

Chemical Analysis Report

SW-DIST-2023-01-24-02

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

Event Description: **Run 3**
Request ID: **RQ-2023-01-09-26**
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: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 14-FEB-2023 16:26



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: 01/23/2023 10:55

Field ID: G4SW0084

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2382384	DEP SOP: NU-094-1	Color (true)	59		PCU	P424924	
	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P424930	
	EPA 300.0 Rev. 2.1	Chloride	14		mg Cl/L	P425174	
		Sulfate	4.8		mg SO4/L	P425176	
	SM 2320 B-2011	Total Alkalinity	11		mg CaCO3/L	P425395	
	SM 2540 C-2015	TDS	64		mg/L	P425331	
	SM 2540 D-2015	TSS	3	I	mg/L	P425212	
	SM 4500-F- C-2011	Fluoride	0.11		mg F/L	P425399	RPD
2382386	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P425533	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.84		mg N/L	P425002	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P425139	
	EPA 365.1 Rev. 2.0	Total-P	0.039		mg P/L	P425129	
	SM 5310 B-2011	Organic Carbon	10		mg C/L	P425251	
2382388	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P424927	

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: Mountain Lake @ Center

Collection Date/Time: 01/23/2023 11:50

Field ID: G4SW0103

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2382385	DEP SOP: NU-094-1	Color (true)	60		PCU	P424924	
	EPA 180.1 Rev. 2.0	Turbidity	4.6		NTU	P424930	
	EPA 300.0 Rev. 2.1	Chloride	18		mg Cl/L	P425174	
		Sulfate	0.84		mg SO4/L	P425176	
	SM 2320 B-2011	Total Alkalinity	17		mg CaCO3/L	P425395	
	SM 2540 C-2015	TDS	69		mg/L	P425331	
	SM 2540 D-2015	TSS	6	I	mg/L	P425212	
	SM 4500-F- C-2011	Fluoride	0.098	I	mg F/L	P425399	RPD
2382387	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P425533	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P425002	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P425139	
	EPA 365.1 Rev. 2.0	Total-P	0.079		mg P/L	P425129	
	SM 5310 B-2011	Organic Carbon	14		mg C/L	P425251	
2382389	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P424927	

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: Irvin Lake

Collection Date/Time: 01/23/2023 12:45

Field ID: G4SW0025

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2382390	DEP SOP: NU-094-1	Color (true)	43		PCU	P424926	
	EPA 180.1 Rev. 2.0	Turbidity	16		NTU	P424930	
	EPA 300.0 Rev. 2.1	Chloride	10		mg Cl/L	P425174	
		Sulfate	1.1		mg SO4/L	P425176	
	SM 2320 B-2011	Total Alkalinity	45		mg CaCO3/L	P425395	
	SM 2540 C-2015	TDS	84		mg/L	P425331	
	SM 2540 D-2015	TSS	22		mg/L	P425212	
	SM 4500-F- C-2011	Fluoride	0.10		mg F/L	P425399	RPD
	EPA 350.1 Rev. 2.0	Ammonia-N	0.20		mg N/L	P425607	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.9		mg N/L	P425002	
2382391	EPA 353.2 Rev. 2.0	NO2NO3-N	0.032		mg N/L	P425139	
	EPA 365.1 Rev. 2.0	Total-P	0.23		mg P/L	P425129	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P425251	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.037		mg P/L	P424927	
	dissolved						
2382396	EPA 8321B	Aldicarb	0.020	U	ug/L	P424945	
		Aldicarb Sulfone	0.0020	U	ug/L	P424945	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P424945	
		Carbaryl	0.0020	U	ug/L	P424945	
		Carbofuran	0.0020	U	ug/L	P424945	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P424945	
		Methiocarb	0.0020	U	ug/L	P424945	
		Methomyl	0.0020	U	ug/L	P424945	
		Oxamyl	0.0020	U	ug/L	P424945	
		Propoxur	0.0020	U	ug/L	P424945	
2382397		2,4-D	0.018		ug/L	P424948	
		Acesulfame K	0.10	U	ug/L	P424903	
		2,4,5-T	0.0040	U	ug/L	P424948	
		AMPA	0.38	I	ug/L	P424903	
		Acetaminophen	0.0080	U	ug/L	P424948	
		Acetamiprid	0.0020	U	ug/L	P424948	
		Endothall	0.25	U	ug/L	P424903	
		Glufosinate	0.10	U	ug/L	P424903	
		Glyphosate	0.58		ug/L	P424903	
		Afidopyrophen	0.0020	U	ug/L	P424948	
		Bentazon	8.0E-04	U	ug/L	P424948	
		Sucralose	0.099		ug/L	P424903	
		Benzovindiflupyr	0.0020	U	ug/L	P424948	
		Carbamazepine	8.0E-04	U	ug/L	P424948	
		Clothianidin	0.0020	U	ug/L	P424948	
		Dinotefuran	0.0020	U	ug/L	P424948	
		Diuron	0.0020	U	ug/L	P424948	
		Fenuron	0.032	U	ug/L	P424948	
		Fluridone	8.0E-04	U	ug/L	P424948	

Field ID: G4SW0025

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2382397	EPA 8321B	Imazapyr	0.12		ug/L	P424948	
		Hydrocodone	0.0020	U	ug/L	P424948	
		Ibuprofen	0.080	U	ug/L	P424948	
		Imidacloprid	0.0020	U	ug/L	P424948	
		Linuron	0.0040	U	ug/L	P424948	
		Mandestrobin	0.0020	U	ug/L	P424948	
		MCPP	0.0020	U	ug/L	P424948	MS
		Naproxen	0.0080	U	ug/L	P424948	
		Primidone	0.0040	U	ug/L	P424948	
		Pyraclostrobin	0.0020	U	ug/L	P424948	
		Silvex	0.0040	U	ug/L	P424948	
		Thiamethoxam	0.0020	U	ug/L	P424948	
		Tolfenpyrad	0.0020	U	ug/L	P424948	
		Triclopyr	0.0040	U	ug/L	P424948	
2382398	EPA 8270E	Aldrin	0.68	U	ng/L	P424972	
		Alpha-BHC	0.11	U	ng/L	P424972	
		Alpha-Chlordane	0.21	U	ng/L	P424972	MS
		PCB-1016	2.1	U	ng/L	P424972	
		Beta-BHC	0.11	U	ng/L	P424972	
		PCB-1221	2.1	U	ng/L	P424972	
		Beta-Cyfluthrin	1.3	U	ng/L	P424972	RPD
		PCB-1232	2.1	U	ng/L	P424972	
		Bifenthrin	0.53	U	ng/L	P424972	
		PCB-1242	2.1	U	ng/L	P424972	
		Carbophenothion	0.95	U	ng/L	P424972	RPD
		PCB-1248	2.1	U	ng/L	P424972	
		Chlorothalonil	3.8	U	ng/L	P424972	
		PCB-1254	2.1	U	ng/L	P424972	
		Cis-Nonachlor	0.21	U	ng/L	P424972	
		PCB-1260	2.1	U	ng/L	P424972	
		Cypermethrin	1.6	U	ng/L	P424972	RPD
		Dacthal	0.16	U	ng/L	P424972	
		DDD-p,p'	0.26	U	ng/L	P424972	
		DDE-p,p'	0.21	U	ng/L	P424972	
		DDT-p,p'	0.26	U	ng/L	P424972	
		Delta-BHC	0.42	U	ng/L	P424972	
		Deltamethrin	1.3	U	ng/L	P424972	
		Dichlobenil	0.26	U	ng/L	P424972	
		Dicofol	1.3	U	ng/L	P424972	RPD
		Dieldrin	0.42	U	ng/L	P424972	MS, RPD
		Endosulfan I	0.42	U	ng/L	P424972	RPD
		Endosulfan II	0.42	U	ng/L	P424972	MS, RPD
		Endosulfan Sulfate	0.32	UJ	ng/L	P424972	LCS
		Endrin	0.42	U	ng/L	P424972	MS
		Endrin Aldehyde	0.79	U	ng/L	P424972	

