

Chemical Analysis Report

NE-DIST-2023-08-01-01

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

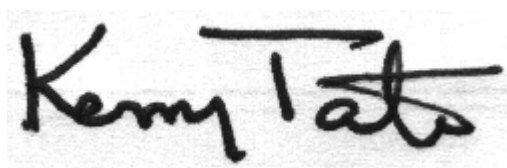
Event Description: **LSJR Main**
Request ID: **RQ-2023-07-31-22**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
Attn: Jeremy Parrish

For additional information please contact
Colin Wright, Ph.D.
Chris Bowen, B.S.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 21-AUG-2023 10:28

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line extending from the end of the name.

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: HOGAN CREEK AT 1ST ST

Collection Date/Time: 07/31/2023 11:00

Field ID: 20030692

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427726	DEP SOP: NU-094-1	Color (true)	37	A	PCU	P433287	
	EPA 180.1 Rev. 2.0	Turbidity	3.4	A	NTU	P433281	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P433407	
		Sulfate	26		mg SO4/L	P433410	
	SM 2320 B-2011	Total Alkalinity	84		mg CaCO3/L	P433448	
	SM 2540 C-2015	TDS	163	A	mg/L	P433808	
	SM 2540 D-2015	TSS	4	IA	mg/L	P433689	
	SM 4500-F- C-2011	Fluoride	0.12		mg F/L	P433449	
2427727	EPA 350.1 Rev. 2.0	Ammonia-N	0.12		mg N/L	P433557	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52		mg N/L	P433377	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P433385	
	EPA 365.1 Rev. 2.0	Total-P	0.082		mg P/L	P433294	
	SM 5310 B-2011	Organic Carbon	6.5		mg C/L	P433426	
2427736	EPA 8270E	Aldrin	0.67	U	ng/L	P433350	
		Alpha-BHC	0.10	U	ng/L	P433350	
		Alpha-Chlordane	0.33	I	ng/L	P433350	
		PCB-1016	2.1	U	ng/L	P433350	
		Beta-BHC	0.28	I	ng/L	P433350	
		PCB-1221	2.1	U	ng/L	P433350	
		Beta-Cyfluthrin	1.3	U	ng/L	P433350	
		PCB-1232	2.1	U	ng/L	P433350	
		Bifenthrin	0.51	U	ng/L	P433350	
		PCB-1242	2.1	U	ng/L	P433350	
		PCB-1248	2.1	U	ng/L	P433350	
		Chlorothalonil	3.7	U	ng/L	P433350	
		PCB-1254	2.1	U	ng/L	P433350	
		Cis-Nonachlor	0.21	U	ng/L	P433350	
		PCB-1260	2.1	U	ng/L	P433350	
		Cypermethrin	1.5	U	ng/L	P433350	
		Dacthal	0.15	U	ng/L	P433350	
		DDD-p,p'	0.26	U	ng/L	P433350	
		DDE-p,p'	0.21	U	ng/L	P433350	
		DDT-p,p'	0.82	U	ng/L	P433350	
		Delta-BHC	0.41	U	ng/L	P433350	
		Deltamethrin	1.3	U	ng/L	P433350	
		Dichlobenil	0.26	U	ng/L	P433350	
		Dicofol	1.3	U	ng/L	P433350	
		Dieltin	2.4		ng/L	P433350	
		Endosulfan I	0.41	U	ng/L	P433350	
		Endosulfan II	0.92	U	ng/L	P433350	
		Endosulfan Sulfate	0.31	U	ng/L	P433350	
		Endrin	0.92	U	ng/L	P433350	
		Endrin Aldehyde	0.77	U	ng/L	P433350	
		Endrin Ketone	0.41	U	ng/L	P433350	

Field ID: 20030692

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427736	EPA 8270E	Esfenvalerate	0.77	U	ng/L	P433350	
		Ethalfuralin	0.15	U	ng/L	P433350	
		Fenpropathrin	0.26	U	ng/L	P433350	
		Gamma-BHC	0.13	U	ng/L	P433350	
		Gamma-Chlordane	0.27	I	ng/L	P433350	
		Heptachlor	0.21	U	ng/L	P433350	
		Heptachlor Epoxide	0.76	I	ng/L	P433350	
		Hexachlorobenzene**	1.0	U	ng/L	P433350	
		Kepone	14	U	ng/L	P433350	
		Lambda-Cyhalothrin	0.77	U	ng/L	P433350	
		Methoprene	0.77	U	ng/L	P433350	
		Methoxychlor	0.31	U	ng/L	P433350	
		MGK-264	0.33	I	ng/L	P433350	
		Mirex	0.36	U	ng/L	P433350	
		Oxychlordane	0.31	U	ng/L	P433350	
		Permethrin	1.6	U	ng/L	P433350	
		Phenothrin	0.92	U	ng/L	P433350	
		Piperonyl Butoxide	8.4	J	ng/L	P433350	MS
		Prallethrin	2.1	U	ng/L	P433350	
		Tau-Fluvalinate	0.26	U	ng/L	P433350	
		Tetramethrin	0.77	U	ng/L	P433350	
		Trans-Nonachlor	0.21	U	ng/L	P433350	
		Triclosan Methyl	0.15	U	ng/L	P433350	
		Trifluralin	0.21	U	ng/L	P433350	
	EPA 8276	Chlordane	2.8	I	ng/L	P433350	
		Toxaphene	15	U	ng/L	P433350	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 4500-F- C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: DEER CR AT TALLEYRAND AVE

Collection Date/Time: 07/31/2023 11:25

Field ID: 20030792

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427738	EPA 8321B	2,4-D	0.077		ug/L	P433321	
		Acesulfame K	0.12	I	ug/L	P433285	
		2,4,5-T	0.0040	U	ug/L	P433321	
		AMPA	0.73		ug/L	P433285	
		Acetaminophen	0.0093	I	ug/L	P433321	
		Acetamiprid	0.0020	U	ug/L	P433321	
		Endothall	0.25	U	ug/L	P433285	
		Glufosinate	0.10	U	ug/L	P433285	
		Glyphosate	1.9		ug/L	P433285	
		Afidopyropen	0.0020	U	ug/L	P433321	
		Sucralose	0.33		ug/L	P433285	
		Bentazon	0.0049		ug/L	P433321	MS
		Benzovindiflupyr	0.0020	U	ug/L	P433321	
		Carbamazepine	8.0E-04	U	ug/L	P433321	
		Clothianidin	0.0020	U	ug/L	P433321	
		Dinotefuran	0.0020	U	ug/L	P433321	
		Diuron	0.0029	I	ug/L	P433321	
		Fenuron	0.032	U	ug/L	P433321	
		Fluridone	8.0E-04	U	ug/L	P433321	
		Imazapyr	0.43		ug/L	P433321	
		Hydrocodone	0.0020	U	ug/L	P433321	
		Ibuprofen	0.080	U	ug/L	P433321	
		Imidacloprid	0.0044	I	ug/L	P433321	
		Linuron	0.0040	U	ug/L	P433321	
		Mandestrobin	0.0020	U	ug/L	P433321	
		MCPP	0.0020	U	ug/L	P433321	
		Naproxen	0.0080	U	ug/L	P433321	
		Primidone	0.0040	U	ug/L	P433321	
		Pyraclostrobin	0.0020	U	ug/L	P433321	
		Silvex	0.0040	U	ug/L	P433321	
		Thiamethoxam	0.0020	U	ug/L	P433321	
		Tolfenpyrad	0.0020	U	ug/L	P433321	
		Triclopyr	0.0040	U	ug/L	P433321	

