

Chemical Analysis Report

SE-DIST-2019-12-13-02

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

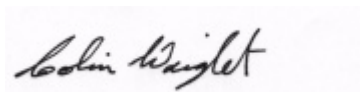
Event Description: **SMP-Kevin Run**
Request ID: **RQ-2019-12-09-10**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Colin Wright, Program Administrator

Date Certified: 06-JAN-2020 11:33

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray 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 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 by the Florida Department of Health Environmental Laboratory Certification Program 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: L-63N canal @ SR 70

Collection Date/Time: 12/12/2019 11:00

Field ID: G1SE0023

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2143997	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P376186	
	EPA 300.0 Rev. 2.1	Chloride	96		mg Cl/L	P376426	
		Sulfate	64		mg SO4/L	P376429	
	SM 2120 B	Color (true)	100		PCU	P375988	
	SM 2320 B-97	Total Alkalinity	118		mg CaCO3/L	P376259	
	SM 2540 C-97	TDS	403		mg/L	P376420	
	SM 2540 D-97	TSS	4	I	mg/L	P376360	
	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P376262	
2144002	EPA 350.1 Rev. 2.0	Ammonia-N	0.025		mg N/L	P376346	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P375917	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.011		mg N/L	P376240	
	EPA 365.1 Rev. 2.0	Total-P	0.24		mg P/L	P376007	
	SM 5310 B-00	Organic Carbon	21		mg C/L	P376028	
2144007	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.16		mg P/L	P375859	

Ref. Method and Comment:

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

Sample Location: Taylor Creek @ 70

Collection Date/Time: 12/12/2019 11:30

Field ID: G1SE0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2143998	EPA 180.1 Rev. 2.0	Turbidity	3.7		NTU	P376186	
	EPA 300.0 Rev. 2.1	Chloride	70		mg Cl/L	P376426	
		Sulfate	50		mg SO4/L	P376429	
		Color (true)	71		PCU	P375989	
	SM 2320 B-97	Total Alkalinity	170		mg CaCO3/L	P376259	
	SM 2540 C-97	TDS	374		mg/L	P376420	
	SM 2540 D-97	TSS	6	I	mg/L	P376360	
	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P376262	
2144003	EPA 350.1 Rev. 2.0	Ammonia-N	0.19		mg N/L	P376346	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P375917	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.54		mg N/L	P376240	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P376007	
	SM 5310 B-00	Organic Carbon	19		mg C/L	P376028	
2144008	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.069		mg P/L	P375859	

Ref. Method and Comment:

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

Sample Location: Taylor Creek @ 70

Collection Date/Time: 12/12/2019 11:40

Field ID: FB_12122019

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2144012	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P376187	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P376406	
		Sulfate	0.20	U	mg SO4/L	P376408	
	SM 2120 B	Color (true)	2.5	U	PCU	P375989	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P376260	
	SM 2540 C-97	TDS	15	U	mg/L	P376416	
	SM 2540 D-97	TSS	2	U	mg/L	P376356	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P376263	
2144013	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P376347	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P376155	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P376246	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P376071	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P376382	
2144014	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P375860	

Ref. Method and Comment:

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

Sample Location: Lemkin Creek @ 78

Collection Date/Time: 12/12/2019 12:40

Field ID: G1SE0026

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2143994	EPA 180.1 Rev. 2.0	Turbidity	2.5		NTU	P376188	
	EPA 300.0 Rev. 2.1	Chloride	170		mg Cl/L	P376406	
		Sulfate	120		mg SO4/L	P376408	
	SM 2120 B	Color (true)	49		PCU	P375988	
	SM 2320 B-97	Total Alkalinity	90		mg CaCO3/L	P376259	
	SM 2540 C-97	TDS	551		mg/L	P376420	
	SM 2540 D-97	TSS	4	I	mg/L	P376360	
	SM 4500 F-C-97	Fluoride	0.094	I	mg F/L	P376262	
2143995	EPA 350.1 Rev. 2.0	Ammonia-N	0.032		mg N/L	P376346	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P375960	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P376240	
	EPA 365.1 Rev. 2.0	Total-P	0.040		mg P/L	P376007	
	SM 5310 B-00	Organic Carbon	17		mg C/L	P376028	
2143996	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P375859	

