

Chemical Analysis Report

NW-DIST-2023-11-02-01

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

Event Description: **Pensacola Run**
Request ID: **RQ-2023-10-30-42**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Colin Wright, Program Administrator

Date Certified: 30-NOV-2023 09:22

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular background.

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: BAYOU MARCUS CREEK UPSTREAM OF
MOBILE HWY BRIDGE**

Collection Date/Time: 11/01/2023 10:45

Field ID: G5NW0156

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2448420	EPA 8270E	Aldrin	0.68	U	ng/L	P437403	
		Alpha-BHC	0.11	U	ng/L	P437403	
		Alpha-Chlordane	0.21	U	ng/L	P437403	
		PCB-1016	2.1	UJ	ng/L	P437403	LCS
		Beta-BHC	0.11	U	ng/L	P437403	
		PCB-1221	2.1	U	ng/L	P437403	
		Beta-Cyfluthrin	1.3	U	ng/L	P437403	
		PCB-1232	2.1	U	ng/L	P437403	
		Bifenthrin	0.53	U	ng/L	P437403	
		PCB-1242	2.1	U	ng/L	P437403	
		PCB-1248	2.1	U	ng/L	P437403	
		Chlorothalonil	3.8	U	ng/L	P437403	
		PCB-1254	2.1	U	ng/L	P437403	
		Cis-Nonachlor	0.21	U	ng/L	P437403	
		PCB-1260	2.1	U	ng/L	P437403	
		Cypermethrin	1.6	U	ng/L	P437403	
		Dacthal	0.16	UJ	ng/L	P437403	LCS, MS, RPD
		DDD-p,p'	0.26	U	ng/L	P437403	
		DDE-p,p'	0.21	U	ng/L	P437403	
		DDT-p,p'	0.84	U	ng/L	P437403	
		Delta-BHC	0.42	U	ng/L	P437403	
		Deltamethrin	1.3	U	ng/L	P437403	
		Dichlobenil	0.26	U	ng/L	P437403	
		Dicofol	1.3	U	ng/L	P437403	
		Dieldrin	0.72	I	ng/L	P437403	
		Endosulfan I	0.42	U	ng/L	P437403	
		Endosulfan II	0.95	U	ng/L	P437403	
		Endosulfan Sulfate	0.32	U	ng/L	P437403	
		Endrin	0.95	U	ng/L	P437403	
		Endrin Aldehyde	0.79	UJ	ng/L	P437403	LCS
		Endrin Ketone	0.42	U	ng/L	P437403	
		Esfenvalerate	0.79	U	ng/L	P437403	
		Ethalfuralin	0.16	U	ng/L	P437403	
		Fenpropathrin	0.26	U	ng/L	P437403	
		Gamma-BHC	0.13	U	ng/L	P437403	
		Gamma-Chlordane	0.21	U	ng/L	P437403	
		Heptachlor	0.21	U	ng/L	P437403	RPD
		Heptachlor Epoxide	1.5		ng/L	P437403	RPD
		Hexachlorobenzene**	1.1	U	ng/L	P437403	
		Kepone	14	U	ng/L	P437403	
		Lambda-Cyhalothrin	0.79	U	ng/L	P437403	
		Methoprene	0.79	U	ng/L	P437403	

Field ID: G5NW0156

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2448420	EPA 8270E	Methoxychlor	0.32	U	ng/L	P437403	
		MGK-264	0.21	U	ng/L	P437403	
		Mirex	0.37	U	ng/L	P437403	
		Oxychlordane	0.32	U	ng/L	P437403	
		Permethrin	1.7	U	ng/L	P437403	
		Phenothrin	0.95	U	ng/L	P437403	
		Piperonyl Butoxide	0.16	U	ng/L	P437403	
		Prallethrin	2.1	U	ng/L	P437403	
		Tau-Fluvalinate	0.26	U	ng/L	P437403	
		Tetramethrin	0.79	U	ng/L	P437403	
		Trans-Nonachlor	0.21	U	ng/L	P437403	
		Triclosan Methyl	0.16	U	ng/L	P437403	MS
		Trifluralin	0.21	U	ng/L	P437403	
		Chlordane	2.1	U	ng/L	P437403	
		Toxaphene	16	U	ng/L	P437403	
2448511	EPA 200.7 Rev. 4.4	Calcium	6.10		mg/L	P437336	
		Iron	750		ug/L	P437336	
		Magnesium	2.06		mg/L	P437336	
		Potassium	1.2	I	mg/L	P437336	
		Sodium	6.5		mg/L	P437336	
		Strontium	26.4		ug/L	P437336	
		Tin	3.0	U	ug/L	P437336	
		Titanium	0.79	I	ug/L	P437336	
		Vanadium	2.0	U	ug/L	P437336	
		Zinc	5.0	U	ug/L	P437336	
	EPA 200.8 Rev. 5.4	Aluminum	33		ug/L	P437336	
		Antimony	0.050	U	ug/L	P437336	
		Arsenic	0.46		ug/L	P437336	
		Barium	23.6		ug/L	P437336	
		Beryllium	0.010	U	ug/L	P437336	
		Boron	41.6		ug/L	P437336	
		Cadmium	0.020	U	ug/L	P437336	
		Chromium	0.40	U	ug/L	P437336	
		Cobalt	0.126		ug/L	P437336	
		Copper	0.40	I	ug/L	P437336	
		Lead	0.35	I	ug/L	P437336	
		Manganese	45.8		ug/L	P437336	
		Molybdenum	0.15	U	ug/L	P437336	
		Nickel	0.50	U	ug/L	P437336	
		Selenium	0.20	U	ug/L	P437336	
		Silver	0.010	U	ug/L	P437336	
		Thallium	0.10	U	ug/L	P437336	
	SM 2340 B-2011	Hardness	23.7		mg/L	P437336	
2448574	DEP SOP: NU-094-1	Color (true)	17	A	PCU	P437298	
	EPA 180.1 Rev. 2.0	Turbidity	2.3		NTU	P437291	

Field ID: G5NW0156

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2448574	EPA 300.0 Rev. 2.1	Chloride	9.4		mg Cl/L	P437826	
		Sulfate	4.3		mg SO4/L	P437830	
	SM 2320 B-2011	Total Alkalinity	17		mg CaCO3/L	P437542	
	SM 2540 C-2015	TDS	46		mg/L	P437814	
	SM 2540 D-2015	TSS	2	I	mg/L	P437781	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P437402	
2449076	EPA 350.1 Rev. 2.0	Ammonia-N	0.037		mg N/L	P437428	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.33		mg N/L	P437412	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.33		mg N/L	P437767	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P437306	
	SM 5310 B-2011	Organic Carbon	2.4		mg C/L	P437451	

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

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

Collection Date/Time: 11/01/2023 11:35

Field ID: G4NW0179

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2448410	DEP SOP: NU-094-1	Color (true)	23		PCU	P437296	
	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P437289	
	EPA 300.0 Rev. 2.1	Chloride	9.1		mg Cl/L	P437825	
		Sulfate	1.5		mg SO4/L	P437829	
	SM 2320 B-2011	Total Alkalinity	50		mg CaCO3/L	P437541	
	SM 2540 C-2015	TDS	77		mg/L	P437680	
	SM 2540 D-2015	TSS	2	U	mg/L	P437569	
	SM 4500-F- C-2011	Fluoride	0.029	I	mg F/L	P437402	
2448422	EPA 200.7 Rev. 4.4	Calcium	14.4		mg/L	P437336	
		Iron	860		ug/L	P437336	
		Magnesium	3.25		mg/L	P437336	
		Potassium	4.6		mg/L	P437336	
		Sodium	6.7		mg/L	P437336	
		Strontium	54.4		ug/L	P437336	
		Tin	3.0	U	ug/L	P437336	
		Titanium	0.75	U	ug/L	P437336	
		Vanadium	2.0	U	ug/L	P437336	
		Zinc	5.0	U	ug/L	P437336	
	EPA 200.8 Rev. 5.4	Aluminum	12	I	ug/L	P437336	
		Antimony	0.050	U	ug/L	P437336	
		Arsenic	0.29		ug/L	P437336	
		Barium	21.7		ug/L	P437336	
		Beryllium	0.010	U	ug/L	P437336	
		Boron	108		ug/L	P437336	
		Cadmium	0.020	U	ug/L	P437336	
		Chromium	0.40	U	ug/L	P437336	
		Cobalt	0.139		ug/L	P437336	
		Copper	0.40	U	ug/L	P437336	
		Lead	0.20	U	ug/L	P437336	
		Manganese	108		ug/L	P437336	
		Molybdenum	0.15	U	ug/L	P437336	
		Nickel	0.50	U	ug/L	P437336	
		Selenium	0.20	U	ug/L	P437336	
		Silver	0.010	U	ug/L	P437336	
		Thallium	0.10	U	ug/L	P437336	
	SM 2340 B-2011	Hardness	49.3		mg/L	P437336	
2448507	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P437691	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.17	I	mg N/L	P437512	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.076		mg N/L	P437644	
	EPA 365.1 Rev. 2.0	Total-P	0.005		mg P/L	P437655	
	SM 5310 B-2011	Organic Carbon	3.1		mg C/L	P437788	

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:
EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: JONES CREEK UPSTREAM OF N NAVY BLVD Collection Date/Time: 11/01/2023 09:15

