

Chemical Analysis Report

NE-DIST-2020-02-14-01

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

Event Description: **Suwannee North 2020**

Request ID: **RQ-2020-02-10-23**

Customer: **NE-DIST**

Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
Attn: Jeremy Parrish

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 10-MAR-2020 12:01



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: Nutrients and Pesticides.

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

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

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited 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: Deep Creek @ Hywy 441

Collection Date/Time: 02/13/2020 10:20

Field ID: 21010051

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2157681	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P378979	
	EPA 300.0 Rev. 2.1	Chloride	8.9		mg Cl/L	P379680	
		Sulfate	0.38	I	mg SO4/L	P379683	
	SM 2120 B-2011	Color (true)	420		PCU	P378976	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P379415	
	SM 2540 C-2011	TDS	109		mg/L	P379528	
	SM 2540 D-2011	TSS	2	U	mg/L	P379341	
	SM 4500 F-C-2011	Fluoride	0.058	I	mg F/L	P379420	
2157683	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P379456	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.95		mg N/L	P379262	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P379549	
	EPA 365.1 Rev. 2.0	Total-P	0.073		mg P/L	P379655	
	SM 5310 B-2011	Organic Carbon	47		mg C/L	P379079	
2157685	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.055		mg P/L	P378973	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

SM 4500 F-C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Little Creek at US 441

Collection Date/Time: 02/13/2020 11:00

Field ID: 21010033

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2157705	EPA 8321B	2,4-D	0.0020	U	ug/L	P379101	
		Acesulfame K**	0.10	U	ug/L	P379066	
		AMPA**	0.10	U	ug/L	P379066	
		Sucralose**	0.010	U	ug/L	P379066	
		Acetaminophen**	0.0080	U	ug/L	P379101	
		Acetamiprid**	0.0020	U	ug/L	P379101	
		Endothall**	0.25	U	ug/L	P379066	
		Glufosinate**	0.10	U	ug/L	P379066	
		Glyphosate**	0.10	U	ug/L	P379066	
		Afidopyropen**	0.0020	UJ	ug/L	P379101	
		Bentazon	8.0E-04	U	ug/L	P379101	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P379101	
		Carbamazepine**	8.0E-04	U	ug/L	P379101	
		Clothianidin**	0.0020	U	ug/L	P379101	
		Dinotefuran**	0.0020	U	ug/L	P379101	
		Diuron	0.0020	U	ug/L	P379101	
		Fenuron	0.016	U	ug/L	P379101	
		Fluridone**	8.0E-04	U	ug/L	P379101	
		Imazapyr**	0.0076	I	ug/L	P379101	
		Hydrocodone**	0.0020	U	ug/L	P379101	
		Ibuprofen**	0.020	U	ug/L	P379101	
		Imidacloprid	0.0020	U	ug/L	P379101	
		Linuron	0.0040	U	ug/L	P379101	
		Mandestrobin**	0.0020	UJ	ug/L	P379101	
		MCPP	0.0020	U	ug/L	P379101	
		Naproxen**	0.0080	U	ug/L	P379101	
		Primidone**	0.0040	U	ug/L	P379101	
		Pyraclostrobin**	0.0020	U	ug/L	P379101	
		Thiamethoxam**	0.0020	U	ug/L	P379101	
		Tolfenpyrad**	0.0020	U	ug/L	P379101	
		Triclopyr**	0.0040	U	ug/L	P379101	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis.

