

Chemical Analysis Report

SE-DIST-2017-08-16-01

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

Event Description: **SMP-Dade Green Run**

Request ID: **RQ-2017-07-10-12**

Customer: **SE-DIST**

Project ID: **SMP**

Send Reports to:

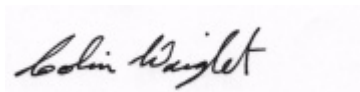
FL Dept. of Environmental Protection
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Attn: Matthew Sewell

For additional information please contact

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Certified by: Colin Wright, Program Administrator

Date Certified: 15-SEP-2017 09:27



Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: C-100/CUTLER DRAIN

Collection Date/Time: 08/15/2017 10:30

Field ID: G4SECD09

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1921686	EPA 180.1 Rev. 2.0	Turbidity	0.65		NTU	P330337	
	EPA 300.0 Rev. 2.1	Chloride	36		mg Cl/L	P330469	
		Sulfate	12		mg SO4/L	P330467	
	SM 2120 B	Color (true)	7.2		PCU	P330349	
	SM 2320 B-97	Total Alkalinity	196	A	mg CaCO3/L	P330606	
	SM 2540 C-97	TDS	274		mg/L	P330692	
	SM 2540 D-97	TSS	2	U	mg/L	P330920	
	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P330609	
1921691	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P330514	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.39		mg N/L	P330357	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P330477	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P330418	
	SM 5310 B-00	Organic Carbon	3.8		mg C/L	P330561	
1921696	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P330345	
1921765	EPA 8321B	Sucralose**	0.029	I	ug/L	P330383	
	USGS O-2060-01	2,4-D	8.0E-04	U	ug/L	P330313	
		Diuron	8.0E-04	U	ug/L	P330313	
		Fenuron	0.0080	U	ug/L	P330313	
		Imidacloprid	0.0012	I	ug/L	P330313	
		Bentazon	0.0012	I	ug/L	P330313	
		Linuron	0.0040	U	ug/L	P330313	
		Acetaminophen**	0.0080	U	ug/L	P330313	
		MCP	0.0020	U	ug/L	P330313	
		Carbamazepine**	4.0E-04	U	ug/L	P330313	
		Triclopyr**	0.0040	U	ug/L	P330313	
		Primidone**	0.0040	U	ug/L	P330313	
		Fluridone**	0.0011	I	ug/L	P330313	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 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

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

Sample Location: C-2/SNAPPER CREEK

Collection Date/Time: 08/15/2017 11:00

Field ID: G4SE0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1921687	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P330337	
	EPA 300.0 Rev. 2.1	Chloride	46		mg Cl/L	P330469	
		Sulfate	1.5		mg SO4/L	P330467	
	SM 2120 B	Color (true)	48		PCU	P330349	
	SM 2320 B-97	Total Alkalinity	210		mg CaCO3/L	P330606	
	SM 2540 C-97	TDS	290		mg/L	P330692	
	SM 2540 D-97	TSS	3	I	mg/L	P330920	
	SM 4500 F-C-97	Fluoride	0.19		mg F/L	P330609	

Field ID: G4SE0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1921692	EPA 350.1 Rev. 2.0	Ammonia-N	0.36		mg N/L	P330514	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P330357	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.007	I	mg N/L	P330477	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P330418	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P330561	
1921697	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P330346	
1921766	EPA 8321B	Sucralose**	0.087		ug/L	P330383	
	USGS O-2060-01	2,4-D	0.0087		ug/L	P330313	
		Diuron	0.0020	I	ug/L	P330313	
		Fenuron	0.0080	U	ug/L	P330313	
		Imidacloprid	0.0036		ug/L	P330313	
		Bentazon	0.0043		ug/L	P330313	
		Linuron	0.0040	U	ug/L	P330313	
		Acetaminophen**	0.0080	U	ug/L	P330313	
		MCP	0.0020	U	ug/L	P330313	
		Carbamazepine**	0.0012	I	ug/L	P330313	
		Triclopyr**	0.0040	U	ug/L	P330313	
		Primidone**	0.0040	U	ug/L	P330313	
		Fluridone**	0.0021		ug/L	P330313	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. Results confirmed in re-analysis.

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

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

Sample Location: C-2/SNAPPER CREEK

Collection Date/Time: 08/15/2017 11:15

Field ID: G4SE0097-DUPE

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1921688	EPA 180.1 Rev. 2.0	Turbidity	2.4		NTU	P330337	
	EPA 300.0 Rev. 2.1	Chloride	47		mg Cl/L	P330469	
		Sulfate	1.7		mg SO4/L	P330467	
	SM 2120 B	Color (true)	48		PCU	P330349	
	SM 2320 B-97	Total Alkalinity	209		mg CaCO3/L	P330606	
	SM 2540 C-97	TDS	301		mg/L	P330692	
	SM 2540 D-97	TSS	2	I	mg/L	P330920	
	SM 4500 F-C-97	Fluoride	0.19		mg F/L	P330609	
1921693	EPA 350.1 Rev. 2.0	Ammonia-N	0.35		mg N/L	P330514	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P330357	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.007	I	mg N/L	P330477	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P330418	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P330561	
1921698	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P330346	
1921767	EPA 8321B	Sucralose**	0.055		ug/L	P330383	

