

Chemical Analysis Report

NE-DIST-2017-12-19-02

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

Event Description: **Gainesville 2/3**
Request ID: **RQ-2017-12-04-34**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Jacksonville, FL 32256-7577
Attn: Jeremy Parrish

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Certified by: Colin Wright, Program Administrator

Date Certified: 11-JAN-2018 13:45

A handwritten signature in black ink, appearing to read "Colin Wright", is shown on a light-colored 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: HATCHETT CRK @ SR 26

Collection Date/Time: 12/18/2017 10:15

Field ID: G1NE0096 12052017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1954884	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P337219	
	EPA 300.0 Rev. 2.1	Chloride	13	A	mg Cl/L	P337390	
		Sulfate	2.6	A	mg SO4/L	P337394	
	SM 2120 B	Color (true)	350		PCU	P337224	
	SM 2320 B-97	Total Alkalinity	12		mg CaCO3/L	P337380	
	SM 2540 C-97	TDS	120		mg/L	P337495	
	SM 2540 D-97	TSS	2	I	mg/L	P337662	
	SM 4500 F-C-97	Fluoride	0.063	I	mg F/L	P337383	
1954885	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P337637	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P337329	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.013		mg N/L	P337350	
	EPA 365.1 Rev. 2.0	Total-P	0.084		mg P/L	P337364	
	SM 5310 B-00	Organic Carbon	35		mg C/L	P337322	
1954886	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.068		mg P/L	P337263	
1954893	EPA 8321B	Sucralose**	0.010	U	ug/L	P336877	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P337156	
		Diuron	8.0E-04	U	ug/L	P337156	
		Fenuron	0.0080	U	ug/L	P337156	
		Imidacloprid	0.0014	I	ug/L	P337156	
		Bentazon	8.0E-04	U	ug/L	P337156	
		Linuron	0.0040	U	ug/L	P337156	
		Acetaminophen**	0.0080	U	ug/L	P337156	
		MCP	0.0020	U	ug/L	P337156	
		Carbamazepine**	4.0E-04	U	ug/L	P337156	
		Triclopyr**	0.0040	U	ug/L	P337156	
		Primidone**	0.0040	U	ug/L	P337156	
		Fluridone**	4.0E-04	U	ug/L	P337156	
	EPA 200.7 Rev. 4.4	Calcium	8.47		mg/L	P337181	
		Iron	660		ug/L	P337181	
		Magnesium	3.10		mg/L	P337181	
		Potassium	0.42	I	mg/L	P337181	
		Sodium	6.1		mg/L	P337181	
		Zinc	5.0	U	ug/L	P337181	
	EPA 200.8 Rev. 5.4	Arsenic	0.60		ug/L	P337181	
		Cadmium	0.020	U	ug/L	P337181	
		Chromium	1.2	I	ug/L	P337181	
		Copper	0.35	I	ug/L	P337181	
		Lead	0.38		ug/L	P337181	
		Nickel	0.79	I	ug/L	P337181	
		Silver	0.010	U	ug/L	P337181	

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: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable because of high analyte concentration in the QC sample. Batch matrix spike recoveries for sodium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: BIVENS ARM OUTLET @ SR331

Collection Date/Time: 12/18/2017 12:45

Field ID: G1NE0208 12052017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1954875	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P337219	
	EPA 300.0 Rev. 2.1	Chloride	9.6		mg Cl/L	P337390	
		Sulfate	6.2		mg SO4/L	P337394	
	SM 2120 B	Color (true)	39	A	PCU	P337224	
	SM 2320 B-97	Total Alkalinity	80		mg CaCO3/L	P337380	
	SM 2540 C-97	TDS	118		mg/L	P337495	
	SM 2540 D-97	TSS	6	I	mg/L	P337662	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P337383	
1954878	EPA 350.1 Rev. 2.0	Ammonia-N	0.44		mg N/L	P337636	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P337329	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.10		mg N/L	P337350	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P337363	
	SM 5310 B-00	Organic Carbon	9.8		mg C/L	P337322	
1954881	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.096		mg P/L	P337262	