Sample Location: LITTLE POTTSBURG CREEK AT EMERSON

Collection Date/Time: 07/31/2023 11:40

Field ID: 20030070

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427724	DEP SOP: NU-094-1	Color (true)	49		PCU	P433287	
	EPA 180.1 Rev. 2.0	Turbidity	3.8		NTU	P433281	
	EPA 300.0 Rev. 2.1	Chloride	18		mg Cl/L	P433407	
		Sulfate	24		mg SO4/L	P433410	
	SM 2320 B-2011	Total Alkalinity	110		mg CaCO3/L	P433448	
	SM 2540 C-2015	TDS	204		mg/L	P433808	
	SM 2540 D-2015	TSS	2	I	mg/L	P433689	
2427725	SM 4500-F- C-2011	Fluoride	0.13		mg F/L	P433449	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.065		mg N/L	P433557	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.56		mg N/L	P433377	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.23		mg N/L	P433385	
	EPA 365.1 Rev. 2.0	Total-P	0.089		mg P/L	P433294	
2427740	SM 5310 B-2011	Organic Carbon	9.8		mg C/L	P433426	
	EPA 200.7 Rev. 4.4	Calcium	47.1		mg/L	P433264	
		Iron	870		ug/L	P433264	
		Magnesium	5.67		mg/L	P433264	
		Potassium	1.7		mg/L	P433264	
		Sodium	12.0		mg/L	P433264	
		Strontium	426		ug/L	P433264	
		Tin	3.0	U	ug/L	P433264	
		Titanium	1.8	I	ug/L	P433264	
		Vanadium	2.0	U	ug/L	P433264	
		Zinc	8.2	I	ug/L	P433264	
	EPA 200.8 Rev. 5.4	Aluminum	35		ug/L	P433264	
		Antimony	0.24		ug/L	P433264	
		Arsenic	1.20		ug/L	P433264	
		Barium	31.0		ug/L	P433264	
		Beryllium	0.010	U	ug/L	P433264	
		Boron	41.5		ug/L	P433264	
		Cadmium	0.020	U	ug/L	P433264	
		Chromium	0.40	U	ug/L	P433264	
		Cobalt	0.089		ug/L	P433264	
		Copper	1.51		ug/L	P433264	
		Lead	0.31	I	ug/L	P433264	
		Manganese	21.8		ug/L	P433264	
		Molybdenum	0.96		ug/L	P433264	
		Nickel	0.59	I	ug/L	P433264	
		Selenium	0.20	U	ug/L	P433264	
		Silver	0.010	U	ug/L	P433553	
		Thallium	0.10	U	ug/L	P433264	
	SM 2340 B-2011	Hardness	141		mg/L	P433264	

Ref. Method and Comment:

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

SM 4500-F- C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: MIRAMAR AT SAN JOSE

Collection Date/Time: 07/31/2023 12:00

Field ID: G2NE1164

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427737	EPA 8270E	Aldrin	0.67	U	ng/L	P433350	
		Alpha-BHC	0.10	U	ng/L	P433350	
		Alpha-Chlordane	0.70	I	ng/L	P433350	
		PCB-1016	2.1	U	ng/L	P433350	
		Beta-BHC	0.41	I	ng/L	P433350	
		PCB-1221	2.1	U	ng/L	P433350	
		Beta-Cyfluthrin	1.3	U	ng/L	P433350	
		PCB-1232	2.1	U	ng/L	P433350	
		Bifenthrin	0.54	I	ng/L	P433350	
		PCB-1242	2.1	U	ng/L	P433350	
		PCB-1248	2.1	U	ng/L	P433350	
		Chlorothalonil	3.7	U	ng/L	P433350	
		PCB-1254	2.1	U	ng/L	P433350	
		Cis-Nonachlor	0.21	U	ng/L	P433350	
		PCB-1260	2.1	U	ng/L	P433350	
		Cypermethrin	1.5	U	ng/L	P433350	
		Dacthal	0.15	U	ng/L	P433350	
		DDD-p,p'	0.26	U	ng/L	P433350	
		DDE-p,p'	0.21	U	ng/L	P433350	
		DDT-p,p'	0.83	U	ng/L	P433350	
		Delta-BHC	0.41	U	ng/L	P433350	
		Deltamethrin	1.3	U	ng/L	P433350	
		Dichlobenil	3.1		ng/L	P433350	
		Dicofol	1.3	U	ng/L	P433350	
		Dieldrin	10		ng/L	P433350	
		Endosulfan I	0.41	U	ng/L	P433350	
		Endosulfan II	0.93	U	ng/L	P433350	
		Endosulfan Sulfate	0.31	U	ng/L	P433350	
		Endrin	0.93	U	ng/L	P433350	
		Endrin Aldehyde	0.77	U	ng/L	P433350	
		Endrin Ketone	0.41	U	ng/L	P433350	
		Esfenvalerate	0.77	U	ng/L	P433350	
		Ethalfuralin	0.15	U	ng/L	P433350	
		Fenpropathrin	0.26	U	ng/L	P433350	
		Gamma-BHC	0.13	U	ng/L	P433350	
		Gamma-Chlordane	0.41	I	ng/L	P433350	
		Heptachlor	0.21	U	ng/L	P433350	
		Heptachlor Epoxide	2.6		ng/L	P433350	
		Hexachlorobenzene**	1.0	U	ng/L	P433350	
		Kepone	14	U	ng/L	P433350	
		Lambda-Cyhalothrin	0.77	U	ng/L	P433350	
		Methoprene	0.77	U	ng/L	P433350	
		Methoxychlor	0.31	U	ng/L	P433350	
		MGK-264	0.21	U	ng/L	P433350	

Field ID: G2NE1164

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427737	EPA 8270E	Mirex	0.36	U	ng/L	P433350	
		Oxychlordane	0.31	U	ng/L	P433350	
		Permethrin	1.7	U	ng/L	P433350	
		Phenothrin	0.93	U	ng/L	P433350	
		Piperonyl Butoxide	20		ng/L	P433350	MS
		Prallethrin	2.1	U	ng/L	P433350	
		Tau-Fluvalinate	0.26	U	ng/L	P433350	
		Tetramethrin	0.77	U	ng/L	P433350	
		Trans-Nonachlor	0.21	U	ng/L	P433350	
		Triclosan Methyl	0.15	U	ng/L	P433350	
		Trifluralin	0.21	U	ng/L	P433350	
	EPA 8276	Chlordane	6.0	I	ng/L	P433350	
		Toxaphene	15	U	ng/L	P433350	

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P433287

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433281

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P433264

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: P433264

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
Thallium	0.10	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P433553

Component	Result	Code	Units
Silver	0.010	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433407

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433410

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433557

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433377

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433385

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433294

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

Reference Method: EPA 8270E
Batch ID: P433350

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	3.6	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433350

