

Chemical Analysis Report

SE-DIST-2017-06-13-01

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

Event Description: **SMP-G1 Okeechobee Run**
Request ID: **RQ-2017-06-12-19**
Customer: **SE-DIST**
Project ID: **SMP**

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

For additional information please contact
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Certified by: Colin Wright, Program Administrator

Date Certified: 11-JUL-2017 14:29

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light-colored rectangular background.

Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: NUBBIN SLOUGH

Collection Date/Time: 06/12/2017 11:45

Field ID: G1SE0004

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1905592	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P326752	
	EPA 300.0 Rev. 2.1	Chloride	59		mg Cl/L	P327034	
		Sulfate	65		mg SO4/L	P327083	
	SM 2120 B	Color (true)	250		PCU	P326735	
	SM 2320 B-97	Total Alkalinity	50		mg CaCO3/L	P326900	
	SM 2540 C-97	TDS	345		mg/L	P327121	
	SM 2540 D-97	TSS	4	I	mg/L	P327087	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P326906	
1905594	EPA 350.1 Rev. 2.0	Ammonia-N	0.36		mg N/L	P326813	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.4		mg N/L	P326914	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.6		mg N/L	P326759	
	EPA 365.1 Rev. 2.0	Total-P	0.21		mg P/L	P326803	
	SM 5310 B-00	Organic Carbon	37		mg C/L	P326872	
1905596	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.12		mg P/L	P326746	

Sample Location: HENRY CREEK @ HWY 710

Collection Date/Time: 06/12/2017 11:50

Field ID: G1SE0002

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1905604	EPA 180.1 Rev. 2.0	Turbidity	12		NTU	P326752	
	EPA 300.0 Rev. 2.1	Chloride	540		mg Cl/L	P327034	
		Sulfate	310		mg SO4/L	P327083	
	SM 2120 B	Color (true)	230		PCU	P326735	
	SM 2320 B-97	Total Alkalinity	32		mg CaCO3/L	P326902	
	SM 2540 C-97	TDS	1.55E+03		mg/L	P327121	
	SM 2540 D-97	TSS	5	I	mg/L	P327087	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P326909	
1905607	EPA 350.1 Rev. 2.0	Ammonia-N	0.47		mg N/L	P326813	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.0		mg N/L	P326726	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.034		mg N/L	P326759	
	EPA 365.1 Rev. 2.0	Total-P	0.28		mg P/L	P326803	
	SM 5310 B-00	Organic Carbon	32		mg C/L	P326872	
1905610	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.13		mg P/L	P326747	
1905635	EPA 8321B	Sucralose**	0.022	I	ug/L	P326843	
	USGS O-2060-01	2,4-D	0.0042		ug/L	P326684	
		Diuron	8.0E-04	U	ug/L	P326684	
		Fenuron	0.0040	U	ug/L	P326684	RPD
		Imidacloprid	8.0E-04	U	ug/L	P326684	
		Bentazon	8.0E-04	U	ug/L	P326684	
		Linuron	0.0040	U	ug/L	P326684	
		Acetaminophen**	0.0080	U	ug/L	P326684	
		MCP	0.0020	U	ug/L	P326684	
		Carbamazepine**	4.0E-04	U	ug/L	P326684	

Field ID: G1SE0002

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1905635	USGS O-2060-01	Triclopyr**	0.0040	U	ug/L	P326684	
		Primidone**	0.0040	U	ug/L	P326684	
		Fluridone**	4.0E-04	U	ug/L	P326684	
1905638	EPA 200.7 Rev. 4.4	Calcium	108		mg/L	P326830	
		Iron	1.78E+03		ug/L	P326830	
		Magnesium	48.2		mg/L	P326830	
		Potassium	17.0		mg/L	P326830	
		Sodium	279		mg/L	P326830	
		Zinc	98		ug/L	P326830	
	EPA 200.8 Rev. 5.4	Arsenic	2.05		ug/L	P326830	
		Cadmium	0.103		ug/L	P326830	
		Chromium	1.2	I	ug/L	P326830	
		Copper	0.89		ug/L	P326830	
		Lead	0.21		ug/L	P326830	
		Nickel	1.31		ug/L	P326830	
		Silver	0.010	U	ug/L	P326830	

Sample Location: HENRY CREEK @ HWY 710

Collection Date/Time: 06/12/2017 11:55

Field ID: G1SE0002_DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1905605	EPA 180.1 Rev. 2.0	Turbidity	12	A	NTU	P326753	
	EPA 300.0 Rev. 2.1	Chloride	510		mg Cl/L	P327034	
		Sulfate	310		mg SO4/L	P327083	
		Color (true)	230		PCU	P326735	
	SM 2120 B	Total Alkalinity	33		mg CaCO3/L	P326902	
	SM 2540 C-97	TDS	1.52E+03		mg/L	P327121	
	SM 2540 D-97	TSS	4	I	mg/L	P327087	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P326909	
1905608	EPA 350.1 Rev. 2.0	Ammonia-N	0.47		mg N/L	P326813	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.0		mg N/L	P326726	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.034		mg N/L	P326759	
	EPA 365.1 Rev. 2.0	Total-P	0.28		mg P/L	P326803	
	SM 5310 B-00	Organic Carbon	33		mg C/L	P326872	
1905611	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.12		mg P/L	P326747	
1905636	EPA 8321B	Sucralose**	0.022	I	ug/L	P326843	
	USGS O-2060-01	2,4-D	0.0041		ug/L	P326684	
		Diuron	8.0E-04	U	ug/L	P326684	
		Fenuron	0.0040	U	ug/L	P326684	RPD
		Imidacloprid	8.0E-04	U	ug/L	P326684	
		Bentazon	8.0E-04	U	ug/L	P326684	
		Linuron	0.0040	U	ug/L	P326684	
		Acetaminophen**	0.0080	U	ug/L	P326684	
		MCP	0.0020	U	ug/L	P326684	
		Carbamazepine**	4.0E-04	U	ug/L	P326684	

