

Chemical Analysis Report

SO-DIST-2024-01-10-02

Florida DEP Laboratory
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Tallahassee, FL 32399-2400
DOH Accreditation E31780

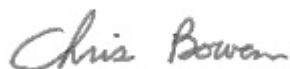
Event Description: **Caloosa Creeks**
Request ID: **RQ-2024-01-08-07**
Customer: **SO-DIST**
Project ID: **BMAP**

Send Reports to:
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FLDEP South District Office
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Certified by: Chris Bowen, Environmental Administrator

Date Certified: 26-JAN-2024 08:01



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: BEE BRANCH AT LOBLOLLY BAY RD

Collection Date/Time: 01/09/2024 10:45

Field ID: G3SD0085

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2460060	DEP SOP: NU-094-1	Color (true)	280		PCU	P439769	
	EPA 180.1 Rev. 2.0	Turbidity	0.85	I	NTU	P439775	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P440021	
		Sulfate	2.2		mg SO4/L	P440024	
	SM 2320 B-2011	Total Alkalinity	8.9		mg CaCO3/L	P439885	
	SM 2540 C-2015	TDS	105		mg/L	P440172	
	SM 2540 D-2015	TSS	2	U	mg/L	P440151	
	SM 4500-F- C-2011	Fluoride	0.060	I	mg F/L	P439891	
2460061	SM 5310 B-2014 dissolved	Organic Carbon	28		mg C/L	P439913	
2460062	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P439902	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P439948	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P439959	
	EPA 365.1 Rev. 2.0	Total-P	0.046		mg P/L	P439873	
	SM 5310 B-2014	Organic Carbon	28		mg C/L	P439913	
2460063	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.028		mg P/L	P439750	
2460082	EPA 8321B	Acesulfame K	0.10	U	ug/L	P439740	
		2,4-D	0.0020	U	ug/L	P439715	
		AMPA	0.10	U	ug/L	P439740	
		2,4,5-T	0.0040	U	ug/L	P439715	
		Acetaminophen	0.0080	U	ug/L	P439715	
		Endothall	0.25	U	ug/L	P439740	
		Acetamiprid	0.0020	U	ug/L	P439715	
		Glufosinate	0.10	U	ug/L	P439740	
		Glyphosate	0.10	U	ug/L	P439740	
		Afidopyropen	0.0020	U	ug/L	P439715	
		Sucralose	0.012	I	ug/L	P439740	
		Bentazon	8.0E-04	U	ug/L	P439715	MS
		Benzovindiflupyr	0.0020	U	ug/L	P439715	
		Carbamazepine	8.0E-04	U	ug/L	P439715	
		Clothianidin	0.0020	U	ug/L	P439715	
		Dinotefuran	0.0020	U	ug/L	P439715	
		Diuron	0.0020	U	ug/L	P439715	
		Fenuron	0.032	U	ug/L	P439715	
		Fluridone	8.0E-04	U	ug/L	P439715	
		Imazapyr	0.0040	U	ug/L	P439715	
		Hydrocodone	0.0020	U	ug/L	P439715	
		Ibuprofen	0.080	U	ug/L	P439715	
		Imidacloprid	0.0026	I	ug/L	P439715	
		Linuron	0.0040	U	ug/L	P439715	
		Mandestrobin	0.0020	U	ug/L	P439715	
		MCPP	0.0020	U	ug/L	P439715	
		Naproxen	0.0080	U	ug/L	P439715	
		Primidone	0.0040	U	ug/L	P439715	

Field ID: G3SD0085

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2460082	EPA 8321B	Pyraclostrobin	0.0020	U	ug/L	P439715	
		Silvex	0.0040	U	ug/L	P439715	
		Thiamethoxam	0.0020	U	ug/L	P439715	
		Tolfenpyrad	0.0020	U	ug/L	P439715	
		Triclopyr	0.0040	U	ug/L	P439715	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

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

Sample Location: TELEGRAPH CREEK SONDE AT USGS SONDE STATION Collection Date/Time: 01/09/2024 11:35

