

Chemical Analysis Report

WQAP-2016-03-15-01

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

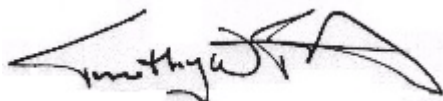
Event Description: **Merritt's Mill Pond and Lake Tallavana**
Request ID: **RQ-2016-03-14-50**
Customer: **WQAP**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
MS #3560
Tallahassee, FL 32399-2400
Attn: Katrina Sanders

For additional information please contact
Timothy W. Fitzpatrick
Liang-Tsair Lin, Ph.D.
Colin Wright, Ph.D.
Thekkekalathil Chandrasekhar, PhD, QA Officer
Phone (850) 245-8085

Certified by: Timothy Fitzpatrick, Program Administrator

Date Certified: 06-APR-2016 14:03

A handwritten signature in black ink, appearing to read "Timothy Fitzpatrick", with a stylized flourish at the end.

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: MERRITTS MILL POND 600 METERS
DOWNSTREAM OF JACKSON BLUE SPRING**

Collection Date/Time: 03/15/2016 09:50

Field ID: G2WA0007

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1780045	EPA 180.1 Rev. 2.0	Turbidity	0.20		NTU	P300513	
	EPA 300.0 Rev. 2.1	Chloride	4.7		mg Cl/L	P300559	
	EPA 353.2 Rev. 2.0	Nitrite-N	0.002	U	mg N/L	P300534	
	SM 2120 B	Color (true)	2.5	U	PCU	P300494	
	SM 2320 B-97	Total Alkalinity	120		mg CaCO3/L	P300687	
	SM 2540 C-97	TDS	145	A	mg/L	P301126	
	SM 2540 D-97	TSS	2	I	mg/L	P300901	
	SM 4500 F-C-97	Fluoride	0.042	I	mg F/L	P300690	
1780048	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P300973	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.15	I	mg N/L	P300926	
	EPA 353.2 Rev. 2.0	NO2NO3-N	3.7		mg N/L	P300733	
	EPA 365.1 Rev. 2.0	Total-P	0.020		mg P/L	P300774	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P300787	
1780051	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.019		mg P/L	P300392	
1780070	EPA 200.7 Rev. 4.4	Calcium	51.5		mg/L	P300731	
		Iron	30	U	ug/L	P300731	
		Magnesium	2.52		mg/L	P300731	
		Potassium	0.40	I	mg/L	P300731	
		Sodium	1.9	I	mg/L	P300731	
		Zinc	5.0	U	ug/L	P300731	
	EPA 200.8 Rev. 5.4	Arsenic	0.26		ug/L	P300731	
		Cadmium	0.020	U	ug/L	P300731	
		Chromium	1.08		ug/L	P300731	
		Copper	0.50	U	ug/L	P300731	
		Lead	0.050	U	ug/L	P300731	
		Nickel	0.052	I	ug/L	P300731	
		Silver	0.0050	U	ug/L	P300731	

Ref. Method and Comment:

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

EPA 350.1 Rev. 2.0: The result was confirmed on 03/23/2016.

**Sample Location: MERRITTS MILL POND 600 METERS
DOWNSTREAM OF JACKSON BLUE SPRING**

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

Field ID: G2WA0007D

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1780057	EPA 180.1 Rev. 2.0	Turbidity	0.15		NTU	P300513	
	EPA 300.0 Rev. 2.1	Chloride	4.7		mg Cl/L	P300559	
	EPA 353.2 Rev. 2.0	Nitrite-N	0.002	U	mg N/L	P300534	
	SM 2120 B	Color (true)	2.5	U	PCU	P300494	
	SM 2320 B-97	Total Alkalinity	119		mg CaCO3/L	P300687	
	SM 2540 C-97	TDS	158	A	mg/L	P301128	
	SM 2540 D-97	TSS	2	U	mg/L	P300903	
	SM 4500 F-C-97	Fluoride	0.041	I	mg F/L	P300690	

