

Chemical Analysis Report

SW-DIST-2023-03-17-02

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

Event Description: **Run 3**
Request ID: **RQ-2023-03-13-60**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 06-APR-2023 10:26



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: Dowling Lake 2

Collection Date/Time: 03/16/2023 09:00

Field ID: G4SW0084

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2394671	DEP SOP: NU-094-1	Color (true)	54		PCU	P427308	
	EPA 180.1 Rev. 2.0	Turbidity	3.4		NTU	P427313	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P427729	
		Sulfate	5.0		mg SO4/L	P427732	
	SM 2320 B-2011	Total Alkalinity	10		mg CaCO3/L	P427557	
	SM 2540 C-2015	TDS	73		mg/L	P427923	
	SM 2540 D-2015	TSS	4	I	mg/L	P427593	
	SM 4500-F- C-2011	Fluoride	0.12		mg F/L	P427559	MS
	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P427568	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.80		mg N/L	P427736	
2394673	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P427468	
	EPA 365.1 Rev. 2.0	Total-P	0.038		mg P/L	P427370	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P427683	

Sample Location: Irvin Lake

Collection Date/Time: 03/16/2023 09:45

Field ID: G4SW0025

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2394669	DEP SOP: NU-094-1	Color (true)	36	A	PCU	P427310	
	EPA 180.1 Rev. 2.0	Turbidity	18		NTU	P427313	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P427729	
		Sulfate	1.4		mg SO4/L	P427732	
	SM 2320 B-2011	Total Alkalinity	41		mg CaCO3/L	P427557	
	SM 2540 C-2015	TDS	96		mg/L	P427923	
	SM 2540 D-2015	TSS	27		mg/L	P427593	
	SM 4500-F- C-2011	Fluoride	0.13		mg F/L	P427559	MS
2394670	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P427498	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.1		mg N/L	P427465	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P427468	
	EPA 365.1 Rev. 2.0	Total-P	0.24		mg P/L	P427370	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P427683	
2394680	EPA 8321B	Aldicarb	0.020	U	ug/L	P427297	
		Aldicarb Sulfone	0.0020	U	ug/L	P427297	
		Aldicarb Sulfoxide	0.0020	UJ	ug/L	P427297	MS
		Carbaryl	0.0020	U	ug/L	P427297	
		Carbofuran	0.0020	U	ug/L	P427297	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P427297	
		Methiocarb	0.0020	U	ug/L	P427297	
		Methomyl	0.0020	U	ug/L	P427297	
		Oxamyl	0.0020	U	ug/L	P427297	
		Propoxur	0.0020	UJ	ug/L	P427297	MS
2394681		2,4-D	0.011		ug/L	P427453	
		Acesulfame K	0.10	U	ug/L	P427212	
		2,4,5-T	0.0040	U	ug/L	P427453	
		AMPA	0.16	I	ug/L	P427212	
		Acetaminophen	0.0080	U	ug/L	P427453	
		Acetamiprid	0.0020	U	ug/L	P427453	
		Endothall	0.25	U	ug/L	P427212	
		Glufosinate	0.10	U	ug/L	P427212	
		Glyphosate	0.10	U	ug/L	P427212	
		Afidopyropen	0.0020	U	ug/L	P427453	
		Bentazon	8.0E-04	U	ug/L	P427453	
		Sucralose	0.11		ug/L	P427212	
		Benzovindiflupyr	0.0020	U	ug/L	P427453	
		Carbamazepine	8.0E-04	U	ug/L	P427453	
		Clothianidin	0.0020	U	ug/L	P427453	
		Dinotefuran	0.0020	U	ug/L	P427453	
		Diuron	0.0020	U	ug/L	P427453	
		Fenuron	0.032	U	ug/L	P427453	
		Fluridone	9.2E-04	I	ug/L	P427453	
		Imazapyr	0.061		ug/L	P427453	
		Hydrocodone	0.0020	U	ug/L	P427453	

Field ID: G4SW0025

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2394681	EPA 8321B	Ibuprofen	0.080	U	ug/L	P427453	
		Imidacloprid	0.0020	U	ug/L	P427453	
		Linuron	0.0040	U	ug/L	P427453	
		Mandestrobin	0.0020	U	ug/L	P427453	
		MCP	0.0020	U	ug/L	P427453	
		Naproxen	0.0080	U	ug/L	P427453	
		Primidone	0.0040	U	ug/L	P427453	
		Pyraclostrobin	0.0020	U	ug/L	P427453	
		Silvex	0.0040	U	ug/L	P427453	
		Thiamethoxam	0.0020	U	ug/L	P427453	
		Tolfenpyrad	0.0020	U	ug/L	P427453	
		Triclopyr	0.0040	U	ug/L	P427453	
2394683	EPA 8270E	Aldrin	0.66	U	ng/L	P427285	
		Alpha-BHC	0.10	U	ng/L	P427285	
		Alpha-Chlordane	0.20	U	ng/L	P427285	MS
		PCB-1016	2.0	U	ng/L	P427285	
		Beta-BHC	0.10	U	ng/L	P427285	
		PCB-1221	2.0	U	ng/L	P427285	
		Beta-Cyfluthrin	1.3	U	ng/L	P427285	
		PCB-1232	2.0	U	ng/L	P427285	
		Bifenthrin	0.51	U	ng/L	P427285	
		PCB-1242	2.0	U	ng/L	P427285	
		Carbophenothion	0.91	U	ng/L	P427285	
		PCB-1248	2.0	U	ng/L	P427285	
		Chlorothalonil	3.6	U	ng/L	P427285	
		PCB-1254	2.0	U	ng/L	P427285	
		Cis-Nonachlor	0.20	U	ng/L	P427285	
		PCB-1260	2.0	U	ng/L	P427285	
		Cypermethrin	1.5	U	ng/L	P427285	
		Dacthal	0.15	U	ng/L	P427285	MS
		DDD-p,p'	0.25	U	ng/L	P427285	
		DDE-p,p'	0.20	U	ng/L	P427285	
		DDT-p,p'	0.25	U	ng/L	P427285	MS
		Delta-BHC	0.40	U	ng/L	P427285	
		Deltamethrin	1.3	U	ng/L	P427285	
		Dichlobenil	0.25	U	ng/L	P427285	
		Dicofol	1.3	U	ng/L	P427285	RPD
		Diieldrin	0.40	U	ng/L	P427285	
		Endosulfan I	0.40	U	ng/L	P427285	
		Endosulfan II	0.40	U	ng/L	P427285	
		Endosulfan Sulfate	0.30	U	ng/L	P427285	MS
		Endrin	0.40	U	ng/L	P427285	
		Endrin Aldehyde	0.76	U	ng/L	P427285	MS
		Endrin Ketone	0.40	U	ng/L	P427285	
		Esfenvalerate	0.96	I	ng/L	P427285	

