

Chemical Analysis Report

NE-DIST-2023-09-20-01

Review Copy

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

Event Description: **Ormond Boat and L.Eaton**
Request ID: **RQ-2023-09-11-37**
Customer: **NE-DIST**
Project ID: **SMP**

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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: LAKE EATON CENTER

Collection Date/Time: 09/19/2023 10:15

Field ID: G1NE0954

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2438526	DEP SOP: NU-094-1	Color (true)	350		PCU	P435259	
	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P435279	
	EPA 300.0 Rev. 2.1	Chloride	9.6		mg Cl/L	P435623	
		Sulfate	8.5		mg SO4/L	P435626	
	SM 2320 B-2011	Total Alkalinity	43		mg CaCO3/L	P435584	
	SM 2540 C-2015	TDS	146		mg/L	P435879	
	SM 2540 D-2015	TSS	2	I	mg/L	P435849	
	SM 4500-F- C-2011	Fluoride	0.069	I	mg F/L	P435589	
2438527	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P435466	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P435716	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P436071	
	EPA 365.1 Rev. 2.0	Total-P	0.061		mg P/L	P435537	MS
	SM 5310 B-2011	Organic Carbon	32		mg C/L	P435667	

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: FB

Collection Date/Time: 09/19/2023 11:50

Field ID: FB_09192023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2438528	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P435259	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P435279	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P435623	
		Sulfate	0.20	U	mg SO4/L	P435626	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P435584	
	SM 2540 C-2015	TDS	15	U	mg/L	P435879	
	SM 2540 D-2015	TSS	2	U	mg/L	P435849	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P435589	
2438529	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P435466	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P435900	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P436071	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P435538	MS
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P435667	
2438537	EPA 8321B	2,4-D	0.0020	U	ug/L	P435330	
		Acesulfame K	0.10	U	ug/L	P435287	
		2,4,5-T	0.0040	U	ug/L	P435330	
		AMPA	0.10	U	ug/L	P435287	
		Acetaminophen	0.0080	U	ug/L	P435330	
		Acetamiprid	0.0020	U	ug/L	P435330	
		Endothall	0.25	U	ug/L	P435287	
		Glufosinate	0.10	U	ug/L	P435287	
		Glyphosate	0.10	U	ug/L	P435287	
		Afidopyropen	0.0020	U	ug/L	P435330	
		Sucralose	0.010	U	ug/L	P435287	
		Bentazon	8.0E-04	U	ug/L	P435330	MS
		Benzovindiflupyr	0.0020	U	ug/L	P435330	
		Carbamazepine	8.0E-04	U	ug/L	P435330	
		Clothianidin	0.0020	U	ug/L	P435330	
		Dinotefuran	0.0020	U	ug/L	P435330	
		Diuron	0.0020	U	ug/L	P435330	
		Fenuron	0.032	U	ug/L	P435330	
		Fluridone	8.0E-04	U	ug/L	P435330	
		Imazapyr	0.0040	U	ug/L	P435330	
		Hydrocodone	0.0020	U	ug/L	P435330	
		Ibuprofen	0.080	U	ug/L	P435330	MS
		Imidacloprid	0.0020	U	ug/L	P435330	
		Linuron	0.0040	U	ug/L	P435330	
		Mandestrobin	0.0020	U	ug/L	P435330	
		MCPP	0.0020	U	ug/L	P435330	
		Naproxen	0.0080	U	ug/L	P435330	
		Primidone	0.0040	U	ug/L	P435330	
		Pyraclostrobin	0.0020	U	ug/L	P435330	
		Silvex	0.0040	U	ug/L	P435330	
		Thiamethoxam	0.0020	U	ug/L	P435330	

Field ID: FB_09192023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2438537	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P435330	
		Triclopyr	0.0040	U	ug/L	P435330	

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: GROOVER BRANCH AT AIRPORT ROAD
BRIDGE**

