

Chemical Analysis Report

NW-DIST-2023-03-21-04

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

Event Description: **Pensacola Run**
Request ID: **RQ-2023-03-20-16**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 12-APR-2023 11:58



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: CARPENTERS CR DAVIS HIGHWAY BR

Collection Date/Time: 03/20/2023 12:50

Field ID: G4NW0036

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2395362	EPA 8270E	Aldrin	0.67	U	ng/L	P427431	MS
		Alpha-BHC	0.10	U	ng/L	P427431	
		Alpha-Chlordane	0.21	U	ng/L	P427431	
		PCB-1016	2.1	UQ	ng/L	P428001	
		Beta-BHC	0.10	U	ng/L	P427431	
		PCB-1221	2.1	UQ	ng/L	P428001	
		Beta-Cyfluthrin	1.3	U	ng/L	P427431	
		PCB-1232	2.1	UQ	ng/L	P428001	
		Bifenthrin	0.52	U	ng/L	P427431	
		PCB-1242	2.1	UQ	ng/L	P428001	
		PCB-1248	2.1	UQ	ng/L	P428001	
		Chlorothalonil	3.7	U	ng/L	P427431	
		PCB-1254	2.1	UQ	ng/L	P428001	
		Cis-Nonachlor	0.21	U	ng/L	P427431	
		PCB-1260	2.1	UQ	ng/L	P428001	
		Cypermethrin	1.5	U	ng/L	P427431	
		Dacthal	0.15	U	ng/L	P427431	
		DDD-p,p'	0.26	U	ng/L	P427431	
		DDE-p,p'	0.21	U	ng/L	P427431	
		DDT-p,p'	0.26	U	ng/L	P427431	
		Delta-BHC	0.41	U	ng/L	P427431	
		Deltamethrin	1.3	U	ng/L	P427431	
		Dichlobenil	0.26	U	ng/L	P427431	
		Dicofol	1.3	U	ng/L	P427431	
		Dieldrin	0.79	I	ng/L	P427431	
		Endosulfan I	0.41	U	ng/L	P427431	
		Endosulfan II	0.41	U	ng/L	P427431	
		Endosulfan Sulfate	0.31	U	ng/L	P427431	
		Endrin	0.41	U	ng/L	P427431	
		Endrin Aldehyde	0.77	U	ng/L	P427431	
		Endrin Ketone	0.41	U	ng/L	P427431	
		Esfenvalerate	0.77	U	ng/L	P427431	
		Ethalfuralin	0.15	U	ng/L	P427431	
		Fenpropathrin	0.26	U	ng/L	P427431	
		Gamma-BHC	0.13	U	ng/L	P427431	
		Gamma-Chlordane	0.21	U	ng/L	P427431	
		Heptachlor	0.21	U	ng/L	P427431	
		Heptachlor Epoxide	0.46	I	ng/L	P427431	
		Hexachlorobenzene**	1.0	U	ng/L	P427431	
		Kepone	5.2	UJ	ng/L	P427431	CCV
		Lambda-Cyhalothrin	0.77	U	ng/L	P427431	
		Methoprene	0.77	U	ng/L	P427431	
		Methoxychlor	0.31	U	ng/L	P427431	
		MGK-264	0.21	U	ng/L	P427431	

Field ID: G4NW0036

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2395362	EPA 8270E	Mirex	0.36	U	ng/L	P427431	
		Oxychlorane	0.31	U	ng/L	P427431	
		Permethrin	1.7	U	ng/L	P427431	
		Phenothrin	0.93	U	ng/L	P427431	
		Piperonyl Butoxide	0.15	U	ng/L	P427431	
		Prallethrin	2.1	U	ng/L	P427431	
		Tau-Fluvalinate	0.26	U	ng/L	P427431	
		Tetramethrin	0.77	U	ng/L	P427431	
		Trans-Nonachlor	0.21	U	ng/L	P427431	
		Triclosan Methyl	0.15	U	ng/L	P427431	
		Trifluralin	0.21	U	ng/L	P427431	
	EPA 8276	Chlordane	2.1	U	ng/L	P427431	
		Toxaphene	15	U	ng/L	P427431	

Ref. Method and Comment:

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

EPA 8270E: Insufficient sample available to perform matrix spikes. Sample expired for preparation due to need for re-extraction.

Sample Location: Marcus Creek @ Millview Road (SR173)

Collection Date/Time: 03/20/2023 10:40

Field ID: G5NW0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2395309	DEP SOP: NU-094-1	Color (true)	26		PCU	P427413	
	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P427424	
	EPA 300.0 Rev. 2.1	Chloride	9.1		mg Cl/L	P427856	
		Sulfate	4.0		mg SO4/L	P427859	
	SM 2320 B-2011	Total Alkalinity	14		mg CaCO3/L	P427600	
	SM 2540 C-2015	TDS	50		mg/L	P428162	
	SM 2540 D-2015	TSS	2	U	mg/L	P427911	
2395311	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P427605	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.041		mg N/L	P427573	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.19	I	mg N/L	P428038	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.52		mg N/L	P427815	
	EPA 365.1 Rev. 2.0	Total-P	0.013		mg P/L	P427534	
2395359	SM 5310 B-2011	Organic Carbon	2.6		mg C/L	P427829	
	EPA 8270E	Aldrin	0.67	U	ng/L	P427431	
		Alpha-BHC	0.10	U	ng/L	P427431	MS
		Alpha-Chlordane	0.21	I	ng/L	P427431	
		PCB-1016	2.1	UQ	ng/L	P428001	
		Beta-BHC	0.10	U	ng/L	P427431	
		PCB-1221	2.1	UQ	ng/L	P428001	
		Beta-Cyfluthrin	1.3	U	ng/L	P427431	
		PCB-1232	2.1	UQ	ng/L	P428001	
		Bifenthrin	0.52	U	ng/L	P427431	
		PCB-1242	2.1	UQ	ng/L	P428001	
		PCB-1248	2.1	UQ	ng/L	P428001	
		Chlorothalonil	3.7	U	ng/L	P427431	
		PCB-1254	2.1	UQ	ng/L	P428001	
		Cis-Nonachlor	0.21	U	ng/L	P427431	
		PCB-1260	2.1	UQ	ng/L	P428001	
		Cypermethrin	1.5	U	ng/L	P427431	
		Dacthal	0.15	U	ng/L	P427431	
		DDD-p,p'	0.26	U	ng/L	P427431	
		DDE-p,p'	0.23	I	ng/L	P427431	
		DDT-p,p'	0.26	U	ng/L	P427431	
		Delta-BHC	0.41	U	ng/L	P427431	
		Deltamethrin	1.3	U	ng/L	P427431	
		Dichlobenil	0.26	U	ng/L	P427431	
		Dicofol	1.3	U	ng/L	P427431	
		Diieldrin	1.8	I	ng/L	P427431	
		Endosulfan I	0.41	U	ng/L	P427431	
		Endosulfan II	0.41	U	ng/L	P427431	
		Endosulfan Sulfate	0.31	U	ng/L	P427431	
		Endrin	0.41	U	ng/L	P427431	
		Endrin Aldehyde	0.77	U	ng/L	P427431	
		Endrin Ketone	0.41	U	ng/L	P427431	

Field ID: G5NW0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2395359	EPA 8270E	Esfenvalerate	0.77	U	ng/L	P427431	CCV
		Ethalfuralin	0.15	U	ng/L	P427431	
		Fenpropathrin	0.26	U	ng/L	P427431	
		Gamma-BHC	0.13	U	ng/L	P427431	
		Gamma-Chlordane	0.21	U	ng/L	P427431	
		Heptachlor	0.21	U	ng/L	P427431	
		Heptachlor Epoxide	1.1	I	ng/L	P427431	
		Hexachlorobenzene**	1.0	U	ng/L	P427431	
		Kepone	5.2	UJ	ng/L	P427431	
		Lambda-Cyhalothrin	0.77	U	ng/L	P427431	
		Methoprene	0.77	U	ng/L	P427431	
		Methoxychlor	0.31	U	ng/L	P427431	
		MGK-264	0.21	U	ng/L	P427431	
		Mirex	0.36	U	ng/L	P427431	
		Oxychlordane	0.31	U	ng/L	P427431	
		Permethrin	1.6	U	ng/L	P427431	
		Phenothrin	0.93	U	ng/L	P427431	
		Piperonyl Butoxide	0.57	I	ng/L	P427431	
		Prallethrin	2.1	U	ng/L	P427431	
		Tau-Fluvalinate	0.26	U	ng/L	P427431	
		Tetramethrin	0.77	U	ng/L	P427431	
		Trans-Nonachlor	0.21	U	ng/L	P427431	
		Triclosan Methyl	0.15	U	ng/L	P427431	
		Trifluralin	0.21	U	ng/L	P427431	
		Chlordane	2.2	I	ng/L	P427431	
		Toxaphene	15	U	ng/L	P427431	
2395366	EPA 200.7 Rev. 4.4	Calcium	5.50		mg/L	P427550	
		Iron	600		ug/L	P427550	
		Magnesium	1.82		mg/L	P427550	
		Potassium	1.1	I	mg/L	P427550	
		Sodium	5.8		mg/L	P427550	
		Strontium	25.0		ug/L	P427550	
		Tin	3.0	U	ug/L	P427550	
		Titanium	0.75	U	ug/L	P427550	
		Vanadium	2.0	U	ug/L	P427550	
		Zinc	5.0	U	ug/L	P427550	
	EPA 200.8 Rev. 5.4	Aluminum	44		ug/L	P427550	
		Antimony	0.050	U	ug/L	P427550	
		Arsenic	0.37		ug/L	P427550	
		Barium	22.0		ug/L	P427550	
		Beryllium	0.010	U	ug/L	P427550	
		Boron	33.1		ug/L	P427550	
		Cadmium	0.020	U	ug/L	P427550	
		Chromium	0.40	U	ug/L	P427550	
		Cobalt	0.137		ug/L	P427550	

Field ID: G5NW0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2395366	EPA 200.8 Rev. 5.4	Copper	0.40	U	ug/L	P427550	
		Lead	0.40		ug/L	P427550	
		Manganese	28.1		ug/L	P427550	
		Molybdenum	0.15	U	ug/L	P427550	
		Nickel	0.50	U	ug/L	P427550	
		Selenium	0.20	U	ug/L	P427550	
		Silver	0.010	U	ug/L	P427550	
		Thallium	0.10	U	ug/L	P427550	
	SM 2340 B-2011	Hardness	21.3		mg/L	P427550	

Ref. Method and Comment:
 EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
 SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
 EPA 365.1 Rev. 2.0: Total-P: 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.
 EPA 8270E: Insufficient sample available to perform matrix spikes. Sample expired for preparation due to need for re-extraction.

