

Chemical Analysis Report

NW-DIST-2022-08-25-03

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

Event Description: **Western Lake Run**
Request ID: **RQ-2022-08-22-45**
Customer: **NW-DIST**
Project ID: **SMP**

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

Date Certified: 15-SEP-2022 14:56



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: Metals, Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: Lake Karick (Center) (also 33040210)

Collection Date/Time: 08/24/2022 10:30

Field ID: G4NW0274

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2352444	DEP SOP: NU-094-1	Color (true)	14	A	PCU	P419357	
	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P418702	
	EPA 300.0 Rev. 2.1	Chloride	2.3		mg Cl/L	P419118	
		Sulfate	0.31	I	mg SO4/L	P419123	
	SM 2320 B-2011	Total Alkalinity	2.1	I	mg CaCO3/L	P419032	
	SM 2540 C-2011	TDS	15	U	mg/L	P419261	
	SM 2540 D-2011	TSS	2	I	mg/L	P419200	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P419391	
2352445	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P418886	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.30		mg N/L	P418909	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P419052	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P419132	
	SM 5310 B-2011	Organic Carbon	3.4		mg C/L	P419028	
2352454	EPA 200.7 Rev. 4.4	Calcium	0.99		mg/L	P418827	
		Iron	420		ug/L	P418827	
		Magnesium	0.43		mg/L	P418827	
		Potassium	0.30	U	mg/L	P418827	
		Sodium	1.5	I	mg/L	P418827	
		Strontium	3.1	I	ug/L	P418827	
		Tin	3.0	U	ug/L	P418827	
		Titanium	0.75	U	ug/L	P418827	
		Vanadium	2.0	U	ug/L	P418827	
		Zinc	5.0	U	ug/L	P418827	
		Aluminum	27		ug/L	P418827	
		Antimony	0.050	U	ug/L	P418827	
	EPA 200.8 Rev. 5.4	Arsenic	0.58		ug/L	P418827	
		Barium	4.14		ug/L	P418827	
		Beryllium	0.011	I	ug/L	P418827	
		Boron	8.6		ug/L	P418827	
		Cadmium	0.020	U	ug/L	P418827	
		Chromium	0.40	U	ug/L	P418827	
		Cobalt	0.050	I	ug/L	P418827	
		Copper	0.91		ug/L	P418827	
		Lead	0.20	U	ug/L	P418827	
		Manganese	8.61		ug/L	P418827	
		Molybdenum	0.15	U	ug/L	P418827	
		Nickel	0.50	U	ug/L	P418827	
	SM 2340 B-2011	Selenium	0.20	U	ug/L	P418827	
		Silver	0.010	U	ug/L	P418827	
		Thallium	0.10	U	ug/L	P418827	
		Hardness	4.2		mg/L	P418827	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Locklin Lake Center

Collection Date/Time: 08/24/2022 12:00

Field ID: G4NW0437

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2352442	DEP SOP: NU-094-1	Color (true)	11		PCU	P419356	
	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P418702	
	EPA 300.0 Rev. 2.1	Chloride	5.4		mg Cl/L	P419118	
		Sulfate	1.1		mg SO4/L	P419123	
	SM 2320 B-2011	Total Alkalinity	8.6		mg CaCO3/L	P419032	
	SM 2540 C-2011	TDS	24	I	mg/L	P419261	
	SM 2540 D-2011	TSS	2	U	mg/L	P419200	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P419391	
2352443	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P418886	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.19	I	mg N/L	P418822	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.25		mg N/L	P419052	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P419131	
	SM 5310 B-2011	Organic Carbon	1.9		mg C/L	P419028	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Pond Creek downstream of Hwy 90

Collection Date/Time: 08/24/2022 12:45

Field ID: G4NW0506

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2352452	EPA 8321B	2,4-D	0.0020	U	ug/L	P418690	
		Acesulfame K	0.10	U	ug/L	P418641	
		2,4,5-T	0.0040	U	ug/L	P418690	
		AMPA	0.10	U	ug/L	P418641	
		Acetaminophen	0.0080	U	ug/L	P418690	
		Acetamiprid	0.0020	U	ug/L	P418690	
		Endothall	0.25	U	ug/L	P418641	MS
		Glufosinate	0.10	U	ug/L	P418641	
		Glyphosate	0.10	U	ug/L	P418641	
		Afidopyropen	0.0021	I	ug/L	P418690	
		Bentazon	8.0E-04	U	ug/L	P418690	
		Sucralose	0.21		ug/L	P418641	
		Benzovindiflupyr	0.0020	U	ug/L	P418690	
		Carbamazepine	8.0E-04	U	ug/L	P418690	
		Clothianidin	0.0020	U	ug/L	P418690	
		Dinotefuran	0.0020	U	ug/L	P418690	
		Diuron	0.0020	U	ug/L	P418690	
		Fenuron	0.032	U	ug/L	P418690	
		Fluridone	8.0E-04	U	ug/L	P418690	
		Imazapyr	0.0040	U	ug/L	P418690	
		Hydrocodone	0.0020	U	ug/L	P418690	
		Ibuprofen	0.080	U	ug/L	P418690	
		Imidacloprid	0.0068	I	ug/L	P418690	
		Linuron	0.0040	U	ug/L	P418690	
		Mandestrobin	0.0020	U	ug/L	P418690	
		MCPP	0.0040	U	ug/L	P418690	
		Naproxen	0.0080	U	ug/L	P418690	
		Primidone	0.0040	U	ug/L	P418690	
		Pyraclostrobin	0.0020	U	ug/L	P418690	
		Silvex	0.0040	U	ug/L	P418690	
		Thiamethoxam	0.0020	U	ug/L	P418690	
		Tolfenpyrad	0.0020	U	ug/L	P418690	
		Triclopyr	0.0040	U	ug/L	P418690	

Sample Location: Pond Creek West of Headwaters of Blackwater Bay **Collection Date/Time: 08/24/2022 13:00**

