

Chemical Analysis Report

NW-DIST-2017-05-04-01

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

Event Description: **NW RUN WBID 135 4 72 71**

Request ID: **RQ-2017-04-24-16**

Customer: **NW-DIST**

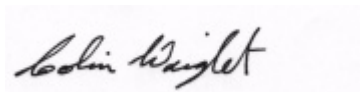
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 W Government St
Suite 208A
Pensacola, FL 32502-5794
Attn: Michael King

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
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Certified by: Colin Wright, Program Administrator

Date Certified: 30-MAY-2017 16:07



NON-CONFORMANCE REPORT INCLUDED

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

A - Value reported is the mean of two or more determinations.
B - Results based on colony counts outside the acceptable range.
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J - Estimated value and/or the analysis did not meet established quality control criteria.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
N - Presumptive evidence of presence of material.
O - Sampled, but analysis lost or not performed.
Q - Sample held beyond normal holding time.
T - Value reported is less than the criterion of detection.
U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
V - Analyte was detected in both sample and method blank.
X - Too few individuals to calculate SCI value.
Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: MOORE CREEK @ SR 197

Collection Date/Time: 05/03/2017 11:15

Field ID: G4NW0318

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1896473	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P324690	
	EPA 300.0 Rev. 2.1	Chloride	6.9		mg Cl/L	P325109	
		Sulfate	0.28	I	mg SO4/L	P325112	
	SM 2120 B	Color (true)	9.0		PCU	P324633	
	SM 2320 B-97	Total Alkalinity	6.2		mg CaCO3/L	P325400	
	SM 2540 C-97	TDS	39		mg/L	P325502	
	SM 2540 D-97	TSS	4	I	mg/L	P325305	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P325739	RPD
1896480	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P324642	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.18	I	mg N/L	P324986	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.3		mg N/L	P324974	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P324809	
	SM 5310 B-00	Organic Carbon	1.2		mg C/L	P324770	
1896487	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P324712	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Sample Location: MCCOSTILL MILL CREEK ABOVE EBENNEZER RD.

Collection Date/Time: 05/03/2017 12:00

Field ID: G4NW0320

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1896474	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P324690	
	EPA 300.0 Rev. 2.1	Chloride	6.2		mg Cl/L	P325109	
		Sulfate	0.57		mg SO4/L	P325112	
	SM 2120 B	Color (true)	10		PCU	P324633	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P325400	
	SM 2540 C-97	TDS	22	I	mg/L	P325502	
	SM 2540 D-97	TSS	3	I	mg/L	P325305	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P325739	RPD
1896481	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	IY	mg N/L	P324642	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.18	IY	mg N/L	P324986	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.0	Y	mg N/L	P324974	
	EPA 365.1 Rev. 2.0	Total-P	0.003	IY	mg P/L	P324809	
	SM 5310 B-00	Organic Carbon	1.2	Y	mg C/L	P324770	
1896488	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P324712	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

EPA 350.1 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

EPA 351.2 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

EPA 353.2 Rev. 2.0: NO2NO3-N: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

EPA 365.1 Rev. 2.0: Total-P: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

SM 5310 B-00: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

Sample Location: WIGGINS BRANCH BELOW US 29, SOUTH OF CENTURY

Collection Date/Time: 05/03/2017 12:35

Field ID: G4NW0163

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1896475	EPA 180.1 Rev. 2.0	Turbidity	5.4		NTU	P324690	
	EPA 300.0 Rev. 2.1	Chloride	4.3		mg Cl/L	P325109	
		Sulfate	1.4		mg SO4/L	P325112	
	SM 2120 B	Color (true)	67	A	PCU	P324633	
	SM 2320 B-97	Total Alkalinity	6.4	J	mg CaCO3/L	P325401	
	SM 2540 C-97	TDS	27		mg/L	P325502	
	SM 2540 D-97	TSS	3	I	mg/L	P325305	
	SM 4500 F-C-97	Fluoride	0.037	I	mg F/L	P325404	RPD
1896482	EPA 350.1 Rev. 2.0	Ammonia-N	0.048		mg N/L	P324642	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37		mg N/L	P324986	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.057		mg N/L	P324974	
	EPA 365.1 Rev. 2.0	Total-P	0.015		mg P/L	P324809	
	SM 5310 B-00	Organic Carbon	4.0		mg C/L	P324770	
1896489	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P324713	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

SM 2320 B-97: The result may be biased high due to background contamination.

