

Chemical Analysis Report

SW-DIST-2020-12-18-01

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

Event Description: **Chito & McDonald**
Request ID: **RQ-2020-09-21-61**
Customer: **SW-DIST**
Project ID: **SMP**

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Date Certified: 11-JAN-2021 10:46



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: Tadpole Creek

Collection Date/Time: 12/17/2020 11:15

Field ID: G1SW0112

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2214705	EPA 180.1 Rev. 2.0	Turbidity	5.5		NTU	P391456	
	EPA 300.0 Rev. 2.1	Chloride	27		mg Cl/L	P391903	
		Sulfate	26		mg SO4/L	P391904	
	SM 2120 B-2011	Color (true)	110		PCU	P391463	
	SM 2320 B-2011	Total Alkalinity	50		mg CaCO3/L	P391576	
	SM 2540 C-2011	TDS	161		mg/L	P391869	
	SM 2540 D-2011	TSS	3	I	mg/L	P391767	
	SM 4500 F-C-2011	Fluoride	0.12		mg F/L	P391580	
2214708	EPA 350.1 Rev. 2.0	Ammonia-N	0.35		mg N/L	P391736	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P391932	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.36		mg N/L	P391591	
	EPA 365.1 Rev. 2.0	Total-P	0.067		mg P/L	P391533	
	SM 5310 B-2011	Organic Carbon	16		mg C/L	P391598	
2214711	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.038		mg P/L	P391461	
2214731	EPA 8321B	2,4-D	0.012		ug/L	P391404	
		Acesulfame K**	0.13	I	ug/L	P391510	
		AMPA**	0.37	I	ug/L	P391510	
		Sucralose**	0.29		ug/L	P391510	
		Acetaminophen**	0.0080	U	ug/L	P391404	
		Acetamiprid**	0.0020	U	ug/L	P391404	
		Endothall**	0.25	U	ug/L	P391510	
		Glufosinate**	0.10	U	ug/L	P391510	
		Glyphosate**	1.1		ug/L	P391510	
		Afidopyropen**	0.0020	U	ug/L	P391404	
		Bentazon	0.27		ug/L	P391404	
		Benzovindiflupyr**	0.0020	U	ug/L	P391404	
		Carbamazepine**	8.0E-04	U	ug/L	P391404	
		Clothianidin**	0.0063	I	ug/L	P391404	
		Dinotefuran**	0.0044	I	ug/L	P391404	
		Diuron	0.017		ug/L	P391404	
		Fenuron	0.016	U	ug/L	P391404	
		Fluridone**	0.074		ug/L	P391404	
		Imazapyr**	0.61		ug/L	P391404	
		Hydrocodone**	0.0020	U	ug/L	P391404	
		Ibuprofen**	0.020	U	ug/L	P391404	
		Imidacloprid	0.042		ug/L	P391404	
		Linuron	0.0040	U	ug/L	P391404	
		Mandestrobin**	0.0020	U	ug/L	P391404	
		MCP	0.0021	I	ug/L	P391404	
		Naproxen**	0.0080	U	ug/L	P391404	
		Primidone**	0.0040	U	ug/L	P391404	
		Pyraclostrobin**	0.0020	U	ug/L	P391404	
		Thiamethoxam**	0.0020	U	ug/L	P391404	

Field ID: G1SW0112

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2214731	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P391404	
		Triclopyr**	0.0040	U	ug/L	P391404	

Ref. Method and Comment:

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

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Mizelle Creek in Park

Collection Date/Time: 12/17/2020 09:45

Field ID: G2SW0131

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2214706	EPA 180.1 Rev. 2.0	Turbidity	5.7		NTU	P391456	
	EPA 300.0 Rev. 2.1	Chloride	14		mg Cl/L	P391903	
		Sulfate	11		mg SO4/L	P391904	
	SM 2120 B-2011	Color (true)	110		PCU	P391463	
	SM 2320 B-2011	Total Alkalinity	93		mg CaCO3/L	P391576	
	SM 2540 C-2011	TDS	167		mg/L	P391869	
	SM 2540 D-2011	TSS	2	I	mg/L	P391767	
	SM 4500 F-C-2011	Fluoride	0.81		mg F/L	P391580	
2214709	EPA 350.1 Rev. 2.0	Ammonia-N	0.038		mg N/L	P391736	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.81		mg N/L	P391932	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.35		mg N/L	P391591	
	EPA 365.1 Rev. 2.0	Total-P	0.54		mg P/L	P391533	
	SM 5310 B-2011	Organic Carbon	17		mg C/L	P391598	
2214712	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.46		mg P/L	P391462	
2214732	EPA 8321B	2,4-D	0.0020	U	ug/L	P391404	
		Acesulfame K**	0.10	U	ug/L	P391510	
		AMPA**	0.24	I	ug/L	P391510	
		Sucralose**	0.10		ug/L	P391510	
		Acetaminophen**	0.0080	U	ug/L	P391404	
		Acetamiprid**	0.0020	U	ug/L	P391404	
		Endothall**	0.25	U	ug/L	P391510	
		Glufosinate**	0.10	U	ug/L	P391510	
		Glyphosate**	0.29	I	ug/L	P391510	
		Afidopyropen**	0.0020	U	ug/L	P391404	
		Bentazon	8.0E-04	U	ug/L	P391404	
		Benzovindiflupyr**	0.0020	U	ug/L	P391404	
		Carbamazepine**	8.0E-04	U	ug/L	P391404	
		Clothianidin**	0.0020	U	ug/L	P391404	
		Dinotefuran**	0.0020	U	ug/L	P391404	
		Diuron	0.0065	I	ug/L	P391404	
		Fenuron	0.016	U	ug/L	P391404	
		Fluridone**	8.0E-04	U	ug/L	P391404	
		Imazapyr**	0.11		ug/L	P391404	
		Hydrocodone**	0.0020	U	ug/L	P391404	
		Ibuprofen**	0.020	U	ug/L	P391404	
		Imidacloprid	0.0024	I	ug/L	P391404	
		Linuron	0.0040	U	ug/L	P391404	
		Mandestrobin**	0.0020	U	ug/L	P391404	
		MCP	0.0020	U	ug/L	P391404	
		Naproxen**	0.0080	U	ug/L	P391404	
		Primidone**	0.0040	U	ug/L	P391404	
		Pyraclostrobin**	0.0020	U	ug/L	P391404	
		Thiamethoxam**	0.0020	U	ug/L	P391404	

Field ID: G2SW0131

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2214732	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P391404	
		Triclopyr**	0.0040	U	ug/L	P391404	

Ref. Method and Comment:

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

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Chito Branch in Park

Collection Date/Time: 12/17/2020 10:15

Field ID: G2SW0133

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2214707	EPA 180.1 Rev. 2.0	Turbidity	3.1		NTU	P391456	
	EPA 300.0 Rev. 2.1	Chloride	25		mg Cl/L	P391903	
		Sulfate	21		mg SO4/L	P391904	
	SM 2120 B-2011	Color (true)	140		PCU	P391463	
	SM 2320 B-2011	Total Alkalinity	45		mg CaCO3/L	P391576	
	SM 2540 C-2011	TDS	147		mg/L	P391869	
	SM 2540 D-2011	TSS	2	I	mg/L	P391767	
	SM 4500 F-C-2011	Fluoride	0.34		mg F/L	P391580	
2214710	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P391738	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.89		mg N/L	P391932	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.098		mg N/L	P391591	
	EPA 365.1 Rev. 2.0	Total-P	0.25		mg P/L	P391533	
	SM 5310 B-2011	Organic Carbon	17		mg C/L	P391598	
2214713	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.21		mg P/L	P391462	
2214733	EPA 8321B	2,4-D	0.0020	U	ug/L	P391404	
		Acesulfame K**	0.12	I	ug/L	P391510	
		AMPA**	3.1		ug/L	P391510	
		Sucralose**	0.61		ug/L	P391510	
		Acetaminophen**	0.0080	U	ug/L	P391404	
		Acetamiprid**	0.040		ug/L	P391404	
		Endothall**	0.25	U	ug/L	P391510	
		Glufosinate**	0.10	U	ug/L	P391510	
		Glyphosate**	0.81		ug/L	P391510	
		Afidopyproden**	0.0020	U	ug/L	P391404	
		Bentazon	0.18		ug/L	P391404	
		Benzovindiflupyr**	0.0020	U	ug/L	P391404	
		Carbamazepine**	8.0E-04	U	ug/L	P391404	
		Clothianidin**	0.0052	I	ug/L	P391404	
		Dinotefuran**	0.0020	U	ug/L	P391404	
		Diuron	0.0020	U	ug/L	P391404	
		Fenuron	0.016	U	ug/L	P391404	
		Fluridone**	8.0E-04	U	ug/L	P391404	
		Imazapyr**	0.020		ug/L	P391404	
		Hydrocodone**	0.0020	U	ug/L	P391404	
		Ibuprofen**	0.020	U	ug/L	P391404	
		Imidacloprid	0.070		ug/L	P391404	
		Linuron	0.0040	U	ug/L	P391404	
		Mandestrobin**	0.0020	U	ug/L	P391404	
		MCP	0.0020	U	ug/L	P391404	
		Naproxen**	0.0080	U	ug/L	P391404	
		Primidone**	0.0040	U	ug/L	P391404	
		Pyraclostrobin**	0.0020	U	ug/L	P391404	
		Thiamethoxam**	0.033		ug/L	P391404	

Field ID: G2SW0133

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2214733	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P391404	
		Triclopyr**	0.0040	U	ug/L	P391404	

Ref. Method and Comment:

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

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P391456

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391903

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391904

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391736

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391738

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391932

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391591

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: P391533

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391461

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: P391462

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

Reference Method: EPA 8321B
Batch ID: P391404

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: EPA 8321B
Batch ID: P391510

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: SM 2120 B-2011
Batch ID: P391463

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P391576

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

Reference Method: SM 2540 C-2011
Batch ID: P391869

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P391767

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P391580

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P391598

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: P391903

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391904

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391736

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391738

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391932

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391591

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391533

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: P391461

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391462

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: P391404

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	81.4		P	30 - 160
Acetaminophen	70.0		P	30 - 150
Acetamiprid	78.5		P	30 - 160
Afidopyropen	44.7		P	30 - 160
Bentazon	39.2		P	30 - 150
Benzovindiflupyr	68.5		P	30 - 160
Carbamazepine	78.0		P	30 - 160
Clothianidin	85.6		P	30 - 160
Dinotefuran	78.3		P	30 - 160
Diuron	64.8		P	30 - 160
Fenuron	90.8		P	30 - 160
Fluridone	72.5		P	30 - 160
Hydrocodone	84.7		P	30 - 160
Ibuprofen	54.2		P	30 - 160
Imazapyr	76.0		P	30 - 160
Imidacloprid	89.5		P	30 - 160
Linuron	56.5		P	30 - 160
Mandestrobin	69.7		P	30 - 160
MCPP	81.0		P	30 - 160
Naproxen	43.7		P	30 - 160
Primidone	78.6		P	30 - 160
Pyraclostrobin	70.0		P	30 - 160
Thiamethoxam	88.2		P	30 - 160
Tolfenpyrad	43.9		P	30 - 160
Triclopyr	71.7		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P391510

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	110		P	40 - 150
AMPA	66.6		P	40 - 150
Endothall	90.6		P	40 - 150
Glufosinate	97.4		P	40 - 150
Glyphosate	94.6		P	40 - 140
Sucralose	94.0		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P391463

