

Chemical Analysis Report

NE-DIST-2023-09-26-01

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

Event Description: **LSJR Main**
Request ID: **RQ-2023-09-18-27**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Colin Wright, Program Administrator

Date Certified: 20-OCT-2023 09:25



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: LITTLE POTTSBURG CREEK AT EMERSON

Collection Date/Time: 09/25/2023 09:55

Field ID: 20030070

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440330	DEP SOP: NU-094-1	Color (true)	27		PCU	P435526	
	EPA 180.1 Rev. 2.0	Turbidity	6.3		NTU	P435529	
	EPA 300.0 Rev. 2.1	Chloride	34		mg Cl/L	P436045	
		Sulfate	48		mg SO4/L	P436048	
	SM 2320 B-2011	Total Alkalinity	149		mg CaCO3/L	P435733	
	SM 2540 C-2015	TDS	294	A	mg/L	P436127	
	SM 2540 D-2015	TSS	3	IA	mg/L	P435855	
2440331	SM 4500-F- C-2011	Fluoride	0.25		mg F/L	P435736	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P435697	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.49		mg N/L	P436040	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.27		mg N/L	P436378	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P435692	
2440343	SM 5310 B-2011	Organic Carbon	6.6		mg C/L	P435753	
	EPA 200.7 Rev. 4.4	Calcium	66.4		mg/L	P435588	
		Iron	980		ug/L	P435588	
		Magnesium	11.2		mg/L	P435588	
		Potassium	2.1		mg/L	P435588	
		Sodium	21.8		mg/L	P435588	
		Strontium	880		ug/L	P435588	
		Tin	4.4	I	ug/L	P435588	
		Titanium	0.75	U	ug/L	P435588	
		Vanadium	2.0	U	ug/L	P435588	
		Zinc	5.0	U	ug/L	P435588	
	EPA 200.8 Rev. 5.4	Aluminum	18	I	ug/L	P435588	
		Antimony	0.12	I	ug/L	P435588	
		Arsenic	0.90		ug/L	P435588	
		Barium	41.2		ug/L	P435588	
		Beryllium	0.010	U	ug/L	P435588	
		Boron	41.8		ug/L	P435588	
		Cadmium	0.020	U	ug/L	P435588	
		Chromium	0.40	U	ug/L	P435588	
		Cobalt	0.083		ug/L	P435588	
		Copper	0.90		ug/L	P435588	
		Lead	0.20	U	ug/L	P435588	
		Manganese	33.2		ug/L	P435588	
		Molybdenum	0.68		ug/L	P435588	
		Nickel	0.53	I	ug/L	P435588	
		Selenium	0.20	U	ug/L	P435588	
		Silver	0.010	U	ug/L	P435588	
		Thallium	0.10	U	ug/L	P435588	
	SM 2340 B-2011	Hardness	212		mg/L	P435588	

Ref. Method and Comment:

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

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: MIRAMAR AT SAN JOSE

Collection Date/Time: 09/25/2023 10:25

Field ID: G2NE1164

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440341	EPA 8270E	Aldrin	0.66	U	ng/L	P435653	
		Alpha-BHC	0.11	I	ng/L	P435653	
		Alpha-Chlordane	0.81	I	ng/L	P435653	
		PCB-1016	2.0	U	ng/L	P435653	
		Beta-BHC	0.78		ng/L	P435653	
		PCB-1221	2.0	U	ng/L	P435653	
		Beta-Cyfluthrin	1.3	U	ng/L	P435653	
		PCB-1232	2.0	U	ng/L	P435653	
		Bifenthrin	0.51	U	ng/L	P435653	
		PCB-1242	2.0	U	ng/L	P435653	
		PCB-1248	2.0	U	ng/L	P435653	
		Chlorothalonil	3.7	U	ng/L	P435653	
		PCB-1254	2.0	U	ng/L	P435653	
		Cis-Nonachlor	0.20	U	ng/L	P435653	
		PCB-1260	2.0	U	ng/L	P435653	
		Cypermethrin	1.5	U	ng/L	P435653	
		Dacthal	0.15	U	ng/L	P435653	
		DDD-p,p'	0.26	U	ng/L	P435653	
		DDE-p,p'	0.20	U	ng/L	P435653	
		DDT-p,p'	0.82	U	ng/L	P435653	
		Delta-BHC	0.70	I	ng/L	P435653	
		Deltamethrin	1.3	U	ng/L	P435653	
		Dichlobenil	4.6		ng/L	P435653	
		Dicofol	1.3	U	ng/L	P435653	
		Dieldrin	23		ng/L	P435653	
		Endosulfan I	0.41	U	ng/L	P435653	
		Endosulfan II	0.92	U	ng/L	P435653	
		Endosulfan Sulfate	1.4	I	ng/L	P435653	
		Endrin	0.92	U	ng/L	P435653	
		Endrin Aldehyde	0.77	U	ng/L	P435653	
		Endrin Ketone	0.41	U	ng/L	P435653	
		Esfenvalerate	0.77	U	ng/L	P435653	
		Ethalfuralin	0.15	U	ng/L	P435653	
		Fenpropathrin	0.26	U	ng/L	P435653	
		Gamma-BHC	0.13	U	ng/L	P435653	RPD
		Gamma-Chlordane	1.1		ng/L	P435653	
		Heptachlor	0.20	U	ng/L	P435653	
		Heptachlor Epoxide	6.6		ng/L	P435653	
		Hexachlorobenzene**	1.0	U	ng/L	P435653	
		Kepone	14	U	ng/L	P435653	
		Lambda-Cyhalothrin	0.77	U	ng/L	P435653	
		Methoprene	0.77	U	ng/L	P435653	
		Methoxychlor	0.31	U	ng/L	P435653	
		MGK-264	0.20	U	ng/L	P435653	

Field ID: G2NE1164

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440341	EPA 8270E	Mirex	0.36	U	ng/L	P435653	
		Oxychlordane	0.31	U	ng/L	P435653	
		Permethrin	1.6	U	ng/L	P435653	
		Phenothrin	0.92	U	ng/L	P435653	
		Piperonyl Butoxide	0.34	I	ng/L	P435653	
		Prallethrin	2.0	U	ng/L	P435653	
		Tau-Fluvalinate	0.26	U	ng/L	P435653	
		Tetramethrin	0.77	U	ng/L	P435653	
		Trans-Nonachlor	0.32	I	ng/L	P435653	
		Triclosan Methyl	0.15	U	ng/L	P435653	
		Trifluralin	0.20	U	ng/L	P435653	
	EPA 8276	Chlordane	6.3	I	ng/L	P435653	
		Toxaphene	15	U	ng/L	P435653	