Field ID: G4SW0025

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2394683	EPA 8270E	Ethalfuralin	0.15	U	ng/L	P427285	
		Fenpropathrin	0.31	I	ng/L	P427285	
		Gamma-BHC	0.13	U	ng/L	P427285	
		Gamma-Chlordane	0.20	U	ng/L	P427285	
		Heptachlor	0.20	U	ng/L	P427285	
		Heptachlor Epoxide	0.25	U	ng/L	P427285	
		Hexachlorobenzene**	1.0	U	ng/L	P427285	
		Kepone	5.1	U	ng/L	P427285	
		Lambda-Cyhalothrin	0.76	U	ng/L	P427285	
		Methoprene	0.76	U	ng/L	P427285	
		Methoxychlor	0.30	U	ng/L	P427285	
		MGK-264	0.20	U	ng/L	P427285	MS
		Mirex	0.35	U	ng/L	P427285	
		Oxychlordane	0.30	U	ng/L	P427285	
		Permethrin	1.6	U	ng/L	P427285	
		Phenothrin	0.91	U	ng/L	P427285	
		Piperonyl Butoxide	0.16	I	ng/L	P427285	
		Prallethrin	2.0	U	ng/L	P427285	
		Tau-Fluvalinate	0.38	I	ng/L	P427285	
		Tetramethrin	0.76	U	ng/L	P427285	
		Trans-Nonachlor	0.20	U	ng/L	P427285	
		Triclosan Methyl	0.15	U	ng/L	P427285	
		Trifluralin	0.20	U	ng/L	P427285	
	EPA 8276	Chlordane	2.0	U	ng/L	P427285	
		Toxaphene	15	U	ng/L	P427285	
2394684	EPA 8270E	Oxybenzone**	11	U	ng/L	P427316	
		Octinoxate**	21	U	ng/L	P427316	
		Avobenzone**	110	U	ng/L	P427316	
		PBDE-47**	4.2	U	ng/L	P427316	
		PBDE-99**	5.3	U	ng/L	P427316	
		Tri-o-cresyl Phosphate**	6.3	U	ng/L	P427316	
		2-Ethylhexyl	13	U	ng/L	P427316	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Dechlorane Plus**	32	U	ng/L	P427316	MS
		Dechlorane 602**	5.3	U	ng/L	P427316	
		Dechlorane 603**	4.2	U	ng/L	P427316	
		Hexabromobenzene**	6.3	U	ng/L	P427316	
		PBB-153**	8.4	U	ng/L	P427316	
		Pentabromotoluene**	3.2	U	ng/L	P427316	
		Tris(2-chloroethyl) phosphate (TCEP)**	74	U	ng/L	P427316	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	16	U	ng/L	P427316	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	9.4		ng/L	P427316	
		Tetradecachloro-m-terphenyl**	7.9	U	ng/L	P427316	MS

Ref. Method and Comment:
EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: McKethan Lake

Collection Date/Time: 03/16/2023 10:30

Field ID: G4SW0021

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2394672	DEP SOP: NU-094-1	Color (true)	30		PCU	P427308	
	EPA 180.1 Rev. 2.0	Turbidity	3.1		NTU	P427313	
	EPA 300.0 Rev. 2.1	Chloride	3.5		mg Cl/L	P427729	
		Sulfate	0.20	U	mg SO4/L	P427732	
	SM 2320 B-2011	Total Alkalinity	8.4		mg CaCO3/L	P427557	
	SM 2540 C-2015	TDS	44		mg/L	P427923	
	SM 2540 D-2015	TSS	8	I	mg/L	P427593	
	SM 4500-F- C-2011	Fluoride	0.046	I	mg F/L	P427559	MS
2394674	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P427568	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P427736	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P427468	
	EPA 365.1 Rev. 2.0	Total-P	0.053		mg P/L	P427370	
	SM 5310 B-2011	Organic Carbon	10		mg C/L	P427683	

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P427308

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P427310

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P427313

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427729

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427732

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427498

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427568

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427465

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427736

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: P427468

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P427370

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

Reference Method: EPA 8270E

Batch ID: P427285

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Carbophenothion	0.90	U	ng/L
Carbophenothion	0.90	U	ng/L
Chlorothalonil	3.6	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P427285

Component	Result	Code	Units
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1254	2.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P427285

Component	Result	Code	Units
PCB-1260	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8270E

Batch ID: P427316

Component	Result	Code	Units
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Dechlorane 602	5.0	U	ng/L
Dechlorane 602	5.0	U	ng/L
Dechlorane 603	4.0	U	ng/L
Dechlorane 603	4.0	U	ng/L
Dechlorane Plus	30	U	ng/L
Dechlorane Plus	30	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
PBB-153	8.0	U	ng/L
PBB-153	8.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Tetradecachloro-m-terphenyl	7.5	U	ng/L
Tetradecachloro-m-terphenyl	7.5	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P427316

Component	Result	Code	Units
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	15	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	15	U	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	70	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	70	U	ng/L

Reference Method: EPA 8276

Batch ID: P427285

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

Reference Method: EPA 8321B

Batch ID: P427212

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: P427297

Component	Result	Code	Units
3-Hydroxycarbofuran	0.0020	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Propoxur	0.0020	U	ug/L

Reference Method: EPA 8321B

Batch ID: P427453

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P427453

Component	Result	Code	Units
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011

Batch ID: P427557

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

Reference Method: SM 2540 C-2015

Batch ID: P427923

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P427593

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P427559

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P427683

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: P427308

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	102		P	90 - 110

Reference Method: DEP SOP: NU-094-1
Batch ID: P427310

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.6		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P427313

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427729

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427732

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427498

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: P427568

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427465

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427736

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	92.6		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P427468

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P427370

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	99.7		P	90 - 110

Reference Method: EPA 8270E

Batch ID: P427285

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	55.3		P	10 - 92.0
Alpha-BHC	81.5		P	75 - 107
Alpha-Chlordane	87.1		P	50 - 108
Beta-BHC	102		P	36 - 138
Beta-Cyfluthrin	98.8		P	20 - 161
Bifenthrin	58.0		P	10 - 119
Carbophenothion	66.7		P	19 - 94.0
Chlorothalonil	92.4		P	26 - 186
Cis-Nonachlor	66.9		P	42 - 119
Cypermethrin	104		P	22 - 150
Dacthal	95.7		P	72 - 119
DDD-p,p'	67.8		P	45 - 107
DDE-p,p'	67.8		P	48 - 106
DDT-p,p'	68.0		P	48 - 110
Delta-BHC	113		P	54 - 140
Deltamethrin	118		P	22 - 189
Dichlobenil	77.6		P	36 - 117
Dicofol	68.4		P	46 - 155
Dieldrin	71.3		P	54 - 110
Endosulfan I	75.7		P	59 - 105
Endosulfan II	72.3		P	51 - 118
Endosulfan Sulfate	93.2		P	57 - 121
Endrin	73.9		P	10 - 120
Endrin Aldehyde	80.1		P	34 - 118
Endrin Ketone	74.5		P	69 - 177
Esfenvalerate	110		P	23 - 168
Ethalfuralin	74.2		P	49 - 99.0
Fenpropathrin	80.9		P	34 - 117
Gamma-BHC	91.3		P	72 - 117
Gamma-Chlordane	68.0		P	43 - 106
Heptachlor	63.4		P	41 - 98.0
Heptachlor Epoxide	89.7		P	57 - 106
Hexachlorobenzene	69.3		P	36 - 99.0
Kepone	117		P	16 - 215
Lambda-Cyhalothrin	77.7		P	21 - 177
Methoprene	57.9		P	10 - 119
Methoxychlor	77.3		P	60 - 112
MGK-264	89.5		P	26 - 122
Mirex	49.7		P	10 - 169
Oxychlordane	71.7		P	43 - 105