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	90 - 110

Reference Method: SM 2320 B-2011
Batch ID: P391576

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.3		P	93 - 104

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P391580

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.7		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P391598

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391903

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2214542	Chloride	102		P	90 - 110
2214796	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391904

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2214542	Sulfate	103		P	90 - 110
2214796	Sulfate	104		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391736

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2214701	Ammonia-N	94.6	95.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391738

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2214835	Ammonia-N	95.2	96.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391932

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2214701	Kjeldahl Nitrogen	105	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391591

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2214680	NO2NO3-N	96.2		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391533

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2214599	Total-P	101	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391461

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2214569	O-Phosphate-P	104	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391462

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2214792	O-Phosphate-P	99.0	101	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P391404

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2214862	Acetaminophen	64.6	72.4	P/P	30 - 150
2214862	Acetamiprid	86.3	89.0	P/P	30 - 160
2214862	Afidopyropen	66.3	70.8	P/P	30 - 160
2214862	Benzovindiflupyr	74.0	76.6	P/P	30 - 160
2214862	Carbamazepine	69.1	74.8	P/P	30 - 160
2214862	Clothianidin	68.4	71.5	P/P	30 - 160
2214862	Dinotefuran	70.4	75.6	P/P	30 - 160
2214862	Diuron	51.3	52.2	P/P	30 - 160
2214862	Fenuron	63.5	64.0	P/P	30 - 160
2214862	Hydrocodone	66.0	67.8	P/P	30 - 160
2214862	Ibuprofen	52.4	46.0	P/P	30 - 160
2214862	Imazapyr	99.7	97.5	P/P	30 - 160
2214862	Imidacloprid	117	122	P/P	30 - 160
2214862	Linuron	53.3	58.4	P/P	30 - 160
2214862	Mandestrobin	69.9	78.7	P/P	30 - 160
2214862	MCCP	68.9	65.2	P/P	30 - 160
2214862	Naproxen	45.5	57.0	P/P	30 - 160
2214862	Primidone	66.9	67.2	P/P	30 - 160
2214862	Pyraclostrobin	75.4	82.9	P/P	30 - 160
2214862	Thiamethoxam	88.0	89.8	P/P	30 - 160
2214862	Tolfenpyrad	44.9	47.9	P/P	30 - 160
2214862	Triclopyr	68.9	67.5	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P391510

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2214554	Acesulfame K	88.4	89.1	P/P	40 - 150
2214554	AMPA	74.3	73.8	P/P	40 - 150
2214554	Endothall	134	137	P/P	40 - 150
2214554	Glufosinate	96.2	97.9	P/P	40 - 150
2214554	Glyphosate	75.7	86.2	P/P	40 - 140
2214554	Sucralose	97.6	98.0	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P391580

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2214795	Fluoride	98.3	98.3	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P391598

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2214708	Organic Carbon	98.0	97.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P391456

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214536	Turbidity	1.26	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391903

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214796	Chloride	0.487	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P391904

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214796	Sulfate	0.745	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391736

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214701	Ammonia-N	0.822	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391738

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214835	Ammonia-N	1.17	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391932

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214701	Kjeldahl Nitrogen	1.36	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391591

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214680	NO2NO3-N	0.169	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391533

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214599	Total-P	0.298	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391461

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214569	O-Phosphate-P	0.479	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391462

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214792	O-Phosphate-P	1.60	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P391404