Sample Location: HOGAN CREEK AT 1ST ST

Collection Date/Time: 09/25/2023 11:35

Field ID: 20030692

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440332	DEP SOP: NU-094-1	Color (true)	16		PCU	P435526	
	EPA 180.1 Rev. 2.0	Turbidity	8.1		NTU	P435529	
	EPA 300.0 Rev. 2.1	Chloride	26		mg Cl/L	P436045	
		Sulfate	80		mg SO4/L	P436048	
	SM 2320 B-2011	Total Alkalinity	149		mg CaCO3/L	P435767	
	SM 2540 C-2015	TDS	337		mg/L	P436127	
	SM 2540 D-2015	TSS	5	I	mg/L	P435855	
2440333	SM 4500-F- C-2011	Fluoride	0.30		mg F/L	P435769	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.18		mg N/L	P435697	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.58		mg N/L	P436040	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.19		mg N/L	P436258	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P435692	
2440340	SM 5310 B-2011	Organic Carbon	5.3		mg C/L	P435794	
	EPA 8270E	Aldrin	0.66	U	ng/L	P435653	
		Alpha-BHC	0.18	I	ng/L	P435653	
		Alpha-Chlordane	0.29	I	ng/L	P435653	
		PCB-1016	2.0	U	ng/L	P435653	
		Beta-BHC	0.91		ng/L	P435653	
		PCB-1221	2.0	U	ng/L	P435653	
		Beta-Cyfluthrin	1.3	U	ng/L	P435653	
		PCB-1232	2.0	U	ng/L	P435653	
		Bifenthrin	0.51	U	ng/L	P435653	
		PCB-1242	2.0	U	ng/L	P435653	
		PCB-1248	2.0	U	ng/L	P435653	
		Chlorothalonil	3.7	U	ng/L	P435653	
		PCB-1254	2.0	U	ng/L	P435653	
		Cis-Nonachlor	0.20	U	ng/L	P435653	
		PCB-1260	2.0	U	ng/L	P435653	
		Cypermethrin	1.5	U	ng/L	P435653	
		Dacthal	0.15	U	ng/L	P435653	
		DDD-p,p'	0.26	U	ng/L	P435653	
		DDE-p,p'	0.20	U	ng/L	P435653	
		DDT-p,p'	0.82	U	ng/L	P435653	
		Delta-BHC	2.2		ng/L	P435653	
		Deltamethrin	1.3	U	ng/L	P435653	
		Dichlobenil	0.26	U	ng/L	P435653	
		Dicofol	1.3	U	ng/L	P435653	
		Diieldrin	3.7		ng/L	P435653	
		Endosulfan I	0.41	U	ng/L	P435653	
		Endosulfan II	0.92	U	ng/L	P435653	
		Endosulfan Sulfate	0.62	I	ng/L	P435653	
		Endrin	0.92	U	ng/L	P435653	
		Endrin Aldehyde	0.77	U	ng/L	P435653	
		Endrin Ketone	0.41	U	ng/L	P435653	

Field ID: 20030692

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440340	EPA 8270E	Esfenvalerate	0.77	U	ng/L	P435653	
		Ethalfuralin	0.15	U	ng/L	P435653	
		Fenpropathrin	0.26	U	ng/L	P435653	
		Gamma-BHC	0.13	U	ng/L	P435653	RPD
		Gamma-Chlordane	0.20	U	ng/L	P435653	
		Heptachlor	0.20	U	ng/L	P435653	
		Heptachlor Epoxide	1.3		ng/L	P435653	
		Hexachlorobenzene**	1.0	U	ng/L	P435653	
		Kepone	14	U	ng/L	P435653	
		Lambda-Cyhalothrin	0.77	U	ng/L	P435653	
		Methoprene	0.77	U	ng/L	P435653	
		Methoxychlor	0.31	U	ng/L	P435653	
		MGK-264	0.20	U	ng/L	P435653	
		Mirex	0.36	U	ng/L	P435653	
		Oxychlordane	0.31	U	ng/L	P435653	
		Permethrin	1.6	U	ng/L	P435653	
		Phenothrin	0.92	U	ng/L	P435653	
		Piperonyl Butoxide	1.6		ng/L	P435653	
		Prallethrin	2.0	U	ng/L	P435653	
		Tau-Fluvalinate	0.26	U	ng/L	P435653	
		Tetramethrin	0.77	U	ng/L	P435653	
		Trans-Nonachlor	0.20	U	ng/L	P435653	
		Triclosan Methyl	0.15	U	ng/L	P435653	
		Trifluralin	0.20	U	ng/L	P435653	
	EPA 8276	Chlordane	2.2	I	ng/L	P435653	
		Toxaphene	15	U	ng/L	P435653	

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: DEER CR AT TALLEYRAND AVE

Collection Date/Time: 09/25/2023 12:00

Field ID: 20030792

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440342	EPA 8321B	2,4-D	0.28		ug/L	P435567	
		Acesulfame K	0.10	U	ug/L	P435496	
		2,4,5-T	0.0040	U	ug/L	P435567	
		AMPA	0.10	U	ug/L	P435496	
		Acetaminophen	0.0080	U	ug/L	P435567	
		Acetamiprid	0.0020	U	ug/L	P435567	
		Endothall	0.25	U	ug/L	P435496	MS
		Glufosinate	0.10	U	ug/L	P435496	
		Glyphosate	0.10	U	ug/L	P435496	
		Afidopyropen	0.0020	U	ug/L	P435567	
		Bentazon	0.0045		ug/L	P435567	
		Sucralose	0.41		ug/L	P435496	
		Benzovindiflupyr	0.0020	U	ug/L	P435567	
		Carbamazepine	8.0E-04	U	ug/L	P435567	
		Clothianidin	0.0020	U	ug/L	P435567	
		Dinotefuran	0.0020	U	ug/L	P435567	
		Diuron	0.0080	I	ug/L	P435567	
		Fenuron	0.032	U	ug/L	P435567	
		Fluridone	8.0E-04	UJ	ug/L	P435567	MS
		Imazapyr	0.11		ug/L	P435567	
		Hydrocodone	0.0020	U	ug/L	P435567	
		Ibuprofen	0.080	U	ug/L	P435567	
		Imidacloprid	0.0042	I	ug/L	P435567	
		Linuron	0.0040	U	ug/L	P435567	
		Mandestrobin	0.0020	U	ug/L	P435567	
		MCPP	0.0020	U	ug/L	P435567	
		Naproxen	0.0080	U	ug/L	P435567	
		Primidone	0.0040	U	ug/L	P435567	
		Pyraclostrobin	0.0020	U	ug/L	P435567	
		Silvex	0.0040	U	ug/L	P435567	
		Thiamethoxam	0.0020	U	ug/L	P435567	
		Tolfenpyrad	0.0020	U	ug/L	P435567	
		Triclopyr	0.0040	U	ug/L	P435567	

Ref. Method and Comment:

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample. 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: P435526

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P435529

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P435588

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: P435588

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436045

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436048

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435697

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436040

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436258

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436378

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435692

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

Reference Method: EPA 8270E
Batch ID: P435653

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.80	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P435653

Component	Result	Code	Units
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.90	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	14	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8276

Batch ID: P435653

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

Reference Method: EPA 8321B

Batch ID: P435496

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P435496

Component	Result	Code	Units
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: P435567

Component	Result	Code	Units
2,4-D	0.020		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
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011

Batch ID: P435733

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

Reference Method: SM 2320 B-2011

Batch ID: P435767

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-2015
Batch ID: P436127

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P435855

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P435736

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P435769

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P435753

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

Reference Method: SM 5310 B-2011
Batch ID: P435794

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: P435526

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P435529

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P435588

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Iron	106		P	85 - 115
Magnesium	108		P	85 - 115
Potassium	101		P	85 - 115
Sodium	104		P	85 - 115
Strontium	103		P	85 - 115
Tin	103		P	85 - 115
Titanium	102		P	85 - 115
Vanadium	103		P	85 - 115
Zinc	104		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P435588

