

Chemical Analysis Report

NW-DIST-2023-05-10-01

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

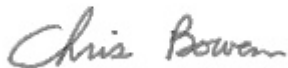
Event Description: **Pace Run**
Request ID: **RQ-2023-05-08-46**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
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Certified by: Chris Bowen, Environmental Administrator

Date Certified: 30-MAY-2023 14:04



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: BEAR CREEK 40M BLW LAKE DAM OUTFALL Collection Date/Time: 05/08/2023 11:12

Field ID: G4NW0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2408280	DEP SOP: NU-094-1	Color (true)	33		PCU	P429675	
	EPA 180.1 Rev. 2.0	Turbidity	9.7		NTU	P429687	
	EPA 300.0 Rev. 2.1	Chloride	2.8		mg Cl/L	P429795	
		Sulfate	0.46	I	mg SO4/L	P429797	
	SM 2320 B-2011	Total Alkalinity	9.1		mg CaCO3/L	P430157	
	SM 2540 C-2015	TDS	25		mg/L	P430183	
	SM 2540 D-2015	TSS	13		mg/L	P430027	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P429887	
2408281	EPA 350.1 Rev. 2.0	Ammonia-N	0.070		mg N/L	P429775	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.36		mg N/L	P429952	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.007	I	mg N/L	P429983	
	EPA 365.1 Rev. 2.0	Total-P	0.015		mg P/L	P429802	
	SM 5310 B-2011	Organic Carbon	4.0		mg C/L	P429854	
2408307	EPA 200.7 Rev. 4.4	Calcium	2.87		mg/L	P429734	
		Iron	4.58E+03		ug/L	P429734	
		Magnesium	1.07		mg/L	P429734	
		Potassium	0.30	U	mg/L	P429734	
		Sodium	1.5	I	mg/L	P429734	
		Strontium	6.5	I	ug/L	P429734	
		Tin	3.0	U	ug/L	P429734	
		Titanium	0.75	U	ug/L	P429734	
		Vanadium	2.0	U	ug/L	P429734	
		Zinc	5.0	U	ug/L	P429734	
	EPA 200.8 Rev. 5.4	Aluminum	47		ug/L	P429734	
		Antimony	0.050	U	ug/L	P429734	
		Arsenic	1.14		ug/L	P429734	
		Barium	10.2		ug/L	P429734	
		Beryllium	0.014	I	ug/L	P429734	
		Boron	7.1	I	ug/L	P429734	
		Cadmium	0.020	U	ug/L	P429734	
		Chromium	0.40	U	ug/L	P429734	
		Cobalt	0.512		ug/L	P429734	
		Copper	0.40	U	ug/L	P429734	
		Lead	0.20	U	ug/L	P429734	
		Manganese	144		ug/L	P429734	
		Molybdenum	0.15	U	ug/L	P429734	
		Nickel	0.50	U	ug/L	P429734	
		Selenium	0.20	U	ug/L	P429734	
		Silver	0.019	I	ug/L	P429734	
		Thallium	0.10	U	ug/L	P429734	
		Hardness	11.6		mg/L	P429734	

Ref. Method and Comment:

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

Sample Location: COLDWATER CREEK WEST FORK ON CR 178 Collection Date/Time: 05/08/2023 12:15

