

Chemical Analysis Report

NE-DIST-2019-10-30-01

Florida Department of Environmental Protection
Central Laboratory
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DOH Accreditation E31780

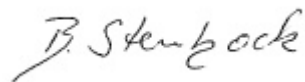
Event Description: **Suwannee North**
Request ID: **RQ-2019-10-28-09**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 19-NOV-2019 18:22



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: Peacock Lake Center

Collection Date/Time: 10/29/2019 10:10

Field ID: 21020097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132362	EPA 180.1 Rev. 2.0	Turbidity	2.4		NTU	P373487	
	EPA 300.0 Rev. 2.1	Chloride	7.6		mg Cl/L	P373764	
		Sulfate	3.8		mg SO4/L	P373768	
	SM 2120 B	Color (true)	56	A	PCU	P373423	
	SM 2320 B-97	Total Alkalinity	7.8		mg CaCO3/L	P373972	
	SM 2540 C-97	TDS	36		mg/L	P374015	
	SM 2540 D-97	TSS	4	I	mg/L	P374011	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P373678	
2132363	EPA 350.1 Rev. 2.0	Ammonia-N	0.057		mg N/L	P373635	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.72		mg N/L	P373804	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.012		mg N/L	P373475	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P373509	
	SM 5310 B-00	Organic Carbon	8.7		mg C/L	P373545	
2132364	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.075		mg P/L	P373433	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample

Sample Location: Little Creek at US 441

Collection Date/Time: 10/29/2019 11:30

Field ID: 21010033

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132356	EPA 180.1 Rev. 2.0	Turbidity	1.0	A	NTU	P373487	
	EPA 300.0 Rev. 2.1	Chloride	5.1		mg Cl/L	P373764	
		Sulfate	1.8		mg SO4/L	P373768	
	SM 2120 B	Color (true)	83		PCU	P373423	
	SM 2320 B-97	Total Alkalinity	51		mg CaCO3/L	P373972	
	SM 2540 C-97	TDS	84		mg/L	P374015	
	SM 2540 D-97	TSS	2	I	mg/L	P374011	
	SM 4500 F-C-97	Fluoride	0.28		mg F/L	P373678	
2132358	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P373635	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.30		mg N/L	P373804	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.007	I	mg N/L	P373475	
	EPA 365.1 Rev. 2.0	Total-P	0.54		mg P/L	P373509	
	SM 5310 B-00	Organic Carbon	7.6		mg C/L	P373545	
2132360	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.48		mg P/L	P373433	
2132375	EPA 8321B	2,4-D	0.0020	U	ug/L	P373393	
		Acesulfame K**	0.10	U	ug/L	P373428	
		AMPA**	0.10	U	ug/L	P373428	
		Sucralose**	0.010	I	ug/L	P373428	MS
		Acetaminophen**	0.0080	U	ug/L	P373393	
		Acetamiprid**	0.0020	U	ug/L	P373393	
		Endothall**	0.25	U	ug/L	P373428	
		Glufosinate**	0.10	U	ug/L	P373428	
		Glyphosate**	0.10	U	ug/L	P373428	
		Afidopyrophen**	0.0020	UJ	ug/L	P373393	
		Bentazon	8.0E-04	U	ug/L	P373393	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P373393	
		Carbamazepine**	8.0E-04	U	ug/L	P373393	
		Clothianidin**	0.0020	U	ug/L	P373393	
		Dinotefuran**	0.0020	U	ug/L	P373393	
		Diuron	0.0020	U	ug/L	P373393	
		Fenuron	0.016	U	ug/L	P373393	
		Fluridone**	8.0E-04	U	ug/L	P373393	
		Imazapyr**	0.0040	U	ug/L	P373393	
		Hydrocodone**	0.0020	U	ug/L	P373393	
		Ibuprofen**	0.020	U	ug/L	P373393	
		Imidacloprid	0.0020	U	ug/L	P373393	MS
		Linuron	0.0040	U	ug/L	P373393	
		Mandestrobin**	0.0020	UJ	ug/L	P373393	
		MCP	0.0020	U	ug/L	P373393	
		Naproxen**	0.0080	U	ug/L	P373393	
		Primidone**	0.0040	U	ug/L	P373393	
		Pyraclostrobin**	0.0020	U	ug/L	P373393	
		Thiamethoxam**	0.0020	U	ug/L	P373393	

