

Chemical Analysis Report

SO-DIST-2024-04-25-01

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **2024 SMP : P Riv**
Request ID: **RQ-2024-03-25-16**
Customer: **SO-DIST**
Project ID: **SMP**

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FLDEP South District Office
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Date Certified: 24-MAY-2024 11:39



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: PEACE RIVER ESTUARY AT HARBOUR HEIGHTS

Collection Date/Time: 04/24/2024 11:55

Field ID: G3SD0148

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2484796	EPA 8321B	Acesulfame K	0.10	U	ug/L	P444847	
		2,4-D	0.0021	I	ug/L	P444754	
		AMPA	1.0	U	ug/L	P444847	
		2,4,5-T	0.0040	U	ug/L	P444754	
		Acetaminophen	0.0080	U	ug/L	P444754	
		Endothall	0.25	U	ug/L	P444847	
		Acetamiprid	0.0020	U	ug/L	P444754	
		Glufosinate	1.0	U	ug/L	P444847	
		Glyphosate	1.0	U	ug/L	P444847	
		Afidopyropen	0.0020	U	ug/L	P444754	
		Sucralose	0.42		ug/L	P444847	
		Bentazon	0.0059		ug/L	P444754	
		Benzovindiflupyr	0.0020	U	ug/L	P444754	
		Carbamazepine	8.1E-04	I	ug/L	P444754	
		Clothianidin	0.0092		ug/L	P444754	
		Dinotefuran	0.0020	U	ug/L	P444754	
		Diuron	0.0025	I	ug/L	P444754	
		Fenuron	0.032	U	ug/L	P444754	
		Fluridone	9.7E-04	I	ug/L	P444754	
		Imazapyr	0.029		ug/L	P444754	
		Hydrocodone	0.0020	U	ug/L	P444754	
		Ibuprofen	0.080	U	ug/L	P444754	
		Imidacloprid	0.015		ug/L	P444754	
		Linuron	0.0020	U	ug/L	P444754	
		Mandestrobin	0.0020	U	ug/L	P444754	
		MCPP	0.0020	U	ug/L	P444754	
		Naproxen	0.0080	U	ug/L	P444754	
		Primidone	0.0054	I	ug/L	P444754	
		Pyraclostrobin	0.0020	U	ug/L	P444754	
		Silvex	0.0040	U	ug/L	P444754	
		Thiamethoxam	0.015		ug/L	P444754	
		Tolfenpyrad	0.0020	U	ug/L	P444754	
		Triclopyr	0.0040	U	ug/L	P444754	

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

Sample Location: PEACE RIVER NEAR HUNTER CRK

Collection Date/Time: 04/24/2024 12:35

Field ID: G3SD0241

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2484789	DEP SOP: NU-094-1	Color (true)	64		PCU	P444799	
	EPA 180.1 Rev. 2.0	Turbidity	3.5		NTU	P444823	
	EPA 300.0 Rev. 2.1	Chloride	2.7E+03		mg Cl/L	P445536	
		Sulfate	430		mg SO4/L	P445119	
	SM 2320 B-2011	Total Alkalinity	86		mg CaCO3/L	P444981	
	SM 2540 C-2015	TDS	4.58E+03		mg/L	P445284	
	SM 2540 D-2015	TSS	7	I	mg/L	P445051	
	SM 4500-F- C-2011	Fluoride	0.73		mg F/L	P445379	
2484790	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P445064	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.88		mg N/L	P444873	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009	I	mg N/L	P445264	
	EPA 365.1 Rev. 2.0	Total-P	0.55		mg P/L	P444933	
	SM 5310 B-2014	Organic Carbon	14		mg C/L	P444940	

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: PEACE RIVER ABOVE HORSE CREEK 2