Collection Date/Time: 09/19/2023 11:45

Field ID: G5NE0610

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2438524	DEP SOP: NU-094-1	Color (true)	200		PCU	P435259	
	EPA 180.1 Rev. 2.0	Turbidity	5.8		NTU	P435279	
	EPA 300.0 Rev. 2.1	Chloride	32		mg Cl/L	P435623	
		Sulfate	5.2		mg SO4/L	P435626	
	SM 2320 B-2011	Total Alkalinity	40		mg CaCO3/L	P435583	
	SM 2540 C-2015	TDS	158	A	mg/L	P435879	
	SM 2540 D-2015	TSS	3	IA	mg/L	P435849	
	SM 4500-F- C-2011	Fluoride	0.044	I	mg F/L	P435586	
2438525	EPA 350.1 Rev. 2.0	Ammonia-N	0.028		mg N/L	P435466	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.82		mg N/L	P435900	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.078		mg N/L	P436071	
	EPA 365.1 Rev. 2.0	Total-P	0.041		mg P/L	P435537	MS
	SM 5310 B-2011	Organic Carbon	23		mg C/L	P435667	
2438536	EPA 8321B	2,4-D	0.0020	U	ug/L	P435330	
		Acesulfame K	0.10	U	ug/L	P435287	
		2,4,5-T	0.0040	U	ug/L	P435330	
		AMPA	0.10	U	ug/L	P435287	
		Acetaminophen	0.0080	U	ug/L	P435330	
		Acetamiprid	0.0020	U	ug/L	P435330	
		Endothall	0.25	U	ug/L	P435287	
		Glufosinate	0.10	U	ug/L	P435287	
		Glyphosate	0.10	U	ug/L	P435287	
		Afidopyropen	0.0020	U	ug/L	P435330	
		Sucralose	0.31		ug/L	P435287	
		Bentazon	0.011		ug/L	P435330	MS
		Benzovindiflupyr	0.0020	U	ug/L	P435330	
		Carbamazepine	8.0E-04	U	ug/L	P435330	
		Clothianidin	0.0020	U	ug/L	P435330	
		Dinotefuran	0.0020	U	ug/L	P435330	
		Diuron	0.0048	I	ug/L	P435330	
		Fenuron	0.032	U	ug/L	P435330	
		Fluridone	0.0017	I	ug/L	P435330	
		Imazapyr	0.038		ug/L	P435330	
		Hydrocodone	0.0020	U	ug/L	P435330	
		Ibuprofen	0.080	U	ug/L	P435330	MS
		Imidacloprid	0.0020	U	ug/L	P435330	
		Linuron	0.0040	U	ug/L	P435330	
		Mandestrobin	0.0020	U	ug/L	P435330	
		MCP	0.0020	U	ug/L	P435330	
		Naproxen	0.0080	U	ug/L	P435330	
		Primidone	0.0040	U	ug/L	P435330	
		Pyraclostrobin	0.0020	U	ug/L	P435330	
		Silvex	0.0040	U	ug/L	P435330	

Field ID: G5NE0610

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2438536	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P435330	
		Tolfenpyrad	0.0020	U	ug/L	P435330	
		Triclopyr	0.0040	U	ug/L	P435330	

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: Unnamed Branch 0.5 mi above Tomoka River Collection Date/Time: 09/19/2023 12:25

Field ID: G5NE0609

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2438522	DEP SOP: NU-094-1	Color (true)	130		PCU	P435259	
	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P435279	
	EPA 300.0 Rev. 2.1	Chloride	1.9E+03		mg Cl/L	P435623	
		Sulfate	250		mg SO4/L	P435626	
	SM 2320 B-2011	Total Alkalinity	148		mg CaCO3/L	P435583	
	SM 2540 C-2015	TDS	3.52E+03		mg/L	P435879	
	SM 2540 D-2015	TSS	2	I	mg/L	P435849	
	SM 4500-F- C-2011	Fluoride	0.24		mg F/L	P435586	
2438523	EPA 350.1 Rev. 2.0	Ammonia-N	0.062		mg N/L	P435671	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P435936	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.026		mg N/L	P435820	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P435540	
	SM 5310 B-2011	Organic Carbon	18		mg C/L	P435667	

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: P435259

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P435279

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435623

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435626

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435466

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435671

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435716

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435900

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435936

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435820

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436071

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435537

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435538

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435540

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

Reference Method: EPA 8321B
Batch ID: P435287

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: P435330

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P435330

Component	Result	Code	Units
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: SM 2320 B-2011

Batch ID: P435583

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

Reference Method: SM 2320 B-2011

Batch ID: P435584

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

Reference Method: SM 2540 C-2015

Batch ID: P435879

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P435849

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P435586

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 4500-F- C-2011

Batch ID: P435589

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P435667

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: P435259

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.6		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P435279

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435623

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435626

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435466

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435671

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435716

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: P435900

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435936

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435820

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436071

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435537

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	109		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435538