Field ID: G4SW0025

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2382398	EPA 8270E	Endrin Ketone	0.42	U	ng/L	P424972	RPD
		Esfenvalerate	0.79	U	ng/L	P424972	
		Ethalfuralin	0.16	U	ng/L	P424972	
		Fenpropathrin	0.26	U	ng/L	P424972	RPD
		Gamma-BHC	0.13	U	ng/L	P424972	RPD
		Gamma-Chlordane	0.21	U	ng/L	P424972	
		Heptachlor	0.21	U	ng/L	P424972	
		Heptachlor Epoxide	0.26	U	ng/L	P424972	
		Hexachlorobenzene**	1.1	U	ng/L	P424972	
		Kepone	5.3	UJ	ng/L	P424972	CCV
		Lambda-Cyhalothrin	0.79	U	ng/L	P424972	RPD
		Methoprene	0.79	U	ng/L	P424972	RPD
		Methoxychlor	0.32	U	ng/L	P424972	RPD
		MGK-264	0.21	U	ng/L	P424972	
		Mirex	0.37	U	ng/L	P424972	
		Oxychlordane	0.32	U	ng/L	P424972	RPD
		Permethrin	1.7	U	ng/L	P424972	RPD
		Phenothrin	0.95	U	ng/L	P424972	RPD
		Piperonyl Butoxide	0.16	U	ng/L	P424972	
		Prallethrin	2.1	U	ng/L	P424972	
		Tau-Fluvalinate	0.26	U	ng/L	P424972	RPD
		Tetramethrin	0.79	U	ng/L	P424972	RPD
		Trans-Nonachlor	0.21	U	ng/L	P424972	
		Triclosan Methyl	0.16	U	ng/L	P424972	
		Trifluralin	0.21	U	ng/L	P424972	
	EPA 8276	Chlordane	2.1	U	ng/L	P424972	
	Toxaphene	16	U	ng/L	P424972		
2382399	EPA 8270E	Oxybenzone**	9.5	U	ng/L	P424935	
		Octinoxate**	19	U	ng/L	P424935	
		Avobenzone**	95	U	ng/L	P424935	
		PBDE-47**	3.8	U	ng/L	P424935	
		PBDE-99**	4.8	U	ng/L	P424935	
		Tri-o-cresyl Phosphate**	5.7	U	ng/L	P424935	
		2-Ethylhexyl	11	U	ng/L	P424935	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Dechlorane Plus**	29	U	ng/L	P424935	

Ref. Method and Comment:

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

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: P424924

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P424926

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P424930

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P425174

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P425176

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425533

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425607

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425002

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425139

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P425129

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P424927

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

Reference Method: EPA 8270E

Batch ID: P424935

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 Plus	30	U	ng/L
Dechlorane Plus	30	U	ng/L
Octinoxate	230		ng/L
Octinoxate	20	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	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
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L

Reference Method: EPA 8270E

Batch ID: P424972

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P424972

Component	Result	Code	Units
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P424972

Component	Result	Code	Units
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
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 8276

Batch ID: P424972

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P424903

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: P424945

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: P424948

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	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P424948

Component	Result	Code	Units
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011
Batch ID: P425395

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

Reference Method: SM 2540 C-2015
Batch ID: P425331

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P425212

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P425399

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P425251

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: P424924

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

Reference Method: DEP SOP: NU-094-1
Batch ID: P424926

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P424930

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P425174

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P425176

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425533

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425607

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425002

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425139

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P425129

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P424927

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

Reference Method: EPA 8270E

Batch ID: P424935

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	97.6		P	42 - 162
Avobenzene	112		P	40 - 203
Dechlorane Plus	101		P	47 - 182
Octinoxate	153		P	26 - 166
Oxybenzone	78.8		P	49 - 135
PBDE-47	94.2		P	41 - 148
PBDE-99	94.3		P	38 - 147
Tri-o-cresyl Phosphate	92.6		P	49 - 150

Reference Method: EPA 8270E

Batch ID: P424972

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	47.7		P	10 - 92.0
Alpha-BHC	95.0		P	75 - 107
Alpha-Chlordane	90.2		P	50 - 108
Beta-BHC	120		P	36 - 138
Beta-Cyfluthrin	98.6		P	20 - 161
Bifenthrin	55.6		P	10 - 119
Carbophenothion	59.6		P	19 - 94.0
Chlorothalonil	122		P	26 - 186
Cis-Nonachlor	72.9		P	42 - 119
Cypermethrin	88.7		P	22 - 150
Dacthal	104		P	72 - 119
DDD-p,p'	91.3		P	45 - 107
DDE-p,p'	83.1		P	48 - 106
DDT-p,p'	76.4		P	48 - 110
Delta-BHC	121		P	54 - 140
Deltamethrin	33.6		P	22 - 189
Dichlobenil	94.2		P	36 - 117
Dicofol	98.6		P	46 - 155
Dieldrin	91.5		P	54 - 110
Endosulfan I	83.8		P	59 - 105
Endosulfan II	92.6		P	51 - 118
Endosulfan Sulfate	123		F	57 - 121
Endrin	87.7		P	10 - 120
Endrin Aldehyde	95.3		P	34 - 118
Endrin Ketone	102		P	69 - 177
Esfenvalerate	91.2		P	23 - 168
Ethalfuralin	76.6		P	49 - 99.0