Sample Location: Deep Creek @ Hwy 441

Collection Date/Time: 02/13/2020 10:35

Field ID: FB 02132020

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2157687	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P378979	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P379680	
		Sulfate	0.20	U	mg SO4/L	P379683	
	SM 2120 B-2011	Color (true)	2.5	U	PCU	P378976	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P379415	
	SM 2540 C-2011	TDS	15	U	mg/L	P379526	
	SM 2540 D-2011	TSS	2	U	mg/L	P379339	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P379420	
2157688	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P379457	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P379262	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P379549	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P379655	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P379079	
2157689	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P378973	
2157706	EPA 8321B	2,4-D	0.0020	U	ug/L	P379101	
		Acesulfame K**	0.10	UQ	ug/L	P379066	
		AMPA**	0.10	U	ug/L	P379066	
		Sucralose**	0.010	U	ug/L	P379066	
		Acetaminophen**	0.0080	U	ug/L	P379101	
		Acetamiprid**	0.0020	U	ug/L	P379101	
		Endothall**	0.25	UQ	ug/L	P379066	
		Glufosinate**	0.10	U	ug/L	P379066	
		Glyphosate**	0.10	U	ug/L	P379066	
		Afidopyropen**	0.0020	UJ	ug/L	P379101	
		Bentazon	8.0E-04	U	ug/L	P379101	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P379101	
		Carbamazepine**	8.0E-04	U	ug/L	P379101	
		Clothianidin**	0.0020	U	ug/L	P379101	
		Dinotefuran**	0.0020	U	ug/L	P379101	
		Diuron	0.0020	U	ug/L	P379101	
		Fenuron	0.016	U	ug/L	P379101	
		Fluridone**	8.0E-04	U	ug/L	P379101	
		Imazapyr**	0.0040	U	ug/L	P379101	
		Hydrocodone**	0.0020	U	ug/L	P379101	
		Ibuprofen**	0.020	U	ug/L	P379101	
		Imidacloprid	0.0020	U	ug/L	P379101	
		Linuron	0.0040	U	ug/L	P379101	
		Mandestrobin**	0.0020	UJ	ug/L	P379101	
		MCPD	0.0020	U	ug/L	P379101	
		Naproxen**	0.0080	U	ug/L	P379101	
		Primidone**	0.0040	U	ug/L	P379101	
		Pyraclostrobin**	0.0020	U	ug/L	P379101	
		Thiamethoxam**	0.0020	U	ug/L	P379101	

Field ID: FB 02132020

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2157706	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P379101	
		Triclopyr**	0.0040	U	ug/L	P379101	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

SM 4500 F-C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 8321B: J - second source check standards for some analytes were not available for analysis.

EPA 8321B: Q - Sample analyzed beyond holding time due to technical difficulties.

Sample Location: Deep Creek @ Hywy 441

Collection Date/Time: 02/13/2020 10:25

Field ID: 21010051_Dup

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2157682	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P378979	
	EPA 300.0 Rev. 2.1	Chloride	8.9		mg Cl/L	P379680	
		Sulfate	0.39	I	mg SO4/L	P379683	
	SM 2120 B-2011	Color (true)	420		PCU	P378976	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P379415	
	SM 2540 C-2011	TDS	106		mg/L	P379529	
	SM 2540 D-2011	TSS	2	I	mg/L	P379342	
	SM 4500 F-C-2011	Fluoride	0.059	I	mg F/L	P379420	
2157684	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P379457	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.98		mg N/L	P380011	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P379549	
	EPA 365.1 Rev. 2.0	Total-P	0.072		mg P/L	P379655	
	SM 5310 B-2011	Organic Carbon	48		mg C/L	P379079	
2157686	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.057		mg P/L	P378973	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

SM 4500 F-C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P378979

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379680

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379683

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379456

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379457

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379262

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380011

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379549

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379655

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P378973

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

Reference Method: EPA 8321B
Batch ID: P379066

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P379101

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B-2011
Batch ID: P378976

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P379415

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

Reference Method: SM 2540 C-2011
Batch ID: P379526

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011
Batch ID: P379528

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011
Batch ID: P379529

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P379339

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P379341

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P379342

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P379420

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P379079

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: P379680

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379683

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379456

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379457

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: P379262

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380011

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379549

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: P379655

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P378973

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P379066

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	79.0		P	40 - 150
AMPA	72.2		P	40 - 150
Endothall	93.4		P	40 - 150
Glufosinate	114		P	40 - 150
Glyphosate	103		P	40 - 140
Sucralose	106		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P379101

