

Chemical Analysis Report

WQ-ASSESS-2017-06-19-01

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

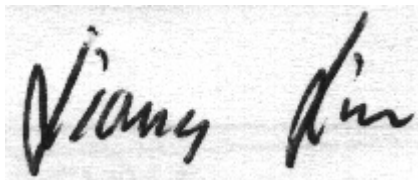
Event Description: **Alligator Creek**
Request ID: **RQ-2017-05-08-19**
Customer: **WQ-ASSESS**
Project ID: **NWQI**

Send Reports to:
FL Dept. of Environmental Protection
Division Of Water Facilities, FL DEP
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 19-JUL-2017 14:55

A handwritten signature in black ink, appearing to read "Liang Lin", 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: Nutrients and Pesticides.

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Alligator Creek upstream of SR 273

Collection Date/Time: 06/19/2017 09:40

Field ID: G3WA0005_06192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907147	EPA 180.1 Rev. 2.0	Turbidity	15		NTU	P327192	
	EPA 300.0 Rev. 2.1	Chloride	5.6		mg Cl/L	P327295	
		Sulfate	1.1		mg SO4/L	P327296	
	SM 2120 B	Color (true)	150		PCU	P327144	
	SM 2320 B-97	Total Alkalinity	11		mg CaCO3/L	P327451	
	SM 2540 C-97	TDS	75		mg/L	P327488	
	SM 2540 D-97	TSS	4	I	mg/L	P327526	
	SM 4500 F-C-97	Fluoride	0.050	I	mg F/L	P327455	
1907155	EPA 350.1 Rev. 2.0	Ammonia-N	0.082		mg N/L	P327176	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.80		mg N/L	P327186	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.27		mg N/L	P327299	
	EPA 365.1 Rev. 2.0	Total-P	0.070		mg P/L	P327209	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P327447	
1907163	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.034		mg P/L	P327170	

Ref. Method and Comment:

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

Sample Location: Alligator Creek upstream of SR 273

Collection Date/Time: 06/19/2017 09:40

Field ID: G3WA0005_06192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907192	EPA 8321B	Sucralose**	0.010	U	ug/L	P327142	
	USGS O-2060-01	2,4-D	0.010		ug/L	P327141	
		Diuron	0.0018	I	ug/L	P327141	
		Fenuron	0.0080	U	ug/L	P327141	MS
		Imidacloprid	0.041		ug/L	P327141	
		Bentazon	0.0014	I	ug/L	P327141	MS
		Linuron	0.0040	U	ug/L	P327141	
		Acetaminophen**	0.0080	U	ug/L	P327141	
		MCP	0.0020	U	ug/L	P327141	
		Carbamazepine**	4.0E-04	U	ug/L	P327141	
		Triclopyr**	0.0040	U	ug/L	P327141	
		Primidone**	0.0040	U	ug/L	P327141	
		Fluridone**	4.0E-04	U	ug/L	P327141	

Sample Location: Alligator Creek upstream of SR 273 dup

Collection Date/Time: 06/19/2017 09:40

Field ID: G3WA0005_06192017D

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907148	EPA 180.1 Rev. 2.0	Turbidity	14		NTU	P327192	
	EPA 300.0 Rev. 2.1	Chloride	5.3		mg Cl/L	P327295	
		Sulfate	1.0		mg SO4/L	P327296	
	SM 2120 B	Color (true)	160		PCU	P327144	
	SM 2320 B-97	Total Alkalinity	11		mg CaCO3/L	P327451	

Field ID: G3WA0005_06192017D

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907148	SM 2540 C-97	TDS	69		mg/L	P327488	
	SM 2540 D-97	TSS	2	I	mg/L	P327526	
	SM 4500 F-C-97	Fluoride	0.051	I	mg F/L	P327455	
1907156	EPA 350.1 Rev. 2.0	Ammonia-N	0.082		mg N/L	P327176	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.76		mg N/L	P327186	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.27		mg N/L	P327299	
	EPA 365.1 Rev. 2.0	Total-P	0.079		mg P/L	P327209	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P327447	
1907164	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.034		mg P/L	P327170	

Ref. Method and Comment:

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

Sample Location: Alligator Creek upstream of SR 273 dup

Collection Date/Time: 06/19/2017 09:40

Field ID: G3WA0005_06192017D

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907193	EPA 8321B	Sucralose**	0.010	U	ug/L	P327142	
	USGS O-2060-01	2,4-D	0.0094		ug/L	P327141	
		Diuron	0.0016	I	ug/L	P327141	
		Fenuron	0.0080	UJ	ug/L	P327141	MS
		Imidacloprid	0.040		ug/L	P327141	
		Bentazon	0.0014	IJ	ug/L	P327141	MS
		Linuron	0.0040	U	ug/L	P327141	
		Acetaminophen**	0.0080	U	ug/L	P327141	
		MCP	0.0020	U	ug/L	P327141	
		Carbamazepine**	4.0E-04	U	ug/L	P327141	
		Triclopyr**	0.0040	U	ug/L	P327141	
		Primidone**	0.0040	U	ug/L	P327141	
		Fluridone**	4.0E-04	U	ug/L	P327141	

Ref. Method and Comment:

USGS O-2060-01: Refer to the narrative for an explanation of QC Codes.