Sample Location: Carpenter Creek below Target Stormwater Pond

Collection Date/Time: 03/20/2023 13:25

Field ID: G4NW0244

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2395363	EPA 8270E	Aldrin	0.66	U	ng/L	P427431	MS
		Alpha-BHC	0.10	U	ng/L	P427431	
		Alpha-Chlordane	0.38	I	ng/L	P427431	
		PCB-1016	2.1	UQ	ng/L	P428001	
		Beta-BHC	0.10	U	ng/L	P427431	
		PCB-1221	2.1	UQ	ng/L	P428001	
		Beta-Cyfluthrin	1.3	U	ng/L	P427431	
		PCB-1232	2.1	UQ	ng/L	P428001	
		Bifenthrin	0.51	U	ng/L	P427431	
		PCB-1242	2.1	UQ	ng/L	P428001	
		PCB-1248	2.1	UQ	ng/L	P428001	
		Chlorothalonil	3.7	U	ng/L	P427431	
		PCB-1254	2.1	UQ	ng/L	P428001	
		Cis-Nonachlor	0.20	U	ng/L	P427431	
		PCB-1260	2.1	UQ	ng/L	P428001	
		Cypermethrin	1.5	U	ng/L	P427431	
		Dacthal	0.15	U	ng/L	P427431	
		DDD-p,p'	0.26	U	ng/L	P427431	
		DDE-p,p'	0.20	U	ng/L	P427431	
		DDT-p,p'	0.26	U	ng/L	P427431	
		Delta-BHC	0.41	U	ng/L	P427431	
		Deltamethrin	1.3	U	ng/L	P427431	
		Dichlobenil	0.26	U	ng/L	P427431	
		Dicofol	1.3	U	ng/L	P427431	
		Dieldrin	5.0		ng/L	P427431	
		Endosulfan I	0.41	U	ng/L	P427431	
		Endosulfan II	0.41	U	ng/L	P427431	
		Endosulfan Sulfate	0.31	U	ng/L	P427431	
		Endrin	0.41	U	ng/L	P427431	
		Endrin Aldehyde	0.77	U	ng/L	P427431	
		Endrin Ketone	0.41	U	ng/L	P427431	
		Esfenvalerate	0.77	U	ng/L	P427431	
		Ethalfuralin	0.15	U	ng/L	P427431	
		Fenpropathrin	0.26	U	ng/L	P427431	
		Gamma-BHC	0.13	U	ng/L	P427431	
		Gamma-Chlordane	0.32	I	ng/L	P427431	
		Heptachlor	0.20	U	ng/L	P427431	
		Heptachlor Epoxide	3.1		ng/L	P427431	
		Hexachlorobenzene**	1.0	U	ng/L	P427431	
		Kepone	5.1	UJ	ng/L	P427431	CCV
		Lambda-Cyhalothrin	0.77	U	ng/L	P427431	
		Methoprene	0.77	U	ng/L	P427431	
		Methoxychlor	0.31	U	ng/L	P427431	

Field ID: G4NW0244

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2395363	EPA 8270E	MGK-264	0.20	U	ng/L	P427431	
		Mirex	0.36	U	ng/L	P427431	
		Oxychlordane	0.31	U	ng/L	P427431	
		Permethrin	1.6	U	ng/L	P427431	
		Phenothrin	0.92	U	ng/L	P427431	
		Piperonyl Butoxide	0.15	U	ng/L	P427431	
		Prallethrin	2.0	U	ng/L	P427431	
		Tau-Fluvalinate	0.26	U	ng/L	P427431	
		Tetramethrin	0.77	U	ng/L	P427431	
		Trans-Nonachlor	0.20	U	ng/L	P427431	
		Triclosan Methyl	0.15	U	ng/L	P427431	
		Trifluralin	0.20	U	ng/L	P427431	
	EPA 8276	Chlordane	3.5	I	ng/L	P427431	
		Toxaphene	15	U	ng/L	P427431	

Ref. Method and Comment:

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

EPA 8270E: Insufficient sample available to perform matrix spikes. Sample expired for preparation due to need for re-extraction.

Sample Location: Marcus Creek upstream of Marcus Pointe Blvd Collection Date/Time: 03/20/2023 12:20

Field ID: G4NW0179

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2395313	DEP SOP: NU-094-1	Color (true)	19		PCU	P427413	
	EPA 180.1 Rev. 2.0	Turbidity	2.6	A	NTU	P427424	
	EPA 300.0 Rev. 2.1	Chloride	7.5		mg Cl/L	P427856	
		Sulfate	3.4		mg SO4/L	P427859	
	SM 2320 B-2011	Total Alkalinity	51		mg CaCO3/L	P427600	
	SM 2540 C-2015	TDS	72		mg/L	P428163	
	SM 2540 D-2015	TSS	2	U	mg/L	P427912	
	SM 4500-F- C-2011	Fluoride	0.028	I	mg F/L	P427605	
2395314	EPA 350.1 Rev. 2.0	Ammonia-N	0.01		mg N/L	P427573	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.12	I	mg N/L	P428038	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.21		mg N/L	P427815	
	EPA 365.1 Rev. 2.0	Total-P	0.005		mg P/L	P427534	
	SM 5310 B-2011	Organic Carbon	3.1		mg C/L	P427829	
2395368	EPA 200.7 Rev. 4.4	Calcium	15.4		mg/L	P427550	
		Iron	480		ug/L	P427550	
		Magnesium	3.21		mg/L	P427550	
		Potassium	3.8		mg/L	P427550	
		Sodium	5.9		mg/L	P427550	
		Strontium	61.9		ug/L	P427550	
		Tin	3.0	U	ug/L	P427550	
		Titanium	0.75	U	ug/L	P427550	
		Vanadium	2.0	U	ug/L	P427550	
		Zinc	5.0	U	ug/L	P427550	
	EPA 200.8 Rev. 5.4	Aluminum	12	I	ug/L	P427550	
		Antimony	0.050	U	ug/L	P427550	
		Arsenic	0.20	I	ug/L	P427550	
		Barium	19.0		ug/L	P427550	
		Beryllium	0.010	U	ug/L	P427550	
		Boron	105		ug/L	P427550	
		Cadmium	0.020	U	ug/L	P427550	
		Chromium	0.40	U	ug/L	P427550	
		Cobalt	0.077	I	ug/L	P427550	
		Copper	0.40	U	ug/L	P427550	
		Lead	0.20	U	ug/L	P427550	
		Manganese	39.3		ug/L	P427550	
		Molybdenum	0.15	U	ug/L	P427550	
		Nickel	0.50	U	ug/L	P427550	
		Selenium	0.20	U	ug/L	P427550	
		Silver	0.010	U	ug/L	P427550	
		Thallium	0.10	U	ug/L	P427550	
		Hardness	51.7		mg/L	P427550	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Bayou Marcus Creek upstream of Mobile Hwy Bridge

Collection Date/Time: 03/20/2023 11:30

Field ID: G5NW0156

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2395310	DEP SOP: NU-094-1	Color (true)	21		PCU	P427413	
	EPA 180.1 Rev. 2.0	Turbidity	2.1		NTU	P427424	
	EPA 300.0 Rev. 2.1	Chloride	8.8		mg Cl/L	P427856	
		Sulfate	4.3		mg SO4/L	P427859	
	SM 2320 B-2011	Total Alkalinity	17		mg CaCO3/L	P427600	
	SM 2540 C-2015	TDS	42		mg/L	P428162	
	SM 2540 D-2015	TSS	2	U	mg/L	P427911	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P427605	
2395312	EPA 350.1 Rev. 2.0	Ammonia-N	0.046		mg N/L	P427573	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.18	I	mg N/L	P428038	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.36		mg N/L	P427815	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P427534	
	SM 5310 B-2011	Organic Carbon	2.0		mg C/L	P427829	
2395360	EPA 8270E	Aldrin	0.68	U	ng/L	P427431	
		Alpha-BHC	0.10	U	ng/L	P427431	MS
		Alpha-Chlordane	0.21	U	ng/L	P427431	
		PCB-1016	2.1	UQ	ng/L	P428001	
		Beta-BHC	0.10	U	ng/L	P427431	
		PCB-1221	2.1	UQ	ng/L	P428001	
		Beta-Cyfluthrin	1.3	U	ng/L	P427431	
		PCB-1232	2.1	UQ	ng/L	P428001	
		Bifenthrin	0.52	U	ng/L	P427431	
		PCB-1242	2.1	UQ	ng/L	P428001	
		PCB-1248	2.1	UQ	ng/L	P428001	
		Chlorothalonil	3.8	U	ng/L	P427431	
		PCB-1254	2.1	UQ	ng/L	P428001	
		Cis-Nonachlor	0.21	U	ng/L	P427431	
		PCB-1260	2.1	UQ	ng/L	P428001	
		Cypermethrin	1.6	U	ng/L	P427431	
		Dacthal	0.16	U	ng/L	P427431	
		DDD-p,p'	0.26	U	ng/L	P427431	
		DDE-p,p'	0.21	U	ng/L	P427431	
		DDT-p,p'	0.26	U	ng/L	P427431	
		Delta-BHC	0.42	U	ng/L	P427431	
		Deltamethrin	1.3	U	ng/L	P427431	
		Dichlobenil	0.26	U	ng/L	P427431	
		Dicofol	1.3	U	ng/L	P427431	
		Dieldrin	2.7		ng/L	P427431	
		Endosulfan I	0.42	U	ng/L	P427431	
		Endosulfan II	0.42	U	ng/L	P427431	
		Endosulfan Sulfate	0.31	U	ng/L	P427431	
		Endrin	0.42	U	ng/L	P427431	
		Endrin Aldehyde	0.78	U	ng/L	P427431	