Collection Date/Time: 04/24/2024 13:10

Field ID: G3SD0154

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2484795	EPA 8270E	Aldrin	0.67	U	ng/L	P444846	
		Alpha-BHC	0.10	U	ng/L	P444846	
		Alpha-Chlordane	0.21	U	ng/L	P444846	
		PCB-1016	2.1	U	ng/L	P444846	
		Beta-BHC	0.10	U	ng/L	P444846	
		PCB-1221	2.1	U	ng/L	P444846	
		Beta-Cyfluthrin	1.3	U	ng/L	P444846	
		PCB-1232	2.1	U	ng/L	P444846	
		Bifenthrin	0.51	U	ng/L	P444846	
		PCB-1242	2.1	U	ng/L	P444846	
		PCB-1248	2.1	U	ng/L	P444846	
		Chlorothalonil	3.7	U	ng/L	P444846	
		PCB-1254	2.1	U	ng/L	P444846	
		Cis-Nonachlor	0.21	U	ng/L	P444846	
		PCB-1260	2.1	U	ng/L	P444846	
		Cypermethrin	1.5	UJ	ng/L	P444846	LCS, MS
		Dacthal	0.15	U	ng/L	P444846	
		DDD-p,p'	0.26	U	ng/L	P444846	
		DDE-p,p'	0.21	U	ng/L	P444846	
		DDT-p,p'	0.82	U	ng/L	P444846	
		Delta-BHC	0.41	U	ng/L	P444846	
		Deltamethrin	1.3	UJ	ng/L	P444846	LCS, MS
		Dichlobenil	0.26	U	ng/L	P444846	
		Dicofol	1.3	U	ng/L	P444846	
		Dieldrin	0.41	U	ng/L	P444846	
		Endosulfan I	0.41	U	ng/L	P444846	
		Endosulfan II	0.92	U	ng/L	P444846	
		Endosulfan Sulfate	0.31	U	ng/L	P444846	
		Endrin	0.92	U	ng/L	P444846	
		Endrin Aldehyde	0.77	U	ng/L	P444846	
		Endrin Ketone	0.41	U	ng/L	P444846	
		Esfenvalerate	0.77	UJ	ng/L	P444846	LCS, MS
		Ethalfuralin	0.15	U	ng/L	P444846	
		Fenpropathrin	0.26	U	ng/L	P444846	
		Gamma-BHC	0.13	U	ng/L	P444846	
		Gamma-Chlordane	0.21	U	ng/L	P444846	
		Heptachlor	0.21	U	ng/L	P444846	
		Heptachlor Epoxide	0.26	U	ng/L	P444846	
		Hexachlorobenzene**	1.0	U	ng/L	P444846	
		Kepone	14	U	ng/L	P444846	
		Lambda-Cyhalothrin	0.77	U	ng/L	P444846	
		Methoprene	0.77	U	ng/L	P444846	
		Methoxychlor	0.31	U	ng/L	P444846	
		MGK-264	0.21	U	ng/L	P444846	

Field ID: G3SD0154

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2484795	EPA 8270E	Mirex	0.36	U	ng/L	P444846	
		Oxychlordane	0.31	U	ng/L	P444846	
		Permethrin	1.6	U	ng/L	P444846	
		Phenothrin	0.92	U	ng/L	P444846	
		Piperonyl Butoxide	0.15	U	ng/L	P444846	
		Prallethrin	2.1	U	ng/L	P444846	
		Tau-Fluvalinate	0.26	UJ	ng/L	P444846	LCS, MS
		Tetramethrin	0.77	U	ng/L	P444846	
		Trans-Nonachlor	0.21	U	ng/L	P444846	
		Triclosan Methyl	0.15	U	ng/L	P444846	
		Trifluralin	0.21	U	ng/L	P444846	
	EPA 8276	Chlordane	2.1	U	ng/L	P444846	
		Toxaphene	15	U	ng/L	P444846	

Ref. Method and Comment:
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P444799

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P444823

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P445119

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P445536

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P445064

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P444873

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P445264

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P444933

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

Reference Method: EPA 8270E
Batch ID: P444846

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P444846

Component	Result	Code	Units
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.80	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.90	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	14	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8276

Batch ID: P444846

Component	Result	Code	Units
Chlordane	2.0	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B

Batch ID: P444754

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	4.0E-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	0.0020	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: P444847

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: P444981

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

Quality Assurance Report
Method Blank Results

Reference Method: SM 2540 C-2015
Batch ID: P445284

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P445051

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P445379

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2014
Batch ID: P444940

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: P444799

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	96.8		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P444823

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P445119

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P445536

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P445064

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P444873

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P445264

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P444933

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

Reference Method: EPA 8270E
Batch ID: P444846

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	61.2		P	30 - 96.0
Alpha-BHC	93.8		P	70 - 109
Alpha-Chlordane	81.1		P	45 - 107
Beta-BHC	112		P	64 - 138

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P444846

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Beta-Cyfluthrin	139		P	17 - 141
Bifenthrin	99.2		P	10 - 113
Chlorothalonil	122		P	26 - 180
Cis-Nonachlor	82.3		P	37 - 102
Cypermethrin	145		F	20 - 133
Dacthal	91.8		P	69 - 114
DDD-p,p'	82.4		P	42 - 105
DDE-p,p'	86.6		P	42 - 106
DDT-p,p'	82.6		P	42 - 107
Delta-BHC	128		P	67 - 144
Deltamethrin	248		F	15 - 149
Dichlobenil	55.5		P	46 - 117
Dicofol	78.2		P	34 - 114
Dieldrin	81.8		P	50 - 108
Endosulfan I	92.4		P	55 - 104
Endosulfan II	92.5		P	51 - 111
Endosulfan Sulfate	102		P	56 - 121
Endrin	88.6		P	10 - 106
Endrin Aldehyde	63.8		P	34 - 114
Endrin Ketone	86.3		P	63 - 177
Esfenvalerate	196		F	29 - 143
Ethalfuralin	82.0		P	46 - 96.0
Fenpropathrin	97.8		P	28 - 115
Gamma-BHC	84.2		P	65 - 121
Gamma-Chlordane	87.0		P	39 - 103
Heptachlor	78.0		P	39 - 94.0
Heptachlor Epoxide	86.2		P	54 - 104
Hexachlorobenzene	84.4		P	36 - 100
Kepone	113		P	10 - 225
Lambda-Cyhalothrin	116		P	10 - 135
Methoprene	84.2		P	10 - 109
Methoxychlor	103		P	52 - 112
MGK-264	73.8		P	44 - 117
Mirex	85.8		P	20 - 90.0
Oxychlordane	81.0		P	44 - 102
PCB-1016	51.8		P	45 - 107
PCB-1260	77.1		P	40 - 118
Permethrin	128		P	18 - 135
Phenothrin	83.4		P	10 - 102
Piperonyl Butoxide	85.8		P	28 - 156
Prallethrin	78.3		P	28 - 113
Tau-Fluvalinate	183		F	10 - 123
Tetramethrin	87.4		P	18 - 158
Trans-Nonachlor	89.9		P	39 - 104
Triclosan Methyl	91.2		P	54 - 108
Trifluralin	80.9		P	46 - 97.0

