

Chemical Analysis Report

SE-DIST-2022-10-12-01

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

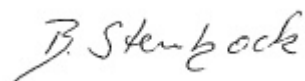
Event Description: **Okeechobee**
Request ID: **RQ-2022-10-10-32**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Jordan Skaggs

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

Date Certified: 02-NOV-2022 15:29



NON-CONFORMANCE REPORT INCLUDED

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Nutrients and Pesticides.

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Kissimmee upstream of 78

Collection Date/Time: 10/11/2022 11:10

Field ID: G4SE0131

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2361979	DEP SOP: NU-094-1	Color (true)	280		PCU	P420803	
	EPA 180.1 Rev. 2.0	Turbidity	7.9		NTU	P420811	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P421201	
		Sulfate	6.5		mg SO4/L	P421204	
	SM 2320 B-2011	Total Alkalinity	23		mg CaCO3/L	P421014	
	SM 2540 C-2015	TDS	108		mg/L	P421282	
	SM 2540 D-2015	TSS	15		mg/L	P421278	
	SM 4500-F- C-2011	Fluoride	0.079	I	mg F/L	P421016	
2361980	EPA 350.1 Rev. 2.0	Ammonia-N	0.048	Y	mg N/L	P421164	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P420959	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.007	I	mg N/L	P420929	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P420864	
	SM 5310 B-2011	Organic Carbon	20		mg C/L	P420995	

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 350.1 Rev. 2.0: Sample stored outside of the acceptable temperature range. Please see NCR.

Sample Location: Lemkin Creek @ 78

Collection Date/Time: 10/11/2022 10:30

Field ID: G1SE0026

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2361988	DEP SOP: NU-094-1	Color (true)	44		PCU	P420803	
	EPA 180.1 Rev. 2.0	Turbidity	2.1	A	NTU	P420812	
	EPA 300.0 Rev. 2.1	Chloride	220		mg Cl/L	P421202	
		Sulfate	190		mg SO4/L	P421205	
	SM 2320 B-2011	Total Alkalinity	80		mg CaCO3/L	P421003	
	SM 2540 C-2015	TDS	696		mg/L	P421282	
	SM 2540 D-2015	TSS	4	I	mg/L	P421278	
	SM 4500-F- C-2011	Fluoride	0.097	I	mg F/L	P421005	MS
2361989	EPA 350.1 Rev. 2.0	Ammonia-N	0.009	Y	mg N/L	P421165	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P420961	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P420929	
	EPA 365.1 Rev. 2.0	Total-P	0.041		mg P/L	P420865	
	SM 5310 B-2011	Organic Carbon	15		mg C/L	P420995	
2361990	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P420805	

Ref. Method and Comment:

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

EPA 350.1 Rev. 2.0: Sample stored outside of the acceptable temperature range. Please see NCR.

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

Sample Location: Taylor Creek @ 441

Collection Date/Time: 10/11/2022 09:15

Field ID: G1SE0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2361981	DEP SOP: NU-094-1	Color (true)	270		PCU	P420803	
	EPA 180.1 Rev. 2.0	Turbidity	4.5		NTU	P420811	
	EPA 300.0 Rev. 2.1	Chloride	48		mg Cl/L	P421201	
		Sulfate	30		mg SO4/L	P421204	
	SM 2320 B-2011	Total Alkalinity	68		mg CaCO3/L	P421014	
	SM 2540 C-2015	TDS	257	A	mg/L	P421282	
	SM 2540 D-2015	TSS	5	IA	mg/L	P421278	
	SM 4500-F- C-2011	Fluoride	0.076	I	mg F/L	P421016	
2361982	EPA 350.1 Rev. 2.0	Ammonia-N	0.25	Y	mg N/L	P421165	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.2		mg N/L	P420959	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.22		mg N/L	P420929	
	EPA 365.1 Rev. 2.0	Total-P	0.61		mg P/L	P420864	
	SM 5310 B-2011	Organic Carbon	31		mg C/L	P420995	

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 350.1 Rev. 2.0: Sample stored outside of the acceptable temperature range. Please see NCR.

Sample Location: Taylor Creek @ 70

Collection Date/Time: 10/11/2022 10:00

Field ID: G1SE0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2361985	DEP SOP: NU-094-1	Color (true)	210		PCU	P420803	
	EPA 180.1 Rev. 2.0	Turbidity	3.6		NTU	P420811	
	EPA 300.0 Rev. 2.1	Chloride	47		mg Cl/L	P421202	
		Sulfate	38		mg SO4/L	P421205	
	SM 2320 B-2011	Total Alkalinity	123		mg CaCO3/L	P421014	
	SM 2540 C-2015	TDS	325		mg/L	P421282	
	SM 2540 D-2015	TSS	6	I	mg/L	P421278	
2361986	SM 4500-F- C-2011	Fluoride	0.11		mg F/L	P421016	
	EPA 350.1 Rev. 2.0	Ammonia-N	4.9	Y	mg N/L	P421165	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	10		mg N/L	P420961	
	EPA 353.2 Rev. 2.0	NO2NO3-N	4.4		mg N/L	P420929	
	EPA 365.1 Rev. 2.0	Total-P	0.68		mg P/L	P420865	
2361987	SM 5310 B-2011	Organic Carbon	29		mg C/L	P420995	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.52		mg P/L	P420805	
2362003	EPA 8270E	Aldrin	0.67	U	ng/L	P420851	
		Alpha-BHC	0.10	U	ng/L	P420851	
		Alpha-Chlordane	0.20	U	ng/L	P420851	
		PCB-1016	2.0	U	ng/L	P420851	
		Beta-BHC	0.10	U	ng/L	P420851	
		PCB-1221	2.0	U	ng/L	P420851	
		Beta-Cyfluthrin	1.3	U	ng/L	P420851	
		PCB-1232	2.0	U	ng/L	P420851	
		Bifenthrin	0.51	U	ng/L	P420851	
		PCB-1242	2.0	U	ng/L	P420851	
		Carbophenothion	0.92	U	ng/L	P420851	
		PCB-1248	2.0	U	ng/L	P420851	
		Chlorothalonil	4.3	I	ng/L	P420851	
		PCB-1254	2.0	U	ng/L	P420851	
		Cis-Nonachlor	0.20	U	ng/L	P420851	
		PCB-1260	2.0	U	ng/L	P420851	
		Cypermethrin	1.5	U	ng/L	P420851	
		Dacthal	0.15	U	ng/L	P420851	
		DDD-p,p'	0.26	U	ng/L	P420851	
		DDE-p,p'	0.20	U	ng/L	P420851	
		DDT-p,p'	0.26	U	ng/L	P420851	
		Delta-BHC	0.41	U	ng/L	P420851	
		Deltamethrin	1.3	U	ng/L	P420851	
		Dichlobenil	0.26	U	ng/L	P420851	
		Dicofol	1.3	UJ	ng/L	P420851	CCV
		Diieldrin	0.41	U	ng/L	P420851	
		Endosulfan I	0.41	U	ng/L	P420851	
		Endosulfan II	0.41	U	ng/L	P420851	
		Endosulfan Sulfate	0.31	U	ng/L	P420851	