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P427285

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PCB-1016	65.4		P	48 - 112
PCB-1260	70.5		P	44 - 118
Permethrin	92.1		P	24 - 148
Phenothrin	70.4		P	10 - 106
Piperonyl Butoxide	80.9		P	10 - 139
Prallethrin	68.9		P	17 - 109
Tau-Fluvalinate	91.7		P	13 - 131
Tetramethrin	100		P	10 - 132
Trans-Nonachlor	73.5		P	44 - 106
Triclosan Methyl	72.6		P	59 - 109
Trifluralin	74.3		P	44 - 101

Reference Method: EPA 8270E

Batch ID: P427316

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	118		P	42 - 162
Avobenzone	153		P	40 - 203
Dechlorane 602	111		P	50 - 150
Dechlorane 603	111		P	50 - 150
Dechlorane Plus	92.1		P	47 - 182
Hexabromobenzene	127		P	50 - 150
Octinoxate	107		P	26 - 166
Oxybenzone	121		P	49 - 135
PBB-153	131		P	50 - 150
PBDE-47	123		P	41 - 148
PBDE-99	126		P	38 - 147
Pentabromotoluene	110		P	50 - 150
Tetradecachloro-m-terphenyl	108		P	70 - 200
Tri-o-cresyl Phosphate	123		P	49 - 150
Tris(1-chloro-2-propyl) phosphate (TCPP)	139		P	50 - 150
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	116		P	50 - 150
Tris(2-chloroethyl) phosphate (TCEP)	129		P	70 - 180

Reference Method: EPA 8276

Batch ID: P427285

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	78.3		P	61 - 116
Toxaphene	90.3		P	48 - 124

Reference Method: EPA 8321B

Batch ID: P427212

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	96.8		P	40 - 150
AMPA	136		P	40 - 150
Endothall	96.2		P	40 - 150
Glufosinate	98.1		P	40 - 150
Glyphosate	126		P	40 - 150
Sucralose	99.9		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P427297

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	94.7		P	40 - 150
Aldicarb	54.4		P	30 - 150
Aldicarb Sulfone	91.3		P	40 - 150
Aldicarb Sulfoxide	113		P	40 - 150
Carbaryl	76.7		P	40 - 150
Carbofuran	69.7		P	40 - 150
Methiocarb	80.4		P	40 - 150
Methomyl	98.3		P	40 - 150
Oxamyl	108		P	40 - 150
Propoxur	68.3		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P427453

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	97.1		P	40 - 150
2,4,5-T	101		P	40 - 150
Acetaminophen	83.3		P	30 - 150
Acetamiprid	86.4		P	40 - 150
Afidopyropen	67.7		P	30 - 150
Bentazon	89.4		P	30 - 150
Benzovindiflupyr	85.4		P	40 - 150
Carbamazepine	86.4		P	40 - 150
Clothianidin	95.5		P	40 - 150
Dinotefuran	98.0		P	40 - 150
Diuron	83.7		P	40 - 150
Fenuron	92.2		P	40 - 150
Fluridone	80.2		P	40 - 150
Hydrocodone	98.8		P	40 - 150
Ibuprofen	84.0		P	40 - 150
Imazapyr	97.2		P	40 - 150
Imidacloprid	89.7		P	40 - 150
Linuron	78.7		P	40 - 150
Mandestrobin	82.4		P	40 - 150
MCPP	91.9		P	40 - 150
Naproxen	114		P	40 - 150
Primidone	92.7		P	40 - 150
Pyraclostrobin	71.2		P	40 - 150
Silvex	99.2		P	40 - 150
Thiamethoxam	96.1		P	40 - 150
Tolfenpyrad	47.4		P	30 - 150
Triclopyr	95.6		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P427557

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	94.8		P	94 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 C-2015
Batch ID: P427923

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

Reference Method: SM 2540 D-2015
Batch ID: P427593

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	93.3		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P427559

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	103		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P427683

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.9		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427729

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394640	Chloride	100		P	90 - 110
2394641	Chloride	98.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427732

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394640	Sulfate	97.2		P	90 - 110
2394641	Sulfate	96.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427498

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394559	Ammonia-N	98.2	97.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427568

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2393563	Ammonia-N	99.0	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427465

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394642	Kjeldahl Nitrogen	97.6	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427736

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394688	Kjeldahl Nitrogen	100	99.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427468

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394643	NO2NO3-N	93.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427370

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394558	Total-P	101	99.9	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P427285

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394524	PCB-1016	57.6	57.2	P/P	46 - 111
2394524	PCB-1260	57.4	58.3	P/P	45 - 114

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P427285

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394801	Aldrin	40.3	44.9	P/P	20 - 82.0
2394801	Alpha-BHC	78.8	77.9	P/P	71 - 109
2394801	Alpha-Chlordane	107	123	F/F	42 - 106
2394801	Beta-BHC	144	165	P/P	69 - 180
2394801	Beta-Cyfluthrin	125	159	P/P	18 - 175
2394801	Bifenthrin	39.2	42.4	P/P	21 - 128
2394801	Carbophenothion	75.5	108	P/P	10 - 126
2394801	Chlorothalonil	190	184	P/P	10 - 300
2394801	Cis-Nonachlor	44.9	58.8	P/P	34 - 106
2394801	Cypermethrin	125	158	P/P	22 - 158
2394801	Dacthal	124	142	F/F	54 - 116
2394801	DDD-p,p'	44.0	60.2	P/P	34 - 107
2394801	DDE-p,p'	48.0	62.0	P/P	33 - 110
2394801	DDT-p,p'	45.8	61.5	F/P	50 - 122
2394801	Delta-BHC	170	178	P/P	77 - 193
2394801	Deltamethrin	143	183	P/P	10 - 195
2394801	Dichlobenil	108	105	P/P	25 - 113
2394801	Dicofol	62.4	90.7	P/P	38 - 247
2394801	Dieldrin	53.2	65.6	P/P	45 - 118
2394801	Endosulfan I	55.5	67.2	P/P	51 - 106
2394801	Endosulfan II	57.7	73.8	P/P	37 - 122
2394801	Endosulfan Sulfate	109	140	P/F	43 - 132
2394801	Endrin	51.9	68.0	P/P	29 - 101
2394801	Endrin Aldehyde	89.8	110	P/F	19 - 110
2394801	Endrin Ketone	88.5	110	P/P	60 - 140
2394801	Esfenvalerate	133	171	P/P	26 - 199
2394801	Ethalfuralin	61.2	73.3	P/P	45 - 99.0
2394801	Fenpropathrin	92.3	115	P/P	35 - 120
2394801	Gamma-BHC	113	126	P/P	63 - 128
2394801	Gamma-Chlordane	54.4	67.1	P/P	40 - 104
2394801	Heptachlor	54.9	62.8	P/P	36 - 97.0
2394801	Heptachlor Epoxide	112	134	P/P	49 - 184
2394801	Hexachlorobenzene	79.0	90.9	P/P	39 - 96.0
2394801	Kepone	147	180	P/P	10 - 217
2394801	Lambda-Cyhalothrin	116	130	P/P	21 - 193
2394801	Methoprene	47.1	56.0	P/P	20 - 106
2394801	Methoxychlor	67.2	74.9	P/P	53 - 118
2394801	MGK-264	143	129	F/F	40 - 118
2394801	Mirex	36.4	48.5	P/P	26 - 92.0
2394801	Oxychlordane	60.6	65.8	P/P	44 - 99.0
2394801	Permethrin	109	146	P/P	33 - 182
2394801	Phenothrin	77.1	91.1	P/P	10 - 129
2394801	Piperonyl Butoxide	86.2	77.3	P/P	10 - 211
2394801	Prallethrin	48.3	60.2	P/P	24 - 113
2394801	Tau-Fluvalinate	112	142	P/P	14 - 149
2394801	Tetramethrin	115	130	P/P	17 - 151
2394801	Trans-Nonachlor	49.9	64.1	P/P	42 - 102
2394801	Triclosan Methyl	53.6	64.7	P/P	48 - 108
2394801	Trifluralin	59.6	73.5	P/P	47 - 96.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P427316

