

Chemical Analysis Report

SE-DIST-2017-03-21-01

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

Event Description: **SMP-G5 North Run**
Request ID: **RQ-2017-03-20-35**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Matthew Sewell

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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator Date Certified: 12-APR-2017 14:03



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: Micco Ditch @ Micco Road

Collection Date/Time: 03/20/2017 12:20

Field ID: G5SE0048

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881429	EPA 180.1 Rev. 2.0	Turbidity	3.8		NTU	P321895	
	EPA 300.0 Rev. 2.1	Chloride	68		mg Cl/L	P322280	
		Sulfate	20		mg SO4/L	P322282	
	SM 2120 B	Color (true)	48	A	PCU	P321906	
	SM 2320 B-97	Total Alkalinity	86		mg CaCO3/L	P322690	
	SM 2540 C-97	TDS	253		mg/L	P322641	
	SM 2540 D-97	TSS	5	I	mg/L	P322620	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P322417	
1881432	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P321913	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.81		mg N/L	P321922	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P321994	
	EPA 365.1 Rev. 2.0	Total-P	0.092		mg P/L	P321939	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P321942	
1881435	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.032		mg P/L	P321900	

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: C-54 W of I-95

Collection Date/Time: 03/20/2017 13:40

Field ID: G5SE0057

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881430	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P321895	
	EPA 300.0 Rev. 2.1	Chloride	97		mg Cl/L	P322280	
		Sulfate	30		mg SO4/L	P322282	
	SM 2120 B	Color (true)	61		PCU	P321906	
	SM 2320 B-97	Total Alkalinity	162		mg CaCO3/L	P322690	
	SM 2540 C-97	TDS	396		mg/L	P322641	
	SM 2540 D-97	TSS	4	I	mg/L	P322620	
	SM 4500 F-C-97	Fluoride	0.23		mg F/L	P322417	
1881433	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P321913	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.84		mg N/L	P321922	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P321994	
	EPA 365.1 Rev. 2.0	Total-P	0.034		mg P/L	P321939	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P321942	
1881436	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	I	mg P/L	P321900	

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: C-54 1700m West of I-95

Collection Date/Time: 03/20/2017 14:00

Field ID: G5SE0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881431	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P321895	
	EPA 300.0 Rev. 2.1	Chloride	100		mg Cl/L	P322280	
		Sulfate	30		mg SO4/L	P322282	

Field ID: G5SE0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881431	SM 2120 B	Color (true)	54		PCU	P321906	
	SM 2320 B-97	Total Alkalinity	164		mg CaCO3/L	P322690	
	SM 2540 C-97	TDS	380		mg/L	P322641	
	SM 2540 D-97	TSS	4	I	mg/L	P322620	
	SM 4500 F-C-97	Fluoride	0.23		mg F/L	P322417	
1881434	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P321913	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.90		mg N/L	P321922	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P321994	
	EPA 365.1 Rev. 2.0	Total-P	0.047		mg P/L	P321939	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P321942	
1881437	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.009	I	mg P/L	P321900	

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: Kid Creek @ Old Dixie

Collection Date/Time: 03/20/2017 12:00

Field ID: G5SE0050

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881438	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P321895	
	EPA 300.0 Rev. 2.1	Chloride	110		mg Cl/L	P322280	
		Sulfate	16		mg SO4/L	P322282	
	SM 2120 B	Color (true)	31		PCU	P321906	
	SM 2320 B-97	Total Alkalinity	92		mg CaCO3/L	P322690	
	SM 2540 C-97	TDS	340	A	mg/L	P322642	
	SM 2540 D-97	TSS	2	I	mg/L	P322621	
	SM 4500 F-C-97	Fluoride	0.057	I	mg F/L	P322417	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P321913	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.32		mg N/L	P321922	
1881439	EPA 353.2 Rev. 2.0	NO2NO3-N	0.032		mg N/L	P321994	
	EPA 365.1 Rev. 2.0	Total-P	0.029		mg P/L	P321939	
	SM 5310 B-00	Organic Carbon	7.0		mg C/L	P321942	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.018		mg P/L	P321900	