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P424972

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fenpropathrin	81.1		P	34 - 117
Gamma-BHC	102		P	72 - 117
Gamma-Chlordane	72.2		P	43 - 106
Heptachlor	65.0		P	41 - 98.0
Heptachlor Epoxide	89.2		P	57 - 106
Hexachlorobenzene	72.5		P	36 - 99.0
Kepone	130		P	16 - 215
Lambda-Cyhalothrin	77.0		P	21 - 177
Methoprene	62.6		P	10 - 119
Methoxychlor	80.4		P	60 - 112
MGK-264	88.3		P	26 - 122
Mirex	61.7		P	10 - 169
Oxychlordane	79.2		P	43 - 105
PCB-1016	84.4		P	48 - 112
PCB-1260	81.1		P	44 - 118
Permethrin	82.9		P	24 - 148
Phenothrin	48.9		P	10 - 106
Piperonyl Butoxide	101		P	10 - 139
Prallethrin	78.7		P	17 - 109
Tau-Fluvalinate	83.3		P	13 - 131
Tetramethrin	99.5		P	10 - 132
Trans-Nonachlor	83.9		P	44 - 106
Triclosan Methyl	80.1		P	59 - 109
Trifluralin	76.4		P	44 - 101

Reference Method: EPA 8276

Batch ID: P424972

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	91.6		P	61 - 116
Toxaphene	110		P	48 - 124

Reference Method: EPA 8321B

Batch ID: P424903

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	89.3		P	40 - 150
AMPA	94.7		P	40 - 150
Endothall	93.7		P	40 - 150
Glufosinate	105		P	40 - 150
Glyphosate	99.3		P	40 - 150
Sucralose	97.5		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P424945

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	106		P	40 - 150
Aldicarb	77.9		P	30 - 150
Aldicarb Sulfone	83.4		P	40 - 150
Aldicarb Sulfoxide	110		P	40 - 150
Carbaryl	69.1		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P424945

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbofuran	74.1		P	40 - 150
Methiocarb	65.3		P	40 - 150
Methomyl	95.3		P	40 - 150
Oxamyl	90.9		P	40 - 150
Propoxur	69.4		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P424948

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	87.4		P	40 - 150
2,4,5-T	75.7		P	40 - 150
Acetaminophen	90.7		P	30 - 150
Acetamiprid	81.3		P	40 - 150
Afidopyropen	70.8		P	30 - 150
Bentazon	84.1		P	30 - 150
Benzovindiflupyr	80.3		P	40 - 150
Carbamazepine	84.5		P	40 - 150
Clothianidin	98.9		P	40 - 150
Dinotefuran	97.5		P	40 - 150
Diuron	70.7		P	40 - 150
Fenuron	100		P	40 - 150
Fluridone	64.2		P	40 - 150
Hydrocodone	110		P	40 - 150
Ibuprofen	64.7		P	40 - 150
Imazapyr	94.2		P	40 - 150
Imidacloprid	82.7		P	40 - 150
Linuron	66.1		P	40 - 150
Mandestrobin	89.9		P	40 - 150
MCPP	111		P	40 - 150
Naproxen	67.5		P	40 - 150
Primidone	108		P	40 - 150
Pyraclostrobin	72.4		P	40 - 150
Silvex	79.8		P	40 - 150
Thiamethoxam	103		P	40 - 150
Tolfenpyrad	44.1		P	30 - 150
Triclopyr	79.3		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P425395

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.0		P	94 - 106

Reference Method: SM 2540 C-2015
Batch ID: P425331

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	96.9		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 D-2015
Batch ID: P425212

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	99.0		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P425399

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P425251

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.1		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P425174

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382230	Chloride	98.9		P	90 - 110
2382405	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P425176

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382230	Sulfate	94.2		P	90 - 110
2382405	Sulfate	99.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425533

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382268	Ammonia-N	107	96.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425607

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382578	Ammonia-N	98.8	96.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425002

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382386	Kjeldahl Nitrogen	103	95.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425139

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382342	NO2NO3-N	98.6	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P425129

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382375	Total-P	107	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P424927

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382249	O-Phosphate-P	98.2	98.5	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P424935

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382260	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	82.0	102	P/P	26 - 165
2382260	Avobenzene	109	112	P/P	37 - 178

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P424935

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382260	Dechlorane Plus	89.1	96.5	P/P	50 - 150
2382260	Octinoxate	151	121	P/P	21 - 159
2382260	Oxybenzone	78.6	83.8	P/P	41 - 142
2382260	PBDE-47	88.9	96.0	P/P	27 - 144
2382260	PBDE-99	84.2	95.8	P/P	18 - 150
2382260	Tri-o-cresyl Phosphate	88.1	91.5	P/P	31 - 144

Reference Method: EPA 8270E

Batch ID: P424972

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382472	Aldrin	63.5	49.2	P/P	20 - 82.0
2382472	Alpha-BHC	98.8	80.8	P/P	71 - 109
2382472	Alpha-Chlordane	109	88.6	F/P	42 - 106
2382472	Beta-BHC	122	102	P/P	69 - 180
2382472	Beta-Cyfluthrin	57.5	101	P/P	18 - 175
2382472	Bifenthrin	44.7	63.8	P/P	21 - 128
2382472	Carbophenothion	36.0	68.2	P/P	10 - 126
2382472	Chlorothalonil	127	134	P/P	10 - 300
2382472	Cis-Nonachlor	73.7	65.9	P/P	34 - 106
2382472	Cypermethrin	45.6	77.5	P/P	22 - 158
2382472	Dacthal	92.3	79.8	P/P	54 - 116
2382472	DDD-p,p'	81.5	77.3	P/P	34 - 107
2382472	DDE-p,p'	104	79.6	P/P	33 - 110
2382472	DDT-p,p'	75.9	62.9	P/P	50 - 122
2382472	Delta-BHC	135	113	P/P	77 - 193
2382472	Deltamethrin	60.3	84.4	P/P	10 - 195
2382472	Dichlobenil	79.2	67.5	P/P	25 - 113
2382472	Dicofol	55.6	82.1	P/P	38 - 247
2382472	Dieldrin	129	86.5	F/P	45 - 118
2382472	Endosulfan I	92.6	66.9	P/P	51 - 106
2382472	Endosulfan II	122	71.8	F/P	37 - 122
2382472	Endosulfan Sulfate	91.6	128	P/P	43 - 132
2382472	Endrin	125	87.4	F/P	29 - 101
2382472	Endrin Aldehyde	62.7	66.5	P/P	19 - 110
2382472	Endrin Ketone	140	84.2	P/P	60 - 140
2382472	Esfenvalerate	65.9	104	P/P	26 - 199
2382472	Ethalfuralin	78.7	67.8	P/P	45 - 99.0
2382472	Fenpropathrin	48.7	68.3	P/P	35 - 120
2382472	Gamma-BHC	90.8	73.0	P/P	63 - 128
2382472	Gamma-Chlordane	73.9	64.7	P/P	40 - 104
2382472	Heptachlor	59.4	60.2	P/P	36 - 97.0
2382472	Heptachlor Epoxide	89.4	71.6	P/P	49 - 184
2382472	Hexachlorobenzene	77.0	64.7	P/P	39 - 96.0
2382472	Kepone	90.2	86.8	P/P	10 - 217
2382472	Lambda-Cyhalothrin	39.3	69.1	P/P	21 - 193
2382472	Methoprene	27.9	54.8	P/P	20 - 106
2382472	Methoxychlor	59.6	101	P/P	53 - 118
2382472	MGK-264	64.8	70.1	P/P	40 - 118
2382472	Mirex	69.1	55.4	P/P	26 - 92.0
2382472	Oxychlordane	81.7	59.7	P/P	44 - 99.0
2382472	Permethrin	62.6	106	P/P	33 - 182

