

Chemical Analysis Report

NW-DIST-2022-03-29-02

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

Event Description: **Highway 20 Run**
Request ID: **RQ-2022-03-28-22**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 208
Pensacola, FL 32502-5794
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 18-APR-2022 09:47

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first name.

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: Black Creek

Collection Date/Time: 03/28/2022 11:20

Field ID: G3NW0131

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315118	EPA 8321B	2,4-D	0.0020	U	ug/L	P411659	
		Acesulfame K	0.10	U	ug/L	P411656	
		2,4,5-T	0.0040	U	ug/L	P411659	
		AMPA	0.10	U	ug/L	P411656	
		Acetaminophen	0.0080	U	ug/L	P411659	
		Acetamiprid	0.0020	U	ug/L	P411659	
		Endothall	0.25	U	ug/L	P411656	
		Glufosinate	0.10	U	ug/L	P411656	
		Glyphosate	0.10	U	ug/L	P411656	
		Afidopyropen	0.0020	U	ug/L	P411659	
		Bentazon	8.0E-04	U	ug/L	P411659	
		Sucralose	0.12		ug/L	P411656	
		Benzovindiflupyr	0.0020	U	ug/L	P411659	
		Carbamazepine	8.0E-04	U	ug/L	P411659	
		Clothianidin	0.0020	U	ug/L	P411659	
		Dinotefuran	0.0020	U	ug/L	P411659	
		Diuron	0.0020	U	ug/L	P411659	
		Fenuron	0.016	U	ug/L	P411659	
		Fluridone	8.0E-04	U	ug/L	P411659	
		Imazapyr	0.038		ug/L	P411659	
		Hydrocodone	0.0020	U	ug/L	P411659	
		Ibuprofen	0.020	U	ug/L	P411659	
		Imidacloprid	0.0042	I	ug/L	P411659	MS
		Linuron	0.0040	U	ug/L	P411659	
		Mandestrobin	0.0020	U	ug/L	P411659	
		MCPP	0.0020	U	ug/L	P411659	
		Naproxen	0.0080	U	ug/L	P411659	
		Primidone	0.0040	U	ug/L	P411659	
		Pyraclostrobin	0.0020	U	ug/L	P411659	
		Silvex	0.0040	U	ug/L	P411659	
		Thiamethoxam	0.0020	U	ug/L	P411659	MS
		Tolfenpyrad	0.0020	U	ug/L	P411659	
		Triclopyr	0.0040	U	ug/L	P411659	

Ref. Method and Comment:

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

Sample Location: Alaqua Bayou Center

Collection Date/Time: 03/28/2022 12:15

Field ID: G3NW0180

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315101	EPA 180.1 Rev. 2.0	Turbidity	7.1		NTU	P411716	
	SM 2320 B-2011	Total Alkalinity	24		mg CaCO3/L	P411967	
	SM 2540 D-2011	TSS	12		mg/L	P411903	RPD
	SM 4500-F- C-2011	Fluoride	0.17		mg F/L	P411971	
2315103	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P411977	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.31	I	mg N/L	P412166	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.031		mg N/L	P411829	
	EPA 365.1 Rev. 2.0	Total-P	0.021		mg P/L	P411947	
	SM 5310 B-2011	Organic Carbon	3.9		mg C/L	P411832	

Sample Location: Boggy Bayou Mouth

Collection Date/Time: 03/28/2022 14:00

Field ID: G3NW0186

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315102	EPA 180.1 Rev. 2.0	Turbidity	0.75	I A	NTU	P411719	
	SM 2320 B-2011	Total Alkalinity	85		mg CaCO3/L	P412056	
	SM 2540 D-2011	TSS	3	U	mg/L	P411894	
	SM 4500-F- C-2011	Fluoride	0.74		mg F/L	P412058	
2315104	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P411977	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.20	I	mg N/L	P412166	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P411829	
	EPA 365.1 Rev. 2.0	Total-P	0.010		mg P/L	P411947	
	SM 5310 B-2011	Organic Carbon	3.3	I	mg C/L	P411793	

Ref. Method and Comment:

EPA 180.1 Rev. 2.0: Batch relative percent difference is unavailable because of low 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.