Field ID: G4SE0097-DUPE

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1921767	USGS O-2060-01	2,4-D	0.0080		ug/L	P330313	
		Diuron	0.0016	I	ug/L	P330313	
		Fenuron	0.0080	U	ug/L	P330313	
		Imidacloprid	0.0037		ug/L	P330313	
		Bentazon	0.0043		ug/L	P330313	
		Linuron	0.0040	U	ug/L	P330313	
		Acetaminophen**	0.0080	U	ug/L	P330313	
		MCP	0.0020	U	ug/L	P330313	
		Carbamazepine**	0.0010	I	ug/L	P330313	
		Triclopyr**	0.0040	U	ug/L	P330313	
		Primidone**	0.0040	U	ug/L	P330313	
		Fluridone**	9.8E-04	I	ug/L	P330313	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. Results confirmed in re-analysis.

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

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

Sample Location: CORAL GABLES CANAL

Collection Date/Time: 08/15/2017 11:45

Field ID: G4SE0096

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1921689	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P330337	
	EPA 300.0 Rev. 2.1	Chloride	42		mg Cl/L	P330469	
		Sulfate	5.6		mg SO4/L	P330467	
	SM 2120 B	Color (true)	32		PCU	P330349	
	SM 2320 B-97	Total Alkalinity	200		mg CaCO3/L	P330606	
	SM 2540 C-97	TDS	298		mg/L	P330692	
	SM 2540 D-97	TSS	4	I	mg/L	P330920	
	SM 4500 F-C-97	Fluoride	0.19		mg F/L	P330609	
1921694	EPA 350.1 Rev. 2.0	Ammonia-N	0.19		mg N/L	P330514	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P330357	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P330477	
	EPA 365.1 Rev. 2.0	Total-P	0.048		mg P/L	P330418	
	SM 5310 B-00	Organic Carbon	9.5		mg C/L	P330561	
1921699	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.008	I	mg P/L	P330346	
1921768	EPA 8321B	Sucralose**	0.64		ug/L	P330383	
	USGS O-2060-01	2,4-D	8.0E-04	U	ug/L	P330313	
		Diuron	0.0030	I	ug/L	P330313	
		Fenuron	0.0080	U	ug/L	P330313	
		Imidacloprid	0.0031	I	ug/L	P330313	
		Bentazon	0.0041		ug/L	P330313	
		Linuron	0.0040	U	ug/L	P330313	
		Acetaminophen**	0.046		ug/L	P330313	

Field ID: G4SE0096

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1921768	USGS O-2060-01	MCP	0.0020	U	ug/L	P330313	
		Carbamazepine**	0.010		ug/L	P330313	
		Triclopyr**	0.0040	U	ug/L	P330313	
		Primidone**	0.0040	U	ug/L	P330313	
		Fluridone**	8.4E-04	I	ug/L	P330313	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 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

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

Sample Location: C-6/MIAMI CANAL

Collection Date/Time: 08/15/2017 12:30

Field ID: G4SE0094

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1921701	EPA 180.1 Rev. 2.0	Turbidity	0.50		NTU	P330337	
	EPA 300.0 Rev. 2.1	Chloride	57		mg Cl/L	P330469	
		Sulfate	8.0		mg SO4/L	P330467	
	SM 2120 B	Color (true)	64		PCU	P330349	
	SM 2320 B-97	Total Alkalinity	199		mg CaCO3/L	P330606	
	SM 2540 C-97	TDS	346		mg/L	P330693	
	SM 2540 D-97	TSS	2	U	mg/L	P330921	
	SM 4500 F-C-97	Fluoride	0.29		mg F/L	P330609	
1921703	EPA 350.1 Rev. 2.0	Ammonia-N	0.099		mg N/L	P330514	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P330358	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P330477	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P330419	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P330561	
1921705	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P330346	
1921770	EPA 8321B	Sucralose**	0.015	I	ug/L	P330383	
	USGS O-2060-01	2,4-D	0.0020	I	ug/L	P330313	
		Diuron	8.0E-04	U	ug/L	P330313	
		Fenuron	0.0080	U	ug/L	P330313	
		Imidacloprid	0.0015	I	ug/L	P330313	
		Bentazon	0.045		ug/L	P330313	
		Linuron	0.0040	U	ug/L	P330313	
		Acetaminophen**	0.0080	U	ug/L	P330313	
		MCP	0.0020	U	ug/L	P330313	
		Carbamazepine**	4.0E-04	U	ug/L	P330313	
		Triclopyr**	0.0040	U	ug/L	P330313	
		Primidone**	0.0040	U	ug/L	P330313	
		Fluridone**	7.0E-04	I	ug/L	P330313	RPD
1921772	EPA 200.7 Rev. 4.4	Calcium	62.9		mg/L	P330325	
		Iron	94	I	ug/L	P330325	
		Magnesium	12.2		mg/L	P330325	
		Potassium	3.9		mg/L	P330325	

