

Chemical Analysis Report

NE-DIST-2023-06-15-01

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

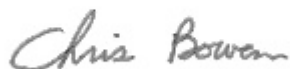
Event Description: **LSJR Main**
Request ID: **RQ-2023-06-05-20**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
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8800 Baymeadows Way West
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Certified by: Chris Bowen, Environmental Administrator

Date Certified: 30-JUN-2023 09:49



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: Deer Cr at Talleyrand Ave

Collection Date/Time: 06/14/2023 10:40

Field ID: 20030792

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2417541	EPA 8321B	2,4-D	0.025		ug/L	P431299	
		Acesulfame K	0.10	U	ug/L	P431314	
		2,4,5-T	0.0040	U	ug/L	P431299	
		AMPA	0.17	I	ug/L	P431314	
		Acetaminophen	0.020	I	ug/L	P431299	
		Acetamiprid	0.0020	U	ug/L	P431299	
		Endothall	0.25	U	ug/L	P431314	
		Glufosinate	0.10	U	ug/L	P431314	
		Glyphosate	0.16	I	ug/L	P431314	
		Afidopyropen	0.0020	U	ug/L	P431299	
		Bentazon	0.010		ug/L	P431299	
		Sucralose	0.50		ug/L	P431314	
		Benzovindiflupyr	0.0020	U	ug/L	P431299	
		Carbamazepine	8.0E-04	U	ug/L	P431299	
		Clothianidin	0.0022	I	ug/L	P431299	
		Dinotefuran	0.0020	U	ug/L	P431299	
		Diuron	0.015		ug/L	P431299	RPD
		Fenuron	0.032	U	ug/L	P431299	
		Fluridone	8.0E-04	U	ug/L	P431299	
		Imazapyr	0.078		ug/L	P431299	
		Hydrocodone	0.0020	U	ug/L	P431299	
		Ibuprofen	0.080	U	ug/L	P431299	
		Imidacloprid	0.0045	I	ug/L	P431299	
		Linuron	0.0040	U	ug/L	P431299	
		Mandestrobin	0.0020	U	ug/L	P431299	
		MCPP	0.0020	U	ug/L	P431299	
		Naproxen	0.0080	U	ug/L	P431299	
		Primidone	0.0040	U	ug/L	P431299	
		Pyraclostrobin	0.0020	U	ug/L	P431299	
		Silvex	0.0040	U	ug/L	P431299	
		Thiamethoxam	0.0020	U	ug/L	P431299	
		Tolfenpyrad	0.0020	U	ug/L	P431299	
		Triclopyr	0.0040	U	ug/L	P431299	

Sample Location: Hogan Creek at 1st St

Collection Date/Time: 06/14/2023 10:10

Field ID: 20030692

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2417498	DEP SOP: NU-094-1	Color (true)	22		PCU	P431337	
	EPA 180.1 Rev. 2.0	Turbidity	4.2		NTU	P431348	
	EPA 300.0 Rev. 2.1	Chloride	33		mg Cl/L	P431682	
		Sulfate	48		mg SO4/L	P431685	
	SM 2320 B-2011	Total Alkalinity	107		mg CaCO3/L	P431569	
	SM 2540 C-2015	TDS	258		mg/L	P431885	
	SM 2540 D-2015	TSS	3	I	mg/L	P431825	
	SM 4500-F- C-2011	Fluoride	0.25		mg F/L	P431572	
2417499	EPA 350.1 Rev. 2.0	Ammonia-N	0.20		mg N/L	P431528	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.55		mg N/L	P431700	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P431720	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P431384	
	SM 5310 B-2011	Organic Carbon	5.8		mg C/L	P431574	
2417527	EPA 8270E	Aldrin	0.67	U	ng/L	P431247	
		Alpha-BHC	0.10	U	ng/L	P431247	
		Alpha-Chlordane	0.35	I	ng/L	P431247	
		PCB-1016	2.1	U	ng/L	P431247	
		Beta-BHC	0.52		ng/L	P431247	
		PCB-1221	2.1	U	ng/L	P431247	
		Beta-Cyfluthrin	1.3	U	ng/L	P431247	
		PCB-1232	2.1	U	ng/L	P431247	
		Bifenthrin	0.51	U	ng/L	P431247	
		PCB-1242	2.1	U	ng/L	P431247	
		PCB-1248	2.1	U	ng/L	P431247	
		Chlorothalonil	3.7	U	ng/L	P431247	
		PCB-1254	2.1	U	ng/L	P431247	
		Cis-Nonachlor	0.21	U	ng/L	P431247	
		PCB-1260	2.1	U	ng/L	P431247	
		Cypermethrin	1.5	U	ng/L	P431247	
		Dacthal	0.15	UJ	ng/L	P431247	LCS
		DDD-p,p'	0.26	U	ng/L	P431247	
		DDE-p,p'	0.21	U	ng/L	P431247	
		DDT-p,p'	0.27	I	ng/L	P431247	
		Delta-BHC	2.4		ng/L	P431247	
		Deltamethrin	1.3	U	ng/L	P431247	
		Dichlobenil	0.26	U	ng/L	P431247	
		Dicofol	1.3	U	ng/L	P431247	
		Diieldrin	2.3		ng/L	P431247	
		Endosulfan I	0.41	U	ng/L	P431247	
		Endosulfan II	0.41	U	ng/L	P431247	
		Endosulfan Sulfate	0.31	U	ng/L	P431247	
		Endrin	0.41	U	ng/L	P431247	
		Endrin Aldehyde	0.77	U	ng/L	P431247	
		Endrin Ketone	0.41	U	ng/L	P431247	

Field ID: 20030692

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2417527	EPA 8270E	Esfenvalerate	0.77	U	ng/L	P431247	RPD
		Ethalfuralin	0.15	U	ng/L	P431247	
		Fenpropathrin	0.26	U	ng/L	P431247	
		Gamma-BHC	0.13	U	ng/L	P431247	
		Gamma-Chlordane	0.29	I	ng/L	P431247	
		Heptachlor	0.21	U	ng/L	P431247	
		Heptachlor Epoxide	0.91	I	ng/L	P431247	
		Hexachlorobenzene**	1.0	U	ng/L	P431247	
		Kepone	5.1	U	ng/L	P431247	
		Lambda-Cyhalothrin	0.77	U	ng/L	P431247	
		Methoprene	0.77	U	ng/L	P431247	
		Methoxychlor	0.31	U	ng/L	P431247	
		MGK-264	0.21	U	ng/L	P431247	
		Mirex	0.36	U	ng/L	P431247	
		Oxychlordane	0.31	U	ng/L	P431247	
		Permethrin	1.6	U	ng/L	P431247	
		Phenothrin	0.93	U	ng/L	P431247	
		Piperonyl Butoxide	33		ng/L	P431247	
		Prallethrin	2.1	U	ng/L	P431247	
		Tau-Fluvalinate	0.26	U	ng/L	P431247	
		Tetramethrin	0.77	U	ng/L	P431247	
		Trans-Nonachlor	0.21	U	ng/L	P431247	RPD
		Triclosan Methyl	0.15	U	ng/L	P431247	
		Trifluralin	0.21	U	ng/L	P431247	
	EPA 8276	Chlordane	2.1	UJ	ng/L	P431247	LCS, MS
		Toxaphene	15	U	ng/L	P431247	