Component	Result	Code	Units
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'	0.80	U	ng/L
DDT-p,p'	0.80	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	0.90	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.90	U	ng/L
Endrin	0.90	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	14	U	ng/L
Kepone	14	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433350

Component	Result	Code	Units
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
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: P433350

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P433285

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: P433321

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011

Batch ID: P433448

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

Reference Method: SM 2540 C-2015

Batch ID: P433808

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2015
Batch ID: P433689

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P433449

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P433426

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: P433287

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	96.1		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433281

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	99.2		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P433264

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115
Iron	106		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	102		P	85 - 115
Sodium	94.4		P	85 - 115
Strontium	99.6		P	85 - 115
Tin	99.2		P	85 - 115
Titanium	101		P	85 - 115
Vanadium	101		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P433264

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	103		P	85 - 115
Antimony	96.5		P	85 - 115
Arsenic	96.9		P	85 - 115
Barium	100		P	85 - 115
Beryllium	92.7		P	85 - 115
Boron	105		P	85 - 115
Cadmium	99.3		P	85 - 115
Chromium	93.6		P	85 - 115
Cobalt	97.7		P	85 - 115
Copper	98.2		P	85 - 115
Lead	95.4		P	85 - 115
Manganese	97.4		P	85 - 115
Molybdenum	96.6		P	85 - 115
Nickel	99.1		P	85 - 115
Selenium	97.3		P	85 - 115
Thallium	97.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P433553

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Silver	112		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433407

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433410

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433557

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433377

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433385

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433294

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

Reference Method: EPA 8270E
Batch ID: P433350

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	52.6		P	30 - 96.0
Alpha-BHC	88.8		P	70 - 109
Alpha-Chlordane	63.8		P	45 - 107
Beta-BHC	78.1		P	64 - 138
Beta-Cyfluthrin	42.6		P	17 - 141
Bifenthrin	29.6		P	10 - 113
Chlorothalonil	79.7		P	26 - 180
Cis-Nonachlor	56.1		P	37 - 102
Cypermethrin	47.9		P	20 - 133
Dacthal	75.9		P	69 - 114
DDD-p,p'	62.0		P	42 - 105
DDE-p,p'	61.8		P	42 - 106
DDT-p,p'	57.9		P	42 - 107
Delta-BHC	90.0		P	67 - 144
Deltamethrin	69.3		P	15 - 149
Dichlobenil	84.3		P	46 - 117

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P433350

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dicofol	61.8		P	34 - 114
Dieldrin	74.0		P	50 - 108
Endosulfan I	77.2		P	55 - 104
Endosulfan II	63.0		P	51 - 111
Endosulfan Sulfate	65.9		P	56 - 121
Endrin	75.1		P	10 - 106
Endrin Aldehyde	77.8		P	34 - 114
Endrin Ketone	77.5		P	63 - 177
Esfenvalerate	44.0		P	29 - 143
Ethalfuralin	64.8		P	46 - 96.0
Fenpropathrin	53.5		P	28 - 115
Gamma-BHC	72.8		P	65 - 121
Gamma-Chlordane	49.7		P	39 - 103
Heptachlor	60.5		P	39 - 94.0
Heptachlor Epoxide	74.0		P	54 - 104
Hexachlorobenzene	54.8		P	36 - 100
Kepone	49.8		P	10 - 225
Lambda-Cyhalothrin	35.0		P	10 - 135
Methoprene	27.9		P	10 - 109
Methoxychlor	68.5		P	52 - 112
MGK-264	62.9		P	44 - 117
Mirex	45.0		P	20 - 90.0
Oxychlordane	61.9		P	44 - 102
PCB-1016	74.1		P	45 - 107
PCB-1260	71.9		P	40 - 118
Permethrin	43.1		P	18 - 135
Phenothrin	33.2		P	10 - 102
Piperonyl Butoxide	84.0		P	28 - 156
Prallethrin	51.2		P	28 - 113
Tau-Fluvalinate	38.0		P	10 - 123
Tetramethrin	69.0		P	18 - 158
Trans-Nonachlor	48.4		P	39 - 104
Triclosan Methyl	73.7		P	54 - 108
Trifluralin	62.4		P	46 - 97.0

Reference Method: EPA 8276

Batch ID: P433350

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	69.8		P	52 - 117
Toxaphene	77.9		P	44 - 125

Reference Method: EPA 8321B

Batch ID: P433285

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	99.3		P	40 - 150
AMPA	127		P	40 - 150
Endothall	103		P	40 - 150
Glufosinate	99.2		P	40 - 150
Glyphosate	106		P	40 - 150
Sucralose	100		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P433321

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	83.3		P	40 - 150
2,4,5-T	80.8		P	40 - 150
Acetaminophen	87.3		P	30 - 150
Acetamiprid	93.4		P	40 - 150
Afidopyropen	78.9		P	30 - 150
Bentazon	137		P	30 - 150
Benzovindiflupyr	88.3		P	40 - 150
Carbamazepine	66.2		P	40 - 150
Clothianidin	95.4		P	40 - 150
Dinotefuran	114		P	40 - 150
Diuron	63.2		P	40 - 150
Fenuron	94.7		P	40 - 150
Fluridone	102		P	40 - 150
Hydrocodone	97.6		P	40 - 150
Ibuprofen	72.2		P	40 - 150
Imazapyr	77.6		P	40 - 150
Imidacloprid	86.8		P	40 - 150
Linuron	73.7		P	40 - 150
Mandestrobin	95.5		P	40 - 150
MCPP	90.8		P	40 - 150
Naproxen	76.1		P	40 - 150
Primidone	79.2		P	40 - 150
Pyraclostrobin	71.5		P	40 - 150
Silvex	89.4		P	40 - 150
Thiamethoxam	99.0		P	40 - 150
Tolfenpyrad	44.3		P	30 - 150
Triclopyr	82.4		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P433448

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.8		P	92 - 105

Reference Method: SM 2540 C-2015

Batch ID: P433808

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

Reference Method: SM 2540 D-2015

Batch ID: P433689

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	89.7		P	85 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P433449

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	94 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P433426

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P433264

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427520	Calcium	98.0		P	80 - 120
2427520	Iron	104	104	P/P	80 - 120
2427520	Magnesium	101	101	P/P	80 - 120
2427520	Potassium	97.8	97.5	P/P	80 - 120
2427520	Sodium	97.3		P	80 - 120
2427520	Strontium	96.6	92.6	P/P	80 - 120
2427520	Tin	92.7	90.2	P/P	80 - 120
2427520	Titanium	92.8	89.8	P/P	80 - 120
2427520	Vanadium	96.9	94.5	P/P	80 - 120
2427520	Zinc	95.9	93.5	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P433264

