

Chemical Analysis Report

SE-DIST-2016-03-18-01

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

Event Description: **SMP_2016 Green week of 3/14**
Request ID: **RQ-2016-03-14-55**
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
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Certified by: Colin Wright, Environmental Administrator

Date Certified: 11-APR-2016 12:10

A handwritten signature in black ink, appearing to read "Colin Wright", is written 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 and Nutrients.

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: Popash Slough @ SR 70

Collection Date/Time: 03/17/2016 09:20

Field ID: G1SE0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1781542	EPA 180.1 Rev. 2.0	Turbidity	6.6		NTU	P300668	
	EPA 300.0 Rev. 2.1	Chloride	110		mg Cl/L	P300888	
		Sulfate	21		mg SO4/L	P300890	
	SM 2120 B	Color (true)	400		PCU	P300678	
	SM 2320 B-97	Total Alkalinity	45		mg CaCO3/L	P301027	
	SM 2540 C-97	TDS	364		mg/L	P301236	
	SM 2540 D-97	TSS	14		mg/L	P301199	
	SM 4500 F-C-97	Fluoride	0.10		mg F/L	P301031	
1781544	EPA 350.1 Rev. 2.0	Ammonia-N	0.10		mg N/L	P301265	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.0		mg N/L	P301210	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.021		mg N/L	P300999	
	EPA 365.1 Rev. 2.0	Total-P	0.69		mg P/L	P301177	
	SM 5310 B-00	Organic Carbon	35		mg C/L	P301063	
1781546	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.56		mg P/L	P300642	
1781577	EPA 200.7 Rev. 4.4	Calcium	23.0		mg/L	P300898	
		Iron	1.41E+03		ug/L	P300898	
		Magnesium	11.1		mg/L	P300898	
		Potassium	7.7		mg/L	P300898	
		Sodium	61.0		mg/L	P300898	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P300898	
		Arsenic	0.70		ug/L	P301173	
		Cadmium	0.020	U	ug/L	P301173	
		Chromium	0.52		ug/L	P301173	
		Copper	0.30	IV	ug/L	P301173	
		Lead	0.22		ug/L	P301415	
		Nickel	0.20		ug/L	P301173	
		Silver	0.0050	U	ug/L	P301173	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: The precision data is unavailable due to low analyte concentration in the QC sample.

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: V: Copper was detected in the method blank at a level of 0.15 ug/L.

Sample Location: Mosquito Creek @ SR 70

Collection Date/Time: 03/17/2016 09:55

Field ID: G1SE0014

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1781548	EPA 180.1 Rev. 2.0	Turbidity	2.3		NTU	P300668	
	EPA 300.0 Rev. 2.1	Chloride	190		mg Cl/L	P300888	
		Sulfate	73		mg SO4/L	P300890	
	SM 2120 B	Color (true)	210		PCU	P300678	
	SM 2320 B-97	Total Alkalinity	96		mg CaCO3/L	P301027	
	SM 2540 C-97	TDS	566		mg/L	P301236	
	SM 2540 D-97	TSS	3	I	mg/L	P301199	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P301031	

Field ID: G1SE0014

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1781553	EPA 350.1 Rev. 2.0	Ammonia-N	0.051		mg N/L	P301265	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.8		mg N/L	P301211	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.28		mg N/L	P300999	
	EPA 365.1 Rev. 2.0	Total-P	0.84		mg P/L	P301179	
	SM 5310 B-00	Organic Carbon	34		mg C/L	P301063	
1781558	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.74		mg P/L	P300642	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: The precision data is unavailable due to low analyte concentration in the QC sample.