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: South Relief Canal @ US 1

Collection Date/Time: 03/20/2017 10:20

Field ID: G5SE0044

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881441	EPA 180.1 Rev. 2.0	Turbidity	4.5		NTU	P321895	
	EPA 300.0 Rev. 2.1	Chloride	480		mg Cl/L	P322280	
		Sulfate	100		mg SO4/L	P322282	
	SM 2120 B	Color (true)	46		PCU	P321906	
	SM 2320 B-97	Total Alkalinity	204		mg CaCO3/L	P322690	
	SM 2540 C-97	TDS	1.05E+03		mg/L	P322642	
	SM 2540 D-97	TSS	7	I	mg/L	P322621	

Field ID: G5SE0044

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881441	SM 4500 F-C-97	Fluoride	0.59		mg F/L	P322417	
1881444	EPA 350.1 Rev. 2.0	Ammonia-N	0.091		mg N/L	P321913	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.50		mg N/L	P321930	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.032		mg N/L	P321994	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P321967	
	SM 5310 B-00	Organic Carbon	9.8		mg C/L	P321942	
1881447	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.034		mg P/L	P321900	
1881472	EPA 8321B	Sucralose**	1.4		ug/L	P321878	
	USGS O-2060-01	2,4-D	0.025		ug/L	P321745	
		Diuron	0.0040	U	ug/L	P321745	
		Fenuron	0.0080	U	ug/L	P321745	
		Imidacloprid	0.0040	U	ug/L	P321745	
		Bentazon	0.11		ug/L	P321745	
		Linuron	0.0040	U	ug/L	P321745	RPD
		Acetaminophen**	0.0080	U	ug/L	P321745	
		MCP	0.0040	U	ug/L	P321745	MS
		Carbamazepine**	0.0011	I	ug/L	P321745	
		Triclopyr**	0.050		ug/L	P321745	
		Primidone**	0.0080	U	ug/L	P321745	
		Fluridone**	0.0012	I	ug/L	P321745	MS, RPD

Ref. Method and Comment:

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

EPA 8321B: MS accuracy for sucralose could not be assessed due to high concentration of parameter in the spiked sample.

USGS O-2060-01: MS accuracy for bentazon and 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Main Canal @ US 1

Collection Date/Time: 03/20/2017 10:40

Field ID: G5SE0045

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881442	EPA 180.1 Rev. 2.0	Turbidity	4.2		NTU	P321895	
	EPA 300.0 Rev. 2.1	Chloride	370		mg Cl/L	P322280	
		Sulfate	85		mg SO4/L	P322282	
	SM 2120 B	Color (true)	35		PCU	P321906	
	SM 2320 B-97	Total Alkalinity	196		mg CaCO3/L	P322690	
	SM 2540 C-97	TDS	863		mg/L	P322642	
	SM 2540 D-97	TSS	4	I	mg/L	P322621	
	SM 4500 F-C-97	Fluoride	0.44		mg F/L	P322417	
1881445	EPA 350.1 Rev. 2.0	Ammonia-N	0.037		mg N/L	P321914	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.48		mg N/L	P321930	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.047		mg N/L	P321995	
	EPA 365.1 Rev. 2.0	Total-P	0.092		mg P/L	P321967	
	SM 5310 B-00	Organic Carbon	9.7		mg C/L	P321942	
1881448	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.051		mg P/L	P321900	
1881473	EPA 8321B	Sucralose**	0.56		ug/L	P321878	
	USGS O-2060-01	2,4-D	0.020		ug/L	P321745	
		Diuron	0.0040	U	ug/L	P321745	