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427520	Aluminum	102	102	P/P	80 - 120
2427520	Antimony	96.9	96.8	P/P	80 - 120
2427520	Arsenic	98.4	98.5	P/P	80 - 120
2427520	Barium	98.5	99.6	P/P	80 - 120
2427520	Beryllium	87.6	90.0	P/P	80 - 120
2427520	Boron	109	109	P/P	80 - 120
2427520	Cadmium	95.8	97.2	P/P	80 - 120
2427520	Chromium	93.1	93.2	P/P	80 - 120
2427520	Cobalt	98.6	99.2	P/P	80 - 120
2427520	Copper	97.7	97.7	P/P	80 - 120
2427520	Lead	96.6	97.6	P/P	80 - 120
2427520	Manganese	96.1	96.3	P/P	80 - 120
2427520	Molybdenum	99.1	99.5	P/P	80 - 120
2427520	Nickel	99.4	99.4	P/P	80 - 120
2427520	Selenium	98.3	99.8	P/P	80 - 120
2427520	Thallium	101	102	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P433553

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428843	Silver	108	110	P/P	80 - 120
2428959	Silver	112		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P433407

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427501	Chloride	102		P	90 - 110
2427752	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P433410

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427501	Sulfate	102		P	90 - 110
2427752	Sulfate	101		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433557

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427708	Ammonia-N	96.8	96.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433385

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427674	NO2NO3-N	103	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433294

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427725	Total-P	110	109	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P433350

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427736	Aldrin	58.6	56.6	P/P	24 - 81.0
2427736	Alpha-BHC	91.5	92.6	P/P	65 - 110
2427736	Alpha-Chlordane	66.2	69.2	P/P	43 - 119
2427736	Beta-BHC	87.4	98.2	P/P	54 - 165
2427736	Beta-Cyfluthrin	116	125	P/P	27 - 165
2427736	Bifenthrin	85.3	87.9	P/P	17 - 117
2427736	Chlorothalonil	84.6	102	P/P	10 - 255
2427736	Cis-Nonachlor	64.8	69.4	P/P	34 - 98.0
2427736	Cypermethrin	111	108	P/P	25 - 143
2427736	Dacthal	80.7	86.9	P/P	55 - 139
2427736	DDD-p,p'	72.8	77.6	P/P	30 - 109
2427736	DDE-p,p'	69.5	69.2	P/P	35 - 106
2427736	DDT-p,p'	70.9	68.9	P/P	41 - 101
2427736	Delta-BHC	99.3	100	P/P	58 - 165
2427736	Deltamethrin	165	179	P/P	10 - 194
2427736	Dichlobenil	59.2	62.6	P/P	22 - 114
2427736	Dicofol	80.0	87.6	P/P	17 - 133
2427736	Dieldrin	71.2	75.2	P/P	45 - 129
2427736	Endosulfan I	75.9	81.4	P/P	49 - 104
2427736	Endosulfan II	73.0	74.7	P/P	37 - 117
2427736	Endosulfan Sulfate	59.7	65.2	P/P	38 - 128
2427736	Endrin	75.6	75.6	P/P	35 - 116
2427736	Endrin Aldehyde	56.1	56.4	P/P	19 - 108
2427736	Endrin Ketone	80.7	86.8	P/P	44 - 134
2427736	Esfenvalerate	125	135	P/P	27 - 176
2427736	Ethalfuralin	76.4	76.2	P/P	49 - 100
2427736	Fenpropathrin	86.1	99.5	P/P	34 - 117
2427736	Gamma-BHC	81.2	85.4	P/P	59 - 129
2427736	Gamma-Chlordane	64.7	70.1	P/P	33 - 107
2427736	Heptachlor	71.6	71.6	P/P	37 - 94.0
2427736	Heptachlor Epoxide	77.9	78.6	P/P	38 - 118
2427736	Hexachlorobenzene	59.3	59.7	P/P	35 - 97.0
2427736	Kepone	62.4	57.0	P/P	10 - 221
2427736	Lambda-Cyhalothrin	95.3	104	P/P	23 - 190

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P433350

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427736	Methoprene	70.4	75.2	P/P	21 - 109
2427736	Methoxychlor	85.2	90.1	P/P	46 - 118
2427736	MGK-264	79.0	89.6	P/P	39 - 122
2427736	Mirex	69.0	66.4	P/P	25 - 90.0
2427736	Oxychlordane	61.8	78.0	P/P	42 - 100
2427736	Permethrin	108	114	P/P	33 - 181
2427736	Phenothrin	88.3	103	P/P	12 - 125
2427736	Piperonyl Butoxide	154	218	P/F	10 - 178
2427736	Prallethrin	105	102	P/P	24 - 122
2427736	Tau-Fluvalinate	130	140	P/P	13 - 151
2427736	Tetramethrin	115	116	P/P	16 - 172
2427736	Trans-Nonachlor	61.8	66.4	P/P	39 - 100
2427736	Triclosan Methyl	71.3	73.6	P/P	43 - 110
2427736	Trifluralin	69.2	70.1	P/P	45 - 94.0
2427815	PCB-1016	82.1	76.4	P/P	45 - 107
2427815	PCB-1260	74.5	72.3	P/P	40 - 112

Reference Method: EPA 8276

Batch ID: P433350

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427815	Chlordane	65.7	61.8	P/P	43 - 123
2427815	Toxaphene	66.4	64.9	P/P	27 - 156

Reference Method: EPA 8321B

Batch ID: P433285

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427498	Acesulfame K	115	117	P/P	40 - 150
2427498	AMPA	88.0	89.1	P/P	40 - 150
2427498	Endothall	112	111	P/P	40 - 150
2427498	Glufosinate	79.2	80.9	P/P	40 - 150
2427498	Glyphosate	81.4	96.2	P/P	40 - 150
2427498	Sucralose	97.1	105	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P433321

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427704	2,4-D	88.2	95.9	P/P	40 - 150
2427704	2,4,5-T	90.9	102	P/P	40 - 150
2427704	Acetaminophen	104	98.3	P/P	30 - 150
2427704	Acetamiprid	71.7	70.5	P/P	40 - 150
2427704	Afidopyropen	75.4	75.7	P/P	30 - 150
2427704	Bentazon	159	153	F/F	30 - 150
2427704	Benzovindiflupyr	77.9	77.7	P/P	40 - 150
2427704	Carbamazepine	56.9	54.2	P/P	40 - 150
2427704	Clothianidin	115	102	P/P	40 - 150
2427704	Dinotefuran	104	86.7	P/P	40 - 150
2427704	Diuron	70.4	76.1	P/P	40 - 150
2427704	Fenuron	75.5	70.4	P/P	40 - 150
2427704	Fluridone	91.6	86.4	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P433321

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427704	Hydrocodone	77.7	74.9	P/P	40 - 150
2427704	Ibuprofen	76.1	77.3	P/P	40 - 150
2427704	Imazapyr	83.6	85.1	P/P	40 - 150
2427704	Imidacloprid	124	120	P/P	40 - 150
2427704	Linuron	55.4	58.9	P/P	40 - 150
2427704	Mandestrobin	85.1	86.8	P/P	40 - 150
2427704	MCCP	97.6	103	P/P	40 - 150
2427704	Naproxen	62.7	70.6	P/P	40 - 150
2427704	Primidone	88.6	87.4	P/P	40 - 150
2427704	Pyraclostrobin	75.0	78.3	P/P	40 - 150
2427704	Silvex	108	101	P/P	40 - 150
2427704	Thiamethoxam	104	96.6	P/P	40 - 150
2427704	Tolfenpyrad	51.0	54.3	P/P	30 - 150
2427704	Triclopyr	91.4	94.2	P/P	40 - 150