Sample Location: QC BLANK DI WATER

Collection Date/Time: 06/19/2017 09:26

Field ID: G3WA0005_06192017B

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907149	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P327192	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P327295	
		Sulfate	0.20	U	mg SO4/L	P327296	
	SM 2120 B	Color (true)	2.5	U	PCU	P327144	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P327451	
	SM 2540 C-97	TDS	15	U	mg/L	P327487	
	SM 2540 D-97	TSS	2	U	mg/L	P327525	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P327455	
1907157	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P327177	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P327186	

Field ID: G3WA0005_06192017B

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907157	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P327299	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P327209	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P327447	
1907165	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P327170	

Sample Location: QC BLANK DI WATER

Collection Date/Time: 06/19/2017 09:26

Field ID: G3WA0005_06192017B

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907194	EPA 8321B	Sucralose**	0.010	U	ug/L	P327142	
	USGS O-2060-01	2,4-D	8.0E-04	U	ug/L	P327141	
		Diuron	8.0E-04	U	ug/L	P327141	
		Fenuron	0.0080	U	ug/L	P327141	MS
		Imidacloprid	8.0E-04	U	ug/L	P327141	
		Bentazon	8.0E-04	U	ug/L	P327141	MS
		Linuron	0.0040	U	ug/L	P327141	
		Acetaminophen**	0.0080	U	ug/L	P327141	
		MCPD	0.0020	U	ug/L	P327141	
		Carbamazepine**	4.0E-04	U	ug/L	P327141	
		Triclopyr**	0.0040	U	ug/L	P327141	
		Primidone**	0.0040	U	ug/L	P327141	
		Fluridone**	4.0E-04	U	ug/L	P327141	

Sample Location: Little Alligator Creek at SR 273

Collection Date/Time: 06/19/2017 10:10

Field ID: G3WA0006_06192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907150	EPA 180.1 Rev. 2.0	Turbidity	12		NTU	P327192	
	EPA 300.0 Rev. 2.1	Chloride	5.8		mg Cl/L	P327295	
		Sulfate	0.96		mg SO4/L	P327296	
	SM 2120 B	Color (true)	92		PCU	P327144	
	SM 2320 B-97	Total Alkalinity	28		mg CaCO3/L	P327451	
	SM 2540 C-97	TDS	66		mg/L	P327488	
	SM 2540 D-97	TSS	4	I	mg/L	P327526	
	SM 4500 F-C-97	Fluoride	0.064	I	mg F/L	P327455	
1907158	EPA 350.1 Rev. 2.0	Ammonia-N	0.097		mg N/L	P327176	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.61		mg N/L	P327186	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.25		mg N/L	P327299	
	EPA 365.1 Rev. 2.0	Total-P	0.055		mg P/L	P327209	
	SM 5310 B-00	Organic Carbon	6.8		mg C/L	P327587	
1907166	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.017		mg P/L	P327170	

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: Little Alligator Creek at SR 273

Collection Date/Time: 06/19/2017 10:10

Field ID: G3WA0006_06192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907195	EPA 8321B	Sucralose**	0.067		ug/L	P327142	
	USGS O-2060-01	2,4-D	0.034		ug/L	P327141	
		Diuron	0.016		ug/L	P327141	
		Fenuron	0.0080	U	ug/L	P327141	MS
		Imidacloprid	0.021		ug/L	P327141	
		Bentazon	8.0E-04	U	ug/L	P327141	MS
		Linuron	0.0040	U	ug/L	P327141	
		Acetaminophen**	0.0080	U	ug/L	P327141	
		MCP	0.0020	U	ug/L	P327141	
		Carbamazepine**	4.0E-04	U	ug/L	P327141	
		Triclopyr**	0.0040	U	ug/L	P327141	
		Primidone**	0.0040	U	ug/L	P327141	
		Fluridone**	4.0E-04	U	ug/L	P327141	

Sample Location: Alligator Creek upstream of Bentley Rd

Collection Date/Time: 06/19/2017 10:40

Field ID: G3WA0004_06192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907151	EPA 180.1 Rev. 2.0	Turbidity	8.7		NTU	P327192	
	EPA 300.0 Rev. 2.1	Chloride	3.2		mg Cl/L	P327295	
		Sulfate	0.54		mg SO4/L	P327296	
	SM 2120 B	Color (true)	170		PCU	P327144	
	SM 2320 B-97	Total Alkalinity	14		mg CaCO3/L	P327451	
	SM 2540 C-97	TDS	86		mg/L	P327488	
	SM 2540 D-97	TSS	4	I	mg/L	P327526	
	SM 4500 F-C-97	Fluoride	0.037	I	mg F/L	P327455	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P327285	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P327186	
1907159	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009	I	mg N/L	P327299	
	EPA 365.1 Rev. 2.0	Total-P	0.069		mg P/L	P327209	
	SM 5310 B-00	Organic Carbon	18		mg C/L	P327447	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.012		mg P/L	P327170	
	dissolved						