Field ID: G4NW0429

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2448419	EPA 8270E	Aldrin	0.68	U	ng/L	P437403	
		Alpha-BHC	0.11	U	ng/L	P437403	
		Alpha-Chlordane	0.21	U	ng/L	P437403	
		PCB-1016	2.1	UJ	ng/L	P437403	LCS
		Beta-BHC	0.11	U	ng/L	P437403	
		PCB-1221	2.1	U	ng/L	P437403	
		Beta-Cyfluthrin	1.3	U	ng/L	P437403	
		PCB-1232	2.1	U	ng/L	P437403	
		Bifenthrin	0.53	U	ng/L	P437403	
		PCB-1242	2.1	U	ng/L	P437403	
		PCB-1248	2.1	U	ng/L	P437403	
		Chlorothalonil	3.8	U	ng/L	P437403	
		PCB-1254	2.1	U	ng/L	P437403	
		Cis-Nonachlor	0.21	U	ng/L	P437403	
		PCB-1260	2.1	U	ng/L	P437403	
		Cypermethrin	1.6	U	ng/L	P437403	
		Dacthal	0.16	UJ	ng/L	P437403	LCS, MS, RPD
		DDD-p,p'	0.26	U	ng/L	P437403	
		DDE-p,p'	0.21	U	ng/L	P437403	
		DDT-p,p'	0.84	U	ng/L	P437403	
		Delta-BHC	0.49	I	ng/L	P437403	
		Deltamethrin	1.3	U	ng/L	P437403	
		Dichlobenil	0.26	U	ng/L	P437403	
		Dicofol	1.3	U	ng/L	P437403	
		Dieldrin	0.42	U	ng/L	P437403	
		Endosulfan I	0.42	U	ng/L	P437403	
		Endosulfan II	0.95	U	ng/L	P437403	
		Endosulfan Sulfate	0.32	U	ng/L	P437403	
		Endrin	0.95	U	ng/L	P437403	
		Endrin Aldehyde	0.79	UJ	ng/L	P437403	LCS
		Endrin Ketone	0.42	U	ng/L	P437403	
		Esfenvalerate	0.79	U	ng/L	P437403	
		Ethalfuralin	0.16	U	ng/L	P437403	
		Fenpropathrin	0.26	U	ng/L	P437403	
		Gamma-BHC	0.13	U	ng/L	P437403	
		Gamma-Chlordane	0.21	U	ng/L	P437403	
		Heptachlor	0.21	U	ng/L	P437403	RPD
		Heptachlor Epoxide	0.26	U	ng/L	P437403	RPD
		Hexachlorobenzene**	1.1	U	ng/L	P437403	
		Kepone	14	U	ng/L	P437403	
		Lambda-Cyhalothrin	0.79	U	ng/L	P437403	
		Methoprene	0.79	U	ng/L	P437403	
		Methoxychlor	0.32	U	ng/L	P437403	

Field ID: G4NW0429

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2448419	EPA 8270E	MGK-264	0.21	U	ng/L	P437403	
		Mirex	0.37	U	ng/L	P437403	
		Oxychlordane	0.32	U	ng/L	P437403	
		Permethrin	1.7	U	ng/L	P437403	
		Phenothrin	0.95	U	ng/L	P437403	
		Piperonyl Butoxide	0.27	I	ng/L	P437403	
		Prallethrin	2.1	U	ng/L	P437403	
		Tau-Fluvalinate	0.26	U	ng/L	P437403	
		Tetramethrin	0.79	U	ng/L	P437403	
		Trans-Nonachlor	0.21	U	ng/L	P437403	
		Triclosan Methyl	0.16	U	ng/L	P437403	MS
		Trifluralin	0.21	U	ng/L	P437403	
		Chlordane	2.1	U	ng/L	P437403	
		Toxaphene	16	U	ng/L	P437403	
2448423	EPA 200.7 Rev. 4.4	Calcium	9.95		mg/L	P437336	
		Iron	620		ug/L	P437336	
		Magnesium	1.41		mg/L	P437336	
		Potassium	0.99	I	mg/L	P437336	
		Sodium	8.0		mg/L	P437336	
		Strontium	21.7		ug/L	P437336	
		Tin	3.0	U	ug/L	P437336	
		Titanium	4.4		ug/L	P437336	
		Vanadium	2.0	U	ug/L	P437336	
		Zinc	5.0	U	ug/L	P437336	
	EPA 200.8 Rev. 5.4	Aluminum	189		ug/L	P437336	
		Antimony	0.097	I	ug/L	P437336	
		Arsenic	0.78		ug/L	P437336	
		Barium	8.79		ug/L	P437336	
		Beryllium	0.010	U	ug/L	P437336	
		Boron	32.3		ug/L	P437336	
		Cadmium	0.020	U	ug/L	P437336	
		Chromium	0.56	I	ug/L	P437336	
		Cobalt	0.091		ug/L	P437336	
		Copper	0.40	I	ug/L	P437336	
		Lead	0.32	I	ug/L	P437336	
		Manganese	10.4		ug/L	P437336	
		Molybdenum	0.15	I	ug/L	P437336	
		Nickel	0.50	U	ug/L	P437336	
		Selenium	0.23	I	ug/L	P437336	
		Silver	0.010	U	ug/L	P437336	
		Thallium	0.10	U	ug/L	P437336	
	SM 2340 B-2011	Hardness	30.7		mg/L	P437336	

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: 11/01/2023 10:15

Field ID: G5NW0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2448408	DEP SOP: NU-094-1	Color (true)	19		PCU	P437296	
	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P437289	
	EPA 300.0 Rev. 2.1	Chloride	9.3		mg Cl/L	P437825	
		Sulfate	3.9		mg SO4/L	P437829	
	SM 2320 B-2011	Total Alkalinity	14		mg CaCO3/L	P437541	
	SM 2540 C-2015	TDS	48		mg/L	P437680	
	SM 2540 D-2015	TSS	2	U	mg/L	P437569	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P437402	
2448409	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P437428	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.25		mg N/L	P437412	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.50		mg N/L	P437605	
	EPA 365.1 Rev. 2.0	Total-P	0.012		mg P/L	P437306	
	SM 5310 B-2011	Organic Carbon	2.2		mg C/L	P437451	
2448418	EPA 8270E	Aldrin	0.69	U	ng/L	P437403	
		Alpha-BHC	0.11	U	ng/L	P437403	
		Alpha-Chlordane	0.21	U	ng/L	P437403	
		PCB-1016	2.1	UJ	ng/L	P437403	LCS
		Beta-BHC	0.11	U	ng/L	P437403	
		PCB-1221	2.1	U	ng/L	P437403	
		Beta-Cyfluthrin	1.3	U	ng/L	P437403	
		PCB-1232	2.1	U	ng/L	P437403	
		Bifenthrin	0.53	U	ng/L	P437403	
		PCB-1242	2.1	U	ng/L	P437403	
		PCB-1248	2.1	U	ng/L	P437403	
		Chlorothalonil	3.8	U	ng/L	P437403	
		PCB-1254	2.1	U	ng/L	P437403	
		Cis-Nonachlor	0.21	U	ng/L	P437403	
		PCB-1260	2.1	U	ng/L	P437403	
		Cypermethrin	1.6	U	ng/L	P437403	
		Dacthal	0.16	UJ	ng/L	P437403	LCS, MS, RPD
		DDD-p,p'	0.26	U	ng/L	P437403	
		DDE-p,p'	0.21	U	ng/L	P437403	
		DDT-p,p'	0.85	U	ng/L	P437403	
		Delta-BHC	0.42	U	ng/L	P437403	
		Deltamethrin	1.3	U	ng/L	P437403	
		Dichlobenil	0.26	U	ng/L	P437403	
		Dicofol	1.3	U	ng/L	P437403	
		Dieldrin	1.0	I	ng/L	P437403	
		Endosulfan I	0.42	U	ng/L	P437403	
		Endosulfan II	0.95	U	ng/L	P437403	
		Endosulfan Sulfate	0.32	U	ng/L	P437403	
		Endrin	0.95	U	ng/L	P437403	
		Endrin Aldehyde	0.79	UJ	ng/L	P437403	LCS

Field ID: G5NW0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes	
2448418	EPA 8270E	Endrin Ketone	0.42	U	ng/L	P437403		
		Esfenvalerate	0.79	U	ng/L	P437403		
		Ethalfuralin	0.16	U	ng/L	P437403		
		Fenpropathrin	0.26	U	ng/L	P437403		
		Gamma-BHC	0.13	U	ng/L	P437403		
		Gamma-Chlordane	0.21	U	ng/L	P437403		
		Heptachlor	0.21	U	ng/L	P437403	RPD	
		Heptachlor Epoxide	0.79	I	ng/L	P437403	RPD	
		Hexachlorobenzene**	1.1	U	ng/L	P437403		
		Kepone	14	U	ng/L	P437403		
		Lambda-Cyhalothrin	0.79	U	ng/L	P437403		
		Methoprene	0.79	U	ng/L	P437403		
		Methoxychlor	0.32	U	ng/L	P437403		
		MGK-264	0.21	U	ng/L	P437403		
		Mirex	0.37	U	ng/L	P437403		
		Oxychlordane	0.32	U	ng/L	P437403		
		Permethrin	1.7	U	ng/L	P437403		
		Phenothrin	0.95	U	ng/L	P437403		
		Piperonyl Butoxide	0.16	U	ng/L	P437403		
		Prallethrin	2.1	U	ng/L	P437403		
		Tau-Fluvalinate	0.26	U	ng/L	P437403		
		Tetramethrin	0.79	U	ng/L	P437403		
		Trans-Nonachlor	0.21	U	ng/L	P437403		
		Triclosan Methyl	0.16	U	ng/L	P437403	MS	
		Trifluralin	0.21	U	ng/L	P437403		
	EPA 8276	Chlordane	2.1	U	ng/L	P437403		
	Toxaphene	16	U	ng/L	P437403			
	2448421	EPA 200.7 Rev. 4.4	Calcium	5.17		mg/L	P437336	
			Iron	570		ug/L	P437336	
			Magnesium	1.93		mg/L	P437336	
Potassium			1.1	I	mg/L	P437336		
Sodium			6.3		mg/L	P437336		
Strontium			22.2		ug/L	P437336		
Tin			3.0	U	ug/L	P437336		
Titanium			0.81	I	ug/L	P437336		
Vanadium			2.0	U	ug/L	P437336		
Zinc			5.0	U	ug/L	P437336		
EPA 200.8 Rev. 5.4		Aluminum	29		ug/L	P437336		
		Antimony	0.050	U	ug/L	P437336		
		Arsenic	0.35		ug/L	P437336		
		Barium	22.8		ug/L	P437336		
		Beryllium	0.010	U	ug/L	P437336		
		Boron	36.0		ug/L	P437336		
		Cadmium	0.020	U	ug/L	P437336		
		Chromium	0.40	U	ug/L	P437336		