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394346	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	72.4	74.5	P/P	26 - 165
2394346	Avobenzene	86.4	102	P/P	37 - 178
2394346	Dechlorane 602	64.0	64.3	P/P	50 - 150
2394346	Dechlorane 603	64.2	65.2	P/P	50 - 150
2394346	Dechlorane Plus	49.6	48.8	F/F	50 - 150
2394346	Hexabromobenzene	92.6	85.8	P/P	50 - 150
2394346	Octinoxate	84.5	78.9	P/P	21 - 159
2394346	Oxybenzone	90.6	81.8	P/P	41 - 142
2394346	PBB-153	68.9	72.1	P/P	50 - 150
2394346	PBDE-47	82.4	82.4	P/P	27 - 144
2394346	PBDE-99	72.5	78.0	P/P	18 - 150
2394346	Pentabromotoluene	85.0	81.1	P/P	50 - 150
2394346	Tetradecachloro-m-terphenyl	63.7	59.8	F/F	70 - 200
2394346	Tri-o-cresyl Phosphate	82.5	82.7	P/P	31 - 144
2394346	Tris(1-chloro-2-propyl) phosphate (TCPP)	106	92.4	P/P	50 - 150
2394346	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	86.3	87.5	P/P	50 - 150
2394346	Tris(2-chloroethyl) phosphate (TCEP)	93.8	83.3	P/P	70 - 180

Reference Method: EPA 8276

Batch ID: P427285

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394524	Chlordane	68.9	70.0	P/P	53 - 126
2394524	Toxaphene	81.8	88.0	P/P	56 - 211

Reference Method: EPA 8321B

Batch ID: P427212

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2393680	Acesulfame K	101	99.4	P/P	40 - 150
2393680	AMPA	89.6	83.5	P/P	40 - 150
2393680	Endothall	100	98.2	P/P	40 - 150
2393680	Glufosinate	72.6	71.3	P/P	40 - 150
2393680	Glyphosate	119	105	P/P	40 - 150
2393680	Sucralose	90.6	95.2	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P427297

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394680	3-Hydroxycarbofuran	62.4	73.4	P/P	40 - 150
2394680	Aldicarb	36.1	37.9	P/P	30 - 150
2394680	Aldicarb Sulfone	63.8	68.5	P/P	40 - 150
2394680	Aldicarb Sulfoxide	25.4	26.1	F/F	40 - 150
2394680	Carbaryl	41.5	45.5	P/P	40 - 150
2394680	Carbofuran	40.2	44.1	P/P	40 - 150
2394680	Methiocarb	48.6	57.5	P/P	40 - 150
2394680	Methomyl	55.2	61.0	P/P	40 - 150
2394680	Oxamyl	66.8	71.6	P/P	40 - 150
2394680	Propoxur	36.7	41.3	F/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P427453

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394681	2,4-D	104	102	P/P	40 - 150
2394681	2,4,5-T	120	113	P/P	40 - 150
2394681	Acetaminophen	91.5	93.1	P/P	30 - 150
2394681	Acetamiprid	70.9	67.0	P/P	40 - 150
2394681	Afidopyropen	83.6	75.2	P/P	30 - 150
2394681	Bentazon	52.1	56.6	P/P	30 - 150
2394681	Benzovindiflupyr	82.4	79.9	P/P	40 - 150
2394681	Carbamazepine	64.5	60.8	P/P	40 - 150
2394681	Clothianidin	94.6	92.4	P/P	40 - 150
2394681	Dinotefuran	75.3	74.1	P/P	40 - 150
2394681	Diuron	49.0	50.6	P/P	40 - 150
2394681	Fenuron	57.3	57.7	P/P	40 - 150
2394681	Fluridone	61.1	60.5	P/P	40 - 150
2394681	Hydrocodone	77.6	89.5	P/P	40 - 150
2394681	Ibuprofen	62.3	75.6	P/P	40 - 150
2394681	Imazapyr	99.6	127	P/P	40 - 150
2394681	Imidacloprid	123	123	P/P	40 - 150
2394681	Linuron	47.5	50.5	P/P	40 - 150
2394681	Mandestrobin	78.1	81.1	P/P	40 - 150
2394681	MCCP	112	116	P/P	40 - 150
2394681	Naproxen	84.1	83.5	P/P	40 - 150
2394681	Primidone	88.8	85.0	P/P	40 - 150
2394681	Pyraclostrobin	73.8	71.1	P/P	40 - 150
2394681	Silvex	123	119	P/P	40 - 150
2394681	Thiamethoxam	94.4	93.4	P/P	40 - 150
2394681	Tolfenpyrad	52.5	51.0	P/P	30 - 150
2394681	Triclopyr	110	112	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P427559

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394809	Fluoride	105	103	F/P	94 - 104

Reference Method: SM 5310 B-2011

Batch ID: P427683

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394674	Organic Carbon	93.1	94.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P427308

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394640	Color (true)	0.743	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P427310

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394669	Color (true)	3.39	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P427313

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394596	Turbidity	6.34	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427729

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394640	Chloride	1.60	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427732

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394640	Sulfate	2.05	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427498

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394559	Ammonia-N	0.408	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427568

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2393563	Ammonia-N	3.02	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427465

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394642	Kjeldahl Nitrogen	5.17	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427736

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394688	Kjeldahl Nitrogen	0.480	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427468

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394643	NO2NO3-N	0.207	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427370

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394558	Total-P	0.884	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P427285