Field ID: G3SD0129 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2460048	DEP SOP: NU-094-1	Color (true)	240		PCU	P439769	
	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P439775	
	EPA 300.0 Rev. 2.1	Chloride	46		mg Cl/L	P440021	
		Sulfate	1.8		mg SO4/L	P440024	
	SM 2320 B-2011	Total Alkalinity	57		mg CaCO3/L	P439885	
	SM 2540 C-2015	TDS	184		mg/L	P440172	
	SM 2540 D-2015	TSS	10		mg/L	P440151	
	SM 4500-F- C-2011	Fluoride	0.066	I	mg F/L	P439891	
2460051	SM 5310 B-2014 dissolved	Organic Carbon	31		mg C/L	P439911	
2460054	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P439902	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P439948	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.013		mg N/L	P439959	
	EPA 365.1 Rev. 2.0	Total-P	0.043		mg P/L	P439872	
	SM 5310 B-2014	Organic Carbon	31		mg C/L	P439911	
2460057	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.021		mg P/L	P439750	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: ORANGE RIVER AT BOAT RAMP

Collection Date/Time: 01/09/2024 08:00

Field ID: G3SD0128

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2460049	DEP SOP: NU-094-1	Color (true)	36		PCU	P439769	
	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P439775	
	EPA 300.0 Rev. 2.1	Chloride	84		mg Cl/L	P440021	
		Sulfate	18		mg SO4/L	P440024	
	SM 2320 B-2011	Total Alkalinity	212		mg CaCO3/L	P439885	
	SM 2540 C-2015	TDS	376		mg/L	P440172	
	SM 2540 D-2015	TSS	4	I	mg/L	P440151	
	SM 4500-F- C-2011	Fluoride	0.17		mg F/L	P439891	
2460052	SM 5310 B-2014 dissolved	Organic Carbon	9.6		mg C/L	P439911	
2460055	EPA 350.1 Rev. 2.0	Ammonia-N	0.025		mg N/L	P439902	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.82		mg N/L	P439948	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P439959	
	EPA 365.1 Rev. 2.0	Total-P	0.044		mg P/L	P439872	
	SM 5310 B-2014	Organic Carbon	9.9		mg C/L	P439911	
2460058	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.012		mg P/L	P439750	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the OC sample.

Sample Location: NINE MILE CANAL AT SR 80

Collection Date/Time: 01/09/2024 09:50

Field ID: G3SD0088

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2460096	DEP SOP: NU-094-1	Color (true)	64		PCU	P439770	
	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P439776	
	EPA 300.0 Rev. 2.1	Chloride	43		mg Cl/L	P440022	
		Sulfate	33		mg SO4/L	P440025	
	SM 2320 B-2011	Total Alkalinity	217		mg CaCO3/L	P439885	
	SM 2540 C-2015	TDS	365		mg/L	P440172	
	SM 2540 D-2015	TSS	4	I	mg/L	P440151	
	SM 4500-F- C-2011	Fluoride	0.31		mg F/L	P439891	
2460097	SM 5310 B-2014 dissolved	Organic Carbon	16		mg C/L	P439913	
2460098	EPA 350.1 Rev. 2.0	Ammonia-N	0.072		mg N/L	P439931	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P439949	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.24		mg N/L	P439955	
	EPA 365.1 Rev. 2.0	Total-P	0.083		mg P/L	P439873	
	SM 5310 B-2014	Organic Carbon	16		mg C/L	P439913	
2460099	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.049		mg P/L	P439750	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P439769

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P439770

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P439775

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P439776

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440021

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440022

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440024

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440025

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P439902

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P439931

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P439948

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P439949

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439955

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439959

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P439872

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P439873

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P439750

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

Reference Method: EPA 8321B
Batch ID: P439715

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P439715

Component	Result	Code	Units
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	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	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

Reference Method: EPA 8321B

Batch ID: P439740

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 2320 B-2011

Batch ID: P439885

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

Reference Method: SM 2540 C-2015

Batch ID: P440172

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P440151

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 4500-F- C-2011
Batch ID: P439891

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2014
Batch ID: P439911

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

Reference Method: SM 5310 B-2014
Batch ID: P439913

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

Reference Method: SM 5310 B-2014 dissolved
Batch ID: P439911

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

Reference Method: SM 5310 B-2014 dissolved
Batch ID: P439913

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P439769

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

Reference Method: DEP SOP: NU-094-1
Batch ID: P439770

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P439775

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P439776

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440021

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440022

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440024

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440025

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P439902

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.8		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P439931