Field ID: 21010033

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132375	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P373393	
		Triclopyr**	0.0040	U	ug/L	P373393	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Little Creek at US 441

Collection Date/Time: 10/29/2019 11:35

Field ID: 21010033DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132357	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P373487	
	EPA 300.0 Rev. 2.1	Chloride	5.1		mg Cl/L	P373764	
		Sulfate	1.6		mg SO4/L	P373768	
	SM 2120 B	Color (true)	83		PCU	P373423	
	SM 2320 B-97	Total Alkalinity	51		mg CaCO3/L	P373972	
	SM 2540 C-97	TDS	77		mg/L	P374015	
	SM 2540 D-97	TSS	2	U	mg/L	P374011	
	SM 4500 F-C-97	Fluoride	0.27		mg F/L	P373678	
2132359	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P373635	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.30		mg N/L	P373804	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.007	I	mg N/L	P373475	
	EPA 365.1 Rev. 2.0	Total-P	0.55		mg P/L	P373509	
	SM 5310 B-00	Organic Carbon	7.6		mg C/L	P373545	
2132361	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.49		mg P/L	P373433	
2132376	EPA 8321B	2,4-D	0.0020	U	ug/L	P373393	
		Acesulfame K**	0.10	U	ug/L	P373428	
		AMPA**	0.10	U	ug/L	P373428	
		Sucralose**	0.012	I	ug/L	P373428	MS
		Acetaminophen**	0.0080	U	ug/L	P373393	
		Acetamiprid**	0.0020	U	ug/L	P373393	
		Endothall**	0.25	U	ug/L	P373428	
		Glufosinate**	0.10	U	ug/L	P373428	
		Glyphosate**	0.10	U	ug/L	P373428	
		Afidopyropen**	0.0020	UJ	ug/L	P373393	
		Bentazon	8.0E-04	U	ug/L	P373393	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P373393	
		Carbamazepine**	8.0E-04	U	ug/L	P373393	
		Clothianidin**	0.0020	U	ug/L	P373393	
		Dinotefuran**	0.0020	U	ug/L	P373393	
		Diuron	0.0020	U	ug/L	P373393	
		Fenuron	0.016	U	ug/L	P373393	
		Fluridone**	8.0E-04	U	ug/L	P373393	
		Imazapyr**	0.0040	U	ug/L	P373393	
		Hydrocodone**	0.0020	U	ug/L	P373393	
		Ibuprofen**	0.020	U	ug/L	P373393	
		Imidacloprid	0.0020	U	ug/L	P373393	MS
		Linuron	0.0040	U	ug/L	P373393	
		Mandestrobin**	0.0020	UJ	ug/L	P373393	
		MCP	0.0020	U	ug/L	P373393	
		Naproxen**	0.0080	U	ug/L	P373393	
		Primidone**	0.0040	U	ug/L	P373393	
		Pyraclostrobin**	0.0020	U	ug/L	P373393	
		Thiamethoxam**	0.0020	U	ug/L	P373393	

Field ID: 21010033DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132376	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P373393	
		Triclopyr**	0.0040	U	ug/L	P373393	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Little Creek at US 441