Field ID: G5SE0045

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881473	USGS O-2060-01	Fenuron	0.0080	U	ug/L	P321745	
		Imidacloprid	0.0040	U	ug/L	P321745	
		Bentazon	0.067		ug/L	P321745	
		Linuron	0.0040	U	ug/L	P321745	RPD
		Acetaminophen**	0.049		ug/L	P321745	
		MCP	0.0040	U	ug/L	P321745	MS
		Carbamazepine**	4.0E-04	U	ug/L	P321745	
		Triclopyr**	0.057		ug/L	P321745	
		Primidone**	0.0080	U	ug/L	P321745	
		Fluridone**	4.0E-04	U	ug/L	P321745	MS, RPD

Ref. Method and Comment:

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

EPA 8321B: MS accuracy for sucralose could not be assessed due to high concentration of parameter in the spiked sample.

USGS O-2060-01: MS accuracy for bentazon and 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: North Canal Below Weir

Collection Date/Time: 03/20/2017 11:20

Field ID: G5SE0043

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881443	EPA 180.1 Rev. 2.0	Turbidity	4.9	A	NTU	P321896	
	EPA 300.0 Rev. 2.1	Chloride	210		mg Cl/L	P322280	
		Sulfate	66		mg SO4/L	P322282	
	SM 2120 B	Color (true)	56		PCU	P321906	
	SM 2320 B-97	Total Alkalinity	161		mg CaCO3/L	P322690	
	SM 2540 C-97	TDS	604		mg/L	P322642	
	SM 2540 D-97	TSS	7	I	mg/L	P322621	
	SM 4500 F-C-97	Fluoride	0.32		mg F/L	P322417	
1881446	EPA 350.1 Rev. 2.0	Ammonia-N	0.092		mg N/L	P321914	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.82		mg N/L	P321930	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.41		mg N/L	P321995	
	EPA 365.1 Rev. 2.0	Total-P	0.21		mg P/L	P321967	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P321942	
1881449	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.096		mg P/L	P321900	
1881474	EPA 8321B	Sucralose**	4.8		ug/L	P321878	
	USGS O-2060-01	2,4-D	0.020		ug/L	P321745	
		Diuron	0.0040	U	ug/L	P321745	
		Fenuron	0.0080	U	ug/L	P321745	
		Imidacloprid	0.0040	U	ug/L	P321745	
		Bentazon	0.27		ug/L	P321745	
		Linuron	0.0040	U	ug/L	P321745	RPD
		Acetaminophen**	0.016	I	ug/L	P321745	
		MCP	0.011	I	ug/L	P321745	MS
		Carbamazepine**	0.010		ug/L	P321745	
		Triclopyr**	0.042		ug/L	P321745	
		Primidone**	0.028	I	ug/L	P321745	
		Fluridone**	0.0018		ug/L	P321745	MS, RPD

Field ID: G5SE0043

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:

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

EPA 8321B: MS accuracy for sucralose could not be assessed due to high concentration of parameter in the spiked sample.

USGS O-2060-01: MS accuracy for bentazon and 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P321895

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P321896

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P322280

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P322282

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P321913

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P321914

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P321922

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P321930

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321994

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321995

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P321939

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P321967

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P321900

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

Reference Method: EPA 8321B
Batch ID: P321878

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P321906

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P322690

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

Reference Method: SM 2540 C-97
Batch ID: P322641

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 C-97
 Batch ID: P322642

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
 Batch ID: P322620

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
 Batch ID: P322621

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
 Batch ID: P322417

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
 Batch ID: P321942

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

Reference Method: USGS O-2060-01
 Batch ID: P321745

Component	Result	Code	Units
2,4-D	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	0.0040	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	0.0040	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	0.0040	U	ug/L
Linuron	0.0040	U	ug/L
MCP	0.0040	U	ug/L
Primidone	0.0080	U	ug/L
Triclopyr	0.010	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P322280

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: P322282

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321913

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321914

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P321922

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P321930

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321994

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: P321995

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P321939

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	105		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P321967