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214862	2,4-D	0.511	Spike	P	0 - 30
2214862	Acetaminophen	11.5	Spike	P	0 - 30
2214862	Acetamiprid	3.09	Spike	P	0 - 30
2214862	Afidopyropen	6.70	Spike	P	0 - 30
2214862	Bentazon	2.10	Spike	P	0 - 30
2214862	Benzovindiflupyr	3.52	Spike	P	0 - 30
2214862	Carbamazepine	7.84	Spike	P	0 - 30
2214862	Clothianidin	4.46	Spike	P	0 - 30
2214862	Dinotefuran	7.05	Spike	P	0 - 30
2214862	Diuron	1.77	Spike	P	0 - 30
2214862	Fenuron	0.698	Spike	P	0 - 30
2214862	Fluridone	8.85	Spike	P	0 - 30
2214862	Hydrocodone	2.68	Spike	P	0 - 30
2214862	Ibuprofen	13.0	Spike	P	0 - 30
2214862	Imazapyr	1.52	Spike	P	0 - 30
2214862	Imidacloprid	4.07	Spike	P	0 - 30
2214862	Linuron	9.02	Spike	P	0 - 30
2214862	Mandestrobin	11.9	Spike	P	0 - 30
2214862	MCP	5.46	Spike	P	0 - 30
2214862	Naproxen	22.4	Spike	P	0 - 30
2214862	Primidone	0.433	Spike	P	0 - 30
2214862	Pyraclostrobin	9.57	Spike	P	0 - 30
2214862	Thiamethoxam	2.05	Spike	P	0 - 30
2214862	Tolfenpyrad	6.35	Spike	P	0 - 30
2214862	Triclopyr	2.05	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P391510

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214554	Acesulfame K	0.737	Spike	P	0 - 30
2214554	AMPA	0.602	Spike	P	0 - 30
2214554	Endothall	1.90	Spike	P	0 - 30
2214554	Glufosinate	1.69	Spike	P	0 - 30
2214554	Glyphosate	12.9	Spike	P	0 - 30
2214554	Sucralose	0.475	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2120 B-2011
Batch ID: P391463

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214598	Color (true)	5.40	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P391576

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214795	Total Alkalinity	1.90	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P391869

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214679	TDS	3.01	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P391580

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214795	Fluoride	0.0	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P391598

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214708	Organic Carbon	0.338	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2214731
Field Sample ID: G1SW0112

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	65.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	80.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	63.5	P	30 - 160
EPA 8321B	Diuron-d6	49.3	P	30 - 160
EPA 8321B	Endothall-d6	88.0	P	40 - 160
EPA 8321B	Endothall-d6	88.0	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	85.9	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	85.9	P	40 - 160
EPA 8321B	Ibuprofen-d3	53.3	P	30 - 160
EPA 8321B	Primidone-d5	80.5	P	30 - 160
EPA 8321B	Sucralose-d6	96.0	P	30 - 160
EPA 8321B	Sucralose-d6	96.0	P	30 - 160

Lab Sample ID: 2214732
Field Sample ID: G2SW0131

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	57.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	86.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	63.4	P	30 - 160
EPA 8321B	Diuron-d6	45.5	P	30 - 160
EPA 8321B	Endothall-d6	106	P	40 - 160
EPA 8321B	Endothall-d6	106	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	151	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	151	P	40 - 160
EPA 8321B	Ibuprofen-d3	43.9	P	30 - 160
EPA 8321B	Primidone-d5	81.3	P	30 - 160
EPA 8321B	Sucralose-d6	94.0	P	30 - 160
EPA 8321B	Sucralose-d6	94.0	P	30 - 160

Lab Sample ID: 2214733
Field Sample ID: G2SW0133

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	66.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	82.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	65.8	P	30 - 160
EPA 8321B	Diuron-d6	45.8	P	30 - 160
EPA 8321B	Endothall-d6	105	P	40 - 160
EPA 8321B	Endothall-d6	105	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	118	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	118	P	40 - 160
EPA 8321B	Ibuprofen-d3	50.9	P	30 - 160
EPA 8321B	Primidone-d5	81.1	P	30 - 160
EPA 8321B	Sucralose-d6	96.8	P	30 - 160
EPA 8321B	Sucralose-d6	96.8	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A102677