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

Sample Location: CANOE CREEK ABOVE US 29

Collection Date/Time: 05/03/2017 13:00

Field ID: G4NW0201

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1896476	EPA 180.1 Rev. 2.0	Turbidity	9.8		NTU	P324690	
	EPA 300.0 Rev. 2.1	Chloride	4.5		mg Cl/L	P325109	
		Sulfate	0.67		mg SO4/L	P325112	
	SM 2120 B	Color (true)	55	A	PCU	P324634	
	SM 2320 B-97	Total Alkalinity	3.0	J	mg CaCO3/L	P325401	
	SM 2540 C-97	TDS	23	I	mg/L	P325502	
	SM 2540 D-97	TSS	6	I	mg/L	P325305	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P325404	RPD
1896483	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P324642	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.35		mg N/L	P324986	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.77		mg N/L	P324974	
	EPA 365.1 Rev. 2.0	Total-P	0.019		mg P/L	P324809	
	SM 5310 B-00	Organic Carbon	2.6		mg C/L	P324770	
1896490	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P324713	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

SM 2320 B-97: The result may be biased high due to background contamination.

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

Sample Location: MITCHELL CREEK HWY 29

Collection Date/Time: 05/03/2017 13:15

Field ID: G4NW0116

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1896477	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P324690	

Field ID: G4NW0116

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1896477	EPA 300.0 Rev. 2.1	Chloride	3.3		mg Cl/L	P325110	
		Sulfate	0.83		mg SO4/L	P325113	
	SM 2120 B	Color (true)	38		PCU	P324634	
	SM 2320 B-97	Total Alkalinity	0.70	IJ	mg CaCO3/L	P325401	
	SM 2540 C-97	TDS	16	I	mg/L	P325502	
	SM 2540 D-97	TSS	2	I	mg/L	P325305	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P325404	RPD
1896484	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P324642	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.17	I	mg N/L	P324986	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.092		mg N/L	P324974	
	EPA 365.1 Rev. 2.0	Total-P	0.004	I	mg P/L	P324809	
	SM 5310 B-00	Organic Carbon	3.3		mg C/L	P324770	
1896491	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P324713	

Ref. Method and Comment:

SM 2320 B-97: The result may be biased high due to background contamination.

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

Sample Location: LITTLE PINE BARREN CREEK BELOW CR 99 **Collection Date/Time: 05/03/2017 13:55**

Field ID: G4NW0191

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1896478	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P324690	
	EPA 300.0 Rev. 2.1	Chloride	6.5		mg Cl/L	P325110	
		Sulfate	0.49	I	mg SO4/L	P325113	
	SM 2120 B	Color (true)	37		PCU	P324634	
	SM 2320 B-97	Total Alkalinity	5.9		mg CaCO3/L	P325401	
	SM 2540 C-97	TDS	26		mg/L	P325502	
	SM 2540 D-97	TSS	2	U	mg/L	P325305	
1896485	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P325404	RPD
	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P324642	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37		mg N/L	P324986	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.66		mg N/L	P324974	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P324809	
1896492	SM 5310 B-00	Organic Carbon	2.4		mg C/L	P324770	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P324713	

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: BRUSHY CREEK @ PINEVILLE ROAD **Collection Date/Time: 05/03/2017 14:30**

Field ID: G5NW0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1896504	EPA 8321B	Sucralose**	0.18		ug/L	P324480	
	USGS O-2060-01	2,4-D	0.10		ug/L	P324620	
		Diuron	0.061		ug/L	P324620	
		Fenuron	0.0040	U	ug/L	P324620	

Field ID: G5NW0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1896504	USGS O-2060-01	Imidacloprid	0.11		ug/L	P324620	MS
		Bentazon	8.0E-04	U	ug/L	P324620	
		Linuron	0.0040	U	ug/L	P324620	
		Acetaminophen**	0.0080	U	ug/L	P324620	
		MCPD	8.0E-04	U	ug/L	P324620	
		Carbamazepine**	0.0035		ug/L	P324620	
		Triclopyr**	0.0040	U	ug/L	P324620	
		Primidone**	0.0040	U	ug/L	P324620	
		Fluridone**	4.0E-04	U	ug/L	P324620	

Ref. Method and Comment:
 USGS O-2060-01: Results confirmed in re-extraction.