Ref. Method and Comment:

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

Sample Location: Alligator Creek upstream of Bentley Rd

Collection Date/Time: 06/19/2017 10:40

Field ID: G3WA0004_06192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907196	EPA 8321B	Sucralose**	0.078		ug/L	P327142	
	USGS O-2060-01	2,4-D	0.012		ug/L	P327141	
		Diuron	0.0078		ug/L	P327141	
		Fenuron	0.0080	U	ug/L	P327141	MS
		Imidacloprid	0.012		ug/L	P327141	
		Bentazon	8.0E-04	U	ug/L	P327141	MS
		Linuron	0.0040	U	ug/L	P327141	

Field ID: G3WA0004_06192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907196	USGS O-2060-01	Acetaminophen**	0.0080	U	ug/L	P327141	
		MCP	0.0020	U	ug/L	P327141	
		Carbamazepine**	4.0E-04	U	ug/L	P327141	
		Triclopyr**	0.0040	U	ug/L	P327141	
		Primidone**	0.0040	U	ug/L	P327141	
		Fluridone**	4.0E-04	U	ug/L	P327141	

Sample Location: Surlock Creek at Pilgrim Rd

Collection Date/Time: 06/19/2017 11:00

Field ID: G3WA0009_06192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907152	EPA 180.1 Rev. 2.0	Turbidity	9.6		NTU	P327192	
	EPA 300.0 Rev. 2.1	Chloride	6.3		mg Cl/L	P327295	
		Sulfate	0.79		mg SO4/L	P327296	
	SM 2120 B	Color (true)	79	A	PCU	P327144	
	SM 2320 B-97	Total Alkalinity	24		mg CaCO3/L	P327451	
	SM 2540 C-97	TDS	73		mg/L	P327488	
	SM 2540 D-97	TSS	3	I	mg/L	P327526	
	SM 4500 F-C-97	Fluoride	0.059	I	mg F/L	P327455	
1907160	EPA 350.1 Rev. 2.0	Ammonia-N	0.057		mg N/L	P327285	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.49		mg N/L	P327186	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.21		mg N/L	P327299	
	EPA 365.1 Rev. 2.0	Total-P	0.049		mg P/L	P327209	
	SM 5310 B-00	Organic Carbon	6.5		mg C/L	P327447	
1907168	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.017		mg P/L	P327170	

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: Surlock Creek at Pilgrim Rd

Collection Date/Time: 06/19/2017 11:00

Field ID: G3WA0009_06192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907197	EPA 8321B	Sucralose**	0.010	U	ug/L	P327142	
	USGS O-2060-01	2,4-D	8.0E-04	U	ug/L	P327141	
		Diuron	8.0E-04	U	ug/L	P327141	
		Fenuron	0.0080	U	ug/L	P327141	MS
		Imidacloprid	0.0017	I	ug/L	P327141	
		Bentazon	8.0E-04	U	ug/L	P327141	MS
		Linuron	0.0040	U	ug/L	P327141	
		Acetaminophen**	0.0080	U	ug/L	P327141	
		MCP	0.0020	U	ug/L	P327141	
		Carbamazepine**	4.0E-04	U	ug/L	P327141	
		Triclopyr**	0.0040	U	ug/L	P327141	
		Primidone**	0.0040	U	ug/L	P327141	
		Fluridone**	4.0E-04	U	ug/L	P327141	

Sample Location: Unnamed Creek at Woodrest Rd

Collection Date/Time: 06/19/2017 11:40

Field ID: G3WA0010_06192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907153	EPA 180.1 Rev. 2.0	Turbidity	23		NTU	P327192	
	EPA 300.0 Rev. 2.1	Chloride	5.1		mg Cl/L	P327295	
		Sulfate	1.7		mg SO4/L	P327296	
	SM 2120 B	Color (true)	67		PCU	P327147	
	SM 2320 B-97	Total Alkalinity	8.5		mg CaCO3/L	P327451	
	SM 2540 C-97	TDS	87		mg/L	P327489	
	SM 2540 D-97	TSS	8	I	mg/L	P327527	
	SM 4500 F-C-97	Fluoride	0.052	I	mg F/L	P327455	
1907161	EPA 350.1 Rev. 2.0	Ammonia-N	0.17		mg N/L	P327285	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P327187	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.70		mg N/L	P327300	
	EPA 365.1 Rev. 2.0	Total-P	0.075		mg P/L	P327209	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P327447	
1907169	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.012		mg P/L	P327170	

