

Chemical Analysis Report

NW-DIST-2017-01-10-01

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

Event Description: **NPS Bioassessment Eglin Pre-assessment**

Request ID: **RQ-2017-01-02-52**

Customer: **NW-DIST**

Project ID: **DISCRTNARY**

Send Reports to:
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Suite 208A
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Date Certified: 31-JAN-2017 10:25



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 group are included in this report: 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: HICK'S CK. BELOW E.R. 736

Collection Date/Time: 01/09/2017 12:45

Field ID: G3NW0392

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1862379	EPA 180.1 Rev. 2.0	Turbidity	0.25		NTU	P318045	
	EPA 300.0 Rev. 2.1	Chloride	3.3		mg Cl/L	P318273	
		Sulfate	0.63		mg SO4/L	P318275	
	SM 2120 B	Color (true)	4.4	I	PCU	P318042	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P318280	
	SM 2540 C-97	TDS	15	I	mg/L	P318597	
	SM 2540 D-97	TSS	4	I	mg/L	P318543	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P318284	
1862381	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P318057	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P318064	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.033		mg N/L	P318245	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P318161	MS
	SM 5310 B-00	Organic Carbon	0.81	I	mg C/L	P318257	
1862383	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P318058	

Ref. Method and Comment:

EPA 180.1 Rev. 2.0: The precision data is unavailable due to the small amount of analyte in the QC sample.

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

Sample Location: HICKS CK EAST BR BELOW E.R. 736

Collection Date/Time: 01/09/2017 15:15

Field ID: G3NW0393

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1862380	EPA 180.1 Rev. 2.0	Turbidity	0.45		NTU	P318045	
	EPA 300.0 Rev. 2.1	Chloride	3.5		mg Cl/L	P318273	
		Sulfate	0.54		mg SO4/L	P318275	
	SM 2120 B	Color (true)	5.3	I	PCU	P318042	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P318280	
	SM 2540 C-97	TDS	18	I	mg/L	P318597	
	SM 2540 D-97	TSS	4	I	mg/L	P318543	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P318284	
1862382	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P318057	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P318064	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.016		mg N/L	P318245	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P318161	MS
	SM 5310 B-00	Organic Carbon	0.69	I	mg C/L	P318257	
1862384	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P318058	

Ref. Method and Comment:

EPA 180.1 Rev. 2.0: The precision data is unavailable due to the small amount of analyte in the QC sample.

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

Quality Assurance Report

Method Blank Results

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P318045

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318273

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318275

Component	Result	Code	Units
Sulfate	0.20	U	mg SO ₄ /L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318057

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318064

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318245

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318161

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318058

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

Reference Method: SM 2120 B
Batch ID: P318042

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P318280

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

Reference Method: SM 2540 C-97
Batch ID: P318597

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P318543

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P318284

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P318257

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318273

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318275

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318057

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318064

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318064

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318245

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318161

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	94.4		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318058

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

Reference Method: SM 2320 B-97
Batch ID: P318280

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

Reference Method: SM 4500 F-C-97
Batch ID: P318284

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.4		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P318257

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318273

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1862424	Chloride	98.1		P	90 - 110
1862470	Chloride	99.2		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318275

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1862424	Sulfate	98.1		P	90 - 110
1862470	Sulfate	96.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318057

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1862135	Ammonia-N	95.1	97.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318064

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1862426	Kjeldahl Nitrogen	98.9	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318245

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1862135	NO2NO3-N	102	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318161

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1862427	Total-P	88.9	88.6	F/F	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318058

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1862383	O-Phosphate-P	95.9	96.0	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P318284

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1862421	Fluoride	96.7	97.2	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P318257

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1862381	Organic Carbon	95.2	95.3	P/P	85 - 115

Quality Assurance Report Precision

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318273

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1862424	Chloride	0.131	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318275

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1862424	Sulfate	2.31	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318057

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1862135	Ammonia-N	1.73	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318064

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1862426	Kjeldahl Nitrogen	1.81	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318245

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1862135	NO2NO3-N	1.93	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318161

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1862427	Total-P	0.376	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318058

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1862383	O-Phosphate-P	0.0993	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P318042

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1862399	Color (true)	2.66	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-97
Batch ID: P318280

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1862421	Total Alkalinity	0.555	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P318597