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	99.3		P	85 - 115
Barium	104		P	85 - 115
Beryllium	102		P	85 - 115
Boron	104		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	104		P	85 - 115
Cobalt	102		P	85 - 115
Copper	99.2		P	85 - 115
Lead	97.1		P	85 - 115
Manganese	103		P	85 - 115
Molybdenum	100		P	85 - 115
Nickel	100		P	85 - 115
Selenium	99.0		P	85 - 115
Silver	112		P	85 - 115
Thallium	100		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436045

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436048

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435697

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436040

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	108		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436258

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	96.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436378

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435692

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

Reference Method: EPA 8270E
Batch ID: P435653

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	52.2		P	30 - 96.0
Alpha-BHC	77.4		P	70 - 109
Alpha-Chlordane	88.3		P	45 - 107
Beta-BHC	73.8		P	64 - 138
Beta-Cyfluthrin	77.8		P	17 - 141
Bifenthrin	54.3		P	10 - 113
Chlorothalonil	107		P	26 - 180
Cis-Nonachlor	70.4		P	37 - 102
Cypermethrin	69.5		P	20 - 133
Dacthal	99.0		P	69 - 114
DDD-p,p'	61.9		P	42 - 105
DDE-p,p'	68.2		P	42 - 106
DDT-p,p'	56.4		P	42 - 107
Delta-BHC	103		P	67 - 144
Deltamethrin	76.9		P	15 - 149
Dichlobenil	74.7		P	46 - 117

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P435653

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dicofol	67.4		P	34 - 114
Dieldrin	74.6		P	50 - 108
Endosulfan I	76.2		P	55 - 104
Endosulfan II	93.6		P	51 - 111
Endosulfan Sulfate	83.1		P	56 - 121
Endrin	77.6		P	10 - 106
Endrin Aldehyde	62.1		P	34 - 114
Endrin Ketone	94.7		P	63 - 177
Esfenvalerate	64.6		P	29 - 143
Ethalfuralin	73.9		P	46 - 96.0
Fenpropathrin	71.8		P	28 - 115
Gamma-BHC	79.0		P	65 - 121
Gamma-Chlordane	73.4		P	39 - 103
Heptachlor	56.5		P	39 - 94.0
Heptachlor Epoxide	74.6		P	54 - 104
Hexachlorobenzene	78.3		P	36 - 100
Kepone	140		P	10 - 225
Lambda-Cyhalothrin	56.8		P	10 - 135
Methoprene	48.4		P	10 - 109
Methoxychlor	74.2		P	52 - 112
MGK-264	60.6		P	44 - 117
Mirex	64.9		P	20 - 90.0
Oxychlordane	70.1		P	44 - 102
PCB-1016	77.3		P	45 - 107
PCB-1260	89.1		P	40 - 118
Permethrin	73.3		P	18 - 135
Phenothrin	55.1		P	10 - 102
Piperonyl Butoxide	81.5		P	28 - 156
Prallethrin	71.7		P	28 - 113
Tau-Fluvalinate	68.8		P	10 - 123
Tetramethrin	65.5		P	18 - 158
Trans-Nonachlor	71.0		P	39 - 104
Triclosan Methyl	66.1		P	54 - 108
Trifluralin	69.8		P	46 - 97.0

Reference Method: EPA 8276

Batch ID: P435653

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	92.2		P	52 - 117
Toxaphene	99.8		P	44 - 125

Reference Method: EPA 8321B

Batch ID: P435496

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	95.9		P	40 - 150
AMPA	76.6		P	40 - 150
Endothall	99.7		P	40 - 150
Glufosinate	126		P	40 - 150
Glyphosate	72.5		P	40 - 150
Sucralose	99.3		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P435567

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	84.3		P	40 - 150
2,4,5-T	119		P	40 - 150
Acetaminophen	98.9		P	30 - 150
Acetamiprid	92.1		P	40 - 150
Afidopyropen	48.0		P	30 - 150
Bentazon	93.0		P	30 - 150
Benzovindiflupyr	91.2		P	40 - 150
Carbamazepine	95.8		P	40 - 150
Clothianidin	110		P	40 - 150
Dinotefuran	116		P	40 - 150
Diuron	90.0		P	40 - 150
Fenuron	98.1		P	40 - 150
Fluridone	79.7		P	40 - 150
Hydrocodone	97.7		P	40 - 150
Ibuprofen	74.8		P	40 - 150
Imazapyr	98.0		P	40 - 150
Imidacloprid	96.6		P	40 - 150
Linuron	71.1		P	40 - 150
Mandestrobin	90.9		P	40 - 150
MCPP	110		P	40 - 150
Naproxen	70.8		P	40 - 150
Primidone	97.3		P	40 - 150
Pyraclostrobin	88.9		P	40 - 150
Silvex	85.4		P	40 - 150
Thiamethoxam	108		P	40 - 150
Tolfenpyrad	59.2		P	30 - 150
Triclopyr	114		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P435733

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.3		P	92 - 105

Reference Method: SM 2320 B-2011

Batch ID: P435767

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.4		P	92 - 105

Reference Method: SM 2540 C-2015

Batch ID: P436127

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	94.0		P	90 - 110

Reference Method: SM 2540 D-2015

Batch ID: P435855

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	92.4		P	85 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P435736

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

Reference Method: SM 4500-F- C-2011
Batch ID: P435769

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.8		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P435753

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.8		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P435794

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P435588

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2439344	Iron	103		P	75 - 125
2439344	Magnesium	103		P	75 - 125
2439344	Potassium	102		P	75 - 125
2439344	Sodium	103		P	75 - 125
2439344	Strontium	100		P	75 - 125
2439344	Tin	101		P	75 - 125
2439344	Titanium	102		P	75 - 125
2439344	Vanadium	102		P	75 - 125
2439344	Zinc	100		P	75 - 125
2439877	Calcium	99.9		P	80 - 120
2439877	Iron	104	104	P/P	80 - 120
2439877	Magnesium	105	104	P/P	80 - 120
2439877	Potassium	98.7	97.5	P/P	80 - 120
2439877	Sodium	99.8		P	80 - 120
2439877	Strontium	100	99.5	P/P	80 - 120
2439877	Tin	101	99.2	P/P	80 - 120
2439877	Titanium	101	102	P/P	80 - 120
2439877	Vanadium	101	103	P/P	80 - 120
2439877	Zinc	101	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P435588

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2439344	Aluminum	94.1		P	75 - 125
2439344	Antimony	100		P	75 - 125
2439344	Arsenic	103		P	75 - 125
2439344	Barium	104		P	75 - 125
2439344	Beryllium	97.7		P	75 - 125
2439344	Boron	102		P	75 - 125
2439344	Cadmium	105		P	75 - 125
2439344	Chromium	104		P	75 - 125
2439344	Cobalt	100		P	75 - 125
2439344	Copper	93.2		P	75 - 125
2439344	Lead	98.4		P	75 - 125
2439344	Manganese	99.2		P	75 - 125
2439344	Molybdenum	105		P	75 - 125
2439344	Nickel	95.8		P	75 - 125
2439344	Selenium	99.3		P	75 - 125
2439344	Silver	109		P	75 - 125
2439344	Thallium	107		P	75 - 125
2439877	Aluminum	98.9	99.0	P/P	80 - 120
2439877	Antimony	102	101	P/P	80 - 120
2439877	Arsenic	102	100	P/P	80 - 120
2439877	Barium	104	103	P/P	80 - 120
2439877	Beryllium	103	103	P/P	80 - 120
2439877	Boron	103	102	P/P	80 - 120
2439877	Cadmium	102	103	P/P	80 - 120
2439877	Chromium	105	103	P/P	80 - 120
2439877	Cobalt	101	101	P/P	80 - 120
2439877	Copper	98.3	97.4	P/P	80 - 120
2439877	Lead	96.6	97.0	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P435588