Field ID: G5NW0156

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes	
2395360	EPA 8270E	Endrin Ketone	0.42	U	ng/L	P427431	CCV	
		Esfenvalerate	0.78	U	ng/L	P427431		
		Ethalfuralin	0.16	U	ng/L	P427431		
		Fenpropathrin	0.26	U	ng/L	P427431		
		Gamma-BHC	0.13	U	ng/L	P427431		
		Gamma-Chlordane	0.24	I	ng/L	P427431		
		Heptachlor	0.21	U	ng/L	P427431		
		Heptachlor Epoxide	1.0	I	ng/L	P427431		
		Hexachlorobenzene**	1.0	U	ng/L	P427431		
		Kepone	5.2	UJ	ng/L	P427431		
		Lambda-Cyhalothrin	0.78	U	ng/L	P427431		
		Methoprene	0.78	U	ng/L	P427431		
		Methoxychlor	0.31	U	ng/L	P427431		
		MGK-264	0.21	U	ng/L	P427431		
		Mirex	0.36	U	ng/L	P427431		
		Oxychlordane	0.31	U	ng/L	P427431		
		Permethrin	1.7	U	ng/L	P427431		
		Phenothrin	0.94	U	ng/L	P427431		
		Piperonyl Butoxide	0.16	U	ng/L	P427431		
		Prallethrin	2.1	U	ng/L	P427431		
		Tau-Fluvalinate	0.26	U	ng/L	P427431		
		Tetramethrin	0.78	U	ng/L	P427431		
		Trans-Nonachlor	0.21	U	ng/L	P427431		
		Triclosan Methyl	0.16	U	ng/L	P427431		
		Trifluralin	0.21	U	ng/L	P427431		
	EPA 8276	Chlordane	2.1	I	ng/L	P427431		
		Toxaphene	16	U	ng/L	P427431		
	2395367	EPA 200.7 Rev. 4.4	Calcium	6.16		mg/L		P427550
			Iron	740		ug/L		P427550
			Magnesium	1.92		mg/L		P427550
Potassium			1.3		mg/L	P427550		
Sodium			5.5		mg/L	P427550		
Strontium			29.2		ug/L	P427550		
Tin			3.0	U	ug/L	P427550		
Titanium			0.79	I	ug/L	P427550		
Vanadium			2.0	U	ug/L	P427550		
Zinc			5.0	U	ug/L	P427550		
EPA 200.8 Rev. 5.4		Aluminum	51		ug/L	P427550		
		Antimony	0.050	U	ug/L	P427550		
		Arsenic	0.49		ug/L	P427550		
		Barium	23.1		ug/L	P427550		
		Beryllium	0.010	U	ug/L	P427550		
		Boron	38.4		ug/L	P427550		
		Cadmium	0.020	U	ug/L	P427550		
		Chromium	0.40	U	ug/L	P427550		

Field ID: G5NW0156

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2395367	EPA 200.8 Rev. 5.4	Cobalt	0.156		ug/L	P427550	
		Copper	0.40	U	ug/L	P427550	
		Lead	0.54		ug/L	P427550	
		Manganese	23.8		ug/L	P427550	
		Molybdenum	0.15	U	ug/L	P427550	
		Nickel	0.50	U	ug/L	P427550	
		Selenium	0.20	U	ug/L	P427550	
		Silver	0.010	U	ug/L	P427550	
		Thallium	0.10	U	ug/L	P427550	
	SM 2340 B-2011	Hardness	23.3		mg/L	P427550	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

EPA 365.1 Rev. 2.0: Total-P: 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.

EPA 8270E: Insufficient sample available to perform matrix spikes. Sample expired for preparation due to need for re-extraction.

EPA 200.8 Rev. 5.4: The lead result was confirmed in the undigested sample on 04/06/2023.

Sample Location: Jackson Creek downstream of Old Corry Rd. Collection Date/Time: 03/20/2023 10:15

Field ID: G4NW0412

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2395364	EPA 8270E	Aldrin	0.68	U	ng/L	P427431	MS
		Alpha-BHC	0.10	U	ng/L	P427431	
		Alpha-Chlordane	2.8		ng/L	P427431	
		PCB-1016	2.1	UQ	ng/L	P428001	
		Beta-BHC	0.10	U	ng/L	P427431	
		PCB-1221	2.1	UQ	ng/L	P428001	
		Beta-Cyfluthrin	1.3	U	ng/L	P427431	
		PCB-1232	2.1	UQ	ng/L	P428001	
		Bifenthrin	0.52	U	ng/L	P427431	
		PCB-1242	2.1	UQ	ng/L	P428001	
		PCB-1248	2.1	UQ	ng/L	P428001	
		Chlorothalonil	3.7	U	ng/L	P427431	
		PCB-1254	2.1	UQ	ng/L	P428001	
		Cis-Nonachlor	0.21	U	ng/L	P427431	
		PCB-1260	2.1	UQ	ng/L	P428001	
		Cypermethrin	1.6	U	ng/L	P427431	
		Dacthal	0.16	U	ng/L	P427431	
		DDD-p,p'	0.26	U	ng/L	P427431	
		DDE-p,p'	0.21	U	ng/L	P427431	
		DDT-p,p'	0.26	U	ng/L	P427431	
		Delta-BHC	0.42	U	ng/L	P427431	
		Deltamethrin	1.3	U	ng/L	P427431	
		Dichlobenil	0.26	U	ng/L	P427431	
		Dicofol	1.3	U	ng/L	P427431	
		Dieldrin	31		ng/L	P427431	
		Endosulfan I	0.42	U	ng/L	P427431	
		Endosulfan II	0.42	U	ng/L	P427431	
		Endosulfan Sulfate	0.31	U	ng/L	P427431	
		Endrin	0.42	U	ng/L	P427431	
		Endrin Aldehyde	0.78	U	ng/L	P427431	
		Endrin Ketone	0.63	I	ng/L	P427431	
		Esfenvalerate	0.78	U	ng/L	P427431	
		Ethalfuralin	0.16	U	ng/L	P427431	
		Fenpropathrin	0.26	U	ng/L	P427431	
		Gamma-BHC	0.13	U	ng/L	P427431	
		Gamma-Chlordane	1.7		ng/L	P427431	
		Heptachlor	0.21	U	ng/L	P427431	
		Heptachlor Epoxide	13		ng/L	P427431	
		Hexachlorobenzene**	1.0	U	ng/L	P427431	
		Kepone	5.2	UJ	ng/L	P427431	CCV
		Lambda-Cyhalothrin	0.78	U	ng/L	P427431	
		Methoprene	0.78	U	ng/L	P427431	
		Methoxychlor	0.31	U	ng/L	P427431	
		MGK-264	0.21	U	ng/L	P427431	

Field ID: G4NW0412

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2395364	EPA 8270E	Mirex	0.36	U	ng/L	P427431	
		Oxychlorane	0.31	U	ng/L	P427431	
		Permethrin	1.7	U	ng/L	P427431	
		Phenothrin	0.94	U	ng/L	P427431	
		Piperonyl Butoxide	0.16	U	ng/L	P427431	
		Prallethrin	2.1	U	ng/L	P427431	
		Tau-Fluvalinate	0.26	U	ng/L	P427431	
		Tetramethrin	0.78	U	ng/L	P427431	
		Trans-Nonachlor	0.65	I	ng/L	P427431	
		Triclosan Methyl	0.16	U	ng/L	P427431	
		Trifluralin	0.21	U	ng/L	P427431	
	EPA 8276	Chlordane	23		ng/L	P427431	
		Toxaphene	16	U	ng/L	P427431	

Ref. Method and Comment:

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

EPA 8270E: Insufficient sample available to perform matrix spikes. Sample expired for preparation due to need for re-extraction.

Sample Location: Jackson Creek upstream of Prieto Drive

Collection Date/Time: 03/20/2023 10:00

Field ID: G4NW0505

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2395365	EPA 8270E	Aldrin	0.67	U	ng/L	P427431	MS
		Alpha-BHC	0.10	U	ng/L	P427431	
		Alpha-Chlordane	1.6		ng/L	P427431	
		PCB-1016	2.1	UQ	ng/L	P428001	
		Beta-BHC	0.10	U	ng/L	P427431	
		PCB-1221	2.1	UQ	ng/L	P428001	
		Beta-Cyfluthrin	1.3	U	ng/L	P427431	
		PCB-1232	2.1	UQ	ng/L	P428001	
		Bifenthrin	0.52	U	ng/L	P427431	
		PCB-1242	2.1	UQ	ng/L	P428001	
		PCB-1248	2.1	UQ	ng/L	P428001	
		Chlorothalonil	3.7	U	ng/L	P427431	
		PCB-1254	2.1	UQ	ng/L	P428001	
		Cis-Nonachlor	0.21	U	ng/L	P427431	
		PCB-1260	2.1	UQ	ng/L	P428001	
		Cypermethrin	1.5	U	ng/L	P427431	
		Dacthal	0.15	U	ng/L	P427431	
		DDD-p,p'	0.26	U	ng/L	P427431	
		DDE-p,p'	0.21	U	ng/L	P427431	
		DDT-p,p'	0.26	U	ng/L	P427431	
		Delta-BHC	0.41	U	ng/L	P427431	
		Deltamethrin	1.3	U	ng/L	P427431	
		Dichlobenil	0.26	U	ng/L	P427431	
		Dicofol	1.3	U	ng/L	P427431	
		Dieldrin	18		ng/L	P427431	
		Endosulfan I	0.41	U	ng/L	P427431	
		Endosulfan II	0.41	U	ng/L	P427431	
		Endosulfan Sulfate	0.31	U	ng/L	P427431	
		Endrin	0.41	U	ng/L	P427431	
		Endrin Aldehyde	0.77	U	ng/L	P427431	
		Endrin Ketone	0.41	U	ng/L	P427431	
		Esfenvalerate	0.77	U	ng/L	P427431	
		Ethalfuralin	0.15	U	ng/L	P427431	
		Fenpropathrin	0.26	U	ng/L	P427431	
		Gamma-BHC	0.13	U	ng/L	P427431	
		Gamma-Chlordane	1.1		ng/L	P427431	
		Heptachlor	0.21	U	ng/L	P427431	
		Heptachlor Epoxide	11		ng/L	P427431	
		Hexachlorobenzene**	1.0	U	ng/L	P427431	
		Kepone	5.2	UJ	ng/L	P427431	CCV
		Lambda-Cyhalothrin	0.77	U	ng/L	P427431	
		Methoprene	0.77	U	ng/L	P427431	
		Methoxychlor	0.31	U	ng/L	P427431	
		MGK-264	0.21	U	ng/L	P427431	