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	124		P	30 - 160
Acetaminophen	89.8		P	30 - 160
Acetamiprid	90.8		P	30 - 160
Afidopyropen	81.6		P	30 - 160
Bentazon	91.8		P	30 - 160
Benzovindiflupyr	84.3		P	30 - 160
Carbamazepine	82.9		P	30 - 160
Clothianidin	95.8		P	30 - 160
Dinotefuran	91.3		P	30 - 160
Diuron	86.2		P	30 - 160
Fenuron	106		P	30 - 160
Fluridone	100		P	30 - 160
Hydrocodone	102		P	30 - 160
Ibuprofen	88.5		P	30 - 160
Imazapyr	89.8		P	30 - 160
Imidacloprid	95.5		P	30 - 160
Linuron	71.0		P	30 - 160
Mandestrobin	92.3		P	30 - 160
MCPP	130		P	30 - 160
Naproxen	77.2		P	30 - 160
Primidone	98.2		P	30 - 160
Pyraclostrobin	82.6		P	30 - 160
Thiamethoxam	97.6		P	30 - 160
Tolfenpyrad	65.5		P	30 - 160
Triclopyr	100		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P378976

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.6		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P379415

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P379420

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.1		P	92 - 103

Reference Method: SM 5310 B-2011
Batch ID: P379079

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379680

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157681	Chloride	99.3		P	90 - 110
2158277	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379683

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157681	Sulfate	99.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379456

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157672	Ammonia-N	95.0	96.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379457

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158280	Ammonia-N	98.9	98.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379262

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157672	Kjeldahl Nitrogen	101	107	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380011

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161245	Kjeldahl Nitrogen	101	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379549

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157701	NO2NO3-N	99.9	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379655

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157636	Total-P	105	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P378973

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157703	O-Phosphate-P	99.0	101	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
 Batch ID: P379066

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157328	Acesulfame K	76.9	79.0	P/P	40 - 150
2157328	AMPA	79.5	75.9	P/P	40 - 150
2157328	Endothall	55.1	60.7	P/P	40 - 150
2157328	Glufosinate	111	121	P/P	40 - 150
2157328	Glyphosate	124	123	P/P	40 - 140
2157328	Sucralose	111	108	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P379101

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157454	2,4-D	111	121	P/P	30 - 160
2157454	Acetaminophen	79.8	93.7	P/P	30 - 160
2157454	Acetamiprid	84.8	89.3	P/P	30 - 160
2157454	Afidopyropen	90.2	94.7	P/P	30 - 160
2157454	Bentazon	69.9	76.9	P/P	30 - 160
2157454	Benzovindiflupyr	74.6	72.0	P/P	30 - 160
2157454	Carbamazepine	80.3	81.5	P/P	30 - 160
2157454	Clothianidin	95.3	98.4	P/P	30 - 160
2157454	Dinotefuran	93.8	101	P/P	30 - 160
2157454	Diuron	69.8	72.5	P/P	30 - 160
2157454	Fenuron	98.1	106	P/P	30 - 160
2157454	Fluridone	80.2	84.4	P/P	30 - 160
2157454	Hydrocodone	87.3	90.7	P/P	30 - 160
2157454	Ibuprofen	73.4	65.4	P/P	30 - 160
2157454	Imazapyr	77.3	94.4	P/P	30 - 160
2157454	Imidacloprid	155	159	P/P	30 - 160
2157454	Linuron	59.4	58.9	P/P	30 - 160
2157454	Mandestrobin	80.7	82.6	P/P	30 - 160
2157454	MCP	138	143	P/P	30 - 160
2157454	Naproxen	69.8	74.7	P/P	30 - 160
2157454	Primidone	94.4	99.2	P/P	30 - 160
2157454	Pyraclostrobin	65.8	70.6	P/P	30 - 160
2157454	Thiamethoxam	130	135	P/P	30 - 160
2157454	Tolfenpyrad	48.3	49.8	P/P	30 - 160
2157454	Triclopyr	99.6	105	P/P	30 - 160