Field ID: G5NW0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2448421	EPA 200.8 Rev. 5.4	Cobalt	0.115		ug/L	P437336	
		Copper	0.40	U	ug/L	P437336	
		Lead	0.26	I	ug/L	P437336	
		Manganese	26.6		ug/L	P437336	
		Molybdenum	0.15	U	ug/L	P437336	
		Nickel	0.50	U	ug/L	P437336	
		Selenium	0.20	U	ug/L	P437336	
		Silver	0.010	U	ug/L	P437336	
		Thallium	0.10	U	ug/L	P437336	
	SM 2340 B-2011	Hardness	20.9		mg/L	P437336	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: JACKSON CREEK UPSTREAM OF PRIETO DRIVE

Collection Date/Time: 11/01/2023 09:45

Field ID: G4NW0505

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2448579	EPA 8270E	Aldrin	0.71	U	ng/L	P437403	
		Alpha-BHC	0.11	U	ng/L	P437403	
		Alpha-Chlordane	1.5		ng/L	P437403	
		PCB-1016	2.2	UJ	ng/L	P437403	LCS
		Beta-BHC	0.11	U	ng/L	P437403	
		PCB-1221	2.2	U	ng/L	P437403	
		Beta-Cyfluthrin	1.4	U	ng/L	P437403	
		PCB-1232	2.2	U	ng/L	P437403	
		Bifenthrin	0.55	U	ng/L	P437403	
		PCB-1242	2.2	U	ng/L	P437403	
		PCB-1248	2.2	U	ng/L	P437403	
		Chlorothalonil	3.9	U	ng/L	P437403	
		PCB-1254	2.2	U	ng/L	P437403	
		Cis-Nonachlor	0.22	U	ng/L	P437403	
		PCB-1260	2.2	U	ng/L	P437403	
		Cypermethrin	1.6	U	ng/L	P437403	
		Dacthal	0.16	UJ	ng/L	P437403	LCS, MS, RPD
		DDD-p,p'	0.27	U	ng/L	P437403	
		DDE-p,p'	0.22	U	ng/L	P437403	
		DDT-p,p'	0.88	U	ng/L	P437403	
		Delta-BHC	0.44	U	ng/L	P437403	
		Deltamethrin	1.4	U	ng/L	P437403	
		Dichlobenil	0.27	U	ng/L	P437403	
		Dicofol	1.4	U	ng/L	P437403	
		Dieldrin	15		ng/L	P437403	
		Endosulfan I	0.44	U	ng/L	P437403	
		Endosulfan II	0.98	U	ng/L	P437403	
		Endosulfan Sulfate	0.33	U	ng/L	P437403	
		Endrin	0.98	U	ng/L	P437403	
		Endrin Aldehyde	0.82	UJ	ng/L	P437403	LCS
		Endrin Ketone	0.44	U	ng/L	P437403	
		Esfenvalerate	0.82	U	ng/L	P437403	
		Ethalfuralin	0.16	U	ng/L	P437403	
		Fenpropathrin	0.27	U	ng/L	P437403	
		Gamma-BHC	0.14	U	ng/L	P437403	
		Gamma-Chlordane	0.73	I	ng/L	P437403	
		Heptachlor	0.22	U	ng/L	P437403	RPD
		Heptachlor Epoxide	18		ng/L	P437403	RPD
		Hexachlorobenzene**	1.1	U	ng/L	P437403	
		Kepone	15	U	ng/L	P437403	
		Lambda-Cyhalothrin	0.82	U	ng/L	P437403	
		Methoprene	0.82	U	ng/L	P437403	

Field ID: G4NW0505

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2448579	EPA 8270E	Methoxychlor	0.33	U	ng/L	P437403	
		MGK-264	0.22	U	ng/L	P437403	
		Mirex	0.38	U	ng/L	P437403	
		Oxychlordane	0.33	U	ng/L	P437403	
		Permethrin	1.8	U	ng/L	P437403	
		Phenothrin	0.98	U	ng/L	P437403	
		Piperonyl Butoxide	0.27	I	ng/L	P437403	
		Prallethrin	2.2	U	ng/L	P437403	
		Tau-Fluvalinate	0.27	U	ng/L	P437403	
		Tetramethrin	0.82	U	ng/L	P437403	
		Trans-Nonachlor	0.29	I	ng/L	P437403	
		Triclosan Methyl	0.16	U	ng/L	P437403	MS
		Trifluralin	0.22	U	ng/L	P437403	
		Chlordane	14		ng/L	P437403	
	EPA 8276	Toxaphene	16	U	ng/L	P437403	

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

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

Collection Date/Time: 11/01/2023 09:30

Field ID: G4NW0412

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2448580	EPA 8270E	Aldrin	0.69	U	ng/L	P437403	
		Alpha-BHC	0.11	U	ng/L	P437403	
		Alpha-Chlordane	6.7		ng/L	P437403	
		PCB-1016	2.1	UJ	ng/L	P437403	LCS
		Beta-BHC	0.11	U	ng/L	P437403	
		PCB-1221	2.1	U	ng/L	P437403	
		Beta-Cyfluthrin	1.3	U	ng/L	P437403	
		PCB-1232	2.1	U	ng/L	P437403	
		Bifenthrin	0.53	U	ng/L	P437403	
		PCB-1242	2.1	U	ng/L	P437403	
		PCB-1248	2.1	U	ng/L	P437403	
		Chlorothalonil	3.8	U	ng/L	P437403	
		PCB-1254	2.1	U	ng/L	P437403	
		Cis-Nonachlor	0.21	U	ng/L	P437403	
		PCB-1260	2.1	U	ng/L	P437403	
		Cypermethrin	1.6	U	ng/L	P437403	
		Dacthal	0.16	UJ	ng/L	P437403	LCS, MS, RPD
		DDD-p,p'	0.26	U	ng/L	P437403	
		DDE-p,p'	0.21	U	ng/L	P437403	
		DDT-p,p'	0.85	U	ng/L	P437403	
		Delta-BHC	0.42	U	ng/L	P437403	
		Deltamethrin	1.3	U	ng/L	P437403	
		Dichlobenil	0.26	U	ng/L	P437403	
		Dicofol	1.3	U	ng/L	P437403	
		Dieldrin	22		ng/L	P437403	
		Endosulfan I	0.42	U	ng/L	P437403	
		Endosulfan II	0.95	U	ng/L	P437403	
		Endosulfan Sulfate	0.32	U	ng/L	P437403	
		Endrin	0.95	U	ng/L	P437403	
		Endrin Aldehyde	0.79	UJ	ng/L	P437403	LCS
		Endrin Ketone	0.42	U	ng/L	P437403	
		Esfenvalerate	0.79	U	ng/L	P437403	
		Ethalfuralin	0.16	U	ng/L	P437403	
		Fenpropathrin	0.26	U	ng/L	P437403	
		Gamma-BHC	0.13	U	ng/L	P437403	
		Gamma-Chlordane	2.9		ng/L	P437403	
		Heptachlor	0.21	U	ng/L	P437403	RPD
		Heptachlor Epoxide	19		ng/L	P437403	RPD
		Hexachlorobenzene**	1.1	U	ng/L	P437403	
		Kepone	14	U	ng/L	P437403	
		Lambda-Cyhalothrin	0.79	U	ng/L	P437403	
		Methoprene	0.79	U	ng/L	P437403	

Field ID: G4NW0412

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2448580	EPA 8270E	Methoxychlor	0.32	U	ng/L	P437403	
		MGK-264	0.21	U	ng/L	P437403	
		Mirex	0.37	U	ng/L	P437403	
		Oxychlordane	0.32	U	ng/L	P437403	
		Permethrin	1.7	U	ng/L	P437403	
		Phenothrin	0.95	U	ng/L	P437403	
		Piperonyl Butoxide	0.43	I	ng/L	P437403	
		Prallethrin	2.1	U	ng/L	P437403	
		Tau-Fluvalinate	0.26	U	ng/L	P437403	
		Tetramethrin	0.79	U	ng/L	P437403	
		Trans-Nonachlor	0.74	I	ng/L	P437403	
		Triclosan Methyl	0.16	U	ng/L	P437403	MS
		Trifluralin	0.21	U	ng/L	P437403	
		Chlordane	35		ng/L	P437403	
	EPA 8276	Toxaphene	16	U	ng/L	P437403	