Collection Date/Time: 10/29/2019 11:45

Field ID: SMPFB102919

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132365	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P373487	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P373764	
		Sulfate	0.20	U	mg SO4/L	P373768	
		Color (true)	2.5	U	PCU	P373423	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P373972	
	SM 2540 C-97	TDS	15	U	mg/L	P374014	
	SM 2540 D-97	TSS	2	U	mg/L	P374010	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P373678	
2132366	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P373636	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P373804	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P373475	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P373509	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P373545	
2132367	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P373433	
2132377	EPA 8321B	2,4-D	0.0020	U	ug/L	P373393	
		Acesulfame K**	0.10	U	ug/L	P373428	
		AMPA**	0.10	U	ug/L	P373428	
		Sucralose**	0.010	U	ug/L	P373428	MS
		Acetaminophen**	0.0080	U	ug/L	P373393	
		Acetamiprid**	0.0020	U	ug/L	P373393	
		Endothall**	0.25	U	ug/L	P373428	
		Glufosinate**	0.10	U	ug/L	P373428	
		Glyphosate**	0.10	U	ug/L	P373428	
		Afidopyrophen**	0.0020	UJ	ug/L	P373393	
		Bentazon	8.0E-04	U	ug/L	P373393	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P373393	
		Carbamazepine**	8.0E-04	U	ug/L	P373393	
		Clothianidin**	0.0020	U	ug/L	P373393	
		Dinotefuran**	0.0020	U	ug/L	P373393	
		Diuron	0.0020	U	ug/L	P373393	
		Fenuron	0.016	U	ug/L	P373393	
		Fluridone**	8.0E-04	U	ug/L	P373393	
		Imazapyr**	0.0040	U	ug/L	P373393	
		Hydrocodone**	0.0020	U	ug/L	P373393	
		Ibuprofen**	0.020	U	ug/L	P373393	
		Imidacloprid	0.0020	U	ug/L	P373393	MS
		Linuron	0.0040	U	ug/L	P373393	
		Mandestrobin**	0.0020	UJ	ug/L	P373393	
		MCP	0.0020	U	ug/L	P373393	
		Naproxen**	0.0080	U	ug/L	P373393	
		Primidone**	0.0040	U	ug/L	P373393	
		Pyraclostrobin**	0.0020	U	ug/L	P373393	
		Thiamethoxam**	0.0020	U	ug/L	P373393	

Field ID: SMPFB102919

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132377	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P373393	
		Triclopyr**	0.0040	U	ug/L	P373393	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P373487

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373764

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373768

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373635

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373636

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373804

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P373475

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P373509

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373433

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P373393

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

Reference Method: EPA 8321B
Batch ID: P373428

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

Reference Method: SM 2120 B
Batch ID: P373423

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P373972

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-97
Batch ID: P374014

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P374015

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P374010

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P374011

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P373678

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P373545

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373764

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373768

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373635

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373636

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.9		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373804

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P373475

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P373509

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	99.1		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373433

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.4		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P373393

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	125		P	40 - 160
Acetaminophen	64.0		P	30 - 160
Acetamiprid	73.7		P	40 - 160
Afidopyropen	102		P	40 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P373393

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bentazon	97.6		P	30 - 160
Benzovindiflupyr	91.5		P	40 - 160
Carbamazepine	93.5		P	40 - 160
Clothianidin	74.7		P	40 - 160
Dinotefuran	76.6		P	40 - 160
Diuron	88.5		P	40 - 160
Fenuron	88.6		P	40 - 160
Fluridone	92.6		P	40 - 160
Hydrocodone	68.4		P	40 - 160
Ibuprofen	94.2		P	30 - 160
Imazapyr	73.5		P	40 - 160
Imidacloprid	86.6		P	40 - 160
Linuron	80.0		P	40 - 160
Mandestrobin	91.9		P	40 - 160
MCPP	134		P	40 - 160
Naproxen	76.7		P	40 - 160
Primidone	78.2		P	40 - 160
Pyraclostrobin	83.3		P	30 - 160
Thiamethoxam	91.2		P	40 - 160
Tolfenpyrad	59.8		P	40 - 160
Triclopyr	99.2		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P373428

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	108		P	40 - 150
AMPA	104		P	40 - 150
Endothall	79.5		P	40 - 150
Glufosinate	85.8		P	40 - 150
Glyphosate	88.9		P	40 - 140
Sucralose	111		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P373423

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.6		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P373972

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P373678

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.2		P	92 - 103

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P373545

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	104		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373764

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132347	Chloride	102		P	90 - 110
2132533	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373768

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132347	Sulfate	101		P	90 - 110
2132533	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373635

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132280	Ammonia-N	100	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373636

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132534	Ammonia-N	99.4	91.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373804

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132280	Kjeldahl Nitrogen	103	109	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P373475

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132335	NO2NO3-N	99.5	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373433

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132446	O-Phosphate-P	97.3	96.4	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P373393