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: L63 @ SE 59th BLVD / 6B

Collection Date/Time: 03/17/2016 10:15

Field ID: G1SE0005

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1781549	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P300668	
	EPA 300.0 Rev. 2.1	Chloride	72		mg Cl/L	P300889	
		Sulfate	29		mg SO4/L	P300891	
	SM 2120 B	Color (true)	200		PCU	P300678	
	SM 2320 B-97	Total Alkalinity	84		mg CaCO3/L	P301027	
	SM 2540 C-97	TDS	310		mg/L	P301236	
	SM 2540 D-97	TSS	2	I	mg/L	P301199	
1781554	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P301031	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P301265	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P301211	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.36		mg N/L	P300999	
	EPA 365.1 Rev. 2.0	Total-P	0.41		mg P/L	P301179	
1781559	SM 5310 B-00	Organic Carbon	26		mg C/L	P301063	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.33		mg P/L	P300642	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: Site in Nubbin Slough

Collection Date/Time: 03/17/2016 10:40

Field ID: G1SE0004

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1781550	EPA 180.1 Rev. 2.0	Turbidity	4.3		NTU	P300668	
	EPA 300.0 Rev. 2.1	Chloride	52		mg Cl/L	P300889	
		Sulfate	27		mg SO4/L	P300891	
	SM 2120 B	Color (true)	230		PCU	P300678	
	SM 2320 B-97	Total Alkalinity	63		mg CaCO3/L	P301027	
	SM 2540 C-97	TDS	258		mg/L	P301236	
	SM 2540 D-97	TSS	5	I	mg/L	P301199	
1781555	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P301031	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.22		mg N/L	P301265	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.9		mg N/L	P301211	MS

Field ID: G1SE0004

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1781555	EPA 353.2 Rev. 2.0	NO2NO3-N	0.53		mg N/L	P300999	
	EPA 365.1 Rev. 2.0	Total-P	0.43		mg P/L	P301179	
	SM 5310 B-00	Organic Carbon	33		mg C/L	P301063	
1781560	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.31		mg P/L	P300642	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: Henry Creek @ SR 70

Collection Date/Time: 03/17/2016 11:05

Field ID: G1SE0002

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1781543	EPA 180.1 Rev. 2.0	Turbidity	3.5		NTU	P300668	
	EPA 300.0 Rev. 2.1	Chloride	150		mg Cl/L	P300888	
		Sulfate	35		mg SO4/L	P300890	
	SM 2120 B	Color (true)	300		PCU	P300678	
	SM 2320 B-97	Total Alkalinity	70		mg CaCO3/L	P301027	
	SM 2540 C-97	TDS	453		mg/L	P301236	
	SM 2540 D-97	TSS	3	I	mg/L	P301199	
	SM 4500 F-C-97	Fluoride	0.19		mg F/L	P301031	
1781545	EPA 350.1 Rev. 2.0	Ammonia-N	0.061		mg N/L	P301265	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P301210	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P300999	
	EPA 365.1 Rev. 2.0	Total-P	0.66		mg P/L	P301177	
	SM 5310 B-00	Organic Carbon	36		mg C/L	P301063	
1781547	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.54		mg P/L	P300642	
1781578	EPA 200.7 Rev. 4.4	Calcium	35.5		mg/L	P300898	
		Iron	1.31E+03		ug/L	P300898	
		Magnesium	13.6		mg/L	P300898	
		Potassium	7.6		mg/L	P300898	
		Sodium	90.5		mg/L	P300898	
		Zinc	5.0	U	ug/L	P300898	
	EPA 200.8 Rev. 5.4	Arsenic	1.16		ug/L	P301173	
		Cadmium	0.020	U	ug/L	P301173	
		Chromium	1.64		ug/L	P301173	
		Copper	0.40		ug/L	P301415	
		Lead	0.27		ug/L	P301415	
		Nickel	0.44		ug/L	P301173	
		Silver	0.0050	U	ug/L	P301173	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: The precision data is unavailable due to low analyte concentration in the QC sample.