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

Sample Location: CARPENTERS CR DAVIS HIGHWAY BR

Collection Date/Time: 11/01/2023 12:40

Field ID: G4NW0036

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2448581	EPA 8270E	Aldrin	0.70	U	ng/L	P437403	
		Alpha-BHC	0.11	U	ng/L	P437403	
		Alpha-Chlordane	0.22	U	ng/L	P437403	
		PCB-1016	2.2	UJ	ng/L	P437403	LCS
		Beta-BHC	0.11	U	ng/L	P437403	
		PCB-1221	2.2	U	ng/L	P437403	
		Beta-Cyfluthrin	1.3	U	ng/L	P437403	
		PCB-1232	2.2	U	ng/L	P437403	
		Bifenthrin	0.54	U	ng/L	P437403	
		PCB-1242	2.2	U	ng/L	P437403	
		PCB-1248	2.2	U	ng/L	P437403	
		Chlorothalonil	3.9	U	ng/L	P437403	
		PCB-1254	2.2	U	ng/L	P437403	
		Cis-Nonachlor	0.22	U	ng/L	P437403	
		PCB-1260	2.2	U	ng/L	P437403	
		Cypermethrin	1.6	U	ng/L	P437403	
		Dacthal	0.16	UJ	ng/L	P437403	LCS, MS, RPD
		DDD-p,p'	0.27	U	ng/L	P437403	
		DDE-p,p'	0.22	U	ng/L	P437403	
		DDT-p,p'	0.86	U	ng/L	P437403	
		Delta-BHC	0.43	U	ng/L	P437403	
		Deltamethrin	1.3	U	ng/L	P437403	
		Dichlobenil	0.27	U	ng/L	P437403	
		Dicofol	1.3	U	ng/L	P437403	
		Dieldrin	0.53	I	ng/L	P437403	
		Endosulfan I	0.43	U	ng/L	P437403	
		Endosulfan II	0.97	U	ng/L	P437403	
		Endosulfan Sulfate	0.32	U	ng/L	P437403	
		Endrin	0.97	U	ng/L	P437403	
		Endrin Aldehyde	0.81	UJ	ng/L	P437403	LCS
		Endrin Ketone	0.43	U	ng/L	P437403	
		Esfenvalerate	0.81	U	ng/L	P437403	
		Ethalfuralin	0.16	U	ng/L	P437403	
		Fenpropathrin	0.27	U	ng/L	P437403	
		Gamma-BHC	0.13	U	ng/L	P437403	
		Gamma-Chlordane	0.22	U	ng/L	P437403	
		Heptachlor	0.22	U	ng/L	P437403	RPD
		Heptachlor Epoxide	0.27	U	ng/L	P437403	RPD
		Hexachlorobenzene**	1.1	U	ng/L	P437403	
		Kepone	15	U	ng/L	P437403	
		Lambda-Cyhalothrin	0.81	U	ng/L	P437403	
		Methoprene	0.81	U	ng/L	P437403	
		Methoxychlor	0.32	U	ng/L	P437403	

Field ID: G4NW0036

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2448581	EPA 8270E	MGK-264	0.22	U	ng/L	P437403	MS
		Mirex	0.38	U	ng/L	P437403	
		Oxychlordane	0.32	U	ng/L	P437403	
		Permethrin	1.7	U	ng/L	P437403	
		Phenothrin	0.97	U	ng/L	P437403	
		Piperonyl Butoxide	0.19	I	ng/L	P437403	
		Prallethrin	2.2	U	ng/L	P437403	
		Tau-Fluvalinate	0.27	U	ng/L	P437403	
		Tetramethrin	0.81	U	ng/L	P437403	
		Trans-Nonachlor	0.22	U	ng/L	P437403	
		Triclosan Methyl	0.16	U	ng/L	P437403	
		Trifluralin	0.22	U	ng/L	P437403	
		Chlordane	2.2	U	ng/L	P437403	
	EPA 8276	Toxaphene	16	U	ng/L	P437403	

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

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

Collection Date/Time: 11/01/2023 12:05

Field ID: G4NW0244

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2448582	EPA 8270E	Aldrin	0.70	U	ng/L	P437403	
		Alpha-BHC	0.11	U	ng/L	P437403	
		Alpha-Chlordane	0.47	I	ng/L	P437403	
		PCB-1016	2.2	UJ	ng/L	P437403	LCS
		Beta-BHC	0.11	U	ng/L	P437403	
		PCB-1221	2.2	U	ng/L	P437403	
		Beta-Cyfluthrin	1.3	U	ng/L	P437403	
		PCB-1232	2.2	U	ng/L	P437403	
		Bifenthrin	0.54	U	ng/L	P437403	
		PCB-1242	2.2	U	ng/L	P437403	
		PCB-1248	2.2	U	ng/L	P437403	
		Chlorothalonil	3.9	U	ng/L	P437403	
		PCB-1254	2.2	U	ng/L	P437403	
		Cis-Nonachlor	0.22	U	ng/L	P437403	
		PCB-1260	2.2	U	ng/L	P437403	
		Cypermethrin	1.6	U	ng/L	P437403	
		Dacthal	0.16	UJ	ng/L	P437403	LCS, MS, RPD
		DDD-p,p'	0.27	U	ng/L	P437403	
		DDE-p,p'	0.22	U	ng/L	P437403	
		DDT-p,p'	0.86	U	ng/L	P437403	
		Delta-BHC	0.43	U	ng/L	P437403	
		Deltamethrin	1.3	U	ng/L	P437403	
		Dichlobenil	0.27	U	ng/L	P437403	
		Dicofol	1.3	U	ng/L	P437403	
		Dieldrin	4.1		ng/L	P437403	
		Endosulfan I	0.43	U	ng/L	P437403	
		Endosulfan II	0.97	U	ng/L	P437403	
		Endosulfan Sulfate	0.32	U	ng/L	P437403	
		Endrin	0.97	U	ng/L	P437403	
		Endrin Aldehyde	0.81	UJ	ng/L	P437403	LCS
		Endrin Ketone	0.43	U	ng/L	P437403	
		Esfenvalerate	0.81	U	ng/L	P437403	
		Ethalfuralin	0.16	U	ng/L	P437403	
		Fenpropathrin	0.27	U	ng/L	P437403	
		Gamma-BHC	0.13	U	ng/L	P437403	
		Gamma-Chlordane	0.39	I	ng/L	P437403	
		Heptachlor	0.22	U	ng/L	P437403	RPD
		Heptachlor Epoxide	2.3		ng/L	P437403	RPD
		Hexachlorobenzene**	1.1	U	ng/L	P437403	
		Kepone	15	U	ng/L	P437403	
		Lambda-Cyhalothrin	0.81	U	ng/L	P437403	
		Methoprene	0.81	U	ng/L	P437403	

Field ID: G4NW0244

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2448582	EPA 8270E	Methoxychlor	0.32	U	ng/L	P437403	
		MGK-264	0.22	U	ng/L	P437403	
		Mirex	0.38	U	ng/L	P437403	
		Oxychlordan	0.32	U	ng/L	P437403	
		Permethrin	1.7	U	ng/L	P437403	
		Phenothrin	0.97	U	ng/L	P437403	
		Piperonyl Butoxide	0.22	I	ng/L	P437403	
		Prallethrin	2.2	U	ng/L	P437403	
		Tau-Fluvalinate	0.27	U	ng/L	P437403	
		Tetramethrin	0.81	U	ng/L	P437403	
		Trans-Nonachlor	0.22	U	ng/L	P437403	
		Triclosan Methyl	0.16	U	ng/L	P437403	MS
		Trifluralin	0.22	U	ng/L	P437403	
	EPA 8276	Chlordane	5.2	I	ng/L	P437403	
		Toxaphene	16	U	ng/L	P437403	

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P437296

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P437298

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437289

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437291

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P437336

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: P437336

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	0.16	I	ug/L
Molybdenum	0.15	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P437336

Component	Result	Code	Units
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437825

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437826

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437829

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437830

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P437428

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P437691

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437412

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437512

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437605

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437644

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437767

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437306

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437655

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

Reference Method: EPA 8270E
Batch ID: P437403

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: P437403

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 8276

Batch ID: P437403

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

Reference Method: SM 2320 B-2011

Batch ID: P437541

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

Reference Method: SM 2320 B-2011

Batch ID: P437542

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 C-2015
Batch ID: P437680

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2015
Batch ID: P437814

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P437569

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P437781

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P437402

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P437451

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

Reference Method: SM 5310 B-2011
Batch ID: P437788

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: P437296

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

Reference Method: DEP SOP: NU-094-1
Batch ID: P437298

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: P437289

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437291

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P437336

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	110		P	85 - 115
Magnesium	111		P	85 - 115
Potassium	102		P	85 - 115
Sodium	102		P	85 - 115
Strontium	97.8		P	85 - 115
Tin	97.2		P	85 - 115
Titanium	99.9		P	85 - 115
Vanadium	98.9		P	85 - 115
Zinc	97.3		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P437336

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.6		P	85 - 115
Antimony	99.6		P	85 - 115
Arsenic	101		P	85 - 115
Barium	102		P	85 - 115
Beryllium	95.2		P	85 - 115
Boron	105		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	99.7		P	85 - 115
Cobalt	98.8		P	85 - 115
Copper	98.6		P	85 - 115
Lead	96.0		P	85 - 115
Manganese	99.9		P	85 - 115
Molybdenum	101		P	85 - 115

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P437336

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Nickel	98.0		P	85 - 115
Selenium	100		P	85 - 115
Silver	106		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437825

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437826

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437829

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437830

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P437428

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P437691

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437412

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437512

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437605

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	98.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437644

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437767

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437306

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437655

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

Reference Method: EPA 8270E
Batch ID: P437403

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	46.7		P	30 - 96.0
Alpha-BHC	70.6		P	70 - 109
Alpha-Chlordane	63.2		P	45 - 107
Beta-BHC	122		P	64 - 138
Beta-Cyfluthrin	48.3		P	17 - 141
Bifenthrin	44.1		P	10 - 113
Chlorothalonil	107		P	26 - 180
Cis-Nonachlor	58.1		P	37 - 102
Cypermethrin	47.8		P	20 - 133
Dacthal	60.9		F	69 - 114
DDD-p,p'	61.9		P	42 - 105
DDE-p,p'	51.0		P	42 - 106
DDT-p,p'	87.9		P	42 - 107
Delta-BHC	135		P	67 - 144
Deltamethrin	30.2		P	15 - 149
Dichlobenil	50.5		P	46 - 117
Dicofol	45.3		P	34 - 114
Dieldrin	68.2		P	50 - 108
Endosulfan I	60.6		P	55 - 104
Endosulfan II	54.8		P	51 - 111
Endosulfan Sulfate	87.0		P	56 - 121
Endrin	47.1		P	10 - 106