Ref. Method and Comment:

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

SM 5310 B-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8276: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Little Pottsburg Creek at Emerson

Collection Date/Time: 06/14/2023 11:00

Field ID: 20030070

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2417496	DEP SOP: NU-094-1	Color (true)	40		PCU	P431337	
	EPA 180.1 Rev. 2.0	Turbidity	4.3		NTU	P431348	
	EPA 300.0 Rev. 2.1	Chloride	25	A	mg Cl/L	P431682	
		Sulfate	29	A	mg SO4/L	P431685	
	SM 2320 B-2011	Total Alkalinity	117		mg CaCO3/L	P431569	
	SM 2540 C-2015	TDS	237		mg/L	P431885	
	SM 2540 D-2015	TSS	3	I	mg/L	P431825	
2417497	SM 4500-F- C-2011	Fluoride	0.16		mg F/L	P431572	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.095		mg N/L	P431528	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.54		mg N/L	P431539	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.20		mg N/L	P431720	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P431384	
2417542	SM 5310 B-2011	Organic Carbon	8.1		mg C/L	P431574	
	EPA 200.7 Rev. 4.4	Calcium	52.4		mg/L	P431414	
		Iron	910		ug/L	P431414	
		Magnesium	7.58		mg/L	P431414	
		Potassium	2.1		mg/L	P431414	
		Sodium	17.6		mg/L	P431414	
		Strontium	582		ug/L	P431414	
		Tin	3.8	I	ug/L	P431414	
		Titanium	1.2	I	ug/L	P431414	
		Vanadium	2.0	U	ug/L	P431414	
		Zinc	6.6	I	ug/L	P431414	
	EPA 200.8 Rev. 5.4	Aluminum	105		ug/L	P431414	
		Antimony	0.050	U	ug/L	P431414	
		Arsenic	0.31		ug/L	P431414	
		Barium	29.0		ug/L	P431414	
		Beryllium	0.031	I	ug/L	P431414	
		Boron	13.7		ug/L	P431414	
		Cadmium	0.020	U	ug/L	P431414	
		Chromium	0.40	U	ug/L	P431414	
		Cobalt	0.297		ug/L	P431414	
		Copper	0.40	U	ug/L	P431414	
		Lead	0.20	U	ug/L	P431414	
		Manganese	19.0		ug/L	P431414	
		Molybdenum	0.15	U	ug/L	P431414	
		Nickel	0.50	U	ug/L	P431414	
		Selenium	0.20	U	ug/L	P431414	
		Silver	0.010	U	ug/L	P431414	
		Thallium	0.10	U	ug/L	P431414	
	SM 2340 B-2011	Hardness	162		mg/L	P431414	

Ref. Method and Comment:

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

SM 5310 B-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Miramar at San Jose

Collection Date/Time: 06/14/2023 11:35

Field ID: G2NE1164

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2417528	EPA 8270E	Aldrin	0.67	U	ng/L	P431247	
		Alpha-BHC	0.10	U	ng/L	P431247	
		Alpha-Chlordane	0.62	I	ng/L	P431247	
		PCB-1016	2.1	U	ng/L	P431247	
		Beta-BHC	0.64		ng/L	P431247	
		PCB-1221	2.1	U	ng/L	P431247	
		Beta-Cyfluthrin	1.3	U	ng/L	P431247	
		PCB-1232	2.1	U	ng/L	P431247	
		Bifenthrin	1.3	I	ng/L	P431247	
		PCB-1242	2.1	U	ng/L	P431247	
		PCB-1248	2.1	U	ng/L	P431247	
		Chlorothalonil	3.7	U	ng/L	P431247	
		PCB-1254	2.1	U	ng/L	P431247	
		Cis-Nonachlor	0.21	U	ng/L	P431247	
		PCB-1260	2.1	U	ng/L	P431247	
		Cypermethrin	1.5	U	ng/L	P431247	
		Dacthal	0.15	UJ	ng/L	P431247	LCS
		DDD-p,p'	0.26	U	ng/L	P431247	
		DDE-p,p'	0.21	U	ng/L	P431247	
		DDT-p,p'	0.26	U	ng/L	P431247	
		Delta-BHC	0.41	U	ng/L	P431247	
		Deltamethrin	1.3	U	ng/L	P431247	
		Dichlobenil	120		ng/L	P431247	
		Dicofol	1.3	U	ng/L	P431247	
		Dieldrin	12		ng/L	P431247	
		Endosulfan I	0.41	U	ng/L	P431247	
		Endosulfan II	0.41	U	ng/L	P431247	
		Endosulfan Sulfate	0.31	U	ng/L	P431247	
		Endrin	0.41	U	ng/L	P431247	
		Endrin Aldehyde	0.77	U	ng/L	P431247	
		Endrin Ketone	0.41	U	ng/L	P431247	
		Esfenvalerate	0.77	U	ng/L	P431247	
		Ethalfuralin	0.15	U	ng/L	P431247	
		Fenpropathrin	0.26	U	ng/L	P431247	
		Gamma-BHC	0.13	U	ng/L	P431247	RPD
		Gamma-Chlordane	0.45	I	ng/L	P431247	
		Heptachlor	0.21	U	ng/L	P431247	
		Heptachlor Epoxide	2.9		ng/L	P431247	
		Hexachlorobenzene**	1.0	U	ng/L	P431247	
		Kepone	5.2	U	ng/L	P431247	
		Lambda-Cyhalothrin	0.77	U	ng/L	P431247	
		Methoprene	0.77	U	ng/L	P431247	
		Methoxychlor	0.31	U	ng/L	P431247	
		MGK-264	0.21	U	ng/L	P431247	

Field ID: G2NE1164

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2417528	EPA 8270E	Mirex	0.36	U	ng/L	P431247	
		Oxychlordane	0.31	U	ng/L	P431247	
		Permethrin	2.7	I	ng/L	P431247	
		Phenothrin	0.93	U	ng/L	P431247	
		Piperonyl Butoxide	1.3		ng/L	P431247	
		Prallethrin	2.1	U	ng/L	P431247	
		Tau-Fluvalinate	0.26	U	ng/L	P431247	
		Tetramethrin	0.77	U	ng/L	P431247	
		Trans-Nonachlor	0.21	U	ng/L	P431247	RPD
		Triclosan Methyl	0.15	U	ng/L	P431247	
		Trifluralin	0.21	U	ng/L	P431247	
	EPA 8276	Chlordane	3.3	I J	ng/L	P431247	LCS, MS
		Toxaphene	24	I	ng/L	P431247	

Ref. Method and Comment:
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8276: Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P431337

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P431348

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P431414

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: P431414

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431682

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431685

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431528

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431539

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431700

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P431720

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431384

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

Reference Method: EPA 8270E
Batch ID: P431247

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: P431247

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'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P431247

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: P431247

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: P431299

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: EPA 8321B

Batch ID: P431314

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: SM 2320 B-2011

Batch ID: P431569

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

Reference Method: SM 2540 C-2015

Batch ID: P431885

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2015
Batch ID: P431825

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P431572

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P431574

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: P431337

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.8		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P431348

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	98.4		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P431414