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P439948

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P439949

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439955

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	96.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439959

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P439872

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P439873

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P439750

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

Reference Method: EPA 8321B
Batch ID: P439715

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	103		P	40 - 150
2,4,5-T	90.3		P	40 - 150
Acetaminophen	83.4		P	30 - 150
Acetamiprid	81.1		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P439715

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Afidopyropen	45.5		P	30 - 150
Bentazon	52.9		P	30 - 150
Benzovindiflupyr	81.3		P	40 - 150
Carbamazepine	71.0		P	40 - 150
Clothianidin	90.1		P	40 - 150
Dinotefuran	98.4		P	40 - 150
Diuron	72.3		P	40 - 150
Fenuron	117		P	40 - 150
Fluridone	78.0		P	40 - 150
Hydrocodone	92.8		P	40 - 150
Ibuprofen	62.1		P	40 - 150
Imazapyr	83.4		P	40 - 150
Imidacloprid	86.9		P	40 - 150
Linuron	70.1		P	40 - 150
Mandestrobin	84.4		P	40 - 150
MCPP	90.6		P	40 - 150
Naproxen	60.2		P	40 - 150
Primidone	82.6		P	40 - 150
Pyraclostrobin	75.8		P	40 - 150
Silvex	81.5		P	40 - 150
Thiamethoxam	89.9		P	40 - 150
Tolfenpyrad	49.0		P	30 - 150
Triclopyr	95.9		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P439740

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	108		P	40 - 150
AMPA	98.2		P	40 - 150
Endothall	98.7		P	40 - 150
Glufosinate	109		P	40 - 150
Glyphosate	105		P	40 - 150
Sucralose	98.6		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P439885

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.0		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P440172

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	97.6		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P440151

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	95.2		P	85 - 115

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P439891

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	94 - 106

Reference Method: SM 5310 B-2014
Batch ID: P439911

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.0		P	85 - 115

Reference Method: SM 5310 B-2014
Batch ID: P439913

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	90.5		P	85 - 115

Reference Method: SM 5310 B-2014 dissolved
Batch ID: P439911

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.0		P	85 - 115

Reference Method: SM 5310 B-2014 dissolved
Batch ID: P439913

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	90.5		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440021

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2459940	Chloride	102		P	90 - 110
2460038	Chloride	99.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440022

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2460065	Chloride	105		P	90 - 110
2460350	Chloride	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440024

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2459940	Sulfate	101		P	90 - 110
2460038	Sulfate	98.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440025

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2460065	Sulfate	103		P	90 - 110
2460350	Sulfate	99.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P439902

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2460054	Ammonia-N	98.0	97.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P439931

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2460159	Ammonia-N	100	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P439948

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2460066	Kjeldahl Nitrogen	102	107	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P439949

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2460316	Kjeldahl Nitrogen	107	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439955

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439955

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2460098	NO2NO3-N	94.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439959

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2459907	NO2NO3-N	92.9	93.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P439872

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2460039	Total-P	106	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P439873

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2460067	Total-P	106	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P439750

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2460058	O-Phosphate-P	97.8	97.3	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P439715

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2459072	2,4-D	88.4	90.1	P/P	40 - 150
2459072	2,4,5-T	72.0	78.6	P/P	40 - 150
2459072	Acetaminophen	85.5	91.2	P/P	30 - 150
2459072	Acetamiprid	64.1	72.9	P/P	40 - 150
2459072	Afidopyropen	64.5	75.1	P/P	30 - 150
2459072	Bentazon	21.9	33.4	F/P	30 - 150
2459072	Benzovindiflupyr	80.2	84.4	P/P	40 - 150
2459072	Carbamazepine	61.2	63.5	P/P	40 - 150
2459072	Clothianidin	83.6	91.5	P/P	40 - 150
2459072	Dinotefuran	97.4	107	P/P	40 - 150
2459072	Diuron	59.9	62.0	P/P	40 - 150
2459072	Fenuron	75.2	71.5	P/P	40 - 150
2459072	Hydrocodone	80.1	83.6	P/P	40 - 150
2459072	Ibuprofen	62.9	60.4	P/P	40 - 150
2459072	Imidacloprid	106	112	P/P	40 - 150
2459072	Linuron	63.1	66.1	P/P	40 - 150
2459072	Mandestrobin	79.9	83.6	P/P	40 - 150
2459072	MCPP	88.2	94.5	P/P	40 - 150
2459072	Naproxen	50.9	64.9	P/P	40 - 150
2459072	Primidone	86.1	93.3	P/P	40 - 150
2459072	Pyraclostrobin	73.4	78.1	P/P	40 - 150
2459072	Silvex	72.7	75.9	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P439715

