammonia-N	106	109	110			0.437
	Ammonia-N	98.7	98.2	98.4			0.0648
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	103	102			0.483
	Kjeldahl Nitrogen	99.7	102	101			0.987
EPA 353.2 Rev. 2.0	NO2NO3-N	104	108	106			1.06
	NO2NO3-N	102	104	104			0.0
EPA 365.1 Rev. 2.0	Total-P	99.4	103	98.2			3.25
	Total-P	99.4	96.8	102			5.40
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.6	94.9	94.6			0.294
	O-Phosphate-P	97.3	96.7	96.7			0.0
EPA 8321B	Sucralose	49.0	108	93.0			14.9
SM 2120 B	Color (true)					0.196	
SM 2320 B-97	Total Alkalinity	103				0.547	
	Total Alkalinity	103				0.0219	
SM 2540 C-97	TDS					0.491	
SM 2540 D-97	TSS					1.27	
SM 4500 F-C-97	Fluoride	96.6	97.3	98.8			0.986
	Fluoride	100	100	102			1.47
SM 5310 B-00	Organic Carbon	96.4	97.8	97.8			0.0511
	Organic Carbon	95.3	93.0	93.1			0.0942
USGS O-2060-01	2,4-D	101	101	100			0.220
	Acetaminophen	97.0	117	124			5.80
	Bentazon	76.8	37.6	39.4			2.51
	Carbamazepine	121	100	105			5.26
	Diuron	116	85.6	96.2			10.7
	Fenuron	112	182	78.2			72.9
	Fluridone	127					4.73
	Imidacloprid	108	179	205			11.0
	Linuron	107	104	109			4.90
	MCP	100	75.4	86.0			13.1
	Primidone	115	97.2	104			6.37
	Triclopyr	101	86.2	88.0			2.07

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1902808, 1902811
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1902824
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1902824
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1902811

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1902811
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1902809, 1902812
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1902809, 1902812
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1902809, 1902812
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1902809, 1902812
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1902810, 1902813
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1902821, 1902822
SM 2120 B / E31780	True Color measured at 450 nm	1902811
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1902808, 1902811
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1902811
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1902808, 1902811
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1902808, 1902811
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1902809, 1902812
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1902821, 1902822
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1902821, 1902822

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	06/01/2017			06/01/2017 16:02	Sima Feizi	1902808, 1902811
EPA 200.7 Rev. 4.4	06/01/2017	06/05/2017	Elliott D. Healy	06/06/2017	Betina Topolski	1902824
EPA 200.8 Rev. 5.4	06/01/2017	06/05/2017	Elliott D. Healy	06/07/2017	Robert K Palmer	1902824
EPA 300.0 Rev. 2.1	06/01/2017			06/13/2017	Julia Storbeck	1902811
EPA 350.1 Rev. 2.0	06/01/2017			06/01/2017	Julie Michelle Frank	1902809
	06/01/2017			06/02/2017	Julie Michelle Frank	1902812
EPA 351.2 Rev. 2.0	06/01/2017	06/02/2017	Adrian Shelby	06/06/2017	Joseph Suarez	1902809, 1902812
EPA 353.2 Rev. 2.0	06/01/2017			06/02/2017	Beverly Y. Sanders	1902812
	06/01/2017			06/05/2017	Beverly Y. Sanders	1902809
EPA 365.1 Rev. 2.0	06/01/2017	06/02/2017	Adrian Shelby	06/05/2017	Lipi Saha	1902812
	06/01/2017	06/05/2017	Vijayalakshmi Reddy	06/06/2017	Lipi Saha	1902809
EPA 365.1 Rev. 2.0 dissolved	06/01/2017			06/01/2017 16:47	Anthony C. Onicha	1902810
	06/01/2017			06/01/2017 16:53	Anthony C. Onicha	1902813
EPA 8321B	06/01/2017	06/05/2017	Mohammad Ghaffari	06/05/2017	Mohammad Ghaffari	1902821, 1902822
SM 2120 B	06/01/2017			06/01/2017 16:16	Tanya Welborn	1902811
SM 2320 B-97	06/01/2017			06/03/2017	Dale L. Simmons	1902811
	06/01/2017			06/06/2017	Dale L. Simmons	1902808
SM 2540 C-97	06/01/2017			06/05/2017	Sima Feizi	1902811
SM 2540 D-97	06/01/2017			06/05/2017	Sima Feizi	1902808, 1902811
SM 4500 F-C-97	06/01/2017			06/06/2017	Dale L. Simmons	1902808
	06/01/2017			06/08/2017	Dale L. Simmons	1902811
SM 5310 B-00	06/01/2017			06/02/2017	Julie Michelle Frank	1902812
	06/01/2017			06/06/2017	Christopher Armour	1902809
USGS O-2060-01	06/01/2017	06/06/2017	Hoor Shaik	06/08/2017	Mohammad Ghaffari	1902821, 1902822