Reference Method: EPA 8276
Batch ID: P444846

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	75.7		P	52 - 117

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8276
Batch ID: P444846

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Toxaphene	74.3		P	44 - 125

Reference Method: EPA 8321B
Batch ID: P444754

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	129		P	40 - 150
2,4,5-T	121		P	40 - 150
Acetaminophen	79.5		P	30 - 150
Acetamiprid	75.1		P	40 - 150
Afidopyropen	55.5		P	30 - 150
Bentazon	105		P	30 - 150
Benzovindiflupyr	72.9		P	40 - 150
Carbamazepine	79.7		P	40 - 150
Clothianidin	87.3		P	40 - 150
Dinotefuran	93.2		P	40 - 150
Diuron	72.4		P	40 - 150
Fenuron	85.0		P	40 - 150
Fluridone	79.2		P	40 - 150
Hydrocodone	86.6		P	40 - 150
Ibuprofen	71.1		P	40 - 150
Imazapyr	84.0		P	40 - 150
Imidacloprid	84.4		P	40 - 150
Linuron	72.9		P	40 - 150
Mandestrobin	70.0		P	40 - 150
MCPP	121		P	40 - 150
Naproxen	76.4		P	40 - 150
Primidone	83.4		P	40 - 150
Pyraclostrobin	71.5		P	40 - 150
Silvex	101		P	40 - 150
Thiamethoxam	90.7		P	40 - 150
Tolfenpyrad	47.2		P	30 - 150
Triclopyr	114		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P444847

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	94.7		P	40 - 150
AMPA	89.8		P	40 - 160
Endothall	85.4		P	40 - 160
Glufosinate	82.7		P	40 - 160
Glyphosate	81.0		P	40 - 160
Sucralose	113		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P444981

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	92 - 105

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2540 C-2015
Batch ID: P445284

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	94.4		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P445051

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

Reference Method: SM 4500-F- C-2011
Batch ID: P445379

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.9		P	94 - 106

Reference Method: SM 5310 B-2014
Batch ID: P444940

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.9		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P445119

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484435	Sulfate	104		P	90 - 110
2484800	Sulfate	97.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P445536

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2486751	Chloride	105		P	90 - 110
2486863	Chloride	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P445064

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484790	Ammonia-N	95.8	97.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P444873

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2485023	Kjeldahl Nitrogen	103	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P445264

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484790	NO2NO3-N	95.0	95.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P444933

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2485022	Total-P	90.3	91.6	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P444846

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484861	Aldrin	68.1	67.3	P/P	24 - 81.0
2484861	Alpha-BHC	92.2	92.7	P/P	65 - 110
2484861	Alpha-Chlordane	73.9	86.1	P/P	43 - 119
2484861	Beta-BHC	106	105	P/P	54 - 165
2484861	Beta-Cyfluthrin	136	153	P/P	27 - 165
2484861	Bifenthrin	93.1	102	P/P	17 - 117
2484861	Chlorothalonil	172	231	P/P	10 - 255
2484861	Cis-Nonachlor	76.0	73.0	P/P	34 - 98.0
2484861	Cypermethrin	147	174	F/F	25 - 143
2484861	Dacthal	87.6	93.2	P/P	55 - 139
2484861	DDD-p,p'	79.4	74.9	P/P	30 - 109
2484861	DDE-p,p'	74.7	75.6	P/P	35 - 106
2484861	DDT-p,p'	81.4	87.4	P/P	41 - 101
2484861	Delta-BHC	123	149	P/P	58 - 165