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2459072	Thiamethoxam	83.2	86.1	P/P	40 - 150
2459072	Tolfenpyrad	51.1	52.7	P/P	30 - 150
2459072	Triclopyr	71.9	86.1	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P439740

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2459956	Acesulfame K	131	140	P/P	40 - 150
2459956	AMPA	85.8	90.6	P/P	40 - 150
2459956	Endothall	87.7	93.0	P/P	40 - 150
2459956	Glufosinate	108	120	P/P	40 - 150
2459956	Sucralose	102	100	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P439891

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2459856	Fluoride	101	101	P/P	94 - 106

Reference Method: SM 5310 B-2014
Batch ID: P439911

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2460447	Organic Carbon	97.3	97.5	P/P	85 - 115

Reference Method: SM 5310 B-2014
Batch ID: P439913

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2460056	Organic Carbon	97.8	99.2	P/P	85 - 115

Reference Method: SM 5310 B-2014 dissolved
Batch ID: P439911

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2460447	Organic Carbon	97.3	97.5	P/P	85 - 115

Reference Method: SM 5310 B-2014 dissolved
Batch ID: P439913

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2460056	Organic Carbon	97.8	99.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P439769

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2460050	Color (true)	4.59	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P439770

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2460134	Color (true)	4.99	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P439775

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2459967	Turbidity	13.9	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P439776

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2460064	Turbidity	16.0	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440021

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2459940	Chloride	0.837	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440022

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2460065	Chloride	0.460	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440024

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2459940	Sulfate	1.04	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P440025

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2460065	Sulfate	0.146	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P439902

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2460054	Ammonia-N	0.324	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P439931

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2460159	Ammonia-N	1.42	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P439948

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2460066	Kjeldahl Nitrogen	2.34	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P439949

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2460316	Kjeldahl Nitrogen	0.471	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439955

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2460098	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439959

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2459907	NO2NO3-N	0.778	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P439872

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2460039	Total-P	2.30	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P439873

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2460067	Total-P	0.555	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P439750

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2460058	O-Phosphate-P	0.454	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P439715

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2459072	2,4-D	1.03	Spike	P	0 - 30
2459072	2,4,5-T	8.77	Spike	P	0 - 30
2459072	Acetaminophen	6.48	Spike	P	0 - 30
2459072	Acetamiprid	12.8	Spike	P	0 - 30
2459072	Afidopyropen	15.2	Spike	P	0 - 30
2459072	Bentazon	9.87	Spike	P	0 - 30
2459072	Benzovindiflupyr	5.17	Spike	P	0 - 30
2459072	Carbamazepine	3.64	Spike	P	0 - 30
2459072	Clothianidin	8.60	Spike	P	0 - 30
2459072	Dinotefuran	9.55	Spike	P	0 - 30
2459072	Diuron	3.54	Spike	P	0 - 30
2459072	Fenuron	5.05	Spike	P	0 - 30
2459072	Fluridone	6.71	Spike	P	0 - 30
2459072	Hydrocodone	4.24	Spike	P	0 - 30
2459072	Ibuprofen	3.94	Spike	P	0 - 30
2459072	Imazapyr	6.30	Spike	P	0 - 30
2459072	Imidacloprid	4.84	Spike	P	0 - 30
2459072	Linuron	4.64	Spike	P	0 - 30
2459072	Mandestrobin	4.57	Spike	P	0 - 30
2459072	MCP	6.90	Spike	P	0 - 30
2459072	Naproxen	24.3	Spike	P	0 - 30
2459072	Primidone	7.93	Spike	P	0 - 30
2459072	Pyraclostrobin	6.23	Spike	P	0 - 30
2459072	Silvex	4.25	Spike	P	0 - 30
2459072	Thiamethoxam	3.38	Spike	P	0 - 30
2459072	Tolfenpyrad	3.06	Spike	P	0 - 30
2459072	Triclopyr	17.9	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P439740