Field ID: G1SE0002_DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1905636	USGS O-2060-01	Triclopyr**	0.0040	U	ug/L	P326684	
		Primidone**	0.0040	U	ug/L	P326684	
		Fluridone**	4.0E-04	U	ug/L	P326684	
1905639	EPA 200.7 Rev. 4.4	Calcium	110		mg/L	P326830	
		Iron	1.82E+03		ug/L	P326830	
		Magnesium	49.1		mg/L	P326830	
		Potassium	17.4		mg/L	P326830	
		Sodium	288		mg/L	P326830	
		Zinc	102		ug/L	P326830	
	EPA 200.8 Rev. 5.4	Arsenic	2.09		ug/L	P326830	
		Cadmium	0.104		ug/L	P326830	
		Chromium	1.2	I	ug/L	P326830	
		Copper	0.90		ug/L	P326830	
		Lead	0.21		ug/L	P326830	
		Nickel	1.33		ug/L	P326830	
		Silver	0.010	U	ug/L	P326830	

Sample Location: LETTUCE CREEK @ HWY 710

Collection Date/Time: 06/12/2017 12:20

Field ID: G1SE0015

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1905593	EPA 180.1 Rev. 2.0	Turbidity	5.7		NTU	P326752	
	EPA 300.0 Rev. 2.1	Chloride	75		mg Cl/L	P327034	
		Sulfate	120		mg SO4/L	P327083	
		Color (true)	220		PCU	P326735	
	SM 2320 B-97	Total Alkalinity	89		mg CaCO3/L	P326900	
	SM 2540 C-97	TDS	501		mg/L	P327121	
	SM 2540 D-97	TSS	3	I	mg/L	P327087	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P326906	
1905595	EPA 350.1 Rev. 2.0	Ammonia-N	0.90		mg N/L	P326813	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.7		mg N/L	P326914	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.034		mg N/L	P326759	
	EPA 365.1 Rev. 2.0	Total-P	0.43		mg P/L	P326803	
	SM 5310 B-00	Organic Carbon	32		mg C/L	P326872	
1905597	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.32		mg P/L	P326746	

Sample Location: OTTER CREEK @ 441

Collection Date/Time: 06/12/2017 10:00

Field ID: G1SE0007

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1905598	EPA 180.1 Rev. 2.0	Turbidity	17		NTU	P326752	
	EPA 300.0 Rev. 2.1	Chloride	200		mg Cl/L	P327034	
		Sulfate	300		mg SO4/L	P327083	
		Color (true)	120		PCU	P326739	
	SM 2320 B-97	Total Alkalinity	60		mg CaCO3/L	P326900	

Field ID: G1SE0007

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1905598	SM 2540 C-97	TDS	999		mg/L	P327121	
	SM 2540 D-97	TSS	4	I	mg/L	P327087	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P326906	
1905600	EPA 350.1 Rev. 2.0	Ammonia-N	8.0		mg N/L	P326813	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	10		mg N/L	P326726	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.22		mg N/L	P326759	
	EPA 365.1 Rev. 2.0	Total-P	0.22		mg P/L	P326803	
	SM 5310 B-00	Organic Carbon	41		mg C/L	P326872	
1905602	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.11		mg P/L	P326746	
1905633	EPA 8321B	Sucralose**	0.10		ug/L	P326843	
	USGS O-2060-01	2,4-D	8.0E-04	U	ug/L	P326684	
		Diuron	8.0E-04	U	ug/L	P326684	
		Fenuron	0.0040	U	ug/L	P326684	RPD
		Imidacloprid	8.0E-04	U	ug/L	P326684	
		Bentazon	8.0E-04	U	ug/L	P326684	
		Linuron	0.0040	U	ug/L	P326684	
		Acetaminophen**	0.0080	U	ug/L	P326684	
		MCP	0.0020	U	ug/L	P326684	
		Carbamazepine**	4.0E-04	U	ug/L	P326684	
		Triclopyr**	0.0040	U	ug/L	P326684	
		Primidone**	0.0040	U	ug/L	P326684	
		Fluridone**	4.0E-04	U	ug/L	P326684	