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435540

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

Reference Method: EPA 8321B
Batch ID: P435287

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	103		P	40 - 160
AMPA	116		P	40 - 150
Endothall	93.4		P	40 - 150
Glufosinate	105		P	40 - 150
Glyphosate	77.1		P	40 - 150
Sucralose	95.2		P	40 - 160

Reference Method: EPA 8321B
Batch ID: P435330

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	64.1		P	40 - 150
2,4,5-T	75.9		P	40 - 150
Acetaminophen	90.8		P	30 - 150
Acetamiprid	91.5		P	40 - 150
Afidopyropen	66.3		P	30 - 150
Bentazon	64.8		P	30 - 150
Benzovindiflupyr	88.5		P	40 - 150
Carbamazepine	84.0		P	40 - 150
Clothianidin	88.7		P	40 - 150
Dinotefuran	96.2		P	40 - 150
Diuron	88.2		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P435330

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fenuron	91.8		P	40 - 150
Fluridone	90.9		P	40 - 150
Hydrocodone	86.4		P	40 - 150
Ibuprofen	43.6		P	40 - 150
Imazapyr	68.4		P	40 - 150
Imidacloprid	85.6		P	40 - 150
Linuron	63.3		P	40 - 150
Mandestrobin	92.1		P	40 - 150
MCPP	94.7		P	40 - 150
Naproxen	60.4		P	40 - 150
Primidone	80.9		P	40 - 150
Pyraclostrobin	81.5		P	40 - 150
Silvex	72.2		P	40 - 150
Thiamethoxam	98.7		P	40 - 150
Tolfenpyrad	60.4		P	30 - 150
Triclopyr	83.1		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P435583

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.8		P	92 - 105

Reference Method: SM 2320 B-2011
Batch ID: P435584

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.7		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P435879

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	96.1		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P435849

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	99.6		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P435586

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

Reference Method: SM 4500-F- C-2011
Batch ID: P435589

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	94 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P435667

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435623

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438454	Chloride	103		P	90 - 110
2438524	Chloride	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435626

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438454	Sulfate	103		P	90 - 110
2438524	Sulfate	104		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435466

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438461	Ammonia-N	100	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435671

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438469	Ammonia-N	100	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435716

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438165	Kjeldahl Nitrogen	107	107	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435900

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438525	Kjeldahl Nitrogen	101	99.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435936

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2439266	Kjeldahl Nitrogen	96.6	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435820

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2439002	NO2NO3-N	98.7	99.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436071

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438467	NO2NO3-N	101	102	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435537

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438458	Total-P	112	111	F/F	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435538

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438612	Total-P	110	109	F/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435540

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438469	Total-P	105	105	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P435287

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438447	Acesulfame K	108	110	P/P	40 - 160
2438447	AMPA	93.3	89.2	P/P	40 - 150
2438447	Endothall	103	105	P/P	40 - 150
2438447	Glufosinate	80.4	81.2	P/P	40 - 150
2438447	Glyphosate	68.5	66.1	P/P	40 - 150
2438447	Sucralose	102	94.4	P/P	40 - 160

Reference Method: EPA 8321B
Batch ID: P435330

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438478	2,4-D	72.9	86.7	P/P	40 - 150
2438478	2,4,5-T	69.7	83.0	P/P	40 - 150
2438478	Acetaminophen	80.2	83.0	P/P	30 - 150
2438478	Acetamiprid	57.0	62.3	P/P	40 - 150
2438478	Afidopyropen	61.4	73.5	P/P	30 - 150
2438478	Bentazon	16.7	21.1	F/F	30 - 150
2438478	Benzovindiflupyr	89.2	90.5	P/P	40 - 150
2438478	Carbamazepine	59.7	58.9	P/P	40 - 150
2438478	Clothianidin	63.9	65.4	P/P	40 - 150
2438478	Dinotefuran	68.6	70.4	P/P	40 - 150
2438478	Diuron	53.5	51.6	P/P	40 - 150
2438478	Fenuron	44.0	45.5	P/P	40 - 150
2438478	Fluridone	64.0	67.6	P/P	40 - 150
2438478	Hydrocodone	52.6	53.6	P/P	40 - 150
2438478	Ibuprofen	38.6	38.2	F/F	40 - 150
2438478	Imazapyr	62.6	62.5	P/P	40 - 150
2438478	Imidacloprid	108	113	P/P	40 - 150
2438478	Linuron	60.5	56.2	P/P	40 - 150
2438478	Mandestrobin	83.9	86.7	P/P	40 - 150
2438478	MCPP	79.6	89.3	P/P	40 - 150
2438478	Naproxen	77.8	73.0	P/P	40 - 150
2438478	Primidone	60.3	63.0	P/P	40 - 150
2438478	Pyraclostrobin	83.0	84.9	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P435330

