

Chemical Analysis Report

NW-DIST-2023-09-26-02

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

Event Description: **Pensacola Run**
Request ID: **RQ-2023-09-25-11**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 W Government Street
Suite 208
Pensacola, FL 32502-5794
Attn: Myranda Butler

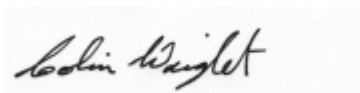
For additional information please contact
Colin Wright, Ph.D.
Chris Bowen, B.S.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

This Report replaces the previous Report Serial Number: 0149654

Report Comment: Results for the sample with Field ID G5NW0006 were originally reported with Field ID G4NW0505.
This has been corrected.

Revision certified by: Colin Wright, Program Administrator

Date Certified: 01-NOV-2023 09:12



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: JONES CREEK UPSTREAM OF N NAVY BLVD Collection Date/Time: 09/25/2023 09:10

Field ID: G4NW0429

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440305	EPA 8270E	Aldrin	0.74	U	ng/L	P435980	
		Alpha-BHC	0.11	U	ng/L	P435980	
		Alpha-Chlordane	0.23	U	ng/L	P435980	
		PCB-1016	2.3	U	ng/L	P435980	
		Beta-BHC	0.11	U	ng/L	P435980	
		PCB-1221	2.3	U	ng/L	P435980	
		Beta-Cyfluthrin	1.4	U	ng/L	P435980	
		PCB-1232	2.3	U	ng/L	P435980	
		Bifenthrin	0.57	U	ng/L	P435980	
		PCB-1242	2.3	U	ng/L	P435980	
		PCB-1248	2.3	U	ng/L	P435980	
		Chlorothalonil	4.1	U	ng/L	P435980	
		PCB-1254	2.3	U	ng/L	P435980	
		Cis-Nonachlor	0.23	U	ng/L	P435980	
		PCB-1260	2.3	U	ng/L	P435980	
		Cypermethrin	1.7	U	ng/L	P435980	
		Dacthal	0.17	U	ng/L	P435980	
		DDD-p,p'	0.29	U	ng/L	P435980	
		DDE-p,p'	0.23	U	ng/L	P435980	
		DDT-p,p'	0.91	U	ng/L	P435980	
		Delta-BHC	0.46	U	ng/L	P435980	
		Deltamethrin	1.4	U	ng/L	P435980	
		Dichlobenil	0.29	U	ng/L	P435980	
		Dicofol	1.4	U	ng/L	P435980	
		Dieldrin	0.46	U	ng/L	P435980	
		Endosulfan I	0.46	U	ng/L	P435980	
		Endosulfan II	1.0	U	ng/L	P435980	
		Endosulfan Sulfate	0.34	U	ng/L	P435980	
		Endrin	1.0	U	ng/L	P435980	
		Endrin Aldehyde	0.86	U	ng/L	P435980	
		Endrin Ketone	0.46	U	ng/L	P435980	
		Esfenvalerate	0.86	U	ng/L	P435980	
		Ethalfuralin	0.17	U	ng/L	P435980	
		Fenpropathrin	0.29	U	ng/L	P435980	
		Gamma-BHC	0.14	U	ng/L	P435980	
		Gamma-Chlordane	0.23	U	ng/L	P435980	
		Heptachlor	0.23	U	ng/L	P435980	
		Heptachlor Epoxide	0.29	U	ng/L	P435980	
		Hexachlorobenzene**	1.1	U	ng/L	P435980	
		Kepone	15	UJ	ng/L	P435980	CCV
		Lambda-Cyhalothrin	0.86	U	ng/L	P435980	
		Methoprene	0.86	U	ng/L	P435980	
		Methoxychlor	0.34	U	ng/L	P435980	
		MGK-264	0.23	U	ng/L	P435980	

Field ID: G4NW0429

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440305	EPA 8270E	Mirex	0.40	U	ng/L	P435980	
		Oxychlordane	0.34	U	ng/L	P435980	
		Permethrin	1.8	U	ng/L	P435980	
		Phenothrin	1.0	U	ng/L	P435980	
		Piperonyl Butoxide	0.17	U	ng/L	P435980	
		Prallethrin	2.3	U	ng/L	P435980	
		Tau-Fluvalinate	0.29	U	ng/L	P435980	
		Tetramethrin	0.86	U	ng/L	P435980	
		Trans-Nonachlor	0.23	U	ng/L	P435980	
		Triclosan Methyl	0.17	U	ng/L	P435980	
		Trifluralin	0.23	U	ng/L	P435980	
		Chlordane	2.3	U	ng/L	P435980	
		Toxaphene	17	U	ng/L	P435980	
2440317	EPA 200.7 Rev. 4.4	Calcium	8.97		mg/L	P435588	
		Iron	680		ug/L	P435588	
		Magnesium	1.18		mg/L	P435588	
		Potassium	0.54	I	mg/L	P435588	
		Sodium	6.0		mg/L	P435588	
		Strontium	22.0		ug/L	P435588	
		Tin	3.0	U	ug/L	P435588	
		Titanium	3.3		ug/L	P435588	
		Vanadium	2.0	U	ug/L	P435588	
		Zinc	5.0	U	ug/L	P435588	
	EPA 200.8 Rev. 5.4	Aluminum	319		ug/L	P435588	
		Antimony	0.099	I	ug/L	P435588	
		Arsenic	1.26		ug/L	P435588	
		Barium	9.31		ug/L	P435588	
		Beryllium	0.011	I	ug/L	P435588	
		Boron	23.4		ug/L	P435588	
		Cadmium	0.020	U	ug/L	P435588	
		Chromium	0.65	I	ug/L	P435588	
		Cobalt	0.125		ug/L	P435588	
		Copper	0.49	I	ug/L	P435588	
		Lead	0.52		ug/L	P435588	
		Manganese	13.5		ug/L	P435588	
		Molybdenum	0.15	U	ug/L	P435588	
		Nickel	0.50	U	ug/L	P435588	
		Selenium	0.26	I	ug/L	P435588	
		Silver	0.010	U	ug/L	P435588	
		Thallium	0.10	U	ug/L	P435588	
	SM 2340 B-2011	Hardness	27.3		mg/L	P435588	

Ref. Method and Comment:

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

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

**Sample Location: JACKSON CREEK DOWNSTREAM OF OLD
CORY RD**

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

Field ID: G4NW0412

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440307	EPA 8270E	Aldrin	0.71	U	ng/L	P435980	
		Alpha-BHC	0.11	U	ng/L	P435980	
		Alpha-Chlordane	3.7		ng/L	P435980	
		PCB-1016	2.2	U	ng/L	P435980	
		Beta-BHC	1.1		ng/L	P435980	
		PCB-1221	2.2	U	ng/L	P435980	
		Beta-Cyfluthrin	1.4	U	ng/L	P435980	
		PCB-1232	2.2	U	ng/L	P435980	
		Bifenthrin	0.55	U	ng/L	P435980	
		PCB-1242	2.2	U	ng/L	P435980	
		PCB-1248	2.2	U	ng/L	P435980	
		Chlorothalonil	4.0	U	ng/L	P435980	
		PCB-1254	2.2	U	ng/L	P435980	
		Cis-Nonachlor	0.30	I	ng/L	P435980	
		PCB-1260	2.2	U	ng/L	P435980	
		Cypermethrin	1.6	U	ng/L	P435980	
		Dacthal	0.16	U	ng/L	P435980	
		DDD-p,p'	17		ng/L	P435980	
		DDE-p,p'	1.6		ng/L	P435980	
		DDT-p,p'	56		ng/L	P435980	
		Delta-BHC	0.44	U	ng/L	P435980	
		Deltamethrin	1.4	U	ng/L	P435980	
		Dichlobenil	0.27	U	ng/L	P435980	
		Dicofol	1.4	U	ng/L	P435980	
		Dieldrin	29		ng/L	P435980	
		Endosulfan I	0.44	U	ng/L	P435980	
		Endosulfan II	0.99	U	ng/L	P435980	
		Endosulfan Sulfate	0.33	U	ng/L	P435980	
		Endrin	0.99	U	ng/L	P435980	
		Endrin Aldehyde	0.82	U	ng/L	P435980	
		Endrin Ketone	0.58	I	ng/L	P435980	
		Esfenvalerate	0.82	U	ng/L	P435980	
		Ethalfuralin	0.16	U	ng/L	P435980	
		Fenpropathrin	0.27	U	ng/L	P435980	
		Gamma-BHC	0.14	U	ng/L	P435980	
		Gamma-Chlordane	2.1		ng/L	P435980	
		Heptachlor	0.22	U	ng/L	P435980	
		Heptachlor Epoxide	18		ng/L	P435980	
		Hexachlorobenzene**	1.1	U	ng/L	P435980	
		Kepone	15	UJ	ng/L	P435980	CCV
		Lambda-Cyhalothrin	0.82	U	ng/L	P435980	
		Methoprene	0.82	U	ng/L	P435980	
		Methoxychlor	0.33	U	ng/L	P435980	

Field ID: G4NW0412

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440307	EPA 8270E	MGK-264	0.22	U	ng/L	P435980	
		Mirex	0.38	U	ng/L	P435980	
		Oxychlordane	0.33	I	ng/L	P435980	
		Permethrin	1.8	U	ng/L	P435980	
		Phenothrin	0.99	U	ng/L	P435980	
		Piperonyl Butoxide	0.16	U	ng/L	P435980	
		Prallethrin	2.2	U	ng/L	P435980	
		Tau-Fluvalinate	0.27	U	ng/L	P435980	
		Tetramethrin	0.82	U	ng/L	P435980	
		Trans-Nonachlor	0.94	I	ng/L	P435980	
		Triclosan Methyl	0.16	U	ng/L	P435980	
		Trifluralin	0.22	U	ng/L	P435980	
	EPA 8276	Chlordane	18	J	ng/L	P435980	SUR
		Toxaphene	98	J	ng/L	P435980	SUR

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.