Sample Location: POPASH SLOUGH @ SR-70

Collection Date/Time: 06/12/2017 10:45

Field ID: G1SE0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1905589	EPA 180.1 Rev. 2.0	Turbidity	65		NTU	P326752	
	EPA 300.0 Rev. 2.1	Chloride	1.8E+03		mg Cl/L	P327034	
		Sulfate	580		mg SO4/L	P327083	
	SM 2120 B	Color (true)	82		PCU	P326739	
	SM 2320 B-97	Total Alkalinity	50		mg CaCO3/L	P326900	
	SM 2540 C-97	TDS	4.21E+03		mg/L	P327121	
	SM 2540 D-97	TSS	112		mg/L	P327087	
	SM 4500 F-C-97	Fluoride	0.32		mg F/L	P326906	
1905590	EPA 350.1 Rev. 2.0	Ammonia-N	0.29		mg N/L	P326812	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.1		mg N/L	P326915	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.036		mg N/L	P326878	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P326921	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P326872	
1905591	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.048		mg P/L	P326746	

Sample Location: TAYLOR CREEK @ SR-70

Collection Date/Time: 06/12/2017 11:00

Field ID: G1SE0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1905606	EPA 180.1 Rev. 2.0	Turbidity	6.1		NTU	P326753	
	EPA 300.0 Rev. 2.1	Chloride	43		mg Cl/L	P327034	
		Sulfate	78		mg SO4/L	P327083	
		Color (true)	62	A	PCU	P326735	
	SM 2320 B-97	Total Alkalinity	130		mg CaCO3/L	P326902	
	SM 2540 C-97	TDS	377		mg/L	P327121	
	SM 2540 D-97	TSS	14		mg/L	P327087	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P326909	
1905609	EPA 350.1 Rev. 2.0	Ammonia-N	0.45		mg N/L	P326813	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.9		mg N/L	P326726	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.36		mg N/L	P326759	
	EPA 365.1 Rev. 2.0	Total-P	0.24		mg P/L	P326804	
	SM 5310 B-00	Organic Carbon	17		mg C/L	P326872	
1905612	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.080		mg P/L	P326747	
1905637	EPA 8321B	Sucralose**	0.044		ug/L	P326843	
	USGS O-2060-01	2,4-D	0.036		ug/L	P326684	
		Diuron	0.0077		ug/L	P326684	
		Fenuron	0.0040	U	ug/L	P326684	RPD
		Imidacloprid	0.0056		ug/L	P326684	
		Bentazon	8.0E-04	U	ug/L	P326684	
		Linuron	0.0040	U	ug/L	P326684	
		Acetaminophen**	0.0080	U	ug/L	P326684	
		MCP	0.0020	U	ug/L	P326684	
		Carbamazepine**	5.2E-04	I	ug/L	P326684	
		Triclopyr**	0.0040	U	ug/L	P326684	
		Primidone**	0.0040	U	ug/L	P326684	
		Fluridone**	4.0E-04	U	ug/L	P326684	
	EPA 200.7 Rev. 4.4	Calcium	78.0		mg/L	P326830	
		Iron	540		ug/L	P326830	
		Magnesium	6.41		mg/L	P326830	
		Potassium	6.9		mg/L	P326830	
		Sodium	29.1		mg/L	P326830	
		Zinc	5.0	U	ug/L	P326830	
	EPA 200.8 Rev. 5.4	Arsenic	1.34		ug/L	P326830	
		Cadmium	0.020	U	ug/L	P326830	
		Chromium	0.50	I	ug/L	P326830	
		Copper	0.69	I	ug/L	P326830	
		Lead	0.42		ug/L	P326830	
		Nickel	1.03		ug/L	P326830	
		Silver	0.010	U	ug/L	P326830	

Sample Location: MOSQUITO CREEK @ SR 710

Collection Date/Time: 06/12/2017 11:25

Field ID: G1SE0014

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Field ID: G1SE0014

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1905599	EPA 180.1 Rev. 2.0	Turbidity	2.1		NTU	P326752	
	EPA 300.0 Rev. 2.1	Chloride	66		mg Cl/L	P327034	
		Sulfate	80		mg SO4/L	P327083	
	SM 2120 B	Color (true)	330		PCU	P326735	
	SM 2320 B-97	Total Alkalinity	83		mg CaCO3/L	P326900	
	SM 2540 C-97	TDS	423		mg/L	P327121	
	SM 2540 D-97	TSS	3	I	mg/L	P327087	
	SM 4500 F-C-97	Fluoride	0.087	I	mg F/L	P326906	
1905601	EPA 350.1 Rev. 2.0	Ammonia-N	0.41		mg N/L	P326813	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.9		mg N/L	P326726	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.15		mg N/L	P326759	
	EPA 365.1 Rev. 2.0	Total-P	0.89		mg P/L	P326803	
	SM 5310 B-00	Organic Carbon	42		mg C/L	P326872	
1905603	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.78		mg P/L	P326747	
1905634	EPA 8321B	Sucralose**	0.051		ug/L	P326843	
	USGS O-2060-01	2,4-D	0.090		ug/L	P326684	
		Diuron	0.0059		ug/L	P326684	
		Fenuron	0.0040	U	ug/L	P326684	RPD
		Imidacloprid	8.0E-04	U	ug/L	P326684	
		Bentazon	8.0E-04	U	ug/L	P326684	
		Linuron	0.0040	U	ug/L	P326684	
		Acetaminophen**	0.0080	U	ug/L	P326684	
		MCP	0.0020	U	ug/L	P326684	
		Carbamazepine**	4.0E-04	U	ug/L	P326684	
		Triclopyr**	0.0040	U	ug/L	P326684	
		Primidone**	0.0040	U	ug/L	P326684	
		Fluridone**	4.0E-04	U	ug/L	P326684	