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P431414

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.9		P	85 - 115
Antimony	100		P	85 - 115
Arsenic	101		P	85 - 115
Barium	102		P	85 - 115
Beryllium	94.6		P	85 - 115
Boron	103		P	85 - 115
Cadmium	99.5		P	85 - 115
Chromium	97.4		P	85 - 115
Cobalt	101		P	85 - 115
Copper	102		P	85 - 115
Lead	95.3		P	85 - 115
Manganese	98.1		P	85 - 115
Molybdenum	98.4		P	85 - 115
Nickel	102		P	85 - 115
Selenium	102		P	85 - 115
Silver	104		P	85 - 115
Thallium	102		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431682

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.9		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431685

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431528

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431539

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.3		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431700

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P431720

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	105		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431384

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

Reference Method: EPA 8270E
Batch ID: P431247

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	44.0		P	10 - 92.0
Alpha-BHC	75.4		P	75 - 107
Alpha-Chlordane	60.4		P	50 - 108
Beta-BHC	82.7		P	36 - 138
Beta-Cyfluthrin	66.9		P	20 - 161
Bifenthrin	62.4		P	10 - 119
Chlorothalonil	91.0		P	26 - 186
Cis-Nonachlor	50.6		P	42 - 119
Cypermethrin	66.2		P	22 - 150
Dacthal	70.3		F	72 - 119
DDD-p,p'	62.5		P	45 - 107
DDE-p,p'	60.8		P	48 - 106
DDT-p,p'	61.4		P	48 - 110
Delta-BHC	96.8		P	54 - 140
Deltamethrin	82.8		P	22 - 189
Dichlobenil	73.5		P	36 - 117

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P431247

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dicofol	62.5		P	46 - 155
Dieldrin	57.1		P	54 - 110
Endosulfan I	62.8		P	59 - 105
Endosulfan II	55.3		P	51 - 118
Endosulfan Sulfate	57.7		P	57 - 121
Endrin	57.6		P	10 - 120
Endrin Aldehyde	59.3		P	34 - 118
Endrin Ketone	77.3		P	69 - 177
Esfenvalerate	91.8		P	23 - 168
Ethalfuralin	59.6		P	49 - 99.0
Fenpropathrin	61.3		P	34 - 117
Gamma-BHC	80.4		P	72 - 117
Gamma-Chlordane	63.0		P	43 - 106
Heptachlor	53.4		P	41 - 98.0
Heptachlor Epoxide	77.2		P	57 - 106
Hexachlorobenzene	51.9		P	36 - 99.0
Kepone	53.5		P	16 - 215
Lambda-Cyhalothrin	79.9		P	21 - 177
Methoprene	42.6		P	10 - 119
Methoxychlor	69.5		P	60 - 112
MGK-264	49.2		P	26 - 122
Mirex	59.2		P	10 - 169
Oxychlordane	53.2		P	43 - 105
PCB-1016	71.3		P	48 - 112
PCB-1260	65.5		P	44 - 118
Permethrin	60.2		P	24 - 148
Phenothrin	79.0		P	10 - 106
Piperonyl Butoxide	75.7		P	10 - 139
Prallethrin	52.9		P	17 - 109
Tau-Fluvalinate	76.3		P	13 - 131
Tetramethrin	67.7		P	10 - 132
Trans-Nonachlor	56.2		P	44 - 106
Triclosan Methyl	69.8		P	59 - 109
Trifluralin	66.4		P	44 - 101

Reference Method: EPA 8276
Batch ID: P431247

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	59.2		F	61 - 116
Toxaphene	64.1		P	48 - 124

Reference Method: EPA 8321B
Batch ID: P431299

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	106		P	40 - 150
2,4,5-T	94.0		P	40 - 150
Acetaminophen	49.1		P	30 - 150
Acetamiprid	79.2		P	40 - 150
Afidopyropen	62.2		P	30 - 150
Bentazon	110		P	30 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P431299

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Benzovindiflupyr	64.4		P	40 - 150
Carbamazepine	67.4		P	40 - 150
Clothianidin	84.1		P	40 - 150
Dinotefuran	86.0		P	40 - 150
Diuron	51.7		P	40 - 150
Fenuron	72.2		P	40 - 150
Fluridone	73.1		P	40 - 150
Hydrocodone	86.2		P	40 - 150
Ibuprofen	85.3		P	40 - 150
Imazapyr	88.9		P	40 - 150
Imidacloprid	79.6		P	40 - 150
Linuron	82.7		P	40 - 150
Mandestrobin	78.8		P	40 - 150
MCPPP	95.8		P	40 - 150
Naproxen	70.7		P	40 - 150
Primidone	77.1		P	40 - 150
Pyraclostrobin	87.0		P	40 - 150
Silvex	96.2		P	40 - 150
Thiamethoxam	83.2		P	40 - 150
Tolfenpyrad	60.4		P	30 - 150
Triclopyr	93.5		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P431314

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	146		P	40 - 150
AMPA	81.6		P	40 - 150
Endothall	97.0		P	40 - 150
Glufosinate	102		P	40 - 150
Glyphosate	107		P	40 - 150
Sucralose	120		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P431569

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

Reference Method: SM 2540 C-2015

Batch ID: P431885

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	96.6		P	90 - 110

Reference Method: SM 2540 D-2015

Batch ID: P431825

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	95.8		P	85 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P431572

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P431574

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P431414

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417441	Calcium	104		P	80 - 120
2417441	Iron	108	107	P/P	80 - 120
2417441	Magnesium	106	105	P/P	80 - 120
2417441	Potassium	105	104	P/P	80 - 120
2417441	Sodium	109	109	P/P	80 - 120
2417441	Strontium	106	106	P/P	80 - 120
2417441	Tin	109	109	P/P	80 - 120
2417441	Titanium	102	105	P/P	80 - 120
2417441	Vanadium	107	108	P/P	80 - 120
2417441	Zinc	106	106	P/P	80 - 120
2417511	Calcium	108		P	80 - 120
2417511	Iron	110		P	80 - 120
2417511	Magnesium	110		P	80 - 120
2417511	Potassium	107		P	80 - 120
2417511	Sodium	112		P	80 - 120
2417511	Strontium	108		P	80 - 120
2417511	Tin	106		P	80 - 120
2417511	Titanium	106		P	80 - 120
2417511	Vanadium	109		P	80 - 120
2417511	Zinc	109		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P431414

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417441	Aluminum	97.7	98.2	P/P	80 - 120
2417441	Antimony	101	102	P/P	80 - 120
2417441	Arsenic	101	101	P/P	80 - 120
2417441	Barium	103	105	P/P	80 - 120
2417441	Beryllium	92.9	94.6	P/P	80 - 120
2417441	Boron	103	105	P/P	80 - 120
2417441	Cadmium	100	102	P/P	80 - 120
2417441	Chromium	94.8	95.0	P/P	80 - 120
2417441	Cobalt	98.6	99.7	P/P	80 - 120
2417441	Copper	101	102	P/P	80 - 120
2417441	Lead	95.1	95.4	P/P	80 - 120
2417441	Manganese	94.9	96.2	P/P	80 - 120
2417441	Molybdenum	100	102	P/P	80 - 120
2417441	Nickel	97.4	98.6	P/P	80 - 120
2417441	Selenium	98.8	99.6	P/P	80 - 120
2417441	Silver	103	106	P/P	80 - 120
2417441	Thallium	103	104	P/P	80 - 120
2417511	Aluminum	99.6		P	80 - 120
2417511	Antimony	101		P	80 - 120
2417511	Arsenic	100		P	80 - 120
2417511	Barium	105		P	80 - 120
2417511	Beryllium	94.1		P	80 - 120
2417511	Boron	106		P	80 - 120
2417511	Cadmium	99.2		P	80 - 120
2417511	Chromium	96.6		P	80 - 120
2417511	Cobalt	101		P	80 - 120
2417511	Copper	102		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P431414