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: CALF POND-CENTER

Collection Date/Time: 12/18/2017 10:50

Field ID: G1NE0862 12052017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1954876	EPA 180.1 Rev. 2.0	Turbidity	4.1		NTU	P337219	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P337390	
		Sulfate	10		mg SO4/L	P337394	
	SM 2120 B	Color (true)	160		PCU	P337224	
	SM 2320 B-97	Total Alkalinity	70		mg CaCO3/L	P337380	
	SM 2540 C-97	TDS	146	A	mg/L	P337495	
	SM 2540 D-97	TSS	3	IA	mg/L	P337662	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P337383	
1954879	EPA 350.1 Rev. 2.0	Ammonia-N	0.035		mg N/L	P337636	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.92		mg N/L	P337329	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P337350	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P337411	
	SM 5310 B-00	Organic Carbon	20		mg C/L	P337322	
1954882	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.068		mg P/L	P337262	

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: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: LAKE ALICE OUTLET @ NEWELL RD

Collection Date/Time: 12/18/2017 11:20

Field ID: G1NE0898 12052017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1954877	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P337219	
	EPA 300.0 Rev. 2.1	Chloride	33		mg Cl/L	P337390	

Field ID: G1NE0898 12052017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1954877	EPA 300.0 Rev. 2.1	Sulfate	59		mg SO4/L	P337394	
	SM 2120 B	Color (true)	15		PCU	P337224	
	SM 2320 B-97	Total Alkalinity	103		mg CaCO3/L	P337380	
	SM 2540 C-97	TDS	265		mg/L	P337495	
	SM 2540 D-97	TSS	3	I	mg/L	P337662	
	SM 4500 F-C-97	Fluoride	0.42		mg F/L	P337383	
1954880	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P337637	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.31		mg N/L	P337329	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.27		mg N/L	P337350	
	EPA 365.1 Rev. 2.0	Total-P	0.65		mg P/L	P337364	
	SM 5310 B-00	Organic Carbon	3.8		mg C/L	P337322	
1954883	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.62		mg P/L	P337262	
1954911	EPA 200.7 Rev. 4.4	Calcium	56.1		mg/L	P337181	
		Iron	63	I	ug/L	P337181	
		Magnesium	10.5		mg/L	P337181	
		Potassium	1.9		mg/L	P337181	
		Sodium	18.2		mg/L	P337181	
		Zinc	5.7	I	ug/L	P337181	
	EPA 200.8 Rev. 5.4	Arsenic	0.91		ug/L	P337181	
		Cadmium	0.035	I	ug/L	P337181	
		Chromium	0.40	U	ug/L	P337181	
		Copper	0.93		ug/L	P337181	
		Lead	0.25		ug/L	P337181	
		Nickel	0.57	I	ug/L	P337181	
		Silver	0.010	U	ug/L	P337181	

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: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable because of high analyte concentration in the QC sample. Batch matrix spike recoveries for sodium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P337219

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P337181

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P337181

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: P337390

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337394

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337636

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337637

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337329

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337350

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337363

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
Batch ID: P337364

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337411

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P337262

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P337263

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

Reference Method: EPA 8321B
Batch ID: P336877

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P337224

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P337380

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

Reference Method: SM 2540 C-97
Batch ID: P337495

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P337662

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P337383

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P337322

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

Reference Method: USGS O-2060-01
Batch ID: P337156

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
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: P337181

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	109		P	85 - 115
Iron	106		P	85 - 115
Magnesium	109		P	85 - 115
Potassium	102		P	85 - 115
Sodium	104		P	85 - 115
Zinc	96.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P337181

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	102		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	101		P	85 - 115
Copper	93.1		P	85 - 115
Lead	99.2		P	85 - 115
Nickel	101		P	85 - 115
Silver	103		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337390

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337394

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337636

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337637

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337329

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337350

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337363

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: P337364

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	96.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337411

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	98.9		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P337262

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.1		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P337263

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

Reference Method: EPA 8321B
Batch ID: P336877

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	87.8		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P337380