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P326752

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P326753

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P326830

Component	Result	Code	Units
Calcium	0.075	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P326830

Component	Result	Code	Units
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: P326830

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327034

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327083

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326812

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326813

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326726

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326914

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326914

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326915

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326759

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326878

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326803

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326804

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326921

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326746

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326747

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P326843

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P326735

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P326739

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P326900

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

Reference Method: SM 2320 B-97
Batch ID: P326902

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

Reference Method: SM 2540 C-97
Batch ID: P327121

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P327087

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P326906

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P326909

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: P326872

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

Reference Method: USGS O-2060-01
Batch ID: P326684

Component	Result	Code	Units
2,4-D	8.0E-04	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	8.0E-04	U	ug/L
Fenuron	0.0040	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	8.0E-04	U	ug/L
Linuron	0.0040	U	ug/L
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: P326830

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	108		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	101		P	85 - 115
Sodium	102		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P326830

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	100		P	85 - 115
Cadmium	98.5		P	85 - 115
Chromium	98.0		P	85 - 115
Copper	95.7		P	85 - 115
Lead	100		P	85 - 115
Nickel	98.5		P	85 - 115
Silver	97.0		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327034

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327083

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326812

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326813

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326726

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326914

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326915

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326759

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: P326878

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	108		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326803

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326804

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326921

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326746

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.9		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326747

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

Reference Method: EPA 8321B
Batch ID: P326843

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	79.0		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P326900

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

Reference Method: SM 2320 B-97
Batch ID: P326902

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

Reference Method: SM 4500 F-C-97
Batch ID: P326906

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.4		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P326909

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.8		P	92 - 103

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P326872

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.4		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P326684

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	75.8		P	40 - 140
Acetaminophen	42.9		P	40 - 140
Bentazon	68.2		P	40 - 140
Carbamazepine	118		P	40 - 140
Diuron	109		P	40 - 140
Fenuron	105		P	40 - 140
Fluridone	108		P	40 - 140
Imidacloprid	96.7		P	40 - 160
Linuron	103		P	40 - 140
MCP	79.6		P	40 - 140
Primidone	100		P	40 - 140
Triclopyr	79.0		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P326830

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905489	Calcium	100		P	80 - 120
1905489	Iron	108	107	P/P	80 - 120
1905489	Magnesium	103		P	80 - 120
1905489	Potassium	101		P	80 - 120
1905489	Sodium	98.9		P	80 - 120
1905489	Zinc	100	100	P/P	80 - 120
1905640	Calcium	109		P	80 - 120
1905640	Iron	111		P	80 - 120
1905640	Magnesium	108		P	80 - 120
1905640	Potassium	107		P	80 - 120
1905640	Sodium	107		P	80 - 120
1905640	Zinc	105		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P326830

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905489	Arsenic	109	109	P/P	80 - 120
1905489	Cadmium	106	104	P/P	80 - 120
1905489	Chromium	94.8	94.3	P/P	80 - 120
1905489	Copper	96.2	96.8	P/P	80 - 120
1905489	Lead	105	102	P/P	80 - 120
1905489	Nickel	98.3	98.1	P/P	80 - 120
1905489	Silver	98.5	98.7	P/P	80 - 120
1905640	Arsenic	105		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P326830

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905640	Cadmium	104		P	80 - 120
1905640	Chromium	95.3		P	80 - 120
1905640	Copper	95.5		P	80 - 120
1905640	Lead	102		P	80 - 120
1905640	Nickel	97.1		P	80 - 120
1905640	Silver	98.2		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327034

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905651	Chloride	106		P	90 - 110
1905675	Chloride	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327083

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905651	Sulfate	98.5		P	90 - 110
1905675	Sulfate	97.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326812

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905535	Ammonia-N	102	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326813

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905655	Ammonia-N	98.8	96.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326726

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905655	Kjeldahl Nitrogen	89.0	92.1	F/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326914

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905860	Kjeldahl Nitrogen	98.8	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326915

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905947	Kjeldahl Nitrogen	102	102	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326759

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905595	NO2NO3-N	102	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326878

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905537	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326803

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905600	Total-P	104	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326804

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905609	Total-P	102	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326921

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905778	Total-P	93.0	94.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326746

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905502	O-Phosphate-P	94.7	96.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326747

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905612	O-Phosphate-P	98.4	98.3	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P326843

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905633	Sucralose	83.5	82.5	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P326906

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905717	Fluoride	100	96.3	P/P	91 - 105

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
 Batch ID: P326909

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905758	Fluoride	98.3	99.3	P/P	91 - 105

Reference Method: SM 5310 B-00
 Batch ID: P326872

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905594	Organic Carbon	103		P	85 - 115