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2439877	Manganese	102	102	P/P	80 - 120
2439877	Molybdenum	102	101	P/P	80 - 120
2439877	Nickel	99.1	98.2	P/P	80 - 120
2439877	Selenium	100	98.1	P/P	80 - 120
2439877	Silver	112	110	P/P	80 - 120
2439877	Thallium	107	106	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P436045

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440292	Chloride	104		P	90 - 110
2440473	Chloride	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P436048

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440292	Sulfate	104		P	90 - 110
2440473	Sulfate	106		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P435697

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440110	Ammonia-N	101	98.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P436040

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440293	Kjeldahl Nitrogen	105	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P436258

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440333	NO2NO3-N	95.5	95.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P436378

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2439869	NO2NO3-N	99.5	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P435692

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440436	Total-P	104	109	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P435653

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440340	PCB-1016	78.1	85.7	P/P	45 - 107
2440340	PCB-1260	78.4	88.8	P/P	40 - 112
2441048	Aldrin	63.9	65.3	P/P	24 - 81.0
2441048	Alpha-BHC	96.5	83.3	P/P	65 - 110
2441048	Alpha-Chlordane	91.1	76.7	P/P	43 - 119
2441048	Beta-BHC	83.7	89.6	P/P	54 - 165
2441048	Beta-Cyfluthrin	94.0	105	P/P	27 - 165
2441048	Bifenthrin	71.4	60.2	P/P	17 - 117
2441048	Chlorothalonil	11.8	12.1	P/P	10 - 255
2441048	Cis-Nonachlor	72.0	79.4	P/P	34 - 98.0
2441048	Cypermethrin	94.0	101	P/P	25 - 143
2441048	Dacthal	97.2	84.7	P/P	55 - 139
2441048	DDD-p,p'	59.8	64.8	P/P	30 - 109
2441048	DDE-p,p'	68.4	57.5	P/P	35 - 106
2441048	DDT-p,p'	58.6	61.1	P/P	41 - 101
2441048	Delta-BHC	150	117	P/P	58 - 165
2441048	Deltamethrin	119	118	P/P	10 - 194
2441048	Dichlobenil	50.7	52.3	P/P	22 - 114
2441048	Dicofol	86.9	76.9	P/P	17 - 133
2441048	Dieldrin	85.4	72.7	P/P	45 - 129
2441048	Endosulfan I	99.7	86.7	P/P	49 - 104
2441048	Endosulfan II	90.0	88.7	P/P	37 - 117
2441048	Endosulfan Sulfate	83.9	77.4	P/P	38 - 128
2441048	Endrin	89.0	76.2	P/P	35 - 116
2441048	Endrin Aldehyde	54.9	55.9	P/P	19 - 108
2441048	Endrin Ketone	96.9	102	P/P	44 - 134
2441048	Esfenvalerate	106	99.0	P/P	27 - 176
2441048	Ethalfuralin	78.3	63.7	P/P	49 - 100
2441048	Fenpropathrin	82.5	75.7	P/P	34 - 117
2441048	Gamma-BHC	119	88.7	P/P	59 - 129
2441048	Gamma-Chlordane	90.6	71.9	P/P	33 - 107
2441048	Heptachlor	85.0	67.2	P/P	37 - 94.0
2441048	Heptachlor Epoxide	94.2	70.6	P/P	38 - 118
2441048	Hexachlorobenzene	73.0	66.5	P/P	35 - 97.0
2441048	Kepone	119	116	P/P	10 - 221
2441048	Lambda-Cyhalothrin	96.9	107	P/P	23 - 190
2441048	Methoprene	50.1	53.5	P/P	21 - 109
2441048	Methoxychlor	115	97.9	P/P	46 - 118
2441048	MGK-264	64.3	63.9	P/P	39 - 122
2441048	Mirex	73.5	71.6	P/P	25 - 90.0
2441048	Oxychlordane	81.6	66.7	P/P	42 - 100
2441048	Permethrin	80.1	99.1	P/P	33 - 181
2441048	Phenothrin	71.6	103	P/P	12 - 125
2441048	Piperonyl Butoxide	86.4	78.1	P/P	10 - 178
2441048	Prallethrin	80.3	82.0	P/P	24 - 122
2441048	Tau-Fluvalinate	103	100	P/P	13 - 151
2441048	Tetramethrin	84.7	93.5	P/P	16 - 172
2441048	Trans-Nonachlor	96.9	75.3	P/P	39 - 100
2441048	Triclosan Methyl	79.0	79.6	P/P	43 - 110
2441048	Trifluralin	74.0	70.2	P/P	45 - 94.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8276

Batch ID: P435653

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440340	Chlordane	72.0	67.8	P/P	43 - 123
2440340	Toxaphene	82.9	76.9	P/P	27 - 156

Reference Method: EPA 8321B

Batch ID: P435496

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440366	Acesulfame K	88.0	87.9	P/P	40 - 150
2440366	AMPA	64.6	64.3	P/P	40 - 150
2440366	Endothall	155	156	F/F	40 - 150
2440366	Glufosinate	119	108	P/P	40 - 150
2440366	Glyphosate	115	96.5	P/P	40 - 150
2440366	Sucralose	96.9	108	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P435567

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440342	2,4,5-T	93.3	86.5	P/P	40 - 150
2440342	Acetaminophen	116	111	P/P	30 - 150
2440342	Acetamiprid	65.1	66.9	P/P	40 - 150
2440342	Afidopyrophen	51.3	57.3	P/P	30 - 150
2440342	Bentazon	37.7	37.6	P/P	30 - 150
2440342	Benzovindiflupyr	83.3	80.2	P/P	40 - 150
2440342	Carbamazepine	67.4	65.1	P/P	40 - 150
2440342	Clothianidin	83.2	79.4	P/P	40 - 150
2440342	Dinotefuran	95.6	87.5	P/P	40 - 150
2440342	Diuron	56.3	56.0	P/P	40 - 150
2440342	Fenuron	57.0	55.5	P/P	40 - 150
2440342	Fluridone	44.9	39.9	P/F	40 - 150
2440342	Hydrocodone	59.4	55.5	P/P	40 - 150
2440342	Ibuprofen	50.8	60.8	P/P	40 - 150
2440342	Imidacloprid	116	108	P/P	40 - 150
2440342	Linuron	50.8	46.9	P/P	40 - 150
2440342	Mandestrobin	69.7	66.7	P/P	40 - 150
2440342	MCPP	91.5	85.3	P/P	40 - 150
2440342	Naproxen	55.5	60.3	P/P	40 - 150
2440342	Primidone	75.1	68.6	P/P	40 - 150
2440342	Pyraclostrobin	81.2	77.0	P/P	40 - 150
2440342	Silvex	83.1	72.3	P/P	40 - 150
2440342	Thiamethoxam	82.7	78.2	P/P	40 - 150
2440342	Tolfenpyrad	60.0	61.2	P/P	30 - 150
2440342	Triclopyr	99.1	93.7	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P435736

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2439796	Fluoride	101	101	P/P	94 - 106

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P435769

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440474	Fluoride	97.5	95.9	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P435753

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2439957	Organic Carbon	95.1	95.6	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P435794

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2437353	Organic Carbon	96.1	96.8	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P435526