Field ID: G4SE0094

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1921772	EPA 200.7 Rev. 4.4	Sodium	39.8		mg/L	P330325	
		Zinc	5.0	U	ug/L	P330325	
	EPA 200.8 Rev. 5.4	Arsenic	0.87		ug/L	P330325	
		Cadmium	0.020	U	ug/L	P330325	
		Chromium	0.40	U	ug/L	P330325	
		Copper	0.20	U	ug/L	P330325	
		Lead	0.050	U	ug/L	P330325	
		Nickel	0.20	U	ug/L	P330325	
		Selenium	0.20	U	ug/L	P330325	
		Silver	0.010	U	ug/L	P330325	

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 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

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

Sample Location: C6 @ NW 118TH AVE

Collection Date/Time: 08/15/2017 12:50

Field ID: G4SE0101

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1921702	EPA 180.1 Rev. 2.0	Turbidity	0.70		NTU	P330337	
	EPA 300.0 Rev. 2.1	Chloride	59		mg Cl/L	P330469	
		Sulfate	8.4		mg SO4/L	P330467	
		Color (true)	63		PCU	P330349	
	SM 2320 B-97	Total Alkalinity	200		mg CaCO3/L	P330606	
	SM 2540 C-97	TDS	344	A	mg/L	P330693	
	SM 2540 D-97	TSS	3	IA	mg/L	P330921	
	SM 4500 F-C-97	Fluoride	0.29		mg F/L	P330609	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.094		mg N/L	P330514	
		Kjeldahl Nitrogen	1.1		mg N/L	P330358	
1921704	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P330479	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P330419	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P330561	
1921706	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P330346	
1921771	EPA 8321B	Sucralose**	0.010	U	ug/L	P330383	
	USGS O-2060-01	2,4-D	0.0030	I	ug/L	P330313	
		Diuron	8.0E-04	U	ug/L	P330313	
		Fenuron	0.0080	U	ug/L	P330313	
		Imidacloprid	0.0020	I	ug/L	P330313	
		Bentazon	0.044		ug/L	P330313	
		Linuron	0.0040	U	ug/L	P330313	
		Acetaminophen**	0.0080	U	ug/L	P330313	
		MCP	0.0020	U	ug/L	P330313	
		Carbamazepine**	4.0E-04	U	ug/L	P330313	
		Triclopyr**	0.0040	U	ug/L	P330313	
		Primidone**	0.0040	U	ug/L	P330313	

Field ID: G4SE0101

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1921771	USGS O-2060-01	Fluridone**	4.6E-04	I	ug/L	P330313	RPD
1921773	EPA 200.7 Rev. 4.4	Calcium	64.8		mg/L	P330325	
		Iron	84	I	ug/L	P330325	
		Magnesium	12.7		mg/L	P330325	
		Potassium	4.0		mg/L	P330325	
		Sodium	41.7		mg/L	P330325	
		Zinc	5.0	U	ug/L	P330325	
	EPA 200.8 Rev. 5.4	Arsenic	0.93		ug/L	P330325	
		Cadmium	0.020	U	ug/L	P330325	
		Chromium	0.40	U	ug/L	P330325	
		Copper	0.20	U	ug/L	P330325	
		Lead	0.050	U	ug/L	P330325	
		Nickel	0.20	U	ug/L	P330325	
		Selenium	0.20	U	ug/L	P330325	
		Silver	0.010	U	ug/L	P330325	

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 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

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

Sample Location: SNAKE CREEK CANAL

Collection Date/Time: 08/15/2017 13:15

Field ID: 28040381

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1921690	EPA 180.1 Rev. 2.0	Turbidity	0.65		NTU	P330337	
	EPA 300.0 Rev. 2.1	Chloride	29		mg Cl/L	P330469	
		Sulfate	3.4		mg SO4/L	P330467	
	SM 2120 B	Color (true)	30		PCU	P330349	
	SM 2320 B-97	Total Alkalinity	162		mg CaCO3/L	P330606	
	SM 2540 C-97	TDS	241		mg/L	P330693	
	SM 2540 D-97	TSS	2	I	mg/L	P330921	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P330609	
1921695	EPA 350.1 Rev. 2.0	Ammonia-N	0.068		mg N/L	P330514	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.87		mg N/L	P330358	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.24		mg N/L	P330477	
	EPA 365.1 Rev. 2.0	Total-P	0.009		mg P/L	P330419	
	SM 5310 B-00	Organic Carbon	9.4		mg C/L	P330561	
1921700	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P330346	
1921769	EPA 8321B	Sucralose**	0.23		ug/L	P330383	
	USGS O-2060-01	2,4-D	0.028		ug/L	P330313	
		Diuron	0.0041		ug/L	P330313	
		Fenuron	0.0080	U	ug/L	P330313	
		Imidacloprid	0.023		ug/L	P330313	
		Bentazon	0.011		ug/L	P330313	
		Linuron	0.0040	U	ug/L	P330313	