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P444846

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484861	Deltamethrin	184	227	P/F	10 - 194
2484861	Dichlobenil	63.5	55.1	P/P	22 - 114
2484861	Dicofol	71.9	65.7	P/P	17 - 133
2484861	Dieldrin	75.5	77.0	P/P	45 - 129
2484861	Endosulfan I	87.9	103	P/P	49 - 104
2484861	Endosulfan II	90.4	104	P/P	37 - 117
2484861	Endosulfan Sulfate	89.3	95.2	P/P	38 - 128
2484861	Endrin	82.3	80.0	P/P	35 - 116
2484861	Endrin Aldehyde	64.2	77.3	P/P	19 - 108
2484861	Endrin Ketone	81.8	87.7	P/P	44 - 134
2484861	Esfenvalerate	172	206	P/F	27 - 176
2484861	Ethalfuralin	80.7	71.8	P/P	49 - 100
2484861	Fenpropathrin	93.4	100	P/P	34 - 117
2484861	Gamma-BHC	85.4	90.4	P/P	59 - 129
2484861	Gamma-Chlordane	78.4	86.8	P/P	33 - 107
2484861	Heptachlor	72.7	71.7	P/P	37 - 94.0
2484861	Heptachlor Epoxide	80.7	85.8	P/P	38 - 118
2484861	Hexachlorobenzene	74.7	63.8	P/P	35 - 97.0
2484861	Kepone	95.4	95.8	P/P	10 - 221
2484861	Lambda-Cyhalothrin	136	149	P/P	23 - 190
2484861	Methoprene	87.9	97.9	P/P	21 - 109
2484861	Methoxychlor	89.3	106	P/P	46 - 118
2484861	MGK-264	87.3	95.7	P/P	39 - 122
2484861	Mirex	74.7	85.2	P/P	25 - 90.0
2484861	Oxychlordane	79.2	89.6	P/P	42 - 100
2484861	Permethrin	130	142	P/P	33 - 181
2484861	Phenothrin	113	117	P/P	12 - 125
2484861	Piperonyl Butoxide	79.8	78.8	P/P	10 - 178
2484861	Prallethrin	96.5	97.0	P/P	24 - 122
2484861	Tau-Fluvalinate	196	224	F/F	13 - 151
2484861	Tetramethrin	104	109	P/P	16 - 172
2484861	Trans-Nonachlor	77.5	90.2	P/P	39 - 100
2484861	Triclosan Methyl	83.2	88.5	P/P	43 - 110
2484861	Trifluralin	73.5	69.7	P/P	45 - 94.0
2485219	PCB-1016	62.1	65.1	P/P	45 - 107
2485219	PCB-1260	84.6	91.3	P/P	40 - 112

Reference Method: EPA 8276
Batch ID: P444846

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2485219	Chlordane	79.6	87.9	P/P	43 - 123
2485219	Toxaphene	89.7	94.3	P/P	27 - 156

Reference Method: EPA 8321B
Batch ID: P444754

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484362	2,4-D	148	147	P/P	40 - 150
2484362	2,4,5-T	140	127	P/P	40 - 150
2484362	Acetaminophen	96.5	102	P/P	30 - 150
2484362	Acetamiprid	74.8	80.1	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P444754

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484362	Afidopyropen	56.6	64.3	P/P	30 - 150
2484362	Bentazon	86.6	96.7	P/P	30 - 150
2484362	Benzovindiflupyr	79.9	81.7	P/P	40 - 150
2484362	Carbamazepine	78.0	80.8	P/P	40 - 150
2484362	Clothianidin	100	107	P/P	40 - 150
2484362	Dinotefuran	114	119	P/P	40 - 150
2484362	Diuron	66.3	69.8	P/P	40 - 150
2484362	Fenuron	92.5	98.8	P/P	40 - 150
2484362	Fluridone	84.9	88.6	P/P	40 - 150
2484362	Hydrocodone	101	107	P/P	40 - 150
2484362	Ibuprofen	73.3	75.8	P/P	40 - 150
2484362	Imazapyr	99.8	112	P/P	40 - 150
2484362	Imidacloprid	105	117	P/P	40 - 150
2484362	Linuron	70.0	73.3	P/P	40 - 150
2484362	Mandestrobin	72.0	76.4	P/P	40 - 150
2484362	MCCP	133	132	P/P	40 - 150
2484362	Naproxen	59.7	79.7	P/P	40 - 150
2484362	Primidone	92.7	99.9	P/P	40 - 150
2484362	Pyraclostrobin	75.6	79.6	P/P	40 - 150
2484362	Silvex	98.5	98.2	P/P	40 - 150
2484362	Thiamethoxam	108	118	P/P	40 - 150
2484362	Tolfenpyrad	52.8	59.3	P/P	30 - 150
2484362	Triclopyr	124	124	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P444847

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484803	Acesulfame K	101	104	P/P	40 - 150
2484803	AMPA	80.8	81.3	P/P	40 - 160
2484803	Endothall	99.7	101	P/P	40 - 160
2484803	Glufosinate	75.3	72.3	P/P	40 - 160
2484803	Glyphosate	72.2	75.2	P/P	40 - 160
2484803	Sucralose	104	105	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P445379

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484460	Fluoride	104	104	P/P	94 - 106

Reference Method: SM 5310 B-2014
Batch ID: P444940

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2484753	Organic Carbon	99.8	99.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P444799

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484811	Color (true)	1.30	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P444823

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484770	Turbidity	2.44	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P445119

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484435	Sulfate	0.883	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P445536

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2486751	Chloride	0.638	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P445064

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484790	Ammonia-N	1.22	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P444873

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2485023	Kjeldahl Nitrogen	1.25	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P445264

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484790	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P444933

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2485022	Total-P	1.37	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P444846