Sample Location: BOGGY CREEK @ HWY 97A

Collection Date/Time: 05/03/2017 15:00

Field ID: G5NW0009

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1896479	EPA 180.1 Rev. 2.0	Turbidity	5.0	A	NTU	P324691	
	EPA 300.0 Rev. 2.1	Chloride	5.5		mg Cl/L	P325110	
		Sulfate	0.97		mg SO4/L	P325113	
	SM 2120 B	Color (true)	38		PCU	P324634	
	SM 2320 B-97	Total Alkalinity	3.0		mg CaCO3/L	P325401	
	SM 2540 C-97	TDS	28		mg/L	P325502	
	SM 2540 D-97	TSS	2	I	mg/L	P325305	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P325404	RPD
1896486	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P324642	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.28		mg N/L	P324989	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.78		mg N/L	P324974	
	EPA 365.1 Rev. 2.0	Total-P	0.015		mg P/L	P324809	
	SM 5310 B-00	Organic Carbon	2.6		mg C/L	P324770	
1896493	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.005	I	mg P/L	P324713	
	dissolved						

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

Non-Conformance Report

NCR ID: 6402

Event(s)

NW-DIST-2017-05-04-01

Job(s)

TLH-2017-05-04-69

Sample(s)

1896481

Test(s)

NCR Type: SHIPPING/RECEIVING

NCR Category: Preservation Not Intact

Observation: Sample not preserved to pH<2.

Resolution: Sample preserved in laboratory with sulfuric acid on 05/04/2017 at 11:50am.

Authorized by/Date: Bettina S. Steinbock 5/30/2017

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry Colin Wright (850) 245-8085
Biology Cheryl Swanson (850) 245-8177

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P324690

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P324691

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P325109

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P325110

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P325112

Component	Result	Code	Units
Sulfate	0.20	U	mg SO ₄ /L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P325113

Component	Result	Code	Units
Sulfate	0.20	U	mg SO ₄ /L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324642

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324986

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324989

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324974

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324809

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324712

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324713

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

Reference Method: EPA 8321B
Batch ID: P324480

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P324633

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P324634

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P325400

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P325401

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

Reference Method: SM 2540 C-97
Batch ID: P325502

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P325305

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P325404

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P325739

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P324770

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

Reference Method: USGS O-2060-01
Batch ID: P324620

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	8.0E-04	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 300.0 Rev. 2.1
Batch ID: P325109

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P325110

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P325112

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P325113

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324642

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	107		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324986

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324989

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: P324974

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324809

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P324712

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P324713

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

Reference Method: EPA 8321B
 Batch ID: P324480

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	107		P	40 - 140

Reference Method: SM 2320 B-97
 Batch ID: P325400

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

Reference Method: SM 2320 B-97
 Batch ID: P325401

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

Reference Method: SM 4500 F-C-97
 Batch ID: P325404

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.3		P	92 - 103

Reference Method: SM 4500 F-C-97
 Batch ID: P325739

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	92 - 103

Reference Method: SM 5310 B-00
 Batch ID: P324770

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

Reference Method: USGS O-2060-01
 Batch ID: P324620

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	69.8		P	40 - 140
Acetaminophen	103		P	40 - 140
Bentazon	65.8		P	40 - 140
Carbamazepine	121		P	40 - 140

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: USGS O-2060-01
Batch ID: P324620

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Diuron	120		P	40 - 140
Fenuron	107		P	40 - 140
Fluridone	107		P	40 - 140
Imidacloprid	117		P	40 - 160
Linuron	120		P	40 - 140
MCP	80.9		P	40 - 140
Primidone	104		P	40 - 140
Triclopyr	69.4		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P325109

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1896394	Chloride	105		P	90 - 110
1896473	Chloride	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P325110

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1896642	Chloride	106		P	90 - 110
1896666	Chloride	106		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P325112

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1896394	Sulfate	99.2		P	90 - 110
1896473	Sulfate	98.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P325113

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1896642	Sulfate	98.2		P	90 - 110
1896666	Sulfate	97.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324642

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1896444	Ammonia-N	107	108	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324986

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1896482	Kjeldahl Nitrogen	96.9	94.9	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324989

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1896669	Kjeldahl Nitrogen	101	97.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324974

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1896484	NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324809

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1896480	Total-P	101	99.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324712

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1896487	O-Phosphate-P	98.1	98.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324713

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1896489	O-Phosphate-P	97.4	97.5	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P324480

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1896109	Sucralose	118	95.0	P/P	40 - 140

Reference Method: SM 4500 F-C-97
Batch ID: P325404

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1896397	Fluoride	97.0	101	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P325739

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1896078	Fluoride	99.7	104	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P324770