Field ID: G4NW0277

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2352453	EPA 8321B	2,4-D	0.0020	U	ug/L	P418690	MS
		Acesulfame K	0.10	U	ug/L	P418641	
		2,4,5-T	0.0040	U	ug/L	P418690	
		AMPA	0.10	U	ug/L	P418641	
		Acetaminophen	0.0080	U	ug/L	P418690	
		Acetamiprid	0.0020	U	ug/L	P418690	
		Endothall	0.25	U	ug/L	P418641	
		Glufosinate	0.10	U	ug/L	P418641	
		Glyphosate	0.10	U	ug/L	P418641	
		Afidopyropen	0.0020	U	ug/L	P418690	
		Bentazon	8.0E-04	U	ug/L	P418690	
		Sucralose	0.20		ug/L	P418641	
		Benzovindiflupyr	0.0020	U	ug/L	P418690	
		Carbamazepine	8.0E-04	U	ug/L	P418690	
		Clothianidin	0.0020	U	ug/L	P418690	
		Dinotefuran	0.0020	U	ug/L	P418690	
		Diuron	0.0020	U	ug/L	P418690	
		Fenuron	0.032	U	ug/L	P418690	
		Fluridone	8.0E-04	U	ug/L	P418690	
		Imazapyr	0.0040	U	ug/L	P418690	
		Hydrocodone	0.0020	U	ug/L	P418690	
		Ibuprofen	0.080	U	ug/L	P418690	
		Imidacloprid	0.0068	I	ug/L	P418690	
		Linuron	0.0040	U	ug/L	P418690	
		Mandestrobin	0.0020	U	ug/L	P418690	
		MCPP	0.0040	U	ug/L	P418690	
		Naproxen	0.0080	U	ug/L	P418690	
		Primidone	0.0040	U	ug/L	P418690	
		Pyraclostrobin	0.0020	U	ug/L	P418690	
		Silvex	0.0040	U	ug/L	P418690	
		Thiamethoxam	0.0020	U	ug/L	P418690	
		Tolfenpyrad	0.0020	U	ug/L	P418690	
		Triclopyr	0.0040	U	ug/L	P418690	
2352500	EPA 8270E	Aldrin	0.69	U	ng/L	P418734	
		Alpha-BHC	0.11	U	ng/L	P418734	
		Alpha-Chlordane	0.21	U	ng/L	P418734	
		PCB-1016	2.1	U	ng/L	P418734	
		Beta-BHC	0.11	U	ng/L	P418734	
		PCB-1221	2.1	U	ng/L	P418734	
		Beta-Cyfluthrin	1.3	U	ng/L	P418734	
		PCB-1232	2.1	U	ng/L	P418734	
		Bifenthrin	0.53	U	ng/L	P418734	
		PCB-1242	2.1	U	ng/L	P418734	

Field ID: G4NW0277

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2352500	EPA 8270E	Carbophenothion	0.95	U	ng/L	P418734	
		PCB-1248	2.1	U	ng/L	P418734	
		Chlorothalonil	1.3	U	ng/L	P418734	
		PCB-1254	2.1	U	ng/L	P418734	
		Cis-Nonachlor	0.21	U	ng/L	P418734	
		PCB-1260	2.1	U	ng/L	P418734	
		Cypermethrin	1.6	U	ng/L	P418734	
		Dacthal	0.16	U	ng/L	P418734	
		DDD-p,p'	0.26	U	ng/L	P418734	
		DDE-p,p'	0.21	U	ng/L	P418734	
		DDT-p,p'	0.26	U	ng/L	P418734	
		Delta-BHC	0.42	U	ng/L	P418734	
		Deltamethrin	1.3	U	ng/L	P418734	
		Dichlobenil	0.26	U	ng/L	P418734	
		Dicofol	1.3	U	ng/L	P418734	
		Dieldrin	0.47	I	ng/L	P418734	
		Endosulfan I	0.42	U	ng/L	P418734	
		Endosulfan II	0.42	U	ng/L	P418734	
		Endosulfan Sulfate	0.32	U	ng/L	P418734	
		Endrin	0.42	U	ng/L	P418734	
		Endrin Aldehyde	0.79	U	ng/L	P418734	
		Endrin Ketone	0.42	U	ng/L	P418734	
		Esfenvalerate	0.79	U	ng/L	P418734	
		Ethalfuralin	0.16	U	ng/L	P418734	
		Fenpropathrin	0.26	U	ng/L	P418734	
		Gamma-BHC	0.13	U	ng/L	P418734	
		Gamma-Chlordane	0.21	U	ng/L	P418734	
		Heptachlor	0.21	U	ng/L	P418734	
		Heptachlor Epoxide	0.26	U	ng/L	P418734	
		Hexachlorobenzene**	1.1	U	ng/L	P418734	
		Kepone	5.3	U	ng/L	P418734	
		Lambda-Cyhalothrin	0.79	U	ng/L	P418734	
		Methoprene	0.79	U	ng/L	P418734	
		Methoxychlor	0.32	U	ng/L	P418734	
		MGK-264	0.21	U	ng/L	P418734	
		Mirex	0.37	U	ng/L	P418734	
		Oxychlordane	0.32	U	ng/L	P418734	
		Permethrin	1.7	U	ng/L	P418734	
		Phenothrin	0.95	U	ng/L	P418734	
		Piperonyl Butoxide	0.16	U	ng/L	P418734	
		Prallethrin	2.1	U	ng/L	P418734	
		Tau-Fluvalinate	0.26	U	ng/L	P418734	
		Tetramethrin	0.79	U	ng/L	P418734	
		Trans-Nonachlor	0.21	U	ng/L	P418734	
		Triclosan Methyl	0.16	U	ng/L	P418734	

Field ID: G4NW0277

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2352500	EPA 8270E	Trifluralin	0.21	U	ng/L	P418734	
	EPA 8276	Chlordane	2.6	U	ng/L	P418734	
		Toxaphene	16	U	ng/L	P418734	

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P419356

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P419357

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418702

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P418827

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P418827

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419118

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419123

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418886

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418822

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418909

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419052

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419131

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419132

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

Reference Method: EPA 8270E
Batch ID: P418734

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P418734

Component	Result	Code	Units
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	1.2	U	ng/L
Chlorothalonil	1.2	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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P418734

Component	Result	Code	Units
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P418734

Component	Result	Code	Units
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: P418734

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Chlordane	2.5	U	ng/L
Toxaphene	15	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B

Batch ID: P418641

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: P418690

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	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P418690

Component	Result	Code	Units
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: P419032

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

Reference Method: SM 2540 C-2011
Batch ID: P419261

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P419200

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P419391

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P419028

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: P419356

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

Reference Method: DEP SOP: NU-094-1
Batch ID: P419357

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418702

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	95.8		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P418827

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	106		P	85 - 115
Iron	111		P	85 - 115
Magnesium	103		P	85 - 115
Potassium	107		P	85 - 115
Sodium	102		P	85 - 115
Strontium	105		P	85 - 115
Tin	110		P	85 - 115
Titanium	108		P	85 - 115
Vanadium	107		P	85 - 115
Zinc	109		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P418827

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.6		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	99.9		P	85 - 115
Barium	103		P	85 - 115
Beryllium	100		P	85 - 115
Boron	101		P	85 - 115
Cadmium	97.5		P	85 - 115
Chromium	98.3		P	85 - 115
Cobalt	97.0		P	85 - 115
Copper	95.4		P	85 - 115
Lead	98.4		P	85 - 115
Manganese	98.3		P	85 - 115
Molybdenum	102		P	85 - 115
Nickel	98.6		P	85 - 115
Selenium	95.5		P	85 - 115
Silver	97.0		P	85 - 115
Thallium	100		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419118

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419123

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418886

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418822

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418909

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419052

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419131

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419132

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

Reference Method: EPA 8270E
Batch ID: P418734

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	51.0		P	10 - 92.0
Alpha-BHC	84.0		P	75 - 107
Alpha-Chlordane	63.4		P	50 - 108
Beta-BHC	104		P	36 - 138