Sample Location: JACKSON CREEK UPSTREAM OF PRIETO DRIVE

Collection Date/Time: 09/25/2023 09:40

Field ID: G4NW0505

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440308	EPA 8270E	Aldrin	0.75	U	ng/L	P435980	
		Alpha-BHC	0.11	U	ng/L	P435980	
		Alpha-Chlordane	2.4		ng/L	P435980	
		PCB-1016	2.3	U	ng/L	P435980	
		Beta-BHC	1.2		ng/L	P435980	
		PCB-1221	2.3	U	ng/L	P435980	
		Beta-Cyfluthrin	1.4	U	ng/L	P435980	
		PCB-1232	2.3	U	ng/L	P435980	
		Bifenthrin	0.57	U	ng/L	P435980	
		PCB-1242	2.3	U	ng/L	P435980	
		PCB-1248	2.3	U	ng/L	P435980	
		Chlorothalonil	4.1	U	ng/L	P435980	
		PCB-1254	2.3	U	ng/L	P435980	
		Cis-Nonachlor	0.23	U	ng/L	P435980	
		PCB-1260	2.3	U	ng/L	P435980	
		Cypermethrin	1.7	U	ng/L	P435980	
		Dacthal	0.17	U	ng/L	P435980	
		DDD-p,p'	16		ng/L	P435980	
		DDE-p,p'	1.3		ng/L	P435980	
		DDT-p,p'	42		ng/L	P435980	
		Delta-BHC	0.46	U	ng/L	P435980	
		Deltamethrin	1.4	U	ng/L	P435980	
		Dichlobenil	0.29	U	ng/L	P435980	
		Dicofol	1.4	U	ng/L	P435980	
		Dieldrin	18		ng/L	P435980	
		Endosulfan I	0.46	U	ng/L	P435980	
		Endosulfan II	1.0	U	ng/L	P435980	
		Endosulfan Sulfate	0.34	U	ng/L	P435980	
		Endrin	1.0	U	ng/L	P435980	
		Endrin Aldehyde	0.86	U	ng/L	P435980	
		Endrin Ketone	0.46	U	ng/L	P435980	
		Esfenvalerate	0.86	U	ng/L	P435980	
		Ethalfuralin	0.17	U	ng/L	P435980	
		Fenpropathrin	0.29	U	ng/L	P435980	
		Gamma-BHC	0.14	U	ng/L	P435980	
		Gamma-Chlordane	1.3		ng/L	P435980	
		Heptachlor	0.23	U	ng/L	P435980	
		Heptachlor Epoxide	19		ng/L	P435980	
		Hexachlorobenzene**	1.1	U	ng/L	P435980	
		Kepone	15	UJ	ng/L	P435980	CCV
		Lambda-Cyhalothrin	0.86	U	ng/L	P435980	
		Methoprene	0.86	U	ng/L	P435980	
		Methoxychlor	0.34	U	ng/L	P435980	

Field ID: G4NW0505

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440308	EPA 8270E	MGK-264	0.23	U	ng/L	P435980	
		Mirex	0.40	U	ng/L	P435980	
		Oxychlordane	0.34	U	ng/L	P435980	
		Permethrin	1.8	U	ng/L	P435980	
		Phenothrin	1.0	U	ng/L	P435980	
		Piperonyl Butoxide	0.17	U	ng/L	P435980	
		Prallethrin	2.3	U	ng/L	P435980	
		Tau-Fluvalinate	0.29	U	ng/L	P435980	
		Tetramethrin	0.86	U	ng/L	P435980	
		Trans-Nonachlor	0.62	I	ng/L	P435980	
		Triclosan Methyl	0.17	U	ng/L	P435980	
		Trifluralin	0.23	U	ng/L	P435980	
	EPA 8276	Chlordane	9.8	J	ng/L	P435980	SUR
		Toxaphene	110	J	ng/L	P435980	SUR

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.

**Sample Location: BAYOU MARCUS CREEK UPSTREAM OF
MOBILE HWY BRIDGE**

Collection Date/Time: 09/25/2023 10:45

Field ID: G5NW0156

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440290	DEP SOP: NU-094-1	Color (true)	28		PCU	P435526	
	EPA 180.1 Rev. 2.0	Turbidity	3.6		NTU	P435529	
	EPA 300.0 Rev. 2.1	Chloride	8.3		mg Cl/L	P436045	
		Sulfate	3.4		mg SO4/L	P436048	
	SM 2320 B-2011	Total Alkalinity	21		mg CaCO3/L	P435733	
	SM 2540 C-2015	TDS	50		mg/L	P436127	
	SM 2540 D-2015	TSS	3	I	mg/L	P435855	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P435736	
2440291	EPA 350.1 Rev. 2.0	Ammonia-N	0.040		mg N/L	P435697	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.20	I	mg N/L	P436040	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.22		mg N/L	P436378	
	EPA 365.1 Rev. 2.0	Total-P	0.018		mg P/L	P435692	
	SM 5310 B-2011	Organic Carbon	3.2		mg C/L	P435753	
2440304	EPA 8270E	Aldrin	0.74	U	ng/L	P435980	
		Alpha-BHC	0.11	U	ng/L	P435980	
		Alpha-Chlordane	0.23	U	ng/L	P435980	
		PCB-1016	2.3	U	ng/L	P435980	
		Beta-BHC	0.30	I	ng/L	P435980	
		PCB-1221	2.3	U	ng/L	P435980	
		Beta-Cyfluthrin	1.4	U	ng/L	P435980	
		PCB-1232	2.3	U	ng/L	P435980	
		Bifenthrin	0.57	U	ng/L	P435980	
		PCB-1242	2.3	U	ng/L	P435980	
		PCB-1248	2.3	U	ng/L	P435980	
		Chlorothalonil	4.1	U	ng/L	P435980	
		PCB-1254	2.3	U	ng/L	P435980	
		Cis-Nonachlor	0.23	U	ng/L	P435980	
		PCB-1260	2.3	U	ng/L	P435980	
		Cypermethrin	1.7	U	ng/L	P435980	
		Dacthal	0.17	U	ng/L	P435980	
		DDD-p,p'	8.5		ng/L	P435980	
		DDE-p,p'	0.73	I	ng/L	P435980	
		DDT-p,p'	25		ng/L	P435980	
		Delta-BHC	0.45	U	ng/L	P435980	
		Deltamethrin	1.4	U	ng/L	P435980	
		Dichlobenil	0.28	U	ng/L	P435980	
		Dicofol	1.4	U	ng/L	P435980	
		Dieldrin	1.6	I	ng/L	P435980	
		Endosulfan I	0.45	U	ng/L	P435980	
		Endosulfan II	1.0	U	ng/L	P435980	
		Endosulfan Sulfate	0.34	U	ng/L	P435980	
		Endrin	1.0	U	ng/L	P435980	
		Endrin Aldehyde	0.85	U	ng/L	P435980	

Field ID: G5NW0156

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440304	EPA 8270E	Endrin Ketone	0.45	U	ng/L	P435980	
		Esfenvalerate	0.85	U	ng/L	P435980	
		Ethalfuralin	0.17	U	ng/L	P435980	
		Fenpropathrin	0.28	U	ng/L	P435980	
		Gamma-BHC	0.14	U	ng/L	P435980	
		Gamma-Chlordane	0.25	I	ng/L	P435980	
		Heptachlor	0.23	U	ng/L	P435980	
		Heptachlor Epoxide	1.5		ng/L	P435980	
		Hexachlorobenzene**	1.1	U	ng/L	P435980	
		Kepone	15	UJ	ng/L	P435980	CCV
		Lambda-Cyhalothrin	0.85	U	ng/L	P435980	
		Methoprene	0.85	U	ng/L	P435980	
		Methoxychlor	0.34	U	ng/L	P435980	
		MGK-264	0.23	U	ng/L	P435980	
		Mirex	0.40	U	ng/L	P435980	
		Oxychlordane	0.34	U	ng/L	P435980	
		Permethrin	1.8	U	ng/L	P435980	
		Phenothrin	1.0	U	ng/L	P435980	
		Piperonyl Butoxide	0.17	U	ng/L	P435980	
		Prallethrin	2.3	U	ng/L	P435980	
		Tau-Fluvalinate	0.28	U	ng/L	P435980	
		Tetramethrin	0.85	U	ng/L	P435980	
		Trans-Nonachlor	0.23	U	ng/L	P435980	
		Triclosan Methyl	0.17	U	ng/L	P435980	
		Trifluralin	0.23	U	ng/L	P435980	
	EPA 8276	Chlordane	2.3	UJ	ng/L	P435980	SUR
		Toxaphene	34	IJ	ng/L	P435980	SUR
2440315	EPA 200.7 Rev. 4.4	Calcium	6.81		mg/L	P435588	
		Iron	1.03E+03		ug/L	P435588	
		Magnesium	1.89		mg/L	P435588	
		Potassium	1.2	I	mg/L	P435588	
		Sodium	5.8		mg/L	P435588	
		Strontium	29.4		ug/L	P435588	
		Tin	3.0	U	ug/L	P435588	
		Titanium	0.87	I	ug/L	P435588	
		Vanadium	2.0	U	ug/L	P435588	
		Zinc	5.0	U	ug/L	P435588	
	EPA 200.8 Rev. 5.4	Aluminum	38		ug/L	P435588	
		Antimony	0.050	I	ug/L	P435588	
		Arsenic	0.66		ug/L	P435588	
		Barium	26.3		ug/L	P435588	
		Beryllium	0.010	U	ug/L	P435588	
		Boron	37.3		ug/L	P435588	
		Cadmium	0.020	U	ug/L	P435588	
		Chromium	0.40	U	ug/L	P435588	

Field ID: G5NW0156

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440315	EPA 200.8 Rev. 5.4	Cobalt	0.206		ug/L	P435588	
		Copper	0.40	U	ug/L	P435588	
		Lead	0.37	I	ug/L	P435588	
		Manganese	51.8		ug/L	P435588	
		Molybdenum	0.15	U	ug/L	P435588	
		Nickel	0.50	U	ug/L	P435588	
		Selenium	0.20	U	ug/L	P435588	
		Silver	0.010	U	ug/L	P435588	
		Thallium	0.10	U	ug/L	P435588	
	SM 2340 B-2011	Hardness	24.8		mg/L	P435588	

Ref. Method and Comment:
 SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
 EPA 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.
 EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

**Sample Location: MARCUS CREEK UPSTREAM OF MARCUS
POINTE BLVD**

Collection Date/Time: 09/25/2023 11:50

Field ID: G4NW0179

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440292	DEP SOP: NU-094-1	Color (true)	32		PCU	P435526	
	EPA 180.1 Rev. 2.0	Turbidity	6.4		NTU	P435529	
	EPA 300.0 Rev. 2.1	Chloride	7.6	A	mg Cl/L	P436045	
		Sulfate	1.1	A	mg SO4/L	P436048	
	SM 2320 B-2011	Total Alkalinity	49		mg CaCO3/L	P435733	
	SM 2540 C-2015	TDS	75		mg/L	P436127	
	SM 2540 D-2015	TSS	2	U	mg/L	P435855	
	SM 4500-F- C-2011	Fluoride	0.025	I	mg F/L	P435736	
2440293	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P435749	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.16	I	mg N/L	P436040	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.075		mg N/L	P436378	
	EPA 365.1 Rev. 2.0	Total-P	0.007		mg P/L	P435692	
	SM 5310 B-2011	Organic Carbon	3.4		mg C/L	P435753	
2440316	EPA 200.7 Rev. 4.4	Calcium	14.8		mg/L	P435588	
		Iron	1.06E+03		ug/L	P435588	
		Magnesium	3.05		mg/L	P435588	
		Potassium	3.4		mg/L	P435588	
		Sodium	6.2		mg/L	P435588	
		Strontium	60.8		ug/L	P435588	
		Tin	3.0	U	ug/L	P435588	
		Titanium	0.75	U	ug/L	P435588	
		Vanadium	2.0	U	ug/L	P435588	
		Zinc	5.0	U	ug/L	P435588	
		Aluminum	25		ug/L	P435588	
		Antimony	0.050	U	ug/L	P435588	
	EPA 200.8 Rev. 5.4	Arsenic	0.43		ug/L	P435588	
		Barium	25.4		ug/L	P435588	
		Beryllium	0.010	U	ug/L	P435588	
		Boron	96.9		ug/L	P435588	
		Cadmium	0.020	U	ug/L	P435588	
		Chromium	0.44	I	ug/L	P435588	
		Cobalt	0.155		ug/L	P435588	
		Copper	0.40	U	ug/L	P435588	
		Lead	0.20	U	ug/L	P435588	
		Manganese	174		ug/L	P435588	
		Molybdenum	0.15	U	ug/L	P435588	
		Nickel	0.50	U	ug/L	P435588	
		Selenium	0.20	U	ug/L	P435588	
		Silver	0.010	U	ug/L	P435588	
		Thallium	0.10	U	ug/L	P435588	
	SM 2340 B-2011	Hardness	49.6		mg/L	P435588	