Field ID: 28040381

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1921769	USGS O-2060-01	Acetaminophen**	0.0080	U	ug/L	P330313	
		MCP	0.0020	U	ug/L	P330313	
		Carbamazepine**	6.7E-04	I	ug/L	P330313	
		Triclopyr**	0.0040	U	ug/L	P330313	
		Primidone**	0.0040	U	ug/L	P330313	
		Fluridone**	0.014		ug/L	P330313	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 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.
 USGS O-2060-01: MS accuracy for imidacloprid 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: P330337

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P330325

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P330325

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P330467

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P330469

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330469

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P330514

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330357

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330358

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330477

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330479

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330418

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330419

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330345

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330346

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

Reference Method: EPA 8321B
Batch ID: P330383

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P330349

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P330606

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

Reference Method: SM 2540 C-97
Batch ID: P330692

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P330693

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P330920

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P330921

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P330609

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report Method Blank Results

Reference Method: SM 5310 B-00
 Batch ID: P330561

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

Reference Method: USGS O-2060-01
 Batch ID: P330313

Component	Result	Code	Units
2,4-D	8.0E-04	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	8.0E-04	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	8.0E-04	U	ug/L
Linuron	0.0040	U	ug/L
MCP	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P330325

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	107		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	102		P	85 - 115
Sodium	103		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P330325

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	107		P	85 - 115
Cadmium	99.3		P	85 - 115
Chromium	95.7		P	85 - 115
Copper	101		P	85 - 115
Lead	100		P	85 - 115
Nickel	103		P	85 - 115
Selenium	102		P	85 - 115
Silver	104		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P330467

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	94.8		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330469

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	95.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P330514

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330357

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: P330358

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330477

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: P330479

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	105		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330418

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330419

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330345

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330346

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

Reference Method: EPA 8321B
Batch ID: P330383

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	125		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P330606

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P330609

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.3		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P330561

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.5		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P330313

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	70.9		P	40 - 150
Acetaminophen	77.2		P	30 - 150
Bentazon	79.8		P	40 - 150
Carbamazepine	84.8		P	40 - 150
Diuron	91.8		P	40 - 150
Fenuron	90.6		P	40 - 150
Fluridone	101		P	40 - 150
Imidacloprid	76.0		P	40 - 160
Linuron	99.0		P	40 - 150
MCP	57.5		P	40 - 150
Primidone	85.2		P	40 - 150
Triclopyr	62.3		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P330325

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1921516	Calcium	103		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P330325

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1921516	Iron	110		P	80 - 120
1921516	Magnesium	105		P	80 - 120
1921516	Potassium	102		P	80 - 120
1921516	Sodium	104		P	80 - 120
1921516	Zinc	103		P	80 - 120
1921772	Calcium	107		P	80 - 120
1921772	Iron	107	106	P/P	80 - 120
1921772	Magnesium	107		P	80 - 120
1921772	Potassium	106	101	P/P	80 - 120
1921772	Sodium	107		P	80 - 120
1921772	Zinc	100	100	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P330325

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1921516	Arsenic	106		P	80 - 120
1921516	Cadmium	100		P	80 - 120
1921516	Chromium	93.2		P	80 - 120
1921516	Copper	94.9		P	80 - 120
1921516	Lead	102		P	80 - 120
1921516	Nickel	98.4		P	80 - 120
1921516	Selenium	102		P	80 - 120
1921516	Silver	104		P	80 - 120
1921772	Arsenic	104	106	P/P	80 - 120
1921772	Cadmium	102	103	P/P	80 - 120
1921772	Chromium	92.5	94.2	P/P	80 - 120
1921772	Copper	93.8	94.6	P/P	80 - 120
1921772	Lead	101	104	P/P	80 - 120
1921772	Nickel	96.3	97.2	P/P	80 - 120
1921772	Selenium	100	102	P/P	80 - 120
1921772	Silver	102	104	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330467

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1921642	Sulfate	97.8		P	90 - 110
1921643	Sulfate	92.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330469

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1921642	Chloride	98.5		P	90 - 110
1921643	Chloride	93.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P330514

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1921679	Ammonia-N	100	99.4	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330357

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1921645	Kjeldahl Nitrogen	107	108	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330358

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1921695	Kjeldahl Nitrogen	101	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330477

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1921645	NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330479

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1921704	NO2NO3-N	106	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330418

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1921691	Total-P	95.8	94.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330419

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1921703	Total-P	101	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330345

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1921680	O-Phosphate-P	91.0	93.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330346

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1921709	O-Phosphate-P	91.7	93.5	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P330609

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1921686	Fluoride	98.0	98.0	P/P	91 - 105

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P330561

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1921560	Organic Carbon	90.5	90.8	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P330313