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P418734

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Beta-Cyfluthrin	60.0		P	20 - 161
Bifenthrin	39.3		P	10 - 119
Carbophenothion	40.1		P	19 - 94.0
Chlorothalonil	54.3		P	26 - 186
Cis-Nonachlor	52.3		P	42 - 119
Cypermethrin	61.9		P	22 - 150
Dacthal	82.2		P	72 - 119
DDD-p,p'	61.1		P	45 - 107
DDE-p,p'	58.7		P	48 - 106
DDT-p,p'	66.1		P	48 - 110
Delta-BHC	111		P	54 - 140
Deltamethrin	47.9		P	22 - 189
Dichlobenil	90.3		P	36 - 117
Dicofol	72.6		P	46 - 155
Dieldrin	63.7		P	54 - 110
Endosulfan I	70.2		P	59 - 105
Endosulfan II	72.9		P	51 - 118
Endosulfan Sulfate	73.4		P	57 - 121
Endrin	63.0		P	10 - 120
Endrin Aldehyde	68.6		P	34 - 118
Endrin Ketone	91.8		P	69 - 177
Esfenvalerate	59.2		P	23 - 168
Ethalfuralin	71.0		P	49 - 99.0
Fenpropathrin	60.0		P	34 - 117
Gamma-BHC	88.1		P	72 - 117
Gamma-Chlordane	59.7		P	43 - 106
Heptachlor	58.9		P	41 - 98.0
Heptachlor Epoxide	70.7		P	57 - 106
Hexachlorobenzene	68.8		P	36 - 99.0
Kepone	186		P	16 - 215
Lambda-Cyhalothrin	50.1		P	21 - 177
Methoprene	39.4		P	10 - 119
Methoxychlor	82.1		P	60 - 112
MGK-264	77.5		P	26 - 122
Mirex	44.3		P	10 - 169
Oxychlordane	68.8		P	43 - 105
PCB-1016	76.7		P	48 - 112
PCB-1260	69.0		P	44 - 118
Permethrin	57.9		P	24 - 148
Phenothrin	36.0		P	10 - 106
Piperonyl Butoxide	107		P	10 - 139
Prallethrin	65.5		P	17 - 109
Tau-Fluvalinate	46.0		P	13 - 131
Tetramethrin	102		P	10 - 132
Trans-Nonachlor	55.5		P	44 - 106
Triclosan Methyl	66.9		P	59 - 109
Trifluralin	67.0		P	44 - 101

Reference Method: EPA 8276
Batch ID: P418734

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

Laboratory Control Sample Accuracy

Reference Method: EPA 8276

Batch ID: P418734

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	74.1		P	61 - 116
Toxaphene	67.8		P	48 - 124

Reference Method: EPA 8321B

Batch ID: P418641

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	117		P	40 - 150
AMPA	112		P	40 - 150
Endothall	103		P	40 - 150
Glufosinate	117		P	40 - 150
Glyphosate	107		P	40 - 150
Sucralose	115		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P418690

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	81.1		P	40 - 150
2,4,5-T	63.4		P	40 - 150
Acetaminophen	95.3		P	30 - 150
Acetamiprid	82.0		P	40 - 150
Afidopyropen	76.6		P	30 - 150
Bentazon	83.8		P	30 - 150
Benzovindiflupyr	96.5		P	40 - 150
Carbamazepine	85.0		P	40 - 150
Clothianidin	111		P	40 - 150
Dinotefuran	93.1		P	40 - 150
Diuron	100		P	40 - 150
Fenuron	97.4		P	40 - 150
Fluridone	91.2		P	40 - 150
Hydrocodone	87.3		P	40 - 150
Ibuprofen	89.4		P	40 - 150
Imazapyr	93.3		P	40 - 150
Imidacloprid	80.6		P	40 - 150
Linuron	95.1		P	40 - 150
Mandestrobin	89.4		P	40 - 150
MCPP	84.6		P	40 - 150
Naproxen	101		P	40 - 150
Primidone	83.4		P	40 - 150
Pyraclostrobin	83.0		P	40 - 150
Silvex	70.6		P	40 - 150
Thiamethoxam	102		P	40 - 150
Tolfenpyrad	41.0		P	30 - 150
Triclopyr	71.3		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P419032

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P419391

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

Reference Method: SM 5310 B-2011
Batch ID: P419028

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.9		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P418827

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351697	Calcium	105		P	80 - 120
2351697	Iron	112	115	P/P	80 - 120
2351697	Magnesium	105		P	80 - 120
2351697	Potassium	108	110	P/P	80 - 120
2351697	Sodium	103		P	80 - 120
2351697	Strontium	106	103	P/P	80 - 120
2351697	Tin	113	109	P/P	80 - 120
2351697	Titanium	108	107	P/P	80 - 120
2351697	Vanadium	110	108	P/P	80 - 120
2351697	Zinc	110	109	P/P	80 - 120
2351698	Calcium	116		P	80 - 120
2351698	Iron	116		P	80 - 120
2351698	Magnesium	112		P	80 - 120
2351698	Potassium	113		P	80 - 120
2351698	Sodium	110		P	80 - 120
2351698	Strontium	108		P	80 - 120
2351698	Tin	113		P	80 - 120
2351698	Titanium	112		P	80 - 120
2351698	Vanadium	112		P	80 - 120
2351698	Zinc	112		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P418827

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351697	Aluminum	101	99.7	P/P	80 - 120
2351697	Antimony	105	104	P/P	80 - 120
2351697	Arsenic	104	101	P/P	80 - 120
2351697	Barium	103	101	P/P	80 - 120
2351697	Beryllium	100	103	P/P	80 - 120
2351697	Boron	100	99.8	P/P	80 - 120
2351697	Cadmium	101	100	P/P	80 - 120
2351697	Chromium	102	101	P/P	80 - 120
2351697	Cobalt	99.6	98.5	P/P	80 - 120
2351697	Copper	97.5	96.5	P/P	80 - 120
2351697	Lead	102	100	P/P	80 - 120
2351697	Manganese	99.8	97.3	P/P	80 - 120
2351697	Molybdenum	109	107	P/P	80 - 120
2351697	Nickel	99.8	98.6	P/P	80 - 120
2351697	Selenium	99.4	97.6	P/P	80 - 120
2351697	Silver	96.8	95.7	P/P	80 - 120
2351697	Thallium	105	103	P/P	80 - 120
2351698	Aluminum	104		P	80 - 120
2351698	Antimony	108		P	80 - 120
2351698	Arsenic	107		P	80 - 120
2351698	Barium	109		P	80 - 120
2351698	Beryllium	107		P	80 - 120
2351698	Boron	114		P	80 - 120
2351698	Cadmium	104		P	80 - 120
2351698	Chromium	105		P	80 - 120
2351698	Cobalt	101		P	80 - 120
2351698	Copper	98.8		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P418827

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351698	Lead	107		P	80 - 120
2351698	Manganese	107		P	80 - 120
2351698	Molybdenum	113		P	80 - 120
2351698	Nickel	102		P	80 - 120
2351698	Selenium	98.9		P	80 - 120
2351698	Silver	100		P	80 - 120
2351698	Thallium	108		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419118

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352251	Chloride	102		P	90 - 110
2352372	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419123

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352251	Sulfate	98.9		P	90 - 110
2352372	Sulfate	96.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418886

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352296	Ammonia-N	95.2	95.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418822

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352206	Kjeldahl Nitrogen	106	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418909

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352225	Kjeldahl Nitrogen	100	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419052

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352375	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419131

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352281	Total-P	104	106	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P419132

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353499	Total-P	101	105	P/P	90 - 110