Reference Method: USGS O-2060-01
 Batch ID: P326684

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905398	2,4-D	72.8	74.8	P/P	40 - 140
1905398	Acetaminophen	82.7	72.5	P/P	40 - 140
1905398	Bentazon	56.0	56.0	P/P	40 - 140
1905398	Carbamazepine	137	135	P/P	40 - 140
1905398	Diuron	117	117	P/P	40 - 140
1905398	Fenuron	92.2	64.2	P/P	40 - 140
1905398	Fluridone	117	116	P/P	40 - 140
1905398	Imidacloprid	123	120	P/P	40 - 160
1905398	Linuron	121	123	P/P	40 - 140
1905398	MCP	74.0	78.0	P/P	40 - 140
1905398	Primidone	127	119	P/P	40 - 140
1905398	Triclopyr	72.4	79.8	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P326752

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905531	Turbidity	8.55	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P326753

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905605	Turbidity	1.74	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P326830

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905489	Calcium	1.15	Spike	P	0 - 20
1905489	Iron	0.985	Spike	P	0 - 20
1905489	Magnesium	0.526	Spike	P	0 - 20
1905489	Potassium	0.891	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P326830

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905489	Sodium	0.605	Spike	P	0 - 20
1905489	Zinc	0.0146	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P326830

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905489	Arsenic	0.0695	Spike	P	0 - 20
1905489	Cadmium	1.44	Spike	P	0 - 20
1905489	Chromium	0.501	Spike	P	0 - 20
1905489	Copper	0.564	Spike	P	0 - 20
1905489	Lead	2.21	Spike	P	0 - 20
1905489	Nickel	0.194	Spike	P	0 - 20
1905489	Silver	0.247	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327034

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905675	Chloride	4.82	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327083

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905651	Sulfate	0.955	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326812

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905535	Ammonia-N	0.541	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326813

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905655	Ammonia-N	1.98	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326726

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905655	Kjeldahl Nitrogen	2.70	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326914

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905860	Kjeldahl Nitrogen	1.36	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326915

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905947	Kjeldahl Nitrogen	0.0778	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326759

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905595	NO2NO3-N	1.27	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326878

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905537	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326803

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905600	Total-P	2.11	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326804

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905609	Total-P	0.903	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326921

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905778	Total-P	2.02	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326746

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905502	O-Phosphate-P	1.99	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326747

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905612	O-Phosphate-P	0.0561	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P326843

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905633	Sucralose	1.14	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P326735

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905606	Color (true)	0.818	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P326739

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905441	Color (true)	0.0911	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P326900

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905717	Total Alkalinity	0.799	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P326902

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905758	Total Alkalinity	0.769	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P327121

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905499	TDS	3.00	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P327087

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905499	TSS	7.89	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P326906

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905717	Fluoride	2.41	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P326909

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905758	Fluoride	0.946	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P326872

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905594	Organic Carbon	1.23	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P326684

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905398	2,4-D	2.42	Spike	P	0 - 30
1905398	Acetaminophen	13.1	Spike	P	0 - 30
1905398	Bentazon	0.0	Spike	P	0 - 30
1905398	Carbamazepine	1.59	Spike	P	0 - 30
1905398	Diuron	0.135	Spike	P	0 - 30
1905398	Fenuron	35.9	Spike	F	0 - 30
1905398	Fluridone	1.08	Spike	P	0 - 30
1905398	Imidacloprid	2.34	Spike	P	0 - 30
1905398	Linuron	1.83	Spike	P	0 - 30
1905398	MCP	5.26	Spike	P	0 - 30
1905398	Primidone	6.43	Spike	P	0 - 30
1905398	Triclopyr	9.72	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: 1905633
Field Sample ID: G1SE0007

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	138	P	40 - 160
USGS O-2060-01	2,4-D-d3	64.6	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	111	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	71.3	P	30 - 160
USGS O-2060-01	Diuron-d6	47.6	P	30 - 160
USGS O-2060-01	Primidone-d5	56.8	P	30 - 150

Quality Assurance Report Surrogates

Lab Sample ID: 1905634
Field Sample ID: G1SE0014

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	94.5	P	40 - 160
USGS O-2060-01	2,4-D-d3	65.1	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	97.0	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	70.2	P	30 - 160
USGS O-2060-01	Diuron-d6	47.9	P	30 - 160
USGS O-2060-01	Primidone-d5	60.2	P	30 - 150

Lab Sample ID: 1905635
Field Sample ID: G1SE0002

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	140	P	40 - 160
USGS O-2060-01	2,4-D-d3	79.2	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	111	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	91.4	P	30 - 160
USGS O-2060-01	Diuron-d6	59.9	P	30 - 160
USGS O-2060-01	Primidone-d5	77.3	P	30 - 150

Lab Sample ID: 1905636
Field Sample ID: G1SE0002_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	122	P	40 - 160
USGS O-2060-01	2,4-D-d3	73.0	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	113	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	87.6	P	30 - 160
USGS O-2060-01	Diuron-d6	55.6	P	30 - 160
USGS O-2060-01	Primidone-d5	61.4	P	30 - 150

Lab Sample ID: 1905637
Field Sample ID: G1SE0011

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	119	P	40 - 160
USGS O-2060-01	2,4-D-d3	75.8	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	111	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	95.5	P	30 - 160
USGS O-2060-01	Diuron-d6	67.5	P	30 - 160
USGS O-2060-01	Primidone-d5	88.4	P	30 - 150