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440246	Color (true)	1.70	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P435529

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440112	Turbidity	10.2	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P435588

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439877	Calcium	1.27	Spike	P	0 - 20
2439877	Iron	0.463	Spike	P	0 - 20
2439877	Magnesium	0.342	Spike	P	0 - 20
2439877	Potassium	0.943	Spike	P	0 - 20
2439877	Sodium	0.521	Spike	P	0 - 20
2439877	Strontium	0.552	Spike	P	0 - 20
2439877	Tin	1.67	Spike	P	0 - 20
2439877	Titanium	0.525	Spike	P	0 - 20
2439877	Vanadium	1.25	Spike	P	0 - 20
2439877	Zinc	0.436	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P435588

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439877	Aluminum	0.157	Spike	P	0 - 20
2439877	Antimony	0.529	Spike	P	0 - 20
2439877	Arsenic	1.92	Spike	P	0 - 20
2439877	Barium	0.913	Spike	P	0 - 20
2439877	Beryllium	0.0568	Spike	P	0 - 20
2439877	Boron	0.854	Spike	P	0 - 20
2439877	Cadmium	1.16	Spike	P	0 - 20
2439877	Chromium	1.44	Spike	P	0 - 20
2439877	Cobalt	0.305	Spike	P	0 - 20
2439877	Copper	0.825	Spike	P	0 - 20
2439877	Lead	0.361	Spike	P	0 - 20
2439877	Manganese	0.534	Spike	P	0 - 20
2439877	Molybdenum	1.11	Spike	P	0 - 20
2439877	Nickel	0.901	Spike	P	0 - 20
2439877	Selenium	2.01	Spike	P	0 - 20
2439877	Silver	1.10	Spike	P	0 - 20
2439877	Thallium	0.243	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436045

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440292	Chloride	2.47	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436048

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440292	Sulfate	4.26	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435697

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440110	Ammonia-N	2.41	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436040

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440293	Kjeldahl Nitrogen	2.32	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436258

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440333	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436378

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439869	NO2NO3-N	1.00	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435692

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440436	Total-P	3.61	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P435653

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440340	PCB-1016	9.27	Spike	P	0 - 25
2440340	PCB-1260	12.5	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P435653

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441048	Aldrin	2.25	Spike	P	0 - 41
2441048	Alpha-BHC	14.6	Spike	P	0 - 25
2441048	Alpha-Chlordane	17.2	Spike	P	0 - 32
2441048	Beta-BHC	6.78	Spike	P	0 - 33
2441048	Beta-Cyfluthrin	11.5	Spike	P	0 - 43
2441048	Bifenthrin	17.0	Spike	P	0 - 52
2441048	Chlorothalonil	2.54	Spike	P	0 - 82
2441048	Cis-Nonachlor	9.80	Spike	P	0 - 33
2441048	Cypermethrin	7.34	Spike	P	0 - 51
2441048	Dacthal	13.7	Spike	P	0 - 27
2441048	DDD-p,p'	7.97	Spike	P	0 - 39
2441048	DDE-p,p'	17.3	Spike	P	0 - 31
2441048	DDT-p,p'	4.24	Spike	P	0 - 29
2441048	Delta-BHC	25.0	Spike	P	0 - 35
2441048	Deltamethrin	0.276	Spike	P	0 - 100
2441048	Dichlobenil	3.01	Spike	P	0 - 40
2441048	Dicofol	12.3	Spike	P	0 - 37
2441048	Dieldrin	16.1	Spike	P	0 - 27
2441048	Endosulfan I	14.0	Spike	P	0 - 23
2441048	Endosulfan II	1.45	Spike	P	0 - 34
2441048	Endosulfan Sulfate	7.99	Spike	P	0 - 36
2441048	Endrin	15.5	Spike	P	0 - 45
2441048	Endrin Aldehyde	1.87	Spike	P	0 - 76
2441048	Endrin Ketone	5.33	Spike	P	0 - 43
2441048	Esfenvalerate	7.02	Spike	P	0 - 51
2441048	Ethalfuralin	20.6	Spike	P	0 - 22
2441048	Fenpropathrin	8.62	Spike	P	0 - 49
2441048	Gamma-BHC	29.3	Spike	F	0 - 28
2441048	Gamma-Chlordane	23.0	Spike	P	0 - 40
2441048	Heptachlor	23.4	Spike	P	0 - 29
2441048	Heptachlor Epoxide	28.6	Spike	P	0 - 33
2441048	Hexachlorobenzene	9.29	Spike	P	0 - 36
2441048	Kepone	3.04	Spike	P	0 - 85
2441048	Lambda-Cyhalothrin	9.76	Spike	P	0 - 55
2441048	Methoprene	6.67	Spike	P	0 - 53
2441048	Methoxychlor	15.8	Spike	P	0 - 50
2441048	MGK-264	0.739	Spike	P	0 - 43
2441048	Mirex	2.68	Spike	P	0 - 40
2441048	Oxychlordane	20.1	Spike	P	0 - 31
2441048	Permethrin	21.2	Spike	P	0 - 50
2441048	Phenothrin	36.3	Spike	P	0 - 58
2441048	Piperonyl Butoxide	10.1	Spike	P	0 - 100
2441048	Prallethrin	2.10	Spike	P	0 - 39
2441048	Tau-Fluvalinate	2.18	Spike	P	0 - 54
2441048	Tetramethrin	9.88	Spike	P	0 - 51
2441048	Trans-Nonachlor	25.1	Spike	P	0 - 39
2441048	Triclosan Methyl	0.814	Spike	P	0 - 31
2441048	Trifluralin	5.26	Spike	P	0 - 22

Quality Assurance Report Precision

Reference Method: EPA 8276

Batch ID: P435653

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440340	Chlordane	5.59	Spike	P	0 - 28
2440340	Toxaphene	7.50	Spike	P	0 - 27

Reference Method: EPA 8321B

Batch ID: P435496

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440366	Acesulfame K	0.157	Spike	P	0 - 30
2440366	AMPA	0.354	Spike	P	0 - 30
2440366	Endothall	0.668	Spike	P	0 - 30
2440366	Glufosinate	9.58	Spike	P	0 - 30
2440366	Glyphosate	17.4	Spike	P	0 - 30
2440366	Sucralose	10.5	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P435567

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440342	2,4-D	3.83	Spike	P	0 - 30
2440342	2,4,5-T	7.48	Spike	P	0 - 30
2440342	Acetaminophen	5.12	Spike	P	0 - 30
2440342	Acetamiprid	2.84	Spike	P	0 - 30
2440342	Afidopyropen	11.1	Spike	P	0 - 30
2440342	Bentazon	0.151	Spike	P	0 - 30
2440342	Benzovindiflupyr	3.79	Spike	P	0 - 30
2440342	Carbamazepine	3.44	Spike	P	0 - 30
2440342	Clothianidin	4.66	Spike	P	0 - 30
2440342	Dinotefuran	8.80	Spike	P	0 - 30
2440342	Diuron	0.585	Spike	P	0 - 30
2440342	Fenuron	2.57	Spike	P	0 - 30
2440342	Fluridone	11.8	Spike	P	0 - 30
2440342	Hydrocodone	6.74	Spike	P	0 - 30
2440342	Ibuprofen	17.9	Spike	P	0 - 30
2440342	Imazapyr	0.792	Spike	P	0 - 30
2440342	Imidacloprid	6.34	Spike	P	0 - 30
2440342	Linuron	8.07	Spike	P	0 - 30
2440342	Mandestrobin	4.45	Spike	P	0 - 30
2440342	MCPP	7.06	Spike	P	0 - 30
2440342	Naproxen	8.29	Spike	P	0 - 30
2440342	Primidone	8.95	Spike	P	0 - 30
2440342	Pyraclostrobin	5.32	Spike	P	0 - 30
2440342	Silvex	13.8	Spike	P	0 - 30
2440342	Thiamethoxam	5.57	Spike	P	0 - 30
2440342	Tolfenpyrad	2.01	Spike	P	0 - 30
2440342	Triclopyr	5.61	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P435733