Field ID: G1SE0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2362003	EPA 8270E	Endrin	0.41	U	ng/L	P420851	
		Endrin Aldehyde	0.77	U	ng/L	P420851	
		Endrin Ketone	0.41	U	ng/L	P420851	
		Esfenvalerate	0.77	U	ng/L	P420851	
		Ethalfuralin	0.15	U	ng/L	P420851	
		Fenpropathrin	0.26	U	ng/L	P420851	
		Gamma-BHC	0.13	U	ng/L	P420851	
		Gamma-Chlordane	0.20	U	ng/L	P420851	
		Heptachlor	0.20	U	ng/L	P420851	
		Heptachlor Epoxide	0.26	U	ng/L	P420851	
		Hexachlorobenzene**	1.0	U	ng/L	P420851	
		Kepone	5.1	U	ng/L	P420851	
		Lambda-Cyhalothrin	0.77	U	ng/L	P420851	
		Methoprene	0.77	U	ng/L	P420851	
		Methoxychlor	0.31	U	ng/L	P420851	
		MGK-264	0.20	U	ng/L	P420851	
		Mirex	0.36	U	ng/L	P420851	
		Oxychlordane	0.31	U	ng/L	P420851	
		Permethrin	1.6	U	ng/L	P420851	
		Phenothrin	0.92	U	ng/L	P420851	
		Piperonyl Butoxide	0.60	I	ng/L	P420851	
		Prallethrin	2.0	U	ng/L	P420851	
		Tau-Fluvalinate	0.26	U	ng/L	P420851	
		Tetramethrin	0.77	U	ng/L	P420851	
		Trans-Nonachlor	0.20	U	ng/L	P420851	
		Triclosan Methyl	0.15	U	ng/L	P420851	
		Trifluralin	0.20	U	ng/L	P420851	
	EPA 8276	Chlordane	2.6	U	ng/L	P420851	
		Toxaphene	15	U	ng/L	P420851	

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 350.1 Rev. 2.0: Sample stored outside of the acceptable temperature range. Please see NCR.
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: Taylor Creek @ 39th St.

Collection Date/Time: 10/11/2022 09:30

Field ID: G1SE0024

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2361983	DEP SOP: NU-094-1	Color (true)	250		PCU	P420803	
	EPA 180.1 Rev. 2.0	Turbidity	3.7		NTU	P420811	
	EPA 300.0 Rev. 2.1	Chloride	43		mg Cl/L	P421201	
		Sulfate	20		mg SO4/L	P421204	
	SM 2320 B-2011	Total Alkalinity	64		mg CaCO3/L	P421014	
	SM 2540 C-2015	TDS	203		mg/L	P421282	
	SM 2540 D-2015	TSS	4	I	mg/L	P421278	
2361984	SM 4500-F- C-2011	Fluoride	0.092	I	mg F/L	P421016	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.16	Y	mg N/L	P421165	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P420961	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P420929	
	EPA 365.1 Rev. 2.0	Total-P	0.48		mg P/L	P420864	
2362004	SM 5310 B-2011	Organic Carbon	28		mg C/L	P420995	
	EPA 8321B	2,4-D	0.061		ug/L	P420715	
		Acesulfame K	0.10	U	ug/L	P420706	
		2,4,5-T	0.0040	U	ug/L	P420715	
		AMPA	0.39	I	ug/L	P420706	
		Acetaminophen	0.0080	U	ug/L	P420715	
		Acetamiprid	0.0020	U	ug/L	P420715	
		Endothall	0.25	U	ug/L	P420706	
		Glufosinate	0.10	U	ug/L	P420706	
		Glyphosate	1.2		ug/L	P420706	
		Afidopyropen	0.0020	U	ug/L	P420715	
		Bentazon	8.2E-04	I	ug/L	P420715	
		Sucralose	0.22		ug/L	P420706	
		Benzovindiflupyr	0.0020	U	ug/L	P420715	
		Carbamazepine	8.0E-04	U	ug/L	P420715	
		Clothianidin	0.049		ug/L	P420715	
		Dinotefuran	0.0090		ug/L	P420715	
		Diuron	0.0020	U	ug/L	P420715	
		Fenuron	0.032	U	ug/L	P420715	
		Fluridone	8.0E-04	U	ug/L	P420715	
		Imazapyr	0.029		ug/L	P420715	
		Hydrocodone	0.0020	U	ug/L	P420715	
		Ibuprofen	0.20	U	ug/L	P420715	
		Imidacloprid	0.030		ug/L	P420715	
		Linuron	0.0040	U	ug/L	P420715	
		Mandestrobin	0.0020	U	ug/L	P420715	
		MCP	0.0040	U	ug/L	P420715	
		Naproxen	0.0080	U	ug/L	P420715	
		Primidone	0.011	I	ug/L	P420715	
		Pyraclostrobin	0.0020	U	ug/L	P420715	
		Silvex	0.0040	U	ug/L	P420715	
		Thiamethoxam	0.045		ug/L	P420715	

Field ID: G1SE0024

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2362004	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P420715	
		Triclopyr	0.0040	U	ug/L	P420715	

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 350.1 Rev. 2.0: Sample stored outside of the acceptable temperature range. Please see NCR.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Non-Conformance Report

NCR ID: 9589

<u>Event(s)</u>	<u>Job(s)</u>	<u>Sample(s)</u>	<u>Test(s)</u>
SE-DIST-2022-10-12-01	TLH-2022-10-12-80	2361980	
SE-DIST-2022-10-12-01	TLH-2022-10-12-80	2361982	
SE-DIST-2022-10-12-01	TLH-2022-10-12-80	2361984	
SE-DIST-2022-10-12-01	TLH-2022-10-12-80	2361986	
SE-DIST-2022-10-12-01	TLH-2022-10-12-80	2361989	

NCR Type: CUSTODY

NCR Category: General

Observation: Samples stored at room temperature overnight on 10/17/2022.

Resolution: Samples placed in refrigerator on 10/18/2022 at 9:20 AM. Data generated after this time will be qualified where appropriate.