Field ID: G4NW0016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2408282	DEP SOP: NU-094-1	Color (true)	17		PCU	P429675	
	EPA 180.1 Rev. 2.0	Turbidity	3.6		NTU	P429687	
	EPA 300.0 Rev. 2.1	Chloride	7.1		mg Cl/L	P429795	
		Sulfate	1.8		mg SO4/L	P429797	
	SM 2320 B-2011	Total Alkalinity	3.7		mg CaCO3/L	P430157	
	SM 2540 C-2015	TDS	36		mg/L	P430183	
	SM 2540 D-2015	TSS	4	I	mg/L	P430027	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P429887	
2408283	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P429775	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.25		mg N/L	P429952	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.9		mg N/L	P429983	
	EPA 365.1 Rev. 2.0	Total-P	0.007		mg P/L	P429802	
	SM 5310 B-2011	Organic Carbon	1.7		mg C/L	P429854	
2408292	EPA 8270E	Aldrin	0.69	U	ng/L	P429735	
		Alpha-BHC	0.11	U	ng/L	P429735	
		Alpha-Chlordane	0.21	U	ng/L	P429735	
		PCB-1016	2.1	U	ng/L	P429735	
		Beta-BHC	0.11	U	ng/L	P429735	
		PCB-1221	2.1	U	ng/L	P429735	
		Beta-Cyfluthrin	1.3	U	ng/L	P429735	
		PCB-1232	2.1	U	ng/L	P429735	
		Bifenthrin	0.53	U	ng/L	P429735	
		PCB-1242	2.1	U	ng/L	P429735	
		Carbophenothion	0.96	U	ng/L	P429735	
		PCB-1248	2.1	U	ng/L	P429735	
		Chlorothalonil	3.8	U	ng/L	P429735	
		PCB-1254	2.1	U	ng/L	P429735	
		Cis-Nonachlor	0.21	U	ng/L	P429735	
		PCB-1260	2.1	U	ng/L	P429735	
		Cypermethrin	1.6	U	ng/L	P429735	
		Dacthal	0.16	U	ng/L	P429735	
		DDD-p,p'	0.27	U	ng/L	P429735	
		DDE-p,p'	0.21	U	ng/L	P429735	
		DDT-p,p'	0.27	U	ng/L	P429735	
		Delta-BHC	0.43	U	ng/L	P429735	
		Deltamethrin	1.3	U	ng/L	P429735	
		Dichlobenil	0.27	U	ng/L	P429735	
		Dicofol	1.3	U	ng/L	P429735	
		Dieldrin	1.1	I	ng/L	P429735	
		Endosulfan I	0.43	U	ng/L	P429735	
		Endosulfan II	0.43	U	ng/L	P429735	
		Endosulfan Sulfate	0.32	U	ng/L	P429735	
		Endrin	0.43	U	ng/L	P429735	
		Endrin Aldehyde	0.80	U	ng/L	P429735	

RPD

Field ID: G4NW0016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2408292	EPA 8270E	Endrin Ketone	0.52	I	ng/L	P429735	
		Esfenvalerate	0.80	U	ng/L	P429735	
		Ethalfuralin	0.16	U	ng/L	P429735	
		Fenpropathrin	0.27	U	ng/L	P429735	
		Gamma-BHC	0.13	U	ng/L	P429735	
		Gamma-Chlordane	0.21	U	ng/L	P429735	
		Heptachlor	0.21	U	ng/L	P429735	
		Heptachlor Epoxide	0.27	U	ng/L	P429735	
		Hexachlorobenzene**	1.1	U	ng/L	P429735	
		Kepone	5.3	UJ	ng/L	P429735	CCV
		Lambda-Cyhalothrin	0.80	U	ng/L	P429735	
		Methoprene	0.80	U	ng/L	P429735	
		Methoxychlor	0.32	U	ng/L	P429735	
		MGK-264	0.21	U	ng/L	P429735	
		Mirex	0.37	U	ng/L	P429735	
		Oxychlordane	0.32	U	ng/L	P429735	
		Permethrin	1.7	U	ng/L	P429735	
		Phenothrin	0.96	U	ng/L	P429735	
		Piperonyl Butoxide	0.16	U	ng/L	P429735	
		Prallethrin	2.1	U	ng/L	P429735	
		Tau-Fluvalinate	0.27	U	ng/L	P429735	
		Tetramethrin	0.80	U	ng/L	P429735	
		Trans-Nonachlor	0.21	U	ng/L	P429735	
		Triclosan Methyl	0.16	U	ng/L	P429735	
		Trifluralin	0.21	U	ng/L	P429735	
	EPA 8276	Chlordane	2.1	U	ng/L	P429735	
		Toxaphene	39	I	ng/L	P429735	

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.