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438478	Silvex	60.8	70.1	P/P	40 - 150
2438478	Thiamethoxam	68.6	70.5	P/P	40 - 150
2438478	Tolfenpyrad	48.0	59.0	P/P	30 - 150
2438478	Triclopyr	72.5	84.9	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P435586

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438695	Fluoride	101	101	P/P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P435589

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438825	Fluoride	100	99.0	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P435667

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438467	Organic Carbon	95.6	96.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P435259

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438466	Color (true)	1.48	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P435279

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438456	Turbidity	4.44	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435623

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438454	Chloride	2.03	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435626

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438454	Sulfate	2.24	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435466

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438461	Ammonia-N	0.398	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435671

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438469	Ammonia-N	2.27	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435716

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438165	Kjeldahl Nitrogen	0.328	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435900

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438525	Kjeldahl Nitrogen	1.02	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435936

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439266	Kjeldahl Nitrogen	7.69	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435820

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439002	NO2NO3-N	0.493	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436071

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438467	NO2NO3-N	0.985	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435537

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438458	Total-P	1.49	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435538

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438612	Total-P	1.21	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435540

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438469	Total-P	0.381	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P435287

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438447	Acesulfame K	1.63	Spike	P	0 - 30
2438447	AMPA	4.55	Spike	P	0 - 30
2438447	Endothall	2.35	Spike	P	0 - 30
2438447	Glufosinate	0.896	Spike	P	0 - 30
2438447	Glyphosate	3.67	Spike	P	0 - 30
2438447	Sucralose	6.28	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P435330

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438478	2,4-D	15.7	Spike	P	0 - 30
2438478	2,4,5-T	17.4	Spike	P	0 - 30
2438478	Acetaminophen	3.41	Spike	P	0 - 30
2438478	Acetamiprid	8.83	Spike	P	0 - 30
2438478	Afidopyropen	18.0	Spike	P	0 - 30
2438478	Bentazon	5.98	Spike	P	0 - 30
2438478	Benzovindiflupyr	1.48	Spike	P	0 - 30
2438478	Carbamazepine	1.38	Spike	P	0 - 30
2438478	Clothianidin	2.21	Spike	P	0 - 30
2438478	Dinotefuran	2.64	Spike	P	0 - 30
2438478	Diuron	3.61	Spike	P	0 - 30
2438478	Fenuron	3.26	Spike	P	0 - 30
2438478	Fluridone	3.13	Spike	P	0 - 30
2438478	Hydrocodone	1.99	Spike	P	0 - 30
2438478	Ibuprofen	1.16	Spike	P	0 - 30
2438478	Imazapyr	0.173	Spike	P	0 - 30
2438478	Imidacloprid	4.44	Spike	P	0 - 30
2438478	Linuron	7.45	Spike	P	0 - 30
2438478	Mandestrobin	3.28	Spike	P	0 - 30
2438478	MCPP	11.5	Spike	P	0 - 30
2438478	Naproxen	6.39	Spike	P	0 - 30
2438478	Primidone	3.91	Spike	P	0 - 30
2438478	Pyraclostrobin	2.19	Spike	P	0 - 30
2438478	Silvex	14.3	Spike	P	0 - 30
2438478	Thiamethoxam	2.70	Spike	P	0 - 30
2438478	Tolfenpyrad	20.4	Spike	P	0 - 30
2438478	Triclopyr	15.8	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P435583

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438695	Total Alkalinity	0.360	Sample	P	0 - 3.9

Reference Method: SM 2320 B-2011

Batch ID: P435584

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438825	Total Alkalinity	0.0647	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015

Batch ID: P435879

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438524	TDS	1.90	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500-F- C-2011
Batch ID: P435586

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438695	Fluoride	0.0	Spike	P	0 - 1.9

Reference Method: SM 4500-F- C-2011
Batch ID: P435589

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438825	Fluoride	0.990	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P435667

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438467	Organic Carbon	0.455	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2438536