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484861	Aldrin	1.20	Spike	P	0 - 41
2484861	Alpha-BHC	0.566	Spike	P	0 - 25
2484861	Alpha-Chlordane	15.3	Spike	P	0 - 32
2484861	Beta-BHC	1.12	Spike	P	0 - 33
2484861	Beta-Cyfluthrin	12.1	Spike	P	0 - 43
2484861	Bifenthrin	9.66	Spike	P	0 - 52
2484861	Chlorothalonil	29.2	Spike	P	0 - 82
2484861	Cis-Nonachlor	3.93	Spike	P	0 - 33
2484861	Cypermethrin	16.5	Spike	P	0 - 51
2484861	Dacthal	6.20	Spike	P	0 - 27
2484861	DDD-p,p'	5.85	Spike	P	0 - 39
2484861	DDE-p,p'	1.14	Spike	P	0 - 31
2484861	DDT-p,p'	7.08	Spike	P	0 - 29
2484861	Delta-BHC	19.4	Spike	P	0 - 35
2484861	Deltamethrin	21.1	Spike	P	0 - 100
2484861	Dichlobenil	14.3	Spike	P	0 - 40
2484861	Dicofol	8.91	Spike	P	0 - 37
2484861	Dieldrin	2.01	Spike	P	0 - 27
2484861	Endosulfan I	15.4	Spike	P	0 - 23
2484861	Endosulfan II	13.9	Spike	P	0 - 34
2484861	Endosulfan Sulfate	6.37	Spike	P	0 - 36
2484861	Endrin	2.88	Spike	P	0 - 45
2484861	Endrin Aldehyde	18.5	Spike	P	0 - 76
2484861	Endrin Ketone	7.00	Spike	P	0 - 43
2484861	Esfenvalerate	18.3	Spike	P	0 - 51
2484861	Ethalfuralin	11.7	Spike	P	0 - 22
2484861	Fenpropathrin	7.22	Spike	P	0 - 49
2484861	Gamma-BHC	5.66	Spike	P	0 - 28
2484861	Gamma-Chlordane	10.2	Spike	P	0 - 40
2484861	Heptachlor	1.39	Spike	P	0 - 29
2484861	Heptachlor Epoxide	6.13	Spike	P	0 - 33
2484861	Hexachlorobenzene	15.8	Spike	P	0 - 36
2484861	Kepone	0.421	Spike	P	0 - 85
2484861	Lambda-Cyhalothrin	9.17	Spike	P	0 - 55
2484861	Methoprene	10.7	Spike	P	0 - 53
2484861	Methoxychlor	17.4	Spike	P	0 - 50
2484861	MGK-264	9.13	Spike	P	0 - 43
2484861	Mirex	13.1	Spike	P	0 - 40
2484861	Oxychlordane	12.4	Spike	P	0 - 31
2484861	Permethrin	8.50	Spike	P	0 - 50
2484861	Phenothrin	3.22	Spike	P	0 - 58
2484861	Piperonyl Butoxide	1.30	Spike	P	0 - 100
2484861	Prallethrin	0.587	Spike	P	0 - 39
2484861	Tau-Fluvalinate	13.4	Spike	P	0 - 54
2484861	Tetramethrin	4.91	Spike	P	0 - 51
2484861	Trans-Nonachlor	15.2	Spike	P	0 - 39
2484861	Triclosan Methyl	6.12	Spike	P	0 - 31
2484861	Trifluralin	5.25	Spike	P	0 - 22
2485219	PCB-1016	4.65	Spike	P	0 - 25
2485219	PCB-1260	7.66	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P444846

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2485219	Chlordane	9.94	Spike	P	0 - 28
2485219	Toxaphene	5.00	Spike	P	0 - 27

Reference Method: EPA 8321B
Batch ID: P444754

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484362	2,4-D	0.640	Spike	P	0 - 30
2484362	2,4,5-T	9.60	Spike	P	0 - 30
2484362	Acetaminophen	5.87	Spike	P	0 - 30
2484362	Acetamiprid	6.91	Spike	P	0 - 30
2484362	Afidopyropen	12.6	Spike	P	0 - 30
2484362	Bentazon	8.40	Spike	P	0 - 30
2484362	Benzovindiflupyr	2.32	Spike	P	0 - 30
2484362	Carbamazepine	3.50	Spike	P	0 - 30
2484362	Clothianidin	6.61	Spike	P	0 - 30
2484362	Dinotefuran	4.01	Spike	P	0 - 30
2484362	Diuron	4.92	Spike	P	0 - 30
2484362	Fenuron	6.62	Spike	P	0 - 30
2484362	Fluridone	3.09	Spike	P	0 - 30
2484362	Hydrocodone	6.32	Spike	P	0 - 30
2484362	Ibuprofen	3.43	Spike	P	0 - 30
2484362	Imazapyr	9.73	Spike	P	0 - 30
2484362	Imidacloprid	8.54	Spike	P	0 - 30
2484362	Linuron	4.60	Spike	P	0 - 30
2484362	Mandestrobin	5.83	Spike	P	0 - 30
2484362	MCP	0.802	Spike	P	0 - 30
2484362	Naproxen	28.7	Spike	P	0 - 30
2484362	Primidone	7.48	Spike	P	0 - 30
2484362	Pyraclostrobin	5.11	Spike	P	0 - 30
2484362	Silvex	0.323	Spike	P	0 - 30
2484362	Thiamethoxam	8.78	Spike	P	0 - 30
2484362	Tolfenpyrad	11.6	Spike	P	0 - 30
2484362	Triclopyr	0.117	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P444847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484803	Acesulfame K	2.67	Spike	P	0 - 30
2484803	AMPA	0.606	Spike	P	0 - 30
2484803	Endothall	1.66	Spike	P	0 - 30
2484803	Glufosinate	4.14	Spike	P	0 - 30
2484803	Glyphosate	4.08	Spike	P	0 - 30
2484803	Sucralose	0.900	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: SM 2320 B-2011
Batch ID: P444981