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417511	Lead	96.3		P	80 - 120
2417511	Manganese	96.7		P	80 - 120
2417511	Molybdenum	97.9		P	80 - 120
2417511	Nickel	102		P	80 - 120
2417511	Selenium	99.3		P	80 - 120
2417511	Silver	104		P	80 - 120
2417511	Thallium	103		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431682

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417496	Chloride	99.0		P	90 - 110
2417639	Chloride	99.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431685

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417496	Sulfate	93.1		P	90 - 110
2417639	Sulfate	95.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431528

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417430	Ammonia-N	100	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431539

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417350	Kjeldahl Nitrogen	104	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431700

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417531	Kjeldahl Nitrogen	105	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P431720

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417497	NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431384

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417482	Total-P	99.8	97.3	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P431247

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416653	PCB-1016	92.2	104	P/P	46 - 111
2416653	PCB-1260	83.8	106	P/P	45 - 114
2417276	Aldrin	53.3	51.3	P/P	20 - 82.0
2417276	Alpha-BHC	97.0	87.4	P/P	71 - 109
2417276	Alpha-Chlordane	75.0	53.6	P/P	42 - 106
2417276	Beta-BHC	103	92.2	P/P	69 - 180
2417276	Beta-Cyfluthrin	79.7	66.2	P/P	18 - 175
2417276	Bifenthrin	108	80.4	P/P	21 - 128
2417276	Chlorothalonil	193	132	P/P	10 - 300
2417276	Cis-Nonachlor	72.1	66.3	P/P	34 - 106
2417276	Cypermethrin	83.1	66.0	P/P	22 - 158
2417276	Dacthal	116	90.7	P/P	54 - 116
2417276	DDD-p,p'	106	85.6	P/P	34 - 107
2417276	DDE-p,p'	102	75.1	P/P	33 - 110
2417276	DDT-p,p'	70.4	60.0	P/P	50 - 122
2417276	Delta-BHC	143	105	P/P	77 - 193
2417276	Deltamethrin	110	103	P/P	10 - 195
2417276	Dichlobenil	39.1	45.6	P/P	25 - 113
2417276	Dicofol	84.2	73.9	P/P	38 - 247
2417276	Dieldrin	75.8	67.2	P/P	45 - 118
2417276	Endosulfan I	80.5	72.8	P/P	51 - 106
2417276	Endosulfan II	61.1	59.6	P/P	37 - 122
2417276	Endosulfan Sulfate	77.2	59.9	P/P	43 - 132
2417276	Endrin	66.9	64.9	P/P	29 - 101
2417276	Endrin Aldehyde	87.5	64.6	P/P	19 - 110
2417276	Endrin Ketone	77.9	68.5	P/P	60 - 140
2417276	Esfenvalerate	118	128	P/P	26 - 199
2417276	Ethalfuralin	62.8	62.9	P/P	45 - 99.0
2417276	Fenpropathrin	74.0	65.4	P/P	35 - 120
2417276	Gamma-BHC	115	91.4	P/P	63 - 128
2417276	Gamma-Chlordane	64.3	46.1	P/P	40 - 104
2417276	Heptachlor	56.9	56.4	P/P	36 - 97.0
2417276	Heptachlor Epoxide	76.9	67.8	P/P	49 - 184
2417276	Hexachlorobenzene	81.0	57.8	P/P	39 - 96.0
2417276	Kepone	93.4	54.8	P/P	10 - 217
2417276	Lambda-Cyhalothrin	190	155	P/P	21 - 193
2417276	Methoprene	47.4	41.9	P/P	20 - 106
2417276	Methoxychlor	83.0	75.2	P/P	53 - 118
2417276	MGK-264	57.9	55.7	P/P	40 - 118
2417276	Mirex	86.7	68.8	P/P	26 - 92.0
2417276	Oxychlordane	47.8	47.4	P/P	44 - 99.0
2417276	Permethrin	75.7	79.4	P/P	33 - 182
2417276	Phenothrin	115	107	P/P	10 - 129
2417276	Piperonyl Butoxide	113	105	P/P	10 - 211
2417276	Prallethrin	45.2	44.4	P/P	24 - 113
2417276	Tau-Fluvalinate	148	138	P/P	14 - 149
2417276	Tetramethrin	83.3	72.4	P/P	17 - 151
2417276	Trans-Nonachlor	71.5	45.6	P/P	42 - 102
2417276	Triclosan Methyl	81.1	69.3	P/P	48 - 108
2417276	Trifluralin	54.2	56.2	P/P	47 - 96.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8276

Batch ID: P431247

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416653	Chlordane	47.4	42.8	F/F	53 - 126
2416653	Toxaphene	58.9	59.9	P/P	56 - 211

Reference Method: EPA 8321B

Batch ID: P431299

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417275	2,4-D	108	100	P/P	40 - 150
2417275	2,4,5-T	110	91.1	P/P	40 - 150
2417275	Acetaminophen	51.3	49.6	P/P	30 - 150
2417275	Acetamiprid	86.8	67.5	P/P	40 - 150
2417275	Afidopyropen	54.5	70.5	P/P	30 - 150
2417275	Bentazon	104	110	P/P	30 - 150
2417275	Benzovindiflupyr	94.4	85.9	P/P	40 - 150
2417275	Carbamazepine	85.8	73.3	P/P	40 - 150
2417275	Clothianidin	91.3	96.8	P/P	40 - 150
2417275	Dinotefuran	95.1	89.8	P/P	40 - 150
2417275	Diuron	46.7	74.1	P/P	40 - 150
2417275	Fenuron	73.4	70.7	P/P	40 - 150
2417275	Fluridone	73.8	73.5	P/P	40 - 150
2417275	Hydrocodone	82.8	84.7	P/P	40 - 150
2417275	Ibuprofen	64.3	79.9	P/P	40 - 150
2417275	Imazapyr	113	107	P/P	40 - 150
2417275	Imidacloprid	98.8	126	P/P	40 - 150
2417275	Linuron	63.6	65.4	P/P	40 - 150
2417275	Mandestrobin	91.3	87.2	P/P	40 - 150
2417275	MCPP	112	105	P/P	40 - 150
2417275	Naproxen	75.3	67.2	P/P	40 - 150
2417275	Primidone	90.0	68.7	P/P	40 - 150
2417275	Pyraclostrobin	89.3	89.7	P/P	40 - 150
2417275	Silvex	109	97.2	P/P	40 - 150
2417275	Thiamethoxam	98.5	102	P/P	40 - 150
2417275	Tolfenpyrad	56.0	54.2	P/P	30 - 150
2417275	Triclopyr	121	96.7	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P431314