Ref. Method and Comment:

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

Sample Location: Taylor Creek @ 98

Collection Date/Time: 12/12/2019 13:10

Field ID: G1SE0025

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2143999	EPA 180.1 Rev. 2.0	Turbidity	6.4	A	NTU	P376187	
	EPA 300.0 Rev. 2.1	Chloride	71		mg Cl/L	P376426	
		Sulfate	34		mg SO4/L	P376429	
	SM 2120 B	Color (true)	93		PCU	P375989	
	SM 2320 B-97	Total Alkalinity	181		mg CaCO3/L	P376260	
	SM 2540 C-97	TDS	377		mg/L	P376420	
	SM 2540 D-97	TSS	14		mg/L	P376360	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P376263	
2144004	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P376346	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.1		mg N/L	P375917	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P376240	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P376007	
	SM 5310 B-00	Organic Carbon	26		mg C/L	P376028	
2144009	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.029		mg P/L	P375859	

Ref. Method and Comment:

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

Sample Location: L-63 @ SE 59th Blvd.

Collection Date/Time: 12/12/2019 13:40

Field ID: G1SE0029

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2144000	EPA 180.1 Rev. 2.0	Turbidity	2.4		NTU	P376187	
	EPA 300.0 Rev. 2.1	Chloride	100		mg Cl/L	P376406	
		Sulfate	63		mg SO4/L	P376408	
	SM 2120 B	Color (true)	110		PCU	P375989	
	SM 2320 B-97	Total Alkalinity	105		mg CaCO3/L	P376260	
	SM 2540 C-97	TDS	405		mg/L	P376420	
	SM 2540 D-97	TSS	3	I	mg/L	P376360	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P376263	
2144005	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P376346	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P375917	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P376240	
	EPA 365.1 Rev. 2.0	Total-P	0.23		mg P/L	P376007	
	SM 5310 B-00	Organic Carbon	21		mg C/L	P376029	
2144010	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.14		mg P/L	P375856	

Ref. Method and Comment:

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

Sample Location: L-63 canal @ SE 86th Blvd.

Collection Date/Time: 12/12/2019 14:05

Field ID: G1SE0022

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2144001	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P376187	
	EPA 300.0 Rev. 2.1	Chloride	120		mg Cl/L	P376406	
		Sulfate	42		mg SO4/L	P376408	
	SM 2120 B	Color (true)	160		PCU	P375989	
	SM 2320 B-97	Total Alkalinity	93		mg CaCO3/L	P376260	
	SM 2540 C-97	TDS	380		mg/L	P376420	
	SM 2540 D-97	TSS	4	I	mg/L	P376360	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P376263	
2144006	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P376347	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P375917	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P376240	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P376007	
	SM 5310 B-00	Organic Carbon	25		mg C/L	P376029	
2144011	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.089		mg P/L	P375856	

Ref. Method and Comment:

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P376186

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P376187

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P376188

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376406

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376408

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376426

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376429

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P376346

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P376347

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375917

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375960

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P376155

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P376240

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P376246

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P376007

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P376071

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375856

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375859

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375860

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

Reference Method: SM 2120 B
Batch ID: P375988

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P375989

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P376259

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

Reference Method: SM 2320 B-97
Batch ID: P376260

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

Reference Method: SM 2540 C-97
Batch ID: P376416

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P376420

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P376356

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P376360

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P376262

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P376263

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P376028

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

Reference Method: SM 5310 B-00
Batch ID: P376029

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

Reference Method: SM 5310 B-00
Batch ID: P376382

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: P376406

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376408

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376426

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: P376429

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P376346

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P376347

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: P375917

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375960

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P376155

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P376240

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P376246

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P376007

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P376071

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375856

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375859

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375860

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

Reference Method: SM 2120 B
Batch ID: P375988

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

Reference Method: SM 2120 B
Batch ID: P375989

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.8		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P376259

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Reference Method: SM 2320 B-97
Batch ID: P376260

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P376262

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.8		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P376263

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.8		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P376028

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

Reference Method: SM 5310 B-00
Batch ID: P376029

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.3		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P376382