Included Lab Sample IDs: 2214705, 2214706, 2214707

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	101	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A102678

Included Lab Sample IDs: 2214711, 2214712, 2214713

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.8	98.3	P/P	90 - 110
O-Phosphate-P	98.2	97.8	P/P	90 - 110
O-Phosphate-P	98.3	98.0	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A102679

Included Lab Sample IDs: 2214705, 2214706, 2214707

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	101	P/P	85 - 115
Color (true)	98.2	102	P/P	85 - 115

Reference Method: SM 2320 B-2011

Run ID: A102709

Included Lab Sample IDs: 2214705, 2214706, 2214707

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	92.2	95.8	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A102709

Included Lab Sample IDs: 2214705, 2214706, 2214707

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

Reference Method: EPA 8321B

Run ID: A102711

Included Lab Sample IDs: 2214731, 2214732, 2214733

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	120	107	P/P	60 - 160
AMPA	85.6	85.3	P/P	60 - 160
Endothall	99.5	95.8	P/P	60 - 160
Glufosinate	97.4	86.4	P/P	60 - 160
Glyphosate	101	91.9	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A102715

Included Lab Sample IDs: 2214708, 2214709, 2214710

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

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A102717

Included Lab Sample IDs: 2214708, 2214709, 2214710

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.4	97.7	P/P	90 - 110
Organic Carbon	98.6	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A102731

Included Lab Sample IDs: 2214708, 2214709, 2214710

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.3	99.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A102765

Included Lab Sample IDs: 2214731, 2214732, 2214733

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	86.6	91.0	P/P	50 - 150
Acetaminophen	139	133	P/P	60 - 160
Acetamiprid	121	115	P/P	50 - 150
Afidopyropen	108	99.2	P/P	50 - 150
Bentazon	150	127	P/P	50 - 160
Benzovindiflupyr	115	123	P/P	50 - 150
Carbamazepine	119	106	P/P	60 - 150
Clothianidin	121	118	P/P	60 - 150
Dinotefuran	118	109	P/P	50 - 150
Diuron	128	130	P/P	60 - 160
Fenuron	114	108	P/P	60 - 150
Fluridone	105	114	P/P	60 - 160
Hydrocodone	113	111	P/P	60 - 150
Ibuprofen	74.6	103	P/P	50 - 160
Imazapyr	93.8	84.5	P/P	50 - 150
Imidacloprid	102	108	P/P	60 - 150
Linuron	117	113	P/P	60 - 150
Mandestrobin	114	112	P/P	50 - 150
MCPP	92.2	101	P/P	50 - 150
Naproxen	145	110	P/P	50 - 160
Primidone	113	102	P/P	60 - 150
Pyraclostrobin	114	102	P/P	60 - 150
Thiamethoxam	112	112	P/P	50 - 150
Tolfenpyrad	94.1	101	P/P	60 - 150
Triclopyr	93.5	103	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A102784

Included Lab Sample IDs: 2214708, 2214709, 2214710

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.2	97.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A102826

Included Lab Sample IDs: 2214705, 2214706, 2214707

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	100	P/P	90 - 110
Chloride	99.2	100	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A102859

Included Lab Sample IDs: 2214731, 2214732, 2214733

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	93.7	104	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A102877

Included Lab Sample IDs: 2214731, 2214733

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bentazon	106	95.3	P/P	50 - 160