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132432	2,4-D	115	115	P/P	40 - 160
2132432	Acetaminophen	66.6	66.1	P/P	30 - 160
2132432	Acetamiprid	98.8	89.8	P/P	40 - 160
2132432	Afidopyropen	117	117	P/P	40 - 160
2132432	Benzovindiflupyr	93.6	90.1	P/P	40 - 160
2132432	Carbamazepine	82.2	81.7	P/P	40 - 160
2132432	Clothianidin	95.1	93.5	P/P	40 - 160
2132432	Dinotefuran	109	110	P/P	40 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P373393

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132432	Diuron	80.4	66.4	P/P	40 - 160
2132432	Fenuron	86.0	85.4	P/P	40 - 160
2132432	Hydrocodone	71.6	74.0	P/P	40 - 160
2132432	Ibuprofen	90.0	87.1	P/P	30 - 160
2132432	Imidacloprid	161	170	F/F	40 - 160
2132432	Linuron	66.7	59.1	P/P	40 - 160
2132432	Mandestrobin	89.7	88.5	P/P	40 - 160
2132432	MCPP	126	123	P/P	40 - 160
2132432	Naproxen	64.6	71.1	P/P	40 - 160
2132432	Primidone	90.0	86.8	P/P	40 - 160
2132432	Pyraclostrobin	90.1	83.2	P/P	30 - 160
2132432	Thiamethoxam	120	123	P/P	40 - 160
2132432	Tolfenpyrad	66.6	59.1	P/P	40 - 160
2132432	Triclopyr	105	105	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P373428

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132076	Acesulfame K	47.8	49.1	P/P	40 - 150
2132076	AMPA	74.2	70.7	P/P	40 - 150
2132076	Endothall	89.8	100	P/P	40 - 150
2132076	Glufosinate	90.5	78.0	P/P	40 - 150
2132076	Glyphosate	89.6	103	P/P	40 - 140
2132076	Sucralose	50.3	37.3	P/F	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P373678

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132397	Fluoride	102	101	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P373545

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132180	Organic Carbon	99.4	101	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P373487

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132356	Turbidity	1.94	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373764

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132347	Chloride	0.619	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373768

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132347	Sulfate	1.13	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373635

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132280	Ammonia-N	0.596	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373636

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132534	Ammonia-N	6.24	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373804

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132280	Kjeldahl Nitrogen	4.88	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P373475

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132335	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P373509

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132358	Total-P	3.94	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373433

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132446	O-Phosphate-P	0.807	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P373393

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132432	2,4-D	0.211	Spike	P	0 - 30
2132432	Acetaminophen	0.667	Spike	P	0 - 30
2132432	Acetamiprid	9.60	Spike	P	0 - 30
2132432	Afidopyropen	0.235	Spike	P	0 - 30
2132432	Bentazon	11.7	Spike	P	0 - 30
2132432	Benzovindiflupyr	3.80	Spike	P	0 - 30
2132432	Carbamazepine	0.562	Spike	P	0 - 30
2132432	Clothianidin	1.64	Spike	P	0 - 30
2132432	Dinotefuran	0.667	Spike	P	0 - 30
2132432	Diuron	13.3	Spike	P	0 - 30
2132432	Fenuron	0.679	Spike	P	0 - 30
2132432	Fluridone	2.88	Spike	P	0 - 30
2132432	Hydrocodone	3.22	Spike	P	0 - 30
2132432	Ibuprofen	3.18	Spike	P	0 - 30
2132432	Imazapyr	6.38	Spike	P	0 - 30
2132432	Imidacloprid	4.15	Spike	P	0 - 30
2132432	Linuron	12.0	Spike	P	0 - 30
2132432	Mandestrobin	1.36	Spike	P	0 - 30
2132432	MCP	2.30	Spike	P	0 - 30
2132432	Naproxen	9.60	Spike	P	0 - 30
2132432	Primidone	3.64	Spike	P	0 - 30
2132432	Pyraclostrobin	8.00	Spike	P	0 - 30
2132432	Thiamethoxam	2.10	Spike	P	0 - 30
2132432	Tolfenpyrad	11.8	Spike	P	0 - 30
2132432	Triclopyr	0.747	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P373428

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132076	Acesulfame K	2.66	Spike	P	0 - 30
2132076	AMPA	0.927	Spike	P	0 - 30
2132076	Endothall	10.8	Spike	P	0 - 30
2132076	Glufosinate	14.8	Spike	P	0 - 30
2132076	Glyphosate	3.11	Spike	P	0 - 30
2132076	Sucralose	26.4	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P373423