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P424972

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382472	Phenothrin	28.7	59.4	P/P	10 - 129
2382472	Piperonyl Butoxide	56.4	78.3	P/P	10 - 211
2382472	Prallethrin	44.1	64.2	P/P	24 - 113
2382472	Tau-Fluvalinate	49.8	107	P/P	14 - 149
2382472	Tetramethrin	51.3	99.7	P/P	17 - 151
2382472	Trans-Nonachlor	73.3	74.1	P/P	42 - 102
2382472	Triclosan Methyl	75.9	68.9	P/P	48 - 108
2382472	Trifluralin	76.9	68.7	P/P	47 - 96.0
2382507	PCB-1016	87.1	89.8	P/P	46 - 111
2382507	PCB-1260	84.6	81.5	P/P	45 - 114

Reference Method: EPA 8276

Batch ID: P424972

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382507	Chlordane	94.6	95.8	P/P	53 - 126
2382507	Toxaphene	105	102	P/P	56 - 211

Reference Method: EPA 8321B

Batch ID: P424903

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382351	Acesulfame K	87.0	86.7	P/P	40 - 150
2382351	AMPA	48.6	59.0	P/P	40 - 150
2382351	Endothall	120	119	P/P	40 - 150
2382351	Glufosinate	82.9	93.5	P/P	40 - 150
2382351	Glyphosate	83.0	97.7	P/P	40 - 150
2382351	Sucralose	90.7	87.9	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P424945

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382025	3-Hydroxycarbofuran	88.7	80.4	P/P	40 - 150
2382025	Aldicarb	74.5	58.4	P/P	30 - 150
2382025	Aldicarb Sulfone	84.6	81.7	P/P	40 - 150
2382025	Aldicarb Sulfoxide	57.6	57.6	P/P	40 - 150
2382025	Carbaryl	57.3	56.2	P/P	40 - 150
2382025	Carbofuran	58.9	52.8	P/P	40 - 150
2382025	Methiocarb	62.2	64.7	P/P	40 - 150
2382025	Methomyl	87.7	80.3	P/P	40 - 150
2382025	Oxamyl	85.2	85.6	P/P	40 - 150
2382025	Propoxur	54.2	53.7	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P424948

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382256	2,4-D	98.2	85.5	P/P	40 - 150
2382256	2,4,5-T	101	92.0	P/P	40 - 150
2382256	Acetaminophen	110	100	P/P	30 - 150
2382256	Acetamiprid	101	85.1	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P424948

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382256	Afidopyropen	85.0	67.4	P/P	30 - 150
2382256	Bentazon	84.3	79.5	P/P	30 - 150
2382256	Benzovindiflupyr	92.3	85.9	P/P	40 - 150
2382256	Carbamazepine	89.4	82.9	P/P	40 - 150
2382256	Clothianidin	130	104	P/P	40 - 150
2382256	Dinotefuran	117	110	P/P	40 - 150
2382256	Diuron	81.0	79.7	P/P	40 - 150
2382256	Fenuron	120	105	P/P	40 - 150
2382256	Fluridone	79.7	73.3	P/P	40 - 150
2382256	Hydrocodone	133	110	P/P	40 - 150
2382256	Ibuprofen	94.4	85.8	P/P	40 - 150
2382256	Imazapyr	113	102	P/P	40 - 150
2382256	Imidacloprid	111	109	P/P	40 - 150
2382256	Linuron	80.4	72.2	P/P	40 - 150
2382256	Mandestrobin	98.4	98.5	P/P	40 - 150
2382256	MCPP	157	141	F/P	40 - 150
2382256	Naproxen	71.3	64.9	P/P	40 - 150
2382256	Primidone	124	119	P/P	40 - 150
2382256	Pyraclostrobin	93.1	83.4	P/P	40 - 150
2382256	Silvex	89.6	78.0	P/P	40 - 150
2382256	Thiamethoxam	103	103	P/P	40 - 150
2382256	Tolfenpyrad	55.3	48.4	P/P	30 - 150
2382256	Triclopyr	96.7	85.6	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P425399

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382909	Fluoride	103	100	P/P	94 - 104

Reference Method: SM 5310 B-2011

Batch ID: P425251

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2383498	Organic Carbon	95.4	97.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P424924

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382374	Color (true)	0.975	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P424926

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382359	Color (true)	2.08	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P424930

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382289	Turbidity	1.26	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P425174

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382230	Chloride	0.406	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P425176

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382230	Sulfate	0.354	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425533

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382268	Ammonia-N	8.61	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425607

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382578	Ammonia-N	1.99	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425002

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382386	Kjeldahl Nitrogen	5.29	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P425139

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382342	NO2NO3-N	1.06	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P425129

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382375	Total-P	1.72	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P424927

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382249	O-Phosphate-P	0.233	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P424935

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382260	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	21.4	Spike	P	0 - 37
2382260	Avobenzene	2.56	Spike	P	0 - 36
2382260	Dechlorane Plus	7.90	Spike	P	0 - 30
2382260	Octinoxate	16.1	Spike	P	0 - 45
2382260	Oxybenzone	6.35	Spike	P	0 - 46
2382260	PBDE-47	7.65	Spike	P	0 - 36
2382260	PBDE-99	12.9	Spike	P	0 - 40
2382260	Tri-o-cresyl Phosphate	3.74	Spike	P	0 - 33

Reference Method: EPA 8270E

Batch ID: P424972

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382472	Aldrin	25.3	Spike	P	0 - 41
2382472	Alpha-BHC	20.1	Spike	P	0 - 25
2382472	Alpha-Chlordane	20.7	Spike	P	0 - 33
2382472	Beta-BHC	17.2	Spike	P	0 - 36
2382472	Beta-Cyfluthrin	54.7	Spike	F	0 - 42
2382472	Bifenthrin	35.3	Spike	P	0 - 53
2382472	Carbophenothion	61.8	Spike	F	0 - 49
2382472	Chlorothalonil	5.34	Spike	P	0 - 71
2382472	Cis-Nonachlor	11.1	Spike	P	0 - 29
2382472	Cypermethrin	51.7	Spike	F	0 - 40
2382472	Dacthal	14.6	Spike	P	0 - 26
2382472	DDD-p,p'	5.29	Spike	P	0 - 39
2382472	DDE-p,p'	26.7	Spike	P	0 - 33
2382472	DDT-p,p'	18.8	Spike	P	0 - 40
2382472	Delta-BHC	18.2	Spike	P	0 - 37
2382472	Deltamethrin	33.4	Spike	P	0 - 100