Field ID: G4NW0179

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

**Sample Location: CARPENTER CREEK BELOW TARGET
STORMWATER POND**

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

Field ID: G4NW0244

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440309	EPA 8270E	Aldrin	0.76	U	ng/L	P435980	
		Alpha-BHC	0.12	U	ng/L	P435980	
		Alpha-Chlordane	0.57	I	ng/L	P435980	
		PCB-1016	2.3	U	ng/L	P435980	
		Beta-BHC	0.12	U	ng/L	P435980	
		PCB-1221	2.3	U	ng/L	P435980	
		Beta-Cyfluthrin	1.5	U	ng/L	P435980	
		PCB-1232	2.3	U	ng/L	P435980	
		Bifenthrin	0.59	U	ng/L	P435980	
		PCB-1242	2.3	U	ng/L	P435980	
		PCB-1248	2.3	U	ng/L	P435980	
		Chlorothalonil	4.2	U	ng/L	P435980	
		PCB-1254	2.3	U	ng/L	P435980	
		Cis-Nonachlor	0.23	U	ng/L	P435980	
		PCB-1260	2.3	U	ng/L	P435980	
		Cypermethrin	1.8	U	ng/L	P435980	
		Dacthal	0.18	U	ng/L	P435980	
		DDD-p,p'	0.29	U	ng/L	P435980	
		DDE-p,p'	0.23	U	ng/L	P435980	
		DDT-p,p'	0.94	U	ng/L	P435980	
		Delta-BHC	0.47	U	ng/L	P435980	
		Deltamethrin	1.5	U	ng/L	P435980	
		Dichlobenil	0.29	U	ng/L	P435980	
		Dicofol	1.5	U	ng/L	P435980	
		Diieldrin	4.7		ng/L	P435980	
		Endosulfan I	0.47	U	ng/L	P435980	
		Endosulfan II	1.1	U	ng/L	P435980	
		Endosulfan Sulfate	0.35	U	ng/L	P435980	
		Endrin	1.1	U	ng/L	P435980	
		Endrin Aldehyde	0.88	U	ng/L	P435980	
		Endrin Ketone	0.47	U	ng/L	P435980	
		Esfenvalerate	0.88	U	ng/L	P435980	
		Ethalfuralin	0.18	U	ng/L	P435980	
		Fenpropathrin	0.29	U	ng/L	P435980	
		Gamma-BHC	0.15	U	ng/L	P435980	
		Gamma-Chlordane	0.37	I	ng/L	P435980	
		Heptachlor	0.23	U	ng/L	P435980	
		Heptachlor Epoxide	4.6		ng/L	P435980	
		Hexachlorobenzene**	1.2	U	ng/L	P435980	
		Kepone	16	UJ	ng/L	P435980	CCV
		Lambda-Cyhalothrin	0.88	U	ng/L	P435980	
		Methoprene	0.88	U	ng/L	P435980	
		Methoxychlor	0.35	U	ng/L	P435980	

Field ID: G4NW0244

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440309	EPA 8270E	MGK-264	0.23	U	ng/L	P435980	
		Mirex	0.41	U	ng/L	P435980	
		Oxychlordane	0.35	U	ng/L	P435980	
		Permethrin	1.9	U	ng/L	P435980	
		Phenothrin	1.1	U	ng/L	P435980	
		Piperonyl Butoxide	0.31	I	ng/L	P435980	
		Prallethrin	2.3	U	ng/L	P435980	
		Tau-Fluvalinate	0.29	U	ng/L	P435980	
		Tetramethrin	0.88	U	ng/L	P435980	
		Trans-Nonachlor	0.23	U	ng/L	P435980	
		Triclosan Methyl	0.18	U	ng/L	P435980	
		Trifluralin	0.23	U	ng/L	P435980	
	EPA 8276	Chlordane	2.5	I J	ng/L	P435980	SUR
		Toxaphene	18	UJ	ng/L	P435980	SUR

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.

Sample Location: CARPENTERS CR DAVIS HIGHWAY BR

Collection Date/Time: 09/25/2023 12:50

Field ID: G4NW0036

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440310	EPA 8270E	Aldrin	0.74	U	ng/L	P435980	
		Alpha-BHC	0.11	U	ng/L	P435980	
		Alpha-Chlordane	0.23	U	ng/L	P435980	
		PCB-1016	2.3	U	ng/L	P435980	
		Beta-BHC	0.11	U	ng/L	P435980	
		PCB-1221	2.3	U	ng/L	P435980	
		Beta-Cyfluthrin	1.4	U	ng/L	P435980	
		PCB-1232	2.3	U	ng/L	P435980	
		Bifenthrin	0.57	U	ng/L	P435980	
		PCB-1242	2.3	U	ng/L	P435980	
		PCB-1248	2.3	U	ng/L	P435980	
		Chlorothalonil	4.1	U	ng/L	P435980	
		PCB-1254	2.3	U	ng/L	P435980	
		Cis-Nonachlor	0.23	U	ng/L	P435980	
		PCB-1260	2.3	U	ng/L	P435980	
		Cypermethrin	1.7	U	ng/L	P435980	
		Dacthal	0.17	U	ng/L	P435980	
		DDD-p,p'	0.28	U	ng/L	P435980	
		DDE-p,p'	0.23	U	ng/L	P435980	
		DDT-p,p'	0.91	U	ng/L	P435980	
		Delta-BHC	0.45	U	ng/L	P435980	
		Deltamethrin	1.4	U	ng/L	P435980	
		Dichlobenil	0.28	U	ng/L	P435980	
		Dicofol	1.4	U	ng/L	P435980	
		Dieldrin	0.75	I	ng/L	P435980	
		Endosulfan I	0.45	U	ng/L	P435980	
		Endosulfan II	1.0	U	ng/L	P435980	
		Endosulfan Sulfate	0.34	U	ng/L	P435980	
		Endrin	1.0	U	ng/L	P435980	
		Endrin Aldehyde	0.85	U	ng/L	P435980	
		Endrin Ketone	0.45	U	ng/L	P435980	
		Esfenvalerate	0.85	U	ng/L	P435980	
		Ethalfuralin	0.17	U	ng/L	P435980	
		Fenpropathrin	0.28	U	ng/L	P435980	
		Gamma-BHC	0.14	U	ng/L	P435980	
		Gamma-Chlordane	0.23	U	ng/L	P435980	
		Heptachlor	0.23	U	ng/L	P435980	
		Heptachlor Epoxide	0.66	I	ng/L	P435980	
		Hexachlorobenzene**	1.1	U	ng/L	P435980	
		Kepone	15	UJ	ng/L	P435980	CCV
		Lambda-Cyhalothrin	0.85	U	ng/L	P435980	
		Methoprene	0.85	U	ng/L	P435980	
		Methoxychlor	0.34	U	ng/L	P435980	
		MGK-264	0.23	U	ng/L	P435980	

Field ID: G4NW0036

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440310	EPA 8270E	Mirex	0.40	U	ng/L	P435980	
		Oxychlordane	0.34	U	ng/L	P435980	
		Permethrin	1.8	U	ng/L	P435980	
		Phenothrin	1.0	U	ng/L	P435980	
		Piperonyl Butoxide	0.17	U	ng/L	P435980	
		Prallethrin	2.3	U	ng/L	P435980	
		Tau-Fluvalinate	0.28	U	ng/L	P435980	
		Tetramethrin	0.85	U	ng/L	P435980	
		Trans-Nonachlor	0.23	U	ng/L	P435980	
		Triclosan Methyl	0.17	U	ng/L	P435980	
		Trifluralin	0.23	U	ng/L	P435980	
		Chlordane	2.3	U	ng/L	P435980	
		Toxaphene	17	U	ng/L	P435980	
	EPA 8276						

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

Sample Location: MARCUS CREEK AT MILLVIEW ROAD (SR173) Collection Date/Time: 09/25/2023 10:10

Field ID: G5NW0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440350	DEP SOP: NU-094-1	Color (true)	36		PCU	P435526	
	EPA 180.1 Rev. 2.0	Turbidity	2.4		NTU	P435529	
	EPA 300.0 Rev. 2.1	Chloride	8.2		mg Cl/L	P436045	
		Sulfate	3.2		mg SO4/L	P436048	
	SM 2320 B-2011	Total Alkalinity	15		mg CaCO3/L	P435767	
	SM 2540 C-2015	TDS	36		mg/L	P436127	
	SM 2540 D-2015	TSS	2	I	mg/L	P435855	
2440351	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P435769	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.018		mg N/L	P435749	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.20	I	mg N/L	P436040	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.43		mg N/L	P436258	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P435692	
2440354	SM 5310 B-2011	Organic Carbon	3.2		mg C/L	P435794	
	EPA 8270E	Aldrin	0.73	U	ng/L	P435653	
		Alpha-BHC	0.11	U	ng/L	P435653	
		Alpha-Chlordane	0.23	U	ng/L	P435653	
		PCB-1016	2.3	U	ng/L	P435653	
		Beta-BHC	0.11	U	ng/L	P435653	
		PCB-1221	2.3	U	ng/L	P435653	
		Beta-Cyfluthrin	1.4	U	ng/L	P435653	
		PCB-1232	2.3	U	ng/L	P435653	
		Bifenthrin	0.56	U	ng/L	P435653	
		PCB-1242	2.3	U	ng/L	P435653	
		PCB-1248	2.3	U	ng/L	P435653	
		Chlorothalonil	4.1	U	ng/L	P435653	
		PCB-1254	2.3	U	ng/L	P435653	
		Cis-Nonachlor	0.23	U	ng/L	P435653	
		PCB-1260	2.3	U	ng/L	P435653	
		Cypermethrin	1.7	U	ng/L	P435653	
		Dacthal	0.17	U	ng/L	P435653	
		DDD-p,p'	0.28	U	ng/L	P435653	
		DDE-p,p'	0.23	U	ng/L	P435653	
		DDT-p,p'	0.90	U	ng/L	P435653	
		Delta-BHC	0.45	U	ng/L	P435653	
		Deltamethrin	1.4	U	ng/L	P435653	
		Dichlobenil	0.28	U	ng/L	P435653	
		Dicofol	1.4	U	ng/L	P435653	
		Diieldrin	2.1	I	ng/L	P435653	
		Endosulfan I	0.45	U	ng/L	P435653	
		Endosulfan II	1.0	U	ng/L	P435653	
		Endosulfan Sulfate	0.34	U	ng/L	P435653	
		Endrin	1.0	U	ng/L	P435653	
		Endrin Aldehyde	0.84	U	ng/L	P435653	
		Endrin Ketone	0.45	U	ng/L	P435653	