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P321900

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

Reference Method: EPA 8321B
Batch ID: P321878

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	109		P	40 - 140

Reference Method: SM 2320 B-97
Batch ID: P322690

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P322417

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.6		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P321942

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

Reference Method: USGS O-2060-01
Batch ID: P321745

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	124		P	40 - 140
Acetaminophen	96.4		P	40 - 140
Bentazon	109		P	40 - 140
Carbamazepine	110		P	40 - 140
Diuron	97.6		P	40 - 140
Fenuron	106		P	40 - 140
Fluridone	97.2		P	40 - 140
Imidacloprid	88.8		P	40 - 160
Linuron	86.4		P	40 - 140
MCP	129		P	40 - 140
Primidone	93.2		P	40 - 140
Triclopyr	99.2		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322280

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881424	Chloride	97.3		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322280

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881692	Chloride	98.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322282

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881424	Sulfate	99.2		P	90 - 110
1881692	Sulfate	99.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321913

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881406	Ammonia-N	104	108	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321914

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881445	Ammonia-N	106	108	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P321922

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881432	Kjeldahl Nitrogen	97.0	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P321930

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881615	Kjeldahl Nitrogen	100	97.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321994

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881407	NO2NO3-N	104	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321995

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881445	NO2NO3-N	102	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P321939

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881425	Total-P	101	106	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P321967

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881445	Total-P	105	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P321900

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881437	O-Phosphate-P	97.1	98.1	P/P	90 - 110

Reference Method: SM 4500 F-C-97
 Batch ID: P322417

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881691	Fluoride	97.3	96.1	P/P	91 - 105

Reference Method: SM 5310 B-00
 Batch ID: P321942

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881406	Organic Carbon	98.4	98.4	P/P	85 - 115

Reference Method: USGS O-2060-01
 Batch ID: P321745

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881181	Acetaminophen	101	110	P/P	40 - 140
1881181	Carbamazepine	58.8	62.4	P/P	40 - 140
1881181	Diuron	42.8	46.4	P/P	40 - 140
1881181	Fenuron	51.6	54.4	P/P	40 - 140
1881181	Fluridone	24.8	37.4	F/F	40 - 140
1881181	Imidacloprid	84.3	94.3	P/P	40 - 160
1881181	Linuron	47.6	73.6	P/P	40 - 140
1881181	MCP	149	150	F/F	40 - 140
1881181	Primidone	56.0	58.8	P/P	40 - 140
1881181	Triclopyr	94.0	102	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P321895

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881404	Turbidity	2.56	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P321896

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881443	Turbidity	0.408	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322280

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881424	Chloride	0.0685	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322282

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881424	Sulfate	0.146	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321913

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881406	Ammonia-N	2.77	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321914

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881445	Ammonia-N	1.02	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P321922

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881432	Kjeldahl Nitrogen	2.46	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P321930

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881615	Kjeldahl Nitrogen	2.82	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321994

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881407	NO2NO3-N	3.42	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321995

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881445	NO2NO3-N	0.396	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P321939

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881425	Total-P	4.67	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P321967

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881445	Total-P	2.49	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P321900

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881437	O-Phosphate-P	0.941	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P321878

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881474	Sucralose	13.9	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P321906

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881429	Color (true)	1.37	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P322690

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881691	Total Alkalinity	0.179	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P322641

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881405	TDS	5.18	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P322642

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881438	TDS	0.881	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P322417

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881691	Fluoride	1.01	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P321942

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881406	Organic Carbon	0.0517	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P321745

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881181	2,4-D	11.9	Spike	P	0 - 30
1881181	Acetaminophen	8.20	Spike	P	0 - 30
1881181	Bentazon	3.20	Spike	P	0 - 30
1881181	Carbamazepine	5.94	Spike	P	0 - 30
1881181	Diuron	8.07	Spike	P	0 - 30
1881181	Fenuron	5.28	Spike	P	0 - 30
1881181	Fluridone	40.8	Spike	F	0 - 30
1881181	Imidacloprid	10.1	Spike	P	0 - 30
1881181	Linuron	42.9	Spike	F	0 - 30
1881181	MCP	0.268	Spike	P	0 - 30
1881181	Primidone	4.88	Spike	P	0 - 30
1881181	Triclopyr	4.02	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: 1881472
Field Sample ID: G5SE0044