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P424972

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382472	Dichlobenil	15.8	Spike	P	0 - 40
2382472	Dicofol	38.5	Spike	F	0 - 31
2382472	Dieldrin	39.8	Spike	F	0 - 27
2382472	Endosulfan I	32.2	Spike	F	0 - 23
2382472	Endosulfan II	51.8	Spike	F	0 - 28
2382472	Endosulfan Sulfate	32.8	Spike	P	0 - 38
2382472	Endrin	35.8	Spike	P	0 - 63
2382472	Endrin Aldehyde	5.80	Spike	P	0 - 60
2382472	Endrin Ketone	49.7	Spike	F	0 - 37
2382472	Esfenvalerate	44.7	Spike	P	0 - 52
2382472	Ethalfuralin	14.9	Spike	P	0 - 23
2382472	Fenpropathrin	33.5	Spike	F	0 - 32
2382472	Gamma-BHC	21.7	Spike	F	0 - 17
2382472	Gamma-Chlordane	13.2	Spike	P	0 - 40
2382472	Heptachlor	1.29	Spike	P	0 - 29
2382472	Heptachlor Epoxide	22.1	Spike	P	0 - 25
2382472	Hexachlorobenzene	17.3	Spike	P	0 - 36
2382472	Kepone	3.76	Spike	P	0 - 93
2382472	Lambda-Cyhalothrin	55.1	Spike	F	0 - 55
2382472	Methoprene	65.2	Spike	F	0 - 53
2382472	Methoxychlor	51.5	Spike	F	0 - 29
2382472	MGK-264	7.80	Spike	P	0 - 35
2382472	Mirex	22.0	Spike	P	0 - 46
2382472	Oxychlordane	31.1	Spike	F	0 - 29
2382472	Permethrin	51.6	Spike	F	0 - 44
2382472	Phenothrin	69.7	Spike	F	0 - 56
2382472	Piperonyl Butoxide	32.4	Spike	P	0 - 100
2382472	Prallethrin	37.1	Spike	P	0 - 42
2382472	Tau-Fluvalinate	73.3	Spike	F	0 - 54
2382472	Tetramethrin	64.0	Spike	F	0 - 51
2382472	Trans-Nonachlor	1.15	Spike	P	0 - 37
2382472	Triclosan Methyl	9.69	Spike	P	0 - 31
2382472	Trifluralin	11.2	Spike	P	0 - 30
2382507	PCB-1016	3.09	Spike	P	0 - 32
2382507	PCB-1260	3.78	Spike	P	0 - 31

Reference Method: EPA 8276
Batch ID: P424972

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382507	Chlordane	1.24	Spike	P	0 - 25
2382507	Toxaphene	1.75	Spike	P	0 - 26

Reference Method: EPA 8321B
Batch ID: P424903

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382351	Acesulfame K	0.411	Spike	P	0 - 30
2382351	AMPA	8.86	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P424903

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382351	Endothall	0.477	Spike	P	0 - 30
2382351	Glufosinate	12.0	Spike	P	0 - 30
2382351	Glyphosate	8.65	Spike	P	0 - 30
2382351	Sucralose	3.06	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P424945

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382025	3-Hydroxycarbofuran	9.80	Spike	P	0 - 30
2382025	Aldicarb	24.3	Spike	P	0 - 30
2382025	Aldicarb Sulfone	3.48	Spike	P	0 - 30
2382025	Aldicarb Sulfoxide	0.148	Spike	P	0 - 30
2382025	Carbaryl	1.92	Spike	P	0 - 30
2382025	Carbofuran	11.0	Spike	P	0 - 30
2382025	Methiocarb	3.88	Spike	P	0 - 30
2382025	Methomyl	8.87	Spike	P	0 - 30
2382025	Oxamyl	0.543	Spike	P	0 - 30
2382025	Propoxur	0.864	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P424948

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382256	2,4-D	13.1	Spike	P	0 - 30
2382256	2,4,5-T	8.87	Spike	P	0 - 30
2382256	Acetaminophen	9.32	Spike	P	0 - 30
2382256	Acetamiprid	16.8	Spike	P	0 - 30
2382256	Afidopyropen	23.0	Spike	P	0 - 30
2382256	Bentazon	5.90	Spike	P	0 - 30
2382256	Benzovindiflupyr	7.17	Spike	P	0 - 30
2382256	Carbamazepine	7.58	Spike	P	0 - 30
2382256	Clothianidin	22.0	Spike	P	0 - 30
2382256	Dinotefuran	5.94	Spike	P	0 - 30
2382256	Diuron	1.71	Spike	P	0 - 30
2382256	Fenuron	12.7	Spike	P	0 - 30
2382256	Fluridone	8.40	Spike	P	0 - 30
2382256	Hydrocodone	18.9	Spike	P	0 - 30
2382256	Ibuprofen	9.52	Spike	P	0 - 30
2382256	Imazapyr	10.0	Spike	P	0 - 30
2382256	Imidacloprid	1.78	Spike	P	0 - 30
2382256	Linuron	10.7	Spike	P	0 - 30
2382256	Mandestrobin	0.0787	Spike	P	0 - 30
2382256	MCPP	10.6	Spike	P	0 - 30
2382256	Naproxen	9.41	Spike	P	0 - 30
2382256	Primidone	4.14	Spike	P	0 - 30
2382256	Pyraclostrobin	11.0	Spike	P	0 - 30
2382256	Silvex	13.7	Spike	P	0 - 30
2382256	Thiamethoxam	0.126	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P424948

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382256	Tolfenpyrad	13.3	Spike	P	0 - 30
2382256	Triclopyr	12.1	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P425395

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382909	Total Alkalinity	0.110	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P425331

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382201	TDS	6.71	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P425399

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382909	Fluoride	1.95	Spike	F	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P425251

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2383498	Organic Carbon	1.61	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2382396
Field Sample ID: G4SW0025

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	45.1	P	30 - 160

Lab Sample ID: 2382397
Field Sample ID: G4SW0025

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	66.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	81.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	57.8	P	30 - 160
EPA 8321B	Diuron-d6	49.7	P	30 - 160
EPA 8321B	Endothall-d6	108	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	97.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	75.7	P	30 - 160
EPA 8321B	Primidone-d5	105	P	30 - 160
EPA 8321B	Sucralose-d6	92.7	P	30 - 160