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439796	Total Alkalinity	1.06	Sample	P	0 - 3.9

Reference Method: SM 2320 B-2011
Batch ID: P435767

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440474	Total Alkalinity	2.67	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P436127

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440330	TDS	7.16	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P435736

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439796	Fluoride	0.0	Spike	P	0 - 1.9

Reference Method: SM 4500-F- C-2011
Batch ID: P435769

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440474	Fluoride	1.01	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P435753

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439957	Organic Carbon	0.364	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P435794

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2437353	Organic Carbon	0.483	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2440340
Field Sample ID: 20030692

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	72.0	P	37 - 129
EPA 8270E	Decachlorobiphenyl	78.6	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	54.9	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	45.8	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	55.2	P	28 - 102
EPA 8276	PCNB	91.4	P	49 - 115

Lab Sample ID: 2440341
Field Sample ID: G2NE1164

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	74.0	P	37 - 129
EPA 8270E	Decachlorobiphenyl	83.9	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	52.5	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	52.9	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	55.0	P	28 - 102
EPA 8276	PCNB	92.8	P	49 - 115

Lab Sample ID: 2440342
Field Sample ID: 20030792

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	91.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	80.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	66.9	P	30 - 160
EPA 8321B	Diuron-d6	43.7	P	30 - 160
EPA 8321B	Endothall-d6	120	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	78.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	45.5	P	30 - 160
EPA 8321B	Primidone-d5	62.2	P	30 - 160
EPA 8321B	Sucralose-d6	148	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A121765
Included Lab Sample IDs: 2440342

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	95.4	82.3	P/P	60 - 160
Endothall	108	112	P/P	60 - 160
Glufosinate	114	113	P/P	60 - 160
Glyphosate	75.0	86.7	P/P	60 - 160

Reference Method: DEP SOP: NU-094-1
Run ID: A121773
Included Lab Sample IDs: 2440330, 2440332

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

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A121774
Included Lab Sample IDs: 2440330, 2440332

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

Reference Method: EPA 8321B
Run ID: A121824
Included Lab Sample IDs: 2440342

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	102	97.6	P/P	60 - 160
Sucralose	108	107	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A121829
Included Lab Sample IDs: 2440331, 2440333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.9	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A121837
Included Lab Sample IDs: 2440343

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	102	P/P	90 - 110
Iron	100	99.9	P/P	90 - 110
Magnesium	101	101	P/P	90 - 110
Potassium	98.4	98.9	P/P	90 - 110
Sodium	99.7	99.6	P/P	90 - 110
Strontium	101	100	P/P	90 - 110
Tin	103	103	P/P	90 - 110
Titanium	100	101	P/P	90 - 110
Vanadium	101	102	P/P	90 - 110
Zinc	103	104	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A121840

Included Lab Sample IDs: 2440343

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.8	96.6	P/P	90 - 110
Antimony	98.9	99.2	P/P	90 - 110
Arsenic	100	102	P/P	90 - 110
Barium	100	102	P/P	90 - 110
Beryllium	95.0	102	P/P	90 - 110
Boron	102	94.9	P/P	90 - 110
Cadmium	103	103	P/P	90 - 110
Chromium	105	106	P/P	90 - 110
Cobalt	100	102	P/P	90 - 110
Copper	98.1	99.2	P/P	90 - 110
Lead	95.2	96.1	P/P	90 - 110
Manganese	104	104	P/P	90 - 110
Molybdenum	101	101	P/P	90 - 110
Nickel	98.8	101	P/P	90 - 110
Selenium	102	103	P/P	90 - 110
Silver	103	103	P/P	90 - 110
Thallium	102	102	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A121844

Included Lab Sample IDs: 2440330

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.9	95.5	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A121844

Included Lab Sample IDs: 2440330

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A121845

Included Lab Sample IDs: 2440331, 2440333

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

Reference Method: SM 5310 B-2011

Run ID: A121853

Included Lab Sample IDs: 2440331

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.2	95.5	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A121863

Included Lab Sample IDs: 2440332

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

Reference Method: SM 2320 B-2011

Run ID: A121863

Included Lab Sample IDs: 2440332

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.9	94.0	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A121863

Included Lab Sample IDs: 2440332

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

Reference Method: SM 5310 B-2011

Run ID: A121872

Included Lab Sample IDs: 2440333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.4	94.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A121893

Included Lab Sample IDs: 2440342

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	86.2	80.9	P/P	50 - 150
2,4,5-T	107	84.7	P/P	50 - 150
Acetaminophen	111	115	P/P	60 - 160
Acetamiprid	110	111	P/P	50 - 150
Bentazon	124	121	P/P	50 - 160
Benzovindiflupyr	95.9	87.9	P/P	50 - 150
Carbamazepine	106	88.0	P/P	60 - 150
Clothianidin	120	122	P/P	60 - 150
Dinotefuran	108	114	P/P	50 - 150
Diuron	109	83.4	P/P	60 - 160
Fenuron	104	105	P/P	60 - 150
Fluridone	103	82.7	P/P	60 - 160
Hydrocodone	118	113	P/P	60 - 150
Ibuprofen	140	73.2	P/P	50 - 160
Imazapyr	99.3	104	P/P	50 - 150
Imidacloprid	106	104	P/P	60 - 150
Linuron	86.5	74.8	P/P	60 - 150
Mandestrobin	92.9	85.0	P/P	50 - 150
MCPP	107	84.3	P/P	50 - 150
Naproxen	142	141	P/P	50 - 160
Primidone	107	107	P/P	60 - 150
Pyraclostrobin	105	102	P/P	60 - 150
Silvex	114	73.3	P/P	50 - 150
Thiamethoxam	118	119	P/P	50 - 150
Tolfenpyrad	99.2	90.6	P/P	60 - 150
Triclopyr	90.1	81.9	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A121918
Included Lab Sample IDs: 2440342

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Afidopyropen	77.3	76.5	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A121948
Included Lab Sample IDs: 2440330, 2440332

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	102	P/P	90 - 110
Sulfate	103	103	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A121970
Included Lab Sample IDs: 2440340, 2440341

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	93.4		P	80 - 120
PCB-1260	93.6		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A122030
Included Lab Sample IDs: 2440331, 2440333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	103	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A122040
Included Lab Sample IDs: 2440340, 2440341

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	96.0		P	80 - 120
Alpha-Chlordane	81.1		P	80 - 120
Beta-BHC	83.8		P	80 - 120
Beta-Cyfluthrin	93.4		P	80 - 120
Bifenthrin	108		P	80 - 120
Chlorothalonil	94.0		P	80 - 120
Cis-Nonachlor	91.2		P	80 - 120
Cypermethrin	87.6		P	80 - 120
Dacthal	98.2		P	80 - 120
DDD-p,p'	109		P	80 - 120
DDE-p,p'	107		P	80 - 120
DDT-p,p'	94.3		P	80 - 120
Delta-BHC	92.9		P	80 - 120
Deltamethrin	91.1		P	80 - 120
Dichlobenil	91.6		P	80 - 120
Dieldrin	113		P	80 - 120
Endosulfan I	81.7		P	80 - 120
Endosulfan II	99.2		P	80 - 120
Endosulfan Sulfate	104		P	80 - 120
Endrin	110		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A122040