Sample Location: Boggy Bayou at Lincoln Park, Okaloosa County (also 21FLDOH)

Collection Date/Time: 03/28/2022 14:30

Field ID: OKALOOSA355

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315117	EPA 8321B	2,4-D	0.0020	U	ug/L	P411659	
		Acesulfame K	0.10	U	ug/L	P411656	
		2,4,5-T	0.0040	U	ug/L	P411659	
		AMPA	1.0	U	ug/L	P411656	
		Acetaminophen	0.0080	U	ug/L	P411659	
		Acetamiprid	0.0020	U	ug/L	P411659	
		Endothall	0.25	U	ug/L	P411656	
		Glufosinate	1.0	U	ug/L	P411656	
		Glyphosate	1.0	U	ug/L	P411656	
		Afidopyropen	0.0020	U	ug/L	P411659	
		Bentazon	8.0E-04	U	ug/L	P411659	
		Sucralose	0.14		ug/L	P411656	
		Benzovindiflupyr	0.0020	U	ug/L	P411659	
		Carbamazepine	8.0E-04	U	ug/L	P411659	
		Clothianidin	0.0020	U	ug/L	P411659	
		Dinotefuran	0.0020	U	ug/L	P411659	
		Diuron	0.0020	U	ug/L	P411659	
		Fenuron	0.016	U	ug/L	P411659	
		Fluridone	8.0E-04	U	ug/L	P411659	
		Imazapyr	0.0040	U	ug/L	P411659	
		Hydrocodone	0.0020	U	ug/L	P411659	
		Ibuprofen	0.020	U	ug/L	P411659	
		Imidacloprid	0.0020	U	ug/L	P411659	MS
		Linuron	0.0040	U	ug/L	P411659	
		Mandestrobin	0.0020	U	ug/L	P411659	
		MCPP	0.0020	U	ug/L	P411659	
		Naproxen	0.0080	U	ug/L	P411659	
		Primidone	0.0040	U	ug/L	P411659	
		Pyraclostrobin	0.0020	U	ug/L	P411659	
		Silvex	0.0040	U	ug/L	P411659	
		Thiamethoxam	0.0020	U	ug/L	P411659	MS
		Tolfenpyrad	0.0020	U	ug/L	P411659	
		Triclopyr	0.0040	U	ug/L	P411659	

Ref. Method and Comment:

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

EPA 8321B: Some MDLs are elevated due to required dilution of sample matrix.

Sample Location: FB

Collection Date/Time: 03/28/2022 12:20

Field ID: FB_03282022

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315105	EPA 180.1 Rev. 2.0	Turbidity	0.10	UA	NTU	P411718	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P411967	
	SM 2540 D-2011	TSS	2	U	mg/L	P411903	RPD
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P411971	
2315106	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P411761	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P412156	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P411738	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P411945	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P411792	

Ref. Method and Comment:

EPA 180.1 Rev. 2.0: 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: P411716

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411718

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411719

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411761

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411977

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412156

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412166

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411738

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411829

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411945

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411947

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

Reference Method: EPA 8321B
Batch ID: P411656

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: P411659

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	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
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P411967

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

Reference Method: SM 2320 B-2011
Batch ID: P412056

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

Reference Method: SM 2540 D-2011
Batch ID: P411894

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P411903

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P411971

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P412058

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P411792

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

Reference Method: SM 5310 B-2011
Batch ID: P411793

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

Reference Method: SM 5310 B-2011
Batch ID: P411832

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411716

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411718

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.6		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411719

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411761

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411977

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	93.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412156