Reference Method: SM 5310 B-2011
 Batch ID: P379079

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157599	Organic Carbon	97.8	97.3	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P378979

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157616	Turbidity	1.09	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379680

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158277	Chloride	0.954	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379683

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158277	Sulfate	1.24	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379456

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157672	Ammonia-N	1.48	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379457

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158280	Ammonia-N	0.418	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379262

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157672	Kjeldahl Nitrogen	3.60	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380011

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161245	Kjeldahl Nitrogen	2.34	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379549

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157701	NO2NO3-N	0.338	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379655

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157636	Total-P	0.191	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P378973

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157703	O-Phosphate-P	1.15	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P379066

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157328	Acesulfame K	2.70	Spike	P	0 - 30
2157328	AMPA	4.71	Spike	P	0 - 30
2157328	Endothall	9.55	Spike	P	0 - 30
2157328	Glufosinate	8.16	Spike	P	0 - 30
2157328	Glyphosate	1.13	Spike	P	0 - 30
2157328	Sucralose	2.78	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P379101

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157454	2,4-D	6.59	Spike	P	0 - 30
2157454	Acetaminophen	16.1	Spike	P	0 - 30
2157454	Acetamiprid	5.22	Spike	P	0 - 30
2157454	Afidopyropen	4.93	Spike	P	0 - 30
2157454	Bentazon	9.50	Spike	P	0 - 30
2157454	Benzovindiflupyr	3.62	Spike	P	0 - 30
2157454	Carbamazepine	1.45	Spike	P	0 - 30
2157454	Clothianidin	3.20	Spike	P	0 - 30
2157454	Dinotefuran	7.39	Spike	P	0 - 30
2157454	Diuron	3.78	Spike	P	0 - 30
2157454	Fenuron	8.16	Spike	P	0 - 30
2157454	Fluridone	5.09	Spike	P	0 - 30
2157454	Hydrocodone	3.83	Spike	P	0 - 30
2157454	Ibuprofen	11.5	Spike	P	0 - 30
2157454	Imazapyr	19.8	Spike	P	0 - 30
2157454	Imidacloprid	2.61	Spike	P	0 - 30
2157454	Linuron	0.981	Spike	P	0 - 30
2157454	Mandestrobin	2.23	Spike	P	0 - 30
2157454	MCPP	2.72	Spike	P	0 - 30
2157454	Naproxen	6.85	Spike	P	0 - 30
2157454	Primidone	4.96	Spike	P	0 - 30
2157454	Pyraclostrobin	7.05	Spike	P	0 - 30
2157454	Thiamethoxam	4.34	Spike	P	0 - 30
2157454	Tolfenpyrad	3.17	Spike	P	0 - 30
2157454	Triclopyr	5.68	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2120 B-2011
 Batch ID: P378976

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157584	Color (true)	1.38	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
 Batch ID: P379415

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158798	Total Alkalinity	0.155	Sample	P	0 - 2.8

Reference Method: SM 2540 C-2011
 Batch ID: P379526

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157233	TDS	3.35	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
 Batch ID: P379528

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157572	TDS	3.96	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
 Batch ID: P379529

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158279	TDS	0.423	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
 Batch ID: P379420

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158798	Fluoride	1.45	Spike	P	0 - 2.5

Reference Method: SM 5310 B-2011
 Batch ID: P379079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157599	Organic Carbon	0.435	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2157705
Field Sample ID: 21010033

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	97.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	93.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	73.7	P	30 - 160
EPA 8321B	Diuron-d6	61.4	P	30 - 160
EPA 8321B	Endothall-d6	122	P	30 - 160
EPA 8321B	Endothall-d6	122	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	69.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	69.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	83.0	P	30 - 160
EPA 8321B	Primidone-d5	57.8	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160