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484811	Total Alkalinity	1.43	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P445284

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2483974	TDS	3.85	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P445379

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484460	Fluoride	0.0	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2014
Batch ID: P444940

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2484753	Organic Carbon	0.509	Spike	P	0 - 15

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

Quality Assurance Report

Surrogates

Lab Sample ID: 2484795

Field Sample ID: G3SD0154

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	82.7	P	37 - 129
EPA 8270E	Decachlorobiphenyl	87.7	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	55.7	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	53.1	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	53.8	P	23 - 110
EPA 8276	PCNB	83.2	P	51 - 130

Lab Sample ID: 2484796

Field Sample ID: G3SD0148

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	109	P	30 - 160
EPA 8321B	Acetaminophen-d4	121	P	30 - 160
EPA 8321B	Carbamazepine-d10	67.5	P	30 - 160
EPA 8321B	Diuron-d6	60.0	P	30 - 160
EPA 8321B	Endothall-d6	79.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	61.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.3	P	30 - 160
EPA 8321B	Primidone-d5	107	P	30 - 160
EPA 8321B	Sucralose-d6	46.9	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A125505
Included Lab Sample IDs: 2484796

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	99.2	101	P/P	60 - 160
Sucralose	104	115	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A125509
Included Lab Sample IDs: 2484796

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	78.6	86.2	P/P	60 - 160
Endothall	88.8	76.1	P/P	60 - 160
Glufosinate	68.1	71.3	P/P	60 - 160
Glyphosate	66.7	63.6	P/P	60 - 160

Reference Method: DEP SOP: NU-094-1
Run ID: A125526
Included Lab Sample IDs: 2484789

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.2	99.9	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A125532
Included Lab Sample IDs: 2484789

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

Reference Method: SM 5310 B-2014
Run ID: A125577
Included Lab Sample IDs: 2484790

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	111	98.7	P/P	70 - 130

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A125584
Included Lab Sample IDs: 2484790

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	101	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A125588
Included Lab Sample IDs: 2484789

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.1	97.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A125620
Included Lab Sample IDs: 2484790

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A125621
Included Lab Sample IDs: 2484790

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A125640
Included Lab Sample IDs: 2484789

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A125687
Included Lab Sample IDs: 2484790

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	104	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A125734
Included Lab Sample IDs: 2484789

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

Reference Method: EPA 8270E
Run ID: A125753
Included Lab Sample IDs: 2484795

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	94.7		P	80 - 120
PCB-1260	108		P	80 - 120

Reference Method: EPA 8270E
Run ID: A125756
Included Lab Sample IDs: 2484795

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	102		P	80 - 120
Alpha-Chlordane	100		P	80 - 120
Beta-BHC	103		P	80 - 120
Beta-Cyfluthrin	106		P	80 - 120
Bifenthrin	99.6		P	80 - 120
Chlorothalonil	93.6		P	80 - 120
Cis-Nonachlor	101		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A125756
Included Lab Sample IDs: 2484795

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cypermethrin	107		P	80 - 120
Dacthal	101		P	80 - 120
DDD-p,p'	101		P	80 - 120
DDE-p,p'	101		P	80 - 120
DDT-p,p'	95.4		P	80 - 120
Delta-BHC	103		P	80 - 120
Deltamethrin	109		P	80 - 120
Dichlobenil	95.7		P	80 - 120
Dicofol	94.4		P	80 - 120
Dieldrin	102		P	80 - 120
Endosulfan I	100		P	80 - 120
Endosulfan II	109		P	80 - 120
Endosulfan Sulfate	109		P	80 - 120
Endrin	101		P	80 - 120
Endrin Aldehyde	103		P	80 - 120
Endrin Ketone	101		P	80 - 120
Esfenvalerate	103		P	80 - 120
Ethalfuralin	103		P	80 - 120
Fenpropathrin	100		P	80 - 120
Gamma-BHC	100		P	80 - 120
Gamma-Chlordane	101		P	80 - 120
Heptachlor	102		P	80 - 120
Heptachlor Epoxide	100		P	80 - 120
Hexachlorobenzene	102		P	80 - 120
Kepone	87.3		P	80 - 120
Lambda-Cyhalothrin	106		P	80 - 120
Methoprene	104		P	80 - 120
Methoxychlor	101		P	80 - 120
MGK-264	102		P	80 - 120
Mirex	104		P	80 - 120
Oxychlordane	101		P	80 - 120
Permethrin	106		P	80 - 120
Phenothrin	102		P	80 - 120
Piperonyl Butoxide	100		P	80 - 120
Prallethrin	103		P	80 - 120
Tau-Fluvalinate	105		P	80 - 120
Tetramethrin	104		P	80 - 120
Trans-Nonachlor	100		P	80 - 120
Triclosan Methyl	100		P	80 - 120
Trifluralin	100		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A125768
Included Lab Sample IDs: 2484789

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A125818
Included Lab Sample IDs: 2484796