Sample Location: FB

Collection Date/Time: 05/08/2023 12:25

Field ID: FB_05082023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2408284	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P429675	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P429687	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P429795	
		Sulfate	0.20	U	mg SO4/L	P429797	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P430157	
	SM 2540 C-2015	TDS	15	U	mg/L	P430183	
	SM 2540 D-2015	TSS	2	U	mg/L	P430027	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P429887	
2408285	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P429775	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P429952	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P429983	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P429802	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P429854	
2408293	EPA 8270E	Aldrin	0.67	U	ng/L	P429735	
		Alpha-BHC	0.10	U	ng/L	P429735	
		Alpha-Chlordane	0.21	U	ng/L	P429735	
		PCB-1016	2.1	U	ng/L	P429735	
		Beta-BHC	0.10	U	ng/L	P429735	
		PCB-1221	2.1	U	ng/L	P429735	
		Beta-Cyfluthrin	1.3	U	ng/L	P429735	
		PCB-1232	2.1	U	ng/L	P429735	
		Bifenthrin	0.51	U	ng/L	P429735	
		PCB-1242	2.1	U	ng/L	P429735	
		Carbophenothion	0.93	U	ng/L	P429735	
		PCB-1248	2.1	U	ng/L	P429735	
		Chlorothalonil	3.7	U	ng/L	P429735	
		PCB-1254	2.1	U	ng/L	P429735	
		Cis-Nonachlor	0.21	U	ng/L	P429735	
		PCB-1260	2.1	U	ng/L	P429735	
		Cypermethrin	1.5	U	ng/L	P429735	
		Dacthal	0.15	U	ng/L	P429735	
		DDD-p,p'	0.26	U	ng/L	P429735	
		DDE-p,p'	0.21	U	ng/L	P429735	
		DDT-p,p'	0.26	U	ng/L	P429735	
		Delta-BHC	0.41	U	ng/L	P429735	
		Deltamethrin	1.3	U	ng/L	P429735	
		Dichlobenil	0.26	U	ng/L	P429735	
		Dicofol	1.3	U	ng/L	P429735	
		Dieldrin	0.41	U	ng/L	P429735	
		Endosulfan I	0.41	U	ng/L	P429735	
		Endosulfan II	0.41	U	ng/L	P429735	
		Endosulfan Sulfate	0.31	U	ng/L	P429735	
		Endrin	0.41	U	ng/L	P429735	
		Endrin Aldehyde	0.77	U	ng/L	P429735	