Lab Sample ID: 2157706
Field Sample ID: FB 02132020

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	100	P	30 - 160
EPA 8321B	Acetaminophen-d4	84.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	92.1	P	30 - 160
EPA 8321B	Diuron-d6	77.1	P	30 - 160
EPA 8321B	Endothall-d6	93.0	P	30 - 160
EPA 8321B	Endothall-d6	93.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	73.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	73.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	73.7	P	30 - 160
EPA 8321B	Primidone-d5	77.0	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A97554

Included Lab Sample IDs: 2157685, 2157686, 2157689

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.1	96.6	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A97555

Included Lab Sample IDs: 2157681, 2157682, 2157687

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	90 - 115
Color (true)	99.7	101	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A97556

Included Lab Sample IDs: 2157681, 2157682, 2157687

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

Reference Method: SM 5310 B-2011

Run ID: A97590

Included Lab Sample IDs: 2157683, 2157684, 2157688

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A97709

Included Lab Sample IDs: 2157683, 2157688

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

Reference Method: EPA 8321B

Run ID: A97710

Included Lab Sample IDs: 2157705, 2157706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	96.6	102	P/P	50 - 150
Acetaminophen	105	104	P/P	60 - 160
Acetamiprid	110	108	P/P	50 - 150
Afidopyropen	107	107	P/P	50 - 150
Bentazon	113	108	P/P	50 - 160
Benzovindiflupyr	106	106	P/P	50 - 150
Carbamazepine	112	94.5	P/P	60 - 150
Clothianidin	103	96.6	P/P	60 - 150
Dinotefuran	102	105	P/P	50 - 150
Diuron	119	117	P/P	60 - 150
Fenuron	110	104	P/P	60 - 150
Fluridone	106	107	P/P	60 - 160
Hydrocodone	74.4	102	P/P	60 - 150
Ibuprofen	101	94.8	P/P	50 - 160
Imazapyr	98.8	93.9	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A97710

Included Lab Sample IDs: 2157705, 2157706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imidacloprid	88.0	97.7	P/P	60 - 150
Linuron	89.9	93.2	P/P	60 - 150
Mandestrobin	104	102	P/P	50 - 150
MCPP	97.8	92.8	P/P	50 - 150
Naproxen	130	128	P/P	50 - 160
Primidone	94.2	99.7	P/P	60 - 150
Pyraclostrobin	104	102	P/P	60 - 150
Thiamethoxam	101	99.4	P/P	50 - 150
Tolfenpyrad	103	101	P/P	60 - 150
Triclopyr	104	102	P/P	50 - 150

Reference Method: SM 2320 B-2011

Run ID: A97739

Included Lab Sample IDs: 2157681, 2157682, 2157687

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

Reference Method: SM 4500 F-C-2011

Run ID: A97739

Included Lab Sample IDs: 2157681, 2157682, 2157687

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A97754

Included Lab Sample IDs: 2157683, 2157684, 2157688

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	98.4	P/P	90 - 110
Ammonia-N	100	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A97758

Included Lab Sample IDs: 2157683, 2157684, 2157688

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A97771

Included Lab Sample IDs: 2157681, 2157682, 2157687

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.6	99.0	P/P	90 - 110
Chloride	99.0	99.6	P/P	90 - 110
Sulfate	98.8	99.3	P/P	90 - 110
Sulfate	99.3	99.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A97817

Included Lab Sample IDs: 2157705, 2157706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	77.2	60.7	P/P	60 - 160
Endothall	105	97.1	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A97855

Included Lab Sample IDs: 2157683, 2157684

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

Reference Method: EPA 8321B

Run ID: A97908

Included Lab Sample IDs: 2157705, 2157706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	109	118	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A97933

Included Lab Sample IDs: 2157688

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

Reference Method: EPA 8321B

Run ID: A97951

Included Lab Sample IDs: 2157705, 2157706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	67.4	83.2	P/P	60 - 160
Glufosinate	122	101	P/P	60 - 160
Glyphosate	113	117	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A98032