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P437403

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endrin Aldehyde	12.2		F	34 - 114
Endrin Ketone	84.0		P	63 - 177
Esfenvalerate	68.1		P	29 - 143
Ethalfuralin	75.7		P	46 - 96.0
Fenpropathrin	49.8		P	28 - 115
Gamma-BHC	103		P	65 - 121
Gamma-Chlordane	63.2		P	39 - 103
Heptachlor	65.9		P	39 - 94.0
Heptachlor Epoxide	74.3		P	54 - 104
Hexachlorobenzene	69.9		P	36 - 100
Kepone	59.3		P	10 - 225
Lambda-Cyhalothrin	44.1		P	10 - 135
Methoprene	72.4		P	10 - 109
Methoxychlor	84.0		P	52 - 112
MGK-264	102		P	44 - 117
Mirex	38.3		P	20 - 90.0
Oxychlordane	73.8		P	44 - 102
PCB-1016	116		F	45 - 107
PCB-1260	89.0		P	40 - 118
Permethrin	52.1		P	18 - 135
Phenothrin	45.5		P	10 - 102
Piperonyl Butoxide	87.4		P	28 - 156
Prallethrin	45.0		P	28 - 113
Tau-Fluvalinate	53.0		P	10 - 123
Tetramethrin	66.4		P	18 - 158
Trans-Nonachlor	48.9		P	39 - 104
Triclosan Methyl	74.1		P	54 - 108
Trifluralin	54.1		P	46 - 97.0

Reference Method: EPA 8276

Batch ID: P437403

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	81.7		P	52 - 117
Toxaphene	99.1		P	44 - 125

Reference Method: SM 2320 B-2011

Batch ID: P437541

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.9		P	92 - 105

Reference Method: SM 2320 B-2011

Batch ID: P437542

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.4		P	92 - 105

Reference Method: SM 2540 C-2015

Batch ID: P437680

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

Laboratory Control Sample Accuracy

Reference Method: SM 2540 C-2015
Batch ID: P437680

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	107		P	85 - 115

Reference Method: SM 2540 C-2015
Batch ID: P437814

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	97.2		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P437569

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	96.0		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P437781

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	106		P	85 - 115

Reference Method: SM 4500-F- C-2011
Batch ID: P437402

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	103		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P437451

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.3		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P437788

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.5		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P437336

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448294	Calcium	103		P	80 - 120
2448294	Iron	112	113	P/P	80 - 120
2448294	Magnesium	113	114	P/P	80 - 120
2448294	Potassium	103	104	P/P	80 - 120
2448294	Sodium	101		P	80 - 120
2448294	Strontium	98.9	99.6	P/P	80 - 120
2448294	Tin	97.3	97.6	P/P	80 - 120
2448294	Titanium	97.7	100	P/P	80 - 120
2448294	Vanadium	99.8	100	P/P	80 - 120
2448294	Zinc	97.5	98.1	P/P	80 - 120
2448511	Calcium	102		P	80 - 120
2448511	Iron	107		P	80 - 120
2448511	Magnesium	106		P	80 - 120
2448511	Potassium	99.3		P	80 - 120
2448511	Sodium	101		P	80 - 120
2448511	Strontium	96.6		P	80 - 120
2448511	Tin	96.2		P	80 - 120
2448511	Titanium	99.3		P	80 - 120
2448511	Vanadium	97.2		P	80 - 120
2448511	Zinc	94.8		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P437336

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448294	Aluminum	101	99.4	P/P	80 - 120
2448294	Antimony	100	99.6	P/P	80 - 120
2448294	Arsenic	99.6	99.2	P/P	80 - 120
2448294	Barium	104	102	P/P	80 - 120
2448294	Beryllium	97.2	95.4	P/P	80 - 120
2448294	Boron	109	106	P/P	80 - 120
2448294	Cadmium	102	103	P/P	80 - 120
2448294	Chromium	102	102	P/P	80 - 120
2448294	Cobalt	97.6	96.8	P/P	80 - 120
2448294	Copper	98.5	97.7	P/P	80 - 120
2448294	Lead	97.5	97.1	P/P	80 - 120
2448294	Manganese	102	99.9	P/P	80 - 120
2448294	Molybdenum	102	101	P/P	80 - 120
2448294	Nickel	96.7	96.2	P/P	80 - 120
2448294	Selenium	97.9	97.4	P/P	80 - 120
2448294	Silver	105	105	P/P	80 - 120
2448294	Thallium	103	103	P/P	80 - 120
2448511	Aluminum	98.4		P	80 - 120
2448511	Antimony	101		P	80 - 120
2448511	Arsenic	98.9		P	80 - 120
2448511	Barium	102		P	80 - 120
2448511	Beryllium	95.2		P	80 - 120
2448511	Boron	110		P	80 - 120
2448511	Cadmium	102		P	80 - 120
2448511	Chromium	101		P	80 - 120
2448511	Cobalt	95.4		P	80 - 120
2448511	Copper	95.8		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P437336

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448511	Lead	97.3		P	80 - 120
2448511	Manganese	101		P	80 - 120
2448511	Molybdenum	101		P	80 - 120
2448511	Nickel	94.7		P	80 - 120
2448511	Selenium	96.4		P	80 - 120
2448511	Silver	105		P	80 - 120
2448511	Thallium	103		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P437825

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448119	Chloride	102		P	90 - 110
2448383	Chloride	99.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P437826

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448448	Chloride	107		P	90 - 110
2448513	Chloride	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P437829

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448119	Sulfate	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P437830

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448448	Sulfate	107		P	90 - 110
2448513	Sulfate	104		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P437428

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448409	Ammonia-N	98.0	97.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P437691

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448507	Ammonia-N	97.0	98.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P437412

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448431	Kjeldahl Nitrogen	103	102	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437512

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448507	Kjeldahl Nitrogen	97.3	98.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437605

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448374	NO2NO3-N	96.5	97.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437644

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447765	NO2NO3-N	99.5	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437767

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2449076	NO2NO3-N	98.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437306

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448386	Total-P	97.8	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437655

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448704	Total-P	102	103	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P437403

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448418	PCB-1016	104	97.6	P/P	45 - 107
2448418	PCB-1260	99.8	94.1	P/P	40 - 112
2448568	Aldrin	61.1	68.2	P/P	24 - 81.0
2448568	Alpha-BHC	87.5	69.8	P/P	65 - 110
2448568	Alpha-Chlordane	102	87.1	P/P	43 - 119
2448568	Beta-BHC	113	105	P/P	54 - 165
2448568	Beta-Cyfluthrin	71.9	76.4	P/P	27 - 165
2448568	Bifenthrin	58.3	42.5	P/P	17 - 117
2448568	Chlorothalonil	79.8	62.5	P/P	10 - 255
2448568	Cis-Nonachlor	66.8	57.1	P/P	34 - 98.0
2448568	Cypermethrin	63.6	63.6	P/P	25 - 143
2448568	Dacthal	81.8	52.5	P/F	55 - 139
2448568	DDD-p,p'	48.3	40.2	P/P	30 - 109
2448568	DDE-p,p'	59.7	45.6	P/P	35 - 106
2448568	DDT-p,p'	79.7	71.8	P/P	41 - 101
2448568	Delta-BHC	146	126	P/P	58 - 165

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P437403

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448568	Deltamethrin	65.9	77.5	P/P	10 - 194
2448568	Dichlobenil	47.1	33.5	P/P	22 - 114
2448568	Dicofol	46.2	46.7	P/P	17 - 133
2448568	Dieldrin	55.4	46.0	P/P	45 - 129
2448568	Endosulfan I	102	82.9	P/P	49 - 104
2448568	Endosulfan II	85.7	82.4	P/P	37 - 117
2448568	Endosulfan Sulfate	89.2	95.2	P/P	38 - 128
2448568	Endrin	71.0	55.2	P/P	35 - 116
2448568	Endrin Aldehyde	36.6	32.4	P/P	19 - 108
2448568	Endrin Ketone	64.6	57.2	P/P	44 - 134
2448568	Esfenvalerate	88.3	89.6	P/P	27 - 176
2448568	Ethalfuralin	74.2	64.3	P/P	49 - 100
2448568	Fenpropathrin	51.1	35.1	P/P	34 - 117
2448568	Gamma-BHC	93.1	85.8	P/P	59 - 129
2448568	Gamma-Chlordane	97.5	76.7	P/P	33 - 107
2448568	Heptachlor	69.0	45.3	P/P	37 - 94.0
2448568	Heptachlor Epoxide	61.8	41.1	P/P	38 - 118
2448568	Hexachlorobenzene	54.4	51.3	P/P	35 - 97.0
2448568	Kepone	56.1	53.6	P/P	10 - 221
2448568	Lambda-Cyhalothrin	76.1	71.3	P/P	23 - 190
2448568	Methoprene	98.1	82.2	P/P	21 - 109
2448568	Methoxychlor	77.8	74.9	P/P	46 - 118
2448568	MGK-264	89.5	83.9	P/P	39 - 122
2448568	Mirex	52.4	55.4	P/P	25 - 90.0
2448568	Oxychlordane	81.2	63.0	P/P	42 - 100
2448568	Permethrin	77.8	84.3	P/P	33 - 181
2448568	Phenothrin	61.3	58.6	P/P	12 - 125
2448568	Piperonyl Butoxide	101	93.6	P/P	10 - 178
2448568	Prallethrin	83.5	83.7	P/P	24 - 122
2448568	Tau-Fluvalinate	80.3	81.1	P/P	13 - 151
2448568	Tetramethrin	76.8	55.9	P/P	16 - 172
2448568	Trans-Nonachlor	76.8	57.6	P/P	39 - 100
2448568	Triclosan Methyl	129	105	F/P	43 - 110
2448568	Trifluralin	74.3	80.1	P/P	45 - 94.0

Reference Method: EPA 8276

Batch ID: P437403

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448418	Chlordane	76.5	72.5	P/P	43 - 123
2448418	Toxaphene	101	92.1	P/P	27 - 156