RPD

Field ID: FB_05082023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes	
2408293	EPA 8270E	Endrin Ketone	0.41	U	ng/L	P429735	CCV	
		Esfenvalerate	0.77	U	ng/L	P429735		
		Ethalfuralin	0.15	U	ng/L	P429735		
		Fenpropathrin	0.26	U	ng/L	P429735		
		Gamma-BHC	0.13	U	ng/L	P429735		
		Gamma-Chlordane	0.21	U	ng/L	P429735		
		Heptachlor	0.21	U	ng/L	P429735		
		Heptachlor Epoxide	0.26	U	ng/L	P429735		
		Hexachlorobenzene**	1.0	U	ng/L	P429735		
		Kepone	5.1	UJ	ng/L	P429735		
		Lambda-Cyhalothrin	0.77	U	ng/L	P429735		
		Methoprene	0.77	U	ng/L	P429735		
		Methoxychlor	0.31	U	ng/L	P429735		
		MGK-264	0.21	U	ng/L	P429735		
		Mirex	0.36	U	ng/L	P429735		
		Oxychlordane	0.31	U	ng/L	P429735		
		Permethrin	1.6	U	ng/L	P429735		
		Phenothrin	0.93	U	ng/L	P429735		
		Piperonyl Butoxide	0.15	U	ng/L	P429735		
		Prallethrin	2.1	U	ng/L	P429735		
		Tau-Fluvalinate	0.26	U	ng/L	P429735		
		Tetramethrin	0.77	U	ng/L	P429735		
		Trans-Nonachlor	0.21	U	ng/L	P429735		
		Triclosan Methyl	0.15	U	ng/L	P429735		
		Trifluralin	0.21	U	ng/L	P429735		
	EPA 8276	Chlordane	2.1	U	ng/L	P429735		
		Toxaphene	15	U	ng/L	P429735		
	2408308	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L		P429734
			Iron	30	U	ug/L		P429734
Magnesium			0.040	U	mg/L	P429734		
Potassium			0.30	U	mg/L	P429734		
Sodium			0.50	U	mg/L	P429734		
Strontium			2.0	U	ug/L	P429734		
Tin			3.0	U	ug/L	P429734		
Titanium			0.75	U	ug/L	P429734		
Vanadium			2.0	U	ug/L	P429734		
Zinc			5.0	U	ug/L	P429734		
EPA 200.8 Rev. 5.4		Aluminum	5.0	U	ug/L	P429734		
		Antimony	0.050	U	ug/L	P429734		
		Arsenic	0.050	U	ug/L	P429734		
		Barium	0.20	U	ug/L	P429734		
		Beryllium	0.010	U	ug/L	P429734		
		Boron	2.0	U	ug/L	P429734		
		Cadmium	0.020	U	ug/L	P429734		
		Chromium	0.40	U	ug/L	P429734		

Field ID: FB_05082023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2408308	EPA 200.8 Rev. 5.4	Cobalt	0.020	U	ug/L	P429734	
		Copper	1.15		ug/L	P429734	
		Lead	0.34	I	ug/L	P429734	
		Manganese	0.10	U	ug/L	P429734	
		Molybdenum	0.15	U	ug/L	P429734	
		Nickel	0.50	U	ug/L	P429734	
		Selenium	0.20	U	ug/L	P429734	
		Silver	0.010	U	ug/L	P429734	
		Thallium	0.10	U	ug/L	P429734	

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 200.8 Rev. 5.4: The copper and lead result was confirmed in the undigested sample on 05/16/2023.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P429675

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P429687

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P429734

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: P429734

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429795

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429797

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429775

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429952

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429983

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429802

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

Reference Method: EPA 8270E
Batch ID: P429735

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Carbophenothion	0.90	U	ng/L
Carbophenothion	0.90	U	ng/L
Chlorothalonil	3.6	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P429735

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P429735

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

Reference Method: EPA 8276
Batch ID: P429735

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

Reference Method: SM 2320 B-2011
Batch ID: P430157

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P430157

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

Reference Method: SM 2540 C-2015
Batch ID: P430183

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P430027

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P429887

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P429854

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: P429675

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P429687

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P429734

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	101		P	85 - 115
Iron	102		P	85 - 115
Magnesium	101		P	85 - 115
Potassium	100		P	85 - 115
Sodium	105		P	85 - 115
Strontium	104		P	85 - 115
Tin	104		P	85 - 115
Titanium	101		P	85 - 115
Vanadium	103		P	85 - 115
Zinc	108		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P429734

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	99.7		P	85 - 115
Barium	102		P	85 - 115
Beryllium	98.1		P	85 - 115
Boron	103		P	85 - 115
Cadmium	99.8		P	85 - 115
Chromium	98.2		P	85 - 115
Cobalt	102		P	85 - 115
Copper	98.1		P	85 - 115
Lead	102		P	85 - 115
Manganese	99.5		P	85 - 115
Molybdenum	99.1		P	85 - 115
Nickel	98.7		P	85 - 115
Selenium	99.2		P	85 - 115
Silver	107		P	85 - 115
Thallium	100		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429795

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.3		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429797