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394524	PCB-1016	0.581	Spike	P	0 - 32
2394524	PCB-1260	1.61	Spike	P	0 - 31
2394801	Aldrin	10.7	Spike	P	0 - 41
2394801	Alpha-BHC	1.20	Spike	P	0 - 25
2394801	Alpha-Chlordane	13.8	Spike	P	0 - 33
2394801	Beta-BHC	13.6	Spike	P	0 - 36
2394801	Beta-Cyfluthrin	24.0	Spike	P	0 - 42
2394801	Bifenthrin	7.93	Spike	P	0 - 53
2394801	Carbophenothion	35.4	Spike	P	0 - 49
2394801	Chlorothalonil	2.99	Spike	P	0 - 71
2394801	Cis-Nonachlor	26.8	Spike	P	0 - 29
2394801	Cypermethrin	23.3	Spike	P	0 - 40
2394801	Dacthal	14.0	Spike	P	0 - 26
2394801	DDD-p,p'	31.1	Spike	P	0 - 39
2394801	DDE-p,p'	25.4	Spike	P	0 - 33
2394801	DDT-p,p'	29.3	Spike	P	0 - 40
2394801	Delta-BHC	4.74	Spike	P	0 - 37
2394801	Deltamethrin	24.8	Spike	P	0 - 100
2394801	Dichlobenil	2.64	Spike	P	0 - 40
2394801	Dicofol	36.9	Spike	F	0 - 31
2394801	Dieldrin	20.9	Spike	P	0 - 27
2394801	Endosulfan I	19.1	Spike	P	0 - 23
2394801	Endosulfan II	24.5	Spike	P	0 - 28
2394801	Endosulfan Sulfate	25.1	Spike	P	0 - 38
2394801	Endrin	26.9	Spike	P	0 - 63
2394801	Endrin Aldehyde	20.5	Spike	P	0 - 60
2394801	Endrin Ketone	22.0	Spike	P	0 - 37
2394801	Esfenvalerate	24.5	Spike	P	0 - 52
2394801	Ethalfuralin	18.0	Spike	P	0 - 23
2394801	Fenpropathrin	22.3	Spike	P	0 - 32

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P427285

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394801	Gamma-BHC	10.4	Spike	P	0 - 17
2394801	Gamma-Chlordane	20.9	Spike	P	0 - 40
2394801	Heptachlor	13.3	Spike	P	0 - 29
2394801	Heptachlor Epoxide	17.7	Spike	P	0 - 25
2394801	Hexachlorobenzene	13.9	Spike	P	0 - 36
2394801	Kepone	20.0	Spike	P	0 - 93
2394801	Lambda-Cyhalothrin	11.5	Spike	P	0 - 55
2394801	Methoprene	17.3	Spike	P	0 - 53
2394801	Methoxychlor	10.7	Spike	P	0 - 29
2394801	MGK-264	10.1	Spike	P	0 - 35
2394801	Mirex	28.5	Spike	P	0 - 46
2394801	Oxychlordane	8.28	Spike	P	0 - 29
2394801	Permethrin	28.7	Spike	P	0 - 44
2394801	Phenothrin	16.6	Spike	P	0 - 56
2394801	Piperonyl Butoxide	10.9	Spike	P	0 - 100
2394801	Prallethrin	22.1	Spike	P	0 - 42
2394801	Tau-Fluvalinate	23.5	Spike	P	0 - 54
2394801	Tetramethrin	12.8	Spike	P	0 - 51
2394801	Trans-Nonachlor	24.9	Spike	P	0 - 37
2394801	Triclosan Methyl	18.7	Spike	P	0 - 31
2394801	Trifluralin	20.9	Spike	P	0 - 30

Reference Method: EPA 8270E

Batch ID: P427316

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394346	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	2.83	Spike	P	0 - 37
2394346	Avobenzene	16.9	Spike	P	0 - 36
2394346	Dechlorane 602	0.426	Spike	P	0 - 30
2394346	Dechlorane 603	1.50	Spike	P	0 - 30
2394346	Dechlorane Plus	1.53	Spike	P	0 - 30
2394346	Hexabromobenzene	7.66	Spike	P	0 - 30
2394346	Octinoxate	6.87	Spike	P	0 - 45
2394346	Oxybenzone	10.3	Spike	P	0 - 46
2394346	PBB-153	4.63	Spike	P	0 - 30
2394346	PBDE-47	0.0798	Spike	P	0 - 36
2394346	PBDE-99	7.37	Spike	P	0 - 40
2394346	Pentabromotoluene	4.80	Spike	P	0 - 30
2394346	Tetradecachloro-m-terphenyl	6.40	Spike	P	0 - 30
2394346	Tri-o-cresyl Phosphate	0.280	Spike	P	0 - 33
2394346	Tris(1-chloro-2-propyl) phosphate (TCPP)	11.9	Spike	P	0 - 30
2394346	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	1.40	Spike	P	0 - 30
2394346	Tris(2-chloroethyl) phosphate (TCEP)	11.9	Spike	P	0 - 30

Reference Method: EPA 8276

Batch ID: P427285

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394524	Chlordane	1.64	Spike	P	0 - 25

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P427285

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394524	Toxaphene	7.25	Spike	P	0 - 26

Reference Method: EPA 8321B
Batch ID: P427212

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2393680	Acesulfame K	1.54	Spike	P	0 - 30
2393680	AMPA	7.08	Spike	P	0 - 30
2393680	Endothall	1.89	Spike	P	0 - 30
2393680	Glufosinate	1.80	Spike	P	0 - 30
2393680	Glyphosate	11.5	Spike	P	0 - 30
2393680	Sucralose	3.61	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P427297

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394680	3-Hydroxycarbofuran	16.2	Spike	P	0 - 30
2394680	Aldicarb	5.03	Spike	P	0 - 30
2394680	Aldicarb Sulfone	7.02	Spike	P	0 - 30
2394680	Aldicarb Sulfoxide	2.85	Spike	P	0 - 30
2394680	Carbaryl	9.37	Spike	P	0 - 30
2394680	Carbofuran	9.36	Spike	P	0 - 30
2394680	Methiocarb	16.9	Spike	P	0 - 30
2394680	Methomyl	9.98	Spike	P	0 - 30
2394680	Oxamyl	6.93	Spike	P	0 - 30
2394680	Propoxur	11.8	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P427453

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394681	2,4-D	1.09	Spike	P	0 - 30
2394681	2,4,5-T	6.40	Spike	P	0 - 30
2394681	Acetaminophen	1.71	Spike	P	0 - 30
2394681	Acetamiprid	5.78	Spike	P	0 - 30
2394681	Afidopyropen	10.6	Spike	P	0 - 30
2394681	Bentazon	8.34	Spike	P	0 - 30
2394681	Benzovindiflupyr	3.01	Spike	P	0 - 30
2394681	Carbamazepine	5.91	Spike	P	0 - 30
2394681	Clothianidin	2.37	Spike	P	0 - 30
2394681	Dinotefuran	1.52	Spike	P	0 - 30
2394681	Diuron	3.08	Spike	P	0 - 30
2394681	Fenuron	0.713	Spike	P	0 - 30
2394681	Fluridone	0.924	Spike	P	0 - 30
2394681	Hydrocodone	14.2	Spike	P	0 - 30
2394681	Ibuprofen	19.3	Spike	P	0 - 30
2394681	Imazapyr	14.3	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P427453

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394681	Imidacloprid	0.163	Spike	P	0 - 30
2394681	Linuron	6.11	Spike	P	0 - 30
2394681	Mandestrobin	3.70	Spike	P	0 - 30
2394681	MCPP	3.87	Spike	P	0 - 30
2394681	Naproxen	0.799	Spike	P	0 - 30
2394681	Primidone	4.36	Spike	P	0 - 30
2394681	Pyraclostrobin	3.77	Spike	P	0 - 30
2394681	Silvex	3.23	Spike	P	0 - 30
2394681	Thiamethoxam	1.01	Spike	P	0 - 30
2394681	Tolfenpyrad	2.79	Spike	P	0 - 30
2394681	Triclopyr	1.98	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P427557