Reference Method: SM 4500-F- C-2011

Batch ID: P437402

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448639	Fluoride	102	100	P/P	94 - 106

Reference Method: SM 5310 B-2011

Batch ID: P437451

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

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P437451

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448409	Organic Carbon	93.7	94.7	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P437788

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448881	Organic Carbon	94.2	96.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P437296

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448385	Color (true)	0.442	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P437298

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448574	Color (true)	2.26	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437289

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448267	Turbidity	1.50	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437291

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448475	Turbidity	0.215	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P437336

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448294	Calcium	0.568	Spike	P	0 - 20
2448294	Iron	0.938	Spike	P	0 - 20
2448294	Magnesium	0.705	Spike	P	0 - 20
2448294	Potassium	1.17	Spike	P	0 - 20
2448294	Sodium	0.299	Spike	P	0 - 20
2448294	Strontium	0.702	Spike	P	0 - 20
2448294	Tin	0.229	Spike	P	0 - 20
2448294	Titanium	2.23	Spike	P	0 - 20
2448294	Vanadium	0.669	Spike	P	0 - 20
2448294	Zinc	0.576	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P437336

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448294	Aluminum	1.22	Spike	P	0 - 20
2448294	Antimony	0.631	Spike	P	0 - 20
2448294	Arsenic	0.440	Spike	P	0 - 20
2448294	Barium	1.79	Spike	P	0 - 20
2448294	Beryllium	1.81	Spike	P	0 - 20
2448294	Boron	2.78	Spike	P	0 - 20
2448294	Cadmium	0.965	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P437336

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448294	Chromium	0.385	Spike	P	0 - 20
2448294	Cobalt	0.808	Spike	P	0 - 20
2448294	Copper	0.764	Spike	P	0 - 20
2448294	Lead	0.367	Spike	P	0 - 20
2448294	Manganese	1.02	Spike	P	0 - 20
2448294	Molybdenum	0.894	Spike	P	0 - 20
2448294	Nickel	0.515	Spike	P	0 - 20
2448294	Selenium	0.560	Spike	P	0 - 20
2448294	Silver	0.136	Spike	P	0 - 20
2448294	Thallium	0.746	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P437825

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448119	Chloride	1.84	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P437826

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448448	Chloride	1.90	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P437829

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448119	Sulfate	2.69	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P437830

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448448	Sulfate	2.27	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P437428

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448409	Ammonia-N	0.161	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P437691

Replicated

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P437691

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448507	Ammonia-N	1.15	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437412

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448431	Kjeldahl Nitrogen	0.966	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437512

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448507	Kjeldahl Nitrogen	1.17	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437605

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448374	NO2NO3-N	1.03	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437644

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447765	NO2NO3-N	1.38	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437767

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2449076	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437306

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448386	Total-P	1.49	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437655

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448704	Total-P	0.978	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E
 Batch ID: P437403

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448418	PCB-1016	6.00	Spike	P	0 - 25
2448418	PCB-1260	5.80	Spike	P	0 - 30
2448568	Aldrin	10.9	Spike	P	0 - 41
2448568	Alpha-BHC	22.5	Spike	P	0 - 25
2448568	Alpha-Chlordane	15.5	Spike	P	0 - 32
2448568	Beta-BHC	7.51	Spike	P	0 - 33
2448568	Beta-Cyfluthrin	6.02	Spike	P	0 - 43
2448568	Bifenthrin	31.4	Spike	P	0 - 52
2448568	Chlorothalonil	24.2	Spike	P	0 - 82
2448568	Cis-Nonachlor	15.7	Spike	P	0 - 33
2448568	Cypermethrin	0.00922	Spike	P	0 - 51
2448568	Dacthal	43.7	Spike	F	0 - 27
2448568	DDD-p,p'	18.2	Spike	P	0 - 39
2448568	DDE-p,p'	26.8	Spike	P	0 - 31
2448568	DDT-p,p'	10.4	Spike	P	0 - 29
2448568	Delta-BHC	15.0	Spike	P	0 - 35
2448568	Deltamethrin	16.2	Spike	P	0 - 100
2448568	Dichlobenil	33.7	Spike	P	0 - 40
2448568	Dicofol	1.18	Spike	P	0 - 37
2448568	Dieldrin	18.6	Spike	P	0 - 27
2448568	Endosulfan I	21.0	Spike	P	0 - 23
2448568	Endosulfan II	3.91	Spike	P	0 - 34
2448568	Endosulfan Sulfate	6.48	Spike	P	0 - 36
2448568	Endrin	25.0	Spike	P	0 - 45
2448568	Endrin Aldehyde	12.2	Spike	P	0 - 76
2448568	Endrin Ketone	12.1	Spike	P	0 - 43
2448568	Esfenvalerate	1.44	Spike	P	0 - 51
2448568	Ethalfuralin	14.3	Spike	P	0 - 22
2448568	Fenpropathrin	37.2	Spike	P	0 - 49
2448568	Gamma-BHC	8.22	Spike	P	0 - 28
2448568	Gamma-Chlordane	23.9	Spike	P	0 - 40
2448568	Heptachlor	41.5	Spike	F	0 - 29
2448568	Heptachlor Epoxide	40.3	Spike	F	0 - 33
2448568	Hexachlorobenzene	5.92	Spike	P	0 - 36
2448568	Kepone	2.05	Spike	P	0 - 85
2448568	Lambda-Cyhalothrin	6.52	Spike	P	0 - 55
2448568	Methoprene	17.7	Spike	P	0 - 53
2448568	Methoxychlor	3.74	Spike	P	0 - 50
2448568	MGK-264	6.44	Spike	P	0 - 43
2448568	Mirex	5.67	Spike	P	0 - 40
2448568	Oxychlordane	25.3	Spike	P	0 - 31
2448568	Permethrin	8.06	Spike	P	0 - 50
2448568	Phenothrin	4.50	Spike	P	0 - 58
2448568	Piperonyl Butoxide	6.38	Spike	P	0 - 100
2448568	Prallethrin	0.283	Spike	P	0 - 39
2448568	Tau-Fluvalinate	1.02	Spike	P	0 - 54
2448568	Tetramethrin	31.6	Spike	P	0 - 51
2448568	Trans-Nonachlor	28.4	Spike	P	0 - 39
2448568	Triclosan Methyl	20.4	Spike	P	0 - 31
2448568	Trifluralin	7.48	Spike	P	0 - 22

Quality Assurance Report Precision

Reference Method: EPA 8276

Batch ID: P437403

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448418	Chlordane	5.46	Spike	P	0 - 28
2448418	Toxaphene	9.58	Spike	P	0 - 27

Reference Method: SM 2320 B-2011

Batch ID: P437541

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448383	Total Alkalinity	0.179	Sample	P	0 - 3.9

Reference Method: SM 2320 B-2011

Batch ID: P437542

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448552	Total Alkalinity	0.203	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015

Batch ID: P437680

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447881	TDS	5.45	Sample	P	0 - 10

Reference Method: SM 2540 C-2015

Batch ID: P437814

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448520	TDS	2.07	Sample	P	0 - 10

Reference Method: SM 2540 D-2015

Batch ID: P437781

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448520	TSS	8.22	Spike	P	0 - 10

Reference Method: SM 4500-F- C-2011

Batch ID: P437402

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448639	Fluoride	1.47	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011

Batch ID: P437451

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448409	Organic Carbon	0.996	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P437788

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448881	Organic Carbon	1.45	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2448418

Field Sample ID: G5NW0006

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	56.5	P	37 - 129
EPA 8270E	Decachlorobiphenyl	51.2	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	37.4	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	37.8	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	60.4	P	28 - 102
EPA 8276	PCNB	73.1	P	49 - 115

Lab Sample ID: 2448419

Field Sample ID: G4NW0429

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	59.9	P	37 - 129
EPA 8270E	Decachlorobiphenyl	50.5	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	59.5	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	50.8	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	69.5	P	28 - 102
EPA 8276	PCNB	76.4	P	49 - 115

Lab Sample ID: 2448420

Field Sample ID: G5NW0156

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	56.3	P	37 - 129
EPA 8270E	Decachlorobiphenyl	33.8	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	47.3	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	30.1	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	57.2	P	28 - 102
EPA 8276	PCNB	70.0	P	49 - 115

Lab Sample ID: 2448579

Field Sample ID: G4NW0505

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	74.0	P	37 - 129
EPA 8270E	Decachlorobiphenyl	54.5	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	54.8	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	41.1	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	57.9	P	28 - 102
EPA 8276	PCNB	58.4	P	49 - 115

Lab Sample ID: 2448580

Field Sample ID: G4NW0412

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	84.0	P	37 - 129
EPA 8270E	Decachlorobiphenyl	61.6	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	59.6	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	75.4	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	69.0	P	28 - 102
EPA 8276	PCNB	74.6	P	49 - 115

Quality Assurance Report Surrogates

Lab Sample ID: 2448581

Field Sample ID: G4NW0036

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	72.1	P	37 - 129
EPA 8270E	Decachlorobiphenyl	34.2	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	51.0	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	51.1	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	48.1	P	28 - 102
EPA 8276	PCNB	81.7	P	49 - 115

Lab Sample ID: 2448582

Field Sample ID: G4NW0244

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	69.7	P	37 - 129
EPA 8270E	Decachlorobiphenyl	51.3	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	50.7	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	44.4	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	54.3	P	28 - 102
EPA 8276	PCNB	60.2	P	49 - 115

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A122520

Included Lab Sample IDs: 2448408, 2448410, 2448574

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

Reference Method: DEP SOP: NU-094-1

Run ID: A122524

Included Lab Sample IDs: 2448408, 2448410, 2448574

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	100	P/P	90 - 110
Color (true)	98.3	99.4	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A122565

Included Lab Sample IDs: 2448408, 2448410, 2448574

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: A122575

Included Lab Sample IDs: 2448409, 2449076

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.0	99.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A122584