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1862399	TDS	3.93	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P318284

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1862421	Fluoride	0.490	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P318257

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1862381	Organic Carbon	0.0503	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: SM 2120 B
Run ID: A73853
Included Lab Sample IDs: 1862379, 1862380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.0	98.6	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A73854
Included Lab Sample IDs: 1862379, 1862380

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A73858
Included Lab Sample IDs: 1862381, 1862382

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A73859

Included Lab Sample IDs: 1862383, 1862384

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.8	99.7	P/P	90 - 110
O-Phosphate-P	99.7	98.3	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A73881

Included Lab Sample IDs: 1862379, 1862380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.6	99.6	P/P	90 - 110
Sulfate	95.9	98.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A73907

Included Lab Sample IDs: 1862381, 1862382

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	106	P/P	90 - 110
Kjeldahl Nitrogen	105	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A73921

Included Lab Sample IDs: 1862381, 1862382

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A73922

Included Lab Sample IDs: 1862381, 1862382

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.5	99.0	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A73930

Included Lab Sample IDs: 1862381, 1862382

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.8	96.3	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A73938

Included Lab Sample IDs: 1862379, 1862380

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

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97

Run ID: A73938

Included Lab Sample IDs: 1862379, 1862380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	100	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 300.0 Rev. 2.1	Chloride	99.8	98.1 99.2		0.131	
	Sulfate	97.6	98.1 96.5		2.31	
EPA 350.1 Rev. 2.0	Ammonia-N	101	95.1 97.1			1.73
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.5	98.9 101			1.81
EPA 353.2 Rev. 2.0	NO2NO3-N	104	102 104			1.93
EPA 365.1 Rev. 2.0	Total-P	94.4	88.9 88.6			0.376
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.7	95.9 96.0			0.0993
SM 2120 B	Color (true)				2.66	
SM 2320 B-97	Total Alkalinity	104			0.555	
SM 2540 C-97	TDS				3.93	
SM 4500 F-C-97	Fluoride	97.4	96.7 97.2			0.490
SM 5310 B-00	Organic Carbon	93.2	95.2 95.3			0.0503

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1862379, 1862380
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1862379, 1862380
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1862379, 1862380
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1862381, 1862382
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1862381, 1862382
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1862381, 1862382
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1862381, 1862382
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1862383, 1862384
SM 2120 B / E31780	True Color measured at 450 nm	1862379, 1862380
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1862379, 1862380
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1862379, 1862380
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1862379, 1862380
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1862379, 1862380
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1862381, 1862382

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	01/10/2017			01/10/2017 15:20	Julie Michelle Frank	1862379, 1862380
EPA 300.0 Rev. 2.1	01/10/2017			01/13/2017	Ping Hua	1862379, 1862380
EPA 350.1 Rev. 2.0	01/10/2017			01/10/2017	Sofia Elnemr	1862381, 1862382
EPA 351.2 Rev. 2.0	01/10/2017	01/11/2017	Adrian Shelby	01/12/2017	Joseph Suarez	1862381, 1862382
EPA 353.2 Rev. 2.0	01/10/2017			01/13/2017	Beverly Y. Sanders	1862381, 1862382
EPA 365.1 Rev. 2.0	01/10/2017	01/12/2017	Vijayalakshmi Reddy	01/13/2017	Lipi Saha	1862381, 1862382
EPA 365.1 Rev. 2.0 dissolved	01/10/2017			01/10/2017 16:14	Ping Hua	1862383
	01/10/2017			01/10/2017 16:30	Ping Hua	1862384
SM 2120 B	01/10/2017			01/10/2017 14:10	Jared I. Manley	1862379
	01/10/2017			01/10/2017 14:11	Jared I. Manley	1862380
SM 2320 B-97	01/10/2017			01/12/2017	Dale L. Simmons	1862379, 1862380
SM 2540 C-97	01/10/2017			01/13/2017	Yijie Li	1862379, 1862380
SM 2540 D-97	01/10/2017			01/13/2017	Yijie Li	1862379, 1862380
SM 4500 F-C-97	01/10/2017			01/12/2017	Dale L. Simmons	1862379, 1862380
SM 5310 B-00	01/10/2017			01/12/2017	Julie Michelle Frank	1862381, 1862382