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1896168	Organic Carbon	100	100	P/P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P324620

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1896649	2,4-D	75.0	66.1	P/P	40 - 140
1896649	Acetaminophen	97.3	101	P/P	40 - 140
1896649	Bentazon	73.9	61.4	P/P	40 - 140
1896649	Carbamazepine	111	115	P/P	40 - 140
1896649	Diuron	102	107	P/P	40 - 140
1896649	Fenuron	118	109	P/P	40 - 140
1896649	Fluridone	90.6	93.1	P/P	40 - 140
1896649	Imidacloprid	213	202	F/F	40 - 160
1896649	Linuron	106	104	P/P	40 - 140
1896649	MCP	69.0	57.4	P/P	40 - 140
1896649	Primidone	108	118	P/P	40 - 140
1896649	Triclopyr	69.4	57.6	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P324690

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896426	Turbidity	0.324	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P324691

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896479	Turbidity	1.41	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P325109

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896394	Chloride	0.356	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P325110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896666	Chloride	0.00350	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P325113

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896666	Sulfate	0.0926	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324642

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896444	Ammonia-N	0.566	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324986

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896482	Kjeldahl Nitrogen	1.54	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324989

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896669	Kjeldahl Nitrogen	2.88	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896484	NO2NO3-N	0.340	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324809

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896480	Total-P	1.41	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324712

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896487	O-Phosphate-P	0.508	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324713

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896489	O-Phosphate-P	0.0975	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P324480

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896109	Sucralose	21.0	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2120 B
Batch ID: P324633

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896475	Color (true)	1.26	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P324634

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896476	Color (true)	4.33	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P325400

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896144	Total Alkalinity	0.0829	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P325401

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896397	Total Alkalinity	0.451	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P325502

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896419	TDS	1.53	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P325404

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896397	Fluoride	3.56	Spike	F	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P325739

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896078	Fluoride	3.49	Spike	F	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P324770

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896168	Organic Carbon	0.0255	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P324620

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1896649	2,4-D	12.1	Spike	P	0 - 30
1896649	Acetaminophen	3.79	Spike	P	0 - 30
1896649	Bentazon	18.3	Spike	P	0 - 30
1896649	Carbamazepine	3.07	Spike	P	0 - 30
1896649	Diuron	5.07	Spike	P	0 - 30
1896649	Fenuron	8.22	Spike	P	0 - 30
1896649	Fluridone	2.71	Spike	P	0 - 30
1896649	Imidacloprid	5.29	Spike	P	0 - 30
1896649	Linuron	1.67	Spike	P	0 - 30
1896649	MCP	18.2	Spike	P	0 - 30
1896649	Primidone	8.62	Spike	P	0 - 30
1896649	Triclopyr	18.6	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: 1896504
Field Sample ID: G5NW0001

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	100	P	40 - 150
USGS O-2060-01	2,4-D-d3	70.5	P	30 - 150
USGS O-2060-01	Acetaminophen-d4	94.8	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	114	P	30 - 160
USGS O-2060-01	Diuron-d6	111	P	30 - 150
USGS O-2060-01	Primidone-d5	120	P	30 - 150

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A76192

Included Lab Sample IDs: 1896473, 1896474, 1896475, 1896476, 1896477, 1896478, 1896479

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	99.7	P/P	85 - 115
Color (true)	99.7	101	P/P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A76193

Included Lab Sample IDs: 1896480, 1896481, 1896482, 1896483, 1896484, 1896485, 1896486

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	106	105	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A76202

Included Lab Sample IDs: 1896473, 1896474, 1896475, 1896476, 1896477, 1896478, 1896479

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A76210

Included Lab Sample IDs: 1896487, 1896488, 1896489, 1896490, 1896491, 1896492, 1896493

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.3	99.4	P/P	90 - 110
O-Phosphate-P	99.2	98.3	P/P	90 - 110
O-Phosphate-P	99.3	98.1	P/P	90 - 110
O-Phosphate-P	99.5	98.5	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A76231

Included Lab Sample IDs: 1896480, 1896481, 1896482, 1896483, 1896484, 1896485, 1896486

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A76269

Included Lab Sample IDs: 1896473, 1896474, 1896475, 1896476, 1896477, 1896478, 1896479

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	102	P/P	90 - 110
Chloride	102	102	P/P	90 - 110
Chloride	103	103	P/P	90 - 110
Sulfate	96.5	93.7	P/P	90 - 110
Sulfate	98.5	95.2	P/P	90 - 110
Sulfate	99.0	96.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A76286