Field ID: G2WA0007D

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1780058	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P300973	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.13	I	mg N/L	P300927	
	EPA 353.2 Rev. 2.0	NO2NO3-N	3.7		mg N/L	P300734	
	EPA 365.1 Rev. 2.0	Total-P	0.020		mg P/L	P300775	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P300787	
1780059	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.019		mg P/L	P300392	
1780073	EPA 200.7 Rev. 4.4	Calcium	51.2		mg/L	P300731	
		Iron	30	U	ug/L	P300731	
		Magnesium	2.39		mg/L	P300731	
		Potassium	0.41	I	mg/L	P300731	
		Sodium	1.9	I	mg/L	P300731	
		Zinc	5.0	U	ug/L	P300731	
	EPA 200.8 Rev. 5.4	Arsenic	0.26		ug/L	P300731	
		Cadmium	0.020	U	ug/L	P300731	
		Chromium	1.07		ug/L	P300731	
		Copper	0.50	U	ug/L	P300731	
		Lead	0.050	U	ug/L	P300731	
		Nickel	0.050	U	ug/L	P300731	
		Silver	0.0050	U	ug/L	P300731	

Ref. Method and Comment:

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

EPA 350.1 Rev. 2.0: The result was confirmed on 03/23/2016.

**Sample Location: MERRITTS MILL POND 600 METERS
DOWNSTREAM OF JACKSON BLUE SPRING**

Collection Date/Time: 03/15/2016 09:50

Field ID: G2WA0007B

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1780054	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P300513	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P300559	
		Sulfate	0.20	U	mg SO4/L	P300561	
	EPA 353.2 Rev. 2.0	Nitrite-N	0.002	U	mg N/L	P300534	
	SM 2120 B	Color (true)	2.5	U	PCU	P300494	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P300687	
	SM 2540 C-97	TDS	15	U	mg/L	P301124	
	SM 2540 D-97	TSS	2	U	mg/L	P300899	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P300690	
1780055	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P300973	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P300927	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P300734	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P300775	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P300787	
1780056	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P300392	

Ref. Method and Comment:

EPA 350.1 Rev. 2.0: The result was confirmed on 03/23/2016.

**Sample Location: MERRITTS MILL POND 500 METERS OF
STREAM DAM**

Collection Date/Time: 03/15/2016 11:00

Field ID: G2WA0009

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1780046	EPA 180.1 Rev. 2.0	Turbidity	0.60		NTU	P300513	
	EPA 300.0 Rev. 2.1	Chloride	5.0	A	mg Cl/L	P300559	
	EPA 353.2 Rev. 2.0	Nitrite-N	0.031		mg N/L	P300534	
	SM 2120 B	Color (true)	2.5	U	PCU	P300494	
	SM 2320 B-97	Total Alkalinity	124	A	mg CaCO3/L	P300687	
	SM 2540 C-97	TDS	144	A	mg/L	P301127	
	SM 2540 D-97	TSS	3	I	mg/L	P300902	
	SM 4500 F-C-97	Fluoride	0.048	I	mg F/L	P300690	
1780049	EPA 350.1 Rev. 2.0	Ammonia-N	0.089		mg N/L	P300973	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.33		mg N/L	P300927	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.6		mg N/L	P300733	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P300774	
	SM 5310 B-00	Organic Carbon	0.87	I	mg C/L	P300787	
1780052	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.007	I	mg P/L	P300392	
1780071	EPA 200.7 Rev. 4.4	Calcium	51.4		mg/L	P300731	
		Iron	30	U	ug/L	P300731	
		Magnesium	2.85		mg/L	P300731	
		Potassium	0.46	I	mg/L	P300731	
		Sodium	2.1		mg/L	P300731	
		Zinc	5.0	U	ug/L	P300731	
	EPA 200.8 Rev. 5.4	Arsenic	0.32		ug/L	P300731	
		Cadmium	0.020	U	ug/L	P300731	
		Chromium	0.81		ug/L	P300731	
		Copper	0.50	U	ug/L	P300731	
		Lead	0.050	U	ug/L	P300731	
		Nickel	0.050	U	ug/L	P300731	
		Silver	0.0050	U	ug/L	P300731	

Ref. Method and Comment:

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

**Sample Location: MERRITTS MILL POND MID UNDER POWER
LINES**

Collection Date/Time: 03/15/2016 11:15

Field ID: G2WA0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1780047	EPA 180.1 Rev. 2.0	Turbidity	0.65		NTU	P300513	
	EPA 300.0 Rev. 2.1	Chloride	4.9		mg Cl/L	P300559	
	EPA 353.2 Rev. 2.0	Nitrite-N	0.018		mg N/L	P300534	
	SM 2120 B	Color (true)	2.5	U	PCU	P300494	
	SM 2320 B-97	Total Alkalinity	122		mg CaCO3/L	P300687	
	SM 2540 C-97	TDS	136		mg/L	P301128	
	SM 2540 D-97	TSS	2	I	mg/L	P300903	
	SM 4500 F-C-97	Fluoride	0.048	I	mg F/L	P300690	
1780050	EPA 350.1 Rev. 2.0	Ammonia-N	0.070		mg N/L	P300973	

Field ID: G2WA0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1780050	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.28		mg N/L	P300927	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.9		mg N/L	P300734	
	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P300775	
	SM 5310 B-00	Organic Carbon	0.63	I	mg C/L	P300787	
1780053	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.010		mg P/L	P300392	
1780072	EPA 200.7 Rev. 4.4	Calcium	50.9		mg/L	P300731	
		Iron	30	U	ug/L	P300731	
		Magnesium	2.73		mg/L	P300731	
		Potassium	0.39	I	mg/L	P300731	
		Sodium	2.1		mg/L	P300731	
		Zinc	5.0	U	ug/L	P300731	
	EPA 200.8 Rev. 5.4	Arsenic	0.30		ug/L	P300731	
		Cadmium	0.020	U	ug/L	P300731	
		Chromium	0.92		ug/L	P300731	
		Copper	0.50	U	ug/L	P300731	
		Lead	0.050	U	ug/L	P300731	
		Nickel	0.050	U	ug/L	P300731	
		Silver	0.0050	U	ug/L	P300731	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P300513

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P300731

Component	Result	Code	Units
Calcium	0.15	I	mg/L
Iron	30	U	ug/L
Magnesium	0.045	I	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: P300731

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.050	U	ug/L
Copper	0.88	I	ug/L
Lead	0.050	U	ug/L
Nickel	0.050	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P300731

Component	Result	Code	Units
Silver	0.0050	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300559

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300561

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300973

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300926

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300927

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300534

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300733

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300734

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300774

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300775

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300392

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

Reference Method: SM 2120 B
Batch ID: P300494

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P300687

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

Reference Method: SM 2540 C-97
Batch ID: P301124

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P301126

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P301127

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P301128

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P300899

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P300901

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P300902

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P300903

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P300690

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P300787

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: P300731

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Iron	102		P	85 - 115
Magnesium	106		P	85 - 115
Potassium	103		P	85 - 115
Sodium	105		P	85 - 115
Zinc	97.0		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P300731

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	98.2		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P300731

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Cadmium	100		P	85 - 115
Chromium	95.3		P	85 - 115
Copper	96.5		P	85 - 115
Lead	89.6		P	85 - 115
Nickel	96.7		P	85 - 115
Silver	94.6		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300559

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300561

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300973

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300926

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	92.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300927

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300534

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Nitrite-N	90.8		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300733

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 353.2 Rev. 2.0
Batch ID: P300734

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300774

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	96.2		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300775

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: P300392

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

Reference Method: SM 2320 B-97
Batch ID: P300687

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	95 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P300690

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.8		P	94 - 108

Reference Method: SM 5310 B-00
Batch ID: P300787

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P300731

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780071	Calcium	106		P	80 - 120
1780071	Iron	104	99.4	P/P	80 - 120
1780071	Magnesium	105	97.0	P/P	80 - 120
1780071	Potassium	105	98.7	P/P	80 - 120
1780071	Sodium	107	98.7	P/P	80 - 120
1780071	Zinc	101	93.2	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P300731

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780521	Calcium	109		P	80 - 120
1780521	Iron	104		P	80 - 120
1780521	Magnesium	105		P	80 - 120
1780521	Potassium	101		P	80 - 120
1780521	Sodium	106		P	80 - 120
1780521	Zinc	98.1		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P300731

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780071	Arsenic	98.5	96.7	P/P	80 - 120
1780071	Cadmium	98.3	97.4	P/P	80 - 120
1780071	Chromium	93.5	93.0	P/P	80 - 120
1780071	Copper	94.6	90.0	P/P	80 - 120
1780071	Lead	90.8	89.6	P/P	80 - 120
1780071	Nickel	95.0	93.4	P/P	80 - 120
1780071	Silver	96.0	93.4	P/P	80 - 120
1780521	Arsenic	98.9		P	80 - 120
1780521	Cadmium	101		P	80 - 120
1780521	Chromium	95.8		P	80 - 120
1780521	Copper	91.9		P	80 - 120
1780521	Lead	98.1		P	80 - 120
1780521	Nickel	92.2		P	80 - 120
1780521	Silver	94.4		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300559