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B
Run ID: A77057
Included Lab Sample IDs: 1905592, 1905593, 1905599, 1905604, 1905605, 1905606

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.3	98.6	P/P	85 - 115
Color (true)	99.4	99.5	P/P	85 - 115

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A77059

Included Lab Sample IDs: 1905589, 1905598

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	91.9	98.2	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A77060

Included Lab Sample IDs: 1905591, 1905596, 1905597, 1905602, 1905603, 1905610, 1905611, 1905612

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	100	P/P	90 - 110
O-Phosphate-P	102	102	P/P	90 - 110
O-Phosphate-P	102	102	P/P	90 - 110
O-Phosphate-P	102	102	P/P	90 - 110
O-Phosphate-P	102	101	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A77064

Included Lab Sample IDs: 1905589, 1905592, 1905593, 1905598, 1905599, 1905604, 1905605, 1905606

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	99.0	P/P	95 - 105
Turbidity	99.0	99.0	P/P	95 - 105
Turbidity	99.5	100	P/P	95 - 105

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A77069

Included Lab Sample IDs: 1905594, 1905595, 1905600, 1905601, 1905607, 1905608, 1905609

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A77076

Included Lab Sample IDs: 1905589, 1905592, 1905593, 1905598, 1905599, 1905604, 1905605, 1905606

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	104	99.8	P/P	90 - 110
Chloride	98.7	104	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A77085

Included Lab Sample IDs: 1905590, 1905594, 1905595, 1905600, 1905601, 1905607, 1905608, 1905609

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

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A77100

Included Lab Sample IDs: 1905590, 1905594, 1905595, 1905600, 1905601, 1905607, 1905608, 1905609

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	97.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A77101

Included Lab Sample IDs: 1905594, 1905595, 1905600, 1905601, 1905607, 1905608, 1905609

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	103	104	P/P	90 - 110
Total-P	104	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A77102

Included Lab Sample IDs: 1905590

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

Reference Method: SM 2320 B-97

Run ID: A77119

Included Lab Sample IDs: 1905589, 1905592, 1905593, 1905598, 1905599, 1905604, 1905605, 1905606

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	103	P/P	90 - 110
Total Alkalinity	101	104	P/P	90 - 110
Total Alkalinity	103	101	P/P	90 - 110
Total Alkalinity	104	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A77119

Included Lab Sample IDs: 1905589, 1905592, 1905593, 1905598, 1905599, 1905604, 1905605, 1905606

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	95.3	96.1	P/P	90 - 110
Fluoride	95.3	99.0	P/P	90 - 110
Fluoride	96.1	95.3	P/P	90 - 110
Fluoride	99.0	96.7	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A77123

Included Lab Sample IDs: 1905638, 1905639, 1905640

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	103	103	P/P	90 - 110
Calcium	103	105	P/P	90 - 110
Iron	103	104	P/P	90 - 110
Iron	103	103	P/P	90 - 110
Magnesium	102	104	P/P	90 - 110
Magnesium	103	102	P/P	90 - 110
Potassium	99.3	101	P/P	90 - 110
Potassium	99.6	99.3	P/P	90 - 110
Sodium	101	105	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A77123

Included Lab Sample IDs: 1905638, 1905639, 1905640

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sodium	101	101	P/P	90 - 110
Zinc	98.4	99.7	P/P	90 - 110
Zinc	98.6	98.4	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A77124

Included Lab Sample IDs: 1905638, 1905639, 1905640

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	99.2	99.2	P/P	90 - 110
Arsenic	99.2	96.3	P/P	90 - 110
Cadmium	98.5	99.0	P/P	90 - 110
Cadmium	99.0	96.7	P/P	90 - 110
Chromium	96.9	95.6	P/P	90 - 110
Chromium	97.8	96.9	P/P	90 - 110
Copper	97.9	95.3	P/P	90 - 110
Copper	98.7	97.9	P/P	90 - 110
Lead	98.9	98.2	P/P	90 - 110
Lead	99.1	98.9	P/P	90 - 110
Nickel	97.7	95.6	P/P	90 - 110
Nickel	98.4	97.7	P/P	90 - 110
Silver	98.6	97.3	P/P	90 - 110
Silver	98.9	98.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A77135

Included Lab Sample IDs: 1905590

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	104	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A77142

Included Lab Sample IDs: 1905600, 1905601, 1905607, 1905608, 1905609

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	103	P/P	90 - 110
Kjeldahl Nitrogen	98.2	96.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A77177

Included Lab Sample IDs: 1905594, 1905595

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A77178

Included Lab Sample IDs: 1905590

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A77178

Included Lab Sample IDs: 1905590

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	108	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A77183

Included Lab Sample IDs: 1905589, 1905592, 1905593, 1905598, 1905599, 1905604, 1905605, 1905606

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sulfate	105	105	P/P	90 - 110
Sulfate	109	105	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A77208