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132362	Color (true)	0.105	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-97
 Batch ID: P373972

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132397	Total Alkalinity	0.0749	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
 Batch ID: P374014

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132190	TDS	3.47	Sample	P	0 - 10

Reference Method: SM 2540 C-97
 Batch ID: P374015

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132444	TDS	1.93	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P373678

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132397	Fluoride	1.49	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
 Batch ID: P373545

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132180	Organic Carbon	0.983	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2132375
Field Sample ID: 21010033

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	130	P	30 - 160
EPA 8321B	Acetaminophen-d4	61.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	80.5	P	30 - 160
EPA 8321B	Diuron-d6	75.1	P	30 - 160
EPA 8321B	Endothall-d6	111	P	30 - 160
EPA 8321B	Endothall-d6	111	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	124	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	124	P	30 - 160
EPA 8321B	Ibuprofen-d3	101	P	30 - 160
EPA 8321B	Primidone-d5	84.0	P	30 - 160
EPA 8321B	Sucralose-d6	94.2	P	30 - 160
EPA 8321B	Sucralose-d6	94.2	P	30 - 160

Lab Sample ID: 2132376
Field Sample ID: 21010033DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	151	P	30 - 160
EPA 8321B	Acetaminophen-d4	72.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	94.3	P	30 - 160
EPA 8321B	Diuron-d6	89.5	P	30 - 160
EPA 8321B	Endothall-d6	116	P	30 - 160
EPA 8321B	Endothall-d6	116	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	136	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	136	P	30 - 160
EPA 8321B	Ibuprofen-d3	112	P	30 - 160
EPA 8321B	Primidone-d5	95.9	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	30 - 160

Lab Sample ID: 2132377
Field Sample ID: SMPFB102919

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	95.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	76.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	86.8	P	30 - 160
EPA 8321B	Diuron-d6	83.8	P	30 - 160
EPA 8321B	Endothall-d6	110	P	30 - 160
EPA 8321B	Endothall-d6	110	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	102	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	102	P	30 - 160
EPA 8321B	Ibuprofen-d3	79.1	P	30 - 160
EPA 8321B	Primidone-d5	81.0	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A95352

Included Lab Sample IDs: 2132356, 2132357, 2132362, 2132365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.9	98.8	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A95354

Included Lab Sample IDs: 2132360, 2132361, 2132364, 2132367

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	98.5	P/P	90 - 110
O-Phosphate-P	97.7	97.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A95369

Included Lab Sample IDs: 2132358, 2132359, 2132363, 2132366

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A95372

Included Lab Sample IDs: 2132356, 2132357, 2132362, 2132365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	100	P/P	95 - 105

Reference Method: SM 5310 B-00

Run ID: A95387

Included Lab Sample IDs: 2132358, 2132359, 2132363, 2132366

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	103	104	P/P	90 - 110
Organic Carbon	104	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A95412

Included Lab Sample IDs: 2132358, 2132359, 2132363

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A95415

Included Lab Sample IDs: 2132366

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.2	99.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A95438

Included Lab Sample IDs: 2132358, 2132359, 2132363, 2132366

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A95438

Included Lab Sample IDs: 2132358, 2132359, 2132363, 2132366

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

Reference Method: SM 4500 F-C-97

Run ID: A95466

Included Lab Sample IDs: 2132356, 2132357, 2132362, 2132365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	103	P/P	90 - 110
Fluoride	103	104	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A95470

Included Lab Sample IDs: 2132375, 2132376, 2132377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	83.6	89.8	P/P	60 - 160
Glufosinate	104	92.5	P/P	60 - 160
Glyphosate	111	107	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A95474

Included Lab Sample IDs: 2132375, 2132376, 2132377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	73.3	103	P/P	60 - 160
Endothall	96.3	113	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A95511

Included Lab Sample IDs: 2132356, 2132357, 2132362, 2132365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	103	P/P	90 - 110
Sulfate	104	104	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A95613

Included Lab Sample IDs: 2132356, 2132357, 2132362, 2132365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A95627