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	110	P	40 - 150
USGS O-2060-01	2,4-D-d3	129	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	71.6	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	65.6	P	40 - 160
USGS O-2060-01	Diuron-d6	46.4	P	40 - 150
USGS O-2060-01	Primidone-d5	55.8	P	40 - 150

Lab Sample ID: 1881473
Field Sample ID: G5SE0045

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	76.0	P	40 - 150
USGS O-2060-01	2,4-D-d3	128	P	40 - 150

Quality Assurance Report Surrogates

Lab Sample ID: 1881473
Field Sample ID: G5SE0045

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	Acetaminophen-d4	64.6	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	73.2	P	40 - 160
USGS O-2060-01	Diuron-d6	55.6	P	40 - 150
USGS O-2060-01	Primidone-d5	74.0	P	40 - 150

Lab Sample ID: 1881474
Field Sample ID: G5SE0043

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	92.5	P	40 - 150
USGS O-2060-01	2,4-D-d3	120	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	60.6	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	69.4	P	40 - 160
USGS O-2060-01	Diuron-d6	48.6	P	40 - 150
USGS O-2060-01	Primidone-d5	64.4	P	40 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A75240
Included Lab Sample IDs: 1881429, 1881430, 1881431, 1881438, 1881441, 1881442, 1881443

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	100	P/P	95 - 105
Turbidity	99.0	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A75242
Included Lab Sample IDs: 1881435, 1881436, 1881437, 1881440, 1881447, 1881448, 1881449

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	100	P/P	90 - 110
O-Phosphate-P	101	100	P/P	90 - 110
O-Phosphate-P	99.1	101	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A75244
Included Lab Sample IDs: 1881429, 1881430, 1881431, 1881438, 1881441, 1881442, 1881443

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	100	P/P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A75245
Included Lab Sample IDs: 1881432, 1881433, 1881434, 1881439, 1881444, 1881445, 1881446

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	103	P/P	90 - 110
Ammonia-N	103	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A75258

Included Lab Sample IDs: 1881432, 1881433, 1881434, 1881439, 1881444, 1881445, 1881446

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.3	97.0	P/P	90 - 110
Organic Carbon	97.0	96.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A75268

Included Lab Sample IDs: 1881432, 1881433, 1881434, 1881439, 1881444, 1881445, 1881446

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

Reference Method: USGS O-2060-01

Run ID: A75269

Included Lab Sample IDs: 1881472, 1881473, 1881474

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	118	112	P/P	50 - 150
Bentazon	97.2	88.2	P/P	50 - 150
MCPP	123	126	P/P	50 - 150
Triclopyr	78.6	87.6	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A75272

Included Lab Sample IDs: 1881432

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	91.4	95.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A75276

Included Lab Sample IDs: 1881433, 1881434, 1881439

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.1	95.8	P/P	90 - 110
Kjeldahl Nitrogen	95.8	97.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A75298

Included Lab Sample IDs: 1881432, 1881444, 1881445, 1881446

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A75299

Included Lab Sample IDs: 1881433, 1881434, 1881439

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A75304

Included Lab Sample IDs: 1881444, 1881445, 1881446

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	92.9	94.9	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A75318

Included Lab Sample IDs: 1881472, 1881473, 1881474

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	100	102	P/P	60 - 150
Sucralose	102	99.5	P/P	60 - 150

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A75396

Included Lab Sample IDs: 1881429, 1881430, 1881431, 1881438, 1881441, 1881442, 1881443

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	103	P/P	90 - 110
Sulfate	98.6	96.9	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A75398