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394809	Total Alkalinity	1.65	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P427923

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394727	TDS	7.10	Sample	P	0 - 10

Reference Method: SM 2540 D-2015
Batch ID: P427593

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394727	TSS	6.32	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P427559

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394809	Fluoride	0.992	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P427683

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394674	Organic Carbon	0.693	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2394680
Field Sample ID: G4SW0025

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	42.7	P	30 - 160

Lab Sample ID: 2394681
Field Sample ID: G4SW0025

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	94.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	80.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	68.0	P	30 - 160
EPA 8321B	Diuron-d6	57.5	P	30 - 160
EPA 8321B	Endothall-d6	102	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	89.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	70.0	P	30 - 160
EPA 8321B	Primidone-d5	86.6	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	30 - 160

Lab Sample ID: 2394683
Field Sample ID: G4SW0025

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	50.3	P	29 - 130
EPA 8270E	Decachlorobiphenyl	46.8	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	34.8	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	42.1	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	30.1	P	30 - 101
EPA 8276	PCNB	77.0	P	48 - 121

Lab Sample ID: 2394684
Field Sample ID: G4SW0025

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Terphenyl-d14	90.4	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A118058

Included Lab Sample IDs: 2394669, 2394671, 2394672

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	90 - 110
Color (true)	103	99.5	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A118062

Included Lab Sample IDs: 2394669, 2394671, 2394672

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

Reference Method: EPA 8321B

Run ID: A118066

Included Lab Sample IDs: 2394681

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	95.2	95.4	P/P	60 - 160
Sucralose	94.3	95.9	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A118070

Included Lab Sample IDs: 2394681

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	109	106	P/P	60 - 160
Endothall	99.4	97.7	P/P	60 - 160
Glufosinate	95.2	93.2	P/P	60 - 160
Glyphosate	91.3	99.6	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A118120

Included Lab Sample IDs: 2394670, 2394674

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A118124

Included Lab Sample IDs: 2394669, 2394671, 2394672

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	96.1	98.6	P/P	90 - 110
Sulfate	96.6	98.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A118130

Included Lab Sample IDs: 2394670, 2394673, 2394674

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	99.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A118134

Included Lab Sample IDs: 2394673

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	97.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A118136

Included Lab Sample IDs: 2394670

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.8	98.6	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A118161

Included Lab Sample IDs: 2394669, 2394671, 2394672

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	93.7	93.2	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A118161

Included Lab Sample IDs: 2394669, 2394671, 2394672

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A118162

Included Lab Sample IDs: 2394673, 2394674

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

Reference Method: EPA 8270E

Run ID: A118174

Included Lab Sample IDs: 2394684

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	94.4		P	80 - 120
Avobenzone	92.2		P	80 - 120
Dechlorane 602	97.1		P	80 - 120
Dechlorane 603	94.1		P	80 - 120
Dechlorane Plus	94.8		P	80 - 120
Hexabromobenzene	93.6		P	80 - 120
Octinoxate	92.7		P	80 - 120
Oxybenzone	97.5		P	80 - 120
PBB-153	91.3		P	80 - 120
PBDE-47	91.9		P	80 - 120
PBDE-99	99.6		P	80 - 120
Pentabromotoluene	96.4		P	80 - 120
Tetradecachloro-m-terphenyl	87.0		P	80 - 120
Tri-o-cresyl Phosphate	95.3		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	95.2		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	93.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A118174
Included Lab Sample IDs: 2394684

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tris(2-chloroethyl) phosphate (TCEP)	93.9		P	80 - 120

Reference Method: EPA 8276
Run ID: A118195
Included Lab Sample IDs: 2394683

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.9		P	80 - 120
Toxaphene	98.4		P	80 - 120

Reference Method: EPA 8270E
Run ID: A118204
Included Lab Sample IDs: 2394683

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	93.2		P	80 - 120
PCB-1260	98.8		P	80 - 120

Reference Method: SM 5310 B-2011
Run ID: A118205
Included Lab Sample IDs: 2394670, 2394673, 2394674

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	98.4	P/P	90 - 110
Organic Carbon	98.2	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A118246
Included Lab Sample IDs: 2394670

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	91.6	92.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A118273
Included Lab Sample IDs: 2394673, 2394674

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.0	94.6	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A118309
Included Lab Sample IDs: 2394681

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	96.0	83.3	P/P	50 - 150
2,4,5-T	90.8	106	P/P	50 - 150
3-Hydroxycarbofuran	114	113	P/P	60 - 150
Acetaminophen	96.8	98.0	P/P	60 - 160
Acetamiprid	116	115	P/P	50 - 150
Afidopyropen	80.7	95.8	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A118309
Included Lab Sample IDs: 2394680

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldicarb	110	93.0	P/P	60 - 150
Aldicarb Sulfone	101	102	P/P	50 - 150
Aldicarb Sulfoxide	105	104	P/P	50 - 150
Bentazon	117	121	P/P	50 - 160
Benzovindiflupyr	112	111	P/P	50 - 150
Carbamazepine	123	123	P/P	60 - 150
Carbaryl	98.7	109	P/P	60 - 150
Carbofuran	108	116	P/P	50 - 150
Clothianidin	105	111	P/P	60 - 150
Dinotefuran	108	111	P/P	50 - 150
Diuron	116	122	P/P	60 - 160
Fenuron	109	112	P/P	60 - 150
Fluridone	94.7	107	P/P	60 - 160
Hydrocodone	121	142	P/P	60 - 150
Ibuprofen	103	117	P/P	50 - 160
Imazapyr	104	123	P/P	50 - 150
Imidacloprid	108	100	P/P	60 - 150
Linuron	101	93.1	P/P	60 - 150
Mandestrobin	108	108	P/P	50 - 150
MCPP	100	108	P/P	50 - 150
Methiocarb	95.3	107	P/P	50 - 150
Methomyl	109	103	P/P	50 - 150
Naproxen	119	62.5	P/P	50 - 160
Oxamyl	110	105	P/P	50 - 150
Primidone	107	99.0	P/P	60 - 150
Propoxur	102	108	P/P	50 - 150
Pyraclostrobin	103	107	P/P	60 - 150
Silvex	105	115	P/P	50 - 150
Thiamethoxam	119	128	P/P	50 - 150
Tolfenpyrad	99.7	99.7	P/P	60 - 150
Triclopyr	96.7	108	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A118323
Included Lab Sample IDs: 2394683

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	96.9		P	80 - 120
Alpha-BHC	98.6		P	80 - 120
Alpha-Chlordane	99.1		P	80 - 120
Beta-BHC	109		P	80 - 120
Beta-Cyfluthrin	102		P	80 - 120
Bifenthrin	97.6		P	80 - 120
Carbophenothion	107		P	80 - 120
Chlorothalonil	107		P	80 - 120
Cis-Nonachlor	93.8		P	80 - 120
Cypermethrin	104		P	80 - 120
Dacthal	100		P	80 - 120
DDD-p,p'	94.1		P	80 - 120
DDE-p,p'	93.5		P	80 - 120
DDT-p,p'	95.0		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A118323
 Included Lab Sample IDs: 2394683