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376406

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143349	Chloride	99.1		P	90 - 110
2144045	Chloride	98.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376408

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143349	Sulfate	99.4		P	90 - 110
2144045	Sulfate	99.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376426

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143448	Chloride	100		P	90 - 110
2143991	Chloride	97.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376429

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143448	Sulfate	99.9		P	90 - 110
2143991	Sulfate	98.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P376346

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143926	Ammonia-N	99.7	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P376347

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2144048	Ammonia-N	102	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375917

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143925	Kjeldahl Nitrogen	99.7	108	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375960

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143995	Kjeldahl Nitrogen	102	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P376155

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P376155

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2144679	Kjeldahl Nitrogen	108	108	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P376240

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2144004	NO2NO3-N	99.0	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P376246

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2145478	NO2NO3-N	99.0	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P376007

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143992	Total-P	108	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P376071

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2144049	Total-P	104	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375856

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143671	O-Phosphate-P	94.5	96.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375859

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143918	O-Phosphate-P	92.7	96.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375860

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2144140	O-Phosphate-P	98.5	97.5	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P376262

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143923	Fluoride	98.0	99.1	P/P	89 - 106

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P376263

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2144357	Fluoride	99.1	99.7	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P376028

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143400	Organic Carbon	98.0	96.4	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P376029

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2144047	Organic Carbon	96.1	95.6	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P376382

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2144813	Organic Carbon	95.8	95.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P376186

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143829	Turbidity	1.27	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P376187

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143999	Turbidity	1.40	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P376188

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2144138	Turbidity	4.88	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376406

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143349	Chloride	0.133	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376408

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143349	Sulfate	0.0434	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376426

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143448	Chloride	1.34	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376429

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143448	Sulfate	0.585	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P376346

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143926	Ammonia-N	0.478	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P376347

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2144048	Ammonia-N	1.86	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375917

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143925	Kjeldahl Nitrogen	5.26	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375960

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143995	Kjeldahl Nitrogen	0.180	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P376155

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2144679	Kjeldahl Nitrogen	0.411	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P376240

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2144004	NO2NO3-N	1.01	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P376246

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145478	NO2NO3-N	0.504	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P376007

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143992	Total-P	0.291	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P376071

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2144049	Total-P	0.290	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375856

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143671	O-Phosphate-P	1.59	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375859

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143918	O-Phosphate-P	3.81	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375860

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2144140	O-Phosphate-P	0.544	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P375988

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143841	Color (true)	4.09	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P375989

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2144044	Color (true)	0.895	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P376259

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143923	Total Alkalinity	0.576	Sample	P	0 - 2.8

Reference Method: SM 2320 B-97
Batch ID: P376260

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2144357	Total Alkalinity	0.381	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P376416

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143239	TDS	5.88	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
 Batch ID: P376420

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143924	TDS	3.25	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P376262

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143923	Fluoride	0.963	Spike	P	0 - 2.5

Reference Method: SM 4500 F-C-97
 Batch ID: P376263

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2144357	Fluoride	0.482	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
 Batch ID: P376028

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143400	Organic Carbon	0.964	Spike	P	0 - 20

Reference Method: SM 5310 B-00
 Batch ID: P376029

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2144047	Organic Carbon	0.332	Spike	P	0 - 20

Reference Method: SM 5310 B-00
 Batch ID: P376382

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2144813	Organic Carbon	0.685	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A96350

Included Lab Sample IDs: 2143996, 2144007, 2144008, 2144009, 2144010, 2144011, 2144014

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	103	96.5	P/P	90 - 110
O-Phosphate-P	96.5	95.3	P/P	90 - 110
O-Phosphate-P	98.0	103	P/P	90 - 110
O-Phosphate-P	99.1	97.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A96395

Included Lab Sample IDs: 2144002, 2144003, 2144004, 2144005, 2144006

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

Reference Method: SM 2120 B

Run ID: A96397

Included Lab Sample IDs: 2143994, 2143997, 2143998, 2143999, 2144000, 2144001, 2144012

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	102	P/P	90 - 115
Color (true)	102	101	P/P	90 - 115
Color (true)	98.8	100	P/P	90 - 115