Reference Method: SM 5310 B-2011
Batch ID: P433426

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427727	Organic Carbon	96.5	97.3	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P433287

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427726	Color (true)	0.386	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433281

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427726	Turbidity	3.24	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P433264

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427520	Calcium	0.853	Spike	P	0 - 20
2427520	Iron	0.253	Spike	P	0 - 20
2427520	Magnesium	0.112	Spike	P	0 - 20
2427520	Potassium	0.166	Spike	P	0 - 20
2427520	Sodium	0.0224	Spike	P	0 - 20
2427520	Strontium	4.20	Spike	P	0 - 20
2427520	Tin	2.79	Spike	P	0 - 20
2427520	Titanium	2.95	Spike	P	0 - 20
2427520	Vanadium	2.48	Spike	P	0 - 20
2427520	Zinc	2.47	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P433264

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427520	Aluminum	0.0743	Spike	P	0 - 20
2427520	Antimony	0.136	Spike	P	0 - 20
2427520	Arsenic	0.0415	Spike	P	0 - 20
2427520	Barium	1.04	Spike	P	0 - 20
2427520	Beryllium	2.69	Spike	P	0 - 20
2427520	Boron	0.270	Spike	P	0 - 20
2427520	Cadmium	1.44	Spike	P	0 - 20
2427520	Chromium	0.0946	Spike	P	0 - 20
2427520	Cobalt	0.581	Spike	P	0 - 20
2427520	Copper	0.0432	Spike	P	0 - 20
2427520	Lead	0.970	Spike	P	0 - 20
2427520	Manganese	0.178	Spike	P	0 - 20
2427520	Molybdenum	0.388	Spike	P	0 - 20
2427520	Nickel	0.0215	Spike	P	0 - 20
2427520	Selenium	1.48	Spike	P	0 - 20
2427520	Thallium	1.30	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P433553

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428843	Silver	1.43	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433407

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427501	Chloride	0.0568	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433410

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427501	Sulfate	0.0167	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433557

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427708	Ammonia-N	0.579	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433377

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426841	Kjeldahl Nitrogen	0.151	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433385

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427674	NO2NO3-N	0.428	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433294

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427725	Total-P	0.266	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P433350

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427736	Aldrin	3.55	Spike	P	0 - 41
2427736	Alpha-BHC	1.22	Spike	P	0 - 25

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P433350

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427736	Alpha-Chlordane	3.85	Spike	P	0 - 32
2427736	Beta-BHC	10.7	Spike	P	0 - 33
2427736	Beta-Cyfluthrin	7.03	Spike	P	0 - 43
2427736	Bifenthrin	3.00	Spike	P	0 - 52
2427736	Chlorothalonil	18.5	Spike	P	0 - 82
2427736	Cis-Nonachlor	6.75	Spike	P	0 - 33
2427736	Cypermethrin	2.53	Spike	P	0 - 51
2427736	Dacthal	7.34	Spike	P	0 - 27
2427736	DDD-p,p'	6.33	Spike	P	0 - 39
2427736	DDE-p,p'	0.405	Spike	P	0 - 31
2427736	DDT-p,p'	2.89	Spike	P	0 - 29
2427736	Delta-BHC	1.19	Spike	P	0 - 35
2427736	Deltamethrin	8.46	Spike	P	0 - 100
2427736	Dichlobenil	5.56	Spike	P	0 - 40
2427736	Dicofol	9.08	Spike	P	0 - 37
2427736	Dieldrin	4.35	Spike	P	0 - 27
2427736	Endosulfan I	7.08	Spike	P	0 - 23
2427736	Endosulfan II	2.21	Spike	P	0 - 34
2427736	Endosulfan Sulfate	8.91	Spike	P	0 - 36
2427736	Endrin	0.107	Spike	P	0 - 45
2427736	Endrin Aldehyde	0.682	Spike	P	0 - 76
2427736	Endrin Ketone	7.30	Spike	P	0 - 43
2427736	Esfenvalerate	7.90	Spike	P	0 - 51
2427736	Ethalfuralin	0.190	Spike	P	0 - 22
2427736	Fenpropathrin	14.5	Spike	P	0 - 49
2427736	Gamma-BHC	5.06	Spike	P	0 - 28
2427736	Gamma-Chlordane	7.21	Spike	P	0 - 40
2427736	Heptachlor	0.00655	Spike	P	0 - 29
2427736	Heptachlor Epoxide	0.680	Spike	P	0 - 33
2427736	Hexachlorobenzene	0.597	Spike	P	0 - 36
2427736	Kepone	8.94	Spike	P	0 - 85
2427736	Lambda-Cyhalothrin	9.23	Spike	P	0 - 55
2427736	Methoprene	6.66	Spike	P	0 - 53
2427736	Methoxychlor	5.54	Spike	P	0 - 50
2427736	MGK-264	11.2	Spike	P	0 - 43
2427736	Mirex	3.85	Spike	P	0 - 40
2427736	Oxychlordane	23.2	Spike	P	0 - 31
2427736	Permethrin	5.67	Spike	P	0 - 50
2427736	Phenothrin	13.8	Spike	P	0 - 58
2427736	Piperonyl Butoxide	14.5	Spike	P	0 - 100
2427736	Prallethrin	2.72	Spike	P	0 - 39
2427736	Tau-Fluvalinate	7.32	Spike	P	0 - 54
2427736	Tetramethrin	1.12	Spike	P	0 - 51
2427736	Trans-Nonachlor	7.06	Spike	P	0 - 39
2427736	Triclosan Methyl	3.11	Spike	P	0 - 31
2427736	Trifluralin	1.28	Spike	P	0 - 22
2427815	PCB-1016	7.16	Spike	P	0 - 25
2427815	PCB-1260	3.03	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P433350

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427815	Chlordane	6.12	Spike	P	0 - 28
2427815	Toxaphene	2.33	Spike	P	0 - 27

Reference Method: EPA 8321B
Batch ID: P433285

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427498	Acesulfame K	1.58	Spike	P	0 - 30
2427498	AMPA	1.28	Spike	P	0 - 30
2427498	Endothall	1.33	Spike	P	0 - 30
2427498	Glufosinate	2.13	Spike	P	0 - 30
2427498	Glyphosate	16.7	Spike	P	0 - 30
2427498	Sucralose	7.95	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P433321