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1921540	Acetaminophen	110	104	P/P	30 - 150
1921540	Bentazon	58.3	56.0	P/P	40 - 150
1921540	Carbamazepine	94.5	95.8	P/P	40 - 150
1921540	Diuron	72.1	72.8	P/P	40 - 150
1921540	Fenuron	78.6	81.9	P/P	40 - 150
1921540	Fluridone	96.6	62.0	P/P	40 - 150
1921540	Linuron	95.2	88.2	P/P	40 - 150
1921540	MCP	80.1	74.2	P/P	40 - 150
1921540	Primidone	115	115	P/P	40 - 150
1921540	Triclopyr	78.7	69.0	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P330337

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921664	Turbidity	9.91	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P330325

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921772	Calcium	2.09	Spike	P	0 - 20
1921772	Iron	1.07	Spike	P	0 - 20
1921772	Magnesium	1.91	Spike	P	0 - 20
1921772	Potassium	2.25	Spike	P	0 - 20
1921772	Sodium	2.57	Spike	P	0 - 20
1921772	Zinc	0.343	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P330325

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921772	Arsenic	1.85	Spike	P	0 - 20
1921772	Cadmium	1.21	Spike	P	0 - 20
1921772	Chromium	1.79	Spike	P	0 - 20
1921772	Copper	0.858	Spike	P	0 - 20
1921772	Lead	2.58	Spike	P	0 - 20
1921772	Nickel	0.960	Spike	P	0 - 20
1921772	Selenium	1.85	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P330325

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921772	Silver	2.30	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330467

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921642	Sulfate	4.98	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330469

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921642	Chloride	1.69	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P330514

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921679	Ammonia-N	0.811	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330357

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921645	Kjeldahl Nitrogen	0.722	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330358

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921695	Kjeldahl Nitrogen	1.04	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330477

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921645	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330479

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921704	NO2NO3-N	0.471	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330418

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921691	Total-P	1.68	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330419

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921703	Total-P	2.13	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330345

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921680	O-Phosphate-P	2.17	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330346

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921709	O-Phosphate-P	1.94	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P330383

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921620	Sucralose	0.491	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P330349

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921677	Color (true)	0.156	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P330606

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921686	Total Alkalinity	0.213	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P330692

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921664	TDS	5.50	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
Batch ID: P330693

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921702	TDS	6.11	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P330609

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921686	Fluoride	0.0	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P330561

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921560	Organic Carbon	0.230	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P330313

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921540	2,4-D	7.60	Spike	P	0 - 30
1921540	Acetaminophen	3.84	Spike	P	0 - 30
1921540	Bentazon	2.34	Spike	P	0 - 30
1921540	Carbamazepine	1.39	Spike	P	0 - 30
1921540	Diuron	0.414	Spike	P	0 - 30
1921540	Fenuron	4.09	Spike	P	0 - 30
1921540	Fluridone	38.5	Spike	F	0 - 30
1921540	Imidacloprid	0.475	Spike	P	0 - 30
1921540	Linuron	7.68	Spike	P	0 - 30
1921540	MCP	7.23	Spike	P	0 - 30
1921540	Primidone	0.226	Spike	P	0 - 30
1921540	Triclopyr	13.1	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: 1921765
Field Sample ID: G4SECD09

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	104	P	30 - 160
EPA 8321B	Carbamazepine-d10	101	P	30 - 160
EPA 8321B	Diuron-d6	89.8	P	30 - 160
EPA 8321B	Primidone-d5	115	P	30 - 160
EPA 8321B	Sucralose-d6	69.1	P	40 - 160
USGS O-2060-01	2,4-D-d3	79.4	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1921765
Field Sample ID: G4SECD09

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	Acetaminophen-d4	104	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	101	P	30 - 160
USGS O-2060-01	Diuron-d6	89.8	P	30 - 160
USGS O-2060-01	Primidone-d5	115	P	30 - 160
USGS O-2060-01	Sucralose-d6	69.1	P	40 - 160

Lab Sample ID: 1921766
Field Sample ID: G4SE0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	96.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	89.2	P	30 - 160
EPA 8321B	Diuron-d6	76.4	P	30 - 160
EPA 8321B	Primidone-d5	103	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	40 - 160
USGS O-2060-01	2,4-D-d3	104	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	96.2	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	89.2	P	30 - 160
USGS O-2060-01	Diuron-d6	76.4	P	30 - 160
USGS O-2060-01	Primidone-d5	103	P	30 - 160
USGS O-2060-01	Sucralose-d6	104	P	40 - 160

Lab Sample ID: 1921767
Field Sample ID: G4SE0097-DUPE

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	76.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	87.0	P	30 - 160
EPA 8321B	Diuron-d6	74.1	P	30 - 160
EPA 8321B	Primidone-d5	111	P	30 - 160
EPA 8321B	Sucralose-d6	68.5	P	40 - 160
USGS O-2060-01	2,4-D-d3	104	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	76.0	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	87.0	P	30 - 160
USGS O-2060-01	Diuron-d6	74.1	P	30 - 160
USGS O-2060-01	Primidone-d5	111	P	30 - 160
USGS O-2060-01	Sucralose-d6	68.5	P	40 - 160