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2459956	Acesulfame K	5.94	Spike	P	0 - 30
2459956	AMPA	4.16	Spike	P	0 - 30
2459956	Endothall	5.83	Spike	P	0 - 30
2459956	Glufosinate	10.5	Spike	P	0 - 30
2459956	Glyphosate	4.35	Spike	P	0 - 30
2459956	Sucralose	1.15	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P439885

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2459856	Total Alkalinity	3.27	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P440172

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2459529	TDS	2.37	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P439891

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2459856	Fluoride	0.0	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2014
Batch ID: P439911

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2460447	Organic Carbon	0.198	Spike	P	0 - 15

Reference Method: SM 5310 B-2014
Batch ID: P439913

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2460056	Organic Carbon	1.01	Spike	P	0 - 15

Reference Method: SM 5310 B-2014 dissolved
Batch ID: P439911

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2460447	Organic Carbon	0.198	Spike	P	0 - 15

Reference Method: SM 5310 B-2014 dissolved
Batch ID: P439913

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2460056	Organic Carbon	1.01	Spike	P	0 - 15

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

Quality Assurance Report

Surrogates

Lab Sample ID: 2460082

Field Sample ID: G3SD0085

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	64.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	77.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	55.3	P	30 - 160
EPA 8321B	Diuron-d6	45.1	P	30 - 160
EPA 8321B	Endothall-d6	106	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	76.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	61.5	P	30 - 160
EPA 8321B	Primidone-d5	62.3	P	30 - 160
EPA 8321B	Sucralose-d6	99.3	P	30 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A123566
Included Lab Sample IDs: 2460057, 2460058, 2460059, 2460063, 2460099

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.3	98.7	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1
Run ID: A123572
Included Lab Sample IDs: 2460048, 2460049, 2460050, 2460060, 2460096

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.1	99.9	P/P	90 - 110
Color (true)	99.9	99.2	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A123574
Included Lab Sample IDs: 2460048, 2460049, 2460050, 2460060, 2460096

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

Reference Method: SM 2320 B-2011
Run ID: A123606
Included Lab Sample IDs: 2460048, 2460049, 2460050, 2460060, 2460096

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	104	97.0	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A123606
Included Lab Sample IDs: 2460048, 2460049, 2460050, 2460060, 2460096

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A123616
Included Lab Sample IDs: 2460054, 2460055, 2460056, 2460062

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	99.7	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A123620
Included Lab Sample IDs: 2460082

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	140	136	P/P	60 - 160
Sucralose	109	107	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2014

Run ID: A123622

Included Lab Sample IDs: 2460054, 2460055, 2460056, 2460062, 2460098

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	118	P/P	85 - 115
Organic Carbon	116	98.8	P/P	70 - 130

Reference Method: SM 5310 B-2014 dissolved

Run ID: A123622

Included Lab Sample IDs: 2460051, 2460052, 2460053, 2460061, 2460097

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	118	P/P	85 - 115
Organic Carbon	116	98.8	P/P	70 - 130

Reference Method: EPA 8321B

Run ID: A123629

Included Lab Sample IDs: 2460082

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	92.6	87.8	P/P	60 - 160
Endothall	104	110	P/P	60 - 160
Glufosinate	100	105	P/P	60 - 160
Glyphosate	115	137	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A123631

Included Lab Sample IDs: 2460098

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.4	98.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A123633

Included Lab Sample IDs: 2460098

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.4	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A123634

Included Lab Sample IDs: 2460054, 2460055, 2460056, 2460062

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.2	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A123638

Included Lab Sample IDs: 2460054, 2460055, 2460056, 2460062, 2460098

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.0	97.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A123654
Included Lab Sample IDs: 2460082