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429775

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429952

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429983

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429802

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

Reference Method: EPA 8270E
Batch ID: P429735

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	47.4		P	10 - 92.0
Alpha-BHC	84.0		P	75 - 107
Alpha-Chlordane	67.8		P	50 - 108
Beta-BHC	93.9		P	36 - 138
Beta-Cyfluthrin	59.9		P	20 - 161
Bifenthrin	41.6		P	10 - 119
Carbophenothion	56.2		P	19 - 94.0
Chlorothalonil	78.2		P	26 - 186
Cis-Nonachlor	62.2		P	42 - 119
Cypermethrin	67.3		P	22 - 150
Dacthal	100		P	72 - 119
DDD-p,p'	62.9		P	45 - 107
DDE-p,p'	65.5		P	48 - 106
DDT-p,p'	61.8		P	48 - 110
Delta-BHC	92.1		P	54 - 140
Deltamethrin	76.8		P	22 - 189
Dichlobenil	89.3		P	36 - 117
Dicofol	72.7		P	46 - 155
Dieldrin	69.1		P	54 - 110
Endosulfan I	64.9		P	59 - 105
Endosulfan II	69.1		P	51 - 118
Endosulfan Sulfate	66.2		P	57 - 121

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P429735

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endrin	66.3		P	10 - 120
Endrin Aldehyde	61.8		P	34 - 118
Endrin Ketone	95.1		P	69 - 177
Esfenvalerate	56.4		P	23 - 168
Ethalfuralin	63.2		P	49 - 99.0
Fenpropathrin	70.2		P	34 - 117
Gamma-BHC	91.0		P	72 - 117
Gamma-Chlordane	66.1		P	43 - 106
Heptachlor	59.0		P	41 - 98.0
Heptachlor Epoxide	82.8		P	57 - 106
Hexachlorobenzene	60.8		P	36 - 99.0
Kepone	71.9		P	16 - 215
Lambda-Cyhalothrin	53.2		P	21 - 177
Methoprene	40.3		P	10 - 119
Methoxychlor	83.4		P	60 - 112
MGK-264	88.1		P	26 - 122
Mirex	40.0		P	10 - 169
Oxychlordane	69.5		P	43 - 105
PCB-1016	69.6		P	48 - 112
PCB-1260	60.4		P	44 - 118
Permethrin	59.6		P	24 - 148
Phenothrin	39.9		P	10 - 106
Piperonyl Butoxide	79.4		P	10 - 139
Prallethrin	60.6		P	17 - 109
Tau-Fluvalinate	48.4		P	13 - 131
Tetramethrin	89.2		P	10 - 132
Trans-Nonachlor	63.4		P	44 - 106
Triclosan Methyl	71.5		P	59 - 109
Trifluralin	64.5		P	44 - 101

Reference Method: EPA 8276

Batch ID: P429735

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	64.9		P	61 - 116
Toxaphene	67.3		P	48 - 124

Reference Method: SM 2320 B-2011

Batch ID: P430157

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.2		P	92 - 105

Reference Method: SM 2540 C-2015

Batch ID: P430183

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 D-2015
Batch ID: P430027

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

Reference Method: SM 4500-F- C-2011
Batch ID: P429887

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

Reference Method: SM 5310 B-2011
Batch ID: P429854

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: P429734

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408260	Calcium	100	103	P/P	80 - 120
2408260	Iron	102	104	P/P	80 - 120
2408260	Magnesium	101	103	P/P	80 - 120
2408260	Potassium	101	102	P/P	80 - 120
2408260	Sodium	106	106	P/P	80 - 120
2408260	Strontium	104	104	P/P	80 - 120
2408260	Tin	102	103	P/P	80 - 120
2408260	Titanium	103	102	P/P	80 - 120
2408260	Vanadium	103	103	P/P	80 - 120
2408260	Zinc	108	107	P/P	80 - 120
2408656	Calcium	102		P	80 - 120
2408656	Iron	105		P	80 - 120
2408656	Magnesium	101		P	80 - 120
2408656	Potassium	103		P	80 - 120
2408656	Sodium	106		P	80 - 120
2408656	Strontium	105		P	80 - 120
2408656	Tin	101		P	80 - 120
2408656	Titanium	102		P	80 - 120
2408656	Vanadium	104		P	80 - 120
2408656	Zinc	109		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P429734