Reference Method: SM 5310 B-00

Run ID: A96415

Included Lab Sample IDs: 2143995, 2144002, 2144003, 2144004, 2144005, 2144006

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.4	95.4	P/P	90 - 110
Organic Carbon	99.0	96.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A96434

Included Lab Sample IDs: 2144002, 2144003, 2144004, 2144005, 2144006

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	105	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A96441

Included Lab Sample IDs: 2143995

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.2	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A96455

Included Lab Sample IDs: 2143995

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A96479

Included Lab Sample IDs: 2143994, 2143997, 2143998, 2143999, 2144000, 2144001, 2144012

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	102	P/P	95 - 105
Turbidity	100	100	P/P	95 - 105
Turbidity	102	101	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A96486

Included Lab Sample IDs: 2144013

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A96503

Included Lab Sample IDs: 2143995, 2144002, 2144003, 2144004, 2144005, 2144006, 2144013

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	101	P/P	90 - 110
NO2NO3-N	101	101	P/P	90 - 110
NO2NO3-N	99.5	101	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A96510

Included Lab Sample IDs: 2143994, 2143997, 2143998, 2143999, 2144000, 2144001, 2144012

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

Reference Method: SM 4500 F-C-97

Run ID: A96510

Included Lab Sample IDs: 2143994, 2143997, 2143998, 2143999, 2144000, 2144001, 2144012

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A96549

Included Lab Sample IDs: 2143995, 2144002, 2144003, 2144004, 2144005, 2144006, 2144013

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	101	P/P	90 - 110
Ammonia-N	101	100	P/P	90 - 110
Ammonia-N	99.5	99.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A96554

Included Lab Sample IDs: 2144013

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	109	106	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00
Run ID: A96560
Included Lab Sample IDs: 2144013

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.0	95.8	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A96570
Included Lab Sample IDs: 2143994, 2144000, 2144001, 2144012

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	96.9	97.0	P/P	90 - 110
Sulfate	97.8	97.9	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A96574
Included Lab Sample IDs: 2143997, 2143998, 2143999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	100	P/P	90 - 110
Chloride	101	100	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110
Sulfate	101	101	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	
					LCS	MS
EPA 180.1 Rev. 2.0	Turbidity				1.27	
	Turbidity				1.40	
	Turbidity				4.88	
EPA 300.0 Rev. 2.1	Chloride	98.6	99.1	98.9	0.133	
	Chloride	99.8	100	97.4	1.34	
	Sulfate	99.3	99.4	99.9	0.0434	
	Sulfate	100	99.9	98.8	0.585	
EPA 350.1 Rev. 2.0	Ammonia-N	99.7	99.7	100		0.478
	Ammonia-N	101	102	104		1.86
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.4	99.7	108		5.26
	Kjeldahl Nitrogen	104	102	102		0.180
	Kjeldahl Nitrogen	108	108	108		0.411
EPA 353.2 Rev. 2.0	NO2NO3-N	100	99.0	100		1.01
	NO2NO3-N	100	99.0	99.5		0.504
EPA 365.1 Rev. 2.0	Total-P	108	108	108		0.291
	Total-P	104	104	103		0.290
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.4	94.5	96.2		1.59
	O-Phosphate-P	105	92.7	96.3		3.81
	O-Phosphate-P	99.8	98.5	97.5		0.544
SM 2120 B	Color (true)	98.6			4.09	
	Color (true)	98.8			0.895	
SM 2320 B-97	Total Alkalinity	103			0.576	
	Total Alkalinity	104			0.381	
SM 2540 C-97	TDS				5.88	
	TDS				3.25	
SM 4500 F-C-97	Fluoride	98.8	98.0	99.1		0.963
	Fluoride	99.8	99.1	99.7		0.482
SM 5310 B-00	Organic Carbon	98.4	98.0	96.4		0.964
	Organic Carbon	96.3	96.1	95.6		0.332
	Organic Carbon	99.4	95.8	95.1		0.685