Field ID: G5NW0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440354	EPA 8270E	Esfenvalerate	0.84	U	ng/L	P435653	RPD
		Ethalfuralin	0.17	U	ng/L	P435653	
		Fenpropathrin	0.28	U	ng/L	P435653	
		Gamma-BHC	0.14	U	ng/L	P435653	
		Gamma-Chlordane	0.23	U	ng/L	P435653	
		Heptachlor	0.23	U	ng/L	P435653	
		Heptachlor Epoxide	1.7		ng/L	P435653	
		Hexachlorobenzene**	1.1	U	ng/L	P435653	
		Kepone	15	U	ng/L	P435653	
		Lambda-Cyhalothrin	0.84	U	ng/L	P435653	
		Methoprene	0.84	U	ng/L	P435653	
		Methoxychlor	0.34	U	ng/L	P435653	
		MGK-264	0.23	U	ng/L	P435653	
		Mirex	0.39	U	ng/L	P435653	
		Oxychlordane	0.34	U	ng/L	P435653	
		Permethrin	1.8	U	ng/L	P435653	
		Phenothrin	1.0	U	ng/L	P435653	
		Piperonyl Butoxide	0.17	U	ng/L	P435653	
		Prallethrin	2.3	U	ng/L	P435653	
		Tau-Fluvalinate	0.28	U	ng/L	P435653	
		Tetramethrin	0.84	U	ng/L	P435653	
		Trans-Nonachlor	0.23	U	ng/L	P435653	
		Triclosan Methyl	0.17	U	ng/L	P435653	
		Trifluralin	0.23	U	ng/L	P435653	
	EPA 8276	Chlordane	2.3	U	ng/L	P435653	
		Toxaphene	17	U	ng/L	P435653	
2440355	EPA 200.7 Rev. 4.4	Calcium	5.50		mg/L	P435682	
		Iron	710		ug/L	P435682	
		Magnesium	1.70		mg/L	P435682	
		Potassium	1.0	I	mg/L	P435682	
		Sodium	5.6		mg/L	P435682	
		Strontium	23.5		ug/L	P435682	
		Tin	3.0	U	ug/L	P435682	
		Titanium	0.75	U	ug/L	P435682	
		Vanadium	2.0	U	ug/L	P435682	
		Zinc	5.0	U	ug/L	P435682	
	EPA 200.8 Rev. 5.4	Aluminum	37		ug/L	P435682	
		Antimony	0.050	U	ug/L	P435682	
		Arsenic	0.50		ug/L	P435682	
		Barium	23.3		ug/L	P435682	
		Beryllium	0.010	I	ug/L	P435682	
		Boron	32.1		ug/L	P435682	
		Cadmium	0.020	U	ug/L	P435682	
		Chromium	0.40	U	ug/L	P435682	
		Cobalt	0.107		ug/L	P435682	

Field ID: G5NW0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440355	EPA 200.8 Rev. 5.4	Copper	0.40	U	ug/L	P435682	
		Lead	0.29	I	ug/L	P435682	
		Manganese	21.8		ug/L	P435682	
		Molybdenum	0.15	U	ug/L	P435682	
		Nickel	0.50	U	ug/L	P435682	
		Selenium	0.20	U	ug/L	P435682	
		Silver	0.010	U	ug/L	P435682	
		Thallium	0.10	U	ug/L	P435682	
	SM 2340 B-2011	Hardness	20.7		mg/L	P435682	

Ref. Method and Comment:
SM 2540 C-2015: The reported result is consistent with the conductivity measured in the laboratory, 75 umhos/cm.
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

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

Component	Result	Code	Units
Color (true)	2.5	U	PCU

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

Component	Result	Code	Units
Turbidity	0.10	U	NTU

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

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P435682

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

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

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L

Quality Assurance Report Method Blank Results

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

Component	Result	Code	Units
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 200.8 Rev. 5.4
Batch ID: P435682

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	0.12	I	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.012	I	ug/L
Thallium	0.10	U	ug/L

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

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

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

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

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

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435749

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435749

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

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

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

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

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

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

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

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

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

Reference Method: EPA 8270E
Batch ID: P435653

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.80	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.90	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P435653

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

Reference Method: EPA 8270E

Batch ID: P435980

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P435980

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

Reference Method: EPA 8276

Batch ID: P435653

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8276
Batch ID: P435980

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

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

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

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

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

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

Component	Result	Code	Units
TDS	15	U	mg/L

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

Component	Result	Code	Units
TSS	2	U	mg/L

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

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

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

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

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

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

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

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

Quality Assurance Report Laboratory Control Sample Accuracy

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

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

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

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

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

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P435682

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115
Iron	103		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	101		P	85 - 115
Sodium	100		P	85 - 115
Strontium	99.6		P	85 - 115
Tin	106		P	85 - 115
Titanium	102		P	85 - 115
Vanadium	102		P	85 - 115
Zinc	104		P	85 - 115

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

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	99.3		P	85 - 115
Barium	104		P	85 - 115
Beryllium	102		P	85 - 115
Boron	104		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	104		P	85 - 115
Cobalt	102		P	85 - 115
Copper	99.2		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P435588

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Lead	97.1		P	85 - 115
Manganese	103		P	85 - 115
Molybdenum	100		P	85 - 115
Nickel	100		P	85 - 115
Selenium	99.0		P	85 - 115
Silver	112		P	85 - 115
Thallium	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P435682

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.9		P	85 - 115
Antimony	94.0		P	85 - 115
Arsenic	98.7		P	85 - 115
Barium	98.3		P	85 - 115
Beryllium	95.3		P	85 - 115
Boron	102		P	85 - 115
Cadmium	96.3		P	85 - 115
Chromium	94.2		P	85 - 115
Cobalt	98.4		P	85 - 115
Copper	96.4		P	85 - 115
Lead	90.8		P	85 - 115
Manganese	94.1		P	85 - 115
Molybdenum	96.2		P	85 - 115
Nickel	97.9		P	85 - 115
Selenium	95.6		P	85 - 115
Silver	107		P	85 - 115
Thallium	99.0		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P436045

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P436048

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P435697

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P435749

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435749

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

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

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

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

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

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

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

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

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

Reference Method: EPA 8270E
Batch ID: P435653

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	52.2		P	30 - 96.0
Alpha-BHC	77.4		P	70 - 109
Alpha-Chlordane	88.3		P	45 - 107
Beta-BHC	73.8		P	64 - 138
Beta-Cyfluthrin	77.8		P	17 - 141
Bifenthrin	54.3		P	10 - 113
Chlorothalonil	107		P	26 - 180
Cis-Nonachlor	70.4		P	37 - 102
Cypermethrin	69.5		P	20 - 133
Dacthal	99.0		P	69 - 114
DDD-p,p'	61.9		P	42 - 105
DDE-p,p'	68.2		P	42 - 106
DDT-p,p'	56.4		P	42 - 107
Delta-BHC	103		P	67 - 144
Deltamethrin	76.9		P	15 - 149
Dichlobenil	74.7		P	46 - 117
Dicofol	67.4		P	34 - 114
Dieldrin	74.6		P	50 - 108
Endosulfan I	76.2		P	55 - 104
Endosulfan II	93.6		P	51 - 111
Endosulfan Sulfate	83.1		P	56 - 121
Endrin	77.6		P	10 - 106

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P435653

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

Reference Method: EPA 8270E

Batch ID: P435980

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	78.6		P	30 - 96.0
Alpha-BHC	77.6		P	70 - 109
Alpha-Chlordane	82.7		P	45 - 107
Beta-BHC	90.6		P	64 - 138
Beta-Cyfluthrin	106		P	17 - 141
Bifenthrin	89.8		P	10 - 113
Chlorothalonil	61.8		P	26 - 180
Cis-Nonachlor	93.8		P	37 - 102
Cypermethrin	98.0		P	20 - 133
Dacthal	88.7		P	69 - 114
DDD-p,p'	89.1		P	42 - 105
DDE-p,p'	77.1		P	42 - 106
DDT-p,p'	82.7		P	42 - 107
Delta-BHC	99.5		P	67 - 144
Deltamethrin	102		P	15 - 149
Dichlobenil	87.9		P	46 - 117
Dicofol	72.9		P	34 - 114
Dieldrin	82.4		P	50 - 108
Endosulfan I	82.1		P	55 - 104

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P435980

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endosulfan II	90.8		P	51 - 111
Endosulfan Sulfate	77.1		P	56 - 121
Endrin	85.1		P	10 - 106
Endrin Aldehyde	91.1		P	34 - 114
Endrin Ketone	72.0		P	63 - 177
Esfenvalerate	107		P	29 - 143
Ethalfuralin	73.6		P	46 - 96.0
Fenpropathrin	97.5		P	28 - 115
Gamma-BHC	76.0		P	65 - 121
Gamma-Chlordane	84.0		P	39 - 103
Heptachlor	74.9		P	39 - 94.0
Heptachlor Epoxide	92.0		P	54 - 104
Hexachlorobenzene	91.5		P	36 - 100
Kepone	50.4		P	10 - 225
Lambda-Cyhalothrin	102		P	10 - 135
Methoprene	77.4		P	10 - 109
Methoxychlor	69.0		P	52 - 112
MGK-264	104		P	44 - 117
Mirex	87.7		P	20 - 90.0
Oxychlordane	77.7		P	44 - 102
PCB-1016	80.0		P	45 - 107
PCB-1260	78.2		P	40 - 118
Permethrin	102		P	18 - 135
Phenothrin	96.2		P	10 - 102
Piperonyl Butoxide	89.9		P	28 - 156
Prallethrin	88.6		P	28 - 113
Tau-Fluvalinate	109		P	10 - 123
Tetramethrin	97.6		P	18 - 158
Trans-Nonachlor	87.4		P	39 - 104
Triclosan Methyl	76.8		P	54 - 108
Trifluralin	72.7		P	46 - 97.0

Reference Method: EPA 8276

Batch ID: P435653

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

Reference Method: EPA 8276

Batch ID: P435980

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	72.8		P	52 - 117
Toxaphene	86.7		P	44 - 125

Reference Method: SM 2320 B-2011

Batch ID: P435733

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

Quality Assurance Report

Laboratory Control Sample Accuracy

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P435588

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

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P435682

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440487	Calcium	98.8		P	80 - 120
2440487	Iron	102	101	P/P	80 - 120
2440487	Magnesium	104	102	P/P	80 - 120
2440487	Potassium	96.4	98.4	P/P	80 - 120
2440487	Sodium	99.9		P	80 - 120
2440487	Strontium	98.1	99.1	P/P	80 - 120
2440487	Tin	101	103	P/P	80 - 120
2440487	Titanium	92.9	95.4	P/P	80 - 120
2440487	Vanadium	98.6	101	P/P	80 - 120
2440487	Zinc	101	102	P/P	80 - 120
2441075	Calcium	102		P	80 - 120
2441075	Iron	99.7		P	80 - 120
2441075	Magnesium	104		P	80 - 120
2441075	Potassium	97.4		P	80 - 120
2441075	Sodium	99.5		P	80 - 120
2441075	Strontium	99.2		P	80 - 120
2441075	Tin	102		P	80 - 120
2441075	Titanium	101		P	80 - 120
2441075	Vanadium	103		P	80 - 120
2441075	Zinc	102		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P435588

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2439344	Aluminum	94.1		P	75 - 125
2439344	Antimony	100		P	75 - 125
2439344	Arsenic	103		P	75 - 125