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	103	99.4	P/P	50 - 150
2,4,5-T	96.7	114	P/P	50 - 150
Acetaminophen	112	113	P/P	60 - 160
Acetamiprid	110	110	P/P	50 - 150
Afidopyropen	99.5	92.6	P/P	50 - 150
Bentazon	90.8	92.0	P/P	50 - 160
Benzovindiflupyr	104	109	P/P	50 - 150
Carbamazepine	114	111	P/P	60 - 150
Clothianidin	105	106	P/P	60 - 150
Dinotefuran	113	112	P/P	50 - 150
Diuron	119	120	P/P	60 - 160
Fenuron	105	107	P/P	60 - 150
Fluridone	107	112	P/P	60 - 160
Hydrocodone	118	118	P/P	60 - 150
Ibuprofen	80.1	72.6	P/P	50 - 160
Imazapyr	94.8	93.5	P/P	50 - 150
Imidacloprid	97.2	99.8	P/P	60 - 150
Linuron	111	104	P/P	60 - 150
Mandestrobin	108	106	P/P	50 - 150
MCPP	106	106	P/P	50 - 150
Naproxen	77.5	94.7	P/P	50 - 160
Primidone	102	98.5	P/P	60 - 150
Pyraclostrobin	104	98.5	P/P	60 - 150
Silvex	93.6	95.8	P/P	50 - 150
Thiamethoxam	107	109	P/P	50 - 150
Tolfenpyrad	99.8	98.5	P/P	60 - 150
Triclopyr	105	95.0	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A123670
Included Lab Sample IDs: 2460048, 2460049, 2460050, 2460060, 2460096

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	101	P/P	90 - 110
Chloride	101	102	P/P	90 - 110
Sulfate	100	101	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A123697
Included Lab Sample IDs: 2460054, 2460055, 2460056, 2460062, 2460098

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	105	P/P	90 - 110
Kjeldahl Nitrogen	106	101	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
DEP SOP: NU-094-1	Color (true)	101			4.59	
	Color (true)	101			4.99	
EPA 180.1 Rev. 2.0	Turbidity	105			13.9	
	Turbidity	104			16.0	
EPA 300.0 Rev. 2.1	Chloride	104	102	99.6	0.837	
	Chloride	105	105	105	0.460	
	Sulfate	103	101	98.1	1.04	
	Sulfate	104	103	99.0	0.146	
EPA 350.1 Rev. 2.0	Ammonia-N	95.8	98.0	97.6		0.324
	Ammonia-N	94.6	100	102		1.42
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	102	107		2.34
	Kjeldahl Nitrogen	106	107	107		0.471
EPA 353.2 Rev. 2.0	NO2NO3-N	96.0	94.0			0.0
	NO2NO3-N	97.0	92.9	93.9		0.778
EPA 365.1 Rev. 2.0	Total-P	102	106	103		2.30
	Total-P	104	106	107		0.555
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.3	97.8	97.3		0.454
EPA 8321B	2,4-D	103	88.4	90.1		1.03
	2,4,5-T	90.3	72.0	78.6		8.77
	Acesulfame K	108	131	140		5.94
	Acetaminophen	83.4	85.5	91.2		6.48
	Acetamiprid	81.1	64.1	72.9		12.8
	Afidopyropen	45.5	64.5	75.1		15.2
	AMPA	98.2	85.8	90.6		4.16
	Bentazon	52.9	21.9	33.4		9.87
	Benzovindiflupyr	81.3	80.2	84.4		5.17
	Carbamazepine	71.0	61.2	63.5		3.64
	Clothianidin	90.1	83.6	91.5		8.60
	Dinotefuran	98.4	97.4	107		9.55
	Diuron	72.3	59.9	62.0		3.54
	Endothall	98.7	87.7	93.0		5.83
	Fenuron	117	75.2	71.5		5.05
	Fluridone	78.0				6.71
	Glufosinate	109	108	120		10.5
	Glyphosate	105				4.35
	Hydrocodone	92.8	80.1	83.6		4.24
	Ibuprofen	62.1	62.9	60.4		3.94
	Imazapyr	83.4				6.30
	Imidacloprid	86.9	106	112		4.84
	Linuron	70.1	63.1	66.1		4.64
	Mandestrobin	84.4	79.9	83.6		4.57
	MCPP	90.6	88.2	94.5		6.90
	Naproxen	60.2	50.9	64.9		24.3
	Primidone	82.6	86.1	93.3		7.93
	Pyraclostrobin	75.8	73.4	78.1		6.23
	Silvex	81.5	72.7	75.9		4.25
	Sucralose	98.6	102	100		1.15
	Thiamethoxam	89.9	83.2	86.1		3.38
	Tolfenpyrad	49.0	51.1	52.7		3.06
	Triclopyr	95.9	71.9	86.1		17.9
SM 2320 B-2011	Total Alkalinity	97.0			3.27	
SM 2540 C-2015	TDS	97.6			2.37	
SM 2540 D-2015	TSS	95.2				
SM 4500-F- C-2011	Fluoride	102	101	101		0.0