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412166

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411738

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411829

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P411945

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P411947

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

Reference Method: EPA 8321B

Batch ID: P411656

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	109		P	40 - 150
AMPA	111		P	40 - 150
Endothall	80.1		P	40 - 150
Glufosinate	137		P	40 - 150
Glyphosate	129		P	40 - 150
Sucralose	111		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P411659

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	128		P	30 - 160
2,4,5-T	85.1		P	30 - 160
Acetaminophen	86.3		P	30 - 150
Acetamiprid	106		P	30 - 160
Afidopyropen	84.1		P	30 - 160
Bentazon	39.6		P	30 - 150
Benzovindiflupyr	105		P	30 - 160
Carbamazepine	106		P	30 - 160
Clothianidin	105		P	30 - 160
Dinotefuran	101		P	30 - 160
Diuron	92.8		P	30 - 160
Fenuron	101		P	30 - 160
Fluridone	97.6		P	30 - 160
Hydrocodone	94.5		P	30 - 160
Ibuprofen	82.7		P	30 - 160
Imazapyr	127		P	30 - 160
Imidacloprid	94.9		P	30 - 160
Linuron	85.0		P	30 - 160
Mandestrobin	98.6		P	30 - 160
MCPP	103		P	30 - 160
Naproxen	74.3		P	30 - 160
Primidone	107		P	30 - 160
Pyraclostrobin	88.1		P	30 - 160
Silvex	72.6		P	30 - 160
Thiamethoxam	101		P	30 - 160
Tolfenpyrad	56.4		P	30 - 160
Triclopyr	96.1		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P411967

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.5		P	94 - 106

Reference Method: SM 2320 B-2011
Batch ID: P412056

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.1		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P411971

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	93 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P412058

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.9		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P411792

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	93.7		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P411793

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.3		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P411832

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411761

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315048	Ammonia-N	93.2	93.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411977

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315618	Ammonia-N	101	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412156

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315146	Kjeldahl Nitrogen	108	97.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412166

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315013	Kjeldahl Nitrogen	103	96.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411738

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315051	NO2NO3-N	96.6	97.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411829

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315012	NO2NO3-N	100	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411945

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315144	Total-P	103	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411947

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315014	Total-P	93.7	93.4	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P411656

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2314412	Acesulfame K	139	132	P/P	40 - 150
2314412	AMPA	108	103	P/P	40 - 150
2314412	Endothall	129	114	P/P	40 - 150
2314412	Glufosinate	114	101	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P411656

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2314412	Glyphosate	105	102	P/P	40 - 150
2314412	Sucralose	116	98.4	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P411659

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2314706	2,4-D	100	117	P/P	30 - 160
2314706	2,4,5-T	72.1	73.5	P/P	30 - 160
2314706	Acetaminophen	101	97.3	P/P	30 - 150
2314706	Acetamiprid	117	122	P/P	30 - 160
2314706	Afidopyropen	75.0	77.5	P/P	30 - 160
2314706	Benzovindiflupyr	92.7	94.5	P/P	30 - 160
2314706	Carbamazepine	86.1	99.4	P/P	30 - 160
2314706	Clothianidin	123	131	P/P	30 - 160
2314706	Dinotefuran	129	135	P/P	30 - 160
2314706	Diuron	78.3	86.4	P/P	30 - 160
2314706	Fenuron	82.8	88.8	P/P	30 - 160
2314706	Fluridone	81.5	99.0	P/P	30 - 160
2314706	Hydrocodone	97.2	98.1	P/P	30 - 160
2314706	Ibuprofen	53.1	70.0	P/P	30 - 160
2314706	Imidacloprid	171	189	F/F	30 - 160
2314706	Linuron	77.5	70.7	P/P	30 - 160
2314706	Mandestrobin	94.2	101	P/P	30 - 160
2314706	MCPP	91.2	94.9	P/P	30 - 160
2314706	Naproxen	73.2	62.7	P/P	30 - 160
2314706	Primidone	106	112	P/P	30 - 160
2314706	Pyraclostrobin	79.9	83.3	P/P	30 - 160
2314706	Silvex	75.5	82.4	P/P	30 - 160
2314706	Thiamethoxam	152	164	P/F	30 - 160
2314706	Tolfenpyrad	54.5	51.6	P/P	30 - 160
2314706	Triclopyr	84.7	75.8	P/P	30 - 160