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P435588

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2439344	Barium	104		P	75 - 125
2439344	Beryllium	97.7		P	75 - 125
2439344	Boron	102		P	75 - 125
2439344	Cadmium	105		P	75 - 125
2439344	Chromium	104		P	75 - 125
2439344	Cobalt	100		P	75 - 125
2439344	Copper	93.2		P	75 - 125
2439344	Lead	98.4		P	75 - 125
2439344	Manganese	99.2		P	75 - 125
2439344	Molybdenum	105		P	75 - 125
2439344	Nickel	95.8		P	75 - 125
2439344	Selenium	99.3		P	75 - 125
2439344	Silver	109		P	75 - 125
2439344	Thallium	107		P	75 - 125
2439877	Aluminum	98.9	99.0	P/P	80 - 120
2439877	Antimony	102	101	P/P	80 - 120
2439877	Arsenic	102	100	P/P	80 - 120
2439877	Barium	104	103	P/P	80 - 120
2439877	Beryllium	103	103	P/P	80 - 120
2439877	Boron	103	102	P/P	80 - 120
2439877	Cadmium	102	103	P/P	80 - 120
2439877	Chromium	105	103	P/P	80 - 120
2439877	Cobalt	101	101	P/P	80 - 120
2439877	Copper	98.3	97.4	P/P	80 - 120
2439877	Lead	96.6	97.0	P/P	80 - 120
2439877	Manganese	102	102	P/P	80 - 120
2439877	Molybdenum	102	101	P/P	80 - 120
2439877	Nickel	99.1	98.2	P/P	80 - 120
2439877	Selenium	100	98.1	P/P	80 - 120
2439877	Silver	112	110	P/P	80 - 120
2439877	Thallium	107	106	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P435682

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440487	Aluminum	101	98.7	P/P	80 - 120
2440487	Antimony	98.9	98.1	P/P	80 - 120
2440487	Arsenic	99.1	99.7	P/P	80 - 120
2440487	Barium	103	102	P/P	80 - 120
2440487	Beryllium	94.7	96.1	P/P	80 - 120
2440487	Boron	105	104	P/P	80 - 120
2440487	Cadmium	103	101	P/P	80 - 120
2440487	Chromium	95.1	94.9	P/P	80 - 120
2440487	Cobalt	96.9	96.6	P/P	80 - 120
2440487	Copper	93.9	94.5	P/P	80 - 120
2440487	Lead	93.2	93.0	P/P	80 - 120
2440487	Manganese	95.5	95.7	P/P	80 - 120
2440487	Molybdenum	101	100	P/P	80 - 120
2440487	Nickel	94.2	93.7	P/P	80 - 120
2440487	Selenium	97.1	97.7	P/P	80 - 120
2440487	Silver	109	109	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P435682

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440487	Thallium	104	104	P/P	80 - 120
2441075	Aluminum	87.6		P	80 - 120
2441075	Antimony	93.3		P	80 - 120
2441075	Arsenic	95.2		P	80 - 120
2441075	Barium	97.3		P	80 - 120
2441075	Beryllium	88.9		P	80 - 120
2441075	Boron	97.6		P	80 - 120
2441075	Cadmium	97.5		P	80 - 120
2441075	Chromium	93.5		P	80 - 120
2441075	Cobalt	93.8		P	80 - 120
2441075	Copper	96.7		P	80 - 120
2441075	Lead	95.5		P	80 - 120
2441075	Manganese	92.7		P	80 - 120
2441075	Molybdenum	94.7		P	80 - 120
2441075	Nickel	94.0		P	80 - 120
2441075	Selenium	93.1		P	80 - 120
2441075	Silver	104		P	80 - 120
2441075	Thallium	99.2		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P436045

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P436048

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P435697

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P435749

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440351	Ammonia-N	100	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P436040

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

Quality Assurance Report Matrix Spike Accuracy

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

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

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

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

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

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

Reference Method: EPA 8270E
Batch ID: P435653

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440340	PCB-1016	78.1	85.7	P/P	45 - 107
2440340	PCB-1260	78.4	88.8	P/P	40 - 112
2441048	Aldrin	63.9	65.3	P/P	24 - 81.0
2441048	Alpha-BHC	96.5	83.3	P/P	65 - 110
2441048	Alpha-Chlordane	91.1	76.7	P/P	43 - 119
2441048	Beta-BHC	83.7	89.6	P/P	54 - 165
2441048	Beta-Cyfluthrin	94.0	105	P/P	27 - 165
2441048	Bifenthrin	71.4	60.2	P/P	17 - 117
2441048	Chlorothalonil	11.8	12.1	P/P	10 - 255
2441048	Cis-Nonachlor	72.0	79.4	P/P	34 - 98.0
2441048	Cypermethrin	94.0	101	P/P	25 - 143
2441048	Dacthal	97.2	84.7	P/P	55 - 139
2441048	DDD-p,p'	59.8	64.8	P/P	30 - 109
2441048	DDE-p,p'	68.4	57.5	P/P	35 - 106
2441048	DDT-p,p'	58.6	61.1	P/P	41 - 101
2441048	Delta-BHC	150	117	P/P	58 - 165
2441048	Deltamethrin	119	118	P/P	10 - 194
2441048	Dichlobenil	50.7	52.3	P/P	22 - 114
2441048	Dicofol	86.9	76.9	P/P	17 - 133
2441048	Dieldrin	85.4	72.7	P/P	45 - 129
2441048	Endosulfan I	99.7	86.7	P/P	49 - 104
2441048	Endosulfan II	90.0	88.7	P/P	37 - 117
2441048	Endosulfan Sulfate	83.9	77.4	P/P	38 - 128
2441048	Endrin	89.0	76.2	P/P	35 - 116
2441048	Endrin Aldehyde	54.9	55.9	P/P	19 - 108
2441048	Endrin Ketone	96.9	102	P/P	44 - 134
2441048	Esfenvalerate	106	99.0	P/P	27 - 176
2441048	Ethalfuralin	78.3	63.7	P/P	49 - 100
2441048	Fenpropathrin	82.5	75.7	P/P	34 - 117
2441048	Gamma-BHC	119	88.7	P/P	59 - 129
2441048	Gamma-Chlordane	90.6	71.9	P/P	33 - 107
2441048	Heptachlor	85.0	67.2	P/P	37 - 94.0
2441048	Heptachlor Epoxide	94.2	70.6	P/P	38 - 118
2441048	Hexachlorobenzene	73.0	66.5	P/P	35 - 97.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P435653

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2441048	Kepone	119	116	P/P	10 - 221
2441048	Lambda-Cyhalothrin	96.9	107	P/P	23 - 190
2441048	Methoprene	50.1	53.5	P/P	21 - 109
2441048	Methoxychlor	115	97.9	P/P	46 - 118
2441048	MGK-264	64.3	63.9	P/P	39 - 122
2441048	Mirex	73.5	71.6	P/P	25 - 90.0
2441048	Oxychlordane	81.6	66.7	P/P	42 - 100
2441048	Permethrin	80.1	99.1	P/P	33 - 181
2441048	Phenothrin	71.6	103	P/P	12 - 125
2441048	Piperonyl Butoxide	86.4	78.1	P/P	10 - 178
2441048	Prallethrin	80.3	82.0	P/P	24 - 122
2441048	Tau-Fluvalinate	103	100	P/P	13 - 151
2441048	Tetramethrin	84.7	93.5	P/P	16 - 172
2441048	Trans-Nonachlor	96.9	75.3	P/P	39 - 100
2441048	Triclosan Methyl	79.0	79.6	P/P	43 - 110
2441048	Trifluralin	74.0	70.2	P/P	45 - 94.0

Reference Method: EPA 8270E

Batch ID: P435980

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440178	Aldrin	50.5	54.7	P/P	24 - 81.0
2440178	Alpha-BHC	83.6	77.1	P/P	65 - 110
2440178	Alpha-Chlordane	60.5	58.0	P/P	43 - 119
2440178	Beta-BHC	77.2	76.3	P/P	54 - 165
2440178	Beta-Cyfluthrin	80.8	82.1	P/P	27 - 165
2440178	Bifenthrin	63.8	68.2	P/P	17 - 117
2440178	Chlorothalonil	51.8	45.2	P/P	10 - 255
2440178	Cis-Nonachlor	56.2	65.8	P/P	34 - 98.0
2440178	Cypermethrin	85.0	81.4	P/P	25 - 143
2440178	Dacthal	69.0	67.6	P/P	55 - 139
2440178	DDD-p,p'	58.7	66.8	P/P	30 - 109
2440178	DDE-p,p'	50.8	53.6	P/P	35 - 106
2440178	DDT-p,p'	89.3	99.5	P/P	41 - 101
2440178	Delta-BHC	85.8	84.4	P/P	58 - 165
2440178	Deltamethrin	114	107	P/P	10 - 194
2440178	Dichlobenil	59.9	48.0	P/P	22 - 114
2440178	Dicofol	65.9	66.7	P/P	17 - 133
2440178	Dieldrin	57.2	65.3	P/P	45 - 129
2440178	Endosulfan I	69.4	68.5	P/P	49 - 104
2440178	Endosulfan II	60.5	60.2	P/P	37 - 117
2440178	Endosulfan Sulfate	73.6	65.8	P/P	38 - 128
2440178	Endrin	55.8	63.3	P/P	35 - 116
2440178	Endrin Aldehyde	58.6	44.8	P/P	19 - 108
2440178	Endrin Ketone	70.9	61.5	P/P	44 - 134
2440178	Esfenvalerate	92.8	96.3	P/P	27 - 176
2440178	Ethalfuralin	59.4	62.4	P/P	49 - 100
2440178	Fenpropathrin	76.3	70.6	P/P	34 - 117
2440178	Gamma-BHC	73.0	68.4	P/P	59 - 129
2440178	Gamma-Chlordane	63.8	60.4	P/P	33 - 107
2440178	Heptachlor	65.5	64.5	P/P	37 - 94.0
2440178	Heptachlor Epoxide	70.3	68.8	P/P	38 - 118

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P435980

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440178	Hexachlorobenzene	60.3	58.5	P/P	35 - 97.0
2440178	Kepone	28.7	30.7	P/P	10 - 221
2440178	Lambda-Cyhalothrin	80.3	78.6	P/P	23 - 190
2440178	Methoprene	43.6	52.6	P/P	21 - 109
2440178	Methoxychlor	75.3	63.6	P/P	46 - 118
2440178	MGK-264	93.7	79.4	P/P	39 - 122
2440178	Mirex	52.8	52.6	P/P	25 - 90.0
2440178	Oxychlorane	62.6	70.0	P/P	42 - 100
2440178	Permethrin	68.6	71.9	P/P	33 - 181
2440178	Phenothrin	61.4	61.6	P/P	12 - 125
2440178	Piperonyl Butoxide	105	92.3	P/P	10 - 178
2440178	Prallethrin	66.1	66.2	P/P	24 - 122
2440178	Tau-Fluvalinate	87.0	92.6	P/P	13 - 151
2440178	Tetramethrin	89.3	84.8	P/P	16 - 172
2440178	Trans-Nonachlor	66.8	63.4	P/P	39 - 100
2440178	Triclosan Methyl	56.8	57.0	P/P	43 - 110
2440178	Trifluralin	55.2	60.5	P/P	45 - 94.0
2440271	PCB-1016	79.8	91.5	P/P	45 - 107
2440271	PCB-1260	74.6	86.7	P/P	40 - 112

Reference Method: EPA 8276

Batch ID: P435653

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

Reference Method: EPA 8276

Batch ID: P435980

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440271	Chlordane	59.2	69.4	P/P	43 - 123
2440271	Toxaphene	66.1	73.5	P/P	27 - 156

Reference Method: SM 4500-F- C-2011

Batch ID: P435736

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

Reference Method: SM 4500-F- C-2011

Batch ID: P435769

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

Reference Method: SM 5310 B-2011

Batch ID: P435753

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

Quality Assurance Report

Matrix Spike Accuracy

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

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

Quality Assurance Report Precision

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

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

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

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

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

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P435682

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440487	Calcium	0.768	Spike	P	0 - 20
2440487	Iron	1.39	Spike	P	0 - 20
2440487	Magnesium	1.24	Spike	P	0 - 20
2440487	Potassium	1.62	Spike	P	0 - 20
2440487	Sodium	1.56	Spike	P	0 - 20
2440487	Strontium	1.03	Spike	P	0 - 20
2440487	Tin	1.82	Spike	P	0 - 20
2440487	Titanium	2.02	Spike	P	0 - 20
2440487	Vanadium	1.97	Spike	P	0 - 20
2440487	Zinc	1.47	Spike	P	0 - 20