Included Lab Sample IDs: 2157684

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	99.0	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	MS
							SMP	
EPA 180.1 Rev. 2.0	Turbidity						1.09	
EPA 300.0 Rev. 2.1	Chloride	100		99.3	100		0.954	
	Sulfate	100		99.7			1.24	
EPA 350.1 Rev. 2.0	Ammonia-N	99.5		95.0	96.6			1.48
	Ammonia-N	102		98.9	98.4			0.418
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.8		101	107			3.60
	Kjeldahl Nitrogen	105		101	105			2.34
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100		99.9	100			0.338
EPA 365.1 Rev. 2.0	Total-P	101		105	105			0.191
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101		99.0	101			1.15
EPA 8321B	2,4-D	124		111	121			6.59
	Acesulfame K	79.0		76.9	79.0			2.70
	Acetaminophen	89.8		79.8	93.7			16.1
	Acetamiprid	90.8		84.8	89.3			5.22
	Afidopyropen	81.6		90.2	94.7			4.93
	AMPA	72.2		79.5	75.9			4.71
	Bentazon	91.8		69.9	76.9			9.50
	Benzovindiflupyr	84.3		74.6	72.0			3.62
	Carbamazepine	82.9		80.3	81.5			1.45
	Clothianidin	95.8		95.3	98.4			3.20
	Dinotefuran	91.3		93.8	101			7.39
	Diuron	86.2		69.8	72.5			3.78
	Endothall	93.4		55.1	60.7			9.55
	Fenuron	106		98.1	106			8.16
	Fluridone	100		80.2	84.4			5.09
	Glufosinate	114		111	121			8.16
	Glyphosate	103		124	123			1.13
	Hydrocodone	102		87.3	90.7			3.83
	Ibuprofen	88.5		73.4	65.4			11.5
	Imazapyr	89.8		77.3	94.4			19.8
	Imidacloprid	95.5		155	159			2.61
	Linuron	71.0		59.4	58.9			0.981
	Mandestrobin	92.3		80.7	82.6			2.23
	MCPP	130		138	143			2.72
	Naproxen	77.2		69.8	74.7			6.85
	Primidone	98.2		94.4	99.2			4.96
	Pyraclostrobin	82.6		65.8	70.6			7.05
	Sucralose	106		111	108			2.78
	Thiamethoxam	97.6		130	135			4.34
	Tolfenpyrad	65.5		48.3	49.8			3.17
	Triclopyr	100		99.6	105			5.68
SM 2120 B-2011	Color (true)	99.6					1.38	
SM 2320 B-2011	Total Alkalinity	103					0.155	
SM 2540 C-2011	TDS						3.35	
	TDS						3.96	
	TDS						0.423	
SM 4500 F-C-2011	Fluoride	98.1						1.45
SM 5310 B-2011	Organic Carbon	97.2		97.8	97.3			0.435

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2157681, 2157682, 2157687

Reference Method Descriptions

Method	Description	Associated Samples
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2157681, 2157682, 2157687
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2157681, 2157682, 2157687
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2157683, 2157684, 2157688
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2157683, 2157684, 2157688
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2157683, 2157684, 2157688
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2157683, 2157684, 2157688
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2157685, 2157686, 2157689
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2157705, 2157706
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2157705, 2157706
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2157681, 2157682, 2157687
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2157681, 2157682, 2157687
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2157681, 2157682, 2157687
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2157681, 2157682, 2157687
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2157681, 2157682, 2157687
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2157683, 2157684, 2157688