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A102889

Included Lab Sample IDs: 2214708, 2214709, 2214710

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.1	96.8	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements. Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 180.1 Rev. 2.0	Turbidity				1.26	
EPA 300.0 Rev. 2.1	Chloride	101	103	102	0.487	
	Sulfate	103	104	103	0.745	
EPA 350.1 Rev. 2.0	Ammonia-N	95.0	94.6	95.6		0.822
	Ammonia-N	96.4	95.2	96.4		1.17
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	105	102		1.36
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	96.2			0.169
EPA 365.1 Rev. 2.0	Total-P	101	101	101		0.298
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	104	105		0.479
	O-Phosphate-P	101	99.0	101		1.60
EPA 8321B	2,4-D	81.4				0.511
	Acesulfame K	110	88.4	89.1		0.737
	Acetaminophen	70.0	72.4	64.6		11.5
	Acetamiprid	78.5	89.0	86.3		3.09
	Afidopyropen	44.7	70.8	66.3		6.70
	AMPA	66.6	74.3	73.8		0.602
	Bentazon	39.2				2.10
	Benzovindiflupyr	68.5	76.6	74.0		3.52
	Carbamazepine	78.0	74.8	69.1		7.84
	Clothianidin	85.6	71.5	68.4		4.46
	Dinotefuran	78.3	75.6	70.4		7.05
	Diuron	64.8	52.2	51.3		1.77
	Endothall	90.6	134	137		1.90
	Fenuron	90.8	64.0	63.5		0.698
	Fluridone	72.5				8.85
	Glufosinate	97.4	96.2	97.9		1.69
	Glyphosate	94.6	75.7	86.2		12.9
	Hydrocodone	84.7	67.8	66.0		2.68
	Ibuprofen	54.2	52.4	46.0		13.0
	Imazapyr	76.0	97.5	99.7		1.52
	Imidacloprid	89.5	122	117		4.07
	Linuron	56.5	58.4	53.3		9.02
	Mandestrobin	69.7	78.7	69.9		11.9
	MCPP	81.0	68.9	65.2		5.46
	Naproxen	43.7	45.5	57.0		22.4
	Primidone	78.6	67.2	66.9		0.433
	Pyraclostrobin	70.0	82.9	75.4		9.57
	Sucralose	94.0	97.6	98.0		0.475
	Thiamethoxam	88.2	89.8	88.0		2.05
	Tolfenpyrad	43.9	47.9	44.9		6.35
	Triclopyr	71.7	68.9	67.5		2.05
SM 2120 B-2011	Color (true)	101			5.40	
SM 2320 B-2011	Total Alkalinity	97.3			1.90	
SM 2540 C-2011	TDS				3.01	
SM 4500 F-C-2011	Fluoride	97.7	98.3	98.3		0.0
SM 5310 B-2011	Organic Carbon	97.8	98.0	97.4		0.338

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2214705, 2214706, 2214707
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2214705, 2214706, 2214707
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2214705, 2214706, 2214707

Reference Method Descriptions

Method	Description	Associated Samples
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2214708, 2214709, 2214710
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2214708, 2214709, 2214710
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2214708, 2214709, 2214710
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2214708, 2214709, 2214710
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2214711, 2214712, 2214713
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2214731, 2214732, 2214733
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2214731, 2214732, 2214733
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2214705, 2214706, 2214707
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2214705, 2214706, 2214707
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2214705, 2214706, 2214707
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2214705, 2214706, 2214707
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2214705, 2214706, 2214707
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2214708, 2214709, 2214710