Included Lab Sample IDs: 1881472, 1881473, 1881474

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	125	133	P/P	60 - 150
Carbamazepine	138	144	P/P	60 - 150
Diuron	146	140	P/P	60 - 150
Fenuron	128	128	P/P	60 - 150
Fluridone	117	109	P/P	60 - 150
Imidacloprid	104	106	P/P	60 - 150
Linuron	138	123	P/P	60 - 150
Primidone	124	96.8	P/P	60 - 150

Reference Method: SM 4500 F-C-97

Run ID: A75433

Included Lab Sample IDs: 1881429, 1881430, 1881431, 1881438, 1881441, 1881442, 1881443

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	99.0	P/P	90 - 110
Fluoride	98.5	100	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A75542

Included Lab Sample IDs: 1881429, 1881430, 1881431, 1881438, 1881441, 1881442, 1881443

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	104	P/P	90 - 110
Total Alkalinity	104	102	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	MS
EPA 180.1 Rev. 2.0	Turbidity				2.56	
	Turbidity				0.408	
EPA 300.0 Rev. 2.1	Chloride	101	97.3	98.2	0.0685	
	Sulfate	98.2	99.2	99.0	0.146	
EPA 350.1 Rev. 2.0	Ammonia-N	108	104	108		2.77
	Ammonia-N	110	106	108		1.02
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	97.0	101		2.46
	Kjeldahl Nitrogen	97.1	100	97.4		2.82
EPA 353.2 Rev. 2.0	NO2NO3-N	104	104	100		3.42
	NO2NO3-N	104	102	103		0.396
EPA 365.1 Rev. 2.0	Total-P	105	101	106		4.67
	Total-P	98.6	105	102		2.49
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.5	97.1	98.1		0.941
EPA 8321B	Sucralose	109				13.9
SM 2120 B	Color (true)				1.37	
SM 2320 B-97	Total Alkalinity	104			0.179	
SM 2540 C-97	TDS				5.18	
	TDS				0.881	
SM 4500 F-C-97	Fluoride	95.6	97.3	96.1		1.01
SM 5310 B-00	Organic Carbon	99.6	98.4	98.4		0.0517
USGS O-2060-01	2,4-D	124				11.9
	Acetaminophen	96.4	101	110		8.20
	Bentazon	109				3.20
	Carbamazepine	110	62.4	58.8		5.94
	Diuron	97.6	46.4	42.8		8.07
	Fenuron	106	51.6	54.4		5.28
	Fluridone	97.2	37.4	24.8		40.8
	Imidacloprid	88.8	94.3	84.3		10.1
	Linuron	86.4	73.6	47.6		42.9
	MCPP	129	149	150		0.268
	Primidone	93.2	56.0	58.8		4.88
	Triclopyr	99.2	94.0	102		4.02

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1881429, 1881430, 1881431, 1881438, 1881441, 1881442, 1881443
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1881429, 1881430, 1881431, 1881438, 1881441, 1881442, 1881443
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1881429, 1881430, 1881431, 1881438, 1881441, 1881442, 1881443
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1881432, 1881433, 1881434, 1881439, 1881444, 1881445, 1881446
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1881432, 1881433, 1881434, 1881439, 1881444, 1881445, 1881446
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1881432, 1881433, 1881434, 1881439, 1881444, 1881445, 1881446
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1881432, 1881433, 1881434, 1881439, 1881444, 1881445, 1881446
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1881435, 1881436, 1881437, 1881440, 1881447, 1881448, 1881449
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1881472, 1881473, 1881474
SM 2120 B / E31780	True Color measured at 450 nm	1881429, 1881430, 1881431, 1881438, 1881441, 1881442, 1881443

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1881429, 1881430, 1881431, 1881438, 1881441, 1881442, 1881443
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1881429, 1881430, 1881431, 1881438, 1881441, 1881442, 1881443
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1881429, 1881430, 1881431, 1881438, 1881441, 1881442, 1881443
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1881429, 1881430, 1881431, 1881438, 1881441, 1881442, 1881443
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1881432, 1881433, 1881434, 1881439, 1881444, 1881445, 1881446
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1881472, 1881473, 1881474
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1881472, 1881473, 1881474