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	109	115	P/P	50 - 150
2,4,5-T	108	99.1	P/P	50 - 150
Acetaminophen	117	114	P/P	60 - 160
Acetamiprid	113	116	P/P	50 - 150
Afidopyropen	113	107	P/P	50 - 150
Bentazon	132	135	P/P	50 - 160
Benzovindiflupyr	111	110	P/P	50 - 150
Carbamazepine	122	125	P/P	60 - 150
Clothianidin	112	108	P/P	60 - 150
Dinotefuran	116	117	P/P	50 - 150
Diuron	117	121	P/P	60 - 160
Fenuron	112	114	P/P	60 - 150
Fluridone	125	124	P/P	60 - 160
Hydrocodone	112	114	P/P	60 - 150
Ibuprofen	111	99.2	P/P	50 - 160
Imazapyr	102	94.3	P/P	50 - 150
Imidacloprid	106	103	P/P	60 - 150
Linuron	124	120	P/P	60 - 150
Mandestrobin	113	111	P/P	50 - 150
MCPP	109	105	P/P	50 - 150
Naproxen	118	83.1	P/P	50 - 160
Primidone	99.7	98.3	P/P	60 - 150
Pyraclostrobin	110	108	P/P	60 - 150
Silvex	111	107	P/P	50 - 150
Thiamethoxam	114	114	P/P	50 - 150
Tolfenpyrad	105	102	P/P	60 - 150
Triclopyr	106	86.4	P/P	50 - 150

Reference Method: EPA 8276
Run ID: A125841
Included Lab Sample IDs: 2484795

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.3		P	80 - 120
Toxaphene	95.5		P	80 - 120

* 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	SMP
DEP SOP: NU-094-1	Color (true)	96.8				1.30
EPA 180.1 Rev. 2.0	Turbidity	102				2.44
EPA 300.0 Rev. 2.1	Chloride	102	105	103		0.638
	Sulfate	105	104	97.0		0.883
EPA 350.1 Rev. 2.0	Ammonia-N	95.2	95.8	97.2		1.22
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	103	101		1.25
EPA 353.2 Rev. 2.0	NO2NO3-N	101	95.0	95.0		0.0
EPA 365.1 Rev. 2.0	Total-P	101	90.3	91.6		1.37
EPA 8270E	Aldrin	61.2	68.1	67.3		1.20
	Alpha-BHC	93.8	92.2	92.7		0.566
	Alpha-Chlordane	81.1	73.9	86.1		15.3
	Beta-BHC	112	106	105		1.12
	Beta-Cyfluthrin	139	136	153		12.1
	Bifenthrin	99.2	93.1	102		9.66
	Chlorothalonil	122	172	231		29.2
	Cis-Nonachlor	82.3	76.0	73.0		3.93
	Cypermethrin	145	147	174		16.5
	Dacthal	91.8	87.6	93.2		6.20
	DDD-p,p'	82.4	79.4	74.9		5.85
	DDE-p,p'	86.6	74.7	75.6		1.14
	DDT-p,p'	82.6	81.4	87.4		7.08
	Delta-BHC	128	123	149		19.4
	Deltamethrin	248	184	227		21.1
	Dichlobenil	55.5	63.5	55.1		14.3
	Dicofol	78.2	71.9	65.7		8.91
	Dieldrin	81.8	75.5	77.0		2.01
	Endosulfan I	92.4	87.9	103		15.4
	Endosulfan II	92.5	90.4	104		13.9
	Endosulfan Sulfate	102	89.3	95.2		6.37
	Endrin	88.6	82.3	80.0		2.88
	Endrin Aldehyde	63.8	64.2	77.3		18.5
	Endrin Ketone	86.3	81.8	87.7		7.00
	Esfenvalerate	196	172	206		18.3
	Ethalfuralin	82.0	80.7	71.8		11.7
	Fenpropathrin	97.8	93.4	100		7.22
	Gamma-BHC	84.2	85.4	90.4		5.66
	Gamma-Chlordane	87.0	78.4	86.8		10.2
	Heptachlor	78.0	72.7	71.7		1.39
	Heptachlor Epoxide	86.2	80.7	85.8		6.13
	Hexachlorobenzene	84.4	74.7	63.8		15.8
	Kepone	113	95.4	95.8		0.421
	Lambda-Cyhalothrin	116	136	149		9.17
	Methoprene	84.2	87.9	97.9		10.7
	Methoxychlor	103	89.3	106		17.4
	MGK-264	73.8	87.3	95.7		9.13
	Mirex	85.8	74.7	85.2		13.1
	Oxychlordane	81.0	79.2	89.6		12.4
	PCB-1016	51.8	62.1	65.1		4.65
	PCB-1260	77.1	84.6	91.3		7.66
	Permethrin	128	130	142		8.50
	Phenothrin	83.4	113	117		3.22
	Piperonyl Butoxide	85.8	79.8	78.8		1.30
	Prallethrin	78.3	96.5	97.0		0.587
	Tau-Fluvalinate	183	196	224		13.4