Field Sample ID: G5NE0610

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	65.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	58.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	45.9	P	30 - 160
EPA 8321B	Diuron-d6	33.1	P	30 - 160
EPA 8321B	Endothall-d6	126	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	64.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	43.3	P	30 - 160
EPA 8321B	Primidone-d5	44.0	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	30 - 160

Lab Sample ID: 2438537

Field Sample ID: FB_09192023

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	87.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	88.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.8	P	30 - 160
EPA 8321B	Diuron-d6	72.3	P	30 - 160
EPA 8321B	Endothall-d6	91.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	94.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	49.0	P	30 - 160
EPA 8321B	Primidone-d5	74.8	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A121657

Included Lab Sample IDs: 2438522, 2438524, 2438526, 2438528

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.1	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A121661

Included Lab Sample IDs: 2438522, 2438524, 2438526, 2438528

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

Reference Method: EPA 8321B

Run ID: A121665

Included Lab Sample IDs: 2438536, 2438537

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	104	100	P/P	60 - 160
Sucralose	99.2	97.8	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A121666

Included Lab Sample IDs: 2438536, 2438537

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	107	104	P/P	60 - 160
Endothall	92.6	95.9	P/P	60 - 160
Glufosinate	111	107	P/P	60 - 160
Glyphosate	92.7	92.6	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A121752

Included Lab Sample IDs: 2438525, 2438527, 2438529

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.7	99.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A121760

Included Lab Sample IDs: 2438536, 2438537

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	60.2	64.1	P/P	50 - 150
2,4,5-T	81.6	68.8	P/P	50 - 150
Acetaminophen	104	103	P/P	60 - 160
Acetamiprid	106	107	P/P	50 - 150
Afidopyropen	103	98.3	P/P	50 - 150
Bentazon	84.9	81.4	P/P	50 - 160
Benzovindiflupyr	106	102	P/P	50 - 150
Carbamazepine	101	103	P/P	60 - 150
Clothianidin	101	94.1	P/P	60 - 150
Dinotefuran	104	107	P/P	50 - 150
Diuron	117	109	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A121760

Included Lab Sample IDs: 2438536, 2438537

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fenuron	106	104	P/P	60 - 150
Fluridone	110	109	P/P	60 - 160
Hydrocodone	108	108	P/P	60 - 150
Ibuprofen	81.1	64.5	P/P	50 - 160
Imazapyr	73.6	68.8	P/P	50 - 150
Imidacloprid	97.8	97.8	P/P	60 - 150
Linuron	99.2	96.3	P/P	60 - 150
Mandestrobin	110	108	P/P	50 - 150
MCPP	68.7	68.9	P/P	50 - 150
Naproxen	90.7	103	P/P	50 - 160
Primidone	88.4	95.5	P/P	60 - 150
Pyraclostrobin	105	105	P/P	60 - 150
Silvex	68.9	65.2	P/P	50 - 150
Thiamethoxam	112	114	P/P	50 - 150
Tolfenpyrad	104	101	P/P	60 - 150
Triclopyr	66.4	68.2	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A121771

Included Lab Sample IDs: 2438522, 2438524, 2438526, 2438528

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.5	98.9	P/P	90 - 110
Chloride	98.9	101	P/P	90 - 110
Sulfate	100	101	P/P	90 - 110
Sulfate	101	103	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A121790

Included Lab Sample IDs: 2438522, 2438524, 2438526, 2438528

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.2	96.5	P/P	90 - 110
Total Alkalinity	95.5	95.2	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A121790

Included Lab Sample IDs: 2438522, 2438524, 2438526, 2438528

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	103	P/P	90 - 110
Fluoride	103	100	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A121821

Included Lab Sample IDs: 2438523, 2438525, 2438527, 2438529

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.3	95.7	P/P	90 - 110
Organic Carbon	95.7	95.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A121825

Included Lab Sample IDs: 2438523

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.0	98.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A121830

Included Lab Sample IDs: 2438525, 2438529

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A121882

Included Lab Sample IDs: 2438527

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A121888

Included Lab Sample IDs: 2438523

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A121915

Included Lab Sample IDs: 2438523, 2438527

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A121945

Included Lab Sample IDs: 2438525, 2438529

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.0	96.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A121976

Included Lab Sample IDs: 2438523

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.3	99.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A121983