Field ID: G4NW0505

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2395365	EPA 8270E	Mirex	0.36	U	ng/L	P427431	
		Oxychlorane	0.31	U	ng/L	P427431	
		Permethrin	1.7	U	ng/L	P427431	
		Phenothrin	0.93	U	ng/L	P427431	
		Piperonyl Butoxide	0.15	U	ng/L	P427431	
		Prallethrin	2.1	U	ng/L	P427431	
		Tau-Fluvalinate	0.26	U	ng/L	P427431	
		Tetramethrin	0.77	U	ng/L	P427431	
		Trans-Nonachlor	0.38	I	ng/L	P427431	
		Triclosan Methyl	0.15	U	ng/L	P427431	
		Trifluralin	0.21	U	ng/L	P427431	
	EPA 8276	Chlordane	16		ng/L	P427431	
		Toxaphene	15	U	ng/L	P427431	

Ref. Method and Comment:
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: Insufficient sample available to perform matrix spikes. Sample expired for preparation due to need for re-extraction.

Sample Location: Jones Creek upstream of N Navy Blvd

Collection Date/Time: 03/20/2023 09:40

Field ID: G4NW0429

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2395361	EPA 8270E	Aldrin	0.70	U	ng/L	P427431	MS
		Alpha-BHC	0.11	U	ng/L	P427431	
		Alpha-Chlordane	0.22	U	ng/L	P427431	
		PCB-1016	2.2	UQ	ng/L	P428001	
		Beta-BHC	0.11	U	ng/L	P427431	
		PCB-1221	2.2	UQ	ng/L	P428001	
		Beta-Cyfluthrin	1.3	U	ng/L	P427431	
		PCB-1232	2.2	UQ	ng/L	P428001	
		Bifenthrin	0.54	U	ng/L	P427431	
		PCB-1242	2.2	UQ	ng/L	P428001	
		PCB-1248	2.2	UQ	ng/L	P428001	
		Chlorothalonil	3.9	U	ng/L	P427431	
		PCB-1254	2.2	UQ	ng/L	P428001	
		Cis-Nonachlor	0.22	U	ng/L	P427431	
		PCB-1260	2.2	UQ	ng/L	P428001	
		Cypermethrin	1.6	U	ng/L	P427431	
		Dacthal	0.16	U	ng/L	P427431	
		DDD-p,p'	0.27	U	ng/L	P427431	
		DDE-p,p'	0.22	U	ng/L	P427431	
		DDT-p,p'	0.27	U	ng/L	P427431	
		Delta-BHC	0.43	U	ng/L	P427431	
		Deltamethrin	1.3	U	ng/L	P427431	
		Dichlobenil	0.27	U	ng/L	P427431	
		Dicofol	1.3	U	ng/L	P427431	
		Dieldrin	0.43	U	ng/L	P427431	
		Endosulfan I	0.43	U	ng/L	P427431	
		Endosulfan II	0.43	U	ng/L	P427431	
		Endosulfan Sulfate	0.32	U	ng/L	P427431	
		Endrin	0.43	U	ng/L	P427431	
		Endrin Aldehyde	0.81	U	ng/L	P427431	
		Endrin Ketone	0.43	U	ng/L	P427431	
		Esfenvalerate	0.81	U	ng/L	P427431	
		Ethalfuralin	0.16	U	ng/L	P427431	
		Fenpropathrin	0.27	U	ng/L	P427431	
		Gamma-BHC	0.13	U	ng/L	P427431	
		Gamma-Chlordane	0.22	U	ng/L	P427431	
		Heptachlor	0.22	U	ng/L	P427431	
		Heptachlor Epoxide	0.27	U	ng/L	P427431	
		Hexachlorobenzene**	1.1	U	ng/L	P427431	
		Kepone	5.4	UJ	ng/L	P427431	CCV
		Lambda-Cyhalothrin	0.81	U	ng/L	P427431	
		Methoprene	0.81	U	ng/L	P427431	
		Methoxychlor	0.32	U	ng/L	P427431	
		MGK-264	0.22	U	ng/L	P427431	

Field ID: G4NW0429

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2395361	EPA 8270E	Mirex	0.38	U	ng/L	P427431	
		Oxychlordane	0.32	U	ng/L	P427431	
		Permethrin	1.7	U	ng/L	P427431	
		Phenothrin	0.97	U	ng/L	P427431	
		Piperonyl Butoxide	0.16	U	ng/L	P427431	
		Prallethrin	2.2	U	ng/L	P427431	
		Tau-Fluvalinate	0.27	U	ng/L	P427431	
		Tetramethrin	0.81	U	ng/L	P427431	
		Trans-Nonachlor	0.22	U	ng/L	P427431	
		Triclosan Methyl	0.16	U	ng/L	P427431	
		Trifluralin	0.22	U	ng/L	P427431	
		Chlordane	2.2	U	ng/L	P427431	
		Toxaphene	16	U	ng/L	P427431	
2395369	EPA 200.7 Rev. 4.4	Calcium	7.01		mg/L	P427550	
		Iron	320		ug/L	P427550	
		Magnesium	1.02		mg/L	P427550	
		Potassium	0.36	I	mg/L	P427550	
		Sodium	5.7		mg/L	P427550	
		Strontium	17.1		ug/L	P427550	
		Tin	3.0	U	ug/L	P427550	
		Titanium	2.7	I	ug/L	P427550	
		Vanadium	2.0	U	ug/L	P427550	
		Zinc	5.0	U	ug/L	P427550	
	EPA 200.8 Rev. 5.4	Aluminum	255		ug/L	P427550	
		Antimony	0.077	I	ug/L	P427550	
		Arsenic	0.52		ug/L	P427550	
		Barium	6.95		ug/L	P427550	
		Beryllium	0.010	I	ug/L	P427550	
		Boron	18.5		ug/L	P427550	
		Cadmium	0.020	U	ug/L	P427550	
		Chromium	0.54	I	ug/L	P427550	
		Cobalt	0.075	I	ug/L	P427550	
		Copper	1.00		ug/L	P427550	
		Lead	0.42		ug/L	P427550	
		Manganese	8.65		ug/L	P427550	
		Molybdenum	0.15	U	ug/L	P427550	
		Nickel	0.50	U	ug/L	P427550	
		Selenium	0.20	U	ug/L	P427550	
		Silver	0.014	I	ug/L	P427550	
		Thallium	0.10	U	ug/L	P427550	
	SM 2340 B-2011	Hardness	21.7		mg/L	P427550	

Ref. Method and Comment:

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

EPA 8270E: Insufficient sample available to perform matrix spikes. Sample expired for preparation due to need for re-extraction.

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P427413

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P427424

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P427550

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: P427550

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: P427856

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: P427859

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427573

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428038

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427815

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427534

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

Reference Method: EPA 8270E
Batch ID: P427431

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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P427431

Component	Result	Code	Units
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P427431

Component	Result	Code	Units
Mirex	0.35	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	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 8270E

Batch ID: P428001

Component	Result	Code	Units
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

Reference Method: EPA 8276

Batch ID: P427431

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: SM 2320 B-2011
Batch ID: P427600

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

Reference Method: SM 2540 C-2015
Batch ID: P428162

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2015
Batch ID: P428163

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P427911

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P427912

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P427605

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P427829

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: P427413

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P427424

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P427550

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	100		P	85 - 115
Iron	104		P	85 - 115
Magnesium	104		P	85 - 115
Potassium	102		P	85 - 115
Sodium	93.7		P	85 - 115
Strontium	96.7		P	85 - 115
Tin	99.8		P	85 - 115
Titanium	99.7		P	85 - 115
Vanadium	97.7		P	85 - 115
Zinc	93.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P427550

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.1		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	98.2		P	85 - 115
Barium	101		P	85 - 115
Beryllium	95.1		P	85 - 115
Boron	98.7		P	85 - 115
Cadmium	99.5		P	85 - 115
Chromium	99.9		P	85 - 115
Cobalt	96.6		P	85 - 115
Copper	101		P	85 - 115
Lead	102		P	85 - 115
Manganese	97.9		P	85 - 115
Molybdenum	99.0		P	85 - 115
Nickel	100		P	85 - 115
Selenium	97.6		P	85 - 115
Silver	102		P	85 - 115
Thallium	98.8		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427856

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427859

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427573

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428038

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427815

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427534

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

Reference Method: EPA 8270E
Batch ID: P427431

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	40.1		P	10 - 92.0
Alpha-BHC	77.8		P	75 - 107
Alpha-Chlordane	66.8		P	50 - 108
Beta-BHC	85.8		P	36 - 138
Beta-Cyfluthrin	58.4		P	20 - 161
Bifenthrin	39.3		P	10 - 119
Chlorothalonil	76.0		P	26 - 186
Cis-Nonachlor	66.6		P	42 - 119
Cypermethrin	65.5		P	22 - 150
Dacthal	81.5		P	72 - 119
DDD-p,p'	79.6		P	45 - 107
DDE-p,p'	63.0		P	48 - 106
DDT-p,p'	58.8		P	48 - 110
Delta-BHC	93.7		P	54 - 140
Deltamethrin	50.6		P	22 - 189
Dichlobenil	78.2		P	36 - 117
Dicofol	69.7		P	46 - 155
Dieldrin	68.8		P	54 - 110
Endosulfan I	73.8		P	59 - 105
Endosulfan II	76.8		P	51 - 118
Endosulfan Sulfate	81.3		P	57 - 121
Endrin	69.0		P	10 - 120