Reference Method: EPA 8270E

Batch ID: P418734

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352692	Aldrin	56.1	67.3	P/P	20 - 82.0
2352692	Alpha-BHC	81.7	80.4	P/P	71 - 109
2352692	Alpha-Chlordane	61.6	50.9	P/P	42 - 106
2352692	Beta-BHC	96.1	95.0	P/P	69 - 180
2352692	Beta-Cyfluthrin	73.2	50.4	P/P	18 - 175
2352692	Bifenthrin	67.9	44.9	P/P	21 - 128
2352692	Carbophenothion	45.0	38.0	P/P	10 - 126
2352692	Chlorothalonil	38.5	32.0	P/P	10 - 300
2352692	Cis-Nonachlor	49.7	51.7	P/P	34 - 106
2352692	Cypermethrin	73.2	51.3	P/P	22 - 158
2352692	Dacthal	73.7	63.4	P/P	54 - 116
2352692	DDD-p,p'	51.6	52.8	P/P	34 - 107
2352692	DDE-p,p'	55.8	54.9	P/P	33 - 110
2352692	DDT-p,p'	75.3	79.0	P/P	50 - 122
2352692	Delta-BHC	105	80.4	P/P	77 - 193
2352692	Deltamethrin	148	154	P/P	10 - 195
2352692	Dichlobenil	59.9	58.6	P/P	25 - 113
2352692	Dicofol	85.2	87.1	P/P	38 - 247
2352692	Dieldrin	61.7	56.8	P/P	45 - 118
2352692	Endosulfan I	62.3	67.5	P/P	51 - 106
2352692	Endosulfan II	73.1	70.2	P/P	37 - 122
2352692	Endosulfan Sulfate	59.7	55.2	P/P	43 - 132
2352692	Endrin	57.7	63.0	P/P	29 - 101
2352692	Endrin Aldehyde	48.5	44.4	P/P	19 - 110
2352692	Endrin Ketone	71.0	62.0	P/P	60 - 140
2352692	Esfenvalerate	83.2	59.0	P/P	26 - 199
2352692	Ethalfuralin	72.8	81.4	P/P	45 - 99.0
2352692	Fenpropathrin	93.6	98.3	P/P	35 - 120
2352692	Gamma-BHC	83.6	85.7	P/P	63 - 128
2352692	Gamma-Chlordane	63.3	53.1	P/P	40 - 104
2352692	Heptachlor	68.1	65.0	P/P	36 - 97.0
2352692	Heptachlor Epoxide	70.9	57.7	P/P	49 - 184
2352692	Hexachlorobenzene	69.4	66.4	P/P	39 - 96.0
2352692	Kepone	139	191	P/P	10 - 217
2352692	Lambda-Cyhalothrin	65.9	48.7	P/P	21 - 193
2352692	Methoprene	54.2	43.5	P/P	20 - 106
2352692	Methoxychlor	81.1	89.8	P/P	53 - 118
2352692	MGK-264	67.8	54.7	P/P	40 - 118
2352692	Mirex	50.1	39.3	P/P	26 - 92.0
2352692	Oxychlordane	69.2	61.3	P/P	44 - 99.0
2352692	Permethrin	76.4	54.1	P/P	33 - 182
2352692	Phenothrin	59.5	36.8	P/P	10 - 129
2352692	Piperonyl Butoxide	105	101	P/P	10 - 211
2352692	Prallethrin	59.7	47.9	P/P	24 - 113
2352692	Tau-Fluvalinate	73.6	43.1	P/P	14 - 149
2352692	Tetramethrin	108	75.1	P/P	17 - 151

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P418734

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352692	Trans-Nonachlor	57.0	46.9	P/P	42 - 102
2352692	Triclosan Methyl	62.3	56.3	P/P	48 - 108
2352692	Trifluralin	71.6	72.8	P/P	47 - 96.0
2352698	PCB-1016	86.6	88.5	P/P	46 - 111
2352698	PCB-1260	89.5	88.3	P/P	45 - 114

Reference Method: EPA 8276

Batch ID: P418734

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352698	Chlordane	88.5	88.7	P/P	53 - 126
2352698	Toxaphene	91.7	91.1	P/P	56 - 211

Reference Method: EPA 8321B

Batch ID: P418641

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352247	Acesulfame K	84.1	83.2	P/P	40 - 150
2352247	AMPA	98.2	98.8	P/P	40 - 150
2352247	Endothall	171	174	F/F	40 - 150
2352247	Glufosinate	123	103	P/P	40 - 150
2352247	Glyphosate	119	120	P/P	40 - 150
2352247	Sucralose	110	110	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P418690

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351931	2,4-D	82.2	80.4	P/P	40 - 150
2351931	2,4,5-T	72.7	74.7	P/P	40 - 150
2351931	Acetaminophen	102	104	P/P	30 - 150
2351931	Acetamiprid	86.8	94.8	P/P	40 - 150
2351931	Afidopyropen	70.6	82.2	P/P	30 - 150
2351931	Bentazon	86.0	102	P/P	30 - 150
2351931	Benzovindiflupyr	94.5	100	P/P	40 - 150
2351931	Carbamazepine	101	111	P/P	40 - 150
2351931	Clothianidin	102	106	P/P	40 - 150
2351931	Dinotefuran	101	102	P/P	40 - 150
2351931	Diuron	106	94.5	P/P	40 - 150
2351931	Fenuron	92.6	99.7	P/P	40 - 150
2351931	Fluridone	85.3	84.2	P/P	40 - 150
2351931	Hydrocodone	96.9	104	P/P	40 - 150
2351931	Ibuprofen	72.0	76.1	P/P	40 - 150
2351931	Imazapyr	96.2	92.4	P/P	40 - 150
2351931	Imidacloprid	88.4	97.0	P/P	40 - 150
2351931	Linuron	83.5	96.5	P/P	40 - 150
2351931	Mandestrobin	88.7	108	P/P	40 - 150
2351931	MCCP	89.5	94.8	P/P	40 - 150
2351931	Naproxen	98.0	90.2	P/P	40 - 150
2351931	Primidone	85.8	82.5	P/P	40 - 150
2351931	Pyraclostrobin	87.9	94.0	P/P	40 - 150
2351931	Silvex	74.8	81.8	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P418690

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351931	Thiamethoxam	80.6	106	P/P	40 - 150
2351931	Tolfenpyrad	51.3	40.3	P/P	30 - 150
2351931	Triclopyr	74.5	75.8	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P419391

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352507	Fluoride	97.9	98.7	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P419028

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352443	Organic Carbon	96.7	97.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P419356

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352306	Color (true)	4.93	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P419357

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352444	Color (true)	1.63	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418702

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352318	Turbidity	8.61	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P418827

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2351697	Calcium	4.94	Spike	P	0 - 20
2351697	Iron	1.99	Spike	P	0 - 20
2351697	Magnesium	0.545	Spike	P	0 - 20
2351697	Potassium	0.862	Spike	P	0 - 20
2351697	Sodium	3.79	Spike	P	0 - 20
2351697	Strontium	2.42	Spike	P	0 - 20
2351697	Tin	3.64	Spike	P	0 - 20
2351697	Titanium	1.18	Spike	P	0 - 20
2351697	Vanadium	2.02	Spike	P	0 - 20
2351697	Zinc	1.63	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P418827