Lab Sample ID: 1921768
Field Sample ID: G4SE0096

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	94.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	92.8	P	30 - 160
EPA 8321B	Diuron-d6	75.5	P	30 - 160
EPA 8321B	Primidone-d5	111	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	40 - 160
USGS O-2060-01	2,4-D-d3	90.9	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	94.5	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	92.8	P	30 - 160
USGS O-2060-01	Diuron-d6	75.5	P	30 - 160
USGS O-2060-01	Primidone-d5	111	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1921768
Field Sample ID: G4SE0096

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	Sucralose-d6	106	P	40 - 160

Lab Sample ID: 1921769
Field Sample ID: 28040381

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	87.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	83.0	P	30 - 160
EPA 8321B	Diuron-d6	67.0	P	30 - 160
EPA 8321B	Primidone-d5	93.9	P	30 - 160
EPA 8321B	Sucralose-d6	110	P	40 - 160
USGS O-2060-01	2,4-D-d3	93.6	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	87.5	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	83.0	P	30 - 160
USGS O-2060-01	Diuron-d6	67.0	P	30 - 160
USGS O-2060-01	Primidone-d5	93.9	P	30 - 160
USGS O-2060-01	Sucralose-d6	110	P	40 - 160

Lab Sample ID: 1921770
Field Sample ID: G4SE0094

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	93.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	85.0	P	30 - 160
EPA 8321B	Diuron-d6	71.0	P	30 - 160
EPA 8321B	Primidone-d5	96.3	P	30 - 160
EPA 8321B	Sucralose-d6	116	P	40 - 160
USGS O-2060-01	2,4-D-d3	115	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	93.0	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	85.0	P	30 - 160
USGS O-2060-01	Diuron-d6	71.0	P	30 - 160
USGS O-2060-01	Primidone-d5	96.3	P	30 - 160
USGS O-2060-01	Sucralose-d6	116	P	40 - 160

Lab Sample ID: 1921771
Field Sample ID: G4SE0101

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	98.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	84.0	P	30 - 160
EPA 8321B	Diuron-d6	72.4	P	30 - 160
EPA 8321B	Primidone-d5	99.5	P	30 - 160
EPA 8321B	Sucralose-d6	51.8	P	40 - 160
USGS O-2060-01	2,4-D-d3	107	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	98.9	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	84.0	P	30 - 160
USGS O-2060-01	Diuron-d6	72.4	P	30 - 160
USGS O-2060-01	Primidone-d5	99.5	P	30 - 160
USGS O-2060-01	Sucralose-d6	51.8	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A78421

Included Lab Sample IDs: 1921686, 1921687, 1921688, 1921689, 1921690, 1921701, 1921702

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	96.8	98.5	P/P	90 - 110
Chloride	98.5	100	P/P	90 - 110
Sulfate	97.2	98.8	P/P	90 - 110
Sulfate	98.8	99.0	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A78439

Included Lab Sample IDs: 1921686, 1921687, 1921688, 1921689, 1921690, 1921701, 1921702

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A78443

Included Lab Sample IDs: 1921696, 1921697, 1921698, 1921699, 1921700, 1921705, 1921706

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

Reference Method: SM 2120 B

Run ID: A78444

Included Lab Sample IDs: 1921686, 1921687, 1921688, 1921689, 1921690, 1921701, 1921702

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	103	P/P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A78487

Included Lab Sample IDs: 1921772, 1921773

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	101	P/P	90 - 110
Iron	104	102	P/P	90 - 110
Magnesium	104	102	P/P	90 - 110
Potassium	99.7	99.5	P/P	90 - 110
Sodium	102	101	P/P	90 - 110
Zinc	102	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A78496

Included Lab Sample IDs: 1921691, 1921692, 1921693, 1921694, 1921695, 1921703, 1921704

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A78501

Included Lab Sample IDs: 1921691, 1921692, 1921693, 1921694, 1921703

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A78501

Included Lab Sample IDs: 1921691, 1921692, 1921693, 1921694, 1921703

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A78507

Included Lab Sample IDs: 1921695, 1921704

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A78513

Included Lab Sample IDs: 1921691, 1921692, 1921693, 1921694, 1921695, 1921703, 1921704

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

Reference Method: SM 5310 B-00

Run ID: A78526

Included Lab Sample IDs: 1921691, 1921692, 1921693, 1921694, 1921695, 1921703, 1921704

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.0	96.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A78532

Included Lab Sample IDs: 1921691, 1921692, 1921693, 1921694, 1921695, 1921703, 1921704

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	108	P/P	90 - 110
Kjeldahl Nitrogen	108	107	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A78552

Included Lab Sample IDs: 1921686, 1921687, 1921688, 1921689, 1921690, 1921701, 1921702

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.8	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A78552

Included Lab Sample IDs: 1921686, 1921687, 1921688, 1921689, 1921690, 1921701, 1921702

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.5	97.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A78570