Lab Sample ID: 2382398
Field Sample ID: G4SW0025

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	81.5	P	29 - 130
EPA 8270E	Decachlorobiphenyl	64.9	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	60.9	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	58.3	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	62.0	P	30 - 101
EPA 8276	PCNB	89.9	P	48 - 121

Lab Sample ID: 2382399
Field Sample ID: G4SW0025

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Terphenyl-d14	67.5	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A117051

Included Lab Sample IDs: 2382384, 2382385, 2382390

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

Reference Method: DEP SOP: NU-094-1

Run ID: A117071

Included Lab Sample IDs: 2382384, 2382385, 2382390

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	100	P/P	90 - 110
Color (true)	101	99.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A117072

Included Lab Sample IDs: 2382388, 2382389, 2382392

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.3	99.0	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A117073

Included Lab Sample IDs: 2382384, 2382385, 2382390

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

Reference Method: EPA 8321B

Run ID: A117080

Included Lab Sample IDs: 2382397

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	93.1	87.9	P/P	60 - 160
Sucralose	96.4	92.6	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A117084

Included Lab Sample IDs: 2382397

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	89.0	93.9	P/P	60 - 160
Endothall	96.6	96.4	P/P	60 - 160
Glufosinate	95.5	96.8	P/P	60 - 160
Glyphosate	90.6	98.5	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A117129

Included Lab Sample IDs: 2382397

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	103	115	P/P	50 - 150
2,4,5-T	105	104	P/P	50 - 150
3-Hydroxycarbofuran	118	138	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A117129
Included Lab Sample IDs: 2382397

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	114	114	P/P	60 - 160
Acetamiprid	116	116	P/P	50 - 150
Afidopyropen	84.1	90.2	P/P	50 - 150
Aldicarb	106	102	P/P	60 - 150
Aldicarb Sulfone	112	109	P/P	50 - 150
Aldicarb Sulfoxide	104	106	P/P	50 - 150
Bentazon	108	111	P/P	50 - 160
Benzovindiflupyr	105	120	P/P	50 - 150
Carbamazepine	108	107	P/P	60 - 150
Carbaryl	130	117	P/P	60 - 150
Carbofuran	111	113	P/P	50 - 150
Clothianidin	118	126	P/P	60 - 150
Dinotefuran	115	121	P/P	50 - 150
Diuron	110	121	P/P	60 - 160
Fenuron	117	115	P/P	60 - 150
Fluridone	110	112	P/P	60 - 160
Hydrocodone	145	124	P/P	60 - 150
Ibuprofen	120	135	P/P	50 - 160
Imazapyr	116	114	P/P	50 - 150
Imidacloprid	100	104	P/P	60 - 150
Linuron	95.0	104	P/P	60 - 150
Mandestrobin	115	118	P/P	50 - 150
MCPP	105	108	P/P	50 - 150
Methiocarb	108	110	P/P	50 - 150
Methomyl	108	111	P/P	50 - 150
Naproxen	147	132	P/P	50 - 160
Oxamyl	106	111	P/P	50 - 150
Primidone	129	127	P/P	60 - 150
Propoxur	120	112	P/P	50 - 150
Pyraclostrobin	113	122	P/P	60 - 150
Silvex	106	116	P/P	50 - 150
Thiamethoxam	116	127	P/P	50 - 150
Tolfenpyrad	111	106	P/P	60 - 150
Triclopyr	95.6	107	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A117151
Included Lab Sample IDs: 2382399

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	96.3		P	80 - 120
Avobenzone	97.4		P	80 - 120
Dechlorane Plus	96.7		P	80 - 120
Octinoxate	97.5		P	80 - 120
Oxybenzone	99.9		P	80 - 120
PBDE-47	97.8		P	80 - 120
PBDE-99	100		P	80 - 120
Tri-o-cresyl Phosphate	97.9		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A117153

Included Lab Sample IDs: 2382386, 2382387, 2382391

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.6	95.1	P/P	90 - 110
Kjeldahl Nitrogen	95.1	97.5	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A117155

Included Lab Sample IDs: 2382398

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	101		P	80 - 120
Toxaphene	93.7		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A117158

Included Lab Sample IDs: 2382386, 2382387, 2382391

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	98.5	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A117171

Included Lab Sample IDs: 2382398

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	97.5		P	80 - 120
PCB-1260	96.4		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A117176

Included Lab Sample IDs: 2382387, 2382391

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.4	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A117189

Included Lab Sample IDs: 2382386

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	100	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A117199

Included Lab Sample IDs: 2382398

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.5		P	80 - 120
Alpha-BHC	96.9		P	80 - 120
Alpha-Chlordane	99.0		P	80 - 120
Beta-BHC	96.7		P	80 - 120
Beta-Cyfluthrin	107		P	80 - 120
Bifenthrin	103		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A117199
Included Lab Sample IDs: 2382398

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbophenothion	99.3		P	80 - 120
Chlorothalonil	103		P	80 - 120
Cis-Nonachlor	100		P	80 - 120
Cypermethrin	103		P	80 - 120
Dacthal	101		P	80 - 120
DDD-p,p'	104		P	80 - 120
DDE-p,p'	99.8		P	80 - 120
DDT-p,p'	99.6		P	80 - 120
Delta-BHC	98.6		P	80 - 120
Deltamethrin	105		P	80 - 120
Dichlobenil	96.0		P	80 - 120
Dicofol	107		P	80 - 120
Dieldrin	100		P	80 - 120
Endosulfan I	97.9		P	80 - 120
Endosulfan II	98.8		P	80 - 120
Endosulfan Sulfate	104		P	80 - 120
Endrin	100		P	80 - 120
Endrin Aldehyde	103		P	80 - 120
Endrin Ketone	96.0		P	80 - 120
Esfenvalerate	101		P	80 - 120
Ethalfuralin	97.4		P	80 - 120
Fenpropathrin	102		P	80 - 120
Gamma-BHC	96.5		P	80 - 120
Gamma-Chlordane	98.7		P	80 - 120
Heptachlor	96.5		P	80 - 120
Heptachlor Epoxide	101		P	80 - 120
Hexachlorobenzene	100		P	80 - 120
Kepone	77.5*		F	80 - 120
Lambda-Cyhalothrin	105		P	80 - 120
Methoprene	97.2		P	80 - 120
Methoxychlor	101		P	80 - 120
MGK-264	97.3		P	80 - 120
Mirex	96.8		P	80 - 120
Oxychlordane	98.3		P	80 - 120
Permethrin	101		P	80 - 120
Phenothrin	99.6		P	80 - 120
Piperonyl Butoxide	90.8		P	80 - 120
Prallethrin	89.5		P	80 - 120
Tau-Fluvalinate	105		P	80 - 120
Tetramethrin	101		P	80 - 120
Trans-Nonachlor	99.1		P	80 - 120
Triclosan Methyl	99.1		P	80 - 120
Trifluralin	97.9		P	80 - 120