Reference Method: SM 4500-F- C-2011

Batch ID: P411971

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315236	Fluoride	100	99.9	P/P	92 - 107

Reference Method: SM 4500-F- C-2011

Batch ID: P412058

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315608	Fluoride	93.4	95.6	P/P	92 - 107

Reference Method: SM 5310 B-2011

Batch ID: P411792

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315048	Organic Carbon	94.2	96.8	P/P	85 - 115

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P411793

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315032	Organic Carbon	87.4	89.2	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P411832

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315351	Organic Carbon	92.9	90.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411716

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315000	Turbidity	7.66	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411761

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315048	Ammonia-N	0.154	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P411977

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315618	Ammonia-N	1.66	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412156

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315146	Kjeldahl Nitrogen	5.76	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412166

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315013	Kjeldahl Nitrogen	5.83	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411738

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315051	NO2NO3-N	0.363	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411829

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315012	NO2NO3-N	1.43	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411945

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315144	Total-P	3.85	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P411947

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315014	Total-P	0.240	Spike	P	0 - 20

Reference Method: EPA 8321B

Batch ID: P411656

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2314412	Acesulfame K	4.90	Spike	P	0 - 30
2314412	AMPA	4.01	Spike	P	0 - 30
2314412	Endothall	12.1	Spike	P	0 - 30
2314412	Glufosinate	11.5	Spike	P	0 - 30
2314412	Glyphosate	3.49	Spike	P	0 - 30
2314412	Sucralose	15.4	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P411659

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2314706	2,4-D	12.5	Spike	P	0 - 30
2314706	2,4,5-T	1.84	Spike	P	0 - 30
2314706	Acetaminophen	4.00	Spike	P	0 - 30
2314706	Acetamiprid	4.02	Spike	P	0 - 30
2314706	Afidopyropen	3.28	Spike	P	0 - 30
2314706	Bentazon	3.25	Spike	P	0 - 30
2314706	Benzovindiflupyr	1.90	Spike	P	0 - 30
2314706	Carbamazepine	8.53	Spike	P	0 - 30
2314706	Clothianidin	6.29	Spike	P	0 - 30
2314706	Dinotefuran	4.51	Spike	P	0 - 30
2314706	Diuron	9.44	Spike	P	0 - 30
2314706	Fenuron	6.94	Spike	P	0 - 30
2314706	Fluridone	13.5	Spike	P	0 - 30
2314706	Hydrocodone	0.908	Spike	P	0 - 30
2314706	Ibuprofen	27.6	Spike	P	0 - 30
2314706	Imazapyr	14.4	Spike	P	0 - 30
2314706	Imidacloprid	8.86	Spike	P	0 - 30
2314706	Linuron	9.19	Spike	P	0 - 30
2314706	Mandestrobin	6.58	Spike	P	0 - 30
2314706	MCPP	3.61	Spike	P	0 - 30
2314706	Naproxen	15.4	Spike	P	0 - 30
2314706	Primidone	4.85	Spike	P	0 - 30
2314706	Pyraclostrobin	4.13	Spike	P	0 - 30
2314706	Silvex	8.80	Spike	P	0 - 30
2314706	Thiamethoxam	7.61	Spike	P	0 - 30
2314706	Tolfenpyrad	5.44	Spike	P	0 - 30
2314706	Triclopyr	11.2	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P411967

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315236	Total Alkalinity	0.837	Sample	P	0 - 5.2

Reference Method: SM 2320 B-2011
Batch ID: P412056

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315608	Total Alkalinity	1.38	Sample	P	0 - 5.2

Reference Method: SM 2540 D-2011
Batch ID: P411903

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2314905	TSS	23.8	Sample	F	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P411971