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780046	Chloride	105		P	90 - 110
1780047	Chloride	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300561

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780046	Sulfate	102		P	90 - 110
1780047	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300973

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780104	Ammonia-N	100	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300926

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1779937	Kjeldahl Nitrogen	91.2	90.6	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300927

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780049	Kjeldahl Nitrogen	102	96.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300534

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780045	Nitrite-N	92.3	93.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300733

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1779939	NO2NO3-N	99.0	99.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300734

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780088	NO2NO3-N	100	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300774

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1779936	Total-P	104	98.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300775

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780050	Total-P	98.2	97.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300392

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1779769	O-Phosphate-P	99.3	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P300690

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780046	Fluoride	95.5	97.1	P/P	94 - 107

Reference Method: SM 5310 B-00
Batch ID: P300787

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1779935	Organic Carbon	98.4	99.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P300513

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780087	Turbidity	3.87	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P300731

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780071	Calcium	3.80	Spike	P	0 - 20
1780071	Iron	4.86	Spike	P	0 - 20
1780071	Magnesium	4.58	Spike	P	0 - 20
1780071	Potassium	5.39	Spike	P	0 - 20
1780071	Sodium	5.56	Spike	P	0 - 20
1780071	Zinc	7.65	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P300731

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780071	Arsenic	1.84	Spike	P	0 - 20
1780071	Cadmium	0.978	Spike	P	0 - 20
1780071	Chromium	0.448	Spike	P	0 - 20
1780071	Copper	4.98	Spike	P	0 - 20
1780071	Lead	1.28	Spike	P	0 - 20
1780071	Nickel	1.62	Spike	P	0 - 20
1780071	Silver	2.78	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300559

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780046	Chloride	0.0422	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300561

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780046	Sulfate	9.48	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300973

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780104	Ammonia-N	1.24	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300926

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1779937	Kjeldahl Nitrogen	0.526	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300927

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780049	Kjeldahl Nitrogen	4.30	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300534

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780045	Nitrite-N	1.43	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300733

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1779939	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300734

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780088	NO2NO3-N	1.50	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300774

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1779936	Total-P	5.22	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300775

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780050	Total-P	0.883	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300392

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1779769	O-Phosphate-P	1.90	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2120 B
Batch ID: P300494

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780096	Color (true)	0.144	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P300687

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780046	Total Alkalinity	0.404	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P301124

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1779584	TDS	1.79	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P301126

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780045	TDS	2.76	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P301127

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780046	TDS	0.697	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P301128

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780057	TDS	2.53	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P300899

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1779584	TSS	7.14	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P300690

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780046	Fluoride	1.52	Spike	P	0 - 3.7

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P300787

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1779935	Organic Carbon	0.479	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: A68233
Included Lab Sample IDs: 1780051, 1780052, 1780053, 1780056, 1780059

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.0	98.8	P/P	90 - 110
O-Phosphate-P	98.8	98.0	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A68261
Included Lab Sample IDs: 1780045, 1780046, 1780047, 1780054, 1780057

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	101	P/P	90 - 110
Chloride	99.6	102	P/P	90 - 110
Sulfate	96.2	99.3	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A68263
Included Lab Sample IDs: 1780045, 1780046, 1780047, 1780054, 1780057

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	95.7	98.4	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A68270
Included Lab Sample IDs: 1780045, 1780046, 1780047, 1780054, 1780057

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A68277
Included Lab Sample IDs: 1780045, 1780046, 1780047, 1780054, 1780057

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

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A68331

Included Lab Sample IDs: 1780045, 1780046, 1780047, 1780054, 1780057

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	104	101	P/P	90 - 110
Total Alkalinity	99.8	104	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A68331

Included Lab Sample IDs: 1780045, 1780046, 1780047, 1780054, 1780057

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	100	P/P	90 - 110
Fluoride	99.5	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A68345