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: Lettuce Creek @ Hwy SR 70

Collection Date/Time: 03/17/2016 11:25

Field ID: G1SE0015

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1781551	EPA 180.1 Rev. 2.0	Turbidity	5.2		NTU	P300668	
	EPA 300.0 Rev. 2.1	Chloride	61		mg Cl/L	P300889	
		Sulfate	17		mg SO4/L	P300891	
	SM 2120 B	Color (true)	280		PCU	P300678	
	SM 2320 B-97	Total Alkalinity	97		mg CaCO3/L	P301027	
	SM 2540 C-97	TDS	281		mg/L	P301236	
	SM 2540 D-97	TSS	4	I	mg/L	P301199	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P301031	
1781556	EPA 350.1 Rev. 2.0	Ammonia-N	0.23		mg N/L	P301265	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.1		mg N/L	P301211	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.19		mg N/L	P300999	
	EPA 365.1 Rev. 2.0	Total-P	0.43		mg P/L	P301179	
	SM 5310 B-00	Organic Carbon	34		mg C/L	P301063	
1781561	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.34		mg P/L	P300642	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: S-153 Basin Unamed Creek @ 710

Collection Date/Time: 03/17/2016 11:50

Field ID: G1SE0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1781552	EPA 180.1 Rev. 2.0	Turbidity	17		NTU	P300668	
	EPA 300.0 Rev. 2.1	Chloride	250		mg Cl/L	P300889	
		Sulfate	89		mg SO4/L	P300891	
	SM 2120 B	Color (true)	180		PCU	P300678	
	SM 2320 B-97	Total Alkalinity	103		mg CaCO3/L	P301027	
	SM 2540 C-97	TDS	682		mg/L	P301236	
	SM 2540 D-97	TSS	22		mg/L	P301199	
	SM 4500 F-C-97	Fluoride	0.45		mg F/L	P301031	
1781557	EPA 350.1 Rev. 2.0	Ammonia-N	0.50		mg N/L	P301265	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.5		mg N/L	P301211	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.048		mg N/L	P300999	
	EPA 365.1 Rev. 2.0	Total-P	0.48		mg P/L	P301179	
	SM 5310 B-00	Organic Carbon	24		mg C/L	P301063	
1781562	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.33		mg P/L	P300644	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P300668

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P300898

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: P301173

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.050	U	ug/L
Copper	0.15	I	ug/L
Nickel	0.050	U	ug/L
Silver	0.0050	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P301415

Component	Result	Code	Units
Copper	0.10	U	ug/L
Lead	0.050	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300888

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300889

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300890

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300891

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P301265

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P301210

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P301211

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300999

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P301177

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P301179

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300642

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300644

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

Reference Method: SM 2120 B
Batch ID: P300678

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P301027

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

Reference Method: SM 2540 C-97
Batch ID: P301236

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P301199

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P301031

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P301063

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P300898

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Iron	104		P	85 - 115
Magnesium	109		P	85 - 115
Potassium	103		P	85 - 115
Sodium	108		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P301173

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	91.3		P	85 - 115
Cadmium	92.9		P	85 - 115
Chromium	94.7		P	85 - 115
Copper	86.1		P	85 - 115
Nickel	90.0		P	85 - 115
Silver	92.4		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P301415

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Copper	92.6		P	85 - 115
Lead	95.3		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300888

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300889

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300890

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300891

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P301265

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P301210

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	90.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P301211

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300999

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P301177

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P301179

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300642

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300644

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

Reference Method: SM 2320 B-97
Batch ID: P301027

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P301031

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.5		P	94 - 108

Reference Method: SM 5310 B-00
Batch ID: P301063

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P300898

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1781183	Calcium	105	105	P/P	80 - 120
1781183	Iron	104	104	P/P	80 - 120
1781183	Magnesium	108	108	P/P	80 - 120
1781183	Potassium	107	107	P/P	80 - 120
1781183	Sodium	98.5	99.8	P/P	80 - 120
1781183	Zinc	101	103	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P300898