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: Unnamed Creek at Woodrest Rd

Collection Date/Time: 06/19/2017 11:40

Field ID: G3WA0010_06192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907198	EPA 8321B	Sucralose**	0.010	U	ug/L	P327142	
	USGS O-2060-01	2,4-D	0.019		ug/L	P327141	
		Diuron	8.0E-04	U	ug/L	P327141	
		Fenuron	0.0080	U	ug/L	P327141	MS
		Imidacloprid	0.066		ug/L	P327141	
		Bentazon	0.0050		ug/L	P327141	MS
		Linuron	0.0040	U	ug/L	P327141	
		Acetaminophen**	0.030	I	ug/L	P327141	
		MCPD	0.0020	U	ug/L	P327141	
		Carbamazepine**	4.0E-04	U	ug/L	P327141	
		Triclopyr**	0.0040	U	ug/L	P327141	
		Primidone**	0.0040	U	ug/L	P327141	
		Fluridone**	4.0E-04	U	ug/L	P327141	

Ref. Method and Comment:

USGS O-2060-01: Results confirmed in re-extraction after expiration (7-18-2017) and analysis (7-19-2017), acetaminophen = 0.0092 I ug/L.

Sample Location: Gilbers Mill Creek at Aycok Rd

Collection Date/Time: 06/19/2017 12:10

Field ID: G3WA0012_06192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907154	EPA 180.1 Rev. 2.0	Turbidity	7.9		NTU	P327192	
	EPA 300.0 Rev. 2.1	Chloride	3.3		mg Cl/L	P327405	
		Sulfate	1.0		mg SO4/L	P327408	
	SM 2120 B	Color (true)	170		PCU	P327144	

Field ID: G3WA0012_06192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907154	SM 2320 B-97	Total Alkalinity	3.3		mg CaCO3/L	P327451	
	SM 2540 C-97	TDS	55		mg/L	P327489	
	SM 2540 D-97	TSS	3	I	mg/L	P327527	
	SM 4500 F-C-97	Fluoride	0.037	I	mg F/L	P327455	
1907162	EPA 350.1 Rev. 2.0	Ammonia-N	0.033		mg N/L	P327285	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.70		mg N/L	P327187	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.010		mg N/L	P327300	
	EPA 365.1 Rev. 2.0	Total-P	0.037		mg P/L	P327209	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P327457	
1907170	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.006	I	mg P/L	P327170	

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: Gilbers Mill Creek at Aycok Rd

Collection Date/Time: 06/19/2017 12:10

Field ID: G3WA0012_06192017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1907199	EPA 8321B	Sucralose**	0.010	U	ug/L	P327142	
	USGS O-2060-01	2,4-D	8.0E-04	U	ug/L	P327141	
		Diuron	8.0E-04	U	ug/L	P327141	
		Fenuron	0.0080	U	ug/L	P327141	MS
		Imidacloprid	0.033		ug/L	P327141	
		Bentazon	8.0E-04	U	ug/L	P327141	MS
		Linuron	0.0040	U	ug/L	P327141	
		Acetaminophen**	0.0080	U	ug/L	P327141	
		MCP	0.0020	U	ug/L	P327141	
		Carbamazepine**	4.0E-04	U	ug/L	P327141	
		Triclopyr**	0.0040	U	ug/L	P327141	
		Primidone**	0.0040	U	ug/L	P327141	
		Fluridone**	4.0E-04	U	ug/L	P327141	

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P327192

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P327295

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327296

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327405

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327408

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P327176

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P327177

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P327285

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P327186

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P327187

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P327299

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P327300

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P327209

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P327170

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

Reference Method: EPA 8321B
Batch ID: P327142

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P327144

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P327147

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P327451

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

Reference Method: SM 2540 C-97
Batch ID: P327487

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P327488

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 C-97
Batch ID: P327489

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P327525

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P327526

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P327527

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P327455

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P327447

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

Reference Method: SM 5310 B-00
Batch ID: P327457

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

Reference Method: SM 5310 B-00
Batch ID: P327587

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

Reference Method: USGS O-2060-01
Batch ID: P327141

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

Quality Assurance Report Method Blank Results

Reference Method: USGS O-2060-01
Batch ID: P327141

Component	Result	Code	Units
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 300.0 Rev. 2.1
Batch ID: P327295

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327296

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327405

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	96.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327408

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	95.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P327176

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: P327177

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P327285

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P327186

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	94.6			-

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P327187

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P327299

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P327300

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P327209

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P327170

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

Reference Method: EPA 8321B
 Batch ID: P327142

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	82.5		P	40 - 150

Reference Method: SM 2320 B-97
 Batch ID: P327451

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97

Batch ID: P327455

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.1		P	92 - 103

Reference Method: SM 5310 B-00

Batch ID: P327447

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.5		P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P327457

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.8		P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P327587