Included Lab Sample IDs: 2132358, 2132359, 2132363, 2132366

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.8	93.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A95629

Included Lab Sample IDs: 2132375, 2132376, 2132377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	101	94.6	P/P	50 - 150
2,4-D	99.7	92.9	P/P	50 - 150
Acetaminophen	103	108	P/P	60 - 160
Acetaminophen	75.7	62.1	P/P	60 - 160
Acetamiprid	114	114	P/P	50 - 150
Acetamiprid	87.8	92.6	P/P	50 - 150
Afidopyropen	110	99.1	P/P	50 - 150
Afidopyropen	93.5	104	P/P	50 - 150
Bentazon	106	107	P/P	50 - 160
Bentazon	107	107	P/P	50 - 160
Benzovindiflupyr	112	103	P/P	50 - 150
Benzovindiflupyr	114	115	P/P	50 - 150
Carbamazepine	100	91.0	P/P	60 - 150
Carbamazepine	111	114	P/P	60 - 150
Clothianidin	105	104	P/P	60 - 150
Clothianidin	80.2	69.7	P/P	60 - 150
Dinotefuran	100	98.1	P/P	50 - 150
Dinotefuran	66.2	79.3	P/P	50 - 150
Diuron	106	110	P/P	60 - 150
Diuron	93.7	93.2	P/P	60 - 150
Fenuron	110	109	P/P	60 - 150
Fenuron	83.7	85.0	P/P	60 - 150
Fluridone	113	109	P/P	60 - 160
Fluridone	115	116	P/P	60 - 160
Hydrocodone	109	114	P/P	60 - 150
Hydrocodone	67.7	67.4	P/P	60 - 150
Ibuprofen	113	95.6	P/P	50 - 160
Ibuprofen	82.9	73.1	P/P	50 - 160
Imazapyr	102	97.1	P/P	50 - 150
Imazapyr	70.2	79.3	P/P	50 - 150
Imidacloprid	103	106	P/P	60 - 150
Imidacloprid	75.9	74.5	P/P	60 - 150
Linuron	107	104	P/P	60 - 150
Linuron	107	84.9	P/P	60 - 150
Mandestrobin	107	108	P/P	50 - 150
Mandestrobin	112	108	P/P	50 - 150
MCPP	114	120	P/P	50 - 150
MCPP	97.3	91.0	P/P	50 - 150
Naproxen	71.6	86.0	P/P	50 - 160
Naproxen	76.2	115	P/P	50 - 160
Primidone	107	95.0	P/P	60 - 150
Primidone	71.4	78.0	P/P	60 - 150
Pyraclostrobin	100	101	P/P	60 - 150
Pyraclostrobin	102	102	P/P	60 - 150
Thiamethoxam	108	101	P/P	50 - 150
Thiamethoxam	75.5	66.5	P/P	50 - 150
Tolfenpyrad	104	104	P/P	60 - 150
Tolfenpyrad	107	107	P/P	60 - 150
Triclopyr	95.9	84.0	P/P	50 - 150
Triclopyr	97.2	98.0	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A95766

Included Lab Sample IDs: 2132375, 2132376, 2132377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	111	117	P/P	60 - 160