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

Reference Method: SM 4500 F-C-97
Batch ID: P337383

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.7		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P337322

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.2		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P337156

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	103		P	40 - 150
Acetaminophen	95.0		P	30 - 150
Bentazon	94.6		P	30 - 150
Carbamazepine	98.5		P	40 - 150
Diuron	83.7		P	40 - 150
Fenuron	103		P	40 - 150
Fluridone	100		P	40 - 150
Imidacloprid	99.8		P	40 - 160
Linuron	90.5		P	40 - 150
MCPP	93.3		P	40 - 150
Primidone	107		P	40 - 150
Triclopyr	90.8		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P337181

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954717	Iron	104		P	80 - 120
1954717	Magnesium	106		P	80 - 120
1954717	Potassium	99.8		P	80 - 120
1954717	Sodium	102		P	80 - 120
1954717	Zinc	95.5		P	80 - 120
1954970	Iron	108	102	P/P	80 - 120
1954970	Magnesium	111	100	P/P	80 - 120
1954970	Potassium	105	95.3	P/P	80 - 120
1954970	Zinc	97.0	94.2	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P337181

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954717	Arsenic	103		P	80 - 120
1954717	Cadmium	106		P	80 - 120
1954717	Chromium	102		P	80 - 120
1954717	Copper	89.6		P	80 - 120
1954717	Lead	100		P	80 - 120
1954717	Nickel	101		P	80 - 120
1954717	Silver	107		P	80 - 120
1954970	Arsenic	104	103	P/P	80 - 120
1954970	Cadmium	104	105	P/P	80 - 120
1954970	Chromium	103	102	P/P	80 - 120
1954970	Copper	89.9	90.1	P/P	80 - 120
1954970	Lead	101	101	P/P	80 - 120
1954970	Nickel	99.6	98.5	P/P	80 - 120
1954970	Silver	103	104	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337390

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954884	Chloride	101		P	90 - 110
1954902	Chloride	98.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337394

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954884	Sulfate	100		P	90 - 110
1954902	Sulfate	95.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337636

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954727	Ammonia-N	97.9	98.5	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337637

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954880	Ammonia-N	98.8	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337329

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954905	Kjeldahl Nitrogen	104	114	P/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337350

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954848	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337363

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954253	Total-P	99.5	94.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P337262

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954710	O-Phosphate-P	95.2	95.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P337263

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954886	O-Phosphate-P	93.8	94.6	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P336877

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1953431	Sucralose	64.2	64.3	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P337383

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954981	Fluoride	96.6	95.2	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P337322

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954253	Organic Carbon	97.6	99.4	P/P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P337156

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954940	2,4-D	82.6	99.4	P/P	40 - 150
1954940	Acetaminophen	111	114	P/P	30 - 150
1954940	Bentazon	53.1	59.6	P/P	30 - 150
1954940	Carbamazepine	96.3	95.0	P/P	40 - 150
1954940	Diuron	80.0	76.1	P/P	40 - 150
1954940	Fenuron	88.8	90.0	P/P	40 - 150
1954940	Fluridone	79.9	77.0	P/P	40 - 150
1954940	Imidacloprid	157	155	P/P	40 - 160
1954940	Linuron	85.5	76.0	P/P	40 - 150
1954940	MCP	65.6	72.0	P/P	40 - 150
1954940	Primidone	101	110	P/P	40 - 150
1954940	Triclopyr	62.5	71.9	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P337219

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954846	Turbidity	1.82	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P337181

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954970	Calcium	5.85	Spike	P	0 - 20
1954970	Iron	5.21	Spike	P	0 - 20
1954970	Magnesium	6.00	Spike	P	0 - 20
1954970	Potassium	5.79	Spike	P	0 - 20
1954970	Sodium	5.52	Spike	P	0 - 20
1954970	Zinc	2.91	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P337181

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954970	Arsenic	0.829	Spike	P	0 - 20
1954970	Cadmium	1.47	Spike	P	0 - 20
1954970	Chromium	0.475	Spike	P	0 - 20
1954970	Copper	0.219	Spike	P	0 - 20
1954970	Lead	0.112	Spike	P	0 - 20
1954970	Nickel	1.09	Spike	P	0 - 20
1954970	Silver	0.515	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337390