Authorized by/Date: Patrick M. Roche 10/27/2022

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry	Colin Wright	(850) 245-8085
Biology	Cheryl Swanson	(850) 245-8177

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P420803

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P420811

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P420812

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421201

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421202

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421204

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421205

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421164

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421165

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420959

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420961

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420929

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P420864

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P420865

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P420805

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

Reference Method: EPA 8270E
Batch ID: P420851

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Carbophenothion	0.90	U	ng/L
Carbophenothion	0.90	U	ng/L
Chlorothalonil	1.2	U	ng/L
Chlorothalonil	1.2	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P420851

Component	Result	Code	Units
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P420851

Component	Result	Code	Units
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
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: P420851

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8276
Batch ID: P420851

Component	Result	Code	Units
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B
Batch ID: P420706

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: P420715

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	0.20	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
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: P421003

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P421014

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-2015
Batch ID: P421282

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P421278

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P421005

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P421016

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P420995

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: P420803

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.0		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P420811

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P420812

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421201

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421202

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421204

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421205

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421164

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421165

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P420959

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P420961

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P420929

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P420864

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P420865

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P420805

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

Reference Method: EPA 8270E

Batch ID: P420851

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	53.1		P	10 - 92.0
Alpha-BHC	98.9		P	75 - 107
Alpha-Chlordane	92.6		P	50 - 108
Beta-BHC	120		P	36 - 138
Beta-Cyfluthrin	80.7		P	20 - 161
Bifenthrin	59.3		P	10 - 119
Carbophenothion	50.2		P	19 - 94.0
Chlorothalonil	141		P	26 - 186
Cis-Nonachlor	83.3		P	42 - 119
Cypermethrin	81.2		P	22 - 150
Dacthal	96.8		P	72 - 119
DDD-p,p'	85.7		P	45 - 107
DDE-p,p'	87.2		P	48 - 106
DDT-p,p'	70.1		P	48 - 110
Delta-BHC	120		P	54 - 140
Deltamethrin	105		P	22 - 189

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P420851

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dichlobenil	50.7		P	36 - 117
Dicofol	69.6		P	46 - 155
Dieldrin	94.2		P	54 - 110
Endosulfan I	86.6		P	59 - 105
Endosulfan II	96.5		P	51 - 118
Endosulfan Sulfate	100		P	57 - 121
Endrin	90.8		P	10 - 120
Endrin Aldehyde	106		P	34 - 118
Endrin Ketone	90.9		P	69 - 177
Esfenvalerate	85.2		P	23 - 168
Ethalfuralin	77.3		P	49 - 99.0
Fenpropathrin	82.7		P	34 - 117
Gamma-BHC	93.9		P	72 - 117
Gamma-Chlordane	89.2		P	43 - 106
Heptachlor	74.1		P	41 - 98.0
Heptachlor Epoxide	94.8		P	57 - 106
Hexachlorobenzene	71.7		P	36 - 99.0
Kepone	100		P	16 - 215
Lambda-Cyhalothrin	36.1		P	21 - 177
Methoprene	69.4		P	10 - 119
Methoxychlor	96.6		P	60 - 112
MGK-264	94.3		P	26 - 122
Mirex	61.8		P	10 - 169
Oxychlordane	78.1		P	43 - 105
PCB-1016	86.6		P	48 - 112
PCB-1260	101		P	44 - 118
Permethrin	86.9		P	24 - 148
Phenothrin	58.1		P	10 - 106
Piperonyl Butoxide	77.8		P	10 - 139
Prallethrin	87.1		P	17 - 109
Tau-Fluvalinate	70.0		P	13 - 131
Tetramethrin	117		P	10 - 132
Trans-Nonachlor	87.6		P	44 - 106
Triclosan Methyl	92.4		P	59 - 109
Trifluralin	78.1		P	44 - 101

Reference Method: EPA 8276
Batch ID: P420851

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	68.6		P	61 - 116
Toxaphene	62.0		P	48 - 124

Reference Method: EPA 8321B
Batch ID: P420706

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	121		P	40 - 150
AMPA	99.8		P	40 - 150
Endothall	96.5		P	40 - 150
Glufosinate	103		P	40 - 150
Glyphosate	103		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P420706

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	106		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P420715

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	98.8		P	40 - 150
2,4,5-T	75.2		P	40 - 150
Acetaminophen	99.3		P	30 - 150
Acetamiprid	98.1		P	40 - 150
Afidopyropen	75.2		P	30 - 150
Bentazon	109		P	30 - 150
Benzovindiflupyr	93.0		P	40 - 150
Carbamazepine	96.7		P	40 - 150
Clothianidin	105		P	40 - 150
Dinotefuran	110		P	40 - 150
Diuron	89.5		P	40 - 150
Fenuron	113		P	40 - 150
Fluridone	112		P	40 - 150
Hydrocodone	102		P	40 - 150
Ibuprofen	127		P	40 - 150
Imazapyr	123		P	40 - 150
Imidacloprid	116		P	40 - 150
Linuron	84.8		P	40 - 150
Mandestrobin	103		P	40 - 150
MCPP	94.9		P	40 - 150
Naproxen	86.6		P	40 - 150
Primidone	95.6		P	40 - 150
Pyraclostrobin	90.2		P	40 - 150
Silvex	80.3		P	40 - 150
Thiamethoxam	109		P	40 - 150
Tolfenpyrad	46.1		P	30 - 150
Triclopyr	79.0		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P421003

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.2		P	94 - 106

Reference Method: SM 2320 B-2011
Batch ID: P421014

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

Reference Method: SM 2540 C-2015
Batch ID: P421282

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	97.2		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 D-2015
Batch ID: P421278

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	92.3		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P421005

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

Reference Method: SM 4500-F- C-2011
Batch ID: P421016

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P420995

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.5		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421201

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361771	Chloride	95.6		P	90 - 110
2361916	Chloride	96.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421202

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2362107	Chloride	97.2		P	90 - 110
2362234	Chloride	98.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421204

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361771	Sulfate	98.4		P	90 - 110
2361916	Sulfate	99.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421205

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2362107	Sulfate	98.4		P	90 - 110
2362234	Sulfate	99.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421164

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361980	Ammonia-N	97.2	98.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421165

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2362078	Ammonia-N	98.4	99.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420959

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361961	Kjeldahl Nitrogen	93.5	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420929

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361989	NO2NO3-N	103	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P420864

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P420864

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361961	Total-P	105	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P420865

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2362078	Total-P	107	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P420805

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361962	O-Phosphate-P	95.8	98.2	P/P	90 - 110