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315236	Fluoride	0.483	Spike	P	0 - 2.1

Reference Method: SM 4500-F- C-2011
Batch ID: P412058

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315608	Fluoride	1.50	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P411792

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315048	Organic Carbon	1.48	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P411793

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315032	Organic Carbon	1.62	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P411832

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315351	Organic Carbon	1.53	Spike	P	0 - 20

Quality Assurance Report Precision

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

Quality Assurance Report Surrogates

Lab Sample ID: 2315117

Field Sample ID: OKALOOSA355

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	128	P	30 - 160
EPA 8321B	Acetaminophen-d4	102	P	30 - 160
EPA 8321B	Carbamazepine-d10	108	P	30 - 160
EPA 8321B	Diuron-d6	102	P	30 - 160
EPA 8321B	Endothall-d6	77.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	72.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	104	P	30 - 160
EPA 8321B	Primidone-d5	124	P	30 - 160
EPA 8321B	Sucralose-d6	92.0	P	30 - 160

Lab Sample ID: 2315118

Field Sample ID: G3NW0131

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	101	P	30 - 160
EPA 8321B	Acetaminophen-d4	95.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	106	P	30 - 160
EPA 8321B	Diuron-d6	77.1	P	30 - 160
EPA 8321B	Endothall-d6	106	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	94.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	90.2	P	30 - 160
EPA 8321B	Primidone-d5	103	P	30 - 160
EPA 8321B	Sucralose-d6	119	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A111213

Included Lab Sample IDs: 2315101, 2315102, 2315105

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A111226

Included Lab Sample IDs: 2315106

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

Reference Method: EPA 8321B

Run ID: A111227

Included Lab Sample IDs: 2315117, 2315118

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	95.1	103	P/P	60 - 160
Endothall	102	72.8	P/P	60 - 160
Sucralose	108	109	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A111231

Included Lab Sample IDs: 2315117, 2315118

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	124	126	P/P	60 - 160
Glufosinate	112	98.0	P/P	60 - 160
Glyphosate	115	114	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A111234

Included Lab Sample IDs: 2315106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.3	98.6	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A111243

Included Lab Sample IDs: 2315104, 2315106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.5	94.2	P/P	90 - 110
Organic Carbon	96.4	95.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A111259

Included Lab Sample IDs: 2315103, 2315104

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A111262

Included Lab Sample IDs: 2315103

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.8	95.9	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A111305

Included Lab Sample IDs: 2315101, 2315105

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.7	98.3	P/P	90 - 110
Total Alkalinity	98.3	97.0	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A111305

Included Lab Sample IDs: 2315101, 2315105

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A111307

Included Lab Sample IDs: 2315103, 2315104

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.3	97.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A111344

Included Lab Sample IDs: 2315103, 2315104, 2315106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.5	99.8	P/P	90 - 110
Total-P	99.2	99.2	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A111346

Included Lab Sample IDs: 2315117, 2315118

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	109	117	P/P	50 - 150
2,4,5-T	87.3	100	P/P	50 - 150
Acetaminophen	91.2	71.6	P/P	60 - 160
Acetamiprid	112	94.5	P/P	50 - 150
Afidopyropen	99.0	109	P/P	50 - 150
Bentazon	95.6	90.3	P/P	50 - 160
Benzovindiflupyr	91.9	113	P/P	50 - 150
Carbamazepine	101	94.7	P/P	60 - 150
Clothianidin	110	95.4	P/P	60 - 150
Dinotefuran	103	90.8	P/P	50 - 150
Diuron	98.7	108	P/P	60 - 160
Fenuron	99.7	89.4	P/P	60 - 150
Fluridone	100	113	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A111346