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

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439877	Aluminum	0.157	Spike	P	0 - 20
2439877	Antimony	0.529	Spike	P	0 - 20
2439877	Arsenic	1.92	Spike	P	0 - 20
2439877	Barium	0.913	Spike	P	0 - 20
2439877	Beryllium	0.0568	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P435588

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

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P435682

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440487	Aluminum	1.14	Spike	P	0 - 20
2440487	Antimony	0.837	Spike	P	0 - 20
2440487	Arsenic	0.593	Spike	P	0 - 20
2440487	Barium	0.694	Spike	P	0 - 20
2440487	Beryllium	1.41	Spike	P	0 - 20
2440487	Boron	0.927	Spike	P	0 - 20
2440487	Cadmium	1.27	Spike	P	0 - 20
2440487	Chromium	0.169	Spike	P	0 - 20
2440487	Cobalt	0.341	Spike	P	0 - 20
2440487	Copper	0.540	Spike	P	0 - 20
2440487	Lead	0.281	Spike	P	0 - 20
2440487	Manganese	0.273	Spike	P	0 - 20
2440487	Molybdenum	0.601	Spike	P	0 - 20
2440487	Nickel	0.429	Spike	P	0 - 20
2440487	Selenium	0.606	Spike	P	0 - 20
2440487	Silver	0.0570	Spike	P	0 - 20
2440487	Thallium	0.278	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P436045

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P436048

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

Quality Assurance Report Precision

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

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435749

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440351	Ammonia-N	2.02	Spike	P	0 - 20

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

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

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

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

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

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

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

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

Reference Method: EPA 8270E
Batch ID: P435653

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440340	PCB-1016	9.27	Spike	P	0 - 25
2440340	PCB-1260	12.5	Spike	P	0 - 30
2441048	Aldrin	2.25	Spike	P	0 - 41
2441048	Alpha-BHC	14.6	Spike	P	0 - 25
2441048	Alpha-Chlordane	17.2	Spike	P	0 - 32
2441048	Beta-BHC	6.78	Spike	P	0 - 33
2441048	Beta-Cyfluthrin	11.5	Spike	P	0 - 43
2441048	Bifenthrin	17.0	Spike	P	0 - 52
2441048	Chlorothalonil	2.54	Spike	P	0 - 82

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P435653

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

Reference Method: EPA 8270E
Batch ID: P435980

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440178	Aldrin	7.98	Spike	P	0 - 41
2440178	Alpha-BHC	8.12	Spike	P	0 - 25
2440178	Alpha-Chlordane	4.29	Spike	P	0 - 32
2440178	Beta-BHC	1.14	Spike	P	0 - 33

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P435980

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440178	Beta-Cyfluthrin	1.64	Spike	P	0 - 43
2440178	Bifenthrin	6.69	Spike	P	0 - 52
2440178	Chlorothalonil	13.8	Spike	P	0 - 82
2440178	Cis-Nonachlor	15.8	Spike	P	0 - 33
2440178	Cypermethrin	4.30	Spike	P	0 - 51
2440178	Dacthal	2.09	Spike	P	0 - 27
2440178	DDD-p,p'	12.9	Spike	P	0 - 39
2440178	DDE-p,p'	5.21	Spike	P	0 - 31
2440178	DDT-p,p'	10.8	Spike	P	0 - 29
2440178	Delta-BHC	1.65	Spike	P	0 - 35
2440178	Deltamethrin	6.53	Spike	P	0 - 100
2440178	Dichlobenil	22.0	Spike	P	0 - 40
2440178	Dicofol	1.20	Spike	P	0 - 37
2440178	Dieldrin	13.1	Spike	P	0 - 27
2440178	Endosulfan I	1.28	Spike	P	0 - 23
2440178	Endosulfan II	0.462	Spike	P	0 - 34
2440178	Endosulfan Sulfate	11.1	Spike	P	0 - 36
2440178	Endrin	12.5	Spike	P	0 - 45
2440178	Endrin Aldehyde	26.6	Spike	P	0 - 76
2440178	Endrin Ketone	14.2	Spike	P	0 - 43
2440178	Esfenvalerate	3.69	Spike	P	0 - 51
2440178	Ethalfuralin	4.94	Spike	P	0 - 22
2440178	Fenpropathrin	7.76	Spike	P	0 - 49
2440178	Gamma-BHC	6.53	Spike	P	0 - 28
2440178	Gamma-Chlordane	5.52	Spike	P	0 - 40
2440178	Heptachlor	1.54	Spike	P	0 - 29
2440178	Heptachlor Epoxide	1.62	Spike	P	0 - 33
2440178	Hexachlorobenzene	2.95	Spike	P	0 - 36
2440178	Kepone	6.65	Spike	P	0 - 85
2440178	Lambda-Cyhalothrin	2.14	Spike	P	0 - 55
2440178	Methoprene	18.6	Spike	P	0 - 53
2440178	Methoxychlor	16.9	Spike	P	0 - 50
2440178	MGK-264	16.6	Spike	P	0 - 43
2440178	Mirex	0.347	Spike	P	0 - 40
2440178	Oxychlordane	11.1	Spike	P	0 - 31
2440178	Permethrin	4.61	Spike	P	0 - 50
2440178	Phenothrin	0.342	Spike	P	0 - 58
2440178	Piperonyl Butoxide	13.1	Spike	P	0 - 100
2440178	Prallethrin	0.147	Spike	P	0 - 39
2440178	Tau-Fluvalinate	6.28	Spike	P	0 - 54
2440178	Tetramethrin	5.19	Spike	P	0 - 51
2440178	Trans-Nonachlor	5.22	Spike	P	0 - 39
2440178	Triclosan Methyl	0.346	Spike	P	0 - 31
2440178	Trifluralin	9.12	Spike	P	0 - 22
2440271	PCB-1016	13.7	Spike	P	0 - 25
2440271	PCB-1260	15.0	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P435653

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

Reference Method: EPA 8276
Batch ID: P435980

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440271	Chlordane	15.9	Spike	P	0 - 28
2440271	Toxaphene	10.6	Spike	P	0 - 27

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

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

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

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

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

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

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

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

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

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

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

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

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

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

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

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

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

Quality Assurance Report Surrogates

Lab Sample ID: 2440304
Field Sample ID: G5NW0156

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	77.2	P	37 - 129
EPA 8270E	Decachlorobiphenyl	115	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	50.2	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	58.9	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	66.6	P	28 - 102
EPA 8276	PCNB	147	F	49 - 115

Lab Sample ID: 2440305
Field Sample ID: G4NW0429

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	73.4	P	37 - 129
EPA 8270E	Decachlorobiphenyl	104	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	48.2	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	60.9	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	64.4	P	28 - 102
EPA 8276	PCNB	108	P	49 - 115

Lab Sample ID: 2440307
Field Sample ID: G4NW0412

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	60.1	P	37 - 129
EPA 8270E	Decachlorobiphenyl	70.6	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	47.0	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	64.9	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	58.8	P	28 - 102
EPA 8276	PCNB	143	F	49 - 115

Lab Sample ID: 2440308
Field Sample ID: G4NW0505

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	60.4	P	37 - 129
EPA 8270E	Decachlorobiphenyl	69.6	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	44.0	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	62.4	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	59.9	P	28 - 102
EPA 8276	PCNB	120	F	49 - 115

Lab Sample ID: 2440309
Field Sample ID: G4NW0244

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	68.2	P	37 - 129
EPA 8270E	Decachlorobiphenyl	77.6	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	48.2	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	60.9	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	62.2	P	28 - 102
EPA 8276	PCNB	134	F	49 - 115

Quality Assurance Report Surrogates

Lab Sample ID: 2440310
Field Sample ID: G4NW0036

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	63.3	P	37 - 129
EPA 8270E	Decachlorobiphenyl	65.3	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	42.9	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	56.1	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	55.9	P	28 - 102
EPA 8276	PCNB	112	P	49 - 115

Lab Sample ID: 2440354
Field Sample ID: G5NW0006

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	74.8	P	37 - 129
EPA 8270E	Decachlorobiphenyl	73.1	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	52.5	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	50.5	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	51.9	P	28 - 102
EPA 8276	PCNB	84.9	P	49 - 115

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A121773

Included Lab Sample IDs: 2440290, 2440292, 2440350

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A121774

Included Lab Sample IDs: 2440290, 2440292, 2440350

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A121829

Included Lab Sample IDs: 2440291

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A121837

Included Lab Sample IDs: 2440315, 2440316, 2440317

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A121840

Included Lab Sample IDs: 2440315, 2440316, 2440317

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A121840

Included Lab Sample IDs: 2440315, 2440316, 2440317

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Selenium	102	103	P/P	90 - 110
Silver	103	103	P/P	90 - 110
Thallium	102	102	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A121844

Included Lab Sample IDs: 2440290, 2440292

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

Reference Method: SM 4500-F- C-2011

Run ID: A121844

Included Lab Sample IDs: 2440290, 2440292

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A121852

Included Lab Sample IDs: 2440293, 2440351

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

Reference Method: SM 5310 B-2011

Run ID: A121853

Included Lab Sample IDs: 2440291, 2440293

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

Reference Method: SM 2320 B-2011

Run ID: A121863

Included Lab Sample IDs: 2440350

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

Reference Method: SM 4500-F- C-2011

Run ID: A121863

Included Lab Sample IDs: 2440350

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A121868

Included Lab Sample IDs: 2440355

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A121868

Included Lab Sample IDs: 2440355

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	104	P/P	95 - 105
Iron	102	103	P/P	95 - 105
Magnesium	101	103	P/P	95 - 105
Potassium	99.1	99.8	P/P	95 - 105
Sodium	100	101	P/P	95 - 105
Strontium	97.9	95.9	P/P	95 - 105
Tin	98.5	98.3	P/P	95 - 105
Titanium	99.4	97.2	P/P	95 - 105
Vanadium	98.6	96.3	P/P	95 - 105
Zinc	98.6	97.7	P/P	95 - 105

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A121869

Included Lab Sample IDs: 2440355

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.7	97.9	P/P	90 - 110
Antimony	93.6	94.6	P/P	90 - 110
Arsenic	99.3	98.4	P/P	90 - 110
Barium	97.5	98.4	P/P	90 - 110
Beryllium	99.1	97.7	P/P	90 - 110
Boron	97.7	100	P/P	90 - 110
Cadmium	97.4	100	P/P	90 - 110
Chromium	96.1	98.6	P/P	90 - 110
Cobalt	97.8	97.8	P/P	90 - 110
Copper	96.8	96.0	P/P	90 - 110
Lead	91.3	91.8	P/P	90 - 110
Manganese	94.9	97.9	P/P	90 - 110
Molybdenum	97.0	97.6	P/P	90 - 110
Nickel	97.6	96.9	P/P	90 - 110
Selenium	96.9	98.0	P/P	90 - 110
Silver	97.9	99.4	P/P	90 - 110
Thallium	97.3	98.9	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A121872

Included Lab Sample IDs: 2440351

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A121876

Included Lab Sample IDs: 2440291, 2440293, 2440351

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.2	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A121948