Reference Method: EPA 8270E

Batch ID: P420851

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2362135	PCB-1016	70.8	67.9	P/P	46 - 111
2362135	PCB-1260	70.0	65.4	P/P	45 - 114
2362360	Aldrin	47.6	54.7	P/P	20 - 82.0
2362360	Alpha-BHC	84.5	79.4	P/P	71 - 109
2362360	Alpha-Chlordane	63.6	69.4	P/P	42 - 106
2362360	Beta-BHC	105	95.4	P/P	69 - 180
2362360	Beta-Cyfluthrin	63.4	70.6	P/P	18 - 175
2362360	Bifenthrin	50.2	60.7	P/P	21 - 128
2362360	Carbophenothion	42.8	58.6	P/P	10 - 126
2362360	Chlorothalonil	55.0	47.8	P/P	10 - 300
2362360	Cis-Nonachlor	55.0	63.2	P/P	34 - 106
2362360	Cypermethrin	67.2	74.5	P/P	22 - 158
2362360	Dacthal	83.6	83.6	P/P	54 - 116
2362360	DDD-p,p'	49.4	63.3	P/P	34 - 107
2362360	DDE-p,p'	63.6	70.3	P/P	33 - 110
2362360	DDT-p,p'	59.7	68.0	P/P	50 - 122
2362360	Delta-BHC	131	106	P/P	77 - 193
2362360	Deltamethrin	83.2	90.8	P/P	10 - 195
2362360	Dichlobenil	58.1	60.9	P/P	25 - 113
2362360	Dicofol	66.5	76.0	P/P	38 - 247
2362360	Dieldrin	67.7	76.6	P/P	45 - 118
2362360	Endosulfan I	71.8	77.9	P/P	51 - 106
2362360	Endosulfan II	80.6	77.0	P/P	37 - 122
2362360	Endosulfan Sulfate	66.3	72.3	P/P	43 - 132
2362360	Endrin	70.7	77.5	P/P	29 - 101
2362360	Endrin Aldehyde	54.2	59.8	P/P	19 - 110
2362360	Endrin Ketone	74.0	79.9	P/P	60 - 140
2362360	Esfenvalerate	66.1	72.6	P/P	26 - 199
2362360	Ethalfuralin	68.3	78.3	P/P	45 - 99.0
2362360	Fenpropathrin	60.1	69.2	P/P	35 - 120
2362360	Gamma-BHC	107	93.6	P/P	63 - 128
2362360	Gamma-Chlordane	62.9	67.7	P/P	40 - 104
2362360	Heptachlor	53.4	57.5	P/P	36 - 97.0
2362360	Heptachlor Epoxide	70.8	74.2	P/P	49 - 184

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P420851

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2362360	Hexachlorobenzene	60.4	60.6	P/P	39 - 96.0
2362360	Kepone	43.8	47.8	P/P	10 - 217
2362360	Lambda-Cyhalothrin	60.0	66.9	P/P	21 - 193
2362360	Methoprene	48.7	59.0	P/P	20 - 106
2362360	Methoxychlor	72.2	78.6	P/P	53 - 118
2362360	MGK-264	75.3	76.0	P/P	40 - 118
2362360	Mirex	52.1	62.2	P/P	26 - 92.0
2362360	Oxychlorane	66.7	70.3	P/P	44 - 99.0
2362360	Permethrin	67.9	73.8	P/P	33 - 182
2362360	Phenothrin	50.1	61.4	P/P	10 - 129
2362360	Piperonyl Butoxide	98.2	94.4	P/P	10 - 211
2362360	Prallethrin	61.3	66.8	P/P	24 - 113
2362360	Tau-Fluvalinate	57.1	65.2	P/P	14 - 149
2362360	Tetramethrin	88.4	97.2	P/P	17 - 151
2362360	Trans-Nonachlor	61.6	67.0	P/P	42 - 102
2362360	Triclosan Methyl	68.1	74.3	P/P	48 - 108
2362360	Trifluralin	68.1	72.7	P/P	47 - 96.0

Reference Method: EPA 8276

Batch ID: P420851

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2362135	Chlordane	60.9	56.9	P/P	53 - 126
2362135	Toxaphene	65.6	57.7	P/P	56 - 211

Reference Method: EPA 8321B

Batch ID: P420706

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361348	Acesulfame K	109	109	P/P	40 - 150
2361348	AMPA	80.6	82.7	P/P	40 - 150
2361348	Endothall	97.3	98.5	P/P	40 - 150
2361348	Glufosinate	82.6	86.9	P/P	40 - 150
2361348	Glyphosate	98.0	93.4	P/P	40 - 150
2361348	Sucralose	100	104	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P420715

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361348	2,4-D	123	105	P/P	40 - 150
2361348	2,4,5-T	81.4	68.8	P/P	40 - 150
2361348	Acetaminophen	107	99.1	P/P	30 - 150
2361348	Acetamiprid	103	95.4	P/P	40 - 150
2361348	Afidopyropen	80.6	75.2	P/P	30 - 150
2361348	Bentazon	102	93.8	P/P	30 - 150
2361348	Benzovindiflupyr	100	89.7	P/P	40 - 150
2361348	Carbamazepine	97.8	93.4	P/P	40 - 150
2361348	Clothianidin	112	101	P/P	40 - 150
2361348	Dinotefuran	124	111	P/P	40 - 150
2361348	Diuron	93.1	85.7	P/P	40 - 150
2361348	Fenuron	116	104	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P420715

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361348	Fluridone	109	106	P/P	40 - 150
2361348	Hydrocodone	107	102	P/P	40 - 150
2361348	Ibuprofen	95.1	92.8	P/P	40 - 150
2361348	Imazapyr	137	121	P/P	40 - 150
2361348	Imidacloprid	134	131	P/P	40 - 150
2361348	Linuron	88.5	81.0	P/P	40 - 150
2361348	Mandestrobin	111	95.8	P/P	40 - 150
2361348	MCPP	104	89.4	P/P	40 - 150
2361348	Naproxen	102	87.1	P/P	40 - 150
2361348	Primidone	101	94.0	P/P	40 - 150
2361348	Pyraclostrobin	96.5	90.3	P/P	40 - 150
2361348	Silvex	90.5	78.1	P/P	40 - 150
2361348	Thiamethoxam	119	108	P/P	40 - 150
2361348	Tolfenpyrad	58.8	56.2	P/P	30 - 150
2361348	Triclopyr	86.8	71.0	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P421005

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2362193	Fluoride	107	108	F/F	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P420995

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2362154	Organic Carbon	96.7	96.9	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P420803

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2362077	Color (true)	4.60	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P420811

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361814	Turbidity	2.75	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P420812

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361988	Turbidity	0.943	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421201

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361771	Chloride	0.0414	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421202

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2362107	Chloride	3.15	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421204

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361771	Sulfate	0.788	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421205

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2362107	Sulfate	1.53	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421164

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361980	Ammonia-N	0.621	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421165

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2362078	Ammonia-N	1.00	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420959

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361961	Kjeldahl Nitrogen	4.44	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420961

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361989	Kjeldahl Nitrogen	2.81	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420929

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361989	NO2NO3-N	0.976	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P420864

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361961	Total-P	0.973	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P420865

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2362078	Total-P	0.193	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P420805

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361962	O-Phosphate-P	2.47	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P420851

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2362135	PCB-1016	4.26	Spike	P	0 - 32
2362135	PCB-1260	6.70	Spike	P	0 - 31