Included Lab Sample IDs: 1780048, 1780049, 1780050, 1780055, 1780058

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

Reference Method: SM 5310 B-00

Run ID: A68366

Included Lab Sample IDs: 1780048, 1780049, 1780050, 1780055, 1780058

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.0	98.6	P/P	90 - 110
Organic Carbon	99.0	98.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A68408

Included Lab Sample IDs: 1780048, 1780049, 1780050, 1780055, 1780058

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A68410

Included Lab Sample IDs: 1780070, 1780071, 1780072, 1780073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	102	P/P	90 - 110
Calcium	101	100	P/P	95 - 105
Iron	101	99.8	P/P	95 - 105
Iron	99.8	101	P/P	90 - 110
Magnesium	101	100	P/P	95 - 105
Magnesium	100	101	P/P	90 - 110
Potassium	101	99.5	P/P	95 - 105
Potassium	99.5	100	P/P	90 - 110
Sodium	100	102	P/P	90 - 110
Sodium	101	100	P/P	95 - 105
Zinc	102	98.9	P/P	90 - 110
Zinc	99.1	102	P/P	95 - 105

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A68420

Included Lab Sample IDs: 1780070, 1780071, 1780072, 1780073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	101	98.8	P/P	90 - 110
Cadmium	100	100	P/P	90 - 110
Chromium	96.9	96.2	P/P	90 - 110
Lead	96.5	96.8	P/P	90 - 110
Nickel	97.9	97.2	P/P	90 - 110
Silver	94.3	94.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A68453

Included Lab Sample IDs: 1780049, 1780050, 1780055, 1780058

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	102	P/P	90 - 110
Kjeldahl Nitrogen	105	103	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A68454

Included Lab Sample IDs: 1780070, 1780071, 1780072, 1780073

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A68486

Included Lab Sample IDs: 1780048, 1780049, 1780050, 1780055, 1780058

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	99.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A68518

Included Lab Sample IDs: 1780048

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.3	96.8	P/P	90 - 110

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision	
						SMP	MS
					LCS		
EPA 180.1 Rev. 2.0	Turbidity					3.87	
EPA 200.7 Rev. 4.4	Calcium	105	106	109			3.80
	Iron	102	104	99.4	104		4.86
	Magnesium	106	105	97.0	105		4.58
	Potassium	103	105	98.7	101		5.39

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
EPA 200.7 Rev. 4.4	Sodium	105	107	98.7	106		5.56
	Zinc	97.0	101	93.2	98.1		7.65
EPA 200.8 Rev. 5.4	Arsenic	98.2	98.5	96.7	98.9		1.84
	Cadmium	100	98.3	97.4	101		0.978
	Chromium	95.3	93.5	93.0	95.8		0.448
	Copper	96.5	94.6	90.0	91.9		4.98
	Lead	89.6	90.8	89.6	98.1		1.28
	Nickel	96.7	95.0	93.4	92.2		1.62
	Silver	94.6	96.0	93.4	94.4		2.78
EPA 300.0 Rev. 2.1	Chloride	105	105	105		0.0422	
	Sulfate	102	102	102		9.48	
EPA 350.1 Rev. 2.0	Ammonia-N	102	100	102			1.24
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	92.6	91.2	90.6			0.526
	Kjeldahl Nitrogen	100	102	96.2			4.30
EPA 353.2 Rev. 2.0	Nitrite-N	90.8	92.3	93.7			1.43
	NO2NO3-N	102	99.0	99.0			0.0
	NO2NO3-N	102	100	99.0			1.50
EPA 365.1 Rev. 2.0	Total-P	96.2	104	98.2			5.22
	Total-P	103	98.2	97.2			0.883
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	104	99.3	101			1.90
SM 2120 B	Color (true)					0.144	
SM 2320 B-97	Total Alkalinity	102				0.404	
SM 2540 C-97	TDS					1.79	
	TDS					2.76	
	TDS					0.697	
	TDS					2.53	
SM 2540 D-97	TSS					7.14	
SM 4500 F-C-97	Fluoride	98.8	95.5	97.1			1.52
SM 5310 B-00	Organic Carbon	98.8	98.4	99.0			0.479