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 180.1 Rev. 2.0	Turbidity					1.94	
EPA 300.0 Rev. 2.1	Chloride	102	102	102		0.619	
	Sulfate	102	101	102		1.13	
EPA 350.1 Rev. 2.0	Ammonia-N	99.4	100	101			0.596
	Ammonia-N	99.9	99.4	91.2			6.24
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	103	109			4.88
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.5	99.5	99.5			0.0
EPA 365.1 Rev. 2.0	Total-P	99.1					3.94
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.4	97.3	96.4			0.807
EPA 8321B	2,4-D	125	115	115			0.211
	Acesulfame K	108	47.8	49.1			2.66
	Acetaminophen	64.0	66.6	66.1			0.667
	Acetamiprid	73.7	98.8	89.8			9.60
	Afidopyropen	102	117	117			0.235
	AMPA	104	74.2	70.7			0.927
	Bentazon	97.6					11.7
	Benzovindiflupyr	91.5	93.6	90.1			3.80
	Carbamazepine	93.5	82.2	81.7			0.562
	Clothianidin	74.7	95.1	93.5			1.64
	Dinotefuran	76.6	109	110			0.667
	Diuron	88.5	80.4	66.4			13.3
	Endothall	79.5	89.8	100			10.8
	Fenuron	88.6	86.0	85.4			0.679
	Fluridone	92.6					2.88
	Glufosinate	85.8	90.5	78.0			14.8
	Glyphosate	88.9	89.6	103			3.11
	Hydrocodone	68.4	71.6	74.0			3.22
	Ibuprofen	94.2	90.0	87.1			3.18
	Imazapyr	73.5					6.38
	Imidacloprid	86.6	161	170			4.15
	Linuron	80.0	66.7	59.1			12.0
	Mandestrobin	91.9	89.7	88.5			1.36
	MCPP	134	126	123			2.30
	Naproxen	76.7	64.6	71.1			9.60
	Primidone	78.2	90.0	86.8			3.64
	Pyraclostrobin	83.3	90.1	83.2			8.00
	Sucralose	111	50.3	37.3			26.4
	Thiamethoxam	91.2	120	123			2.10
	Tolfenpyrad	59.8	66.6	59.1			11.8
	Triclopyr	99.2	105	105			0.747
SM 2120 B	Color (true)	98.6				0.105	
SM 2320 B-97	Total Alkalinity	101				0.0749	
SM 2540 C-97	TDS					3.47	
	TDS					1.93	
SM 4500 F-C-97	Fluoride	98.2	102	101			1.49
SM 5310 B-00	Organic Carbon	104	99.4	101			0.983

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2132356, 2132357, 2132362, 2132365

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2132356, 2132357, 2132362, 2132365
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2132356, 2132357, 2132362, 2132365
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2132358, 2132359, 2132363, 2132366
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2132358, 2132359, 2132363, 2132366
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2132358, 2132359, 2132363, 2132366
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2132358, 2132359, 2132363, 2132366
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2132360, 2132361, 2132364, 2132367
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2132375, 2132376, 2132377
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2132375, 2132376, 2132377
SM 2120 B / E31780	True Color measured at 450 nm	2132356, 2132357, 2132362, 2132365
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2132356, 2132357, 2132362, 2132365
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2132356, 2132357, 2132362, 2132365
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2132356, 2132357, 2132362, 2132365
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2132356, 2132357, 2132362, 2132365
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2132358, 2132359, 2132363, 2132366