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	02/14/2020			02/14/2020 15:04	Samantha Davila	2157681, 2157682, 2157687
EPA 300.0 Rev. 2.1	02/14/2020			02/25/2020 19:55	Lipi Saha	2157681
	02/14/2020			02/25/2020 21:07	Lipi Saha	2157682
	02/14/2020			02/25/2020 21:44	Lipi Saha	2157687
EPA 350.1 Rev. 2.0	02/14/2020			02/21/2020 09:53	Ping Hua	2157683
	02/14/2020			02/21/2020 10:11	Ping Hua	2157684
	02/14/2020			02/21/2020 10:22	Ping Hua	2157688
EPA 351.2 Rev. 2.0	02/14/2020	02/20/2020 13:30	Sima Feizi	02/21/2020 08:06	Jhamieka S. Greenwood	2157683
	02/14/2020	02/20/2020 13:30	Sima Feizi	02/21/2020 08:09	Jhamieka S. Greenwood	2157688
	02/14/2020	03/04/2020 11:35	Sima Feizi	03/06/2020 08:30	Jhamieka S. Greenwood	2157684
EPA 353.2 Rev. 2.0	02/14/2020			02/24/2020 11:51	Beverly Y. Sanders	2157683
	02/14/2020			02/24/2020 11:52	Beverly Y. Sanders	2157684
	02/14/2020			02/24/2020 11:53	Beverly Y. Sanders	2157688
EPA 365.1 Rev. 2.0	02/14/2020	02/26/2020 14:15	Lipi Saha	02/27/2020 11:59	Benjamin T. Nordmann	2157683
	02/14/2020	02/26/2020 14:15	Lipi Saha	02/27/2020 12:00	Benjamin T. Nordmann	2157684
	02/14/2020	02/26/2020 14:15	Lipi Saha	03/02/2020 14:44	Lipi Saha	2157688
EPA 365.1 Rev. 2.0 dissolved	02/14/2020			02/14/2020 15:18	Carlos Miranda	2157685
	02/14/2020			02/14/2020 15:19	Carlos Miranda	2157686
	02/14/2020			02/14/2020 15:20	Carlos Miranda	2157689
EPA 8321B	02/14/2020	02/18/2020 10:00	Rebecca Ware	02/18/2020 13:19	Rebecca Ware	2157705
	02/14/2020	02/18/2020 10:00	Rebecca Ware	02/18/2020 13:30	Rebecca Ware	2157706
	02/14/2020	02/18/2020 10:00	Rebecca Ware	02/20/2020 10:58	Rebecca Ware	2157705
	02/14/2020	02/18/2020 10:00	Rebecca Ware	02/20/2020 11:12	Rebecca Ware	2157706
	02/14/2020	02/18/2020 10:00	Rebecca Ware	02/26/2020 14:20	Rebecca Ware	2157705
	02/14/2020	02/18/2020 10:00	Rebecca Ware	02/26/2020 14:32	Rebecca Ware	2157706
	02/14/2020	02/19/2020 09:00	Hoor Shaik	02/21/2020 13:01	Juyoung Kim	2157705
	02/14/2020	02/19/2020 09:00	Hoor Shaik	02/21/2020 13:35	Juyoung Kim	2157706
SM 2120 B-2011	02/14/2020			02/14/2020 16:48	Julia Storbeck	2157687
	02/14/2020			02/14/2020 16:56	Julia Storbeck	2157681
	02/14/2020			02/14/2020 16:57	Julia Storbeck	2157682
SM 2320 B-2011	02/14/2020			02/22/2020 14:43	Dale L. Simmons	2157681
	02/14/2020			02/22/2020 14:53	Dale L. Simmons	2157682
	02/14/2020			02/22/2020 15:07	Dale L. Simmons	2157687
SM 2540 C-2011	02/14/2020			02/18/2020 15:02	Yijie Li	2157681, 2157682, 2157687
SM 2540 D-2011	02/14/2020			02/18/2020 15:02	Yijie Li	2157681, 2157682, 2157687
SM 4500 F-C-2011	02/14/2020			02/22/2020 14:43	Dale L. Simmons	2157681
	02/14/2020			02/22/2020 14:53	Dale L. Simmons	2157682
	02/14/2020			02/22/2020 15:07	Dale L. Simmons	2157687
SM 5310 B-2011	02/14/2020			02/17/2020 23:02	Madeline Funaro	2157683
	02/14/2020			02/17/2020 23:14	Madeline Funaro	2157684

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-2011	02/14/2020			02/17/2020 23:27	Madeline Funaro	2157688