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2351697	Aluminum	0.899	Spike	P	0 - 20
2351697	Antimony	1.25	Spike	P	0 - 20
2351697	Arsenic	2.31	Spike	P	0 - 20
2351697	Barium	1.48	Spike	P	0 - 20
2351697	Beryllium	2.58	Spike	P	0 - 20
2351697	Boron	0.182	Spike	P	0 - 20
2351697	Cadmium	0.673	Spike	P	0 - 20
2351697	Chromium	1.61	Spike	P	0 - 20
2351697	Cobalt	1.13	Spike	P	0 - 20
2351697	Copper	1.00	Spike	P	0 - 20
2351697	Lead	1.61	Spike	P	0 - 20
2351697	Manganese	1.51	Spike	P	0 - 20
2351697	Molybdenum	1.87	Spike	P	0 - 20
2351697	Nickel	1.22	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P418827

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2351697	Selenium	1.80	Spike	P	0 - 20
2351697	Silver	1.19	Spike	P	0 - 20
2351697	Thallium	1.19	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419118

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352251	Chloride	0.713	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419123

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352251	Sulfate	0.737	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418886

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352296	Ammonia-N	0.195	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418822

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352206	Kjeldahl Nitrogen	0.0426	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418909

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352225	Kjeldahl Nitrogen	1.82	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419052

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352375	NO2NO3-N	0.304	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419131

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P419131

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352281	Total-P	1.83	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P419132

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353499	Total-P	1.03	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P418734

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352692	Aldrin	18.2	Spike	P	0 - 41
2352692	Alpha-BHC	1.55	Spike	P	0 - 25
2352692	Alpha-Chlordane	18.9	Spike	P	0 - 33
2352692	Beta-BHC	1.23	Spike	P	0 - 36
2352692	Beta-Cyfluthrin	36.9	Spike	P	0 - 42
2352692	Bifenthrin	40.7	Spike	P	0 - 53
2352692	Carbophenothion	16.8	Spike	P	0 - 49
2352692	Chlorothalonil	18.3	Spike	P	0 - 71
2352692	Cis-Nonachlor	3.93	Spike	P	0 - 29
2352692	Cypermethrin	35.2	Spike	P	0 - 40
2352692	Dacthal	15.0	Spike	P	0 - 26
2352692	DDD-p,p'	2.24	Spike	P	0 - 39
2352692	DDE-p,p'	1.67	Spike	P	0 - 33
2352692	DDT-p,p'	4.76	Spike	P	0 - 40
2352692	Delta-BHC	26.6	Spike	P	0 - 37
2352692	Deltamethrin	4.09	Spike	P	0 - 100
2352692	Dichlobenil	2.23	Spike	P	0 - 40
2352692	Dicofol	2.21	Spike	P	0 - 31
2352692	Dieldrin	8.15	Spike	P	0 - 27
2352692	Endosulfan I	8.03	Spike	P	0 - 23
2352692	Endosulfan II	3.95	Spike	P	0 - 28
2352692	Endosulfan Sulfate	7.90	Spike	P	0 - 38
2352692	Endrin	8.76	Spike	P	0 - 63
2352692	Endrin Aldehyde	8.79	Spike	P	0 - 60
2352692	Endrin Ketone	13.5	Spike	P	0 - 37
2352692	Esfenvalerate	34.1	Spike	P	0 - 52
2352692	Ethalfuralin	11.2	Spike	P	0 - 23
2352692	Fenpropathrin	4.91	Spike	P	0 - 32
2352692	Gamma-BHC	2.47	Spike	P	0 - 17
2352692	Gamma-Chlordane	17.6	Spike	P	0 - 40
2352692	Heptachlor	4.67	Spike	P	0 - 29
2352692	Heptachlor Epoxide	20.6	Spike	P	0 - 25
2352692	Hexachlorobenzene	4.49	Spike	P	0 - 36
2352692	Kepone	31.9	Spike	P	0 - 93
2352692	Lambda-Cyhalothrin	30.0	Spike	P	0 - 55
2352692	Methoprene	21.9	Spike	P	0 - 53
2352692	Methoxychlor	10.2	Spike	P	0 - 29

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P418734

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352692	MGK-264	21.4	Spike	P	0 - 35
2352692	Mirex	24.0	Spike	P	0 - 46
2352692	Oxychlordane	12.2	Spike	P	0 - 29
2352692	Permethrin	34.1	Spike	P	0 - 44
2352692	Phenothrin	47.2	Spike	P	0 - 56
2352692	Piperonyl Butoxide	4.16	Spike	P	0 - 100
2352692	Prallethrin	22.0	Spike	P	0 - 42
2352692	Tau-Fluvalinate	52.2	Spike	P	0 - 54
2352692	Tetramethrin	35.7	Spike	P	0 - 51
2352692	Trans-Nonachlor	19.4	Spike	P	0 - 37
2352692	Triclosan Methyl	10.1	Spike	P	0 - 31
2352692	Trifluralin	1.74	Spike	P	0 - 30
2352698	PCB-1016	2.21	Spike	P	0 - 32
2352698	PCB-1260	1.29	Spike	P	0 - 31

Reference Method: EPA 8276
Batch ID: P418734

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352698	Chlordane	0.185	Spike	P	0 - 25
2352698	Toxaphene	0.663	Spike	P	0 - 26

Reference Method: EPA 8321B
Batch ID: P418641

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352247	Acesulfame K	0.987	Spike	P	0 - 30
2352247	AMPA	0.614	Spike	P	0 - 30
2352247	Endothall	1.59	Spike	P	0 - 30
2352247	Glufosinate	17.2	Spike	P	0 - 30
2352247	Glyphosate	1.40	Spike	P	0 - 30
2352247	Sucralose	0.450	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P418690

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2351931	2,4-D	2.26	Spike	P	0 - 30
2351931	2,4,5-T	2.73	Spike	P	0 - 30
2351931	Acetaminophen	1.37	Spike	P	0 - 30
2351931	Acetamiprid	8.71	Spike	P	0 - 30
2351931	Afidopyropen	15.2	Spike	P	0 - 30
2351931	Bentazon	17.3	Spike	P	0 - 30
2351931	Benzovindiflupyr	5.90	Spike	P	0 - 30
2351931	Carbamazepine	10.2	Spike	P	0 - 30
2351931	Clothianidin	3.37	Spike	P	0 - 30
2351931	Dinotefuran	0.756	Spike	P	0 - 30
2351931	Diuron	11.2	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P418690

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2351931	Fenuron	7.36	Spike	P	0 - 30
2351931	Fluridone	1.28	Spike	P	0 - 30
2351931	Hydrocodone	6.77	Spike	P	0 - 30
2351931	Ibuprofen	5.56	Spike	P	0 - 30
2351931	Imazapyr	4.11	Spike	P	0 - 30
2351931	Imidacloprid	9.21	Spike	P	0 - 30
2351931	Linuron	14.4	Spike	P	0 - 30
2351931	Mandestrobin	19.3	Spike	P	0 - 30
2351931	MCCP	5.71	Spike	P	0 - 30
2351931	Naproxen	8.25	Spike	P	0 - 30
2351931	Primidone	3.92	Spike	P	0 - 30
2351931	Pyraclostrobin	6.78	Spike	P	0 - 30
2351931	Silvex	8.98	Spike	P	0 - 30
2351931	Thiamethoxam	27.6	Spike	P	0 - 30
2351931	Tolfenpyrad	23.9	Spike	P	0 - 30
2351931	Triclopyr	1.68	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P419032