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1782126	Calcium	102		P	80 - 120
1782126	Iron	105		P	80 - 120
1782126	Magnesium	102		P	80 - 120
1782126	Potassium	105		P	80 - 120
1782126	Sodium	103		P	80 - 120
1782126	Zinc	103		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P301173

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1781712	Arsenic	90.1		P	80 - 120
1781712	Cadmium	91.9		P	80 - 120
1781712	Chromium	93.6		P	80 - 120
1781712	Copper	86.6		P	80 - 120
1781712	Nickel	89.5		P	80 - 120
1781712	Silver	90.0		P	80 - 120
1782128	Arsenic	94.1	93.0	P/P	80 - 120
1782128	Cadmium	95.1	93.1	P/P	80 - 120
1782128	Chromium	93.8	93.1	P/P	80 - 120
1782128	Copper	85.7	85.2	P/P	80 - 120
1782128	Nickel	88.6	87.5	P/P	80 - 120
1782128	Silver	92.0	90.2	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P301415

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780390	Copper	88.5	89.9	P/P	80 - 120
1780390	Lead	93.7	94.4	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300888

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1781331	Chloride	102		P	90 - 110
1781485	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300889

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1781760	Chloride	103		P	90 - 110
1781928	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300890

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1781331	Sulfate	99.4		P	90 - 110
1781485	Sulfate	99.8		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300891

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1781760	Sulfate	100		P	90 - 110
1781928	Sulfate	99.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P301265

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1781554	Ammonia-N	98.1	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P301210

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1781487	Kjeldahl Nitrogen	95.1	93.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P301211

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1781649	Kjeldahl Nitrogen	100	88.6	P/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300999

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1781537	NO2NO3-N	97.8	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300642

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1781513	O-Phosphate-P	98.8	99.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300644

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1781709	O-Phosphate-P	102	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P301031

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1781511	Fluoride	99.1	99.1	P/P	94 - 107

Reference Method: SM 5310 B-00
Batch ID: P301063

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1781512	Organic Carbon	97.1	98.3	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P300668

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781518	Turbidity	5.24	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P300898

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781183	Calcium	0.190	Spike	P	0 - 20
1781183	Iron	0.332	Spike	P	0 - 20
1781183	Magnesium	0.210	Spike	P	0 - 20
1781183	Potassium	0.0787	Spike	P	0 - 20
1781183	Sodium	0.805	Spike	P	0 - 20
1781183	Zinc	2.18	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P301173

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1782128	Arsenic	1.14	Spike	P	0 - 20
1782128	Cadmium	2.09	Spike	P	0 - 20
1782128	Chromium	0.729	Spike	P	0 - 20
1782128	Copper	0.639	Spike	P	0 - 20
1782128	Nickel	1.20	Spike	P	0 - 20
1782128	Silver	1.93	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P301415

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780390	Copper	1.60	Spike	P	0 - 20
1780390	Lead	0.749	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300888

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781331	Chloride	0.240	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300889

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781760	Chloride	0.0985	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300891

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781760	Sulfate	0.200	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P301265

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781554	Ammonia-N	0.0642	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P301210

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781487	Kjeldahl Nitrogen	1.42	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P301211

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781649	Kjeldahl Nitrogen	6.91	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300999

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781537	NO2NO3-N	2.37	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P301177

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780822	Total-P	0.990	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P301179

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781553	Total-P	0.556	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300642

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781513	O-Phosphate-P	0.596	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300644

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781709	O-Phosphate-P	0.587	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P300678

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781536	Color (true)	2.35	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P301027

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781511	Total Alkalinity	0.218	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P301236

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781526	TDS	0.635	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P301031

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781511	Fluoride	0.0	Spike	P	0 - 3.7

Reference Method: SM 5310 B-00
Batch ID: P301063

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781512	Organic Carbon	1.18	Spike	P	0 - 20

* 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 Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A68312
Included Lab Sample IDs: 1781546, 1781547, 1781558, 1781559, 1781560, 1781561, 1781562