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954884	Chloride	1.93	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337394

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954884	Sulfate	2.92	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337636

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954727	Ammonia-N	0.610	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337637

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954880	Ammonia-N	0.182	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337329

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954905	Kjeldahl Nitrogen	8.46	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337350

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954848	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337363

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954253	Total-P	5.18	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337364

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954880	Total-P	1.56	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337411

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1955261	Total-P	0.609	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P337262

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954710	O-Phosphate-P	0.433	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P337263

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954886	O-Phosphate-P	0.495	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P336877

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1953431	Sucralose	0.230	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P337224

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954875	Color (true)	2.72	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P337380

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954981	Total Alkalinity	0.591	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P337495

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954876	TDS	8.22	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P337383

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954981	Fluoride	0.986	Spike	P	0 - 3.0

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P337322

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954253	Organic Carbon	1.72	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P337156

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954940	2,4-D	12.8	Spike	P	0 - 30
1954940	Acetaminophen	2.56	Spike	P	0 - 30
1954940	Bentazon	7.08	Spike	P	0 - 30
1954940	Carbamazepine	1.30	Spike	P	0 - 30
1954940	Diuron	4.61	Spike	P	0 - 30
1954940	Fenuron	1.32	Spike	P	0 - 30
1954940	Fluridone	3.18	Spike	P	0 - 30
1954940	Imidacloprid	1.02	Spike	P	0 - 30
1954940	Linuron	11.7	Spike	P	0 - 30
1954940	MCP	9.42	Spike	P	0 - 30
1954940	Primidone	8.67	Spike	P	0 - 30
1954940	Triclopyr	14.0	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 1954893
Field Sample ID: G1NE0096 12052017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	124	P	30 - 160
EPA 8321B	Carbamazepine-d10	101	P	30 - 160
EPA 8321B	Diuron-d6	83.4	P	30 - 160
EPA 8321B	Primidone-d5	71.2	P	30 - 160
EPA 8321B	Sucralose-d6	58.6	P	40 - 160
USGS O-2060-01	2,4-D-d3	98.0	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	124	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	101	P	30 - 160
USGS O-2060-01	Diuron-d6	83.4	P	30 - 160
USGS O-2060-01	Primidone-d5	71.2	P	30 - 160
USGS O-2060-01	Sucralose-d6	58.6	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A81014
Included Lab Sample IDs: 1954875, 1954876, 1954877, 1954884

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A81014

Included Lab Sample IDs: 1954875, 1954876, 1954877, 1954884

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

Reference Method: SM 2120 B

Run ID: A81015

Included Lab Sample IDs: 1954875, 1954876, 1954877, 1954884

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	98.1	P/P	85 - 115
Color (true)	98.6	99.8	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A81037

Included Lab Sample IDs: 1954881, 1954882, 1954883, 1954886

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.3	99.8	P/P	90 - 110
O-Phosphate-P	98.7	97.6	P/P	90 - 110
O-Phosphate-P	99.5	98.7	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A81053

Included Lab Sample IDs: 1954894, 1954911

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	101	P/P	90 - 110
Iron	102	102	P/P	90 - 110
Magnesium	101	101	P/P	90 - 110
Potassium	98.7	98.0	P/P	90 - 110
Sodium	101	101	P/P	90 - 110
Zinc	99.6	98.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A81055

Included Lab Sample IDs: 1954893

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	85.4	81.5	P/P	60 - 150

Reference Method: SM 5310 B-00

Run ID: A81056

Included Lab Sample IDs: 1954878, 1954879, 1954880, 1954885

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	101	97.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A81066

Included Lab Sample IDs: 1954878, 1954879, 1954880, 1954885

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

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A81083

Included Lab Sample IDs: 1954875, 1954876, 1954877, 1954884

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	98.6	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A81083

Included Lab Sample IDs: 1954875, 1954876, 1954877, 1954884

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	101	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A81087