Included Lab Sample IDs: 1896480, 1896481, 1896482, 1896483, 1896484, 1896485, 1896486

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.2	98.0	P/P	90 - 110
Total-P	99.5	99.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A76313

Included Lab Sample IDs: 1896480, 1896481, 1896482, 1896483, 1896484, 1896485, 1896486

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A76434

Included Lab Sample IDs: 1896480, 1896481, 1896482, 1896483, 1896484, 1896485, 1896486

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A76434

Included Lab Sample IDs: 1896480, 1896481, 1896482, 1896483, 1896484, 1896485, 1896486

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	101	P/P	90 - 110
Kjeldahl Nitrogen	99.8	100	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A76469

Included Lab Sample IDs: 1896473, 1896474, 1896475, 1896476, 1896477, 1896478, 1896479

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	102	P/P	90 - 110
Total Alkalinity	101	103	P/P	90 - 110
Total Alkalinity	102	101	P/P	90 - 110
Total Alkalinity	103	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A76469

Included Lab Sample IDs: 1896475, 1896476, 1896477, 1896478, 1896479

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	98.1	P/P	90 - 110
Fluoride	95.3	98.4	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A76477

Included Lab Sample IDs: 1896504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	89.6	88.4	P/P	50 - 150
Acetaminophen	110	115	P/P	60 - 150
Bentazon	108	105	P/P	50 - 150
Carbamazepine	118	124	P/P	60 - 150
Diuron	129	103	P/P	60 - 150
Fenuron	105	120	P/P	60 - 150
Fluridone	105	111	P/P	60 - 150
Imidacloprid	116	106	P/P	60 - 150
Linuron	109	116	P/P	60 - 150
MCP	93.2	73.2	P/P	50 - 150
Primidone	100	97.6	P/P	60 - 150
Triclopyr	97.6	84.4	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A76559

Included Lab Sample IDs: 1896504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	96.1	88.2	P/P	60 - 150

Reference Method: SM 4500 F-C-97

Run ID: A76633

Included Lab Sample IDs: 1896473, 1896474

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

Reference Method: SM 4500 F-C-97

Run ID: A76633

Included Lab Sample IDs: 1896473, 1896474

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.1	98.0	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				0.324	
	Turbidity				1.41	
EPA 300.0 Rev. 2.1	Chloride	106	105 105		0.356	
	Chloride	106	106 106		0.0035	
	Sulfate	98.5	99.2 98.7			
	Sulfate	97.7	97.8 98.2		0.0926	
EPA 350.1 Rev. 2.0	Ammonia-N	107	107 108			0.566
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	96.9 94.9			1.54
	Kjeldahl Nitrogen	104	101 97.9			2.88
EPA 353.2 Rev. 2.0	NO2NO3-N	103	101 102			0.340
EPA 365.1 Rev. 2.0	Total-P	101	101 99.3			1.41
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.6	98.1 98.6			0.508
	O-Phosphate-P	100	97.4 97.5			0.0975
EPA 8321B	Sucralose	107	118 95.0			21.0
SM 2120 B	Color (true)				1.26	
	Color (true)				4.33	
SM 2320 B-97	Total Alkalinity	103			0.0829	
	Total Alkalinity	103			0.451	
SM 2540 C-97	TDS				1.53	
SM 4500 F-C-97	Fluoride	94.3	97.0 101			3.56
	Fluoride	101	99.7 104			3.49
SM 5310 B-00	Organic Carbon	101	100 100			0.0255
USGS O-2060-01	2,4-D	69.8	75.0 66.1			12.1
	Acetaminophen	103	97.3 101			3.79
	Bentazon	65.8	73.9 61.4			18.3
	Carbamazepine	121	111 115			3.07
	Diuron	120	102 107			5.07
	Fenuron	107	118 109			8.22
	Fluridone	107	93.1 90.6			2.71
	Imidacloprid	117	213 202			5.29
	Linuron	120	106 104			1.67
	MCP	80.9	69.0 57.4			18.2
	Primidone	104	108 118			8.62
	Triclopyr	69.4	69.4 57.6			18.6