Included Lab Sample IDs: 2440340, 2440341

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endrin Aldehyde	104		P	80 - 120
Endrin Ketone	99.5		P	80 - 120
Esfenvalerate	89.7		P	80 - 120
Ethalfuralin	96.7		P	80 - 120
Fenpropathrin	102		P	80 - 120
Gamma-BHC	84.0		P	80 - 120
Gamma-Chlordane	82.2		P	80 - 120
Heptachlor	110		P	80 - 120
Heptachlor Epoxide	85.8		P	80 - 120
Hexachlorobenzene	87.2		P	80 - 120
Kepone	92.9		P	80 - 120
Lambda-Cyhalothrin	93.7		P	80 - 120
Methoprene	96.2		P	80 - 120
MGK-264	96.1		P	80 - 120
Mirex	104		P	80 - 120
Oxychlordane	84.8		P	80 - 120
Permethrin	101		P	80 - 120
Phenothrin	90.2		P	80 - 120
Piperonyl Butoxide	92.5		P	80 - 120
Prallethrin	92.9		P	80 - 120
Tau-Fluvalinate	92.6		P	80 - 120
Tetramethrin	97.6		P	80 - 120
Trans-Nonachlor	87.9		P	80 - 120
Triclosan Methyl	107		P	80 - 120
Trifluralin	103		P	80 - 120

Reference Method: EPA 8270E

Run ID: A122041

Included Lab Sample IDs: 2440340, 2440341

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dicofol	93.7		P	80 - 120
Methoxychlor	96.9		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122043

Included Lab Sample IDs: 2440333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	96.5	97.0	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A122071

Included Lab Sample IDs: 2440340, 2440341

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	92.3		P	80 - 120
Chlordane	96.3		P	80 - 120
Toxaphene	95.2		P	80 - 120
Toxaphene	95.8		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122094

Included Lab Sample IDs: 2440331

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	97.5	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			Precision SMP	MS
						LCS	
DEP SOP: NU-094-1	Color (true)	99.9				1.70	
EPA 180.1 Rev. 2.0	Turbidity	104				10.2	
EPA 200.7 Rev. 4.4	Calcium	105	99.9				1.27
	Iron	106	104	104	103		0.463
	Magnesium	108	105	104	103		0.342
	Potassium	101	98.7	97.5	102		0.943
	Sodium	104	99.8	103			0.521
	Strontium	103	100	99.5	100		0.552
	Tin	103	101	99.2	101		1.67
	Titanium	102	101	102	102		0.525
	Vanadium	103	101	103	102		1.25
	Zinc	104	101	101	100		0.436
EPA 200.8 Rev. 5.4	Aluminum	101	98.9	99.0	94.1		0.157
	Antimony	101	102	101	100		0.529
	Arsenic	99.3	102	100	103		1.92
	Barium	104	104	103	104		0.913
	Beryllium	102	103	103	97.7		0.0568
	Boron	104	103	102	102		0.854
	Cadmium	102	102	103	105		1.16
	Chromium	104	105	103	104		1.44
	Cobalt	102	101	101	100		0.305
	Copper	99.2	98.3	97.4	93.2		0.825
	Lead	97.1	96.6	97.0	98.4		0.361
	Manganese	103	102	102	99.2		0.534
	Molybdenum	100	102	101	105		1.11
	Nickel	100	99.1	98.2	95.8		0.901
	Selenium	99.0	100	98.1	99.3		2.01
	Silver	112	112	110	109		1.10
	Thallium	100	107	106	107		0.243
EPA 300.0 Rev. 2.1	Chloride	102	104	105		2.47	
	Sulfate	102	104	106		4.26	
EPA 350.1 Rev. 2.0	Ammonia-N	100	101	98.4			2.41
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	108	105	102			2.32
EPA 353.2 Rev. 2.0	NO2NO3-N	96.0	95.5	95.5			0.0
	NO2NO3-N	99.0	99.5	100			1.00
EPA 365.1 Rev. 2.0	Total-P	103	104	109			3.61
EPA 8270E	Aldrin	52.2	63.9	65.3			2.25
	Alpha-BHC	77.4	96.5	83.3			14.6
	Alpha-Chlordane	88.3	91.1	76.7			17.2
	Beta-BHC	73.8	83.7	89.6			6.78
	Beta-Cyfluthrin	77.8	94.0	105			11.5
	Bifenthrin	54.3	71.4	60.2			17.0
	Chlorothalonil	107	11.8	12.1			2.54
	Cis-Nonachlor	70.4	72.0	79.4			9.80
	Cypermethrin	69.5	94.0	101			7.34
	Dacthal	99.0	97.2	84.7			13.7
	DDD-p,p'	61.9	59.8	64.8			7.97
	DDE-p,p'	68.2	68.4	57.5			17.3
	DDT-p,p'	56.4	58.6	61.1			4.24
	Delta-BHC	103	150	117			25.0
	Deltamethrin	76.9	119	118			0.276
	Dichlobenil	74.7	50.7	52.3			3.01
	Dicofol	67.4	86.9	76.9			12.3
	Dieldrin	74.6	85.4	72.7			16.1

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Endosulfan I	76.2	99.7	86.7			14.0
	Endosulfan II	93.6	90.0	88.7			1.45
	Endosulfan Sulfate	83.1	83.9	77.4			7.99
	Endrin	77.6	89.0	76.2			15.5
	Endrin Aldehyde	62.1	54.9	55.9			1.87
	Endrin Ketone	94.7	96.9	102			5.33
	Esfenvalerate	64.6	106	99.0			7.02
	Ethalfuralin	73.9	78.3	63.7			20.6
	Fenpropathrin	71.8	82.5	75.7			8.62
	Gamma-BHC	79.0	119	88.7			29.3
	Gamma-Chlordane	73.4	90.6	71.9			23.0
	Heptachlor	56.5	85.0	67.2			23.4
	Heptachlor Epoxide	74.6	94.2	70.6			28.6
	Hexachlorobenzene	78.3	73.0	66.5			9.29
	Kepone	140	119	116			3.04
	Lambda-Cyhalothrin	56.8	96.9	107			9.76
	Methoprene	48.4	50.1	53.5			6.67
	Methoxychlor	74.2	115	97.9			15.8
	MGK-264	60.6	64.3	63.9			0.739
	Mirex	64.9	73.5	71.6			2.68
	Oxychlordane	70.1	81.6	66.7			20.1
	PCB-1016	77.3	78.1	85.7			9.27
	PCB-1260	89.1	78.4	88.8			12.5
	Permethrin	73.3	80.1	99.1			21.2
	Phenothrin	55.1	71.6	103			36.3
	Piperonyl Butoxide	81.5	86.4	78.1			10.1
	Prallethrin	71.7	80.3	82.0			2.10
	Tau-Fluvalinate	68.8	103	100			2.18
	Tetramethrin	65.5	84.7	93.5			9.88
	Trans-Nonachlor	71.0	96.9	75.3			25.1
	Triclosan Methyl	66.1	79.0	79.6			0.814
	Trifluralin	69.8	74.0	70.2			5.26
EPA 8276	Chlordane	92.2	72.0	67.8			5.59
	Toxaphene	99.8	82.9	76.9			7.50
EPA 8321B	2,4-D	84.3					3.83
	2,4,5-T	119	93.3	86.5			7.48
	Acesulfame K	95.9	88.0	87.9			0.157
	Acetaminophen	98.9	116	111			5.12
	Acetamiprid	92.1	65.1	66.9			2.84
	Afidopyropen	48.0	51.3	57.3			11.1
	AMPA	76.6	64.6	64.3			0.354
	Bentazon	93.0	37.7	37.6			0.151
	Benzovindiflupyr	91.2	83.3	80.2			3.79
	Carbamazepine	95.8	67.4	65.1			3.44
	Clothianidin	110	83.2	79.4			4.66
	Dinotefuran	116	95.6	87.5			8.80
	Diuron	90.0	56.3	56.0			0.585
	Endothall	99.7	155	156			0.668
	Fenuron	98.1	57.0	55.5			2.57
	Fluridone	79.7	44.9	39.9			11.8
	Glufosinate	126	119	108			9.58
	Glyphosate	72.5	115	96.5			17.4
	Hydrocodone	97.7	59.4	55.5			6.74
	Ibuprofen	74.8	50.8	60.8			17.9