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2143994, 2143997, 2143998, 2143999, 2144000, 2144001, 2144012
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2143994, 2143997, 2143998, 2143999, 2144000, 2144001, 2144012
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2143994, 2143997, 2143998, 2143999, 2144000, 2144001, 2144012
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2143995, 2144002, 2144003, 2144004, 2144005, 2144006, 2144013
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2143995, 2144002, 2144003, 2144004, 2144005, 2144006, 2144013
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2143995, 2144002, 2144003, 2144004, 2144005, 2144006, 2144013
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2143995, 2144002, 2144003, 2144004, 2144005, 2144006, 2144013
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2143996, 2144007, 2144008, 2144009, 2144010, 2144011, 2144014
SM 2120 B / E31780	True Color measured at 450 nm	2143994, 2143997, 2143998, 2143999, 2144000, 2144001, 2144012
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2143994, 2143997, 2143998, 2143999, 2144000, 2144001, 2144012

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2143994, 2143997, 2143998, 2143999, 2144000, 2144001, 2144012
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2143994, 2143997, 2143998, 2143999, 2144000, 2144001, 2144012
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2143994, 2143997, 2143998, 2143999, 2144000, 2144001, 2144012
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2143995, 2144002, 2144003, 2144004, 2144005, 2144006, 2144013

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	12/13/2019			12/13/2019 17:27	Yen Ta	2143994, 2143997, 2143998, 2143999, 2144000, 2144001, 2144012
EPA 300.0 Rev. 2.1	12/13/2019			12/24/2019 09:57	Jhamieka S. Greenwood	2143997
	12/13/2019			12/24/2019 10:09	Jhamieka S. Greenwood	2143998
	12/13/2019			12/24/2019 10:45	Jhamieka S. Greenwood	2143999
	12/13/2019			12/25/2019 03:07	Jhamieka S. Greenwood	2143994
	12/13/2019			12/25/2019 03:24	Jhamieka S. Greenwood	2144000
	12/13/2019			12/25/2019 03:41	Jhamieka S. Greenwood	2144001
EPA 350.1 Rev. 2.0	12/13/2019			12/25/2019 03:58	Jhamieka S. Greenwood	2144012
	12/13/2019			12/23/2019 11:06	Ping Hua	2143995
	12/13/2019			12/23/2019 11:08	Ping Hua	2144002
	12/13/2019			12/23/2019 11:09	Ping Hua	2144003
	12/13/2019			12/23/2019 11:11	Ping Hua	2144004
	12/13/2019			12/23/2019 11:12	Ping Hua	2144005
EPA 351.2 Rev. 2.0	12/13/2019			12/23/2019 11:32	Ping Hua	2144006
	12/13/2019			12/23/2019 15:07	Ping Hua	2144013
	12/13/2019	12/16/2019 12:58	Sima Feizi	12/17/2019 14:37	Jhamieka S. Greenwood	2144002
	12/13/2019	12/16/2019 12:58	Sima Feizi	12/17/2019 14:39	Jhamieka S. Greenwood	2144003
	12/13/2019	12/16/2019 12:58	Sima Feizi	12/17/2019 14:40	Jhamieka S. Greenwood	2144004
	12/13/2019	12/16/2019 12:58	Sima Feizi	12/17/2019 14:42	Jhamieka S. Greenwood	2144005
EPA 353.2 Rev. 2.0	12/13/2019	12/16/2019 12:58	Sima Feizi	12/17/2019 14:43	Jhamieka S. Greenwood	2144006
	12/13/2019	12/17/2019 12:25	Sima Feizi	12/18/2019 17:04	Jhamieka S. Greenwood	2143995
	12/13/2019	12/19/2019 12:05	Sima Feizi	12/20/2019 19:07	Jhamieka S. Greenwood	2144013
	12/13/2019			12/20/2019 12:28	Beverly Y. Sanders	2144013
	12/13/2019			12/20/2019 12:41	Beverly Y. Sanders	2144004
	12/13/2019			12/20/2019 12:48	Beverly Y. Sanders	2144002
EPA 365.1 Rev. 2.0	12/13/2019			12/20/2019 12:49	Beverly Y. Sanders	2143995
	12/13/2019			12/20/2019 12:50	Beverly Y. Sanders	2144003
	12/13/2019			12/20/2019 12:51	Beverly Y. Sanders	2144005
	12/13/2019			12/20/2019 12:52	Beverly Y. Sanders	2144006
	12/13/2019	12/17/2019 15:15	Lipi Saha	12/18/2019 12:34	Benjamin T. Nordmann	2144002
	12/13/2019	12/17/2019 15:15	Lipi Saha	12/18/2019 12:36	Benjamin T. Nordmann	2144003
EPA 365.1 Rev. 2.0 dissolved	12/13/2019	12/17/2019 15:15	Lipi Saha	12/18/2019 12:37	Benjamin T. Nordmann	2144004
	12/13/2019	12/17/2019 15:15	Lipi Saha	12/18/2019 12:38	Benjamin T. Nordmann	2144005
	12/13/2019	12/17/2019 15:15	Lipi Saha	12/18/2019 12:39	Benjamin T. Nordmann	2144006
	12/13/2019	12/17/2019 15:15	Lipi Saha	12/18/2019 16:22	Benjamin T. Nordmann	2143995
	12/13/2019	12/18/2019 14:20	Lipi Saha	12/19/2019 15:31	Benjamin T. Nordmann	2144013
	12/13/2019			12/13/2019 18:26	Samantha Davila	2144011
	12/13/2019			12/13/2019 18:51	Samantha Davila	2144007, 2144008
	12/13/2019			12/13/2019 18:52	Samantha Davila	2144009