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427704	2,4-D	8.37	Spike	P	0 - 30
2427704	2,4,5-T	11.7	Spike	P	0 - 30
2427704	Acetaminophen	5.21	Spike	P	0 - 30
2427704	Acetamiprid	1.59	Spike	P	0 - 30
2427704	Afidopyropen	0.494	Spike	P	0 - 30
2427704	Bentazon	3.94	Spike	P	0 - 30
2427704	Benzovindiflupyr	0.209	Spike	P	0 - 30
2427704	Carbamazepine	4.86	Spike	P	0 - 30
2427704	Clothianidin	12.0	Spike	P	0 - 30
2427704	Dinotefuran	17.7	Spike	P	0 - 30
2427704	Diuron	7.77	Spike	P	0 - 30
2427704	Fenuron	7.00	Spike	P	0 - 30
2427704	Fluridone	5.83	Spike	P	0 - 30
2427704	Hydrocodone	3.60	Spike	P	0 - 30
2427704	Ibuprofen	1.65	Spike	P	0 - 30
2427704	Imazapyr	1.53	Spike	P	0 - 30
2427704	Imidacloprid	3.22	Spike	P	0 - 30
2427704	Linuron	6.05	Spike	P	0 - 30
2427704	Mandestrobin	2.00	Spike	P	0 - 30
2427704	MCPP	5.49	Spike	P	0 - 30
2427704	Naproxen	11.9	Spike	P	0 - 30
2427704	Primidone	1.33	Spike	P	0 - 30
2427704	Pyraclostrobin	4.30	Spike	P	0 - 30
2427704	Silvex	6.40	Spike	P	0 - 30
2427704	Thiamethoxam	7.56	Spike	P	0 - 30
2427704	Tolfenpyrad	6.16	Spike	P	0 - 30
2427704	Triclopyr	3.01	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P433448

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427857	Total Alkalinity	0.780	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P433808

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427726	TDS	7.36	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P433449

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427857	Fluoride	0.480	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P433426

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427727	Organic Carbon	0.618	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2427736
Field Sample ID: 20030692

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	84.7	P	37 - 129
EPA 8270E	Decachlorobiphenyl	59.5	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	66.5	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	65.1	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	53.2	P	28 - 102
EPA 8276	PCNB	78.3	P	49 - 115

Lab Sample ID: 2427737
Field Sample ID: G2NE1164

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	87.0	P	37 - 129
EPA 8270E	Decachlorobiphenyl	67.1	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	64.6	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	60.8	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	64.2	P	28 - 102
EPA 8276	PCNB	85.9	P	49 - 115

Lab Sample ID: 2427738
Field Sample ID: 20030792

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	107	P	30 - 160
EPA 8321B	Acetaminophen-d4	106	P	30 - 160
EPA 8321B	Carbamazepine-d10	45.1	P	30 - 160
EPA 8321B	Diuron-d6	33.3	P	30 - 160
EPA 8321B	Endothall-d6	104	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	77.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	72.8	P	30 - 160
EPA 8321B	Primidone-d5	70.1	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	30 - 160

Quality Assurance Report

Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A120763
Included Lab Sample IDs: 2427724, 2427726

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 180.1 Rev. 2.0
Run ID: A120765
Included Lab Sample IDs: 2427724, 2427726

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

Reference Method: DEP SOP: NU-094-1
Run ID: A120768
Included Lab Sample IDs: 2427724, 2427726

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	96.1	97.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A120806
Included Lab Sample IDs: 2427740

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	102	102	P/P	90 - 110
Antimony	95.2	94.8	P/P	90 - 110
Arsenic	98.2	97.7	P/P	90 - 110
Barium	97.8	96.2	P/P	90 - 110
Beryllium	92.4	91.5	P/P	90 - 110
Boron	106	107	P/P	90 - 110
Cadmium	97.8	97.0	P/P	90 - 110
Chromium	95.1	93.3	P/P	90 - 110
Cobalt	100	99.1	P/P	90 - 110
Copper	96.3	96.1	P/P	90 - 110
Lead	95.5	95.1	P/P	90 - 110
Manganese	97.2	96.2	P/P	90 - 110
Molybdenum	98.1	97.8	P/P	90 - 110
Nickel	98.2	96.7	P/P	90 - 110
Selenium	97.6	95.8	P/P	90 - 110
Thallium	101	100	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A120811
Included Lab Sample IDs: 2427738

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	70.9	99.5	P/P	60 - 160
Endothall	90.7	90.8	P/P	60 - 160
Glufosinate	86.0	89.8	P/P	60 - 160
Glyphosate	97.8	98.4	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A120812
Included Lab Sample IDs: 2427738

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	105	104	P/P	60 - 160
Sucralose	96.6	105	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A120817
Included Lab Sample IDs: 2427725, 2427727

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A120826
Included Lab Sample IDs: 2427725, 2427727

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

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A120836
Included Lab Sample IDs: 2427740

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	97.8	99.1	P/P	90 - 110
Iron	101	102	P/P	90 - 110
Magnesium	98.7	100	P/P	90 - 110
Potassium	98.1	99.2	P/P	90 - 110
Sodium	94.0	96.8	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A120842
Included Lab Sample IDs: 2427725, 2427727

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.2	97.2	P/P	90 - 110
Organic Carbon	99.1	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A120847
Included Lab Sample IDs: 2427725, 2427727

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	108	106	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A120848
Included Lab Sample IDs: 2427724, 2427726

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.7	96.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500-F- C-2011

Run ID: A120848

Included Lab Sample IDs: 2427724, 2427726

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A120877

Included Lab Sample IDs: 2427740

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Strontium	99.1	97.6	P/P	95 - 105
Tin	100	98.5	P/P	95 - 105
Titanium	97.9	96.3	P/P	95 - 105
Vanadium	99.4	97.5	P/P	95 - 105
Zinc	103	101	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A120890

Included Lab Sample IDs: 2427725, 2427727

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.9	96.8	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A120909

Included Lab Sample IDs: 2427736, 2427737

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	97.8		P	80 - 120
PCB-1260	97.9		P	80 - 120

Reference Method: EPA 8321B

Run ID: A120922

Included Lab Sample IDs: 2427738

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	96.5	93.9	P/P	50 - 150
2,4,5-T	96.8	94.5	P/P	50 - 150
Acetaminophen	113	108	P/P	60 - 160
Acetamiprid	112	107	P/P	50 - 150
Afidopyropen	118	119	P/P	50 - 150
Bentazon	100	108	P/P	50 - 160
Benzovindiflupyr	112	105	P/P	50 - 150
Carbamazepine	104	108	P/P	60 - 150
Clothianidin	121	104	P/P	60 - 150
Dinotefuran	114	125	P/P	50 - 150
Diuron	114	112	P/P	60 - 160
Fenuron	107	105	P/P	60 - 150
Fluridone	126	108	P/P	60 - 160
Hydrocodone	115	110	P/P	60 - 150
Ibuprofen	109	97.1	P/P	50 - 160
Imazapyr	95.6	93.1	P/P	50 - 150
Imidacloprid	98.6	98.2	P/P	60 - 150
Linuron	88.6	92.4	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A120922
Included Lab Sample IDs: 2427738

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Mandestrobin	106	111	P/P	50 - 150
MCPPE	91.7	89.9	P/P	50 - 150
Naproxen	50.7	123	P/P	50 - 160
Primidone	95.6	100	P/P	60 - 150
Pyraclostrobin	107	105	P/P	60 - 150
Silvex	95.3	88.7	P/P	50 - 150
Thiamethoxam	106	103	P/P	50 - 150
Tolfenpyrad	99.3	104	P/P	60 - 150
Triclopyr	100	88.3	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A120950
Included Lab Sample IDs: 2427736, 2427737