Included Lab Sample IDs: 2440290, 2440292, 2440350

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

Reference Method: EPA 8270E

Run ID: A121970

Included Lab Sample IDs: 2440354

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

Reference Method: EPA 8270E

Run ID: A122026

Included Lab Sample IDs: 2440304, 2440305, 2440307, 2440308, 2440309, 2440310

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	92.9		P	80 - 120
PCB-1260	96.7		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A122030

Included Lab Sample IDs: 2440291, 2440293, 2440351

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

Reference Method: EPA 8270E

Run ID: A122040

Included Lab Sample IDs: 2440354

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A122040
Included Lab Sample IDs: 2440354

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

Reference Method: EPA 8270E
Run ID: A122041
Included Lab Sample IDs: 2440354

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A122043
Included Lab Sample IDs: 2440351

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

Reference Method: EPA 8270E
Run ID: A122069
Included Lab Sample IDs: 2440304, 2440305, 2440307, 2440308, 2440309, 2440310

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	96.8		P	80 - 120
Alpha-Chlordane	90.7		P	80 - 120
Beta-BHC	108		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A122069

Included Lab Sample IDs: 2440304, 2440305, 2440307, 2440308, 2440309, 2440310

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beta-Cyfluthrin	114		P	80 - 120
Bifenthrin	109		P	80 - 120
Chlorothalonil	88.3		P	80 - 120
Cis-Nonachlor	116		P	80 - 120
Cypermethrin	107		P	80 - 120
Dacthal	103		P	80 - 120
DDD-p,p'	99.9		P	80 - 120
DDE-p,p'	99.6		P	80 - 120
DDT-p,p'	103		P	80 - 120
Delta-BHC	112		P	80 - 120
Deltamethrin	102		P	80 - 120
Dichlobenil	94.2		P	80 - 120
Dicofol	103		P	80 - 120
Dieldrin	98.3		P	80 - 120
Endosulfan I	80.9		P	80 - 120
Endosulfan II	111		P	80 - 120
Endosulfan Sulfate	87.4		P	80 - 120
Endrin	97.7		P	80 - 120
Endrin Aldehyde	105		P	80 - 120
Endrin Ketone	88.2		P	80 - 120
Esfenvalerate	107		P	80 - 120
Ethalfuralin	97.4		P	80 - 120
Fenpropathrin	116		P	80 - 120
Gamma-BHC	103		P	80 - 120
Gamma-Chlordane	84.7		P	80 - 120
Heptachlor	87.3		P	80 - 120
Heptachlor Epoxide	95.1		P	80 - 120
Hexachlorobenzene	98.9		P	80 - 120
Kepone	74.1*		F	80 - 120
Lambda-Cyhalothrin	108		P	80 - 120
Methoprene	80.3		P	80 - 120
Methoxychlor	95.8		P	80 - 120
MGK-264	91.4		P	80 - 120
Mirex	107		P	80 - 120
Oxychlordane	87.0		P	80 - 120
Permethrin	113		P	80 - 120
Phenothrin	117		P	80 - 120
Piperonyl Butoxide	81.9		P	80 - 120
Prallethrin	97.3		P	80 - 120
Tau-Fluvalinate	110		P	80 - 120
Tetramethrin	102		P	80 - 120
Trans-Nonachlor	103		P	80 - 120
Triclosan Methyl	87.1		P	80 - 120
Trifluralin	107		P	80 - 120

Reference Method: EPA 8276

Run ID: A122071

Included Lab Sample IDs: 2440354

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8276
Run ID: A122071
Included Lab Sample IDs: 2440354

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A122094
Included Lab Sample IDs: 2440291, 2440293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	97.5	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A122156
Included Lab Sample IDs: 2440304, 2440305, 2440307, 2440308, 2440309, 2440310

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	103		P	80 - 120
Chlordane	91.7		P	80 - 120
Toxaphene	100		P	80 - 120
Toxaphene	87.5		P	80 - 120

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	99.9					1.70	
EPA 180.1 Rev. 2.0	Turbidity	104					10.2	
EPA 200.7 Rev. 4.4	Calcium	105	99.9					1.27
	Calcium	102	98.8	102				0.768
	Iron	106	104	104	103			0.463
	Iron	103	102	101	99.7			1.39
	Magnesium	108	105	104	103			0.342
	Magnesium	105	104	102	104			1.24
	Potassium	101	98.7	97.5	102			0.943
	Potassium	101	96.4	98.4	97.4			1.62
	Sodium	104	99.8	103				0.521
	Sodium	100	99.9	99.5				1.56
	Strontium	103	100	99.5	100			0.552
	Strontium	99.6	98.1	99.1	99.2			1.03
	Tin	103	101	99.2	101			1.67
	Tin	106	101	103	102			1.82
	Titanium	102	101	102	102			0.525
	Titanium	102	92.9	95.4	101			2.02
	Vanadium	103	101	103	102			1.25
	Vanadium	102	98.6	101	103			1.97
	Zinc	104	101	101	100			0.436
	Zinc	104	101	102	102			1.47
EPA 200.8 Rev. 5.4	Aluminum	101	98.9	99.0	94.1			0.157
	Aluminum	97.9	101	98.7	87.6			1.14
	Antimony	101	102	101	100			0.529
	Antimony	94.0	98.9	98.1	93.3			0.837
	Arsenic	99.3	102	100	103			1.92
	Arsenic	98.7	99.1	99.7	95.2			0.593
	Barium	104	104	103	104			0.913
	Barium	98.3	103	102	97.3			0.694
	Beryllium	102	103	103	97.7			0.0568
	Beryllium	95.3	94.7	96.1	88.9			1.41
	Boron	104	103	102	102			0.854
	Boron	102	105	104	97.6			0.927
	Cadmium	102	102	103	105			1.16
	Cadmium	96.3	103	101	97.5			1.27
	Chromium	104	105	103	104			1.44
	Chromium	94.2	95.1	94.9	93.5			0.169
	Cobalt	102	101	101	100			0.305
	Cobalt	98.4	96.9	96.6	93.8			0.341
	Copper	99.2	98.3	97.4	93.2			0.825
	Copper	96.4	93.9	94.5	96.7			0.540
	Lead	97.1	96.6	97.0	98.4			0.361
	Lead	90.8	95.5	93.2	93.0			0.281
	Manganese	103	102	102	99.2			0.534
	Manganese	94.1	95.5	95.7	92.7			0.273
	Molybdenum	100	102	101	105			1.11
	Molybdenum	96.2	101	100	94.7			0.601
	Nickel	100	99.1	98.2	95.8			0.901
	Nickel	97.9	94.2	93.7	94.0			0.429
	Selenium	99.0	100	98.1	99.3			2.01
	Selenium	95.6	97.1	97.7	93.1			0.606
	Silver	112	112	110	109			1.10
	Silver	107	109	109	104			0.0570

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
EPA 200.8 Rev. 5.4	Thallium	100	107	106	107		0.243
	Thallium	99.0	104	104	99.2		0.278
EPA 300.0 Rev. 2.1	Chloride	102	104	105		2.47	
	Sulfate	102	104	106		4.26	
EPA 350.1 Rev. 2.0	Ammonia-N	100	101	98.4			2.41
	Ammonia-N	102	100	103			2.02
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	108	105	102			2.32
EPA 353.2 Rev. 2.0	NO2NO3-N	96.0	95.5	95.5			0.0
	NO2NO3-N	99.0	99.5	100			1.00
EPA 365.1 Rev. 2.0	Total-P	103	104	109			3.61
EPA 8270E	Aldrin	52.2	63.9	65.3			2.25
	Aldrin	78.6	50.5	54.7			7.98
	Alpha-BHC	77.4	96.5	83.3			14.6
	Alpha-BHC	77.6	83.6	77.1			8.12
	Alpha-Chlordane	88.3	91.1	76.7			17.2
	Alpha-Chlordane	82.7	60.5	58.0			4.29
	Beta-BHC	73.8	83.7	89.6			6.78
	Beta-BHC	90.6	77.2	76.3			1.14
	Beta-Cyfluthrin	77.8	94.0	105			11.5
	Beta-Cyfluthrin	106	80.8	82.1			1.64
	Bifenthrin	54.3	71.4	60.2			17.0
	Bifenthrin	89.8	63.8	68.2			6.69
	Chlorothalonil	107	11.8	12.1			2.54
	Chlorothalonil	61.8	51.8	45.2			13.8
	Cis-Nonachlor	70.4	72.0	79.4			9.80
	Cis-Nonachlor	93.8	56.2	65.8			15.8
	Cypermethrin	69.5	94.0	101			7.34
	Cypermethrin	98.0	85.0	81.4			4.30
	Dacthal	99.0	97.2	84.7			13.7
	Dacthal	88.7	69.0	67.6			2.09
	DDD-p,p'	61.9	59.8	64.8			7.97
	DDD-p,p'	89.1	66.8	58.7			12.9
	DDE-p,p'	68.2	68.4	57.5			17.3
	DDE-p,p'	77.1	50.8	53.6			5.21
	DDT-p,p'	56.4	58.6	61.1			4.24
	DDT-p,p'	82.7	89.3	99.5			10.8
	Delta-BHC	103	150	117			25.0
	Delta-BHC	99.5	85.8	84.4			1.65
	Deltamethrin	76.9	119	118			0.276
	Deltamethrin	102	114	107			6.53
	Dichlobenil	74.7	50.7	52.3			3.01
	Dichlobenil	87.9	59.9	48.0			22.0
	Dicofol	67.4	86.9	76.9			12.3
	Dicofol	72.9	65.9	66.7			1.20
	Dieldrin	74.6	85.4	72.7			16.1
	Dieldrin	82.4	57.2	65.3			13.1
	Endosulfan I	76.2	99.7	86.7			14.0
	Endosulfan I	82.1	69.4	68.5			1.28
	Endosulfan II	93.6	90.0	88.7			1.45
	Endosulfan II	90.8	60.5	60.2			0.462
	Endosulfan Sulfate	83.1	83.9	77.4			7.99
	Endosulfan Sulfate	77.1	73.6	65.8			11.1
	Endrin	77.6	89.0	76.2			15.5
	Endrin	85.1	55.8	63.3			12.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Endrin Aldehyde	62.1	54.9	55.9		1.87
	Endrin Aldehyde	91.1	58.6	44.8		26.6
	Endrin Ketone	94.7	96.9	102		5.33
	Endrin Ketone	72.0	70.9	61.5		14.2
	Esfenvalerate	64.6	106	99.0		7.02
	Esfenvalerate	107	92.8	96.3		3.69
	Ethalfuralin	73.9	78.3	63.7		20.6
	Ethalfuralin	73.6	59.4	62.4		4.94
	Fenpropathrin	71.8	82.5	75.7		8.62
	Fenpropathrin	97.5	76.3	70.6		7.76
	Gamma-BHC	79.0	119	88.7		29.3
	Gamma-BHC	76.0	73.0	68.4		6.53
	Gamma-Chlordane	73.4	90.6	71.9		23.0
	Gamma-Chlordane	84.0	63.8	60.4		5.52
	Heptachlor	56.5	85.0	67.2		23.4
	Heptachlor	74.9	65.5	64.5		1.54
	Heptachlor Epoxide	74.6	94.2	70.6		28.6
	Heptachlor Epoxide	92.0	70.3	68.8		1.62
	Hexachlorobenzene	78.3	73.0	66.5		9.29
	Hexachlorobenzene	91.5	60.3	58.5		2.95
	Kepone	140	119	116		3.04
	Kepone	50.4	28.7	30.7		6.65
	Lambda-Cyhalothrin	56.8	96.9	107		9.76
	Lambda-Cyhalothrin	102	80.3	78.6		2.14
	Methoprene	48.4	50.1	53.5		6.67
	Methoprene	77.4	43.6	52.6		18.6
	Methoxychlor	74.2	115	97.9		15.8
	Methoxychlor	69.0	75.3	63.6		16.9
	MGK-264	60.6	64.3	63.9		0.739
	MGK-264	104	93.7	79.4		16.6
	Mirex	64.9	73.5	71.6		2.68
	Mirex	87.7	52.8	52.6		0.347
	Oxychlordane	70.1	81.6	66.7		20.1
	Oxychlordane	77.7	62.6	70.0		11.1
	PCB-1016	77.3	78.1	85.7		9.27
	PCB-1016	80.0	79.8	91.5		13.7
	PCB-1260	89.1	78.4	88.8		12.5
	PCB-1260	78.2	74.6	86.7		15.0
	Permethrin	73.3	80.1	99.1		21.2
	Permethrin	102	68.6	71.9		4.61
	Phenothrin	55.1	71.6	103		36.3
	Phenothrin	96.2	61.4	61.6		0.342
	Piperonyl Butoxide	81.5	86.4	78.1		10.1
	Piperonyl Butoxide	89.9	105	92.3		13.1
	Prallethrin	71.7	80.3	82.0		2.10
	Prallethrin	88.6	66.1	66.2		0.147
	Tau-Fluvalinate	68.8	103	100		2.18
	Tau-Fluvalinate	109	87.0	92.6		6.28
	Tetramethrin	65.5	84.7	93.5		9.88
	Tetramethrin	97.6	89.3	84.8		5.19
	Trans-Nonachlor	71.0	96.9	75.3		25.1
	Trans-Nonachlor	87.4	66.8	63.4		5.22
	Triclosan Methyl	66.1	79.0	79.6		0.814
	Triclosan Methyl	76.8	56.8	57.0		0.346