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408260	Aluminum	101	101	P/P	80 - 120
2408260	Antimony	103	103	P/P	80 - 120
2408260	Arsenic	100	101	P/P	80 - 120
2408260	Barium	104	104	P/P	80 - 120
2408260	Beryllium	95.5	96.7	P/P	80 - 120
2408260	Boron	103	104	P/P	80 - 120
2408260	Cadmium	102	103	P/P	80 - 120
2408260	Chromium	100	100	P/P	80 - 120
2408260	Cobalt	103	104	P/P	80 - 120
2408260	Copper	100	100	P/P	80 - 120
2408260	Lead	104	105	P/P	80 - 120
2408260	Manganese	102	102	P/P	80 - 120
2408260	Molybdenum	99.5	101	P/P	80 - 120
2408260	Nickel	99.4	99.3	P/P	80 - 120
2408260	Selenium	101	101	P/P	80 - 120
2408260	Silver	104	104	P/P	80 - 120
2408260	Thallium	102	105	P/P	80 - 120
2408656	Aluminum	100		P	80 - 120
2408656	Antimony	104		P	80 - 120
2408656	Arsenic	103		P	80 - 120
2408656	Barium	104		P	80 - 120
2408656	Beryllium	98.2		P	80 - 120
2408656	Boron	102		P	80 - 120
2408656	Cadmium	101		P	80 - 120
2408656	Chromium	97.2		P	80 - 120
2408656	Cobalt	101		P	80 - 120
2408656	Copper	99.1		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P429734

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408656	Lead	104		P	80 - 120
2408656	Manganese	98.7		P	80 - 120
2408656	Molybdenum	102		P	80 - 120
2408656	Nickel	98.5		P	80 - 120
2408656	Selenium	102		P	80 - 120
2408656	Silver	102		P	80 - 120
2408656	Thallium	103		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P429795

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408147	Chloride	98.7		P	90 - 110
2408294	Chloride	97.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P429797

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408147	Sulfate	97.6		P	90 - 110
2408294	Sulfate	98.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P429775

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408159	Ammonia-N	98.6	99.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P429952

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408313	Kjeldahl Nitrogen	98.4	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P429983

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408159	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P429802

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408225	Total-P	104	104	P/P	90 - 110

Reference Method: EPA 8270E

Batch ID: P429735

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2407610	PCB-1016	72.9	70.5	P/P	46 - 111
2407610	PCB-1260	65.0	64.8	P/P	45 - 114