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417495	Acesulfame K	135	135	P/P	40 - 150
2417495	AMPA	74.7	71.7	P/P	40 - 150
2417495	Endothall	101	102	P/P	40 - 150
2417495	Glufosinate	92.8	94.6	P/P	40 - 150
2417495	Glyphosate	90.5	92.4	P/P	40 - 150
2417495	Sucralose	124	123	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P431572

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417428	Fluoride	101	101	P/P	94 - 106

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P431574

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417430	Organic Carbon	96.5		P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P431337

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417478	Color (true)	2.11	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P431348

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417378	Turbidity	4.05	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P431414

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417441	Calcium	0.537	Spike	P	0 - 20
2417441	Iron	0.606	Spike	P	0 - 20
2417441	Magnesium	0.780	Spike	P	0 - 20
2417441	Potassium	0.195	Spike	P	0 - 20
2417441	Sodium	0.421	Spike	P	0 - 20
2417441	Strontium	0.00440	Spike	P	0 - 20
2417441	Tin	0.265	Spike	P	0 - 20
2417441	Titanium	2.04	Spike	P	0 - 20
2417441	Vanadium	0.921	Spike	P	0 - 20
2417441	Zinc	0.222	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P431414

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417441	Aluminum	0.371	Spike	P	0 - 20
2417441	Antimony	1.22	Spike	P	0 - 20
2417441	Arsenic	0.866	Spike	P	0 - 20
2417441	Barium	0.755	Spike	P	0 - 20
2417441	Beryllium	1.48	Spike	P	0 - 20
2417441	Boron	1.23	Spike	P	0 - 20
2417441	Cadmium	1.24	Spike	P	0 - 20
2417441	Chromium	0.154	Spike	P	0 - 20
2417441	Cobalt	1.13	Spike	P	0 - 20
2417441	Copper	0.741	Spike	P	0 - 20
2417441	Lead	0.328	Spike	P	0 - 20
2417441	Manganese	1.05	Spike	P	0 - 20
2417441	Molybdenum	1.28	Spike	P	0 - 20
2417441	Nickel	1.12	Spike	P	0 - 20
2417441	Selenium	0.832	Spike	P	0 - 20
2417441	Silver	2.13	Spike	P	0 - 20
2417441	Thallium	0.793	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431682

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417496	Chloride	0.711	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431685

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417496	Sulfate	0.457	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431528

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417430	Ammonia-N	0.0	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431539

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417350	Kjeldahl Nitrogen	1.38	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431700

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417531	Kjeldahl Nitrogen	0.572	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P431720

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417497	NO2NO3-N	0.249	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431384

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417482	Total-P	2.44	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P431247

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416653	PCB-1016	11.7	Spike	P	0 - 32
2416653	PCB-1260	23.7	Spike	P	0 - 31

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P431247

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417276	Aldrin	3.82	Spike	P	0 - 41
2417276	Alpha-BHC	10.4	Spike	P	0 - 25
2417276	Alpha-Chlordane	30.2	Spike	P	0 - 33
2417276	Beta-BHC	11.4	Spike	P	0 - 36
2417276	Beta-Cyfluthrin	18.6	Spike	P	0 - 42
2417276	Bifenthrin	29.2	Spike	P	0 - 53
2417276	Chlorothalonil	37.7	Spike	P	0 - 71
2417276	Cis-Nonachlor	8.40	Spike	P	0 - 29
2417276	Cypermethrin	23.0	Spike	P	0 - 40
2417276	Dacthal	24.3	Spike	P	0 - 26
2417276	DDD-p,p'	20.9	Spike	P	0 - 39
2417276	DDE-p,p'	30.3	Spike	P	0 - 33
2417276	DDT-p,p'	16.0	Spike	P	0 - 40
2417276	Delta-BHC	31.3	Spike	P	0 - 37
2417276	Deltamethrin	6.79	Spike	P	0 - 100
2417276	Dichlobenil	15.2	Spike	P	0 - 40
2417276	Dicofol	13.1	Spike	P	0 - 31
2417276	Dieldrin	12.1	Spike	P	0 - 27
2417276	Endosulfan I	10.1	Spike	P	0 - 23
2417276	Endosulfan II	2.46	Spike	P	0 - 28
2417276	Endosulfan Sulfate	25.2	Spike	P	0 - 38
2417276	Endrin	3.06	Spike	P	0 - 63
2417276	Endrin Aldehyde	30.1	Spike	P	0 - 60
2417276	Endrin Ketone	12.9	Spike	P	0 - 37
2417276	Esfenvalerate	8.39	Spike	P	0 - 52
2417276	Ethalfuralin	0.0547	Spike	P	0 - 23
2417276	Fenpropathrin	12.3	Spike	P	0 - 32
2417276	Gamma-BHC	23.0	Spike	F	0 - 17
2417276	Gamma-Chlordane	29.6	Spike	P	0 - 40
2417276	Heptachlor	0.808	Spike	P	0 - 29
2417276	Heptachlor Epoxide	12.6	Spike	P	0 - 25
2417276	Hexachlorobenzene	33.6	Spike	P	0 - 36
2417276	Kepone	52.1	Spike	P	0 - 93
2417276	Lambda-Cyhalothrin	20.4	Spike	P	0 - 55
2417276	Methoprene	12.4	Spike	P	0 - 53
2417276	Methoxychlor	9.94	Spike	P	0 - 29
2417276	MGK-264	3.83	Spike	P	0 - 35
2417276	Mirex	23.0	Spike	P	0 - 46
2417276	Oxychlordane	0.863	Spike	P	0 - 29
2417276	Permethrin	4.69	Spike	P	0 - 44
2417276	Phenothrin	6.97	Spike	P	0 - 56
2417276	Piperonyl Butoxide	7.22	Spike	P	0 - 100
2417276	Prallethrin	1.67	Spike	P	0 - 42
2417276	Tau-Fluvalinate	6.75	Spike	P	0 - 54
2417276	Tetramethrin	13.9	Spike	P	0 - 51
2417276	Trans-Nonachlor	44.3	Spike	F	0 - 37
2417276	Triclosan Methyl	15.7	Spike	P	0 - 31
2417276	Trifluralin	3.71	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276

Batch ID: P431247

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416653	Chlordane	10.3	Spike	P	0 - 25
2416653	Toxaphene	1.57	Spike	P	0 - 26

Reference Method: EPA 8321B

Batch ID: P431299

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417275	2,4-D	7.28	Spike	P	0 - 30
2417275	2,4,5-T	19.1	Spike	P	0 - 30
2417275	Acetaminophen	3.29	Spike	P	0 - 30
2417275	Acetamiprid	24.9	Spike	P	0 - 30
2417275	Afidopyropen	25.5	Spike	P	0 - 30
2417275	Bentazon	5.26	Spike	P	0 - 30
2417275	Benzovindiflupyr	9.51	Spike	P	0 - 30
2417275	Carbamazepine	15.8	Spike	P	0 - 30
2417275	Clothianidin	5.86	Spike	P	0 - 30
2417275	Dinotefuran	5.66	Spike	P	0 - 30
2417275	Diuron	45.4	Spike	F	0 - 30
2417275	Fenuron	3.80	Spike	P	0 - 30
2417275	Fluridone	0.429	Spike	P	0 - 30
2417275	Hydrocodone	2.30	Spike	P	0 - 30
2417275	Ibuprofen	21.7	Spike	P	0 - 30
2417275	Imazapyr	5.47	Spike	P	0 - 30
2417275	Imidacloprid	22.2	Spike	P	0 - 30
2417275	Linuron	2.75	Spike	P	0 - 30
2417275	Mandestrobin	4.60	Spike	P	0 - 30
2417275	MCP	6.42	Spike	P	0 - 30
2417275	Naproxen	11.3	Spike	P	0 - 30
2417275	Primidone	26.8	Spike	P	0 - 30
2417275	Pyraclostrobin	0.421	Spike	P	0 - 30
2417275	Silvex	11.1	Spike	P	0 - 30
2417275	Thiamethoxam	3.19	Spike	P	0 - 30
2417275	Tolfenpyrad	3.28	Spike	P	0 - 30
2417275	Triclopyr	22.2	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P431314