Included Lab Sample IDs: 1921772, 1921773

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	101	98.7	P/P	90 - 110
Cadmium	103	102	P/P	90 - 110
Chromium	97.6	97.3	P/P	90 - 110
Copper	99.5	98.6	P/P	90 - 110
Lead	100	101	P/P	90 - 110
Nickel	99.2	99.2	P/P	90 - 110
Selenium	99.4	97.5	P/P	90 - 110
Silver	104	105	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A78596

Included Lab Sample IDs: 1921765, 1921766, 1921767, 1921768, 1921769, 1921770, 1921771

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	72.3	82.7	P/P	50 - 150
2,4-D	82.7	82.1	P/P	50 - 150
Acetaminophen	78.6	75.7	P/P	60 - 150
Acetaminophen	80.1	78.6	P/P	60 - 150
Bentazon	105	106	P/P	50 - 150
Bentazon	106	113	P/P	50 - 150
Carbamazepine	80.6	82.2	P/P	60 - 150
Carbamazepine	82.2	82.3	P/P	60 - 150
Diuron	86.2	89.3	P/P	60 - 150
Diuron	89.3	87.3	P/P	60 - 150
Fenuron	87.6	88.8	P/P	60 - 150
Fenuron	88.8	89.9	P/P	60 - 150
Fluridone	100	101	P/P	60 - 160
Fluridone	96.8	100	P/P	60 - 160
Imidacloprid	78.4	80.0	P/P	60 - 150
Imidacloprid	81.0	78.4	P/P	60 - 150
Linuron	93.8	94.0	P/P	60 - 150
Linuron	94.0	105	P/P	60 - 150
MCPPP	66.2	69.3	P/P	50 - 150
MCPPP	69.3	65.8	P/P	50 - 150
Primidone	79.8	86.8	P/P	60 - 150
Primidone	86.8	90.5	P/P	60 - 150
Triclopyr	74.3	78.8	P/P	50 - 150
Triclopyr	78.8	66.8	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A78750

Included Lab Sample IDs: 1921765, 1921766, 1921767, 1921768, 1921769, 1921770, 1921771

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	115	120	P/P	60 - 150
Sucralose	118	115	P/P	60 - 150

* 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						9.91	
EPA 200.7 Rev. 4.4	Calcium	104	103	107				2.09
	Iron	107	110	107	106			1.07
	Magnesium	105	105	107				1.91
	Potassium	102	102	106	101			2.25
	Sodium	103	104	107				2.57
	Zinc	101	103	100	100			0.343
EPA 200.8 Rev. 5.4	Arsenic	107	106	104	106			1.85
	Cadmium	99.3	100	102	103			1.21
	Chromium	95.7	93.2	92.5	94.2			1.79
	Copper	101	94.9	93.8	94.6			0.858
	Lead	100	102	101	104			2.58
	Nickel	103	98.4	96.3	97.2			0.960
	Selenium	102	102	100	102			1.85
	Silver	104	104	102	104			2.30
EPA 300.0 Rev. 2.1	Chloride	95.7	98.5	93.4			1.69	
	Sulfate	94.8	97.8	92.9			4.98	
EPA 350.1 Rev. 2.0	Ammonia-N	99.4	100	99.4				0.811
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	107	108				0.722
	Kjeldahl Nitrogen	98.7	101	103				1.04
EPA 353.2 Rev. 2.0	NO2NO3-N	104	104	104				0.0
	NO2NO3-N	105	106	106				0.471
EPA 365.1 Rev. 2.0	Total-P	97.1	95.8	94.2				1.68
	Total-P	100	101	98.5				2.13
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.1	91.0	93.0				2.17
	O-Phosphate-P	102	91.7	93.5				1.94
EPA 8321B	Sucralose	125						0.491
SM 2120 B	Color (true)						0.156	
SM 2320 B-97	Total Alkalinity	102					0.213	
SM 2540 C-97	TDS						5.50	
	TDS						6.11	
SM 4500 F-C-97	Fluoride	95.3	98.0	98.0				0.0
SM 5310 B-00	Organic Carbon	95.5	90.5	90.8				0.230
USGS O-2060-01	2,4-D	70.9						7.60
	Acetaminophen	77.2	110	104				3.84
	Bentazon	79.8	58.3	56.0				2.34
	Carbamazepine	84.8	94.5	95.8				1.39
	Diuron	91.8	72.1	72.8				0.414
	Fenuron	90.6	78.6	81.9				4.09
	Fluridone	101	96.6	62.0				38.5
	Imidacloprid	76.0						0.475
	Linuron	99.0	95.2	88.2				7.68
	MCPP	57.5	80.1	74.2				7.23
	Primidone	85.2	115	115				0.226
	Triclopyr	62.3	78.7	69.0				13.1

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1921686, 1921687, 1921688, 1921689, 1921690, 1921701, 1921702
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1921772, 1921773