Included Lab Sample IDs: 1905633, 1905634, 1905635, 1905636, 1905637

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	78.4	78.0	P/P	50 - 150
Acetaminophen	94.6	98.4	P/P	60 - 150
Bentazon	94.0	98.0	P/P	50 - 150
Carbamazepine	108	110	P/P	60 - 150
Diuron	99.3	96.0	P/P	60 - 150
Fenuron	98.6	103	P/P	60 - 150
Fluridone	96.4	103	P/P	60 - 160
Imidacloprid	91.1	97.6	P/P	60 - 150
Linuron	91.0	96.5	P/P	60 - 150
MCPP	74.4	72.8	P/P	50 - 150
Primidone	100	91.4	P/P	60 - 150
Triclopyr	76.0	76.4	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A77273

Included Lab Sample IDs: 1905633, 1905634, 1905635, 1905636, 1905637

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	107	83.4	P/P	60 - 160
Sucralose	134	115	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		Precision
					LCS	MS
					SMP	
EPA 180.1 Rev. 2.0	Turbidity				8.55	
	Turbidity				1.74	
EPA 200.7 Rev. 4.4	Calcium	104	100	109		1.15
	Iron	108	108	107	111	0.985
	Magnesium	105	103	108		0.526

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
EPA 200.7 Rev. 4.4	Potassium	101	101	107			0.891
	Sodium	102	98.9	107			0.605
	Zinc	101	100	100	105		0.0146
EPA 200.8 Rev. 5.4	Arsenic	100	109	109	105		0.0695
	Cadmium	98.5	106	104	104		1.44
	Chromium	98.0	94.8	94.3	95.3		0.501
	Copper	95.7	96.2	96.8	95.5		0.564
	Lead	100	105	102	102		2.21
	Nickel	98.5	98.3	98.1	97.1		0.194
	Silver	97.0	98.5	98.7	98.2		0.247
EPA 300.0 Rev. 2.1	Chloride	104	105	106		4.82	
	Sulfate	98.2	98.5	97.3		0.955	
EPA 350.1 Rev. 2.0	Ammonia-N	103	102	101			0.541
	Ammonia-N	99.9	98.8	96.5			1.98
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.0	89.0	92.1			2.70
	Kjeldahl Nitrogen	110	98.8	101			1.36
	Kjeldahl Nitrogen	104	102	102			0.0778
EPA 353.2 Rev. 2.0	NO2NO3-N	104	102	100			1.27
	NO2NO3-N	108	102	102			0.0
EPA 365.1 Rev. 2.0	Total-P	103	104	100			2.11
	Total-P	106	102	100			0.903
	Total-P	97.4	93.0	94.9			2.02
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.9	94.7	96.7			1.99
	O-Phosphate-P	98.3	98.4	98.3			0.0561
EPA 8321B	Sucralose	79.0	83.5	82.5			1.14
SM 2120 B	Color (true)					0.818	
	Color (true)					0.0911	
SM 2320 B-97	Total Alkalinity	103				0.799	
	Total Alkalinity	103				0.769	
SM 2540 C-97	TDS					3.00	
SM 2540 D-97	TSS					7.89	
SM 4500 F-C-97	Fluoride	95.4	100	96.3			2.41
	Fluoride	95.8	98.3	99.3			0.946
SM 5310 B-00	Organic Carbon	96.4	103				1.23
USGS O-2060-01	2,4-D	75.8	72.8	74.8			2.42
	Acetaminophen	42.9	82.7	72.5			13.1
	Bentazon	68.2	56.0	56.0			0.0
	Carbamazepine	118	137	135			1.59
	Diuron	109	117	117			0.135
	Fenuron	105	92.2	64.2			35.9
	Fluridone	108	117	116			1.08
	Imidacloprid	96.7	123	120			2.34
	Linuron	103	121	123			1.83
	MCPP	79.6	74.0	78.0			5.26
	Primidone	100	127	119			6.43
	Triclopyr	79.0	72.4	79.8			9.72

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1905589, 1905592, 1905593, 1905598, 1905599, 1905604, 1905605, 1905606

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1905638, 1905639, 1905640
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1905638, 1905639, 1905640
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1905589, 1905592, 1905593, 1905598, 1905599, 1905604, 1905605, 1905606
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1905589, 1905592, 1905593, 1905598, 1905599, 1905604, 1905605, 1905606
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1905590, 1905594, 1905595, 1905600, 1905601, 1905607, 1905608, 1905609
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1905590, 1905594, 1905595, 1905600, 1905601, 1905607, 1905608, 1905609
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1905590, 1905594, 1905595, 1905600, 1905601, 1905607, 1905608, 1905609
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1905590, 1905594, 1905595, 1905600, 1905601, 1905607, 1905608, 1905609
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1905591, 1905596, 1905597, 1905602, 1905603, 1905610, 1905611, 1905612
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1905633, 1905634, 1905635, 1905636, 1905637
SM 2120 B / E31780	True Color measured at 450 nm	1905589, 1905592, 1905593, 1905598, 1905599, 1905604, 1905605, 1905606
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1905589, 1905592, 1905593, 1905598, 1905599, 1905604, 1905605, 1905606
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1905589, 1905592, 1905593, 1905598, 1905599, 1905604, 1905605, 1905606
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1905589, 1905592, 1905593, 1905598, 1905599, 1905604, 1905605, 1905606
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1905589, 1905592, 1905593, 1905598, 1905599, 1905604, 1905605, 1905606
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1905590, 1905594, 1905595, 1905600, 1905601, 1905607, 1905608, 1905609
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1905633, 1905634, 1905635, 1905636, 1905637
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1905633, 1905634, 1905635, 1905636, 1905637