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
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Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1896473, 1896474, 1896475, 1896476, 1896477, 1896478, 1896479
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1896473, 1896474, 1896475, 1896476, 1896477, 1896478, 1896479
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1896473, 1896474, 1896475, 1896476, 1896477, 1896478, 1896479
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1896480, 1896481, 1896482, 1896483, 1896484, 1896485, 1896486
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1896480, 1896481, 1896482, 1896483, 1896484, 1896485, 1896486
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1896480, 1896481, 1896482, 1896483, 1896484, 1896485, 1896486
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1896480, 1896481, 1896482, 1896483, 1896484, 1896485, 1896486
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1896487, 1896488, 1896489, 1896490, 1896491, 1896492, 1896493
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1896504
SM 2120 B / E31780	True Color measured at 450 nm	1896473, 1896474, 1896475, 1896476, 1896477, 1896478, 1896479
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1896473, 1896474, 1896475, 1896476, 1896477, 1896478, 1896479
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1896473, 1896474, 1896475, 1896476, 1896477, 1896478, 1896479
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1896473, 1896474, 1896475, 1896476, 1896477, 1896478, 1896479
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1896473, 1896474, 1896475, 1896476, 1896477, 1896478, 1896479
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1896480, 1896481, 1896482, 1896483, 1896484, 1896485, 1896486
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1896504
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1896504

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	05/04/2017			05/04/2017 17:05	Sima Feizi	1896473, 1896474, 1896475, 1896476, 1896477, 1896478, 1896479
EPA 300.0 Rev. 2.1	05/04/2017			05/11/2017	Ping Hua	1896473, 1896474, 1896475, 1896476, 1896477, 1896478, 1896479
EPA 350.1 Rev. 2.0	05/04/2017			05/04/2017	Julie Michelle Frank	1896480, 1896481, 1896482, 1896483, 1896484, 1896485, 1896486
EPA 351.2 Rev. 2.0	05/04/2017	05/11/2017	Adrian Shelby	05/15/2017	Joseph Suarez	1896480, 1896481, 1896482, 1896483, 1896484, 1896485, 1896486
EPA 353.2 Rev. 2.0	05/04/2017			05/09/2017	Beverly Y. Sanders	1896480, 1896481, 1896482, 1896483, 1896484, 1896485, 1896486
EPA 365.1 Rev. 2.0	05/04/2017	05/08/2017	Vijayalakshmi Reddy	05/09/2017	Lipi Saha	1896480, 1896481, 1896482, 1896483, 1896484, 1896485, 1896486
EPA 365.1 Rev. 2.0 dissolved	05/04/2017			05/04/2017 15:24	Anthony C. Onicha	1896489
	05/04/2017			05/04/2017 16:04	Anthony C. Onicha	1896487
	05/04/2017			05/04/2017 16:47	Anthony C. Onicha	1896488
	05/04/2017			05/04/2017 16:48	Anthony C. Onicha	1896490, 1896491
	05/04/2017			05/04/2017 16:54	Anthony C. Onicha	1896492, 1896493
EPA 8321B	05/04/2017	05/17/2017	Mohammad Ghaffari	05/18/2017	Mohammad Ghaffari	1896504
SM 2120 B	05/04/2017			05/04/2017 15:59	Julia Storbeck	1896473
	05/04/2017			05/04/2017 16:00	Julia Storbeck	1896474
	05/04/2017			05/04/2017 16:01	Julia Storbeck	1896475
	05/04/2017			05/04/2017 16:05	Julia Storbeck	1896476
	05/04/2017			05/04/2017 16:06	Julia Storbeck	1896477
SM 2320 B-97	05/04/2017			05/04/2017 16:07	Julia Storbeck	1896478, 1896479
	05/04/2017			05/16/2017	Dale L. Simmons	1896473, 1896474, 1896475, 1896476, 1896477, 1896478, 1896479
SM 2540 C-97	05/04/2017			05/08/2017	Sima Feizi	1896473, 1896474, 1896475, 1896476, 1896477, 1896478, 1896479
SM 2540 D-97	05/04/2017			05/08/2017	Sima Feizi	1896473, 1896474, 1896475, 1896476, 1896477, 1896478, 1896479
SM 4500 F-C-97	05/04/2017			05/16/2017	Dale L. Simmons	1896475, 1896476, 1896477, 1896478, 1896479
	05/04/2017			05/23/2017	Dale L. Simmons	1896473, 1896474
SM 5310 B-00	05/04/2017			05/05/2017	Julie Michelle Frank	1896480, 1896481, 1896482, 1896483, 1896484, 1896485, 1896486
	05/04/2017					
USGS O-2060-01	05/04/2017	05/10/2017	Hoor Shaik	05/16/2017	Juyoung Kim	1896504