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P429735

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2407741	Aldrin	45.4	42.9	P/P	20 - 82.0
2407741	Alpha-BHC	80.6	80.4	P/P	71 - 109
2407741	Alpha-Chlordane	57.8	64.0	P/P	42 - 106
2407741	Beta-BHC	96.2	91.5	P/P	69 - 180
2407741	Beta-Cyfluthrin	77.1	80.0	P/P	18 - 175
2407741	Bifenthrin	58.7	61.9	P/P	21 - 128
2407741	Carbophenothion	51.2	50.5	P/P	10 - 126
2407741	Chlorothalonil	82.1	84.8	P/P	10 - 300
2407741	Cis-Nonachlor	52.6	52.3	P/P	34 - 106
2407741	Cypermethrin	79.2	76.9	P/P	22 - 158
2407741	Dacthal	98.5	74.7	P/P	54 - 116
2407741	DDD-p,p'	52.9	56.0	P/P	34 - 107
2407741	DDE-p,p'	53.4	56.6	P/P	33 - 110
2407741	DDT-p,p'	59.5	59.4	P/P	50 - 122
2407741	Delta-BHC	90.7	90.8	P/P	77 - 193
2407741	Deltamethrin	91.2	99.0	P/P	10 - 195
2407741	Dichlobenil	77.0	76.5	P/P	25 - 113
2407741	Dicofol	72.9	68.9	P/P	38 - 247
2407741	Dieldrin	56.3	57.9	P/P	45 - 118
2407741	Endosulfan I	55.5	59.6	P/P	51 - 106
2407741	Endosulfan II	59.3	61.6	P/P	37 - 122
2407741	Endosulfan Sulfate	54.9	60.1	P/P	43 - 132
2407741	Endrin	58.5	59.4	P/P	29 - 101
2407741	Endrin Aldehyde	59.3	52.9	P/P	19 - 110
2407741	Endrin Ketone	73.4	94.1	P/P	60 - 140
2407741	Esfenvalerate	72.6	77.8	P/P	26 - 199
2407741	Ethalfuralin	61.0	64.1	P/P	45 - 99.0
2407741	Fenpropathrin	92.1	83.0	P/P	35 - 120
2407741	Gamma-BHC	91.2	87.5	P/P	63 - 128
2407741	Gamma-Chlordane	57.1	59.1	P/P	40 - 104
2407741	Heptachlor	54.1	56.5	P/P	36 - 97.0
2407741	Heptachlor Epoxide	81.9	73.5	P/P	49 - 184
2407741	Hexachlorobenzene	58.0	58.5	P/P	39 - 96.0
2407741	Kepone	87.9	84.0	P/P	10 - 217
2407741	Lambda-Cyhalothrin	74.7	75.9	P/P	21 - 193
2407741	Methoprene	52.4	64.1	P/P	20 - 106
2407741	Methoxychlor	89.4	82.7	P/P	53 - 118
2407741	MGK-264	91.7	88.9	P/P	40 - 118
2407741	Mirex	41.0	43.0	P/P	26 - 92.0
2407741	Oxychlordane	68.1	67.3	P/P	44 - 99.0
2407741	Permethrin	69.4	72.0	P/P	33 - 182
2407741	Phenothrin	61.8	60.8	P/P	10 - 129
2407741	Piperonyl Butoxide	63.9	66.0	P/P	10 - 211
2407741	Prallethrin	60.1	62.9	P/P	24 - 113
2407741	Tau-Fluvalinate	69.3	74.5	P/P	14 - 149
2407741	Tetramethrin	101	94.3	P/P	17 - 151
2407741	Trans-Nonachlor	58.6	57.3	P/P	42 - 102
2407741	Triclosan Methyl	58.4	63.6	P/P	48 - 108
2407741	Trifluralin	62.3	63.9	P/P	47 - 96.0

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8276
Batch ID: P429735

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2407610	Chlordane	75.9	75.0	P/P	53 - 126
2407610	Toxaphene	86.0	85.7	P/P	56 - 211

Reference Method: SM 4500-F- C-2011
Batch ID: P429887

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408651	Fluoride	103	103	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P429854

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408155	Organic Carbon	94.2	96.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P429675

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408144	Color (true)	2.67	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P429687

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408147	Turbidity	0.985	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P429734

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408260	Calcium	1.53	Spike	P	0 - 20
2408260	Iron	1.69	Spike	P	0 - 20
2408260	Magnesium	1.53	Spike	P	0 - 20
2408260	Potassium	0.862	Spike	P	0 - 20
2408260	Sodium	0.0486	Spike	P	0 - 20
2408260	Strontium	0.373	Spike	P	0 - 20
2408260	Tin	0.887	Spike	P	0 - 20
2408260	Titanium	1.30	Spike	P	0 - 20
2408260	Vanadium	0.396	Spike	P	0 - 20
2408260	Zinc	0.980	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P429734