Included Lab Sample IDs: 2438525, 2438527, 2438529

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

Quality Assurance Report

Calibration Verification

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	98.6				1.48	
EPA 180.1 Rev. 2.0	Turbidity	106				4.44	
EPA 300.0 Rev. 2.1	Chloride	101	103	105		2.03	
	Sulfate	102	103	104		2.24	
EPA 350.1 Rev. 2.0	Ammonia-N	94.8	100	101			0.398
	Ammonia-N	101	100	103			2.27
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	108	107	107			0.328
	Kjeldahl Nitrogen	103	101	99.1			1.02
	Kjeldahl Nitrogen	101	96.6	106			7.69
EPA 353.2 Rev. 2.0	NO2NO3-N	102	98.7	99.2			0.493
	NO2NO3-N	100	101	102			0.985
EPA 365.1 Rev. 2.0	Total-P	109	112	111			1.49
	Total-P	105	110	109			1.21
	Total-P	108	105	105			0.381
EPA 8321B	2,4-D	64.1	72.9	86.7			15.7
	2,4,5-T	75.9	69.7	83.0			17.4
	Acesulfame K	103	108	110			1.63
	Acetaminophen	90.8	80.2	83.0			3.41
	Acetamiprid	91.5	57.0	62.3			8.83
	Afidopyropen	66.3	61.4	73.5			18.0
	AMPA	116	93.3	89.2			4.55
	Bentazon	64.8	16.7	21.1			5.98
	Benzovindiflupyr	88.5	89.2	90.5			1.48
	Carbamazepine	84.0	59.7	58.9			1.38
	Clothianidin	88.7	63.9	65.4			2.21
	Dinotefuran	96.2	68.6	70.4			2.64
	Diuron	88.2	53.5	51.6			3.61
	Endothall	93.4	103	105			2.35
	Fenuron	91.8	44.0	45.5			3.26
	Fluridone	90.9	64.0	67.6			3.13
	Glufosinate	105	80.4	81.2			0.896
	Glyphosate	77.1	68.5	66.1			3.67
	Hydrocodone	86.4	52.6	53.6			1.99
	Ibuprofen	43.6	38.6	38.2			1.16
	Imazapyr	68.4	62.6	62.5			0.173
	Imidacloprid	85.6	108	113			4.44
	Linuron	63.3	60.5	56.2			7.45
	Mandestrobin	92.1	83.9	86.7			3.28
	MCPP	94.7	79.6	89.3			11.5
	Naproxen	60.4	77.8	73.0			6.39
	Primidone	80.9	60.3	63.0			3.91
	Pyraclostrobin	81.5	83.0	84.9			2.19
	Silvex	72.2	60.8	70.1			14.3
	Sucralose	95.2	102	94.4			6.28
	Thiamethoxam	98.7	68.6	70.5			2.70
	Tolfenpyrad	60.4	48.0	59.0			20.4
	Triclopyr	83.1	72.5	84.9			15.8
SM 2320 B-2011	Total Alkalinity	96.8				0.360	
	Total Alkalinity	95.7				0.0647	
SM 2540 C-2015	TDS	96.1				1.90	
SM 2540 D-2015	TSS	99.6					
SM 4500-F- C-2011	Fluoride	101	101	101			0.0
	Fluoride	100	100	99.0			0.990
SM 5310 B-2011	Organic Carbon	96.2	95.6	96.2			0.455

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2438522, 2438524, 2438526, 2438528
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2438522, 2438524, 2438526, 2438528
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2438522, 2438524, 2438526, 2438528
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2438522, 2438524, 2438526, 2438528
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2438523, 2438525, 2438527, 2438529
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2438523, 2438525, 2438527, 2438529
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2438523, 2438525, 2438527, 2438529
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2438523, 2438525, 2438527, 2438529
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2438536, 2438537
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2438522, 2438524, 2438526, 2438528
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2438522, 2438524, 2438526, 2438528
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2438522, 2438524, 2438526, 2438528
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2438522, 2438524, 2438526, 2438528
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2438523, 2438525, 2438527, 2438529