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P427431

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endrin Aldehyde	73.5		P	34 - 118
Endrin Ketone	93.6		P	69 - 177
Esfenvalerate	59.8		P	23 - 168
Ethalfuralin	60.8		P	49 - 99.0
Fenpropathrin	54.3		P	34 - 117
Gamma-BHC	77.6		P	72 - 117
Gamma-Chlordane	63.0		P	43 - 106
Heptachlor	55.5		P	41 - 98.0
Heptachlor Epoxide	71.8		P	57 - 106
Hexachlorobenzene	57.5		P	36 - 99.0
Kepone	85.9		P	16 - 215
Lambda-Cyhalothrin	47.2		P	21 - 177
Methoprene	32.2		P	10 - 119
Methoxychlor	72.1		P	60 - 112
MGK-264	74.1		P	26 - 122
Mirex	41.0		P	10 - 169
Oxychlordane	64.4		P	43 - 105
Permethrin	54.3		P	24 - 148
Phenothrin	30.3		P	10 - 106
Piperonyl Butoxide	88.9		P	10 - 139
Prallethrin	63.6		P	17 - 109
Tau-Fluvalinate	48.4		P	13 - 131
Tetramethrin	73.8		P	10 - 132
Trans-Nonachlor	59.4		P	44 - 106
Triclosan Methyl	77.1		P	59 - 109
Trifluralin	61.3		P	44 - 101

Reference Method: EPA 8270E

Batch ID: P428001

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PCB-1016	82.3	80.4	P/P	48 - 112
PCB-1260	87.5	88.2	P/P	44 - 118

Reference Method: EPA 8276

Batch ID: P427431

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	74.6		P	61 - 116
Toxaphene	91.2		P	48 - 124

Reference Method: SM 2320 B-2011

Batch ID: P427600

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.1		P	94 - 106

Reference Method: SM 2540 C-2015

Batch ID: P428162

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 C-2015
Batch ID: P428163

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	97.1		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P427911

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	95.9		P	85 - 106

Reference Method: SM 2540 D-2015
Batch ID: P427912

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	102		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P427605

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

Reference Method: SM 5310 B-2011
Batch ID: P427829

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P427550

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394995	Calcium	99.0		P	80 - 120
2394995	Iron	103		P	80 - 120
2394995	Magnesium	98.2		P	80 - 120
2394995	Potassium	100		P	80 - 120
2394995	Sodium	97.4		P	80 - 120
2394995	Strontium	96.9		P	80 - 120
2394995	Tin	99.5		P	80 - 120
2394995	Titanium	100		P	80 - 120
2394995	Vanadium	97.7		P	80 - 120
2394995	Zinc	93.0		P	80 - 120
2395368	Calcium	99.7		P	80 - 120
2395368	Iron	100	102	P/P	80 - 120
2395368	Magnesium	98.3	101	P/P	80 - 120
2395368	Potassium	97.0	98.8	P/P	80 - 120
2395368	Sodium	94.3		P	80 - 120
2395368	Strontium	95.5	96.2	P/P	80 - 120
2395368	Tin	97.5	98.9	P/P	80 - 120
2395368	Titanium	98.8	99.9	P/P	80 - 120
2395368	Vanadium	96.5	97.3	P/P	80 - 120
2395368	Zinc	91.7	93.5	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P427550

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394995	Aluminum	98.7		P	80 - 120
2394995	Antimony	101		P	80 - 120
2394995	Arsenic	97.4		P	80 - 120
2394995	Barium	100		P	80 - 120
2394995	Beryllium	95.8		P	80 - 120
2394995	Boron	103		P	80 - 120
2394995	Cadmium	99.9		P	80 - 120
2394995	Chromium	97.4		P	80 - 120
2394995	Cobalt	97.5		P	80 - 120
2394995	Copper	95.9		P	80 - 120
2394995	Lead	99.3		P	80 - 120
2394995	Manganese	99.6		P	80 - 120
2394995	Molybdenum	100		P	80 - 120
2394995	Nickel	95.7		P	80 - 120
2394995	Selenium	94.2		P	80 - 120
2394995	Silver	104		P	80 - 120
2394995	Thallium	97.0		P	80 - 120
2395368	Aluminum	99.4	97.2	P/P	80 - 120
2395368	Antimony	103	101	P/P	80 - 120
2395368	Arsenic	99.1	97.8	P/P	80 - 120
2395368	Barium	101	98.7	P/P	80 - 120
2395368	Beryllium	95.2	92.1	P/P	80 - 120
2395368	Boron	100	94.8	P/P	80 - 120
2395368	Cadmium	102	98.5	P/P	80 - 120
2395368	Chromium	100	98.0	P/P	80 - 120
2395368	Cobalt	97.3	96.3	P/P	80 - 120
2395368	Copper	99.3	97.7	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P427550

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2395368	Lead	102	101	P/P	80 - 120
2395368	Manganese	99.8	96.7	P/P	80 - 120
2395368	Molybdenum	101	99.0	P/P	80 - 120
2395368	Nickel	101	98.1	P/P	80 - 120
2395368	Selenium	98.5	97.1	P/P	80 - 120
2395368	Silver	103	101	P/P	80 - 120
2395368	Thallium	100	101	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427856

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2395048	Chloride	99.3		P	90 - 110
2395416	Chloride	99.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427859

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2395048	Sulfate	98.4		P	90 - 110
2395416	Sulfate	94.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427573

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2395311	Ammonia-N	98.4	99.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428038

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2395435	Kjeldahl Nitrogen	115	113	F/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427815

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2395169	NO2NO3-N	96.5	96.5	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P427431

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2395113	Aldrin	46.1	45.5	P/P	20 - 82.0
2395113	Alpha-BHC	72.4	67.2	P/F	71 - 109
2395113	Alpha-Chlordane	59.1	56.3	P/P	42 - 106
2395113	Beta-BHC	81.1	87.7	P/P	69 - 180
2395113	Beta-Cyfluthrin	79.5	82.7	P/P	18 - 175
2395113	Bifenthrin	44.9	36.7	P/P	21 - 128
2395113	Chlorothalonil	82.6	84.4	P/P	10 - 300
2395113	Cis-Nonachlor	66.7	65.8	P/P	34 - 106

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P427431

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2395113	Cypermethrin	82.4	89.2	P/P	22 - 158
2395113	Dacthal	69.1	73.0	P/P	54 - 116
2395113	DDD-p,p'	71.6	71.3	P/P	34 - 107
2395113	DDE-p,p'	54.7	54.0	P/P	33 - 110
2395113	DDT-p,p'	61.1	58.9	P/P	50 - 122
2395113	Delta-BHC	86.2	92.2	P/P	77 - 193
2395113	Deltamethrin	47.7	56.5	P/P	10 - 195
2395113	Dichlobenil	55.3	39.6	P/P	25 - 113
2395113	Dicofol	59.2	73.6	P/P	38 - 247
2395113	Dieldrin	61.0	60.3	P/P	45 - 118
2395113	Endosulfan I	61.6	61.0	P/P	51 - 106
2395113	Endosulfan II	65.6	66.6	P/P	37 - 122
2395113	Endosulfan Sulfate	57.9	63.8	P/P	43 - 132
2395113	Endrin	60.6	59.9	P/P	29 - 101
2395113	Endrin Aldehyde	55.6	57.6	P/P	19 - 110
2395113	Endrin Ketone	73.3	73.3	P/P	60 - 140
2395113	Esfenvalerate	78.8	94.4	P/P	26 - 199
2395113	Ethalfuralin	63.0	62.4	P/P	45 - 99.0
2395113	Fenpropathrin	68.4	70.8	P/P	35 - 120
2395113	Gamma-BHC	76.9	79.8	P/P	63 - 128
2395113	Gamma-Chlordane	60.3	60.0	P/P	40 - 104
2395113	Heptachlor	55.6	55.9	P/P	36 - 97.0
2395113	Heptachlor Epoxide	61.5	61.2	P/P	49 - 184
2395113	Hexachlorobenzene	55.4	50.3	P/P	39 - 96.0
2395113	Kepone	53.7	58.1	P/P	10 - 217
2395113	Lambda-Cyhalothrin	84.6	94.4	P/P	21 - 193
2395113	Methoprene	73.5	74.5	P/P	20 - 106
2395113	Methoxychlor	76.7	74.0	P/P	53 - 118
2395113	MGK-264	78.0	74.2	P/P	40 - 118
2395113	Mirex	48.3	51.7	P/P	26 - 92.0
2395113	Oxychlordane	59.9	50.8	P/P	44 - 99.0
2395113	Permethrin	80.0	84.8	P/P	33 - 182
2395113	Phenothrin	57.5	62.2	P/P	10 - 129
2395113	Piperonyl Butoxide	79.4	83.7	P/P	10 - 211
2395113	Prallethrin	64.0	79.9	P/P	24 - 113
2395113	Tau-Fluvalinate	67.9	80.9	P/P	14 - 149
2395113	Tetramethrin	98.3	82.4	P/P	17 - 151
2395113	Trans-Nonachlor	57.5	56.1	P/P	42 - 102
2395113	Triclosan Methyl	61.8	56.3	P/P	48 - 108
2395113	Trifluralin	64.4	63.6	P/P	47 - 96.0

Reference Method: EPA 8276
Batch ID: P427431

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2395359	Chlordane	65.0	65.5	P/P	53 - 126
2395359	Toxaphene	86.9	87.5	P/P	56 - 211

Reference Method: SM 4500-F- C-2011
Batch ID: P427605

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

Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P427605

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2395392	Fluoride	103	103	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P427829

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2395314	Organic Carbon	93.8	95.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P427413

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2395264	Color (true)	1.73	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P427424

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2395313	Turbidity	9.78	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P427550