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	03/21/2017			03/21/2017 15:05	Sima Feizi	1881429, 1881430, 1881431, 1881438, 1881441, 1881442, 1881443
EPA 300.0 Rev. 2.1	03/21/2017			03/28/2017	Ping Hua	1881429, 1881430, 1881431, 1881438, 1881441, 1881442, 1881443
EPA 350.1 Rev. 2.0	03/21/2017			03/21/2017	Julie Michelle Frank	1881432, 1881433, 1881434, 1881439, 1881444, 1881445, 1881446
EPA 351.2 Rev. 2.0	03/21/2017	03/22/2017	Adrian Shelby	03/22/2017	Joseph Suarez	1881432, 1881433, 1881434, 1881439
	03/21/2017	03/22/2017	Adrian Shelby	03/23/2017	Joseph Suarez	1881444, 1881445, 1881446
EPA 353.2 Rev. 2.0	03/21/2017			03/22/2017	Beverly Y. Sanders	1881432, 1881433, 1881434, 1881439, 1881444, 1881445, 1881446
EPA 365.1 Rev. 2.0	03/21/2017	03/22/2017	Vijayalakshmi Reddy	03/23/2017	Lipi Saha	1881432, 1881433, 1881434, 1881439, 1881444, 1881445, 1881446
EPA 365.1 Rev. 2.0 dissolved	03/21/2017			03/21/2017 14:48	Julia Storbeck	1881437
	03/21/2017			03/21/2017 15:05	Julia Storbeck	1881449
	03/21/2017			03/21/2017 15:06	Julia Storbeck	1881448
	03/21/2017			03/21/2017 15:12	Julia Storbeck	1881435
	03/21/2017			03/21/2017 15:13	Julia Storbeck	1881436
	03/21/2017			03/21/2017 15:14	Julia Storbeck	1881440, 1881447
EPA 8321B	03/21/2017	03/23/2017	Mohammad Ghaffari	03/23/2017	Mohammad Ghaffari	1881472, 1881473, 1881474
SM 2120 B	03/21/2017			03/21/2017 19:59	Julie Michelle Frank	1881429
	03/21/2017			03/21/2017 20:00	Julie Michelle Frank	1881430
	03/21/2017			03/21/2017 20:01	Julie Michelle Frank	1881431, 1881438
	03/21/2017			03/21/2017 20:02	Julie Michelle Frank	1881441
	03/21/2017			03/21/2017 20:03	Julie Michelle Frank	1881442
	03/21/2017			03/21/2017 20:04	Julie Michelle Frank	1881443
SM 2320 B-97	03/21/2017			03/30/2017	Dale L. Simmons	1881429, 1881430, 1881431, 1881438
	03/21/2017			03/31/2017	Dale L. Simmons	1881441, 1881442, 1881443
SM 2540 C-97	03/21/2017			03/24/2017	Yijie Li	1881429, 1881430, 1881431, 1881438, 1881441, 1881442, 1881443
SM 2540 D-97	03/21/2017			03/24/2017	Yijie Li	1881429, 1881430, 1881431, 1881438, 1881441, 1881442, 1881443
SM 4500 F-C-97	03/21/2017			03/28/2017	Dale L. Simmons	1881429, 1881430, 1881431, 1881438, 1881441, 1881442, 1881443
SM 5310 B-00	03/21/2017			03/21/2017	Christopher Armour	1881432, 1881433, 1881434, 1881439, 1881444, 1881445, 1881446
USGS O-2060-01	03/21/2017	03/23/2017	Hoor Shaik	03/24/2017	Juyoung Kim	1881472, 1881473, 1881474
	03/21/2017	03/23/2017	Hoor Shaik	03/25/2017	Juyoung Kim	1881472, 1881473, 1881474