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417495	Acesulfame K	0.395	Spike	P	0 - 30
2417495	AMPA	4.02	Spike	P	0 - 30
2417495	Endothall	0.867	Spike	P	0 - 30
2417495	Glufosinate	1.92	Spike	P	0 - 30
2417495	Glyphosate	2.11	Spike	P	0 - 30
2417495	Sucralose	0.971	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P431569

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417428	Total Alkalinity	1.34	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P431885

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417425	TDS	2.04	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P431572

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417428	Fluoride	0.476	Spike	P	0 - 1.9

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

Quality Assurance Report Surrogates

Lab Sample ID: 2417527
Field Sample ID: 20030692

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	119	P	29 - 130
EPA 8270E	Decachlorobiphenyl	86.9	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	69.5	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	70.9	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	72.1	P	30 - 101
EPA 8276	PCNB	101	P	48 - 121

Lab Sample ID: 2417528
Field Sample ID: G2NE1164

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	103	P	29 - 130
EPA 8270E	Decachlorobiphenyl	69.5	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	70.8	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	73.4	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	75.0	P	30 - 101
EPA 8276	PCNB	93.1	P	48 - 121

Lab Sample ID: 2417541
Field Sample ID: 20030792

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	102	P	30 - 160
EPA 8321B	Acetaminophen-d4	60.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	57.6	P	30 - 160
EPA 8321B	Diuron-d6	47.6	P	30 - 160
EPA 8321B	Endothall-d6	99.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	35.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	69.6	P	30 - 160
EPA 8321B	Primidone-d5	80.7	P	30 - 160
EPA 8321B	Sucralose-d6	157	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A119831

Included Lab Sample IDs: 2417496, 2417498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.2	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A119833

Included Lab Sample IDs: 2417496, 2417498

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

Reference Method: EPA 8321B

Run ID: A119868

Included Lab Sample IDs: 2417541

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	141	145	P/P	60 - 160
Sucralose	129	128	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A119875

Included Lab Sample IDs: 2417541

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	104	101	P/P	60 - 160
Endothall	95.4	92.6	P/P	60 - 160
Glufosinate	90.8	90.1	P/P	60 - 160
Glyphosate	109	101	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A119884

Included Lab Sample IDs: 2417497, 2417499

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119899

Included Lab Sample IDs: 2417542

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.0	98.7	P/P	90 - 110
Antimony	99.3	98.5	P/P	90 - 110
Arsenic	99.4	99.5	P/P	90 - 110
Barium	98.1	98.8	P/P	90 - 110
Beryllium	98.1	95.8	P/P	90 - 110
Boron	100	101	P/P	90 - 110
Cadmium	99.1	98.8	P/P	90 - 110
Chromium	97.4	97.7	P/P	90 - 110
Cobalt	99.8	100	P/P	90 - 110
Copper	99.3	98.9	P/P	90 - 110
Lead	94.1	93.3	P/P	90 - 110
Manganese	98.5	98.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119899

Included Lab Sample IDs: 2417542

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Molybdenum	98.6	97.8	P/P	90 - 110
Nickel	99.4	99.3	P/P	90 - 110
Selenium	99.0	97.3	P/P	90 - 110
Silver	102	103	P/P	90 - 110
Thallium	101	101	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A119900

Included Lab Sample IDs: 2417541

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	104	93.5	P/P	50 - 150
2,4,5-T	96.7	91.9	P/P	50 - 150
Acetaminophen	75.8	73.3	P/P	60 - 160
Acetamiprid	106	95.3	P/P	50 - 150
Afidopyropen	77.7	109	P/P	50 - 150
Bentazon	159	142	P/P	50 - 160
Benzovindiflupyr	88.5	101	P/P	50 - 150
Carbamazepine	90.6	105	P/P	60 - 150
Clothianidin	86.5	99.9	P/P	60 - 150
Dinotefuran	107	104	P/P	50 - 150
Diuron	125	126	P/P	60 - 160
Fenuron	113	98.3	P/P	60 - 150
Fluridone	98.8	97.4	P/P	60 - 160
Hydrocodone	113	100	P/P	60 - 150
Ibuprofen	78.8	132	P/P	50 - 160
Imazapyr	105	104	P/P	50 - 150
Imidacloprid	98.1	90.5	P/P	60 - 150
Linuron	110	105	P/P	60 - 150
Mandestrobin	113	101	P/P	50 - 150
MCPP	99.6	89.8	P/P	50 - 150
Naproxen	68.2	67.8	P/P	50 - 160
Primidone	110	95.5	P/P	60 - 150
Pyraclostrobin	129	105	P/P	60 - 150
Silvex	113	111	P/P	50 - 150
Thiamethoxam	96.5	94.2	P/P	50 - 150
Tolfenpyrad	102	102	P/P	60 - 150
Triclopyr	83.7	99.3	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A119925

Included Lab Sample IDs: 2417497, 2417499

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	98.4	P/P	90 - 110
Ammonia-N	99.1	98.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A119927

Included Lab Sample IDs: 2417496, 2417498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.8	100	P/P	90 - 110
Sulfate	99.1	99.6	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A119936

Included Lab Sample IDs: 2417527, 2417528

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	89.8		P	80 - 120
PCB-1260	105		P	80 - 120

Reference Method: SM 2320 B-2011

Run ID: A119941

Included Lab Sample IDs: 2417496, 2417498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.1	98.4	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A119941

Included Lab Sample IDs: 2417496, 2417498

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

Reference Method: SM 5310 B-2011

Run ID: A119942

Included Lab Sample IDs: 2417497, 2417499

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.0	96.8	P/P	90 - 110
Organic Carbon	96.8	96.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A119972

Included Lab Sample IDs: 2417497

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	95.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A119996

Included Lab Sample IDs: 2417497, 2417499

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	103	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A120024