Included Lab Sample IDs: 2448421, 2448422, 2448423, 2448511

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	101	101	P/P	90 - 110
Antimony	99.5	98.5	P/P	90 - 110
Arsenic	99.3	98.0	P/P	90 - 110
Barium	100	99.2	P/P	90 - 110
Beryllium	97.6	96.0	P/P	90 - 110
Boron	103	105	P/P	90 - 110
Cadmium	102	103	P/P	90 - 110
Chromium	101	102	P/P	90 - 110
Cobalt	96.6	96.4	P/P	90 - 110
Copper	95.7	94.8	P/P	90 - 110
Lead	96.6	95.9	P/P	90 - 110
Manganese	102	103	P/P	90 - 110
Molybdenum	99.8	100	P/P	90 - 110
Nickel	95.6	95.7	P/P	90 - 110
Selenium	99.8	101	P/P	90 - 110
Silver	99.1	99.9	P/P	90 - 110
Thallium	101	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A122586

Included Lab Sample IDs: 2448409, 2449076

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.0	96.9	P/P	90 - 110
Organic Carbon	96.6	96.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A122599

Included Lab Sample IDs: 2448409, 2449076

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A122601

Included Lab Sample IDs: 2448409, 2449076

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.4	91.6	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A122610

Included Lab Sample IDs: 2448408, 2448410, 2448574

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	103	P/P	90 - 110
Chloride	102	102	P/P	90 - 110
Sulfate	100	104	P/P	90 - 110
Sulfate	102	102	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A122617

Included Lab Sample IDs: 2448408, 2448410, 2448574

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.0	97.9	P/P	90 - 110
Total Alkalinity	96.4	98.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122638

Included Lab Sample IDs: 2448409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A122659

Included Lab Sample IDs: 2448507

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	98.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122667

Included Lab Sample IDs: 2448507

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A122677

Included Lab Sample IDs: 2448421, 2448422, 2448423, 2448511

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	103	100	P/P	90 - 110
Calcium	100	100	P/P	90 - 110
Iron	102	99.4	P/P	90 - 110
Iron	99.4	99.5	P/P	90 - 110
Magnesium	102	99.6	P/P	90 - 110
Magnesium	99.6	99.9	P/P	90 - 110
Potassium	101	98.3	P/P	90 - 110
Potassium	98.3	98.9	P/P	90 - 110
Sodium	101	99.1	P/P	90 - 110
Sodium	99.1	99.4	P/P	90 - 110
Strontium	101	101	P/P	90 - 110
Strontium	101	98.0	P/P	90 - 110
Tin	101	99.2	P/P	90 - 110
Tin	102	101	P/P	90 - 110
Titanium	99.8	98.1	P/P	90 - 110
Titanium	99.9	99.8	P/P	90 - 110
Vanadium	98.7	96.9	P/P	90 - 110
Vanadium	99.1	98.7	P/P	90 - 110
Zinc	98.1	96.5	P/P	90 - 110
Zinc	98.9	98.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A122694

Included Lab Sample IDs: 2448507

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.7	99.6	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A122695

Included Lab Sample IDs: 2448418, 2448419, 2448420, 2448579, 2448580, 2448581, 2448582

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	97.3		P	80 - 120
Chlordane	98.7		P	80 - 120
Toxaphene	101		P	80 - 120
Toxaphene	104		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122709

Included Lab Sample IDs: 2449076

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A122712

Included Lab Sample IDs: 2448507

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

Reference Method: SM 5310 B-2011

Run ID: A122725

Included Lab Sample IDs: 2448507

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.2	95.6	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A122828

Included Lab Sample IDs: 2448419, 2448420, 2448579, 2448580, 2448581, 2448582

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	93.9		P	80 - 120
PCB-1260	101		P	80 - 120

Reference Method: EPA 8270E

Run ID: A122830

Included Lab Sample IDs: 2448418

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	100		P	80 - 120
PCB-1260	106		P	80 - 120

Reference Method: EPA 8270E

Run ID: A122889

Included Lab Sample IDs: 2448418, 2448419, 2448420, 2448579, 2448580, 2448581, 2448582

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.9		P	80 - 120
Alpha-BHC	92.5		P	80 - 120
Alpha-Chlordane	110		P	80 - 120
Beta-BHC	119		P	80 - 120
Beta-Cyfluthrin	105		P	80 - 120
Bifenthrin	82.4		P	80 - 120
Chlorothalonil	120		P	80 - 120
Cis-Nonachlor	119		P	80 - 120
Cypermethrin	98.4		P	80 - 120
Dacthal	88.1		P	80 - 120
DDD-p,p'	96.4		P	80 - 120
DDE-p,p'	91.1		P	80 - 120
DDT-p,p'	118		P	80 - 120
Delta-BHC	120		P	80 - 120
Deltamethrin	87.1		P	80 - 120
Dichlobenil	88.2		P	80 - 120
Dicofol	90.1		P	80 - 120
Dieldrin	86.8		P	80 - 120
Endosulfan I	108		P	80 - 120
Endosulfan II	113		P	80 - 120
Endosulfan Sulfate	112		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A122889

Included Lab Sample IDs: 2448418, 2448419, 2448420, 2448579, 2448580, 2448581, 2448582

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endrin	96.8		P	80 - 120
Endrin Aldehyde	99.3		P	80 - 120
Endrin Ketone	88.1		P	80 - 120
Esfenvalerate	115		P	80 - 120
Ethalfuralin	116		P	80 - 120
Fenpropathrin	96.7		P	80 - 120
Gamma-BHC	112		P	80 - 120
Gamma-Chlordane	93.2		P	80 - 120
Heptachlor	111		P	80 - 120
Heptachlor Epoxide	100		P	80 - 120
Hexachlorobenzene	86.6		P	80 - 120
Kepone	118		P	80 - 120
Lambda-Cyhalothrin	94.6		P	80 - 120
Methoprene	104		P	80 - 120
Methoxychlor	113		P	80 - 120
MGK-264	87.5		P	80 - 120
Mirex	98.7		P	80 - 120
Oxychlordane	86.5		P	80 - 120
Permethrin	98.5		P	80 - 120
Phenothrin	94.3		P	80 - 120
Piperonyl Butoxide	94.4		P	80 - 120
Prallethrin	82.1		P	80 - 120
Tau-Fluvalinate	119		P	80 - 120
Tetramethrin	81.2		P	80 - 120
Trans-Nonachlor	90.7		P	80 - 120
Triclosan Methyl	115		P	80 - 120
Trifluralin	96.4		P	80 - 120

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	100				0.442	
	Color (true)	99.9				2.26	
EPA 180.1 Rev. 2.0	Turbidity	104				1.50	
	Turbidity	104				0.215	
EPA 200.7 Rev. 4.4	Calcium	104	103	102			0.568
	Iron	110	112	113	107		0.938
	Magnesium	111	113	114	106		0.705
	Potassium	102	103	104	99.3		1.17
	Sodium	102	101	101			0.299
	Strontium	97.8	98.9	99.6	96.6		0.702
	Tin	97.2	97.3	97.6	96.2		0.229
	Titanium	99.9	97.7	100	99.3		2.23
	Vanadium	98.9	99.8	100	97.2		0.669
	Zinc	97.3	97.5	98.1	94.8		0.576
EPA 200.8 Rev. 5.4	Aluminum	99.6	101	99.4	98.4		1.22
	Antimony	99.6	100	99.6	101		0.631
	Arsenic	101	99.6	99.2	98.9		0.440
	Barium	102	104	102	102		1.79
	Beryllium	95.2	97.2	95.4	95.2		1.81
	Boron	105	109	106	110		2.78
	Cadmium	102	102	103	102		0.965
	Chromium	99.7	102	102	101		0.385
	Cobalt	98.8	97.6	96.8	95.4		0.808
	Copper	98.6	98.5	97.7	95.8		0.764
	Lead	96.0	97.5	97.1	97.3		0.367
	Manganese	99.9	102	99.9	101		1.02
	Molybdenum	101	102	101	101		0.894
	Nickel	98.0	96.7	96.2	94.7		0.515
	Selenium	100	97.9	97.4	96.4		0.560
	Silver	106	105	105	105		0.136
	Thallium	101	103	103	103		0.746
EPA 300.0 Rev. 2.1	Chloride	105	102	99.1		1.84	
	Chloride	103	107	104		1.90	
	Sulfate	105	103			2.69	
	Sulfate	104	107	104		2.27	
EPA 350.1 Rev. 2.0	Ammonia-N	96.6	98.0	97.8			0.161
	Ammonia-N	101	97.0	98.4			1.15
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	103	102			0.966
	Kjeldahl Nitrogen	102	97.3	98.6			1.17
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5	96.5	97.5			1.03
	NO2NO3-N	101	99.5	102			1.38
	NO2NO3-N	101	98.0				0.0
EPA 365.1 Rev. 2.0	Total-P	104	97.8	101			1.49
	Total-P	99.8	102	103			0.978
EPA 8270E	Aldrin	46.7	68.2	61.1			10.9
	Alpha-BHC	70.6	69.8	87.5			22.5
	Alpha-Chlordane	63.2	87.1	102			15.5
	Beta-BHC	122	105	113			7.51
	Beta-Cyfluthrin	48.3	76.4	71.9			6.02
	Bifenthrin	44.1	42.5	58.3			31.4
	Chlorothalonil	107	62.5	79.8			24.2
	Cis-Nonachlor	58.1	66.8	57.1			15.7
	Cypermethrin	47.8	63.6	63.6			0.0092
	Dacthal	60.9	81.8	52.5			43.7