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P420851

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2362360	Aldrin	13.8	Spike	P	0 - 41
2362360	Alpha-BHC	6.29	Spike	P	0 - 25
2362360	Alpha-Chlordane	8.71	Spike	P	0 - 33
2362360	Beta-BHC	10.0	Spike	P	0 - 36
2362360	Beta-Cyfluthrin	10.8	Spike	P	0 - 42
2362360	Bifenthrin	18.9	Spike	P	0 - 53
2362360	Carbophenothion	31.2	Spike	P	0 - 49
2362360	Chlorothalonil	14.0	Spike	P	0 - 71
2362360	Cis-Nonachlor	13.9	Spike	P	0 - 29
2362360	Cypermethrin	10.4	Spike	P	0 - 40
2362360	Dacthal	0.0299	Spike	P	0 - 26
2362360	DDD-p,p'	24.8	Spike	P	0 - 39
2362360	DDE-p,p'	9.96	Spike	P	0 - 33
2362360	DDT-p,p'	13.0	Spike	P	0 - 40
2362360	Delta-BHC	21.3	Spike	P	0 - 37
2362360	Deltamethrin	8.72	Spike	P	0 - 100
2362360	Dichlobenil	4.70	Spike	P	0 - 40
2362360	Dicofol	13.4	Spike	P	0 - 31
2362360	Dieldrin	12.3	Spike	P	0 - 27
2362360	Endosulfan I	8.15	Spike	P	0 - 23
2362360	Endosulfan II	4.55	Spike	P	0 - 28
2362360	Endosulfan Sulfate	8.65	Spike	P	0 - 38
2362360	Endrin	9.17	Spike	P	0 - 63
2362360	Endrin Aldehyde	9.78	Spike	P	0 - 60
2362360	Endrin Ketone	7.79	Spike	P	0 - 37
2362360	Esfenvalerate	9.43	Spike	P	0 - 52
2362360	Ethalfuralin	13.6	Spike	P	0 - 23
2362360	Fenpropathrin	14.1	Spike	P	0 - 32
2362360	Gamma-BHC	13.6	Spike	P	0 - 17
2362360	Gamma-Chlordane	7.37	Spike	P	0 - 40
2362360	Heptachlor	7.45	Spike	P	0 - 29
2362360	Heptachlor Epoxide	4.67	Spike	P	0 - 25
2362360	Hexachlorobenzene	0.362	Spike	P	0 - 36
2362360	Kepone	8.74	Spike	P	0 - 93
2362360	Lambda-Cyhalothrin	10.8	Spike	P	0 - 55
2362360	Methoprene	19.2	Spike	P	0 - 53
2362360	Methoxychlor	8.58	Spike	P	0 - 29
2362360	MGK-264	0.888	Spike	P	0 - 35
2362360	Mirex	17.8	Spike	P	0 - 46
2362360	Oxychlordane	5.32	Spike	P	0 - 29
2362360	Permethrin	8.34	Spike	P	0 - 44
2362360	Phenothrin	20.3	Spike	P	0 - 56
2362360	Piperonyl Butoxide	3.96	Spike	P	0 - 100
2362360	Prallethrin	8.60	Spike	P	0 - 42
2362360	Tau-Fluvalinate	13.2	Spike	P	0 - 54
2362360	Tetramethrin	9.48	Spike	P	0 - 51
2362360	Trans-Nonachlor	8.40	Spike	P	0 - 37
2362360	Triclosan Methyl	8.68	Spike	P	0 - 31
2362360	Trifluralin	6.51	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276

Batch ID: P420851

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2362135	Chlordane	6.74	Spike	P	0 - 25
2362135	Toxaphene	12.8	Spike	P	0 - 26

Reference Method: EPA 8321B

Batch ID: P420706

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361348	Acesulfame K	0.773	Spike	P	0 - 30
2361348	AMPA	2.64	Spike	P	0 - 30
2361348	Endothall	1.25	Spike	P	0 - 30
2361348	Glufosinate	5.14	Spike	P	0 - 30
2361348	Glyphosate	4.80	Spike	P	0 - 30
2361348	Sucralose	3.59	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P420715

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361348	2,4-D	16.0	Spike	P	0 - 30
2361348	2,4,5-T	16.7	Spike	P	0 - 30
2361348	Acetaminophen	7.70	Spike	P	0 - 30
2361348	Acetamiprid	7.84	Spike	P	0 - 30
2361348	Afidopyropen	7.01	Spike	P	0 - 30
2361348	Bentazon	8.55	Spike	P	0 - 30
2361348	Benzovindiflupyr	11.1	Spike	P	0 - 30
2361348	Carbamazepine	4.60	Spike	P	0 - 30
2361348	Clothianidin	9.80	Spike	P	0 - 30
2361348	Dinotefuran	10.9	Spike	P	0 - 30
2361348	Diuron	8.30	Spike	P	0 - 30
2361348	Fenuron	10.2	Spike	P	0 - 30
2361348	Fluridone	2.33	Spike	P	0 - 30
2361348	Hydrocodone	5.30	Spike	P	0 - 30
2361348	Ibuprofen	2.37	Spike	P	0 - 30
2361348	Imazapyr	13.0	Spike	P	0 - 30
2361348	Imidacloprid	2.17	Spike	P	0 - 30
2361348	Linuron	8.93	Spike	P	0 - 30
2361348	Mandestrobin	14.5	Spike	P	0 - 30
2361348	MCPP	15.3	Spike	P	0 - 30
2361348	Naproxen	15.8	Spike	P	0 - 30
2361348	Primidone	6.89	Spike	P	0 - 30
2361348	Pyraclostrobin	6.64	Spike	P	0 - 30
2361348	Silvex	14.7	Spike	P	0 - 30
2361348	Thiamethoxam	9.70	Spike	P	0 - 30
2361348	Tolfenpyrad	4.46	Spike	P	0 - 30
2361348	Triclopyr	19.9	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P421003

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2362193	Total Alkalinity	0.902	Sample	P	0 - 3.8

Reference Method: SM 2320 B-2011
Batch ID: P421014

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361910	Total Alkalinity	0.403	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P421282

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361981	TDS	7.78	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P421005

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2362193	Fluoride	0.474	Spike	P	0 - 1.6

Reference Method: SM 4500-F- C-2011
Batch ID: P421016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361910	Fluoride	0.0	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P420995

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2362154	Organic Carbon	0.161	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2362003
Field Sample ID: G1SE0011

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	82.3	P	29 - 130
EPA 8270E	Decachlorobiphenyl	72.7	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	67.7	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	66.9	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	40.8	P	30 - 101
EPA 8276	PCNB	87.9	P	48 - 121

Lab Sample ID: 2362004
Field Sample ID: G1SE0024

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	96.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	119	P	30 - 160
EPA 8321B	Carbamazepine-d10	55.5	P	30 - 160
EPA 8321B	Diuron-d6	42.1	P	30 - 160
EPA 8321B	Endothall-d6	136	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	96.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	74.8	P	30 - 160
EPA 8321B	Primidone-d5	97.0	P	30 - 160
EPA 8321B	Sucralose-d6	96.6	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A115257