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	SMP
EPA 8270E	Tetramethrin	87.4	104	109		4.91
	Trans-Nonachlor	89.9	77.5	90.2		15.2
	Triclosan Methyl	91.2	83.2	88.5		6.12
	Trifluralin	80.9	73.5	69.7		5.25
EPA 8276	Chlordane	75.7	79.6	87.9		9.94
	Toxaphene	74.3	89.7	94.3		5.00
EPA 8321B	2,4-D	129	148	147		0.640
	2,4,5-T	121	140	127		9.60
	Acesulfame K	94.7	101	104		2.67
	Acetaminophen	79.5	96.5	102		5.87
	Acetamiprid	75.1	74.8	80.1		6.91
	Afidopyropen	55.5	56.6	64.3		12.6
	AMPA	89.8	80.8	81.3		0.606
	Bentazon	105	86.6	96.7		8.40
	Benzovindiflupyr	72.9	79.9	81.7		2.32
	Carbamazepine	79.7	78.0	80.8		3.50
	Clothianidin	87.3	100	107		6.61
	Dinotefuran	93.2	114	119		4.01
	Diuron	72.4	66.3	69.8		4.92
	Endothall	85.4	99.7	101		1.66
	Fenuron	85.0	92.5	98.8		6.62
	Fluridone	79.2	84.9	88.6		3.09
	Glufosinate	82.7	75.3	72.3		4.14
	Glyphosate	81.0	72.2	75.2		4.08
	Hydrocodone	86.6	101	107		6.32
	Ibuprofen	71.1	73.3	75.8		3.43
	Imazapyr	84.0	99.8	112		9.73
	Imidacloprid	84.4	105	117		8.54
	Linuron	72.9	70.0	73.3		4.60
	Mandestrobin	70.0	72.0	76.4		5.83
	MCPP	121	133	132		0.802
	Naproxen	76.4	59.7	79.7		28.7
	Primidone	83.4	92.7	99.9		7.48
	Pyraclostrobin	71.5	75.6	79.6		5.11
	Silvex	101	98.5	98.2		0.323
	Sucralose	113	104	105		0.900
	Thiamethoxam	90.7	108	118		8.78
	Tolfenpyrad	47.2	52.8	59.3		11.6
	Triclopyr	114	124	124		0.117
SM 2320 B-2011	Total Alkalinity	100				1.43
SM 2540 C-2015	TDS	94.4				3.85
SM 2540 D-2015	TSS	97.6				
SM 4500-F- C-2011	Fluoride	98.9	104	104		0.0
SM 5310 B-2014	Organic Carbon	99.9	99.8	99.2		0.509

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2484789
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2484789
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2484789
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2484789
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2484790

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2484790
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2484790
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2484790
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2484795
EPA 8270E	PCBs in water matrices by GC/MS/MS	2484795
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2484795
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2484796
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2484789
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2484789
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2484789
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2484789
SM 5310 B-2014	Nonpurgeable Organic Carbon in aqueous matrices	2484790

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	04/25/2024			04/25/2024 12:11	Jessica K Wilks	2484789
EPA 180.1 Rev. 2.0	04/25/2024			04/25/2024 13:40	Khloe J Berg	2484789
EPA 300.0 Rev. 2.1	04/25/2024			04/30/2024 09:33	James L Waggeberby	2484789
	04/25/2024			05/09/2024 14:19	James L Waggeberby	2484789
EPA 350.1 Rev. 2.0	04/25/2024			05/01/2024 12:03	Khloe J Berg	2484790
EPA 351.2 Rev. 2.0	04/25/2024	04/29/2024 09:35	Simonne.V. Calhoun	05/01/2024 13:52	Robyn Blevins	2484790
EPA 353.2 Rev. 2.0	04/25/2024			05/03/2024 16:23	Fadila Guebre	2484790
EPA 365.1 Rev. 2.0	04/25/2024	04/29/2024 14:43	Josephine W Gitau	04/30/2024 10:43	Elise M. Gillis	2484790
EPA 8270E	04/25/2024	04/29/2024 08:00	Rasheda Ghaffari	05/03/2024 00:59	Lipi Saha	2484795
	04/25/2024	04/29/2024 08:00	Rasheda Ghaffari	05/03/2024 20:47	Kenedi Mills	2484795
EPA 8276	04/25/2024	04/29/2024 08:00	Rasheda Ghaffari	05/04/2024 07:55	Arthur Maknenko	2484795
EPA 8321B	04/25/2024	04/26/2024 13:00	Hana Lee	04/26/2024 14:28	Hana Lee	2484796
	04/25/2024	04/26/2024 13:00	Hana Lee	04/29/2024 12:05	Hana Lee	2484796
	04/25/2024	04/26/2024 13:00	Hana Lee	04/29/2024 16:40	Hana Lee	2484796
	04/25/2024	04/26/2024 13:00	Hoor Shaik	05/09/2024 17:23	Juyoung Kim	2484796
SM 2320 B-2011	04/25/2024			04/30/2024 08:13	Adam P Silver	2484789
SM 2540 C-2015	04/25/2024			04/26/2024 16:04	Yijie Li	2484789
SM 2540 D-2015	04/25/2024			04/26/2024 16:04	Yijie Li	2484789
SM 4500-F- C-2011	04/25/2024			05/08/2024 02:02	Dale L. Simmons	2484789
SM 5310 B-2014	04/25/2024			04/29/2024 15:32	Khloe J Berg	2484790