Included Lab Sample IDs: 1954875, 1954876, 1954877, 1954884

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	106	P/P	90 - 110
Sulfate	100	104	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A81093

Included Lab Sample IDs: 1954893

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	98.8	102	P/P	50 - 150
Acetaminophen	102	103	P/P	60 - 150
Bentazon	103	102	P/P	50 - 150
Carbamazepine	105	106	P/P	60 - 150
Diuron	101	108	P/P	60 - 150
Fenuron	105	104	P/P	60 - 150
Fluridone	106	106	P/P	60 - 160
Imidacloprid	102	95.1	P/P	60 - 150
Linuron	101	106	P/P	60 - 150
MCPP	99.2	97.6	P/P	50 - 150
Primidone	95.0	104	P/P	60 - 150
Triclopyr	94.2	91.2	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A81096

Included Lab Sample IDs: 1954878, 1954880, 1954885

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A81105

Included Lab Sample IDs: 1954878, 1954879, 1954880, 1954885

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A81114

Included Lab Sample IDs: 1954879

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A81155

Included Lab Sample IDs: 1954894, 1954911

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	97.7	97.3	P/P	90 - 110
Cadmium	98.7	98.6	P/P	90 - 110
Chromium	98.9	99.4	P/P	90 - 110
Lead	99.4	99.7	P/P	90 - 110
Nickel	98.7	98.6	P/P	90 - 110
Silver	108	108	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A81195

Included Lab Sample IDs: 1954878, 1954879, 1954880, 1954885

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.6	99.0	P/P	90 - 110
Ammonia-N	98.0	97.6	P/P	90 - 110
Ammonia-N	99.0	98.0	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A81208

Included Lab Sample IDs: 1954894, 1954911

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	98.3	94.0	P/P	90 - 110
Nickel	97.8	94.2	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			Precision	
			LCS			SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					1.82	
EPA 200.7 Rev. 4.4	Calcium	109					5.85
	Iron	106	104	108	102		5.21
	Magnesium	109	106	111	100		6.00
	Potassium	102	99.8	105	95.3		5.79
	Sodium	104	102				5.52
	Zinc	96.8	95.5	97.0	94.2		2.91
EPA 200.8 Rev. 5.4	Arsenic	102	103	104	103		0.829
	Cadmium	102	106	104	105		1.47
	Chromium	101	102	103	102		0.475

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
EPA 200.8 Rev. 5.4	Copper	93.1	89.6	89.9	90.1		0.219
	Lead	99.2	100	101	101		0.112
	Nickel	101	101	99.6	98.5		1.09
	Silver	103	107	103	104		0.515
EPA 300.0 Rev. 2.1	Chloride	101	101	98.8		1.93	
	Sulfate	97.4	100	95.7		2.92	
EPA 350.1 Rev. 2.0	Ammonia-N	97.1	97.9	98.5			0.610
	Ammonia-N	99.6	98.8	99.0			0.182
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	104	114			8.46
EPA 353.2 Rev. 2.0	NO2NO3-N	104	102	102			0.0
EPA 365.1 Rev. 2.0	Total-P	101	99.5	94.0			5.18
	Total-P	96.5					1.56
	Total-P	98.9					0.609
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.1	95.2	95.7			0.433
	O-Phosphate-P	102	93.8	94.6			0.495
EPA 8321B	Sucralose	87.8	64.2	64.3			0.230
SM 2120 B	Color (true)					2.72	
SM 2320 B-97	Total Alkalinity	100				0.591	
SM 2540 C-97	TDS					8.22	
SM 4500 F-C-97	Fluoride	96.7	96.6	95.2			0.986
SM 5310 B-00	Organic Carbon	98.2	97.6	99.4			1.72
USGS O-2060-01	2,4-D	103	99.4	82.6			12.8
	Acetaminophen	95.0	111	114			2.56
	Bentazon	94.6	59.6	53.1			7.08
	Carbamazepine	98.5	96.3	95.0			1.30
	Diuron	83.7	80.0	76.1			4.61
	Fenuron	103	88.8	90.0			1.32
	Fluridone	100	79.9	77.0			3.18
	Imidacloprid	99.8	157	155			1.02
	Linuron	90.5	85.5	76.0			11.7
	MCPP	93.3	72.0	65.6			9.42
	Primidone	107	101	110			8.67
	Triclopyr	90.8	71.9	62.5			14.0