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	103		P	80 - 120
Alpha-BHC	101		P	80 - 120
Alpha-Chlordane	97.4		P	80 - 120
Beta-BHC	105		P	80 - 120
Beta-Cyfluthrin	114		P	80 - 120
Bifenthrin	107		P	80 - 120
Chlorothalonil	100		P	80 - 120
Cis-Nonachlor	101		P	80 - 120
Cypermethrin	109		P	80 - 120
Dacthal	103		P	80 - 120
DDD-p,p'	102		P	80 - 120
DDE-p,p'	99.5		P	80 - 120
DDT-p,p'	96.5		P	80 - 120
Delta-BHC	105		P	80 - 120
Deltamethrin	104		P	80 - 120
Dichlobenil	94.5		P	80 - 120
Dicofol	96.2		P	80 - 120
Dieldrin	104		P	80 - 120
Endosulfan I	102		P	80 - 120
Endosulfan II	103		P	80 - 120
Endosulfan Sulfate	102		P	80 - 120
Endrin	99.1		P	80 - 120
Endrin Aldehyde	103		P	80 - 120
Endrin Ketone	108		P	80 - 120
Esfenvalerate	107		P	80 - 120
Ethalfuralin	101		P	80 - 120
Fenpropathrin	102		P	80 - 120
Gamma-BHC	103		P	80 - 120
Gamma-Chlordane	104		P	80 - 120
Heptachlor	103		P	80 - 120
Heptachlor Epoxide	104		P	80 - 120
Hexachlorobenzene	95.3		P	80 - 120
Kepone	85.9		P	80 - 120
Lambda-Cyhalothrin	112		P	80 - 120
Methoprene	102		P	80 - 120
Methoxychlor	108		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A120950

Included Lab Sample IDs: 2427736, 2427737

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
MGK-264	108		P	80 - 120
Mirex	96.7		P	80 - 120
Oxychlordane	102		P	80 - 120
Permethrin	109		P	80 - 120
Phenothrin	102		P	80 - 120
Piperonyl Butoxide	99.0		P	80 - 120
Prallethrin	106		P	80 - 120
Tau-Fluvalinate	112		P	80 - 120
Tetramethrin	105		P	80 - 120
Trans-Nonachlor	104		P	80 - 120
Triclosan Methyl	102		P	80 - 120
Trifluralin	100		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A120955

Included Lab Sample IDs: 2427740

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	96.7	98.6	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A120959

Included Lab Sample IDs: 2427736, 2427737

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	101		P	80 - 120
Toxaphene	106		P	80 - 120

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	96.1				0.386	
EPA 180.1 Rev. 2.0	Turbidity	99.2				3.24	
EPA 200.7 Rev. 4.4	Calcium	102	98.0				0.853
	Iron	106	104	104			0.253
	Magnesium	105	101	101			0.112
	Potassium	102	97.8	97.5			0.166
	Sodium	94.4	97.3				0.0224
	Strontium	99.6	96.6	92.6			4.20
	Tin	99.2	92.7	90.2			2.79
	Titanium	101	92.8	89.8			2.95
	Vanadium	101	96.9	94.5			2.48
	Zinc	100	95.9	93.5			2.47
EPA 200.8 Rev. 5.4	Aluminum	103	102	102			0.0743
	Antimony	96.5	96.9	96.8			0.136
	Arsenic	96.9	98.4	98.5			0.0415
	Barium	100	98.5	99.6			1.04
	Beryllium	92.7	87.6	90.0			2.69
	Boron	105	109	109			0.270
	Cadmium	99.3	95.8	97.2			1.44
	Chromium	93.6	93.1	93.2			0.0946
	Cobalt	97.7	98.6	99.2			0.581
	Copper	98.2	97.7	97.7			0.0432
	Lead	95.4	96.6	97.6			0.970
	Manganese	97.4	96.1	96.3			0.178
	Molybdenum	96.6	99.1	99.5			0.388
	Nickel	99.1	99.4	99.4			0.0215
	Selenium	97.3	98.3	99.8			1.48
	Silver	112	108	110	112		1.43
	Thallium	97.8	101	102			1.30
EPA 300.0 Rev. 2.1	Chloride	101	102	102		0.0568	
	Sulfate	101	102	101		0.0167	
EPA 350.1 Rev. 2.0	Ammonia-N	95.8	96.8	96.2			0.579
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104					0.151
EPA 353.2 Rev. 2.0	NO2NO3-N	104	103	102			0.428
EPA 365.1 Rev. 2.0	Total-P	105	110	109			0.266
EPA 8270E	Aldrin	52.6	58.6	56.6			3.55
	Alpha-BHC	88.8	91.5	92.6			1.22
	Alpha-Chlordane	63.8	66.2	69.2			3.85
	Beta-BHC	78.1	87.4	98.2			10.7
	Beta-Cyfluthrin	42.6	116	125			7.03
	Bifenthrin	29.6	85.3	87.9			3.00
	Chlorothalonil	79.7	84.6	102			18.5
	Cis-Nonachlor	56.1	64.8	69.4			6.75
	Cypermethrin	47.9	111	108			2.53
	Dacthal	75.9	80.7	86.9			7.34
	DDD-p,p'	62.0	72.8	77.6			6.33
	DDE-p,p'	61.8	69.5	69.2			0.405
	DDT-p,p'	57.9	70.9	68.9			2.89
	Delta-BHC	90.0	99.3	100			1.19
	Deltamethrin	69.3	165	179			8.46
	Dichlobenil	84.3	59.2	62.6			5.56
	Dicofol	61.8	80.0	87.6			9.08
	Dieldrin	74.0	71.2	75.2			4.35
	Endosulfan I	77.2	75.9	81.4			7.08

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	SMP
EPA 8270E	Endosulfan II	63.0		73.0	74.7		2.21
	Endosulfan Sulfate	65.9		59.7	65.2		8.91
	Endrin	75.1		75.6	75.6		0.107
	Endrin Aldehyde	77.8		56.1	56.4		0.682
	Endrin Ketone	77.5		80.7	86.8		7.30
	Esfenvalerate	44.0		125	135		7.90
	Ethalfuralin	64.8		76.4	76.2		0.190
	Fenpropathrin	53.5		86.1	99.5		14.5
	Gamma-BHC	72.8		81.2	85.4		5.06
	Gamma-Chlordane	49.7		64.7	70.1		7.21
	Heptachlor	60.5		71.6	71.6		0.0065
	Heptachlor Epoxide	74.0		77.9	78.6		0.680
	Hexachlorobenzene	54.8		59.3	59.7		0.597
	Kepone	49.8		62.4	57.0		8.94
	Lambda-Cyhalothrin	35.0		95.3	104		9.23
	Methoprene	27.9		70.4	75.2		6.66
	Methoxychlor	68.5		85.2	90.1		5.54
	MGK-264	62.9		79.0	89.6		11.2
	Mirex	45.0		69.0	66.4		3.85
	Oxychlordane	61.9		61.8	78.0		23.2
	PCB-1016	74.1		82.1	76.4		7.16
	PCB-1260	71.9		74.5	72.3		3.03
	Permethrin	43.1		108	114		5.67
	Phenothrin	33.2		88.3	103		13.8
	Piperonyl Butoxide	84.0		154	218		14.5
	Prallethrin	51.2		105	102		2.72
	Tau-Fluvalinate	38.0		130	140		7.32
	Tetramethrin	69.0		115	116		1.12
	Trans-Nonachlor	48.4		61.8	66.4		7.06
	Triclosan Methyl	73.7		71.3	73.6		3.11
	Trifluralin	62.4		69.2	70.1		1.28
EPA 8276	Chlordane	69.8		65.7	61.8		6.12
	Toxaphene	77.9		66.4	64.9		2.33
EPA 8321B	2,4-D	83.3		88.2	95.9		8.37
	2,4,5-T	80.8		90.9	102		11.7
	Acesulfame K	99.3		115	117		1.58
	Acetaminophen	87.3		104	98.3		5.21
	Acetamiprid	93.4		71.7	70.5		1.59
	Afidopyropen	78.9		75.4	75.7		0.494
	AMPA	127		88.0	89.1		1.28
	Bentazon	137		159	153		3.94
	Benzovindiflupyr	88.3		77.9	77.7		0.209
	Carbamazepine	66.2		56.9	54.2		4.86
	Clothianidin	95.4		115	102		12.0
	Dinotefuran	114		104	86.7		17.7
	Diuron	63.2		70.4	76.1		7.77
	Endothall	103		112	111		1.33
	Fenuron	94.7		75.5	70.4		7.00
	Fluridone	102		91.6	86.4		5.83
	Glufosinate	99.2		79.2	80.9		2.13
	Glyphosate	106		81.4	96.2		16.7
	Hydrocodone	97.6		77.7	74.9		3.60
	Ibuprofen	72.2		76.1	77.3		1.65
	Imazapyr	77.6		83.6	85.1		1.53