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1780045, 1780046, 1780047, 1780054, 1780057
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1780070, 1780071, 1780072, 1780073
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1780070, 1780071, 1780072, 1780073
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1780045, 1780046, 1780047, 1780054, 1780057
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1780054
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1780048, 1780049, 1780050, 1780055, 1780058
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1780048, 1780049, 1780050, 1780055, 1780058
EPA 353.2 Rev. 2.0 / E31780	Nitrite in aqueous matrices as mg N/L	1780045, 1780046, 1780047, 1780054, 1780057
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1780048, 1780049, 1780050, 1780055, 1780058
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1780048, 1780049, 1780050, 1780055, 1780058
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1780051, 1780052, 1780053, 1780056, 1780059

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 2120 B / E31780	True Color measured at 450 nm	1780045, 1780046, 1780047, 1780054, 1780057
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1780045, 1780046, 1780047, 1780054, 1780057
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1780045, 1780046, 1780047, 1780054, 1780057
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1780045, 1780046, 1780047, 1780054, 1780057
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1780045, 1780046, 1780047, 1780054, 1780057
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1780048, 1780049, 1780050, 1780055, 1780058

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	03/15/2016			03/16/2016 16:50	Sima Feizi	1780045, 1780046, 1780047, 1780054, 1780057
EPA 200.7 Rev. 4.4	03/15/2016	03/21/2016	Elliott D. Healy	03/23/2016	Joshua Ayres	1780070, 1780071, 1780072, 1780073
EPA 200.8 Rev. 5.4	03/15/2016	03/21/2016	Elliott D. Healy	03/23/2016	Charles J. Peterson	1780070, 1780071, 1780072, 1780073
	03/15/2016	03/21/2016	Elliott D. Healy	03/25/2016	Robert K Palmer	1780070, 1780071, 1780072, 1780073
EPA 300.0 Rev. 2.1	03/15/2016			03/17/2016	Ping Hua	1780045, 1780046, 1780047, 1780054, 1780057
EPA 350.1 Rev. 2.0	03/15/2016			03/23/2016	Diana M. Turner	1780048, 1780049, 1780050, 1780055, 1780058
EPA 351.2 Rev. 2.0	03/15/2016	03/24/2016	Sofia Elnemr	03/25/2016	Rochelle Y Jackson	1780048
	03/15/2016	03/24/2016	Sofia Elnemr	03/27/2016	Rochelle Y Jackson	1780049, 1780050, 1780055, 1780058
EPA 353.2 Rev. 2.0	03/15/2016			03/16/2016 21:53	Virginia P. Brown	1780045
	03/15/2016			03/16/2016 21:54	Virginia P. Brown	1780046
	03/15/2016			03/16/2016 21:55	Virginia P. Brown	1780047, 1780054
	03/15/2016			03/16/2016 21:57	Virginia P. Brown	1780057
	03/15/2016			03/21/2016	Diana M. Turner	1780048, 1780049, 1780050, 1780055, 1780058
EPA 365.1 Rev. 2.0	03/15/2016	03/22/2016	Christopher Armour	03/24/2016	Lipi Saha	1780048, 1780049, 1780050, 1780055, 1780058
EPA 365.1 Rev. 2.0 dissolved	03/15/2016			03/15/2016 15:38	Julia Storbeck	1780052
	03/15/2016			03/15/2016 15:44	Julia Storbeck	1780051, 1780056
	03/15/2016			03/15/2016 15:45	Julia Storbeck	1780059
	03/15/2016			03/15/2016 15:46	Julia Storbeck	1780053
SM 2120 B	03/15/2016			03/16/2016 15:07	Blanca Fach	1780045
	03/15/2016			03/16/2016 15:08	Blanca Fach	1780046, 1780047
	03/15/2016			03/16/2016 15:09	Blanca Fach	1780054
	03/15/2016			03/16/2016 15:10	Blanca Fach	1780057
SM 2320 B-97	03/15/2016			03/18/2016	Dale L. Simmons	1780045, 1780046, 1780047, 1780054, 1780057
SM 2540 C-97	03/15/2016			03/18/2016	Yijie Li	1780045, 1780046, 1780047, 1780054, 1780057
SM 2540 D-97	03/15/2016			03/18/2016	Yijie Li	1780045, 1780046, 1780047, 1780054, 1780057
SM 4500 F-C-97	03/15/2016			03/18/2016	Dale L. Simmons	1780045, 1780046, 1780047, 1780054, 1780057
SM 5310 B-00	03/15/2016			03/19/2016	Sofia Elnemr	1780048, 1780049, 1780050, 1780055, 1780058