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1954875, 1954876, 1954877, 1954884
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1954894, 1954911
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1954894, 1954911
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1954875, 1954876, 1954877, 1954884
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1954875, 1954876, 1954877, 1954884
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1954878, 1954879, 1954880, 1954885
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1954878, 1954879, 1954880, 1954885
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1954878, 1954879, 1954880, 1954885
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1954878, 1954879, 1954880, 1954885

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1954881, 1954882, 1954883, 1954886
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1954893
SM 2120 B / E31780	True Color measured at 450 nm	1954875, 1954876, 1954877, 1954884
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1954875, 1954876, 1954877, 1954884
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1954875, 1954876, 1954877, 1954884
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1954875, 1954876, 1954877, 1954884
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1954875, 1954876, 1954877, 1954884
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1954878, 1954879, 1954880, 1954885
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1954893
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1954893

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	12/19/2017			12/19/2017 16:37	DeAsia Armster	1954875, 1954876, 1954877, 1954884
EPA 200.7 Rev. 4.4	12/19/2017	12/19/2017	Elliott D. Healy	12/20/2017	Betina Topolski	1954894, 1954911
EPA 200.8 Rev. 5.4	12/19/2017	12/19/2017	Elliott D. Healy	12/27/2017	Nadine Brooks	1954894, 1954911
	12/19/2017	12/19/2017	Elliott D. Healy	12/29/2017	Nadine Brooks	1954894, 1954911
EPA 300.0 Rev. 2.1	12/19/2017			12/20/2017	Julia Storbeck	1954875, 1954876, 1954877, 1954884
EPA 350.1 Rev. 2.0	12/19/2017			12/28/2017	Sofia Elnemr	1954878, 1954879, 1954880, 1954885
EPA 351.2 Rev. 2.0	12/19/2017	12/21/2017	Adrian Shelby	12/22/2017	Joseph Suarez	1954878, 1954879, 1954880, 1954885
EPA 353.2 Rev. 2.0	12/19/2017			12/21/2017	Beverly Y. Sanders	1954878, 1954879, 1954880, 1954885
EPA 365.1 Rev. 2.0	12/19/2017	12/21/2017	Adrian Shelby	12/22/2017	Lipi Saha	1954878, 1954880, 1954885
	12/19/2017	12/22/2017	Sima Feizi	12/26/2017	Lipi Saha	1954879
EPA 365.1 Rev. 2.0 dissolved	12/19/2017			12/19/2017 14:55	Megan Treadwell	1954886
	12/19/2017			12/19/2017 15:19	Megan Treadwell	1954881, 1954882
	12/19/2017			12/19/2017 15:29	Megan Treadwell	1954883
EPA 8321B	12/19/2017	12/20/2017	Juyoung Kim	12/21/2017	Juyoung Kim	1954893
SM 2120 B	12/19/2017			12/19/2017 15:58	Tanya Welborn	1954875
	12/19/2017			12/19/2017 16:00	Tanya Welborn	1954877
	12/19/2017			12/19/2017 16:23	Tanya Welborn	1954876
	12/19/2017			12/19/2017 16:24	Tanya Welborn	1954884
SM 2320 B-97	12/19/2017			12/21/2017	Dale L. Simmons	1954875, 1954876, 1954877, 1954884
SM 2540 C-97	12/19/2017			12/20/2017	Yijie Li	1954875, 1954876, 1954877, 1954884
SM 2540 D-97	12/19/2017			12/20/2017	Yijie Li	1954875, 1954876, 1954877, 1954884
SM 4500 F-C-97	12/19/2017			12/21/2017	Dale L. Simmons	1954875, 1954876, 1954877, 1954884
SM 5310 B-00	12/19/2017			12/20/2017	Megan Treadwell	1954878, 1954879, 1954880, 1954885
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