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Delta-BHC	109		P	80 - 120
Deltamethrin	102		P	80 - 120
Dichlobenil	100		P	80 - 120
Dicofol	98.0		P	80 - 120
Dieldrin	93.1		P	80 - 120
Endosulfan I	94.8		P	80 - 120
Endosulfan II	98.5		P	80 - 120
Endosulfan Sulfate	106		P	80 - 120
Endrin	95.0		P	80 - 120
Endrin Aldehyde	93.3		P	80 - 120
Endrin Ketone	87.8		P	80 - 120
Esfenvalerate	104		P	80 - 120
Ethalfuralin	96.4		P	80 - 120
Fenpropathrin	105		P	80 - 120
Gamma-BHC	107		P	80 - 120
Gamma-Chlordane	96.5		P	80 - 120
Heptachlor	98.0		P	80 - 120
Heptachlor Epoxide	103		P	80 - 120
Hexachlorobenzene	100		P	80 - 120
Kepone	86.4		P	80 - 120
Lambda-Cyhalothrin	102		P	80 - 120
Methoprene	94.9		P	80 - 120
Methoxychlor	100		P	80 - 120
MGK-264	102		P	80 - 120
Mirex	94.4		P	80 - 120
Oxychlordane	97.8		P	80 - 120
Permethrin	101		P	80 - 120
Phenothrin	99.0		P	80 - 120
Piperonyl Butoxide	97.2		P	80 - 120
Prallethrin	96.9		P	80 - 120
Tau-Fluvalinate	106		P	80 - 120
Tetramethrin	103		P	80 - 120
Trans-Nonachlor	96.8		P	80 - 120
Triclosan Methyl	92.4		P	80 - 120
Trifluralin	100		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		LCS	Precision	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	102				0.743	
	Color (true)	99.6				3.39	
EPA 180.1 Rev. 2.0	Turbidity	101				6.34	
EPA 300.0 Rev. 2.1	Chloride	98.7	100	98.2		1.60	
	Sulfate	98.5	97.2	96.3		2.05	
EPA 350.1 Rev. 2.0	Ammonia-N	94.8	98.2	97.8			0.408
	Ammonia-N	100	99.0	103			3.02
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	97.6	106			5.17
	Kjeldahl Nitrogen	92.6	100	99.3			0.480
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	93.8				0.207
EPA 365.1 Rev. 2.0	Total-P	99.7	101	99.9			0.884
EPA 8270E	2-Ethylhexyl	118	72.4	74.5			2.83
	2,3,4,5-tetrabromobenzoate (EHTBB)						
	Aldrin	55.3	40.3	44.9			10.7
	Alpha-BHC	81.5	78.8	77.9			1.20
	Alpha-Chlordane	87.1	107	123			13.8
	Avobenzone	153	86.4	102			16.9
	Beta-BHC	102	144	165			13.6
	Beta-Cyfluthrin	98.8	125	159			24.0
	Bifenthrin	58.0	39.2	42.4			7.93
	Carbophenothion	66.7	75.5	108			35.4
	Chlorothalonil	92.4	190	184			2.99
	Cis-Nonachlor	66.9	44.9	58.8			26.8
	Cypermethrin	104	125	158			23.3
	Dacthal	95.7	124	142			14.0
	DDD-p,p'	67.8	44.0	60.2			31.1
	DDE-p,p'	67.8	48.0	62.0			25.4
	DDT-p,p'	68.0	45.8	61.5			29.3
	Dechlorane 602	111	64.0	64.3			0.426
	Dechlorane 603	111	64.2	65.2			1.50
	Dechlorane Plus	92.1	49.6	48.8			1.53
	Delta-BHC	113	170	178			4.74
	Deltamethrin	118	143	183			24.8
	Dichlobenil	77.6	108	105			2.64
	Dicofol	68.4	62.4	90.7			36.9
	Dieldrin	71.3	53.2	65.6			20.9
	Endosulfan I	75.7	55.5	67.2			19.1
	Endosulfan II	72.3	57.7	73.8			24.5
	Endosulfan Sulfate	93.2	109	140			25.1
	Endrin	73.9	51.9	68.0			26.9
	Endrin Aldehyde	80.1	89.8	110			20.5
	Endrin Ketone	74.5	88.5	110			22.0
	Esfenvalerate	110	133	171			24.5
	Ethalfuralin	74.2	61.2	73.3			18.0
	Fenpropathrin	80.9	92.3	115			22.3
	Gamma-BHC	91.3	113	126			10.4
	Gamma-Chlordane	68.0	54.4	67.1			20.9
	Heptachlor	63.4	54.9	62.8			13.3
	Heptachlor Epoxide	89.7	112	134			17.7
	Hexabromobenzene	127	92.6	85.8			7.66
	Hexachlorobenzene	69.3	79.0	90.9			13.9
	Kepone	117	147	180			20.0
	Lambda-Cyhalothrin	77.7	116	130			11.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Methoprene	57.9	47.1	56.0			17.3
	Methoxychlor	77.3	67.2	74.9			10.7
	MGK-264	89.5	143	129			10.1
	Mirex	49.7	36.4	48.5			28.5
	Octinoxate	107	84.5	78.9			6.87
	Oxybenzone	121	90.6	81.8			10.3
	Oxychlordane	71.7	60.6	65.8			8.28
	PBB-153	131	68.9	72.1			4.63
	PBDE-47	123	82.4	82.4			0.0798
	PBDE-99	126	72.5	78.0			7.37
	PCB-1016	65.4	57.6	57.2			0.581
	PCB-1260	70.5	57.4	58.3			1.61
	Pentabromotoluene	110	85.0	81.1			4.80
	Permethrin	92.1	109	146			28.7
	Phenothrin	70.4	77.1	91.1			16.6
	Piperonyl Butoxide	80.9	86.2	77.3			10.9
	Prallethrin	68.9	48.3	60.2			22.1
	Tau-Fluvalinate	91.7	112	142			23.5
	Tetradecachloro-m-terphenyl	108	59.8	63.7			6.40
	Tetramethrin	100	115	130			12.8
	Trans-Nonachlor	73.5	49.9	64.1			24.9
	Tri-o-cresyl Phosphate	123	82.5	82.7			0.280
	Triclosan Methyl	72.6	53.6	64.7			18.7
	Trifluralin	74.3	59.6	73.5			20.9
	Tris(1-chloro-2-propyl) phosphate (TCPP)	139	106	92.4			11.9
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	116	87.5	86.3			1.40
	Tris(2-chloroethyl) phosphate (TCEP)	129	93.8	83.3			11.9
EPA 8276	Chlordane	78.3	68.9	70.0			1.64
	Toxaphene	90.3	81.8	88.0			7.25
EPA 8321B	2,4-D	97.1	102	104			1.09
	2,4,5-T	101	113	120			6.40
	3-Hydroxycarbofuran	94.7	62.4	73.4			16.2
	Acesulfame K	96.8	101	99.4			1.54
	Acetaminophen	83.3	91.5	93.1			1.71
	Acetamiprid	86.4	67.0	70.9			5.78
	Afidopyropen	67.7	75.2	83.6			10.6
	Aldicarb	54.4	36.1	37.9			5.03
	Aldicarb Sulfone	91.3	63.8	68.5			7.02
	Aldicarb Sulfoxide	113	25.4	26.1			2.85
	AMPA	136	89.6	83.5			7.08
	Bentazon	89.4	56.6	52.1			8.34
	Benzovindiflupyr	85.4	79.9	82.4			3.01
	Carbamazepine	86.4	60.8	64.5			5.91
	Carbaryl	76.7	41.5	45.5			9.37
	Carbofuran	69.7	40.2	44.1			9.36
	Clothianidin	95.5	92.4	94.6			2.37
	Dinotefuran	98.0	75.3	74.1			1.52
	Diuron	83.7	50.6	49.0			3.08
	Endothall	96.2	100	98.2			1.89
	Fenuron	92.2	57.7	57.3			0.713
	Fluridone	80.2	60.5	61.1			0.924