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2395368	Calcium	1.27	Spike	P	0 - 20
2395368	Iron	1.77	Spike	P	0 - 20
2395368	Magnesium	1.76	Spike	P	0 - 20
2395368	Potassium	0.937	Spike	P	0 - 20
2395368	Sodium	1.03	Spike	P	0 - 20
2395368	Strontium	0.684	Spike	P	0 - 20
2395368	Tin	1.48	Spike	P	0 - 20
2395368	Titanium	1.11	Spike	P	0 - 20
2395368	Vanadium	0.915	Spike	P	0 - 20
2395368	Zinc	1.94	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P427550

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2395368	Aluminum	2.21	Spike	P	0 - 20
2395368	Antimony	2.26	Spike	P	0 - 20
2395368	Arsenic	1.37	Spike	P	0 - 20
2395368	Barium	2.25	Spike	P	0 - 20
2395368	Beryllium	3.29	Spike	P	0 - 20
2395368	Boron	2.81	Spike	P	0 - 20
2395368	Cadmium	3.54	Spike	P	0 - 20
2395368	Chromium	2.22	Spike	P	0 - 20
2395368	Cobalt	1.08	Spike	P	0 - 20
2395368	Copper	1.66	Spike	P	0 - 20
2395368	Lead	1.01	Spike	P	0 - 20
2395368	Manganese	1.59	Spike	P	0 - 20
2395368	Molybdenum	2.13	Spike	P	0 - 20
2395368	Nickel	2.58	Spike	P	0 - 20
2395368	Selenium	1.38	Spike	P	0 - 20
2395368	Silver	2.35	Spike	P	0 - 20
2395368	Thallium	0.599	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427856

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2395048	Chloride	1.81	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427573

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2395311	Ammonia-N	0.774	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428038

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2395435	Kjeldahl Nitrogen	1.28	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427815

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2395169	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427534

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2395265	Total-P	0.245	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P427431

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2395113	Aldrin	1.24	Spike	P	0 - 41
2395113	Alpha-BHC	7.38	Spike	P	0 - 25
2395113	Alpha-Chlordane	4.95	Spike	P	0 - 33
2395113	Beta-BHC	7.84	Spike	P	0 - 36
2395113	Beta-Cyfluthrin	3.89	Spike	P	0 - 42
2395113	Bifenthrin	11.0	Spike	P	0 - 53
2395113	Chlorothalonil	2.11	Spike	P	0 - 71
2395113	Cis-Nonachlor	1.36	Spike	P	0 - 29
2395113	Cypermethrin	8.00	Spike	P	0 - 40
2395113	Dacthal	5.37	Spike	P	0 - 26
2395113	DDD-p,p'	0.365	Spike	P	0 - 39
2395113	DDE-p,p'	1.24	Spike	P	0 - 33
2395113	DDT-p,p'	3.77	Spike	P	0 - 40
2395113	Delta-BHC	6.74	Spike	P	0 - 37
2395113	Deltamethrin	16.9	Spike	P	0 - 100
2395113	Dichlobenil	32.9	Spike	P	0 - 40

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P427431

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2395113	Dicofol	21.6	Spike	P	0 - 31
2395113	Dieldrin	1.16	Spike	P	0 - 27
2395113	Endosulfan I	1.07	Spike	P	0 - 23
2395113	Endosulfan II	1.54	Spike	P	0 - 28
2395113	Endosulfan Sulfate	9.68	Spike	P	0 - 38
2395113	Endrin	1.03	Spike	P	0 - 63
2395113	Endrin Aldehyde	3.58	Spike	P	0 - 60
2395113	Endrin Ketone	0.0224	Spike	P	0 - 37
2395113	Esfenvalerate	18.0	Spike	P	0 - 52
2395113	Ethalfuralin	1.10	Spike	P	0 - 23
2395113	Fenpropathrin	3.44	Spike	P	0 - 32
2395113	Gamma-BHC	3.69	Spike	P	0 - 17
2395113	Gamma-Chlordane	0.517	Spike	P	0 - 40
2395113	Heptachlor	0.491	Spike	P	0 - 29
2395113	Heptachlor Epoxide	0.425	Spike	P	0 - 25
2395113	Hexachlorobenzene	9.64	Spike	P	0 - 36
2395113	Kepone	7.77	Spike	P	0 - 93
2395113	Lambda-Cyhalothrin	11.0	Spike	P	0 - 55
2395113	Methoprene	1.34	Spike	P	0 - 53
2395113	Methoxychlor	3.57	Spike	P	0 - 29
2395113	MGK-264	4.97	Spike	P	0 - 35
2395113	Mirex	6.76	Spike	P	0 - 46
2395113	Oxychlordane	16.4	Spike	P	0 - 29
2395113	Permethrin	5.74	Spike	P	0 - 44
2395113	Phenothrin	7.81	Spike	P	0 - 56
2395113	Piperonyl Butoxide	5.30	Spike	P	0 - 100
2395113	Prallethrin	22.0	Spike	P	0 - 42
2395113	Tau-Fluvalinate	17.5	Spike	P	0 - 54
2395113	Tetramethrin	17.6	Spike	P	0 - 51
2395113	Trans-Nonachlor	2.58	Spike	P	0 - 37
2395113	Triclosan Methyl	9.23	Spike	P	0 - 31
2395113	Trifluralin	1.36	Spike	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P428001

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	PCB-1016	2.37	LCS	P	0 - 24
LFB	PCB-1260	0.722	LCS	P	0 - 29

Reference Method: EPA 8276
Batch ID: P427431

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2395359	Chlordane	0.690	Spike	P	0 - 25
2395359	Toxaphene	0.701	Spike	P	0 - 26

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P427600

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2395392	Total Alkalinity	0.792	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P428162

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2395010	TDS	5.68	Sample	P	0 - 10

Reference Method: SM 2540 C-2015
Batch ID: P428163

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2395677	TDS	1.72	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P427605

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2395392	Fluoride	0.539	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P427829

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2395314	Organic Carbon	1.55	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2395359

Field Sample ID: G5NW0006

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	80.9	P	29 - 130
EPA 8270E	Decachlorobiphenyl	72.1	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	49.3	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	52.7	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	54.7	P	30 - 101
EPA 8276	PCNB	94.7	P	48 - 121

Lab Sample ID: 2395360

Field Sample ID: G5NW0156

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	91.6	P	29 - 130
EPA 8270E	Decachlorobiphenyl	74.2	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	66.8	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	47.7	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	48.4	P	30 - 101
EPA 8276	PCNB	84.0	P	48 - 121

Lab Sample ID: 2395361

Field Sample ID: G4NW0429

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	105	P	29 - 130
EPA 8270E	Decachlorobiphenyl	101	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	72.7	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	55.1	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	68.1	P	30 - 101
EPA 8276	PCNB	93.8	P	48 - 121

Lab Sample ID: 2395362

Field Sample ID: G4NW0036

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	82.8	P	29 - 130
EPA 8270E	Decachlorobiphenyl	72.5	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	42.2	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	45.1	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	54.1	P	30 - 101
EPA 8276	PCNB	89.1	P	48 - 121

Lab Sample ID: 2395363

Field Sample ID: G4NW0244

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	72.8	P	29 - 130
EPA 8270E	Decachlorobiphenyl	68.0	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	42.3	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	50.8	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	53.8	P	30 - 101
EPA 8276	PCNB	89.0	P	48 - 121

Quality Assurance Report Surrogates

Lab Sample ID: 2395364

Field Sample ID: G4NW0412

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	86.8	P	29 - 130
EPA 8270E	Decachlorobiphenyl	70.5	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	46.4	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	48.5	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	56.1	P	30 - 101
EPA 8276	PCNB	94.6	P	48 - 121

Lab Sample ID: 2395365

Field Sample ID: G4NW0505

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	75.6	P	29 - 130
EPA 8270E	Decachlorobiphenyl	78.0	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	48.3	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	51.1	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	59.0	P	30 - 101
EPA 8276	PCNB	93.3	P	48 - 121

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A118108

Included Lab Sample IDs: 2395309, 2395310, 2395313

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	95.7	96.0	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A118110

Included Lab Sample IDs: 2395309, 2395310, 2395313

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	102	102	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A118162

Included Lab Sample IDs: 2395311, 2395312, 2395314

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	99.9	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A118170

Included Lab Sample IDs: 2395309, 2395310, 2395313

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.8	94.2	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A118170

Included Lab Sample IDs: 2395309, 2395310, 2395313

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A118186

Included Lab Sample IDs: 2395311, 2395312, 2395314

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A118193

Included Lab Sample IDs: 2395366, 2395367, 2395368, 2395369

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.2	99.4	P/P	90 - 110
Aluminum	99.4	99.0	P/P	90 - 110
Antimony	102	101	P/P	90 - 110
Antimony	102	102	P/P	90 - 110
Arsenic	98.9	97.4	P/P	90 - 110
Arsenic	99.2	98.9	P/P	90 - 110
Barium	99.3	98.7	P/P	90 - 110
Barium	99.9	99.3	P/P	90 - 110
Beryllium	95.5	97.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A118193

Included Lab Sample IDs: 2395366, 2395367, 2395368, 2395369

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beryllium	97.0	98.3	P/P	90 - 110
Boron	94.8	96.6	P/P	90 - 110
Boron	96.6	96.1	P/P	90 - 110
Cadmium	98.7	99.3	P/P	90 - 110
Cadmium	99.3	97.7	P/P	90 - 110
Chromium	97.9	97.3	P/P	90 - 110
Chromium	98.9	97.9	P/P	90 - 110
Copper	98.4	96.6	P/P	90 - 110
Copper	99.9	98.4	P/P	90 - 110
Lead	100	101	P/P	90 - 110
Lead	99.3	100	P/P	90 - 110
Manganese	97.9	98.8	P/P	90 - 110
Manganese	98.8	99.7	P/P	90 - 110
Molybdenum	97.5	97.5	P/P	90 - 110
Molybdenum	98.8	97.5	P/P	90 - 110
Nickel	100	99.1	P/P	90 - 110
Nickel	99.1	97.6	P/P	90 - 110
Selenium	99.0	99.2	P/P	90 - 110
Selenium	99.2	98.4	P/P	90 - 110
Silver	102	102	P/P	90 - 110
Silver	102	101	P/P	90 - 110
Thallium	102	103	P/P	90 - 110
Thallium	99.7	102	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A118222