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	10/30/2019			10/30/2019 15:14	Blanca Fach	2132356, 2132357, 2132362, 2132365
EPA 300.0 Rev. 2.1	10/30/2019			11/05/2019 16:15	Jhamieka S. Greenwood	2132356
	10/30/2019			11/05/2019 16:27	Jhamieka S. Greenwood	2132357
	10/30/2019			11/05/2019 16:39	Jhamieka S. Greenwood	2132362
	10/30/2019			11/05/2019 16:51	Jhamieka S. Greenwood	2132365
EPA 350.1 Rev. 2.0	10/30/2019			11/01/2019 12:05	Ping Hua	2132358
	10/30/2019			11/01/2019 12:07	Ping Hua	2132359
	10/30/2019			11/01/2019 12:08	Ping Hua	2132363
	10/30/2019			11/01/2019 12:32	Ping Hua	2132366
EPA 351.2 Rev. 2.0	10/30/2019	11/06/2019 12:31	Sima Feizi	11/08/2019 14:55	Virginia P. Brown	2132358
	10/30/2019	11/06/2019 12:31	Sima Feizi	11/08/2019 14:57	Virginia P. Brown	2132359
	10/30/2019	11/06/2019 12:31	Sima Feizi	11/08/2019 14:58	Virginia P. Brown	2132363
	10/30/2019	11/06/2019 12:31	Sima Feizi	11/08/2019 15:00	Virginia P. Brown	2132366
EPA 353.2 Rev. 2.0	10/30/2019			10/31/2019 09:59	Beverly Y. Sanders	2132358
	10/30/2019			10/31/2019 10:00	Beverly Y. Sanders	2132359
	10/30/2019			10/31/2019 10:01	Beverly Y. Sanders	2132363
	10/30/2019			10/31/2019 10:02	Beverly Y. Sanders	2132366
EPA 365.1 Rev. 2.0	10/30/2019	10/31/2019 12:13	Lipi Saha	11/01/2019 16:00	Julia Storbeck	2132358
	10/30/2019	10/31/2019 12:13	Lipi Saha	11/01/2019 16:04	Julia Storbeck	2132359
	10/30/2019	10/31/2019 12:13	Lipi Saha	11/01/2019 16:05	Julia Storbeck	2132363
	10/30/2019	10/31/2019 12:13	Lipi Saha	11/01/2019 16:31	Julia Storbeck	2132366
EPA 365.1 Rev. 2.0 dissolved	10/30/2019			10/30/2019 17:49	Julia Storbeck	2132367
	10/30/2019			10/30/2019 18:16	Julia Storbeck	2132360
	10/30/2019			10/30/2019 18:17	Julia Storbeck	2132361
	10/30/2019			10/30/2019 18:19	Julia Storbeck	2132364
EPA 8321B	10/30/2019	10/31/2019 11:30	Rebecca Ware	10/31/2019 19:13	Rebecca Ware	2132375
	10/30/2019	10/31/2019 11:30	Rebecca Ware	10/31/2019 19:27	Rebecca Ware	2132376
	10/30/2019	10/31/2019 11:30	Rebecca Ware	10/31/2019 19:41	Rebecca Ware	2132377
	10/30/2019	10/31/2019 11:30	Rebecca Ware	11/01/2019 21:34	Rebecca Ware	2132375
	10/30/2019	10/31/2019 11:30	Rebecca Ware	11/01/2019 21:44	Rebecca Ware	2132376
	10/30/2019	10/31/2019 11:30	Rebecca Ware	11/01/2019 21:55	Rebecca Ware	2132377
	10/30/2019	10/31/2019 11:30	Rebecca Ware	11/13/2019 17:21	Rebecca Ware	2132375
	10/30/2019	10/31/2019 11:30	Rebecca Ware	11/13/2019 17:32	Rebecca Ware	2132376
	10/30/2019	10/31/2019 11:30	Rebecca Ware	11/13/2019 17:44	Rebecca Ware	2132377
	10/30/2019	11/01/2019 10:30	Hoor Shaik	11/09/2019 00:33	Juyoung Kim	2132377
	10/30/2019	11/01/2019 10:30	Hoor Shaik	11/11/2019 15:18	Juyoung Kim	2132375
	10/30/2019	11/01/2019 10:30	Hoor Shaik	11/11/2019 15:53	Juyoung Kim	2132376
SM 2120 B	10/30/2019			10/30/2019 14:34	Madeline Funaro	2132356
	10/30/2019			10/30/2019 14:35	Madeline Funaro	2132357
	10/30/2019			10/30/2019 14:36	Madeline Funaro	2132362

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2120 B	10/30/2019			10/30/2019 14:37	Madeline Funaro	2132365
SM 2320 B-97	10/30/2019			11/08/2019 12:03	Dale L. Simmons	2132356
	10/30/2019			11/08/2019 12:12	Dale L. Simmons	2132357
	10/30/2019			11/08/2019 12:21	Dale L. Simmons	2132362
	10/30/2019			11/08/2019 12:28	Dale L. Simmons	2132365
	10/30/2019			11/01/2019 14:21	Yijie Li	2132356, 2132357, 2132362, 2132365
SM 2540 C-97	10/30/2019			11/01/2019 14:21	Yijie Li	2132356, 2132357, 2132362, 2132365
SM 2540 D-97	10/30/2019			11/01/2019 10:08	Dale L. Simmons	2132356
SM 4500 F-C-97	10/30/2019			11/01/2019 10:38	Dale L. Simmons	2132357
	10/30/2019			11/01/2019 11:07	Dale L. Simmons	2132362
	10/30/2019			11/01/2019 12:46	Dale L. Simmons	2132365
	10/30/2019			10/31/2019 19:01	Lauren Lees	2132358
	10/30/2019			10/31/2019 19:16	Lauren Lees	2132359
SM 5310 B-00	10/30/2019			10/31/2019 20:00	Lauren Lees	2132363
	10/30/2019			10/31/2019 20:15	Lauren Lees	2132366