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Glufosinate	98.1	72.6	71.3		1.80
	Glyphosate	126	119	105		11.5
	Hydrocodone	98.8	77.6	89.5		14.2
	Ibuprofen	84.0	75.6	62.3		19.3
	Imazapyr	97.2	127	99.6		14.3
	Imidacloprid	89.7	123	123		0.163
	Linuron	78.7	50.5	47.5		6.11
	Mandestrobin	82.4	81.1	78.1		3.70
	MCPP	91.9	116	112		3.87
	Methiocarb	80.4	57.5	48.6		16.9
	Methomyl	98.3	55.2	61.0		9.98
	Naproxen	114	83.5	84.1		0.799
	Oxamyl	108	66.8	71.6		6.93
	Primidone	92.7	88.8	85.0		4.36
	Propoxur	68.3	36.7	41.3		11.8
	Pyraclostrobin	71.2	71.1	73.8		3.77
	Silvex	99.2	119	123		3.23
	Sucralose	99.9	90.6	95.2		3.61
	Thiamethoxam	96.1	93.4	94.4		1.01
	Tolfenpyrad	47.4	51.0	52.5		2.79
	Triclopyr	95.6	112	110		1.98
SM 2320 B-2011	Total Alkalinity	94.8			1.65	
SM 2540 C-2015	TDS	98.0			7.10	
SM 2540 D-2015	TSS	93.3			6.32	
SM 4500-F- C-2011	Fluoride	103	105	103		0.992
SM 5310 B-2011	Organic Carbon	94.9	93.1	94.1		0.693

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2394669, 2394671, 2394672
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2394669, 2394671, 2394672
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2394669, 2394671, 2394672
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2394669, 2394671, 2394672
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2394670, 2394673, 2394674
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2394670, 2394673, 2394674
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2394670, 2394673, 2394674
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2394670, 2394673, 2394674
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2394684
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2394683
EPA 8270E	PCBs in water matrices by GC/MS/MS	2394683
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2394683
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2394680
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2394681
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2394669, 2394671, 2394672
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2394669, 2394671, 2394672
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2394669, 2394671, 2394672
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2394669, 2394671, 2394672
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2394670, 2394673, 2394674

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	03/17/2023			03/17/2023 14:04	Alexis Price	2394671, 2394672
	03/17/2023			03/17/2023 14:15	Alexis Price	2394669
	03/17/2023			03/17/2023 13:42	Anna M. Plaviak	2394669
EPA 180.1 Rev. 2.0	03/17/2023			03/17/2023 13:43	Anna M. Plaviak	2394671
	03/17/2023			03/17/2023 13:46	Anna M. Plaviak	2394672
	03/17/2023			03/24/2023 08:05	Judith K. Clark	2394669
EPA 300.0 Rev. 2.1	03/17/2023			03/24/2023 08:20	Judith K. Clark	2394671
	03/17/2023			03/24/2023 08:36	Judith K. Clark	2394672
	03/17/2023			03/22/2023 14:22	Khloe J Berg	2394670
EPA 350.1 Rev. 2.0	03/17/2023			03/23/2023 11:14	Khloe J Berg	2394673
	03/17/2023			03/23/2023 11:15	Khloe J Berg	2394674
	03/17/2023	03/23/2023 12:00	Simonne.V. Calhoun	03/28/2023 14:55	Judith K. Clark	2394670
EPA 351.2 Rev. 2.0	03/17/2023	03/28/2023 16:17	Simonne.V. Calhoun	03/29/2023 13:48	Judith K. Clark	2394673
	03/17/2023	03/28/2023 16:17	Simonne.V. Calhoun	03/29/2023 13:49	Judith K. Clark	2394674
	03/17/2023			03/22/2023 09:42	Beverly Y. Sanders	2394670
EPA 353.2 Rev. 2.0	03/17/2023			03/22/2023 09:43	Beverly Y. Sanders	2394673
	03/17/2023			03/22/2023 09:44	Beverly Y. Sanders	2394674
	03/17/2023	03/21/2023 15:02	Adam P Silver	03/22/2023 09:36	James L Waggeberby	2394670
EPA 365.1 Rev. 2.0	03/17/2023	03/21/2023 15:02	Adam P Silver	03/22/2023 09:38	James L Waggeberby	2394674
	03/17/2023	03/21/2023 15:02	Adam P Silver	03/22/2023 12:44	James L Waggeberby	2394673
EPA 8270E	03/17/2023	03/21/2023 08:30	Rasheda Ghaffari	03/23/2023 18:53	Arthur Maknenko	2394684
	03/17/2023	03/22/2023 08:00	Fe-Val Siddell	03/24/2023 00:59	Julie Wi	2394683
	03/17/2023	03/22/2023 08:00	Fe-Val Siddell	03/24/2023 18:35	Julie Wi	2394683
EPA 8276	03/17/2023	03/22/2023 08:00	Fe-Val Siddell	03/24/2023 11:22	Lipi Saha	2394683
EPA 8321B	03/17/2023	03/17/2023 13:00	Manjita Shrestha	03/17/2023 21:01	Manjita Shrestha	2394681
	03/17/2023	03/17/2023 13:00	Manjita Shrestha	03/18/2023 16:53	Manjita Shrestha	2394681
	03/17/2023	03/22/2023 09:00	Hoor Shaik	03/30/2023 02:39	Juyoung Kim	2394680
	03/17/2023	03/23/2023 09:00	Hoor Shaik	03/30/2023 06:43	Juyoung Kim	2394681
SM 2320 B-2011	03/17/2023			03/22/2023 16:08	Dale L. Simmons	2394672
	03/17/2023			03/22/2023 18:51	Dale L. Simmons	2394669
	03/17/2023			03/22/2023 19:04	Dale L. Simmons	2394671
SM 2540 C-2015	03/17/2023			03/21/2023 16:04	Yijie Li	2394669, 2394671, 2394672
SM 2540 D-2015	03/17/2023			03/21/2023 16:04	Yijie Li	2394669, 2394671, 2394672
SM 4500-F- C-2011	03/17/2023			03/22/2023 16:08	Dale L. Simmons	2394672
	03/17/2023			03/22/2023 18:51	Dale L. Simmons	2394669
	03/17/2023			03/22/2023 19:04	Dale L. Simmons	2394671
SM 5310 B-2011	03/17/2023			03/25/2023 02:40	Khloe J Berg	2394674
	03/17/2023			03/25/2023 08:27	Khloe J Berg	2394670
	03/17/2023			03/25/2023 08:42	Khloe J Berg	2394673