Reference Method: SM 5310 B-2011
Run ID: A117202
Included Lab Sample IDs: 2382386, 2382387, 2382391

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	99.4	P/P	90 - 110
Organic Carbon	99.4	99.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A117270

Included Lab Sample IDs: 2382384, 2382385, 2382390

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.1	96.8	P/P	90 - 110
Total Alkalinity	96.8	95.5	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A117270

Included Lab Sample IDs: 2382384, 2382385, 2382390

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	104	P/P	90 - 110
Fluoride	104	105	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A117326

Included Lab Sample IDs: 2382386, 2382387

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	96.3	97.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A117354

Included Lab Sample IDs: 2382391

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.1	99.5	P/P	90 - 110

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	99.2				0.975	
	Color (true)	101				2.08	
EPA 180.1 Rev. 2.0	Turbidity	101				1.26	
EPA 300.0 Rev. 2.1	Chloride	99.1	98.9	102		0.406	
	Sulfate	97.3	94.2	99.8		0.354	
EPA 350.1 Rev. 2.0	Ammonia-N	94.2	107	96.8			8.61
	Ammonia-N	97.0	98.8	96.6			1.99
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.1	103	95.4			5.29
EPA 353.2 Rev. 2.0	NO2NO3-N	97.0	98.6	97.0			1.06
EPA 365.1 Rev. 2.0	Total-P	106	107	105			1.72
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.7	98.2	98.5			0.233
EPA 8270E	2-Ethylhexyl	97.6	82.0	102			21.4
	2,3,4,5-tetrabromobenzoate (EHTBB)						
	Aldrin	47.7	63.5	49.2			25.3
	Alpha-BHC	95.0	98.8	80.8			20.1
	Alpha-Chlordane	90.2	109	88.6			20.7
	Avobenzone	112	109	112			2.56
	Beta-BHC	120	122	102			17.2
	Beta-Cyfluthrin	98.6	57.5	101			54.7
	Bifenthrin	55.6	44.7	63.8			35.3
	Carbophenothion	59.6	36.0	68.2			61.8
	Chlorothalonil	122	127	134			5.34
	Cis-Nonachlor	72.9	73.7	65.9			11.1
	Cypermethrin	88.7	45.6	77.5			51.7
	Dacthal	104	92.3	79.8			14.6
	DDD-p,p'	91.3	81.5	77.3			5.29
	DDE-p,p'	83.1	104	79.6			26.7
	DDT-p,p'	76.4	75.9	62.9			18.8
	Dechlorane Plus	101	89.1	96.5			7.90
	Delta-BHC	121	135	113			18.2
	Deltamethrin	33.6	60.3	84.4			33.4
	Dichlobenil	94.2	79.2	67.5			15.8
	Dicofol	98.6	55.6	82.1			38.5
	Dieldrin	91.5	129	86.5			39.8
	Endosulfan I	83.8	92.6	66.9			32.2
	Endosulfan II	92.6	122	71.8			51.8
	Endosulfan Sulfate	123	91.6	128			32.8
	Endrin	87.7	125	87.4			35.8
	Endrin Aldehyde	95.3	62.7	66.5			5.80
	Endrin Ketone	102	140	84.2			49.7
	Esfenvalerate	91.2	65.9	104			44.7
	Ethalfuralin	76.6	78.7	67.8			14.9
	Fenpropathrin	81.1	48.7	68.3			33.5
	Gamma-BHC	102	90.8	73.0			21.7
	Gamma-Chlordane	72.2	73.9	64.7			13.2
	Heptachlor	65.0	59.4	60.2			1.29
	Heptachlor Epoxide	89.2	89.4	71.6			22.1
	Hexachlorobenzene	72.5	77.0	64.7			17.3
	Kepone	130	90.2	86.8			3.76
	Lambda-Cyhalothrin	77.0	39.3	69.1			55.1
	Methoprene	62.6	27.9	54.8			65.2
	Methoxychlor	80.4	59.6	101			51.5
	MGK-264	88.3	64.8	70.1			7.80

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Mirex	61.7	69.1	55.4			22.0
	Octinoxate	153	151	121			16.1
	Oxybenzone	78.8	78.6	83.8			6.35
	Oxychlordane	79.2	81.7	59.7			31.1
	PBDE-47	94.2	88.9	96.0			7.65
	PBDE-99	94.3	84.2	95.8			12.9
	PCB-1016	84.4	87.1	89.8			3.09
	PCB-1260	81.1	84.6	81.5			3.78
	Permethrin	82.9	62.6	106			51.6
	Phenothrin	48.9	28.7	59.4			69.7
	Piperonyl Butoxide	101	56.4	78.3			32.4
	Prallethrin	78.7	44.1	64.2			37.1
	Tau-Fluvalinate	83.3	49.8	107			73.3
	Tetramethrin	99.5	51.3	99.7			64.0
	Trans-Nonachlor	83.9	73.3	74.1			1.15
	Tri-o-cresyl Phosphate	92.6	88.1	91.5			3.74
	Triclosan Methyl	80.1	75.9	68.9			9.69
	Trifluralin	76.4	76.9	68.7			11.2
EPA 8276	Chlordane	91.6	94.6	95.8			1.24
	Toxaphene	110	105	102			1.75
EPA 8321B	2,4-D	87.4	98.2	85.5			13.1
	2,4,5-T	75.7	101	92.0			8.87
	3-Hydroxycarbofuran	106	88.7	80.4			9.80
	Acesulfame K	89.3	87.0	86.7			0.411
	Acetaminophen	90.7	110	100			9.32
	Acetamiprid	81.3	101	85.1			16.8
	Afidopyropen	70.8	85.0	67.4			23.0
	Aldicarb	77.9	74.5	58.4			24.3
	Aldicarb Sulfone	83.4	84.6	81.7			3.48
	Aldicarb Sulfoxide	110	57.6	57.6			0.148
	AMPA	94.7	59.0	48.6			8.86
	Bentazon	84.1	84.3	79.5			5.90
	Benzovindiflupyr	80.3	92.3	85.9			7.17
	Carbamazepine	84.5	89.4	82.9			7.58
	Carbaryl	69.1	56.2	57.3			1.92
	Carbofuran	74.1	52.8	58.9			11.0
	Clothianidin	98.9	130	104			22.0
	Dinotefuran	97.5	117	110			5.94
	Diuron	70.7	81.0	79.7			1.71
	Endothall	93.7	119	120			0.477
	Fenuron	100	120	105			12.7
	Fluridone	64.2	79.7	73.3			8.40
	Glufosinate	105	93.5	82.9			12.0
	Glyphosate	99.3	97.7	83.0			8.65
	Hydrocodone	110	133	110			18.9
	Ibuprofen	64.7	94.4	85.8			9.52
	Imazapyr	94.2	113	102			10.0
	Imidacloprid	82.7	111	109			1.78
	Linuron	66.1	80.4	72.2			10.7
	Mandestrobin	89.9	98.4	98.5			0.0787
	MCPP	111	157	141			10.6
	Methiocarb	65.3	64.7	62.2			3.88
	Methomyl	95.3	87.7	80.3			8.87
	Naproxen	67.5	71.3	64.9			9.41