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8270E	Trifluralin	69.8	74.0	70.2		5.26
	Trifluralin	72.7	55.2	60.5		9.12
EPA 8276	Chlordane	92.2	72.0	67.8		5.59
	Chlordane	72.8	59.2	69.4		15.9
	Toxaphene	99.8	82.9	76.9		7.50
	Toxaphene	86.7	66.1	73.5		10.6
SM 2320 B-2011	Total Alkalinity	97.3			1.06	
	Total Alkalinity	96.4			2.67	
SM 2540 C-2015	TDS	94.0			7.16	
SM 2540 D-2015	TSS	92.4				
SM 4500-F- C-2011	Fluoride	101	101	101		0.0
	Fluoride	98.8	97.5	95.9		1.01
SM 5310 B-2011	Organic Carbon	95.8	95.1	95.6		0.364
	Organic Carbon	95.0	96.1	96.8		0.483

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2440290, 2440292, 2440350
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2440290, 2440292, 2440350
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2440315, 2440316, 2440317, 2440355
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2440315, 2440316, 2440317, 2440355
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2440290, 2440292, 2440350
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2440290, 2440292, 2440350
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2440291, 2440293, 2440351
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2440291, 2440293, 2440351
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2440291, 2440293, 2440351
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2440291, 2440293, 2440351
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2440304, 2440305, 2440307, 2440308, 2440309, 2440310, 2440354
EPA 8270E	PCBs in water matrices by GC/MS/MS	2440304, 2440305, 2440307, 2440308, 2440309, 2440310, 2440354
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2440304, 2440305, 2440307, 2440308, 2440309, 2440310, 2440354
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2440290, 2440292, 2440350
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2440315, 2440316, 2440317, 2440355
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2440290, 2440292, 2440350
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2440290, 2440292, 2440350
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2440290, 2440292, 2440350
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2440291, 2440293, 2440351

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	09/26/2023			09/26/2023 15:58	Alexis Price	2440290
	09/26/2023			09/26/2023 15:59	Alexis Price	2440292
	09/26/2023			09/26/2023 16:01	Alexis Price	2440350
EPA 180.1 Rev. 2.0	09/26/2023			09/26/2023 15:14	Khloe J Berg	2440290
	09/26/2023			09/26/2023 15:19	Khloe J Berg	2440292
	09/26/2023			09/26/2023 15:22	Khloe J Berg	2440350
EPA 200.7 Rev. 4.4	09/26/2023	09/27/2023 13:05	George D Taylor	09/28/2023 16:06	Samatha Luckman	2440315
	09/26/2023	09/27/2023 13:05	George D Taylor	09/28/2023 16:14	Samatha Luckman	2440316
	09/26/2023	09/27/2023 13:05	George D Taylor	09/28/2023 16:21	Samatha Luckman	2440317
EPA 200.8 Rev. 5.4	09/26/2023	09/28/2023 13:30	George D Taylor	09/29/2023 12:58	McKinley C Carter	2440355
	09/26/2023	09/27/2023 13:05	George D Taylor	09/28/2023 20:16	Emily M Philpot	2440315
	09/26/2023	09/27/2023 13:05	George D Taylor	09/28/2023 20:25	Emily M Philpot	2440316
	09/26/2023	09/27/2023 13:05	George D Taylor	09/28/2023 20:35	Emily M Philpot	2440317
	09/26/2023	09/28/2023 13:30	George D Taylor	09/29/2023 15:48	Conrad Hartmann	2440355
EPA 300.0 Rev. 2.1	09/26/2023			10/04/2023 15:14	James L Waggeberby	2440292
	09/26/2023			10/04/2023 16:59	James L Waggeberby	2440290
	09/26/2023			10/04/2023 17:45	James L Waggeberby	2440350
EPA 350.1 Rev. 2.0	09/26/2023			09/28/2023 15:07	Ping Hua	2440291
	09/26/2023			09/29/2023 11:13	Khloe J Berg	2440351
	09/26/2023			09/29/2023 11:20	Khloe J Berg	2440293
EPA 351.2 Rev. 2.0	09/26/2023	10/05/2023 15:15	Simonne.V. Calhoun	10/09/2023 14:03	Samantha L Bates	2440291
	09/26/2023	10/05/2023 15:15	Simonne.V. Calhoun	10/09/2023 14:04	Samantha L Bates	2440293
	09/26/2023	10/05/2023 15:15	Simonne.V. Calhoun	10/09/2023 14:12	Samantha L Bates	2440351
EPA 353.2 Rev. 2.0	09/26/2023			10/09/2023 13:11	Anna M. Plaviak	2440351
	09/26/2023			10/11/2023 14:05	Fadila Guebre	2440291
	09/26/2023			10/11/2023 14:06	Fadila Guebre	2440293
EPA 365.1 Rev. 2.0	09/26/2023	09/28/2023 13:36	Alexis Price	10/02/2023 13:45	Chandler E Cox	2440291
	09/26/2023	09/28/2023 13:36	Alexis Price	10/02/2023 13:46	Chandler E Cox	2440293
	09/26/2023	09/28/2023 13:36	Alexis Price	10/02/2023 13:47	Chandler E Cox	2440351
EPA 8270E	09/26/2023	10/02/2023 08:00	Fe-Val Siddell	10/04/2023 00:34	Julie Wi	2440354
	09/26/2023	10/02/2023 08:00	Fe-Val Siddell	10/04/2023 01:42	Julie Wi	2440354
	09/26/2023	10/02/2023 08:00	Fe-Val Siddell	10/05/2023 03:28	Julie Wi	2440354
	09/26/2023	10/02/2023 08:30	Rasheda Ghaffari	10/05/2023 06:52	Julie Wi	2440304
	09/26/2023	10/02/2023 08:30	Rasheda Ghaffari	10/05/2023 07:22	Julie Wi	2440305
	09/26/2023	10/02/2023 08:30	Rasheda Ghaffari	10/05/2023 08:23	Julie Wi	2440307
	09/26/2023	10/02/2023 08:30	Rasheda Ghaffari	10/05/2023 08:53	Julie Wi	2440308
	09/26/2023	10/02/2023 08:30	Rasheda Ghaffari	10/05/2023 09:23	Julie Wi	2440309
	09/26/2023	10/02/2023 08:30	Rasheda Ghaffari	10/05/2023 09:53	Julie Wi	2440310
	09/26/2023	10/02/2023 08:30	Rasheda Ghaffari	10/09/2023 06:29	Julie Wi	2440304
	09/26/2023	10/02/2023 08:30	Rasheda Ghaffari	10/09/2023 07:02	Julie Wi	2440305

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	09/26/2023	10/02/2023 08:30	Rasheda Ghaffari	10/09/2023 07:34	Julie Wi	2440307
	09/26/2023	10/02/2023 08:30	Rasheda Ghaffari	10/09/2023 08:06	Julie Wi	2440308
	09/26/2023	10/02/2023 08:30	Rasheda Ghaffari	10/09/2023 08:39	Julie Wi	2440309
	09/26/2023	10/02/2023 08:30	Rasheda Ghaffari	10/09/2023 09:11	Julie Wi	2440310
EPA 8276	09/26/2023	10/02/2023 08:00	Fe-Val Siddell	10/06/2023 05:47	Arthur Maknenko	2440354
	09/26/2023	10/02/2023 08:30	Rasheda Ghaffari	10/14/2023 07:06	Arthur Maknenko	2440304
	09/26/2023	10/02/2023 08:30	Rasheda Ghaffari	10/14/2023 08:03	Arthur Maknenko	2440305
	09/26/2023	10/02/2023 08:30	Rasheda Ghaffari	10/14/2023 09:01	Arthur Maknenko	2440307
	09/26/2023	10/02/2023 08:30	Rasheda Ghaffari	10/14/2023 10:55	Arthur Maknenko	2440308
	09/26/2023	10/02/2023 08:30	Rasheda Ghaffari	10/14/2023 11:53	Arthur Maknenko	2440309
	09/26/2023	10/02/2023 08:30	Rasheda Ghaffari	10/14/2023 12:50	Arthur Maknenko	2440310
SM 2320 B-2011	09/26/2023			09/29/2023 07:30	Adam P Silver	2440290
	09/26/2023			09/29/2023 07:42	Adam P Silver	2440292
	09/26/2023			09/29/2023 18:24	Adam P Silver	2440350
SM 2340 B-2011	09/26/2023			09/28/2023 16:06	Samatha Luckman	2440315
	09/26/2023			09/28/2023 16:14	Samatha Luckman	2440316
	09/26/2023			09/28/2023 16:21	Samatha Luckman	2440317
	09/26/2023			09/29/2023 12:58	McKinley C Carter	2440355
SM 2540 C-2015	09/26/2023			09/27/2023 15:41	Yijie Li	2440290, 2440292, 2440350
SM 2540 D-2015	09/26/2023			09/27/2023 15:41	Yijie Li	2440290, 2440292, 2440350
SM 4500-F- C-2011	09/26/2023			09/29/2023 07:30	Adam P Silver	2440290
	09/26/2023			09/29/2023 07:42	Adam P Silver	2440292
	09/26/2023			09/29/2023 18:24	Adam P Silver	2440350
SM 5310 B-2011	09/26/2023			09/29/2023 06:02	Khloe J Berg	2440291
	09/26/2023			09/29/2023 06:18	Khloe J Berg	2440293
	09/26/2023			09/29/2023 20:51	Khloe J Berg	2440351