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.6		P	85 - 115

Reference Method: USGS O-2060-01

Batch ID: P327141

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	81.4		P	40 - 150
Acetaminophen	46.6		P	40 - 150
Bentazon	56.8		P	40 - 150
Carbamazepine	116		P	40 - 150
Diuron	117		P	40 - 150
Fenuron	108		P	40 - 150
Fluridone	99.8		P	40 - 150
Imidacloprid	90.8		P	40 - 160
Linuron	109		P	40 - 150
MCPP	86.0		P	40 - 150
Primidone	99.4		P	40 - 150
Triclopyr	95.0		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P327295

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1906963	Chloride	101		P	90 - 110
1906964	Chloride	98.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P327296

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327296

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1906963	Sulfate	97.4		P	90 - 110
1906964	Sulfate	95.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327405

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1907154	Chloride	97.0		P	90 - 110
1907260	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327408

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1907154	Sulfate	95.3		P	90 - 110
1907260	Sulfate	98.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P327176

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1906966	Ammonia-N	101	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P327177

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1906985	Ammonia-N	95.4	94.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P327285

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1907160	Ammonia-N	101	99.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P327186

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1907158	Kjeldahl Nitrogen	102	95.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P327187

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1907262	Kjeldahl Nitrogen	108	95.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P327299

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1906578	NO2NO3-N	102	102	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P327300

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1907162	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P327209

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1907160	Total-P	97.6	96.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P327170

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1907163	O-Phosphate-P	97.3	97.4	P/P	90 - 110

Reference Method: EPA 8321B
 Batch ID: P327142

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1907192	Sucralose	70.5	55.0	P/P	40 - 150

Reference Method: SM 4500 F-C-97
 Batch ID: P327455

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1907259	Fluoride	98.4	98.4	P/P	91 - 105

Reference Method: SM 5310 B-00
 Batch ID: P327447

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1906910	Organic Carbon	95.8	96.0	P/P	85 - 115

Reference Method: SM 5310 B-00
 Batch ID: P327457

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1907162	Organic Carbon	93.1	93.2	P/P	85 - 115

Reference Method: SM 5310 B-00
 Batch ID: P327587

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1907883	Organic Carbon	93.0	93.4	P/P	85 - 115

Reference Method: USGS O-2060-01
 Batch ID: P327141

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1907193	2,4-D	71.0	73.6	P/P	40 - 150
1907193	Acetaminophen	99.8	100	P/P	40 - 150
1907193	Bentazon	23.6	22.4	F/F	40 - 150
1907193	Carbamazepine	95.4	93.4	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
 Batch ID: P327141

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1907193	Diuron	71.8	68.6	P/P	40 - 150
1907193	Fenuron	150	123	F/P	40 - 150
1907193	Fluridone	58.2	57.2	P/P	40 - 150
1907193	Imidacloprid	156	159	P/P	40 - 160
1907193	Linuron	94.4	90.8	P/P	40 - 150
1907193	MCP	56.8	55.4	P/P	40 - 150
1907193	Primidone	85.2	91.2	P/P	40 - 150
1907193	Triclopyr	70.4	67.4	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P327192

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1907135	Turbidity	0.590	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P327295

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1906963	Chloride	0.260	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P327296

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1906963	Sulfate	0.859	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P327405

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1907260	Chloride	0.755	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P327408

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1907260	Sulfate	1.20	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P327176

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1906966	Ammonia-N	0.00175	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P327177

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1906985	Ammonia-N	0.858	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P327285

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1907160	Ammonia-N	0.841	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P327186

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1907158	Kjeldahl Nitrogen	4.12	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P327187

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1907262	Kjeldahl Nitrogen	7.26	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P327299

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1906578	NO2NO3-N	0.491	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P327300

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1907162	NO2NO3-N	0.475	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P327209

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1907160	Total-P	1.54	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P327170

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1907163	O-Phosphate-P	0.0761	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P327142

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1907192	Sucralose	24.7	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P327144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1907152	Color (true)	0.761	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P327147

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1907135	Color (true)	1.32	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P327451

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1907259	Total Alkalinity	0.698	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P327487

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1906912	TDS	5.32	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P327488

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1907230	TDS	8.54	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P327489

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1907260	TDS	9.05	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 2540 D-97
 Batch ID: P327525

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1906912	TSS	5.94	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P327455

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1907259	Fluoride	0.0	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
 Batch ID: P327447

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1906910	Organic Carbon	0.142	Spike	P	0 - 20

Reference Method: SM 5310 B-00
 Batch ID: P327457

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1907162	Organic Carbon	0.0290	Spike	P	0 - 20

Reference Method: SM 5310 B-00
 Batch ID: P327587

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1907883	Organic Carbon	0.225	Spike	P	0 - 20