Included Lab Sample IDs: 2417527, 2417528

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	103		P	80 - 120
Alpha-BHC	108		P	80 - 120
Alpha-Chlordane	112		P	80 - 120
Beta-BHC	116		P	80 - 120
Beta-Cyfluthrin	88.9		P	80 - 120
Bifenthrin	97.9		P	80 - 120
Chlorothalonil	105		P	80 - 120
Cis-Nonachlor	115		P	80 - 120
Cypermethrin	98.9		P	80 - 120
Dacthal	96.7		P	80 - 120
DDD-p,p'	107		P	80 - 120
DDE-p,p'	103		P	80 - 120
DDT-p,p'	97.6		P	80 - 120
Delta-BHC	110		P	80 - 120
Deltamethrin	90.7		P	80 - 120
Dichlobenil	109		P	80 - 120
Dicofol	93.0		P	80 - 120
Dieldrin	97.6		P	80 - 120
Endosulfan I	105		P	80 - 120
Endosulfan II	108		P	80 - 120
Endosulfan Sulfate	98.5		P	80 - 120
Endrin	108		P	80 - 120
Endrin Aldehyde	116		P	80 - 120
Endrin Ketone	108		P	80 - 120
Esfenvalerate	93.4		P	80 - 120
Ethalfuralin	97.5		P	80 - 120
Fenpropathrin	97.7		P	80 - 120
Gamma-BHC	106		P	80 - 120
Gamma-Chlordane	113		P	80 - 120
Heptachlor	99.6		P	80 - 120
Heptachlor Epoxide	120		P	80 - 120
Hexachlorobenzene	111		P	80 - 120
Kepone	93.3		P	80 - 120
Lambda-Cyhalothrin	114		P	80 - 120
Methoprene	102		P	80 - 120
Methoxychlor	102		P	80 - 120
MGK-264	94.1		P	80 - 120
Mirex	114		P	80 - 120
Oxychlordane	102		P	80 - 120
Permethrin	94.6		P	80 - 120
Phenothrin	103		P	80 - 120
Piperonyl Butoxide	94.2		P	80 - 120
Prallethrin	111		P	80 - 120
Tau-Fluvalinate	83.9		P	80 - 120
Tetramethrin	99.4		P	80 - 120
Trans-Nonachlor	107		P	80 - 120
Triclosan Methyl	118		P	80 - 120
Trifluralin	97.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A120025
Included Lab Sample IDs: 2417528

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dichlobenil	107		P	80 - 120

Reference Method: EPA 8276
Run ID: A120026
Included Lab Sample IDs: 2417527, 2417528

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	95.6		P	80 - 120
Toxaphene	99.2		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A120038
Included Lab Sample IDs: 2417499

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	91.6	102	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A120063
Included Lab Sample IDs: 2417542

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	103	101	P/P	90 - 110
Iron	103	102	P/P	90 - 110
Magnesium	103	102	P/P	90 - 110
Potassium	103	101	P/P	90 - 110
Sodium	104	103	P/P	90 - 110
Strontium	107	104	P/P	90 - 110
Tin	105	104	P/P	90 - 110
Titanium	100	99.4	P/P	90 - 110
Vanadium	104	101	P/P	90 - 110
Zinc	104	104	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	98.8				2.11	
EPA 180.1 Rev. 2.0	Turbidity	98.4				4.05	
EPA 200.7 Rev. 4.4	Calcium	107	104	108			0.537
	Iron	110	108	107	110		0.606
	Magnesium	110	106	105	110		0.780
	Potassium	107	105	104	107		0.195
	Sodium	106	109	109	112		0.421
	Strontium	108	106	106	108		0.0044
	Tin	108	109	109	106		0.265
	Titanium	107	102	105	106		2.04
	Vanadium	107	107	108	109		0.921
	Zinc	110	106	106	109		0.222
EPA 200.8 Rev. 5.4	Aluminum	99.9	97.7	98.2	99.6		0.371
	Antimony	100	101	102	101		1.22
	Arsenic	101	101	101	100		0.866
	Barium	102	103	105	105		0.755
	Beryllium	94.6	92.9	94.6	94.1		1.48
	Boron	103	103	105	106		1.23
	Cadmium	99.5	100	102	99.2		1.24
	Chromium	97.4	94.8	95.0	96.6		0.154
	Cobalt	101	98.6	99.7	101		1.13
	Copper	102	101	102	102		0.741
	Lead	95.3	95.1	95.4	96.3		0.328
	Manganese	98.1	94.9	96.2	96.7		1.05
	Molybdenum	98.4	100	102	97.9		1.28
	Nickel	102	97.4	98.6	102		1.12
	Selenium	102	98.8	99.6	99.3		0.832
	Silver	104	103	106	104		2.13
	Thallium	102	103	104	103		0.793
EPA 300.0 Rev. 2.1	Chloride	99.9	99.0	99.8		0.711	
	Sulfate	97.6	93.1	95.8		0.457	
EPA 350.1 Rev. 2.0	Ammonia-N	96.8	100	100			0.0
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.3	104	106			1.38
	Kjeldahl Nitrogen	101	105	106			0.572
EPA 353.2 Rev. 2.0	NO2NO3-N	105	100	101			0.249
EPA 365.1 Rev. 2.0	Total-P	101	99.8	97.3			2.44
EPA 8270E	Aldrin	44.0	53.3	51.3			3.82
	Alpha-BHC	75.4	97.0	87.4			10.4
	Alpha-Chlordane	60.4	75.0	53.6			30.2
	Beta-BHC	82.7	103	92.2			11.4
	Beta-Cyfluthrin	66.9	79.7	66.2			18.6
	Bifenthrin	62.4	108	80.4			29.2
	Chlorothalonil	91.0	193	132			37.7
	Cis-Nonachlor	50.6	72.1	66.3			8.40
	Cypermethrin	66.2	83.1	66.0			23.0
	Dacthal	70.3	116	90.7			24.3
	DDD-p,p'	62.5	106	85.6			20.9
	DDE-p,p'	60.8	102	75.1			30.3
	DDT-p,p'	61.4	70.4	60.0			16.0
	Delta-BHC	96.8	143	105			31.3
	Deltamethrin	82.8	110	103			6.79
	Dichlobenil	73.5	39.1	45.6			15.2
	Dicofol	62.5	84.2	73.9			13.1
	Dieldrin	57.1	75.8	67.2			12.1

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Endosulfan I	62.8	80.5	72.8			10.1
	Endosulfan II	55.3	61.1	59.6			2.46
	Endosulfan Sulfate	57.7	77.2	59.9			25.2
	Endrin	57.6	66.9	64.9			3.06
	Endrin Aldehyde	59.3	87.5	64.6			30.1
	Endrin Ketone	77.3	77.9	68.5			12.9
	Esfenvalerate	91.8	118	128			8.39
	Ethalfuralin	59.6	62.8	62.9			0.0547
	Fenpropathrin	61.3	74.0	65.4			12.3
	Gamma-BHC	80.4	115	91.4			23.0
	Gamma-Chlordane	63.0	64.3	46.1			29.6
	Heptachlor	53.4	56.9	56.4			0.808
	Heptachlor Epoxide	77.2	76.9	67.8			12.6
	Hexachlorobenzene	51.9	81.0	57.8			33.6
	Kepone	53.5	93.4	54.8			52.1
	Lambda-Cyhalothrin	79.9	190	155			20.4
	Methoprene	42.6	47.4	41.9			12.4
	Methoxychlor	69.5	83.0	75.2			9.94
	MGK-264	49.2	57.9	55.7			3.83
	Mirex	59.2	86.7	68.8			23.0
	Oxychlordane	53.2	47.8	47.4			0.863
	PCB-1016	71.3	92.2	104			11.7
	PCB-1260	65.5	83.8	106			23.7
	Permethrin	60.2	75.7	79.4			4.69
	Phenothrin	79.0	115	107			6.97
	Piperonyl Butoxide	75.7	113	105			7.22
	Prallethrin	52.9	45.2	44.4			1.67
	Tau-Fluvalinate	76.3	148	138			6.75
	Tetramethrin	67.7	83.3	72.4			13.9
	Trans-Nonachlor	56.2	71.5	45.6			44.3
	Triclosan Methyl	69.8	81.1	69.3			15.7
	Trifluralin	66.4	54.2	56.2			3.71
EPA 8276	Chlordane	59.2	47.4	42.8			10.3
	Toxaphene	64.1	58.9	59.9			1.57
EPA 8321B	2,4-D	106	108	100			7.28
	2,4,5-T	94.0	110	91.1			19.1
	Acesulfame K	146	135	135			0.395
	Acetaminophen	49.1	51.3	49.6			3.29
	Acetamiprid	79.2	86.8	67.5			24.9
	Afidopyropen	62.2	54.5	70.5			25.5
	AMPA	81.6	74.7	71.7			4.02
	Bentazon	110	104	110			5.26
	Benzovindiflupyr	64.4	94.4	85.9			9.51
	Carbamazepine	67.4	85.8	73.3			15.8
	Clothianidin	84.1	91.3	96.8			5.86
	Dinotefuran	86.0	95.1	89.8			5.66
	Diuron	51.7	46.7	74.1			45.4
	Endothall	97.0	101	102			0.867
	Fenuron	72.2	73.4	70.7			3.80
	Fluridone	73.1	73.8	73.5			0.429
	Glufosinate	102	92.8	94.6			1.92
	Glyphosate	107	90.5	92.4			2.11
	Hydrocodone	86.2	82.8	84.7			2.30
	Ibuprofen	85.3	64.3	79.9			21.7