Included Lab Sample IDs: 2395366, 2395367, 2395368, 2395369

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cobalt	96.9	97.7	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A118247

Included Lab Sample IDs: 2395309, 2395310, 2395313

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.6	98.7	P/P	90 - 110
Sulfate	97.6	97.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A118262

Included Lab Sample IDs: 2395311, 2395312, 2395314

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

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A118274

Included Lab Sample IDs: 2395311, 2395312, 2395314

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.0	97.4	P/P	90 - 110
Organic Carbon	97.5	97.0	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A118287

Included Lab Sample IDs: 2395359, 2395360, 2395361, 2395362, 2395363, 2395364, 2395365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	96.3		P	80 - 120
Chlordane	99.9		P	80 - 120
Toxaphene	103		P	80 - 120
Toxaphene	95.3		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A118291

Included Lab Sample IDs: 2395366, 2395367, 2395368, 2395369

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	98.2	98.9	P/P	90 - 110
Calcium	98.9	98.2	P/P	90 - 110
Iron	103	99.7	P/P	90 - 110
Iron	99.7	100	P/P	90 - 110
Magnesium	101	98.3	P/P	90 - 110
Magnesium	98.3	99.0	P/P	90 - 110
Potassium	101	97.8	P/P	90 - 110
Potassium	97.8	98.7	P/P	90 - 110
Sodium	93.1	93.9	P/P	90 - 110
Sodium	93.9	93.7	P/P	90 - 110
Strontium	97.6	97.6	P/P	90 - 110
Strontium	98.1	97.6	P/P	90 - 110
Tin	97.1	97.9	P/P	90 - 110
Tin	97.5	97.1	P/P	90 - 110
Titanium	98.3	99.3	P/P	90 - 110
Titanium	99.5	98.3	P/P	90 - 110
Vanadium	97.0	98.1	P/P	90 - 110
Vanadium	98.3	97.0	P/P	90 - 110
Zinc	95.2	95.3	P/P	90 - 110
Zinc	95.3	95.1	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A118314

Included Lab Sample IDs: 2395359, 2395360, 2395361, 2395362, 2395363, 2395364, 2395365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	102		P	80 - 120
Alpha-BHC	98.2		P	80 - 120
Alpha-Chlordane	99.2		P	80 - 120
Beta-BHC	104		P	80 - 120
Beta-Cyfluthrin	97.8		P	80 - 120
Bifenthrin	102		P	80 - 120
Chlorothalonil	99.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A118314

Included Lab Sample IDs: 2395359, 2395360, 2395361, 2395362, 2395363, 2395364, 2395365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cis-Nonachlor	99.9		P	80 - 120
Cypermethrin	93.2		P	80 - 120
Dacthal	101		P	80 - 120
DDD-p,p'	97.0		P	80 - 120
DDE-p,p'	96.7		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	101		P	80 - 120
Deltamethrin	96.1		P	80 - 120
Dichlobenil	112		P	80 - 120
Dicofol	108		P	80 - 120
Dieldrin	98.2		P	80 - 120
Endosulfan I	101		P	80 - 120
Endosulfan II	101		P	80 - 120
Endosulfan Sulfate	98.0		P	80 - 120
Endrin	100		P	80 - 120
Endrin Aldehyde	101		P	80 - 120
Endrin Ketone	103		P	80 - 120
Esfenvalerate	100		P	80 - 120
Ethalfuralin	93.9		P	80 - 120
Fenpropathrin	103		P	80 - 120
Gamma-BHC	104		P	80 - 120
Gamma-Chlordane	101		P	80 - 120
Heptachlor	99.4		P	80 - 120
Heptachlor Epoxide	99.1		P	80 - 120
Hexachlorobenzene	99.7		P	80 - 120
Kepone	72.7*		F	80 - 120
Lambda-Cyhalothrin	99.5		P	80 - 120
Methoprene	101		P	80 - 120
Methoxychlor	101		P	80 - 120
MGK-264	102		P	80 - 120
Mirex	98.8		P	80 - 120
Oxychlordane	96.3		P	80 - 120
Permethrin	96.9		P	80 - 120
Phenothrin	100		P	80 - 120
Piperonyl Butoxide	99.8		P	80 - 120
Prallethrin	90.9		P	80 - 120
Tau-Fluvalinate	102		P	80 - 120
Tetramethrin	98.1		P	80 - 120
Trans-Nonachlor	103		P	80 - 120
Triclosan Methyl	102		P	80 - 120
Trifluralin	104		P	80 - 120

Reference Method: EPA 8270E

Run ID: A118428

Included Lab Sample IDs: 2395359, 2395360, 2395361, 2395362, 2395363, 2395364, 2395365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	97.2		P	80 - 120
PCB-1260	96.2		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A118440

Included Lab Sample IDs: 2395311, 2395312, 2395314

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.5	99.3	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			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	98.2					1.73	
EPA 180.1 Rev. 2.0	Turbidity	100					9.78	
EPA 200.7 Rev. 4.4	Calcium	100	99.0	99.7				1.27
	Iron	104	103	100	102			1.77
	Magnesium	104	98.2	98.3	101			1.76
	Potassium	102	100	97.0	98.8			0.937
	Sodium	93.7	97.4	94.3				1.03
	Strontium	96.7	96.9	95.5	96.2			0.684
	Tin	99.8	99.5	97.5	98.9			1.48
	Titanium	99.7	100	98.8	99.9			1.11
	Vanadium	97.7	97.7	96.5	97.3			0.915
	Zinc	93.8	93.0	91.7	93.5			1.94
EPA 200.8 Rev. 5.4	Aluminum	99.1	99.4	97.2	98.7			2.21
	Antimony	102	103	101	101			2.26
	Arsenic	98.2	99.1	97.8	97.4			1.37
	Barium	101	101	98.7	100			2.25
	Beryllium	95.1	95.2	92.1	95.8			3.29
	Boron	98.7	100	94.8	103			2.81
	Cadmium	99.5	102	98.5	99.9			3.54
	Chromium	99.9	100	98.0	97.4			2.22
	Cobalt	96.6	97.3	96.3	97.5			1.08
	Copper	101	99.3	97.7	95.9			1.66
	Lead	102	102	101	99.3			1.01
	Manganese	97.9	99.8	96.7	99.6			1.59
	Molybdenum	99.0	101	99.0	100			2.13
	Nickel	100	101	98.1	95.7			2.58
	Selenium	97.6	98.5	97.1	94.2			1.38
	Silver	102	103	101	104			2.35
	Thallium	98.8	100	101	97.0			0.599
EPA 300.0 Rev. 2.1	Chloride	100	99.3	99.2			1.81	
	Sulfate	99.2	98.4	94.4				
EPA 350.1 Rev. 2.0	Ammonia-N	101	98.4	99.8				0.774
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	115	113				1.28
EPA 353.2 Rev. 2.0	NO2NO3-N	103	96.5	96.5				0.0
EPA 365.1 Rev. 2.0	Total-P	104						0.245
EPA 8270E	Aldrin	40.1	46.1	45.5				1.24
	Alpha-BHC	77.8	72.4	67.2				7.38
	Alpha-Chlordane	66.8	59.1	56.3				4.95
	Beta-BHC	85.8	81.1	87.7				7.84
	Beta-Cyfluthrin	58.4	79.5	82.7				3.89
	Bifenthrin	39.3	44.9	36.7				11.0
	Chlorothalonil	76.0	82.6	84.4				2.11
	Cis-Nonachlor	66.6	66.7	65.8				1.36
	Cypermethrin	65.5	82.4	89.2				8.00
	Dacthal	81.5	69.1	73.0				5.37
	DDD-p,p'	79.6	71.6	71.3				0.365
	DDE-p,p'	63.0	54.7	54.0				1.24
	DDT-p,p'	58.8	61.1	58.9				3.77
	Delta-BHC	93.7	86.2	92.2				6.74
	Deltamethrin	50.6	47.7	56.5				16.9
	Dichlobenil	78.2	55.3	39.6				32.9
	Dicofol	69.7	59.2	73.6				21.6
	Dieldrin	68.8	61.0	60.3				1.16
	Endosulfan I	73.8	61.6	61.0				1.07

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	SMP
EPA 8270E	Endosulfan II	76.8		65.6	66.6		1.54
	Endosulfan Sulfate	81.3		57.9	63.8		9.68
	Endrin	69.0		60.6	59.9		1.03
	Endrin Aldehyde	73.5		55.6	57.6		3.58
	Endrin Ketone	93.6		73.3	73.3		0.0224
	Esfenvalerate	59.8		78.8	94.4		18.0
	Ethalfuralin	60.8		63.0	62.4		1.10
	Fenpropathrin	54.3		68.4	70.8		3.44
	Gamma-BHC	77.6		76.9	79.8		3.69
	Gamma-Chlordane	63.0		60.3	60.0		0.517
	Heptachlor	55.5		55.6	55.9		0.491
	Heptachlor Epoxide	71.8		61.5	61.2		0.425
	Hexachlorobenzene	57.5		55.4	50.3		9.64
	Kepone	85.9		53.7	58.1		7.77
	Lambda-Cyhalothrin	47.2		84.6	94.4		11.0
	Methoprene	32.2		73.5	74.5		1.34
	Methoxychlor	72.1		76.7	74.0		3.57
	MGK-264	74.1		78.0	74.2		4.97
	Mirex	41.0		48.3	51.7		6.76
	Oxychlordane	64.4		59.9	50.8		16.4
	PCB-1016	82.3	80.4			2.37	
	PCB-1260	87.5	88.2			0.722	
	Permethrin	54.3		80.0	84.8		5.74
	Phenothrin	30.3		57.5	62.2		7.81
	Piperonyl Butoxide	88.9		79.4	83.7		5.30
	Prallethrin	63.6		64.0	79.9		22.0
	Tau-Fluvalinate	48.4		67.9	80.9		17.5
	Tetramethrin	73.8		98.3	82.4		17.6
	Trans-Nonachlor	59.4		57.5	56.1		2.58
	Triclosan Methyl	77.1		61.8	56.3		9.23
	Trifluralin	61.3		64.4	63.6		1.36
EPA 8276	Chlordane	74.6		65.0	65.5		0.690
	Toxaphene	91.2		86.9	87.5		0.701
SM 2320 B-2011	Total Alkalinity	95.1					0.792
SM 2540 C-2015	TDS	98.6					5.68
	TDS	97.1					1.72
SM 2540 D-2015	TSS	95.9					
	TSS	102					
SM 4500-F- C-2011	Fluoride	102		103	103		0.539
SM 5310 B-2011	Organic Carbon	94.4		93.8	95.5		1.55