Reference Method: USGS O-2060-01
 Batch ID: P327141

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1907193	2,4-D	2.71	Spike	P	0 - 30
1907193	Acetaminophen	0.400	Spike	P	0 - 30
1907193	Bentazon	4.55	Spike	P	0 - 30
1907193	Carbamazepine	2.12	Spike	P	0 - 30
1907193	Diuron	4.31	Spike	P	0 - 30
1907193	Fenuron	20.2	Spike	P	0 - 30
1907193	Fluridone	1.73	Spike	P	0 - 30
1907193	Imidacloprid	1.09	Spike	P	0 - 30
1907193	Linuron	3.89	Spike	P	0 - 30
1907193	MCP	2.50	Spike	P	0 - 30
1907193	Primidone	6.80	Spike	P	0 - 30
1907193	Triclopyr	4.35	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: 1907192

Field Sample ID: G3WA0005_06192017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	107	P	40 - 160
USGS O-2060-01	2,4-D-d3	73.9	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	114	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	103	P	30 - 160
USGS O-2060-01	Diuron-d6	74.3	P	30 - 160
USGS O-2060-01	Primidone-d5	95.6	P	30 - 150

Lab Sample ID: 1907193

Field Sample ID: G3WA0005_06192017D

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	127	P	40 - 160
USGS O-2060-01	2,4-D-d3	67.7	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	86.5	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	89.7	P	30 - 160
USGS O-2060-01	Diuron-d6	67.8	P	30 - 160
USGS O-2060-01	Primidone-d5	88.1	P	30 - 150

Lab Sample ID: 1907194

Field Sample ID: G3WA0005_06192017B

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	102	P	40 - 160
USGS O-2060-01	2,4-D-d3	70.0	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	71.0	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	118	P	30 - 160
USGS O-2060-01	Diuron-d6	127	P	30 - 160
USGS O-2060-01	Primidone-d5	119	P	30 - 150

Lab Sample ID: 1907195

Field Sample ID: G3WA0006_06192017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	92.5	P	40 - 160
USGS O-2060-01	2,4-D-d3	71.6	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	125	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	102	P	30 - 160
USGS O-2060-01	Diuron-d6	76.3	P	30 - 160
USGS O-2060-01	Primidone-d5	103	P	30 - 150

Lab Sample ID: 1907196

Field Sample ID: G3WA0004_06192017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	90.5	P	40 - 160
USGS O-2060-01	2,4-D-d3	74.5	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	118	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	108	P	30 - 160
USGS O-2060-01	Diuron-d6	86.3	P	30 - 160
USGS O-2060-01	Primidone-d5	105	P	30 - 150

Quality Assurance Report Surrogates

Lab Sample ID: 1907197

Field Sample ID: G3WA0009_06192017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	92.0	P	40 - 160
USGS O-2060-01	2,4-D-d3	69.7	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	122	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	95.3	P	30 - 160
USGS O-2060-01	Diuron-d6	66.5	P	30 - 160
USGS O-2060-01	Primidone-d5	85.8	P	30 - 150

Lab Sample ID: 1907198

Field Sample ID: G3WA0010_06192017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	84.5	P	40 - 160
USGS O-2060-01	2,4-D-d3	69.3	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	123	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	89.2	P	30 - 160
USGS O-2060-01	Diuron-d6	64.5	P	30 - 160
USGS O-2060-01	Primidone-d5	91.9	P	30 - 150

Lab Sample ID: 1907199

Field Sample ID: G3WA0012_06192017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	67.5	P	40 - 160
USGS O-2060-01	2,4-D-d3	72.4	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	116	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	94.8	P	30 - 160
USGS O-2060-01	Diuron-d6	66.5	P	30 - 160
USGS O-2060-01	Primidone-d5	97.6	P	30 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A77183

Included Lab Sample IDs: 1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153, 1907154

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	99.0	P/P	90 - 110
Chloride	107	98.7	P/P	90 - 110
Chloride	98.7	100	P/P	90 - 110
Sulfate	104	104	P/P	90 - 110
Sulfate	107	99.1	P/P	90 - 110
Sulfate	99.1	100	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A77207

Included Lab Sample IDs: 1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153, 1907154

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	96.6	98.5	P/P	85 - 115
Color (true)	96.9	98.5	P/P	85 - 115

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A77207

Included Lab Sample IDs: 1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153, 1907154

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.5	97.9	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A77215

Included Lab Sample IDs: 1907163, 1907164, 1907165, 1907166, 1907167, 1907168, 1907169, 1907170

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.8	100	P/P	90 - 110
O-Phosphate-P	99.9	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A77219

Included Lab Sample IDs: 1907155, 1907156, 1907157, 1907158

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A77223

Included Lab Sample IDs: 1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153, 1907154

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A77259

Included Lab Sample IDs: 1907159, 1907160, 1907161, 1907162

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.9	99.9	P/P	90 - 110
Ammonia-N	99.9	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A77260

Included Lab Sample IDs: 1907155, 1907156, 1907158, 1907159, 1907161

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A77262

Included Lab Sample IDs: 1907155, 1907156, 1907157, 1907158, 1907159, 1907160, 1907161, 1907162