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1921772, 1921773
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1921686, 1921687, 1921688, 1921689, 1921690, 1921701, 1921702
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1921686, 1921687, 1921688, 1921689, 1921690, 1921701, 1921702
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1921691, 1921692, 1921693, 1921694, 1921695, 1921703, 1921704
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1921691, 1921692, 1921693, 1921694, 1921695, 1921703, 1921704
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1921691, 1921692, 1921693, 1921694, 1921695, 1921703, 1921704
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1921691, 1921692, 1921693, 1921694, 1921695, 1921703, 1921704
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1921696, 1921697, 1921698, 1921699, 1921700, 1921705, 1921706
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1921765, 1921766, 1921767, 1921768, 1921769, 1921770, 1921771
SM 2120 B / E31780	True Color measured at 450 nm	1921686, 1921687, 1921688, 1921689, 1921690, 1921701, 1921702
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1921686, 1921687, 1921688, 1921689, 1921690, 1921701, 1921702
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1921686, 1921687, 1921688, 1921689, 1921690, 1921701, 1921702
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1921686, 1921687, 1921688, 1921689, 1921690, 1921701, 1921702
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1921686, 1921687, 1921688, 1921689, 1921690, 1921701, 1921702
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1921691, 1921692, 1921693, 1921694, 1921695, 1921703, 1921704
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1921765, 1921766, 1921767, 1921768, 1921769, 1921770, 1921771
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1921765, 1921766, 1921767, 1921768, 1921769, 1921770, 1921771

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	08/16/2017			08/16/2017 15:34	DeAsia Armster	1921686, 1921687, 1921688, 1921689, 1921690, 1921701, 1921702
EPA 200.7 Rev. 4.4	08/16/2017	08/16/2017	Elliott D. Healy	08/17/2017	Betina Topolski	1921772, 1921773
EPA 200.8 Rev. 5.4	08/16/2017	08/16/2017	Elliott D. Healy	08/22/2017	Nadine Brooks	1921772, 1921773
EPA 300.0 Rev. 2.1	08/16/2017			08/16/2017	Julia Storbeck	1921686, 1921687, 1921688, 1921689, 1921690, 1921701, 1921702
EPA 350.1 Rev. 2.0	08/16/2017			08/17/2017	Sofia Elnemr	1921691, 1921692, 1921693, 1921694, 1921695, 1921703, 1921704
EPA 351.2 Rev. 2.0	08/16/2017	08/17/2017	Adrian Shelby	08/21/2017	Joseph Suarez	1921691, 1921692, 1921693, 1921694, 1921695, 1921703, 1921704
EPA 353.2 Rev. 2.0	08/16/2017			08/18/2017	Beverly Y. Sanders	1921691, 1921692, 1921693, 1921694, 1921695, 1921703, 1921704
EPA 365.1 Rev. 2.0	08/16/2017	08/17/2017	Sima Feizi	08/18/2017	Lipi Saha	1921691, 1921692, 1921693, 1921694, 1921695, 1921703, 1921704
EPA 365.1 Rev. 2.0 dissolved	08/16/2017			08/16/2017 15:07	Megan Treadwell	1921696, 1921697
	08/16/2017			08/16/2017 15:08	Megan Treadwell	1921698
	08/16/2017			08/16/2017 15:09	Megan Treadwell	1921699
	08/16/2017			08/16/2017 15:10	Megan Treadwell	1921700
	08/16/2017			08/16/2017 15:11	Megan Treadwell	1921705
	08/16/2017			08/16/2017 15:12	Megan Treadwell	1921706
EPA 8321B	08/16/2017	08/24/2017	Julie Michelle Frank	08/31/2017	Julie Michelle Frank	1921765, 1921766, 1921767, 1921768, 1921769, 1921770, 1921771
SM 2120 B	08/16/2017			08/16/2017 16:27	Tanya Welborn	1921686
	08/16/2017			08/16/2017 16:28	Tanya Welborn	1921687
	08/16/2017			08/16/2017 16:29	Tanya Welborn	1921688, 1921689
	08/16/2017			08/16/2017 16:30	Tanya Welborn	1921690
	08/16/2017			08/16/2017 16:31	Tanya Welborn	1921701
	08/16/2017			08/16/2017 16:32	Tanya Welborn	1921702
SM 2320 B-97	08/16/2017			08/18/2017	Dale L. Simmons	1921686, 1921687, 1921688, 1921689, 1921690, 1921701, 1921702
SM 2540 C-97	08/16/2017			08/18/2017	Yijie Li	1921686, 1921687, 1921688, 1921689, 1921690, 1921701, 1921702
SM 2540 D-97	08/16/2017			08/18/2017	Yijie Li	1921686, 1921687, 1921688, 1921689, 1921690, 1921701, 1921702
SM 4500 F-C-97	08/16/2017			08/18/2017	Dale L. Simmons	1921686, 1921687, 1921688, 1921689, 1921690, 1921701, 1921702
SM 5310 B-00	08/16/2017			08/19/2017	Ping Hua	1921691, 1921692, 1921693, 1921694, 1921695, 1921703, 1921704
USGS O-2060-01	08/16/2017	08/17/2017	Hoor Shaik	08/20/2017	Juyoung Kim	1921765, 1921766, 1921767, 1921768
	08/16/2017	08/17/2017	Hoor Shaik	08/21/2017	Juyoung Kim	1921769, 1921770, 1921771