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2395309, 2395310, 2395313
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2395309, 2395310, 2395313
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2395366, 2395367, 2395368, 2395369
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2395366, 2395367, 2395368, 2395369
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2395309, 2395310, 2395313
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2395309, 2395310, 2395313
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2395311, 2395312, 2395314

Reference Method Descriptions

Method	Description	Associated Samples
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2395311, 2395312, 2395314
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2395311, 2395312, 2395314
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2395311, 2395312, 2395314
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2395359, 2395360, 2395361, 2395362, 2395363, 2395364, 2395365
EPA 8270E	PCBs in water matrices by GC/MS/MS	2395359, 2395360, 2395361, 2395362, 2395363, 2395364, 2395365
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2395359, 2395360, 2395361, 2395362, 2395363, 2395364, 2395365
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2395309, 2395310, 2395313
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2395366, 2395367, 2395368, 2395369
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2395309, 2395310, 2395313
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2395309, 2395310, 2395313
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2395309, 2395310, 2395313
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2395311, 2395312, 2395314

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	03/21/2023			03/21/2023 14:09	Alexis Price	2395309
	03/21/2023			03/21/2023 14:10	Alexis Price	2395310, 2395313
	03/21/2023			03/21/2023 14:02	Chandler E Cox	2395309
EPA 180.1 Rev. 2.0	03/21/2023			03/21/2023 14:03	Chandler E Cox	2395310
	03/21/2023			03/21/2023 14:04	Chandler E Cox	2395313
	03/21/2023	03/23/2023 11:10	Vijayalakshmi Reddy	03/29/2023 23:54	McKinley C Carter	2395366
EPA 200.7 Rev. 4.4	03/21/2023	03/23/2023 11:10	Vijayalakshmi Reddy	03/30/2023 00:01	McKinley C Carter	2395367
	03/21/2023	03/23/2023 11:10	Vijayalakshmi Reddy	03/30/2023 00:36	McKinley C Carter	2395368
	03/21/2023	03/23/2023 11:10	Vijayalakshmi Reddy	03/30/2023 01:06	McKinley C Carter	2395369
EPA 200.8 Rev. 5.4	03/21/2023	03/23/2023 11:10	Vijayalakshmi Reddy	03/24/2023 15:22	Conrad Hartmann	2395368
	03/21/2023	03/23/2023 11:10	Vijayalakshmi Reddy	03/24/2023 17:01	Conrad Hartmann	2395366
	03/21/2023	03/23/2023 11:10	Vijayalakshmi Reddy	03/24/2023 17:10	Conrad Hartmann	2395367
	03/21/2023	03/23/2023 11:10	Vijayalakshmi Reddy	03/24/2023 17:18	Conrad Hartmann	2395369
	03/21/2023	03/23/2023 11:10	Vijayalakshmi Reddy	03/28/2023 04:05	Conrad Hartmann	2395366
	03/21/2023	03/23/2023 11:10	Vijayalakshmi Reddy	03/28/2023 04:14	Conrad Hartmann	2395367
	03/21/2023	03/23/2023 11:10	Vijayalakshmi Reddy	03/28/2023 04:23	Conrad Hartmann	2395369
	03/21/2023	03/23/2023 11:10	Vijayalakshmi Reddy	03/28/2023 04:32	Conrad Hartmann	2395368
	03/21/2023			03/29/2023 22:59	Anna M. Plaviak	2395309
EPA 300.0 Rev. 2.1	03/21/2023			03/29/2023 23:14	Anna M. Plaviak	2395310
	03/21/2023			03/29/2023 23:29	Anna M. Plaviak	2395313
	03/21/2023			03/23/2023 13:23	Khloe J Berg	2395311
EPA 350.1 Rev. 2.0	03/21/2023			03/23/2023 13:27	Khloe J Berg	2395312
	03/21/2023			03/23/2023 13:28	Khloe J Berg	2395314
	03/21/2023	04/05/2023 11:13	Dana G. Hughes	04/06/2023 14:06	Samantha L Bates	2395311
EPA 351.2 Rev. 2.0	03/21/2023	04/05/2023 11:13	Dana G. Hughes	04/06/2023 14:07	Samantha L Bates	2395312
	03/21/2023	04/05/2023 11:13	Dana G. Hughes	04/06/2023 14:09	Samantha L Bates	2395314
EPA 353.2 Rev. 2.0	03/21/2023			03/29/2023 10:19	Beverly Y. Sanders	2395312
	03/21/2023			03/29/2023 10:20	Beverly Y. Sanders	2395314
	03/21/2023			03/29/2023 10:48	Beverly Y. Sanders	2395311
EPA 365.1 Rev. 2.0	03/21/2023	03/23/2023 14:00	Adam P Silver	03/24/2023 14:28	James L Waggeberby	2395311
	03/21/2023	03/23/2023 14:00	Adam P Silver	03/24/2023 14:29	James L Waggeberby	2395312
	03/21/2023	03/23/2023 14:00	Adam P Silver	03/24/2023 14:30	James L Waggeberby	2395314
EPA 8270E	03/21/2023	03/24/2023 08:30	Rasheda Ghaffari	03/29/2023 22:29	Michael Poppell	2395359
	03/21/2023	03/24/2023 08:30	Rasheda Ghaffari	03/29/2023 22:58	Michael Poppell	2395360
	03/21/2023	03/24/2023 08:30	Rasheda Ghaffari	03/29/2023 23:27	Michael Poppell	2395361
	03/21/2023	03/24/2023 08:30	Rasheda Ghaffari	03/29/2023 23:57	Michael Poppell	2395362
	03/21/2023	03/24/2023 08:30	Rasheda Ghaffari	03/30/2023 00:26	Michael Poppell	2395363
	03/21/2023	03/24/2023 08:30	Rasheda Ghaffari	03/30/2023 00:55	Michael Poppell	2395364
	03/21/2023	03/24/2023 08:30	Rasheda Ghaffari	03/30/2023 01:24	Michael Poppell	2395365
	03/21/2023	04/04/2023 08:00	Rasheda Ghaffari	04/06/2023 18:06	Vandana T. Nagar	2395359

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	03/21/2023	04/04/2023 08:00	Rasheda Ghaffari	04/06/2023 20:36	Vandana T. Nagar	2395360
	03/21/2023	04/04/2023 08:00	Rasheda Ghaffari	04/06/2023 21:06	Vandana T. Nagar	2395361
	03/21/2023	04/04/2023 08:00	Rasheda Ghaffari	04/06/2023 21:36	Vandana T. Nagar	2395362
	03/21/2023	04/04/2023 08:00	Rasheda Ghaffari	04/06/2023 22:06	Vandana T. Nagar	2395363
	03/21/2023	04/04/2023 08:00	Rasheda Ghaffari	04/06/2023 22:36	Vandana T. Nagar	2395364
	03/21/2023	04/04/2023 08:00	Rasheda Ghaffari	04/06/2023 23:06	Vandana T. Nagar	2395365
EPA 8276	03/21/2023	03/24/2023 08:30	Rasheda Ghaffari	03/28/2023 03:11	Lipi Saha	2395359
	03/21/2023	03/24/2023 08:30	Rasheda Ghaffari	03/28/2023 08:43	Lipi Saha	2395360
	03/21/2023	03/24/2023 08:30	Rasheda Ghaffari	03/28/2023 09:39	Lipi Saha	2395361
	03/21/2023	03/24/2023 08:30	Rasheda Ghaffari	03/28/2023 10:34	Lipi Saha	2395362
	03/21/2023	03/24/2023 08:30	Rasheda Ghaffari	03/28/2023 11:30	Lipi Saha	2395363
	03/21/2023	03/24/2023 08:30	Rasheda Ghaffari	03/28/2023 12:25	Lipi Saha	2395364
SM 2320 B-2011	03/21/2023	03/24/2023 08:30	Rasheda Ghaffari	03/28/2023 13:21	Lipi Saha	2395365
	03/21/2023			03/23/2023 20:43	Chandler E Cox	2395309
	03/21/2023			03/23/2023 20:55	Chandler E Cox	2395310
SM 2340 B-2011	03/21/2023			03/23/2023 21:07	Chandler E Cox	2395313
	03/21/2023			03/29/2023 23:54	McKinley C Carter	2395366
	03/21/2023			03/30/2023 00:01	McKinley C Carter	2395367
	03/21/2023			03/30/2023 00:36	McKinley C Carter	2395368
	03/21/2023			03/30/2023 01:06	McKinley C Carter	2395369
SM 2540 C-2015	03/21/2023			03/24/2023 15:34	Yijie Li	2395309, 2395310, 2395313
SM 2540 D-2015	03/21/2023			03/24/2023 15:34	Yijie Li	2395309, 2395310, 2395313
SM 4500-F- C-2011	03/21/2023			03/23/2023 20:43	Chandler E Cox	2395309
	03/21/2023			03/23/2023 20:55	Chandler E Cox	2395310
	03/21/2023			03/23/2023 21:07	Chandler E Cox	2395313
SM 5310 B-2011	03/21/2023			03/28/2023 19:20	Elise M. Gillis	2395314
	03/21/2023			03/28/2023 22:01	Elise M. Gillis	2395311
	03/21/2023			03/28/2023 22:18	Elise M. Gillis	2395312