Included Lab Sample IDs: 2361979, 2361981, 2361983, 2361985, 2361988

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	99.7	P/P	90 - 110
Color (true)	98.1	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A115258

Included Lab Sample IDs: 2361987, 2361990

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	98.7	P/P	90 - 110
O-Phosphate-P	98.7	99.5	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A115261

Included Lab Sample IDs: 2361979, 2361981, 2361983, 2361985, 2361988

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

Reference Method: EPA 8321B

Run ID: A115266

Included Lab Sample IDs: 2362004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	110	111	P/P	60 - 160
Endothall	103	109	P/P	60 - 160
Glufosinate	97.3	101	P/P	60 - 160
Glyphosate	112	116	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A115305

Included Lab Sample IDs: 2362004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	113	110	P/P	60 - 160
Sucralose	104	104	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A115315

Included Lab Sample IDs: 2361980, 2361982, 2361984, 2361986, 2361989

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	101	P/P	90 - 110
NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A115343

Included Lab Sample IDs: 2362004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	106	102	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A115343
Included Lab Sample IDs: 2362004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4,5-T	114	105	P/P	50 - 150
Acetaminophen	97.9	95.3	P/P	60 - 160
Acetamiprid	108	103	P/P	50 - 150
Afidopyropen	93.3	95.1	P/P	50 - 150
Bentazon	123	114	P/P	50 - 160
Benzovindiflupyr	111	110	P/P	50 - 150
Carbamazepine	112	107	P/P	60 - 150
Clothianidin	107	104	P/P	60 - 150
Dinotefuran	99.5	104	P/P	50 - 150
Diuron	113	114	P/P	60 - 160
Fenuron	102	100	P/P	60 - 150
Fluridone	115	113	P/P	60 - 160
Hydrocodone	109	106	P/P	60 - 150
Ibuprofen	86.2	120	P/P	50 - 160
Imazapyr	118	114	P/P	50 - 150
Imidacloprid	104	103	P/P	60 - 150
Linuron	109	104	P/P	60 - 150
Mandestrobin	111	111	P/P	50 - 150
MCPP	111	107	P/P	50 - 150
Naproxen	142	99.7	P/P	50 - 160
Primidone	107	113	P/P	60 - 150
Pyraclostrobin	109	109	P/P	60 - 150
Silvex	109	99.1	P/P	50 - 150
Thiamethoxam	111	105	P/P	50 - 150
Tolfenpyrad	101	101	P/P	60 - 150
Triclopyr	122	108	P/P	50 - 150

Reference Method: SM 5310 B-2011
Run ID: A115351
Included Lab Sample IDs: 2361980, 2361982, 2361984, 2361986, 2361989

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

Reference Method: SM 2320 B-2011
Run ID: A115356
Included Lab Sample IDs: 2361988

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	104	96.2	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A115356
Included Lab Sample IDs: 2361988

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

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A115358

Included Lab Sample IDs: 2361979, 2361981, 2361983, 2361985

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.9	96.0	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A115358

Included Lab Sample IDs: 2361979, 2361981, 2361983, 2361985

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A115368

Included Lab Sample IDs: 2361980, 2361982, 2361984, 2361986, 2361989

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	100	P/P	90 - 110
Kjeldahl Nitrogen	104	103	P/P	90 - 110
Kjeldahl Nitrogen	99.4	103	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A115380

Included Lab Sample IDs: 2362003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	92.9		P	80 - 120
Toxaphene	94.3		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A115389

Included Lab Sample IDs: 2361980, 2361982, 2361984, 2361986

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	104	P/P	90 - 110
Total-P	104	107	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A115395

Included Lab Sample IDs: 2361979, 2361981, 2361983, 2361985, 2361988

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	95.7	96.0	P/P	90 - 110
Chloride	96.0	101	P/P	90 - 110
Sulfate	96.2	96.7	P/P	90 - 110
Sulfate	96.7	101	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A115403

Included Lab Sample IDs: 2362003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.5		P	80 - 120
Alpha-BHC	98.2		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A115403
 Included Lab Sample IDs: 2362003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alpha-Chlordane	95.3		P	80 - 120
Beta-BHC	101		P	80 - 120
Beta-Cyfluthrin	106		P	80 - 120
Bifenthrin	118		P	80 - 120
Carbophenothion	98.5		P	80 - 120
Chlorothalonil	111		P	80 - 120
Cis-Nonachlor	96.7		P	80 - 120
Cypermethrin	102		P	80 - 120
Dacthal	104		P	80 - 120
DDD-p,p'	100		P	80 - 120
DDE-p,p'	101		P	80 - 120
DDT-p,p'	95.7		P	80 - 120
Delta-BHC	104		P	80 - 120
Deltamethrin	103		P	80 - 120
Dichlobenil	102		P	80 - 120
Dicofol	121*		F	80 - 120
Dieldrin	102		P	80 - 120
Endosulfan I	97.6		P	80 - 120
Endosulfan II	99.6		P	80 - 120
Endosulfan Sulfate	102		P	80 - 120
Endrin	102		P	80 - 120
Endrin Aldehyde	102		P	80 - 120
Endrin Ketone	103		P	80 - 120
Esfenvalerate	104		P	80 - 120
Ethalfuralin	98.7		P	80 - 120
Fenpropathrin	99.0		P	80 - 120
Gamma-BHC	102		P	80 - 120
Gamma-Chlordane	92.4		P	80 - 120
Heptachlor	97.4		P	80 - 120
Heptachlor Epoxide	103		P	80 - 120
Hexachlorobenzene	97.1		P	80 - 120
Kepone	85.9		P	80 - 120
Lambda-Cyhalothrin	107		P	80 - 120
Methoprene	103		P	80 - 120
Methoxychlor	98.7		P	80 - 120
MGK-264	106		P	80 - 120
Mirex	95.5		P	80 - 120
Oxychlordane	103		P	80 - 120
Permethrin	109		P	80 - 120
Phenothrin	107		P	80 - 120
Piperonyl Butoxide	118		P	80 - 120
Prallethrin	102		P	80 - 120
Tau-Fluvalinate	102		P	80 - 120
Tetramethrin	115		P	80 - 120
Trans-Nonachlor	97.5		P	80 - 120
Triclosan Methyl	101		P	80 - 120
Trifluralin	99.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A115422

Included Lab Sample IDs: 2361980, 2361982, 2361984, 2361986, 2361989

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.1	98.8	P/P	90 - 110
Ammonia-N	98.9	99.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A115427