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.6	97.9	P/P	90 - 110
O-Phosphate-P	99.6	98.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A68319

Included Lab Sample IDs: 1781542, 1781543, 1781548, 1781549, 1781550, 1781551, 1781552

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

Reference Method: SM 2120 B

Run ID: A68323

Included Lab Sample IDs: 1781542, 1781543, 1781548, 1781549, 1781550, 1781551, 1781552

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.8	99.2	P/P	90 - 115

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A68401

Included Lab Sample IDs: 1781542, 1781543, 1781548, 1781549, 1781550, 1781551, 1781552

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	100	P/P	90 - 110
Chloride	100	100	P/P	90 - 110
Sulfate	97.0	99.1	P/P	90 - 110
Sulfate	99.1	97.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A68424

Included Lab Sample IDs: 1781544, 1781545, 1781553, 1781554, 1781555, 1781556, 1781557

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

Reference Method: SM 2320 B-97

Run ID: A68432

Included Lab Sample IDs: 1781542, 1781543, 1781548, 1781549, 1781550, 1781551, 1781552

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

Reference Method: SM 4500 F-C-97

Run ID: A68432

Included Lab Sample IDs: 1781542, 1781543, 1781548, 1781549, 1781550, 1781551, 1781552

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A68436

Included Lab Sample IDs: 1781577, 1781578

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	101	P/P	90 - 110
Iron	99.1	101	P/P	90 - 110
Magnesium	99.8	102	P/P	90 - 110
Potassium	100	101	P/P	90 - 110
Sodium	104	102	P/P	90 - 110
Zinc	97.5	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A68443

Included Lab Sample IDs: 1781544, 1781545, 1781553, 1781554, 1781555, 1781556, 1781557

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.7	98.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A68526

Included Lab Sample IDs: 1781544, 1781545, 1781553, 1781554, 1781555, 1781556, 1781557

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	100	P/P	90 - 110
Ammonia-N	101	101	P/P	90 - 110
Ammonia-N	100	99.3	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A68529

Included Lab Sample IDs: 1781577, 1781578

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	94.1	94.2	P/P	90 - 110
Cadmium	94.7	94.6	P/P	90 - 110
Chromium	97.1	96.8	P/P	90 - 110
Nickel	92.2	92.0	P/P	90 - 110
Silver	91.7	91.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A68534

Included Lab Sample IDs: 1781544, 1781545, 1781553, 1781554, 1781555, 1781556, 1781557

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	103	102	P/P	90 - 110
Total-P	104	103	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A68578

Included Lab Sample IDs: 1781577

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	98.7	97.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A68630

Included Lab Sample IDs: 1781544, 1781545, 1781553, 1781554, 1781555, 1781556, 1781557

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	96.8	P/P	90 - 110
Kjeldahl Nitrogen	96.8	98.4	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A68646

Included Lab Sample IDs: 1781577, 1781578

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	96.3	96.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A68646
Included Lab Sample IDs: 1781577, 1781578