Quality Assurance Report

Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
SM 5310 B-2014	Organic Carbon	97.0	97.3	97.5		0.198
	Organic Carbon	90.5	97.8	99.2		1.01
SM 5310 B-2014 dissolved	Organic Carbon	97.0	97.3	97.5		0.198
	Organic Carbon	90.5	97.8	99.2		1.01

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2460048, 2460049, 2460050, 2460060, 2460096
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2460048, 2460049, 2460050, 2460060, 2460096
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2460048, 2460049, 2460050, 2460060, 2460096
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2460048, 2460049, 2460050, 2460060, 2460096
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2460054, 2460055, 2460056, 2460062, 2460098
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2460054, 2460055, 2460056, 2460062, 2460098
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2460054, 2460055, 2460056, 2460062, 2460098
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2460054, 2460055, 2460056, 2460062, 2460098
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2460057, 2460058, 2460059, 2460063, 2460099
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2460082
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2460048, 2460049, 2460050, 2460060, 2460096
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2460048, 2460049, 2460050, 2460060, 2460096
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2460048, 2460049, 2460050, 2460060, 2460096
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2460048, 2460049, 2460050, 2460060, 2460096
SM 5310 B-2014	Nonpurgeable Organic Carbon in aqueous matrices	2460054, 2460055, 2460056, 2460062, 2460098
SM 5310 B-2014 dissolved	Dissolved Nonpurgeable Organic Carbon in filtered, aqueous matrices	2460051, 2460052, 2460053, 2460061, 2460097

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	01/10/2024			01/10/2024 14:55	Chandler E Cox	2460048, 2460049
	01/10/2024			01/10/2024 14:57	Chandler E Cox	2460050
	01/10/2024			01/10/2024 14:58	Chandler E Cox	2460060
	01/10/2024			01/10/2024 15:06	Chandler E Cox	2460096
EPA 180.1 Rev. 2.0	01/10/2024			01/10/2024 13:36	Samantha L Bates	2460048
	01/10/2024			01/10/2024 13:38	Samantha L Bates	2460049
	01/10/2024			01/10/2024 13:40	Samantha L Bates	2460050
	01/10/2024			01/10/2024 13:41	Samantha L Bates	2460060
EPA 300.0 Rev. 2.1	01/10/2024			01/10/2024 14:00	Samantha L Bates	2460096
	01/10/2024			01/17/2024 06:53	James L Waggerby	2460048
	01/10/2024			01/17/2024 07:08	James L Waggerby	2460049
	01/10/2024			01/17/2024 07:23	James L Waggerby	2460050
EPA 350.1 Rev. 2.0	01/10/2024			01/17/2024 07:39	James L Waggerby	2460060
	01/10/2024			01/17/2024 10:55	James L Waggerby	2460096
	01/10/2024			01/12/2024 13:24	Khloe J Berg	2460054
	01/10/2024			01/12/2024 13:25	Khloe J Berg	2460055
EPA 351.2 Rev. 2.0	01/10/2024			01/12/2024 13:27	Khloe J Berg	2460056
	01/10/2024			01/12/2024 13:28	Khloe J Berg	2460062
	01/10/2024			01/16/2024 10:59	Khloe J Berg	2460098
	01/10/2024	01/17/2024 11:38	Simonne.V. Calhoun	01/18/2024 15:17	Ping Hua	2460054
EPA 353.2 Rev. 2.0	01/10/2024	01/17/2024 11:38	Simonne.V. Calhoun	01/18/2024 15:19	Ping Hua	2460055
	01/10/2024	01/17/2024 11:38	Simonne.V. Calhoun	01/18/2024 15:21	Ping Hua	2460056
	01/10/2024	01/17/2024 11:38	Simonne.V. Calhoun	01/18/2024 15:22	Ping Hua	2460062
	01/10/2024	01/17/2024 11:38	Simonne.V. Calhoun	01/18/2024 16:41	Ping Hua	2460098
EPA 365.1 Rev. 2.0	01/10/2024			01/16/2024 13:00	Fadila Guebre	2460054
	01/10/2024			01/16/2024 13:01	Fadila Guebre	2460055
	01/10/2024			01/16/2024 13:03	Fadila Guebre	2460056
	01/10/2024			01/16/2024 13:04	Fadila Guebre	2460062
EPA 365.1 Rev. 2.0 dissolved	01/10/2024			01/16/2024 13:11	Fadila Guebre	2460098
	01/10/2024	01/12/2024 13:08	Adam P Silver	01/16/2024 12:55	Simonne.V. Calhoun	2460098
	01/10/2024	01/12/2024 13:08	Adam P Silver	01/16/2024 14:05	Simonne.V. Calhoun	2460054
	01/10/2024	01/12/2024 13:08	Adam P Silver	01/16/2024 14:06	Simonne.V. Calhoun	2460055
EPA 8321B	01/10/2024			01/16/2024 14:11	Simonne.V. Calhoun	2460056
	01/10/2024	01/12/2024 13:08	Adam P Silver	01/16/2024 14:12	Simonne.V. Calhoun	2460062
	01/10/2024			01/10/2024 13:06	Adam P Silver	2460058
	01/10/2024			01/10/2024 13:08	Adam P Silver	2460057
	01/10/2024			01/10/2024 13:09	Adam P Silver	2460059
	01/10/2024			01/10/2024 13:10	Adam P Silver	2460063
	01/10/2024			01/10/2024 13:11	Adam P Silver	2460099
	01/10/2024	01/10/2024 13:00	Hoor Shaik	01/12/2024 23:16	Juyoung Kim	2460082