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352507	Total Alkalinity	1.94	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011
Batch ID: P419261

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352507	TDS	3.15	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P419391

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352507	Fluoride	0.509	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P419028

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352443	Organic Carbon	0.657	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2352452

Field Sample ID: G4NW0506

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	69.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	91.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	84.3	P	30 - 160
EPA 8321B	Diuron-d6	66.3	P	30 - 160
EPA 8321B	Endothall-d6	118	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	85.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	79.1	P	30 - 160
EPA 8321B	Primidone-d5	86.0	P	30 - 160
EPA 8321B	Sucralose-d6	119	P	30 - 160

Lab Sample ID: 2352453

Field Sample ID: G4NW0277

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	82.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	101	P	30 - 160
EPA 8321B	Carbamazepine-d10	99.4	P	30 - 160
EPA 8321B	Diuron-d6	90.0	P	30 - 160
EPA 8321B	Endothall-d6	117	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	86.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	73.3	P	30 - 160
EPA 8321B	Primidone-d5	72.0	P	30 - 160
EPA 8321B	Sucralose-d6	117	P	30 - 160

Lab Sample ID: 2352500

Field Sample ID: G4NW0277

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	80.1	P	29 - 130
EPA 8270E	Decachlorobiphenyl	81.5	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	53.0	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	64.4	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	58.5	P	30 - 101
EPA 8276	PCNB	82.4	P	48 - 121

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A114350

Included Lab Sample IDs: 2352442, 2352444

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

Reference Method: EPA 8321B

Run ID: A114368

Included Lab Sample IDs: 2352452, 2352453

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	110	113	P/P	60 - 160
Acesulfame K	113	113	P/P	60 - 160
Sucralose	112	114	P/P	60 - 160
Sucralose	114	113	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A114374

Included Lab Sample IDs: 2352452, 2352453

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	101	112	P/P	60 - 160
AMPA	103	101	P/P	60 - 160
Endothall	105	94.3	P/P	60 - 160
Endothall	94.3	113	P/P	60 - 160
Glufosinate	126	129	P/P	60 - 160
Glufosinate	129	130	P/P	60 - 160
Glyphosate	100	104	P/P	60 - 160
Glyphosate	104	108	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A114437

Included Lab Sample IDs: 2352443, 2352445

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.5	96.1	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A114447

Included Lab Sample IDs: 2352452, 2352453

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	90.5	107	P/P	50 - 150
2,4,5-T	86.8	96.2	P/P	50 - 150
Acetaminophen	113	109	P/P	60 - 160
Acetamiprid	97.8	105	P/P	50 - 150
Afidopyropen	107	99.2	P/P	50 - 150
Bentazon	92.1	82.8	P/P	50 - 160
Benzovindiflupyr	111	94.4	P/P	50 - 150
Carbamazepine	124	115	P/P	60 - 150
Clothianidin	124	126	P/P	60 - 150
Dinotefuran	112	102	P/P	50 - 150
Diuron	105	113	P/P	60 - 160
Fenuron	100	104	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A114447

Included Lab Sample IDs: 2352452, 2352453

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluridone	109	86.5	P/P	60 - 160
Hydrocodone	111	99.5	P/P	60 - 150
Ibuprofen	133	126	P/P	50 - 160
Imazapyr	93.1	77.2	P/P	50 - 150
Imidacloprid	96.5	122	P/P	60 - 150
Linuron	92.3	110	P/P	60 - 150
Mandestrobin	103	116	P/P	50 - 150
MCPP	117	106	P/P	50 - 150
Naproxen	68.7	68.6	P/P	50 - 160
Primidone	122	113	P/P	60 - 150
Pyraclostrobin	110	111	P/P	60 - 150
Silvex	86.8	98.7	P/P	50 - 150
Thiamethoxam	114	113	P/P	50 - 150
Tolfenpyrad	108	105	P/P	60 - 150
Triclopyr	102	97.1	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A114482

Included Lab Sample IDs: 2352443

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	95.1	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A114499

Included Lab Sample IDs: 2352443, 2352445

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.1	97.6	P/P	90 - 110
Organic Carbon	97.7	99.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A114500

Included Lab Sample IDs: 2352445

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

Reference Method: EPA 8276

Run ID: A114501

Included Lab Sample IDs: 2352500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	99.0		P	80 - 120
Toxaphene	111		P	80 - 120

Reference Method: EPA 8270E

Run ID: A114503

Included Lab Sample IDs: 2352500

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

Reference Method: EPA 8270E
Run ID: A114503
Included Lab Sample IDs: 2352500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	101		P	80 - 120
PCB-1260	99.3		P	80 - 120

Reference Method: SM 2320 B-2011
Run ID: A114506
Included Lab Sample IDs: 2352442, 2352444

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.2	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A114510
Included Lab Sample IDs: 2352443, 2352445

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	103	102	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A114516
Included Lab Sample IDs: 2352500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.4		P	80 - 120
Alpha-BHC	99.6		P	80 - 120
Alpha-Chlordane	98.2		P	80 - 120
Beta-BHC	99.6		P	80 - 120
Beta-Cyfluthrin	101		P	80 - 120
Bifenthrin	103		P	80 - 120
Carbophenothion	100		P	80 - 120
Chlorothalonil	106		P	80 - 120
Cis-Nonachlor	99.7		P	80 - 120
Cypermethrin	101		P	80 - 120
Dacthal	103		P	80 - 120
DDD-p,p'	103		P	80 - 120
DDE-p,p'	101		P	80 - 120
DDT-p,p'	102		P	80 - 120
Delta-BHC	98.4		P	80 - 120
Deltamethrin	105		P	80 - 120
Dichlobenil	100		P	80 - 120
Dicofol	98.2		P	80 - 120
Dieldrin	102		P	80 - 120
Endosulfan I	96.7		P	80 - 120
Endosulfan II	103		P	80 - 120
Endosulfan Sulfate	97.1		P	80 - 120
Endrin	98.6		P	80 - 120
Endrin Aldehyde	95.0		P	80 - 120
Endrin Ketone	119		P	80 - 120
Esfenvalerate	102		P	80 - 120
Ethalfuralin	101		P	80 - 120
Fenpropathrin	98.7		P	80 - 120
Gamma-BHC	105		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A114516
Included Lab Sample IDs: 2352500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Gamma-Chlordane	99.0		P	80 - 120
Heptachlor	99.6		P	80 - 120
Heptachlor Epoxide	104		P	80 - 120
Hexachlorobenzene	101		P	80 - 120
Kepone	83.9		P	80 - 120
Lambda-Cyhalothrin	99.1		P	80 - 120
Methoprene	102		P	80 - 120
Methoxychlor	99.1		P	80 - 120
MGK-264	96.9		P	80 - 120
Mirex	104		P	80 - 120
Oxychlordane	99.9		P	80 - 120
Permethrin	102		P	80 - 120
Phenothrin	99.5		P	80 - 120
Piperonyl Butoxide	91.7		P	80 - 120
Prallethrin	95.5		P	80 - 120
Tau-Fluvalinate	101		P	80 - 120
Tetramethrin	104		P	80 - 120
Trans-Nonachlor	104		P	80 - 120
Triclosan Methyl	105		P	80 - 120
Trifluralin	100		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A114542
Included Lab Sample IDs: 2352442, 2352444