Included Lab Sample IDs: 2315117, 2315118

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Hydrocodone	101	95.5	P/P	60 - 150
Ibuprofen	95.4	74.1	P/P	50 - 160
Imazapyr	124	146	P/P	50 - 150
Imidacloprid	96.5	93.8	P/P	60 - 150
Linuron	92.1	85.3	P/P	60 - 150
Mandestrobin	112	115	P/P	50 - 150
MCPP	92.1	110	P/P	50 - 150
Naproxen	95.0	97.7	P/P	50 - 160
Primidone	104	110	P/P	60 - 150
Pyraclostrobin	94.8	104	P/P	60 - 150
Silvex	91.8	92.5	P/P	50 - 150
Thiamethoxam	105	92.9	P/P	50 - 150
Tolfenpyrad	90.3	110	P/P	60 - 150
Triclopyr	96.5	121	P/P	50 - 150

Reference Method: SM 2320 B-2011

Run ID: A111357

Included Lab Sample IDs: 2315102

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.4	98.7	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A111357

Included Lab Sample IDs: 2315102

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.0	99.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A111453

Included Lab Sample IDs: 2315106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.9	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A111463

Included Lab Sample IDs: 2315103, 2315104

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.6	107	P/P	90 - 110

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

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity	96.2				7.66	
	Turbidity	96.6					
	Turbidity	96.3					
EPA 350.1 Rev. 2.0	Ammonia-N	96.4	93.2	93.4			0.154
	Ammonia-N	93.4	101	99.0			1.66
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	108	108	97.3			5.76
	Kjeldahl Nitrogen	101	103	96.2			5.83
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	96.6	97.0			0.363
	NO2NO3-N	99.5	100	102			1.43
EPA 365.1 Rev. 2.0	Total-P	103	103	108			3.85
	Total-P	102	93.7	93.4			0.240
EPA 8321B	2,4-D	128	100	117			12.5
	2,4,5-T	85.1	72.1	73.5			1.84
	Acesulfame K	109	139	132			4.90
	Acetaminophen	86.3	101	97.3			4.00
	Acetamiprid	106	117	122			4.02
	Afidopyropen	84.1	75.0	77.5			3.28
	AMPA	111	108	103			4.01
	Bentazon	39.6					3.25
	Benzovindiflupyr	105	92.7	94.5			1.90
	Carbamazepine	106	86.1	99.4			8.53
	Clothianidin	105	123	131			6.29
	Dinotefuran	101	129	135			4.51
	Diuron	92.8	78.3	86.4			9.44
	Endothall	80.1	129	114			12.1
	Fenuron	101	82.8	88.8			6.94
	Fluridone	97.6	81.5	99.0			13.5
	Glufosinate	137	114	101			11.5
	Glyphosate	129	105	102			3.49
	Hydrocodone	94.5	97.2	98.1			0.908
	Ibuprofen	82.7	53.1	70.0			27.6
	Imazapyr	127					14.4
	Imidacloprid	94.9	171	189			8.86
	Linuron	85.0	77.5	70.7			9.19
	Mandestrobin	98.6	94.2	101			6.58
	MCPP	103	91.2	94.9			3.61
	Naproxen	74.3	73.2	62.7			15.4
	Primidone	107	106	112			4.85
	Pyraclostrobin	88.1	79.9	83.3			4.13
	Silvex	72.6	75.5	82.4			8.80
	Sucralose	111	116	98.4			15.4
	Thiamethoxam	101	152	164			7.61
	Tolfenpyrad	56.4	54.5	51.6			5.44
	Triclopyr	96.1	84.7	75.8			11.2
SM 2320 B-2011	Total Alkalinity	97.5				0.837	
	Total Alkalinity	98.1				1.38	
SM 2540 D-2011	TSS					23.8	
SM 4500-F- C-2011	Fluoride	101	100	99.9			0.483
	Fluoride	96.9	93.4	95.6			1.50
SM 5310 B-2011	Organic Carbon	93.7	94.2	96.8			1.48
	Organic Carbon	94.3	87.4	89.2			1.62
	Organic Carbon	94.2	92.9	90.0			1.53