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision SMP	MS
EPA 8321B	Imazapyr	88.9	113	107			5.47
	Imidacloprid	79.6	98.8	126			22.2
	Linuron	82.7	63.6	65.4			2.75
	Mandestrobin	78.8	91.3	87.2			4.60
	MCPP	95.8	112	105			6.42
	Naproxen	70.7	75.3	67.2			11.3
	Primidone	77.1	90.0	68.7			26.8
	Pyraclostrobin	87.0	89.3	89.7			0.421
	Silvex	96.2	109	97.2			11.1
	Sucralose	120	124	123			0.971
	Thiamethoxam	83.2	98.5	102			3.19
	Tolfenpyrad	60.4	56.0	54.2			3.28
	Triclopyr	93.5	121	96.7			22.2
SM 2320 B-2011	Total Alkalinity	97.3				1.34	
SM 2540 C-2015	TDS	96.6				2.04	
SM 2540 D-2015	TSS	95.8					
SM 4500-F- C-2011	Fluoride	102	101	101			0.476
SM 5310 B-2011	Organic Carbon	95.2	96.5				

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2417496, 2417498
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2417496, 2417498
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2417542
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2417542
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2417496, 2417498
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2417496, 2417498
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2417497, 2417499
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2417497, 2417499
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2417497, 2417499
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2417497, 2417499
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2417527, 2417528
EPA 8270E	PCBs in water matrices by GC/MS/MS	2417527, 2417528
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2417527, 2417528
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2417541
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2417496, 2417498
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2417542
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2417496, 2417498
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2417496, 2417498
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2417496, 2417498
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2417497, 2417499

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	06/15/2023			06/15/2023 14:41	Chandler E Cox	2417496
	06/15/2023			06/15/2023 14:42	Chandler E Cox	2417498
EPA 180.1 Rev. 2.0	06/15/2023			06/15/2023 13:11	Alexis Price	2417496
	06/15/2023			06/15/2023 13:12	Alexis Price	2417498
EPA 200.7 Rev. 4.4	06/15/2023	06/16/2023 11:55	George D Taylor	06/27/2023 19:37	Samatha Luckman	2417542
EPA 200.8 Rev. 5.4	06/15/2023	06/16/2023 11:55	George D Taylor	06/19/2023 21:24	Emily M Philpot	2417542
EPA 300.0 Rev. 2.1	06/15/2023			06/21/2023 12:30	James L Waggeberby	2417496
	06/15/2023			06/21/2023 15:16	James L Waggeberby	2417498
EPA 350.1 Rev. 2.0	06/15/2023			06/20/2023 15:12	Khloe J Berg	2417497
	06/15/2023			06/20/2023 16:18	Khloe J Berg	2417499
EPA 351.2 Rev. 2.0	06/15/2023	06/21/2023 10:13	Samantha L Bates	06/22/2023 13:48	Samantha L Bates	2417497
	06/15/2023	06/23/2023 09:33	Dana G. Hughes	06/26/2023 14:59	Ping Hua	2417499
EPA 353.2 Rev. 2.0	06/15/2023			06/23/2023 11:31	Beverly Y. Sanders	2417497
	06/15/2023			06/23/2023 11:37	Beverly Y. Sanders	2417499
EPA 365.1 Rev. 2.0	06/15/2023	06/16/2023 15:00	Alexis Price	06/19/2023 12:04	Chandler E Cox	2417497
	06/15/2023	06/16/2023 15:00	Alexis Price	06/19/2023 12:05	Chandler E Cox	2417499
EPA 8270E	06/15/2023	06/16/2023 08:00	Fe-Val Siddell	06/21/2023 01:16	Michael Poppell	2417527
	06/15/2023	06/16/2023 08:00	Fe-Val Siddell	06/21/2023 01:48	Michael Poppell	2417528
	06/15/2023	06/16/2023 08:00	Fe-Val Siddell	06/21/2023 01:49	Lipi Saha	2417527
	06/15/2023	06/16/2023 08:00	Fe-Val Siddell	06/21/2023 02:19	Lipi Saha	2417528
	06/15/2023	06/16/2023 08:00	Fe-Val Siddell	06/24/2023 01:05	Michael Poppell	2417528
EPA 8276	06/15/2023	06/16/2023 08:00	Fe-Val Siddell	06/23/2023 04:48	Lipi Saha	2417527
	06/15/2023	06/16/2023 08:00	Fe-Val Siddell	06/23/2023 05:46	Lipi Saha	2417528
EPA 8321B	06/15/2023	06/16/2023 12:00	Touraj Touran	06/16/2023 14:51	Touraj Touran	2417541
	06/15/2023	06/16/2023 12:00	Touraj Touran	06/18/2023 18:43	Touraj Touran	2417541
	06/15/2023	06/19/2023 09:00	Hoor Shaik	06/20/2023 20:49	Juyoung Kim	2417541
SM 2320 B-2011	06/15/2023			06/21/2023 07:21	Dale L. Simmons	2417496
	06/15/2023			06/21/2023 07:35	Dale L. Simmons	2417498
SM 2340 B-2011	06/15/2023			06/27/2023 19:37	Samatha Luckman	2417542
SM 2540 C-2015	06/15/2023			06/19/2023 14:50	Dana G. Hughes	2417496, 2417498
SM 2540 D-2015	06/15/2023			06/19/2023 14:50	Dana G. Hughes	2417496, 2417498
SM 4500-F- C-2011	06/15/2023			06/21/2023 07:21	Dale L. Simmons	2417496
	06/15/2023			06/21/2023 07:35	Dale L. Simmons	2417498
SM 5310 B-2011	06/15/2023			06/20/2023 12:28	Elise M. Gillis	2417497
	06/15/2023			06/20/2023 13:12	Elise M. Gillis	2417499