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	06/13/2017			06/13/2017 17:34	Blanca Fach	1905589, 1905592, 1905593, 1905598, 1905599, 1905604, 1905605, 1905606
EPA 200.7 Rev. 4.4	06/13/2017	06/14/2017	Elliott D. Healy	06/15/2017	Betina Topolski	1905638, 1905639, 1905640
EPA 200.8 Rev. 5.4	06/13/2017	06/14/2017	Elliott D. Healy	06/15/2017	Robert K Palmer	1905638, 1905639, 1905640
EPA 300.0 Rev. 2.1	06/13/2017			06/17/2017	Julia Storbeck	1905589, 1905592, 1905593, 1905598, 1905599, 1905604, 1905605, 1905606
	06/13/2017			06/19/2017	Julia Storbeck	1905589, 1905592, 1905593, 1905598
	06/13/2017			06/20/2017	Julia Storbeck	1905599, 1905604, 1905605, 1905606
EPA 350.1 Rev. 2.0	06/13/2017			06/14/2017	Sofia Elnemr	1905590, 1905594, 1905595, 1905600, 1905601, 1905607, 1905608, 1905609
EPA 351.2 Rev. 2.0	06/13/2017	06/14/2017	Adrian Shelby	06/16/2017	Joseph Suarez	1905600, 1905601, 1905607, 1905608, 1905609
	06/13/2017	06/15/2017	Adrian Shelby	06/19/2017	Joseph Suarez	1905590
	06/13/2017	06/15/2017	Adrian Shelby	06/19/2017	Tanya Welborn	1905594, 1905595
EPA 353.2 Rev. 2.0	06/13/2017			06/14/2017	Beverly Y. Sanders	1905594, 1905595, 1905600, 1905601, 1905607, 1905608, 1905609
	06/13/2017			06/15/2017	Beverly Y. Sanders	1905590
EPA 365.1 Rev. 2.0	06/13/2017	06/14/2017	Vijayalakshmi Reddy	06/15/2017	Lipi Saha	1905594, 1905595, 1905600, 1905601, 1905607, 1905608, 1905609
	06/13/2017	06/15/2017	Adrian Shelby	06/16/2017	Lipi Saha	1905590
EPA 365.1 Rev. 2.0 dissolved	06/13/2017			06/13/2017 15:04	Anthony C. Onicha	1905612
	06/13/2017			06/13/2017 15:20	Anthony C. Onicha	1905591
	06/13/2017			06/13/2017 15:21	Anthony C. Onicha	1905596
	06/13/2017			06/13/2017 15:22	Anthony C. Onicha	1905597
	06/13/2017			06/13/2017 15:28	Anthony C. Onicha	1905602
	06/13/2017			06/13/2017 15:33	Anthony C. Onicha	1905603
	06/13/2017			06/13/2017 15:40	Anthony C. Onicha	1905611
	06/13/2017			06/13/2017 16:01	Anthony C. Onicha	1905610
EPA 8321B	06/13/2017	06/21/2017	Mohammad Ghaffari	06/22/2017	Mohammad Ghaffari	1905633, 1905634, 1905635, 1905636, 1905637
SM 2120 B	06/13/2017			06/13/2017 16:03	Tanya Welborn	1905606
	06/13/2017			06/13/2017 16:21	Tanya Welborn	1905592, 1905593
	06/13/2017			06/13/2017 16:23	Tanya Welborn	1905599
	06/13/2017			06/13/2017 16:24	Tanya Welborn	1905604
	06/13/2017			06/13/2017 16:25	Tanya Welborn	1905605
	06/13/2017			06/13/2017 17:42	Tanya Welborn	1905589
	06/13/2017			06/13/2017 17:43	Tanya Welborn	1905598
SM 2320 B-97	06/13/2017			06/14/2017	Dale L. Simmons	1905589, 1905592, 1905593, 1905598, 1905599
	06/13/2017			06/15/2017	Dale L. Simmons	1905604, 1905605, 1905606
SM 2540 C-97	06/13/2017			06/14/2017	Yijie Li	1905589, 1905592, 1905593, 1905598, 1905599, 1905604, 1905605, 1905606

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2540 D-97	06/13/2017			06/14/2017	Yijie Li	1905589, 1905592, 1905593, 1905598, 1905599, 1905604, 1905605, 1905606
SM 4500 F-C-97	06/13/2017			06/14/2017	Dale L. Simmons	1905589, 1905592, 1905593, 1905598, 1905599
	06/13/2017			06/15/2017	Dale L. Simmons	1905604, 1905605, 1905606
SM 5310 B-00	06/13/2017			06/14/2017	Christopher Armour	1905590, 1905594
	06/13/2017			06/15/2017	Christopher Armour	1905595, 1905600, 1905601, 1905607, 1905608, 1905609
USGS O-2060-01	06/13/2017	06/15/2017	Hoor Shaik	06/18/2017	Juyoung Kim	1905633, 1905634, 1905635, 1905636, 1905637