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	09/20/2023			09/20/2023 14:46	Samantha L Bates	2438522, 2438524
	09/20/2023			09/20/2023 14:47	Samantha L Bates	2438526, 2438528
EPA 180.1 Rev. 2.0	09/20/2023			09/20/2023 13:17	Chandler E Cox	2438522
	09/20/2023			09/20/2023 13:19	Chandler E Cox	2438524, 2438526
EPA 300.0 Rev. 2.1	09/20/2023			09/20/2023 13:20	Chandler E Cox	2438528
	09/20/2023			09/27/2023 00:30	James L Waggeberby	2438524
	09/20/2023			09/27/2023 04:32	James L Waggeberby	2438522
	09/20/2023			09/27/2023 04:47	James L Waggeberby	2438526
EPA 350.1 Rev. 2.0	09/20/2023			09/27/2023 05:02	James L Waggeberby	2438528
	09/20/2023			09/25/2023 12:48	Ping Hua	2438525
	09/20/2023			09/25/2023 12:49	Ping Hua	2438527
	09/20/2023			09/25/2023 12:50	Ping Hua	2438529
EPA 351.2 Rev. 2.0	09/20/2023			09/28/2023 11:54	Ping Hua	2438523
	09/20/2023	09/29/2023 10:15	Samantha L Bates	10/02/2023 14:28	Samantha L Bates	2438527
	09/20/2023	10/03/2023 17:00	Simonne.V. Calhoun	10/04/2023 11:54	Ping Hua	2438525
	09/20/2023	10/03/2023 17:00	Simonne.V. Calhoun	10/04/2023 11:59	Ping Hua	2438529
EPA 353.2 Rev. 2.0	09/20/2023	10/04/2023 13:44	Simonne.V. Calhoun	10/05/2023 11:50	Samantha L Bates	2438523
	09/20/2023			10/02/2023 14:33	Anna M. Plaviak	2438523
	09/20/2023			10/05/2023 13:14	Fadila Guebre	2438525
	09/20/2023			10/05/2023 13:15	Fadila Guebre	2438527
EPA 365.1 Rev. 2.0	09/20/2023			10/05/2023 13:16	Fadila Guebre	2438529
	09/20/2023	09/27/2023 14:07	Adam P Silver	09/28/2023 14:34	James L Waggeberby	2438525
	09/20/2023	09/27/2023 14:07	Adam P Silver	09/28/2023 14:36	James L Waggeberby	2438529
	09/20/2023	09/27/2023 14:07	Adam P Silver	10/03/2023 12:38	James L Waggeberby	2438527
EPA 8321B	09/20/2023	09/27/2023 14:07	Adam P Silver	10/03/2023 13:03	James L Waggeberby	2438523
	09/20/2023	09/21/2023 14:00	Tae K Lee	09/22/2023 03:24	Hana Lee	2438536
	09/20/2023	09/21/2023 14:00	Tae K Lee	09/22/2023 03:38	Hana Lee	2438537
	09/20/2023	09/21/2023 14:00	Tae K Lee	09/22/2023 11:37	Hana Lee	2438536
	09/20/2023	09/21/2023 14:00	Tae K Lee	09/22/2023 11:50	Hana Lee	2438537
	09/20/2023	09/22/2023 09:00	Hoor Shaik	09/23/2023 06:14	Juyoung Kim	2438536
SM 2320 B-2011	09/20/2023	09/22/2023 09:00	Hoor Shaik	09/23/2023 06:32	Juyoung Kim	2438537
	09/20/2023			09/27/2023 00:33	Adam P Silver	2438524
	09/20/2023			09/27/2023 02:12	Adam P Silver	2438522
	09/20/2023			09/27/2023 03:42	Adam P Silver	2438526
SM 2540 C-2015	09/20/2023			09/27/2023 03:51	Adam P Silver	2438528
	09/20/2023			09/25/2023 15:40	Yijie Li	2438522, 2438524, 2438526, 2438528
SM 2540 D-2015	09/20/2023			09/25/2023 15:40	Yijie Li	2438522, 2438524, 2438526, 2438528
SM 4500-F- C-2011	09/20/2023			09/27/2023 00:33	Adam P Silver	2438524
	09/20/2023			09/27/2023 02:12	Adam P Silver	2438522
	09/20/2023			09/27/2023 03:42	Adam P Silver	2438526

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500-F- C-2011	09/20/2023			09/27/2023 03:51	Adam P Silver	2438528
SM 5310 B-2011	09/20/2023			09/28/2023 06:21	Khloe J Berg	2438523
	09/20/2023			09/28/2023 06:37	Khloe J Berg	2438525
	09/20/2023			09/28/2023 06:51	Khloe J Berg	2438527
	09/20/2023			09/28/2023 07:33	Khloe J Berg	2438529