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 365.1 Rev. 2.0 dissolved	12/13/2019			12/13/2019 18:58	Samantha Davila	2144014
	12/13/2019			12/13/2019 19:11	Samantha Davila	2144010
	12/13/2019			12/13/2019 19:13	Samantha Davila	2143996
SM 2120 B	12/13/2019			12/13/2019 18:46	Madeline Funaro	2143994
	12/13/2019			12/13/2019 18:47	Madeline Funaro	2143997
	12/13/2019			12/13/2019 18:51	Madeline Funaro	2143998, 2143999
	12/13/2019			12/13/2019 18:52	Madeline Funaro	2144000
	12/13/2019			12/13/2019 18:54	Madeline Funaro	2144012
SM 2320 B-97	12/13/2019			12/13/2019 19:18	Madeline Funaro	2144001
	12/13/2019			12/19/2019 07:13	Dale L. Simmons	2143994
	12/13/2019			12/19/2019 07:25	Dale L. Simmons	2143997
	12/13/2019			12/19/2019 07:38	Dale L. Simmons	2143998
	12/13/2019			12/19/2019 09:40	Dale L. Simmons	2143999
	12/13/2019			12/19/2019 09:52	Dale L. Simmons	2144000
	12/13/2019			12/19/2019 10:03	Dale L. Simmons	2144001
SM 2540 C-97	12/13/2019			12/19/2019 10:18	Dale L. Simmons	2144012
	12/13/2019			12/17/2019 16:36	Yijie Li	2143994, 2143997, 2143998, 2143999, 2144000, 2144001, 2144012
SM 2540 D-97	12/13/2019			12/17/2019 16:36	Yijie Li	2143994, 2143997, 2143998, 2143999, 2144000, 2144001, 2144012
SM 4500 F-C-97	12/13/2019			12/19/2019 07:13	Dale L. Simmons	2143994
	12/13/2019			12/19/2019 07:25	Dale L. Simmons	2143997
	12/13/2019			12/19/2019 07:38	Dale L. Simmons	2143998
	12/13/2019			12/19/2019 09:40	Dale L. Simmons	2143999
	12/13/2019			12/19/2019 09:52	Dale L. Simmons	2144000
	12/13/2019			12/19/2019 10:03	Dale L. Simmons	2144001
SM 5310 B-00	12/13/2019			12/19/2019 10:18	Dale L. Simmons	2144012
	12/13/2019			12/17/2019 21:42	Madeline Funaro	2143995
	12/13/2019			12/17/2019 21:56	Madeline Funaro	2144002
	12/13/2019			12/17/2019 22:10	Madeline Funaro	2144003
	12/13/2019			12/17/2019 22:24	Madeline Funaro	2144004
	12/13/2019			12/18/2019 00:27	Madeline Funaro	2144005
	12/13/2019			12/18/2019 00:41	Madeline Funaro	2144006
	12/13/2019			12/23/2019 22:16	Madeline Funaro	2144013