Included Lab Sample IDs: 2361989

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

Reference Method: EPA 8270E

Run ID: A115513

Included Lab Sample IDs: 2362003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	99.0		P	80 - 120
PCB-1260	99.1		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		Precision	
					LCS	MS
DEP SOP: NU-094-1	Color (true)	98.0			4.60	
EPA 180.1 Rev. 2.0	Turbidity	100			2.75	
	Turbidity	101			0.943	
EPA 300.0 Rev. 2.1	Chloride	100	95.6	96.3	0.0414	
	Chloride	101	97.2	98.2	3.15	
	Sulfate	102	98.4	99.2	0.788	
	Sulfate	103	98.4	99.0	1.53	
EPA 350.1 Rev. 2.0	Ammonia-N	98.6	97.2	98.4		0.621
	Ammonia-N	98.2	98.4	99.8		1.00
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107	93.5	100		4.44
	Kjeldahl Nitrogen	105				2.81
EPA 353.2 Rev. 2.0	NO2NO3-N	102	103	102		0.976
EPA 365.1 Rev. 2.0	Total-P	107	105	104		0.973
	Total-P	108	107	107		0.193
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	98.2	95.8		2.47
EPA 8270E	Aldrin	53.1	47.6	54.7		13.8
	Alpha-BHC	98.9	84.5	79.4		6.29
	Alpha-Chlordane	92.6	63.6	69.4		8.71
	Beta-BHC	120	105	95.4		10.0
	Beta-Cyfluthrin	80.7	63.4	70.6		10.8
	Bifenthrin	59.3	50.2	60.7		18.9
	Carbophenothion	50.2	42.8	58.6		31.2
	Chlorothalonil	141	55.0	47.8		14.0
	Cis-Nonachlor	83.3	55.0	63.2		13.9
	Cypermethrin	81.2	67.2	74.5		10.4
	Dacthal	96.8	83.6	83.6		0.0299
	DDD-p,p'	85.7	49.4	63.3		24.8
	DDE-p,p'	87.2	63.6	70.3		9.96
	DDT-p,p'	70.1	59.7	68.0		13.0
	Delta-BHC	120	131	106		21.3
	Deltamethrin	105	83.2	90.8		8.72
	Dichlobenil	50.7	58.1	60.9		4.70
	Dicofol	69.6	66.5	76.0		13.4
	Dieldrin	94.2	67.7	76.6		12.3
	Endosulfan I	86.6	71.8	77.9		8.15
	Endosulfan II	96.5	80.6	77.0		4.55
	Endosulfan Sulfate	100	66.3	72.3		8.65
	Endrin	90.8	70.7	77.5		9.17
	Endrin Aldehyde	106	54.2	59.8		9.78
	Endrin Ketone	90.9	74.0	79.9		7.79
	Esfenvalerate	85.2	66.1	72.6		9.43
	Ethalfuralin	77.3	68.3	78.3		13.6
	Fenpropathrin	82.7	60.1	69.2		14.1
	Gamma-BHC	93.9	107	93.6		13.6
	Gamma-Chlordane	89.2	62.9	67.7		7.37
	Heptachlor	74.1	53.4	57.5		7.45
	Heptachlor Epoxide	94.8	70.8	74.2		4.67
	Hexachlorobenzene	71.7	60.4	60.6		0.362
	Kepone	100	43.8	47.8		8.74
	Lambda-Cyhalothrin	36.1	60.0	66.9		10.8
	Methoprene	69.4	48.7	59.0		19.2
	Methoxychlor	96.6	72.2	78.6		8.58
	MGK-264	94.3	75.3	76.0		0.888
	Mirex	61.8	52.1	62.2		17.8

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Oxychlordane	78.1	66.7	70.3			5.32
	PCB-1016	86.6	70.8	67.9			4.26
	PCB-1260	101	70.0	65.4			6.70
	Permethrin	86.9	67.9	73.8			8.34
	Phenothrin	58.1	50.1	61.4			20.3
	Piperonyl Butoxide	77.8	98.2	94.4			3.96
	Prallethrin	87.1	61.3	66.8			8.60
	Tau-Fluvalinate	70.0	57.1	65.2			13.2
	Tetramethrin	117	88.4	97.2			9.48
	Trans-Nonachlor	87.6	61.6	67.0			8.40
	Triclosan Methyl	92.4	68.1	74.3			8.68
	Trifluralin	78.1	68.1	72.7			6.51
EPA 8276	Chlordane	68.6	60.9	56.9			6.74
	Toxaphene	62.0	65.6	57.7			12.8
EPA 8321B	2,4-D	98.8	123	105			16.0
	2,4,5-T	75.2	81.4	68.8			16.7
	Acesulfame K	121	109	109			0.773
	Acetaminophen	99.3	107	99.1			7.70
	Acetamiprid	98.1	103	95.4			7.84
	Afidopyropen	75.2	80.6	75.2			7.01
	AMPA	99.8	80.6	82.7			2.64
	Bentazon	109	102	93.8			8.55
	Benzovindiflupyr	93.0	100	89.7			11.1
	Carbamazepine	96.7	97.8	93.4			4.60
	Clothianidin	105	112	101			9.80
	Dinotefuran	110	124	111			10.9
	Diuron	89.5	93.1	85.7			8.30
	Endothall	96.5	97.3	98.5			1.25
	Fenuron	113	116	104			10.2
	Fluridone	112	109	106			2.33
	Glufosinate	103	82.6	86.9			5.14
	Glyphosate	103	98.0	93.4			4.80
	Hydrocodone	102	107	102			5.30
	Ibuprofen	127	95.1	92.8			2.37
	Imazapyr	123	137	121			13.0
	Imidacloprid	116	134	131			2.17
	Linuron	84.8	88.5	81.0			8.93
	Mandestrobin	103	111	95.8			14.5
	MCPP	94.9	104	89.4			15.3
	Naproxen	86.6	102	87.1			15.8
	Primidone	95.6	101	94.0			6.89
	Pyraclostrobin	90.2	96.5	90.3			6.64
	Silvex	80.3	90.5	78.1			14.7
	Sucralose	106	100	104			3.59
	Thiamethoxam	109	119	108			9.70
	Tolfenpyrad	46.1	58.8	56.2			4.46
	Triclopyr	79.0	86.8	71.0			19.9
SM 2320 B-2011	Total Alkalinity	98.2				0.902	
	Total Alkalinity	101				0.403	
SM 2540 C-2015	TDS	97.2				7.78	
SM 2540 D-2015	TSS	92.3					
SM 4500-F- C-2011	Fluoride	101	107	108			0.474
	Fluoride	102					0.0
SM 5310 B-2011	Organic Carbon	97.5	96.7	96.9			0.161