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A114566
Included Lab Sample IDs: 2352454

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	95.7	95.0	P/P	90 - 110
Antimony	97.9	98.2	P/P	90 - 110
Arsenic	99.8	98.2	P/P	90 - 110
Barium	97.3	96.0	P/P	90 - 110
Beryllium	91.4	90.7	P/P	90 - 110
Boron	99.4	95.0	P/P	90 - 110
Cadmium	102	101	P/P	90 - 110
Chromium	98.3	97.1	P/P	90 - 110
Cobalt	97.5	95.2	P/P	90 - 110
Manganese	98.6	97.7	P/P	90 - 110
Nickel	96.9	96.0	P/P	90 - 110
Selenium	98.2	96.3	P/P	90 - 110
Silver	95.9	95.1	P/P	90 - 110
Thallium	101	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A114593

Included Lab Sample IDs: 2352454

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	103	102	P/P	90 - 110
Lead	94.4	94.0	P/P	90 - 110
Molybdenum	100	100	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A114636

Included Lab Sample IDs: 2352442, 2352444

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.0	97.9	P/P	90 - 110
Color (true)	97.9	97.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A114650

Included Lab Sample IDs: 2352443, 2352445

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	98.8	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A114660

Included Lab Sample IDs: 2352442, 2352444

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A114713

Included Lab Sample IDs: 2352454

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	106	106	P/P	90 - 110
Iron	105	107	P/P	90 - 110
Magnesium	105	107	P/P	90 - 110
Potassium	102	104	P/P	90 - 110
Sodium	102	103	P/P	90 - 110
Strontium	98.9	100	P/P	90 - 110
Tin	103	107	P/P	90 - 110
Titanium	99.8	103	P/P	90 - 110
Vanadium	101	103	P/P	90 - 110
Zinc	101	104	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			Precision SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	96.8				4.93	
	Color (true)	98.2				1.63	
EPA 180.1 Rev. 2.0	Turbidity	95.8				8.61	
EPA 200.7 Rev. 4.4	Calcium	106	105	116			4.94
	Iron	111	112	115	116		1.99
	Magnesium	103	105	112			0.545
	Potassium	107	108	110	113		0.862
	Sodium	102	103	110			3.79
	Strontium	105	106	103	108		2.42
	Tin	110	113	109	113		3.64
	Titanium	108	108	107	112		1.18
	Vanadium	107	110	108	112		2.02
	Zinc	109	110	109	112		1.63
EPA 200.8 Rev. 5.4	Aluminum	98.6	101	99.7	104		0.899
	Antimony	102	105	104	108		1.25
	Arsenic	99.9	104	101	107		2.31
	Barium	103	103	101	109		1.48
	Beryllium	100	100	103	107		2.58
	Boron	101	100	99.8	114		0.182
	Cadmium	97.5	101	100	104		0.673
	Chromium	98.3	102	101	105		1.61
	Cobalt	97.0	99.6	98.5	101		1.13
	Copper	95.4	97.5	96.5	98.8		1.00
	Lead	98.4	102	100	107		1.61
	Manganese	98.3	99.8	97.3	107		1.51
	Molybdenum	102	109	107	113		1.87
	Nickel	98.6	99.8	98.6	102		1.22
	Selenium	95.5	99.4	97.6	98.9		1.80
	Silver	97.0	96.8	95.7	100		1.19
	Thallium	100	105	103	108		1.19
EPA 300.0 Rev. 2.1	Chloride	103	102	102		0.713	
	Sulfate	100	98.9	96.9		0.737	
EPA 350.1 Rev. 2.0	Ammonia-N	96.8	95.2	95.4			0.195
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.8	106	105			0.0426
	Kjeldahl Nitrogen	107	100	102			1.82
EPA 353.2 Rev. 2.0	NO2NO3-N	103	102	102			0.304
EPA 365.1 Rev. 2.0	Total-P	104	104	106			1.83
	Total-P	102	101	105			1.03
EPA 8270E	Aldrin	51.0	56.1	67.3			18.2
	Alpha-BHC	84.0	81.7	80.4			1.55
	Alpha-Chlordane	63.4	61.6	50.9			18.9
	Beta-BHC	104	96.1	95.0			1.23
	Beta-Cyfluthrin	60.0	73.2	50.4			36.9
	Bifenthrin	39.3	67.9	44.9			40.7
	Carbophenothion	40.1	45.0	38.0			16.8
	Chlorothalonil	54.3	38.5	32.0			18.3
	Cis-Nonachlor	52.3	49.7	51.7			3.93
	Cypermethrin	61.9	73.2	51.3			35.2
	Dacthal	82.2	73.7	63.4			15.0
	DDD-p,p'	61.1	51.6	52.8			2.24
	DDE-p,p'	58.7	55.8	54.9			1.67
	DDT-p,p'	66.1	75.3	79.0			4.76
	Delta-BHC	111	105	80.4			26.6
	Deltamethrin	47.9	148	154			4.09

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8270E	Dichlobenil	90.3	59.9	58.6			2.23
	Dicofol	72.6	85.2	87.1			2.21
	Dieldrin	63.7	61.7	56.8			8.15
	Endosulfan I	70.2	62.3	67.5			8.03
	Endosulfan II	72.9	73.1	70.2			3.95
	Endosulfan Sulfate	73.4	59.7	55.2			7.90
	Endrin	63.0	57.7	63.0			8.76
	Endrin Aldehyde	68.6	48.5	44.4			8.79
	Endrin Ketone	91.8	71.0	62.0			13.5
	Esfenvalerate	59.2	83.2	59.0			34.1
	Ethalfuralin	71.0	72.8	81.4			11.2
	Fenpropathrin	60.0	93.6	98.3			4.91
	Gamma-BHC	88.1	83.6	85.7			2.47
	Gamma-Chlordane	59.7	63.3	53.1			17.6
	Heptachlor	58.9	68.1	65.0			4.67
	Heptachlor Epoxide	70.7	70.9	57.7			20.6
	Hexachlorobenzene	68.8	69.4	66.4			4.49
	Kepone	186	139	191			31.9
	Lambda-Cyhalothrin	50.1	65.9	48.7			30.0
	Methoprene	39.4	54.2	43.5			21.9
	Methoxychlor	82.1	81.1	89.8			10.2
	MGK-264	77.5	67.8	54.7			21.4
	Mirex	44.3	50.1	39.3			24.0
	Oxychlordane	68.8	69.2	61.3			12.2
	PCB-1016	76.7	86.6	88.5			2.21
	PCB-1260	69.0	89.5	88.3			1.29
	Permethrin	57.9	76.4	54.1			34.1
	Phenothrin	36.0	59.5	36.8			47.2
	Piperonyl Butoxide	107	105	101			4.16
	Prallethrin	65.5	59.7	47.9			22.0
	Tau-Fluvalinate	46.0	73.6	43.1			52.2
	Tetramethrin	102	108	75.1			35.7
	Trans-Nonachlor	55.5	57.0	46.9			19.4
	Triclosan Methyl	66.9	62.3	56.3			10.1
	Trifluralin	67.0	71.6	72.8			1.74
EPA 8276	Chlordane	74.1	88.5	88.7			0.185
	Toxaphene	67.8	91.7	91.1			0.663
EPA 8321B	2,4-D	81.1	82.2	80.4			2.26
	2,4,5-T	63.4	72.7	74.7			2.73
	Acesulfame K	117	83.2	84.1			0.987
	Acetaminophen	95.3	102	104			1.37
	Acetamiprid	82.0	86.8	94.8			8.71
	Afidopyropen	76.6	70.6	82.2			15.2
	AMPA	112	98.2	98.8			0.614
	Bentazon	83.8	86.0	102			17.3
	Benzovindiflupyr	96.5	94.5	100			5.90
	Carbamazepine	85.0	101	111			10.2
	Clothianidin	111	102	106			3.37
	Dinotefuran	93.1	101	102			0.756
	Diuron	100	106	94.5			11.2
	Endothall	103	171	174			1.59
	Fenuron	97.4	92.6	99.7			7.36
	Fluridone	91.2	85.3	84.2			1.28
	Glufosinate	117	123	103			17.2