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A77267

Included Lab Sample IDs: 1907157, 1907160, 1907162

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	99.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A77287

Included Lab Sample IDs: 1907155, 1907156, 1907157, 1907158, 1907159, 1907160, 1907161, 1907162

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	95.5	P/P	90 - 110
Kjeldahl Nitrogen	95.5	93.7	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A77329

Included Lab Sample IDs: 1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153, 1907154

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

Reference Method: SM 4500 F-C-97

Run ID: A77329

Included Lab Sample IDs: 1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153, 1907154

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

Reference Method: SM 5310 B-00

Run ID: A77330

Included Lab Sample IDs: 1907155, 1907156, 1907157, 1907159, 1907160, 1907161

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.4	94.6	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A77331

Included Lab Sample IDs: 1907162

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.6	93.6	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A77371

Included Lab Sample IDs: 1907192, 1907193, 1907194, 1907195, 1907196, 1907197, 1907198, 1907199

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	84.8	89.6	P/P	50 - 150
2,4-D	89.6	83.6	P/P	50 - 150
Acetaminophen	104	107	P/P	60 - 150
Acetaminophen	107	106	P/P	60 - 150
Bentazon	83.6	81.2	P/P	50 - 150
Bentazon	88.0	83.6	P/P	50 - 150
Carbamazepine	108	110	P/P	60 - 150
Carbamazepine	115	108	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A77371

Included Lab Sample IDs: 1907192, 1907193, 1907194, 1907195, 1907196, 1907197, 1907198, 1907199

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Diuron	106	105	P/P	60 - 150
Diuron	111	106	P/P	60 - 150
Fenuron	106	105	P/P	60 - 150
Fenuron	106	106	P/P	60 - 150
Fluridone	102	99.2	P/P	60 - 160
Fluridone	105	102	P/P	60 - 160
Imidacloprid	101	97.2	P/P	60 - 150
Imidacloprid	97.2	91.2	P/P	60 - 150
Linuron	105	106	P/P	60 - 150
Linuron	106	105	P/P	60 - 150
MCP	85.6	86.8	P/P	50 - 150
MCP	86.8	84.8	P/P	50 - 150
Primidone	104	97.6	P/P	60 - 150
Primidone	111	104	P/P	60 - 150
Triclopyr	91.6	93.2	P/P	50 - 150
Triclopyr	93.2	84.0	P/P	50 - 150

Reference Method: SM 5310 B-00

Run ID: A77379

Included Lab Sample IDs: 1907158

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.4	94.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A77393

Included Lab Sample IDs: 1907192, 1907193, 1907194, 1907195, 1907196, 1907197, 1907198, 1907199

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	130	87.5	P/P	60 - 160
Sucralose	142	130	P/P	60 - 160

* 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				0.590	
EPA 300.0 Rev. 2.1	Chloride	97.4	101 98.0		0.260	
	Chloride	96.8	101 97.0		0.755	
	Sulfate	96.1	97.4 95.7		0.859	
	Sulfate	95.2	98.5 95.3		1.20	
EPA 350.1 Rev. 2.0	Ammonia-N	108	101 101			0.0017
	Ammonia-N	109	95.4 94.4			0.858
	Ammonia-N	101	101 99.7			0.841
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	94.6	102 95.9			4.12

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.3	108	95.6		7.26
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102	102	102		0.491
	NO ₂ NO ₃ -N	102	100	100		0.475
EPA 365.1 Rev. 2.0	Total-P	102	97.6	96.0		1.54
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.3	97.3	97.4		0.0761
EPA 8321B	Sucralose	82.5	70.5	55.0		24.7
SM 2120 B	Color (true)				0.761	
	Color (true)				1.32	
SM 2320 B-97	Total Alkalinity	104			0.698	
SM 2540 C-97	TDS				5.32	
	TDS				8.54	
	TDS				9.05	
SM 2540 D-97	TSS				5.94	
SM 4500 F-C-97	Fluoride	96.1	98.4	98.4		0.0
SM 5310 B-00	Organic Carbon	96.5	95.8	96.0		0.142
	Organic Carbon	96.8	93.1	93.2		0.0290
	Organic Carbon	96.6	93.0	93.4		0.225
USGS O-2060-01	2,4-D	81.4	71.0	73.6		2.71
	Acetaminophen	46.6	99.8	100		0.400
	Bentazon	56.8	23.6	22.4		4.55
	Carbamazepine	116	95.4	93.4		2.12
	Diuron	117	71.8	68.6		4.31
	Fenuron	108	150	123		20.2
	Fluridone	99.8	58.2	57.2		1.73
	Imidacloprid	90.8	156	159		1.09
	Linuron	109	94.4	90.8		3.89
	MCPP	86.0	56.8	55.4		2.50
	Primidone	99.4	85.2	91.2		6.80
	Triclopyr	95.0	70.4	67.4		4.35