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	DDD-p,p'	61.9	48.3	40.2			18.2
	DDE-p,p'	51.0	59.7	45.6			26.8
	DDT-p,p'	87.9	79.7	71.8			10.4
	Delta-BHC	135	146	126			15.0
	Deltamethrin	30.2	65.9	77.5			16.2
	Dichlobenil	50.5	47.1	33.5			33.7
	Dicofol	45.3	46.2	46.7			1.18
	Dieldrin	68.2	55.4	46.0			18.6
	Endosulfan I	60.6	102	82.9			21.0
	Endosulfan II	54.8	85.7	82.4			3.91
	Endosulfan Sulfate	87.0	89.2	95.2			6.48
	Endrin	47.1	71.0	55.2			25.0
	Endrin Aldehyde	12.2	36.6	32.4			12.2
	Endrin Ketone	84.0	64.6	57.2			12.1
	Esfenvalerate	68.1	88.3	89.6			1.44
	Ethalfuralin	75.7	74.2	64.3			14.3
	Fenpropathrin	49.8	51.1	35.1			37.2
	Gamma-BHC	103	93.1	85.8			8.22
	Gamma-Chlordane	63.2	97.5	76.7			23.9
	Heptachlor	65.9	69.0	45.3			41.5
	Heptachlor Epoxide	74.3	61.8	41.1			40.3
	Hexachlorobenzene	69.9	54.4	51.3			5.92
	Kepone	59.3	56.1	53.6			2.05
	Lambda-Cyhalothrin	44.1	76.1	71.3			6.52
	Methoprene	72.4	98.1	82.2			17.7
	Methoxychlor	84.0	77.8	74.9			3.74
	MGK-264	102	89.5	83.9			6.44
	Mirex	38.3	52.4	55.4			5.67
	Oxychlordane	73.8	81.2	63.0			25.3
	PCB-1016	116	104	97.6			6.00
	PCB-1260	89.0	99.8	94.1			5.80
	Permethrin	52.1	77.8	84.3			8.06
	Phenothrin	45.5	61.3	58.6			4.50
	Piperonyl Butoxide	87.4	101	93.6			6.38
	Prallethrin	45.0	83.5	83.7			0.283
	Tau-Fluvalinate	53.0	80.3	81.1			1.02
	Tetramethrin	66.4	76.8	55.9			31.6
	Trans-Nonachlor	48.9	76.8	57.6			28.4
	Triclosan Methyl	74.1	129	105			20.4
	Trifluralin	54.1	74.3	80.1			7.48
EPA 8276	Chlordane	81.7	76.5	72.5			5.46
	Toxaphene	99.1	101	92.1			9.58
SM 2320 B-2011	Total Alkalinity	98.9				0.179	
	Total Alkalinity	98.4				0.203	
SM 2540 C-2015	TDS	107				5.45	
	TDS	97.2				2.07	
SM 2540 D-2015	TSS	96.0					
	TSS	106				8.22	
SM 4500-F- C-2011	Fluoride	103	102	100			1.47
SM 5310 B-2011	Organic Carbon	95.3	93.7	94.7			0.996
	Organic Carbon	94.5	94.2	96.4			1.45

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2448408, 2448410, 2448574
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2448408, 2448410, 2448574
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2448421, 2448422, 2448423, 2448511
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2448421, 2448422, 2448423, 2448511
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2448408, 2448410, 2448574
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2448408, 2448410, 2448574
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2448409, 2448507, 2449076
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2448409, 2448507, 2449076
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2448409, 2448507, 2449076
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2448409, 2448507, 2449076
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2448418, 2448419, 2448420, 2448579, 2448580, 2448581, 2448582
EPA 8270E	PCBs in water matrices by GC/MS/MS	2448418, 2448419, 2448420, 2448579, 2448580, 2448581, 2448582
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2448418, 2448419, 2448420, 2448579, 2448580, 2448581, 2448582
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2448408, 2448410, 2448574
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2448421, 2448422, 2448423, 2448511
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2448408, 2448410, 2448574
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2448408, 2448410, 2448574
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2448408, 2448410, 2448574
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2448409, 2448507, 2449076

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	11/02/2023			11/02/2023 15:25	Anna M. Plaviak	2448408
	11/02/2023			11/02/2023 15:26	Anna M. Plaviak	2448410
	11/02/2023			11/02/2023 15:48	Anna M. Plaviak	2448574
EPA 180.1 Rev. 2.0	11/02/2023			11/02/2023 13:56	Khloe J Berg	2448408, 2448410
	11/02/2023			11/02/2023 14:52	Khloe J Berg	2448574
EPA 200.7 Rev. 4.4	11/02/2023	11/03/2023 11:55	George D Taylor	11/09/2023 16:50	Chase Roberts	2448421
	11/02/2023	11/03/2023 11:55	George D Taylor	11/09/2023 16:57	Chase Roberts	2448422
	11/02/2023	11/03/2023 11:55	George D Taylor	11/09/2023 17:03	Chase Roberts	2448423
	11/02/2023	11/03/2023 11:55	George D Taylor	11/09/2023 18:24	Chase Roberts	2448511
EPA 200.8 Rev. 5.4	11/02/2023	11/03/2023 11:55	George D Taylor	11/06/2023 16:46	Conrad Hartmann	2448421
	11/02/2023	11/03/2023 11:55	George D Taylor	11/06/2023 16:56	Conrad Hartmann	2448422
	11/02/2023	11/03/2023 11:55	George D Taylor	11/06/2023 17:05	Conrad Hartmann	2448423
	11/02/2023	11/03/2023 11:55	George D Taylor	11/06/2023 17:25	Conrad Hartmann	2448511
EPA 300.0 Rev. 2.1	11/02/2023			11/09/2023 02:05	James L Waggeberby	2448408
	11/02/2023			11/09/2023 02:21	James L Waggeberby	2448410
	11/02/2023			11/09/2023 09:53	James L Waggeberby	2448574
EPA 350.1 Rev. 2.0	11/02/2023			11/06/2023 11:16	Khloe J Berg	2448409
	11/02/2023			11/06/2023 11:20	Khloe J Berg	2449076
	11/02/2023			11/13/2023 11:56	Ping Hua	2448507
EPA 351.2 Rev. 2.0	11/02/2023	11/06/2023 13:00	Simonne.V. Calhoun	11/07/2023 14:47	Samantha L Bates	2448409
	11/02/2023	11/06/2023 13:00	Simonne.V. Calhoun	11/07/2023 14:56	Samantha L Bates	2449076
	11/02/2023	11/08/2023 11:50	Ping Hua	11/09/2023 11:16	Ping Hua	2448507
EPA 353.2 Rev. 2.0	11/02/2023			11/08/2023 13:54	Fadila Guebre	2448409
	11/02/2023			11/09/2023 12:51	Fadila Guebre	2448507
	11/02/2023			11/14/2023 13:40	Fadila Guebre	2449076
EPA 365.1 Rev. 2.0	11/02/2023	11/03/2023 14:23	Adam P Silver	11/07/2023 13:48	James L Waggeberby	2448409
	11/02/2023	11/03/2023 14:23	Adam P Silver	11/07/2023 13:49	James L Waggeberby	2449076
	11/02/2023	11/13/2023 13:18	Adam P Silver	11/14/2023 15:38	James L Waggeberby	2448507
EPA 8270E	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/16/2023 02:04	Julie Wi	2448418
	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/16/2023 02:36	Julie Wi	2448419
	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/16/2023 03:08	Julie Wi	2448420
	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/16/2023 04:13	Julie Wi	2448579
	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/16/2023 04:46	Julie Wi	2448580
	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/16/2023 05:18	Julie Wi	2448581
	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/16/2023 05:50	Julie Wi	2448582
	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/18/2023 21:12	Lipi Saha	2448419
	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/18/2023 21:42	Lipi Saha	2448420
	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/18/2023 22:42	Lipi Saha	2448579
	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/18/2023 23:12	Lipi Saha	2448580
	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/18/2023 23:42	Lipi Saha	2448581

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/19/2023 00:12	Lipi Saha	2448582
	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/20/2023 06:18	Lipi Saha	2448418
EPA 8276	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/10/2023 05:53	Arthur Maknenko	2448418
	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/10/2023 07:44	Arthur Maknenko	2448419
	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/10/2023 08:39	Arthur Maknenko	2448420
	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/10/2023 10:30	Arthur Maknenko	2448579
	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/10/2023 11:25	Arthur Maknenko	2448580
	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/10/2023 12:21	Arthur Maknenko	2448581
	11/02/2023	11/07/2023 08:00	Fe-Val Siddell	11/10/2023 13:16	Arthur Maknenko	2448582
SM 2320 B-2011	11/02/2023			11/07/2023 19:14	Chandler E Cox	2448408
	11/02/2023			11/07/2023 19:24	Chandler E Cox	2448410
	11/02/2023			11/08/2023 00:00	Chandler E Cox	2448574
SM 2340 B-2011	11/02/2023			11/09/2023 16:50	Chase Roberts	2448421
	11/02/2023			11/09/2023 16:57	Chase Roberts	2448422
	11/02/2023			11/09/2023 17:03	Chase Roberts	2448423
	11/02/2023			11/09/2023 18:24	Chase Roberts	2448511
SM 2540 C-2015	11/02/2023			11/03/2023 15:32	Yijie Li	2448408, 2448410
	11/02/2023			11/07/2023 15:38	Yijie Li	2448574
SM 2540 D-2015	11/02/2023			11/03/2023 15:32	Yijie Li	2448408, 2448410
	11/02/2023			11/07/2023 15:38	Yijie Li	2448574
SM 4500-F- C-2011	11/02/2023			11/04/2023 08:19	Chandler E Cox	2448408
	11/02/2023			11/04/2023 08:31	Chandler E Cox	2448410
	11/02/2023			11/04/2023 08:57	Chandler E Cox	2448574
SM 5310 B-2011	11/02/2023			11/03/2023 18:46	Elise M. Gillis	2448409
	11/02/2023			11/04/2023 00:34	Elise M. Gillis	2449076
	11/02/2023			11/13/2023 18:11	Khloe J Berg	2448507