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	01/10/2024	01/12/2024 16:00	Tae K Lee	01/13/2024 04:15	Hana Lee	2460082
	01/10/2024	01/12/2024 16:00	Tae K Lee	01/14/2024 02:45	Hana Lee	2460082
SM 2320 B-2011	01/10/2024			01/12/2024 09:56	Dale L. Simmons	2460048
	01/10/2024			01/12/2024 10:11	Dale L. Simmons	2460049
	01/10/2024			01/12/2024 10:25	Dale L. Simmons	2460050
	01/10/2024			01/12/2024 10:37	Dale L. Simmons	2460060
	01/10/2024			01/12/2024 10:51	Dale L. Simmons	2460096
SM 2540 C-2015	01/10/2024			01/12/2024 14:56	Yijie Li	2460048, 2460049, 2460050, 2460060, 2460096
SM 2540 D-2015	01/10/2024			01/12/2024 14:56	Yijie Li	2460048, 2460049, 2460050, 2460060, 2460096
SM 4500-F- C-2011	01/10/2024			01/12/2024 09:56	Dale L. Simmons	2460048
	01/10/2024			01/12/2024 10:11	Dale L. Simmons	2460049
	01/10/2024			01/12/2024 10:25	Dale L. Simmons	2460050
	01/10/2024			01/12/2024 10:37	Dale L. Simmons	2460060
	01/10/2024			01/12/2024 10:51	Dale L. Simmons	2460096
SM 5310 B-2014	01/10/2024			01/12/2024 19:01	Kenneth H Lee	2460054
	01/10/2024			01/12/2024 19:31	Kenneth H Lee	2460055
	01/10/2024			01/13/2024 01:46	Kenneth H Lee	2460056
	01/10/2024			01/13/2024 02:45	Kenneth H Lee	2460062
	01/10/2024			01/13/2024 03:14	Kenneth H Lee	2460098
SM 5310 B-2014 dissolved	01/10/2024			01/12/2024 19:16	Kenneth H Lee	2460051
	01/10/2024			01/12/2024 19:45	Kenneth H Lee	2460052
	01/10/2024			01/13/2024 02:30	Kenneth H Lee	2460053
	01/10/2024			01/13/2024 02:59	Kenneth H Lee	2460061
	01/10/2024			01/13/2024 03:29	Kenneth H Lee	2460097