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2361979, 2361981, 2361983, 2361985, 2361988
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2361979, 2361981, 2361983, 2361985, 2361988
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2361979, 2361981, 2361983, 2361985, 2361988
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2361979, 2361981, 2361983, 2361985, 2361988
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2361980, 2361982, 2361984, 2361986, 2361989
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2361980, 2361982, 2361984, 2361986, 2361989
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2361980, 2361982, 2361984, 2361986, 2361989
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2361980, 2361982, 2361984, 2361986, 2361989
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2361987, 2361990
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2362003
EPA 8270E	PCBs in water matrices by GC/MS/MS	2362003
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2362003
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2362004
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2361979, 2361981, 2361983, 2361985, 2361988
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2361979, 2361981, 2361983, 2361985, 2361988
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2361979, 2361981, 2361983, 2361985, 2361988
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2361979, 2361981, 2361983, 2361985, 2361988
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2361980, 2361982, 2361984, 2361986, 2361989

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	10/12/2022			10/12/2022 15:21	Samantha L Bates	2361988
	10/12/2022			10/12/2022 15:32	Samantha L Bates	2361979, 2361981
	10/12/2022			10/12/2022 15:33	Samantha L Bates	2361983, 2361985
EPA 180.1 Rev. 2.0	10/12/2022			10/12/2022 13:59	Chandler E Cox	2361979
	10/12/2022			10/12/2022 14:00	Chandler E Cox	2361981
	10/12/2022			10/12/2022 14:01	Chandler E Cox	2361983
	10/12/2022			10/12/2022 14:02	Chandler E Cox	2361985
	10/12/2022			10/12/2022 14:09	Chandler E Cox	2361988
EPA 300.0 Rev. 2.1	10/12/2022			10/20/2022 03:50	Anna M. Plaviak	2361979
	10/12/2022			10/20/2022 04:06	Anna M. Plaviak	2361981
	10/12/2022			10/20/2022 04:21	Anna M. Plaviak	2361983
	10/12/2022			10/20/2022 07:06	Anna M. Plaviak	2361985
	10/12/2022			10/20/2022 07:21	Anna M. Plaviak	2361988
EPA 350.1 Rev. 2.0	10/12/2022			10/19/2022 13:35	Ping Hua	2361980
	10/12/2022			10/19/2022 14:59	Ping Hua	2361984
	10/12/2022			10/19/2022 15:01	Ping Hua	2361982
	10/12/2022			10/19/2022 15:02	Ping Hua	2361986
	10/12/2022			10/19/2022 15:03	Ping Hua	2361989
EPA 351.2 Rev. 2.0	10/12/2022	10/17/2022 12:50	Simonne.V. Calhoun	10/18/2022 13:20	Samantha L Bates	2361980
	10/12/2022	10/17/2022 12:50	Simonne.V. Calhoun	10/18/2022 13:21	Samantha L Bates	2361982
	10/12/2022	10/17/2022 12:50	Simonne.V. Calhoun	10/18/2022 13:56	Samantha L Bates	2361984
	10/12/2022	10/17/2022 12:50	Simonne.V. Calhoun	10/18/2022 13:59	Samantha L Bates	2361989
	10/12/2022	10/17/2022 12:50	Simonne.V. Calhoun	10/18/2022 16:06	Samantha L Bates	2361986
EPA 353.2 Rev. 2.0	10/12/2022			10/14/2022 11:45	Beverly Y. Sanders	2361989
	10/12/2022			10/14/2022 11:51	Beverly Y. Sanders	2361980
	10/12/2022			10/14/2022 11:52	Beverly Y. Sanders	2361982
	10/12/2022			10/14/2022 11:53	Beverly Y. Sanders	2361984
	10/12/2022			10/14/2022 12:22	Beverly Y. Sanders	2361986
EPA 365.1 Rev. 2.0	10/12/2022	10/14/2022 14:05	Adam P Silver	10/19/2022 12:01	Simonne.V. Calhoun	2361980
	10/12/2022	10/14/2022 14:05	Adam P Silver	10/19/2022 12:02	Simonne.V. Calhoun	2361982
	10/12/2022	10/14/2022 14:05	Adam P Silver	10/19/2022 12:03	Simonne.V. Calhoun	2361984
	10/12/2022	10/14/2022 14:05	Adam P Silver	10/19/2022 12:12	Simonne.V. Calhoun	2361986
	10/12/2022	10/14/2022 14:05	Adam P Silver	10/20/2022 12:06	Simonne.V. Calhoun	2361989
EPA 365.1 Rev. 2.0 dissolved	10/12/2022			10/12/2022 15:00	Elise M. Gillis	2361990
	10/12/2022			10/12/2022 15:09	Elise M. Gillis	2361987
EPA 8270E	10/12/2022	10/14/2022 08:00	Fe-Val Siddell	10/19/2022 19:57	Vandana T. Nagar	2362003
	10/12/2022	10/14/2022 08:00	Fe-Val Siddell	10/26/2022 02:32	Michael Poppell	2362003
EPA 8276	10/12/2022	10/14/2022 08:00	Fe-Val Siddell	10/18/2022 13:15	Arthur Maknenko	2362003
EPA 8321B	10/12/2022	10/12/2022 14:00	Umesh Chiluwal	10/12/2022 15:13	Umesh Chiluwal	2362004
	10/12/2022	10/12/2022 14:00	Umesh Chiluwal	10/13/2022 16:43	Umesh Chiluwal	2362004

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	10/12/2022	10/13/2022 10:30	June Rhew	10/14/2022 19:47	Juyoung Kim	2362004
SM 2320 B-2011	10/12/2022			10/14/2022 01:27	Dale L. Simmons	2361979
	10/12/2022			10/14/2022 01:39	Dale L. Simmons	2361981
	10/12/2022			10/14/2022 01:50	Dale L. Simmons	2361983
	10/12/2022			10/14/2022 02:03	Dale L. Simmons	2361985
	10/12/2022			10/15/2022 03:26	Dale L. Simmons	2361988
SM 2540 C-2015	10/12/2022			10/13/2022 16:08	Yijie Li	2361979, 2361981, 2361983, 2361985, 2361988
SM 2540 D-2015	10/12/2022			10/13/2022 16:08	Yijie Li	2361979, 2361981, 2361983, 2361985, 2361988
SM 4500-F- C-2011	10/12/2022			10/14/2022 01:27	Dale L. Simmons	2361979
	10/12/2022			10/14/2022 01:39	Dale L. Simmons	2361981
	10/12/2022			10/14/2022 01:50	Dale L. Simmons	2361983
	10/12/2022			10/14/2022 02:03	Dale L. Simmons	2361985
	10/12/2022			10/15/2022 03:26	Dale L. Simmons	2361988
SM 5310 B-2011	10/12/2022			10/17/2022 16:40	Khloe J Berg	2361980
	10/12/2022			10/17/2022 16:54	Khloe J Berg	2361982
	10/12/2022			10/17/2022 17:08	Khloe J Berg	2361984
	10/12/2022			10/17/2022 17:22	Khloe J Berg	2361986
	10/12/2022			10/17/2022 17:36	Khloe J Berg	2361989