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153, 1907154
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153, 1907154
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153, 1907154
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1907155, 1907156, 1907157, 1907158, 1907159, 1907160, 1907161, 1907162
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1907155, 1907156, 1907157, 1907158, 1907159, 1907160, 1907161, 1907162
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1907155, 1907156, 1907157, 1907158, 1907159, 1907160, 1907161, 1907162
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1907155, 1907156, 1907157, 1907158, 1907159, 1907160, 1907161, 1907162
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1907163, 1907164, 1907165, 1907166, 1907167, 1907168, 1907169, 1907170
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1907192, 1907193, 1907194, 1907195, 1907196, 1907197, 1907198, 1907199
SM 2120 B / E31780	True Color measured at 450 nm	1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153, 1907154
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153, 1907154

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153, 1907154
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153, 1907154
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153, 1907154
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1907155, 1907156, 1907157, 1907158, 1907159, 1907160, 1907161, 1907162
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1907192, 1907193, 1907194, 1907195, 1907196, 1907197, 1907198, 1907199
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1907192, 1907193, 1907194, 1907195, 1907196, 1907197, 1907198, 1907199

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	06/19/2017			06/20/2017 16:32	DeAsia Armster	1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153, 1907154
EPA 300.0 Rev. 2.1	06/19/2017			06/21/2017	Julia Storbeck	1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153
	06/19/2017			06/22/2017	Julia Storbeck	1907154
EPA 350.1 Rev. 2.0	06/19/2017			06/20/2017	Sofia Elnemr	1907155, 1907156, 1907157, 1907158
	06/19/2017			06/21/2017	Sofia Elnemr	1907159, 1907160, 1907161, 1907162
EPA 351.2 Rev. 2.0	06/19/2017	06/21/2017	Adrian Shelby	06/22/2017	Tanya Welborn	1907155, 1907156, 1907157, 1907158, 1907159, 1907160, 1907161, 1907162
EPA 353.2 Rev. 2.0	06/19/2017			06/22/2017	Beverly Y. Sanders	1907155, 1907156, 1907157, 1907158, 1907159, 1907160, 1907161, 1907162
EPA 365.1 Rev. 2.0	06/19/2017	06/21/2017	Vijayalakshmi Reddy	06/22/2017	Lipi Saha	1907155, 1907156, 1907157, 1907158, 1907159, 1907160, 1907161, 1907162
EPA 365.1 Rev. 2.0 dissolved	06/19/2017			06/20/2017 14:42	Anthony C. Onicha	1907163
	06/19/2017			06/20/2017 15:19	Anthony C. Onicha	1907164
	06/19/2017			06/20/2017 15:20	Anthony C. Onicha	1907165
	06/19/2017			06/20/2017 15:21	Anthony C. Onicha	1907166, 1907167
	06/19/2017			06/20/2017 15:22	Anthony C. Onicha	1907168
	06/19/2017			06/20/2017 15:23	Anthony C. Onicha	1907169
	06/19/2017			06/20/2017 15:24	Anthony C. Onicha	1907170
EPA 8321B	06/19/2017	06/27/2017	Mohammad Ghaffari	06/27/2017	Mohammad Ghaffari	1907192, 1907193, 1907194, 1907195, 1907196, 1907197, 1907198, 1907199
SM 2120 B	06/19/2017			06/20/2017 14:52	Tanya Welborn	1907149
	06/19/2017			06/20/2017 14:53	Tanya Welborn	1907150
	06/19/2017			06/20/2017 14:55	Tanya Welborn	1907152
	06/19/2017			06/20/2017 15:25	Tanya Welborn	1907147
	06/19/2017			06/20/2017 15:26	Tanya Welborn	1907148
	06/19/2017			06/20/2017 15:27	Tanya Welborn	1907151
	06/19/2017			06/20/2017 15:28	Tanya Welborn	1907154
	06/19/2017			06/20/2017 15:32	Tanya Welborn	1907153
SM 2320 B-97	06/19/2017			06/24/2017	Dale L. Simmons	1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153, 1907154
SM 2540 C-97	06/19/2017			06/21/2017	Yijie Li	1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153, 1907154
SM 2540 D-97	06/19/2017			06/21/2017	Yijie Li	1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153, 1907154
SM 4500 F-C-97	06/19/2017			06/24/2017	Dale L. Simmons	1907147, 1907148, 1907149, 1907150, 1907151, 1907152, 1907153, 1907154
SM 5310 B-00	06/19/2017			06/24/2017	Sofia Elnemr	1907155, 1907156, 1907157, 1907159, 1907160, 1907161, 1907162
	06/19/2017			06/26/2017	Sofia Elnemr	1907158
USGS O-2060-01	06/19/2017	06/21/2017	Hoor Shaik	06/25/2017	Juyoung Kim	1907192, 1907193, 1907194, 1907195, 1907196, 1907197, 1907198, 1907199