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2315101, 2315102, 2315105
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2315103, 2315104, 2315106
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2315103, 2315104, 2315106
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2315103, 2315104, 2315106
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2315103, 2315104, 2315106
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2315117, 2315118
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2315101, 2315102, 2315105
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2315101, 2315102, 2315105
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2315101, 2315102, 2315105
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2315103, 2315104, 2315106

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	03/29/2022			03/29/2022 14:45	Anna M. Plaviak	2315101
	03/29/2022			03/29/2022 15:05	Anna M. Plaviak	2315105
	03/29/2022			03/29/2022 18:10	Anna M. Plaviak	2315102
EPA 350.1 Rev. 2.0	03/29/2022			03/30/2022 12:09	Ping Hua	2315106
	03/29/2022			04/05/2022 13:11	Ping Hua	2315103
	03/29/2022			04/05/2022 13:12	Ping Hua	2315104
EPA 351.2 Rev. 2.0	03/29/2022	04/12/2022 17:06	Samantha L Bates	04/13/2022 10:56	Alexandra J Mattheus	2315106
	03/29/2022	04/12/2022 17:06	Samantha L Bates	04/13/2022 14:40	Alexandra J Mattheus	2315103
	03/29/2022	04/12/2022 17:06	Samantha L Bates	04/13/2022 14:41	Alexandra J Mattheus	2315104
EPA 353.2 Rev. 2.0	03/29/2022			03/30/2022 10:17	Beverly Y. Sanders	2315106
	03/29/2022			03/31/2022 16:57	Nathaniel J Jones	2315103
	03/29/2022			03/31/2022 16:59	Nathaniel J Jones	2315104
EPA 365.1 Rev. 2.0	03/29/2022	04/05/2022 17:35	Simonne.V. Calhoun	04/06/2022 14:46	James L Waggeberby	2315106
	03/29/2022	04/05/2022 17:35	Simonne.V. Calhoun	04/06/2022 15:15	James L Waggeberby	2315103
	03/29/2022	04/05/2022 17:35	Simonne.V. Calhoun	04/06/2022 15:16	James L Waggeberby	2315104
EPA 8321B	03/29/2022	03/29/2022 14:00	Hoor Shaik	04/01/2022 13:39	Juyoung Kim	2315117
	03/29/2022	03/29/2022 14:00	Hoor Shaik	04/01/2022 14:14	Juyoung Kim	2315118
	03/29/2022	03/29/2022 14:00	Manjita Shrestha	03/29/2022 21:33	Manjita Shrestha	2315118
	03/29/2022	03/29/2022 14:00	Manjita Shrestha	03/29/2022 22:24	Manjita Shrestha	2315117
	03/29/2022	03/29/2022 14:00	Manjita Shrestha	03/30/2022 09:01	Manjita Shrestha	2315117
	03/29/2022	03/29/2022 14:00	Manjita Shrestha	03/30/2022 09:16	Manjita Shrestha	2315118
SM 2320 B-2011	03/29/2022			04/02/2022 07:07	Dale L. Simmons	2315105
	03/29/2022			04/02/2022 10:59	Dale L. Simmons	2315101
	03/29/2022			04/06/2022 21:33	Dale L. Simmons	2315102
SM 2540 D-2011	03/29/2022			03/31/2022 15:30	Blanca Fach	2315102
	03/29/2022			03/31/2022 16:15	Simonne.V. Calhoun	2315101, 2315105
SM 4500-F- C-2011	03/29/2022			04/02/2022 07:07	Dale L. Simmons	2315105
	03/29/2022			04/02/2022 10:59	Dale L. Simmons	2315101
	03/29/2022			04/06/2022 18:02	Dale L. Simmons	2315102
SM 5310 B-2011	03/29/2022			03/31/2022 01:08	Khloe J Berg	2315106
	03/29/2022			03/31/2022 06:02	Khloe J Berg	2315104
	03/29/2022			03/31/2022 15:46	Khloe J Berg	2315103