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Oxamyl	90.9	85.2	85.6		0.543
	Primidone	108	124	119		4.14
	Propoxur	69.4	54.2	53.7		0.864
	Pyraclostrobin	72.4	93.1	83.4		11.0
	Silvex	79.8	89.6	78.0		13.7
	Sucralose	97.5	90.7	87.9		3.06
	Thiamethoxam	103	103	103		0.126
	Tolfenpyrad	44.1	55.3	48.4		13.3
	Triclopyr	79.3	96.7	85.6		12.1
SM 2320 B-2011	Total Alkalinity	97.0			0.110	
SM 2540 C-2015	TDS	96.9			6.71	
SM 2540 D-2015	TSS	99.0				
SM 4500-F- C-2011	Fluoride	101	103	100		1.95
SM 5310 B-2011	Organic Carbon	96.1	95.4	97.7		1.61

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2382384, 2382385, 2382390
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2382384, 2382385, 2382390
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2382384, 2382385, 2382390
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2382384, 2382385, 2382390
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2382386, 2382387, 2382391
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2382386, 2382387, 2382391
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2382386, 2382387, 2382391
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2382386, 2382387, 2382391
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2382388, 2382389, 2382392
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2382399
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2382398
EPA 8270E	PCBs in water matrices by GC/MS/MS	2382398
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2382398
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2382396
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2382397
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2382384, 2382385, 2382390
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2382384, 2382385, 2382390
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2382384, 2382385, 2382390
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2382384, 2382385, 2382390
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2382386, 2382387, 2382391

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	01/24/2023			01/24/2023 14:21	Alexis Price	2382384, 2382385
	01/24/2023			01/24/2023 14:31	Alexis Price	2382390
EPA 180.1 Rev. 2.0	01/24/2023			01/24/2023 13:53	Khloe J Berg	2382384
	01/24/2023			01/24/2023 13:54	Khloe J Berg	2382385
	01/24/2023			01/24/2023 13:56	Khloe J Berg	2382390
EPA 300.0 Rev. 2.1	01/24/2023			01/28/2023 00:16	Anna M. Plaviak	2382384
	01/24/2023			01/28/2023 00:32	Anna M. Plaviak	2382385
	01/24/2023			01/28/2023 00:47	Anna M. Plaviak	2382390
EPA 350.1 Rev. 2.0	01/24/2023			02/08/2023 12:28	Ping Hua	2382386
	01/24/2023			02/08/2023 12:30	Ping Hua	2382387
	01/24/2023			02/09/2023 10:50	Ping Hua	2382391
EPA 351.2 Rev. 2.0	01/24/2023	01/26/2023 15:30	Simonne.V. Calhoun	01/30/2023 11:07	Samantha L Bates	2382386
	01/24/2023	01/26/2023 15:30	Simonne.V. Calhoun	01/30/2023 11:15	Samantha L Bates	2382387
	01/24/2023	01/26/2023 15:30	Simonne.V. Calhoun	01/30/2023 11:17	Samantha L Bates	2382391
EPA 353.2 Rev. 2.0	01/24/2023			01/30/2023 10:18	Beverly Y. Sanders	2382386
	01/24/2023			01/30/2023 10:19	Beverly Y. Sanders	2382387
	01/24/2023			01/30/2023 10:20	Beverly Y. Sanders	2382391
EPA 365.1 Rev. 2.0	01/24/2023	01/30/2023 14:03	Adam P Silver	01/31/2023 09:51	James L Waggeberby	2382387
	01/24/2023	01/30/2023 14:03	Adam P Silver	01/31/2023 09:52	James L Waggeberby	2382391
	01/24/2023	01/30/2023 14:03	Adam P Silver	01/31/2023 14:30	James L Waggeberby	2382386
EPA 365.1 Rev. 2.0 dissolved	01/24/2023			01/24/2023 14:21	Chandler E Cox	2382388
	01/24/2023			01/24/2023 14:22	Chandler E Cox	2382389
	01/24/2023			01/24/2023 14:23	Chandler E Cox	2382392
EPA 8270E	01/24/2023	01/25/2023 08:00	Fe-Val Siddell	01/30/2023 19:40	Vandana T. Nagar	2382398
	01/24/2023	01/25/2023 08:00	Fe-Val Siddell	01/31/2023 02:41	Julie Wi	2382398
	01/24/2023	01/25/2023 08:30	Rasheda Ghaffari	01/28/2023 18:32	Arthur Maknenko	2382399
EPA 8276	01/24/2023	01/25/2023 08:00	Fe-Val Siddell	01/28/2023 04:54	Lipi Saha	2382398
EPA 8321B	01/24/2023	01/25/2023 13:00	June Rhew	01/25/2023 15:30	Manjita Shrestha	2382397
	01/24/2023	01/25/2023 13:00	June Rhew	01/25/2023 22:07	Manjita Shrestha	2382397
	01/24/2023	01/26/2023 09:00	Hoor Shaik	01/26/2023 17:03	Juyoung Kim	2382396
	01/24/2023	01/26/2023 09:30	June Rhew	01/27/2023 00:34	Juyoung Kim	2382397
SM 2320 B-2011	01/24/2023			02/03/2023 00:59	Dale L. Simmons	2382384
	01/24/2023			02/03/2023 01:49	Dale L. Simmons	2382385
	01/24/2023			02/03/2023 02:03	Dale L. Simmons	2382390
SM 2540 C-2015	01/24/2023			01/25/2023 12:55	Yijie Li	2382384, 2382385, 2382390
SM 2540 D-2015	01/24/2023			01/25/2023 12:55	Yijie Li	2382384, 2382385, 2382390
SM 4500-F- C-2011	01/24/2023			02/03/2023 00:59	Dale L. Simmons	2382384
	01/24/2023			02/03/2023 01:49	Dale L. Simmons	2382385
	01/24/2023			02/03/2023 02:03	Dale L. Simmons	2382390
SM 5310 B-2011	01/24/2023			01/31/2023 23:39	Elise M. Gillis	2382386

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-2011	01/24/2023			02/01/2023 00:23	Elise M. Gillis	2382387
	01/24/2023			02/01/2023 00:37	Elise M. Gillis	2382391