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Imazapyr	98.0				0.792
	Imidacloprid	96.6	116	108		6.34
	Linuron	71.1	50.8	46.9		8.07
	Mandestrobin	90.9	69.7	66.7		4.45
	MCPP	110	91.5	85.3		7.06
	Naproxen	70.8	55.5	60.3		8.29
	Primidone	97.3	75.1	68.6		8.95
	Pyraclostrobin	88.9	81.2	77.0		5.32
	Silvex	85.4	83.1	72.3		13.8
	Sucralose	99.3	96.9	108		10.5
	Thiamethoxam	108	82.7	78.2		5.57
	Tolfenpyrad	59.2	60.0	61.2		2.01
	Triclopyr	114	99.1	93.7		5.61
SM 2320 B-2011	Total Alkalinity	97.3			1.06	
	Total Alkalinity	96.4			2.67	
SM 2540 C-2015	TDS	94.0			7.16	
SM 2540 D-2015	TSS	92.4				
SM 4500-F- C-2011	Fluoride	101	101	101		0.0
	Fluoride	98.8	97.5	95.9		1.01
SM 5310 B-2011	Organic Carbon	95.8	95.1	95.6		0.364
	Organic Carbon	95.0	96.1	96.8		0.483

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2440330, 2440332
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2440330, 2440332
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2440343
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2440343
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2440330, 2440332
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2440330, 2440332
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2440331, 2440333
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2440331, 2440333
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2440331, 2440333
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2440331, 2440333
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2440340, 2440341
EPA 8270E	PCBs in water matrices by GC/MS/MS	2440340, 2440341
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2440340, 2440341
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2440342
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2440330, 2440332
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2440343
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2440330, 2440332
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2440330, 2440332
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2440330, 2440332
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2440331, 2440333

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	09/26/2023			09/26/2023 15:59	Alexis Price	2440330
	09/26/2023			09/26/2023 16:00	Alexis Price	2440332
EPA 180.1 Rev. 2.0	09/26/2023			09/26/2023 15:20	Khloe J Berg	2440330
	09/26/2023			09/26/2023 15:21	Khloe J Berg	2440332
EPA 200.7 Rev. 4.4	09/26/2023	09/27/2023 13:05	George D Taylor	09/28/2023 16:29	Samatha Luckman	2440343
EPA 200.8 Rev. 5.4	09/26/2023	09/27/2023 13:05	George D Taylor	09/28/2023 20:45	Emily M Philpot	2440343
EPA 300.0 Rev. 2.1	09/26/2023			10/04/2023 17:15	James L Waggeberby	2440330
	09/26/2023			10/04/2023 17:30	James L Waggeberby	2440332
EPA 350.1 Rev. 2.0	09/26/2023			09/28/2023 15:10	Ping Hua	2440331
	09/26/2023			09/28/2023 15:11	Ping Hua	2440333
EPA 351.2 Rev. 2.0	09/26/2023	10/05/2023 15:15	Simonne.V. Calhoun	10/09/2023 14:09	Samantha L Bates	2440331
	09/26/2023	10/05/2023 15:15	Simonne.V. Calhoun	10/09/2023 14:11	Samantha L Bates	2440333
EPA 353.2 Rev. 2.0	09/26/2023			10/09/2023 13:05	Anna M. Plaviak	2440333
	09/26/2023			10/11/2023 14:07	Fadila Guebre	2440331
EPA 365.1 Rev. 2.0	09/26/2023	09/28/2023 13:36	Alexis Price	09/29/2023 11:34	Chandler E Cox	2440331
	09/26/2023	09/28/2023 13:36	Alexis Price	09/29/2023 11:35	Chandler E Cox	2440333
EPA 8270E	09/26/2023	10/02/2023 08:00	Fe-Val Siddell	10/03/2023 23:34	Julie Wi	2440340
	09/26/2023	10/02/2023 08:00	Fe-Val Siddell	10/04/2023 00:04	Julie Wi	2440341
	09/26/2023	10/02/2023 08:00	Fe-Val Siddell	10/04/2023 00:37	Julie Wi	2440340
	09/26/2023	10/02/2023 08:00	Fe-Val Siddell	10/04/2023 01:10	Julie Wi	2440341
	09/26/2023	10/02/2023 08:00	Fe-Val Siddell	10/05/2023 02:25	Julie Wi	2440340
	09/26/2023	10/02/2023 08:00	Fe-Val Siddell	10/05/2023 02:57	Julie Wi	2440341
EPA 8276	09/26/2023	10/02/2023 08:00	Fe-Val Siddell	10/06/2023 03:52	Arthur Maknenko	2440340
	09/26/2023	10/02/2023 08:00	Fe-Val Siddell	10/06/2023 09:36	Arthur Maknenko	2440341
EPA 8321B	09/26/2023	09/27/2023 12:00	Hana Lee	09/27/2023 14:15	Tae K Lee	2440342
	09/26/2023	09/27/2023 12:00	Hana Lee	09/27/2023 23:09	Tae K Lee	2440342
	09/26/2023	09/29/2023 09:00	Hoor Shaik	09/29/2023 18:46	Juyoung Kim	2440342
	09/26/2023	09/29/2023 09:00	Hoor Shaik	10/02/2023 21:28	Juyoung Kim	2440342
SM 2320 B-2011	09/26/2023			09/29/2023 07:57	Adam P Silver	2440330
	09/26/2023			09/29/2023 18:12	Adam P Silver	2440332
SM 2340 B-2011	09/26/2023			09/28/2023 16:29	Samatha Luckman	2440343
SM 2540 C-2015	09/26/2023			09/27/2023 15:41	Yijie Li	2440330, 2440332
SM 2540 D-2015	09/26/2023			09/27/2023 15:41	Yijie Li	2440330, 2440332
SM 4500-F- C-2011	09/26/2023			09/29/2023 07:57	Adam P Silver	2440330
	09/26/2023			09/29/2023 18:12	Adam P Silver	2440332
SM 5310 B-2011	09/26/2023			09/29/2023 06:30	Khloe J Berg	2440331
	09/26/2023			09/29/2023 20:36	Khloe J Berg	2440333