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	12/18/2020			12/18/2020 15:42	Yen Ta	2214705, 2214706, 2214707
EPA 300.0 Rev. 2.1	12/18/2020			12/30/2020 17:58	Lipi Saha	2214705
	12/18/2020			12/30/2020 18:10	Lipi Saha	2214706
	12/18/2020			12/30/2020 18:46	Lipi Saha	2214707
EPA 350.1 Rev. 2.0	12/18/2020			12/27/2020 17:48	Ping Hua	2214708
	12/18/2020			12/27/2020 17:49	Ping Hua	2214709
	12/18/2020			12/27/2020 17:59	Ping Hua	2214710
EPA 351.2 Rev. 2.0	12/18/2020	01/04/2021 15:30	David Boose	01/05/2021 15:28	Virginia P. Brown	2214708
	12/18/2020	01/04/2021 15:30	David Boose	01/05/2021 15:29	Virginia P. Brown	2214709
	12/18/2020	01/04/2021 15:30	David Boose	01/05/2021 15:31	Virginia P. Brown	2214710
EPA 353.2 Rev. 2.0	12/18/2020			12/22/2020 09:49	Beverly Y. Sanders	2214708
	12/18/2020			12/22/2020 09:51	Beverly Y. Sanders	2214709
	12/18/2020			12/22/2020 09:52	Beverly Y. Sanders	2214710
EPA 365.1 Rev. 2.0	12/18/2020	12/21/2020 12:50	Yen Ta	12/22/2020 15:09	Benjamin T. Nordmann	2214708
	12/18/2020	12/21/2020 12:50	Yen Ta	12/22/2020 15:10	Benjamin T. Nordmann	2214709
	12/18/2020	12/21/2020 12:50	Yen Ta	12/22/2020 15:11	Benjamin T. Nordmann	2214710
EPA 365.1 Rev. 2.0 dissolved	12/18/2020			12/18/2020 16:15	Ping Hua	2214711
	12/18/2020			12/18/2020 16:25	Ping Hua	2214713
	12/18/2020			12/18/2020 16:40	Ping Hua	2214712
EPA 8321B	12/18/2020	12/21/2020 12:00	Hoor Shaik	12/23/2020 08:39	Juyoung Kim	2214731
	12/18/2020	12/21/2020 12:00	Hoor Shaik	12/23/2020 09:14	Juyoung Kim	2214732
	12/18/2020	12/21/2020 12:00	Hoor Shaik	12/23/2020 09:48	Juyoung Kim	2214733
	12/18/2020	12/21/2020 12:00	Hoor Shaik	12/24/2020 10:09	Juyoung Kim	2214731
	12/18/2020	12/21/2020 12:00	Hoor Shaik	12/24/2020 10:44	Juyoung Kim	2214733
	12/18/2020	12/21/2020 13:00	Rebecca Ware	12/21/2020 19:21	Rebecca Ware	2214731
	12/18/2020	12/21/2020 13:00	Rebecca Ware	12/21/2020 19:35	Rebecca Ware	2214732
	12/18/2020	12/21/2020 13:00	Rebecca Ware	12/21/2020 19:48	Rebecca Ware	2214733
	12/18/2020	12/21/2020 13:00	Rebecca Ware	12/30/2020 21:02	Rebecca Ware	2214731
	12/18/2020	12/21/2020 13:00	Rebecca Ware	12/30/2020 21:14	Rebecca Ware	2214732
	12/18/2020	12/21/2020 13:00	Rebecca Ware	12/30/2020 21:25	Rebecca Ware	2214733
SM 2120 B-2011	12/18/2020			12/18/2020 16:54	Benjamin T. Nordmann	2214705, 2214706
	12/18/2020			12/18/2020 17:33	Benjamin T. Nordmann	2214707
SM 2320 B-2011	12/18/2020			12/21/2020 21:16	Dale L. Simmons	2214705
	12/18/2020			12/21/2020 21:29	Dale L. Simmons	2214706
	12/18/2020			12/21/2020 21:41	Dale L. Simmons	2214707
SM 2540 C-2011	12/18/2020			12/22/2020 13:52	Yijie Li	2214705, 2214706, 2214707
SM 2540 D-2011	12/18/2020			12/22/2020 13:52	Yijie Li	2214705, 2214706, 2214707
SM 4500 F-C-2011	12/18/2020			12/21/2020 21:16	Dale L. Simmons	2214705
	12/18/2020			12/21/2020 21:29	Dale L. Simmons	2214706
	12/18/2020			12/21/2020 21:41	Dale L. Simmons	2214707

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-2011	12/18/2020			12/22/2020 01:18	Madeline Gruver	2214708
	12/18/2020			12/22/2020 04:57	Madeline Gruver	2214709
	12/18/2020			12/22/2020 05:10	Madeline Gruver	2214710