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	98.6	97.4	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						5.24	
EPA 200.7 Rev. 4.4	Calcium	105	105	105	102			0.190
	Iron	104	104	104	105			0.332
	Magnesium	109	108	108	102			0.210
	Potassium	103	107	107	105			0.0787
	Sodium	108	98.5	99.8	103			0.805
	Zinc	102	101	103	103			2.18
EPA 200.8 Rev. 5.4	Arsenic	91.3	90.1	94.1	93.0			1.14
	Cadmium	92.9	91.9	95.1	93.1			2.09
	Chromium	94.7	93.6	93.8	93.1			0.729
	Copper	86.1	86.6	85.7	85.2			0.639
	Copper	92.6	88.5	89.9				1.60
	Lead	95.3	93.7	94.4				0.749
	Nickel	90.0	89.5	88.6	87.5			1.20
	Silver	92.4	90.0	92.0	90.2			1.93
EPA 300.0 Rev. 2.1	Chloride	102	102	103			0.240	
	Chloride	102	103	103			0.0985	
	Sulfate	99.5	99.4	99.8				
	Sulfate	99.1	100	99.4			0.200	
EPA 350.1 Rev. 2.0	Ammonia-N	97.8	98.1	98.2				0.0642
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	90.4	95.1	93.5				1.42
	Kjeldahl Nitrogen	95.9	100	88.6				6.91
EPA 353.2 Rev. 2.0	NO2NO3-N	102	97.8	101				2.37
EPA 365.1 Rev. 2.0	Total-P	101						0.990
	Total-P	103						0.556
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	98.8	99.6				0.596
	O-Phosphate-P	105	102	102				0.587
SM 2120 B	Color (true)						2.35	
SM 2320 B-97	Total Alkalinity	103					0.218	
SM 2540 C-97	TDS						0.635	
SM 4500 F-C-97	Fluoride	97.5	99.1	99.1				0.0
SM 5310 B-00	Organic Carbon	94.8	97.1	98.3				1.18

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1781542, 1781543, 1781548, 1781549, 1781550, 1781551, 1781552

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	1781577, 1781578
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1781577, 1781578
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1781542, 1781543, 1781548, 1781549, 1781550, 1781551, 1781552
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1781542, 1781543, 1781548, 1781549, 1781550, 1781551, 1781552
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1781544, 1781545, 1781553, 1781554, 1781555, 1781556, 1781557
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1781544, 1781545, 1781553, 1781554, 1781555, 1781556, 1781557
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1781544, 1781545, 1781553, 1781554, 1781555, 1781556, 1781557
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1781544, 1781545, 1781553, 1781554, 1781555, 1781556, 1781557
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1781546, 1781547, 1781558, 1781559, 1781560, 1781561, 1781562
SM 2120 B / E31780	True Color measured at 450 nm	1781542, 1781543, 1781548, 1781549, 1781550, 1781551, 1781552
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1781542, 1781543, 1781548, 1781549, 1781550, 1781551, 1781552
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1781542, 1781543, 1781548, 1781549, 1781550, 1781551, 1781552
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1781542, 1781543, 1781548, 1781549, 1781550, 1781551, 1781552
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1781542, 1781543, 1781548, 1781549, 1781550, 1781551, 1781552
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1781544, 1781545, 1781553, 1781554, 1781555, 1781556, 1781557

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	03/18/2016			03/18/2016 15:24	Sima Feizi	1781542, 1781543, 1781548, 1781549, 1781550, 1781551, 1781552
EPA 200.7 Rev. 4.4	03/18/2016	03/23/2016	Elliott D. Healy	03/24/2016	Joshua Ayres	1781577, 1781578
EPA 200.8 Rev. 5.4	03/18/2016	03/28/2016	Elliott D. Healy	03/30/2016	Charles J. Peterson	1781577, 1781578
	03/18/2016	03/28/2016	Elliott D. Healy	03/31/2016	Charles J. Peterson	1781577
	03/18/2016	04/01/2016	Elliott D. Healy	04/04/2016	Charles J. Peterson	1781577, 1781578
EPA 300.0 Rev. 2.1	03/18/2016			03/22/2016	Julia Storbeck	1781542, 1781543, 1781548, 1781549, 1781550, 1781551, 1781552
EPA 350.1 Rev. 2.0	03/18/2016			03/29/2016	Diana M. Turner	1781544, 1781545, 1781553, 1781554, 1781555, 1781556, 1781557
EPA 351.2 Rev. 2.0	03/18/2016	03/29/2016	Sofia Elnemr	04/04/2016	Virginia P. Brown	1781544, 1781545, 1781553, 1781554, 1781555, 1781556, 1781557
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SM 2320 B-97	03/18/2016			03/22/2016	Sima Feizi	1781542, 1781543, 1781548, 1781549, 1781550, 1781551, 1781552
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