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Glyphosate	107	119	120		1.40
	Hydrocodone	87.3	96.9	104		6.77
	Ibuprofen	89.4	72.0	76.1		5.56
	Imazapyr	93.3	96.2	92.4		4.11
	Imidacloprid	80.6	88.4	97.0		9.21
	Linuron	95.1	83.5	96.5		14.4
	Mandestrobin	89.4	88.7	108		19.3
	MCP	84.6	89.5	94.8		5.71
	Naproxen	101	98.0	90.2		8.25
	Primidone	83.4	85.8	82.5		3.92
	Pyraclorobin	83.0	87.9	94.0		6.78
	Silvex	70.6	74.8	81.8		8.98
	Sucralose	115	110	110		0.450
	Thiamethoxam	102	80.6	106		27.6
	Tolfenpyrad	41.0	51.3	40.3		23.9
	Triclopyr	71.3	74.5	75.8		1.68
SM 2320 B-2011	Total Alkalinity	101			1.94	
SM 2540 C-2011	TDS				3.15	
SM 4500-F- C-2011	Fluoride	101	97.9	98.7		0.509
SM 5310 B-2011	Organic Carbon	95.9	96.7	97.4		0.657

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2352442, 2352444
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2352442, 2352444
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2352454
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2352454
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2352442, 2352444
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2352442, 2352444
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2352443, 2352445
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2352443, 2352445
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2352443, 2352445
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2352443, 2352445
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2352500
EPA 8270E	PCBs in water matrices by GC/MS/MS	2352500
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2352500
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2352452, 2352453
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2352442, 2352444
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2352454
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2352442, 2352444
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2352442, 2352444
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2352442, 2352444
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2352443, 2352445

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	08/25/2022			08/25/2022 15:33	Anna M. Plaviak	2352442
	08/25/2022			08/25/2022 15:36	Anna M. Plaviak	2352444
EPA 180.1 Rev. 2.0	08/25/2022			08/25/2022 14:27	Chandler E Cox	2352442
	08/25/2022			08/25/2022 14:32	Chandler E Cox	2352444
EPA 200.7 Rev. 4.4	08/25/2022	08/30/2022 10:20	Megan Whitefoot	09/14/2022 02:56	McKinley C Carter	2352454
EPA 200.8 Rev. 5.4	08/25/2022	08/30/2022 10:20	Megan Whitefoot	09/06/2022 18:08	Emily M Philpot	2352454
	08/25/2022	08/30/2022 10:20	Megan Whitefoot	09/07/2022 22:39	Megan Whitefoot	2352454
EPA 300.0 Rev. 2.1	08/25/2022			09/03/2022 12:42	Anna M. Plaviak	2352442
	08/25/2022			09/03/2022 12:57	Anna M. Plaviak	2352444
EPA 350.1 Rev. 2.0	08/25/2022			08/30/2022 14:54	Judith K. Clark	2352443
	08/25/2022			08/30/2022 14:56	Judith K. Clark	2352445
EPA 351.2 Rev. 2.0	08/25/2022	08/30/2022 14:31	Samantha L Bates	09/01/2022 11:10	Alexandra J Mattheus	2352443
	08/25/2022	08/31/2022 14:32	Samantha L Bates	09/01/2022 14:05	Alexandra J Mattheus	2352445
EPA 353.2 Rev. 2.0	08/25/2022			09/02/2022 10:24	Judith K. Clark	2352443
	08/25/2022			09/02/2022 10:25	Judith K. Clark	2352445
EPA 365.1 Rev. 2.0	08/25/2022	09/07/2022 16:10	Simonne.V. Calhoun	09/09/2022 13:17	James L Waggeberby	2352443
	08/25/2022	09/07/2022 16:10	Simonne.V. Calhoun	09/09/2022 13:20	James L Waggeberby	2352445
EPA 8270E	08/25/2022	08/30/2022 08:00	Rasheda Ghaffari	09/01/2022 22:48	Vandana T. Nagar	2352500
	08/25/2022	08/30/2022 08:00	Rasheda Ghaffari	09/02/2022 02:58	Vandana T. Nagar	2352500
EPA 8276	08/25/2022	08/30/2022 08:00	Rasheda Ghaffari	09/01/2022 14:41	Arthur Maknenko	2352500
EPA 8321B	08/25/2022	08/26/2022 10:00	Umesh Chiluwal	08/26/2022 12:19	Umesh Chiluwal	2352452
	08/25/2022	08/26/2022 10:00	Umesh Chiluwal	08/26/2022 12:45	Umesh Chiluwal	2352453
	08/25/2022	08/26/2022 10:00	Umesh Chiluwal	08/26/2022 20:41	Umesh Chiluwal	2352452
	08/25/2022	08/26/2022 10:00	Umesh Chiluwal	08/26/2022 21:11	Umesh Chiluwal	2352453
	08/25/2022	08/30/2022 09:30	June Rhew	08/30/2022 23:37	Juyoung Kim	2352452
	08/25/2022	08/30/2022 09:30	June Rhew	08/30/2022 23:58	Juyoung Kim	2352453
SM 2320 B-2011	08/25/2022			09/01/2022 17:09	Dale L. Simmons	2352442
	08/25/2022			09/01/2022 17:16	Dale L. Simmons	2352444
SM 2340 B-2011	08/25/2022			09/14/2022 02:56	McKinley C Carter	2352454
SM 2540 C-2011	08/25/2022			08/30/2022 14:29	Yijie Li	2352442, 2352444
SM 2540 D-2011	08/25/2022			08/30/2022 14:29	Yijie Li	2352442, 2352444
SM 4500-F- C-2011	08/25/2022			09/09/2022 20:09	Dale L. Simmons	2352442
	08/25/2022			09/09/2022 20:14	Dale L. Simmons	2352444
SM 5310 B-2011	08/25/2022			09/01/2022 14:53	Khloe J Berg	2352443
	08/25/2022			09/01/2022 21:45	Khloe J Berg	2352445