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Imidacloprid	86.8	124	120		3.22
	Linuron	73.7	55.4	58.9		6.05
	Mandestrobin	95.5	85.1	86.8		2.00
	MCP	90.8	97.6	103		5.49
	Naproxen	76.1	62.7	70.6		11.9
	Primidone	79.2	88.6	87.4		1.33
	Pyraclostrobin	71.5	75.0	78.3		4.30
	Silvex	89.4	108	101		6.40
	Sucralose	100	97.1	105		7.95
	Thiamethoxam	99.0	104	96.6		7.56
	Tolfenpyrad	44.3	51.0	54.3		6.16
	Triclopyr	82.4	91.4	94.2		3.01
SM 2320 B-2011	Total Alkalinity	95.8			0.780	
SM 2540 C-2015	TDS	96.8			7.36	
SM 2540 D-2015	TSS	89.7				
SM 4500-F- C-2011	Fluoride	100				0.480
SM 5310 B-2011	Organic Carbon	97.4	96.5	97.3		0.618

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2427724, 2427726
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2427724, 2427726
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2427740
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2427740
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2427724, 2427726
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2427724, 2427726
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2427725, 2427727
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2427725, 2427727
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2427725, 2427727
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2427725, 2427727
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2427736, 2427737
EPA 8270E	PCBs in water matrices by GC/MS/MS	2427736, 2427737
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2427736, 2427737
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2427738
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2427724, 2427726
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2427740
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2427724, 2427726
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2427724, 2427726
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2427724, 2427726
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2427725, 2427727

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	08/01/2023			08/01/2023 14:26	Samantha L Bates	2427724, 2427726
EPA 180.1 Rev. 2.0	08/01/2023			08/01/2023 13:33	Alexis Price	2427726
	08/01/2023			08/01/2023 13:34	Alexis Price	2427724
EPA 200.7 Rev. 4.4	08/01/2023	08/01/2023 11:50	George D Taylor	08/03/2023 13:17	Chase Roberts	2427740
	08/01/2023	08/01/2023 11:50	George D Taylor	08/07/2023 13:08	Chase Roberts	2427740
EPA 200.8 Rev. 5.4	08/01/2023	08/01/2023 11:50	George D Taylor	08/02/2023 15:56	Emily M Philpot	2427740
	08/01/2023	08/08/2023 11:55	George D Taylor	08/09/2023 15:12	Emily M Philpot	2427740
EPA 300.0 Rev. 2.1	08/01/2023			08/02/2023 22:57	James L Waggeberby	2427726
	08/01/2023			08/02/2023 23:12	James L Waggeberby	2427724
EPA 350.1 Rev. 2.0	08/01/2023			08/08/2023 12:10	Ping Hua	2427727
	08/01/2023			08/08/2023 12:12	Ping Hua	2427725
EPA 351.2 Rev. 2.0	08/01/2023	08/03/2023 10:50	Dana G. Hughes	08/04/2023 10:10	Samantha L Bates	2427727
	08/01/2023	08/03/2023 10:50	Dana G. Hughes	08/04/2023 10:11	Samantha L Bates	2427725
EPA 353.2 Rev. 2.0	08/01/2023			08/03/2023 09:51	Beverly Y. Sanders	2427727
	08/01/2023			08/03/2023 09:52	Beverly Y. Sanders	2427725
EPA 365.1 Rev. 2.0	08/01/2023	08/02/2023 14:24	Alexis Price	08/03/2023 09:56	James L Waggeberby	2427725
	08/01/2023	08/02/2023 14:24	Alexis Price	08/03/2023 10:02	James L Waggeberby	2427727
EPA 8270E	08/01/2023	08/03/2023 09:00	Rasheda Ghaffari	08/08/2023 20:43	Julie Wi	2427736
	08/01/2023	08/03/2023 09:00	Rasheda Ghaffari	08/08/2023 22:05	Vandana T. Nagar	2427736
	08/01/2023	08/03/2023 09:00	Rasheda Ghaffari	08/08/2023 22:37	Vandana T. Nagar	2427737
	08/01/2023	08/03/2023 09:00	Rasheda Ghaffari	08/08/2023 23:10	Julie Wi	2427737
EPA 8276	08/01/2023	08/03/2023 09:00	Rasheda Ghaffari	08/09/2023 06:45	Arthur Maknenko	2427736
	08/01/2023	08/03/2023 09:00	Rasheda Ghaffari	08/09/2023 07:42	Arthur Maknenko	2427737
EPA 8321B	08/01/2023	08/02/2023 08:00	Tae K Lee	08/02/2023 13:49	Hana Lee	2427738
	08/01/2023	08/02/2023 08:00	Tae K Lee	08/03/2023 07:21	Hana Lee	2427738
	08/01/2023	08/03/2023 13:00	Hoor Shaik	08/05/2023 05:44	Juyoung Kim	2427738
SM 2320 B-2011	08/01/2023			08/03/2023 21:06	Dale L. Simmons	2427726
	08/01/2023			08/03/2023 21:20	Dale L. Simmons	2427724
SM 2340 B-2011	08/01/2023			08/03/2023 13:17	Chase Roberts	2427740
SM 2540 C-2015	08/01/2023			08/04/2023 16:14	Yijie Li	2427724, 2427726
SM 2540 D-2015	08/01/2023			08/04/2023 16:14	Yijie Li	2427724, 2427726
SM 4500-F- C-2011	08/01/2023			08/03/2023 21:06	Dale L. Simmons	2427726
	08/01/2023			08/03/2023 21:20	Dale L. Simmons	2427724
SM 5310 B-2011	08/01/2023			08/03/2023 14:12	Elise M. Gillis	2427727
	08/01/2023			08/03/2023 17:36	Elise M. Gillis	2427725