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408260	Aluminum	0.515	Spike	P	0 - 20
2408260	Antimony	0.416	Spike	P	0 - 20
2408260	Arsenic	0.531	Spike	P	0 - 20
2408260	Barium	0.346	Spike	P	0 - 20
2408260	Beryllium	1.06	Spike	P	0 - 20
2408260	Boron	1.40	Spike	P	0 - 20
2408260	Cadmium	1.62	Spike	P	0 - 20
2408260	Chromium	0.179	Spike	P	0 - 20
2408260	Cobalt	0.349	Spike	P	0 - 20
2408260	Copper	0.138	Spike	P	0 - 20
2408260	Lead	0.962	Spike	P	0 - 20
2408260	Manganese	0.309	Spike	P	0 - 20
2408260	Molybdenum	1.42	Spike	P	0 - 20
2408260	Nickel	0.0693	Spike	P	0 - 20
2408260	Selenium	0.488	Spike	P	0 - 20
2408260	Silver	0.0980	Spike	P	0 - 20
2408260	Thallium	3.07	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429795

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408147	Chloride	0.265	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429797

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408147	Sulfate	0.218	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429775

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408159	Ammonia-N	0.793	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429952

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408313	Kjeldahl Nitrogen	6.12	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429983

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408159	NO2NO3-N	0.267	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429802

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408225	Total-P	0.234	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P429735

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2407610	PCB-1016	3.33	Spike	P	0 - 32
2407610	PCB-1260	0.387	Spike	P	0 - 31
2407741	Aldrin	5.76	Spike	P	0 - 41
2407741	Alpha-BHC	0.212	Spike	P	0 - 25
2407741	Alpha-Chlordane	10.2	Spike	P	0 - 33
2407741	Beta-BHC	5.01	Spike	P	0 - 36
2407741	Beta-Cyfluthrin	3.70	Spike	P	0 - 42
2407741	Bifenthrin	5.19	Spike	P	0 - 53
2407741	Carbophenothion	1.31	Spike	P	0 - 49

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P429735

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2407741	Chlorothalonil	3.23	Spike	P	0 - 71
2407741	Cis-Nonachlor	0.575	Spike	P	0 - 29
2407741	Cypermethrin	2.90	Spike	P	0 - 40
2407741	Dacthal	27.4	Spike	F	0 - 26
2407741	DDD-p,p'	5.84	Spike	P	0 - 39
2407741	DDE-p,p'	5.73	Spike	P	0 - 33
2407741	DDT-p,p'	0.297	Spike	P	0 - 40
2407741	Delta-BHC	0.168	Spike	P	0 - 37
2407741	Deltamethrin	8.12	Spike	P	0 - 100
2407741	Dichlobenil	0.666	Spike	P	0 - 40
2407741	Dicofol	5.70	Spike	P	0 - 31
2407741	Dieldrin	2.81	Spike	P	0 - 27
2407741	Endosulfan I	7.12	Spike	P	0 - 23
2407741	Endosulfan II	3.84	Spike	P	0 - 28
2407741	Endosulfan Sulfate	9.15	Spike	P	0 - 38
2407741	Endrin	1.52	Spike	P	0 - 63
2407741	Endrin Aldehyde	11.3	Spike	P	0 - 60
2407741	Endrin Ketone	24.7	Spike	P	0 - 37
2407741	Esfenvalerate	6.91	Spike	P	0 - 52
2407741	Ethalfuralin	4.82	Spike	P	0 - 23
2407741	Fenpropathrin	10.3	Spike	P	0 - 32
2407741	Gamma-BHC	4.15	Spike	P	0 - 17
2407741	Gamma-Chlordane	3.56	Spike	P	0 - 40
2407741	Heptachlor	4.25	Spike	P	0 - 29
2407741	Heptachlor Epoxide	10.9	Spike	P	0 - 25
2407741	Hexachlorobenzene	0.821	Spike	P	0 - 36
2407741	Kepone	4.58	Spike	P	0 - 93
2407741	Lambda-Cyhalothrin	1.58	Spike	P	0 - 55
2407741	Methoprene	20.2	Spike	P	0 - 53
2407741	Methoxychlor	7.83	Spike	P	0 - 29
2407741	MGK-264	3.15	Spike	P	0 - 35
2407741	Mirex	4.83	Spike	P	0 - 46
2407741	Oxychlordane	1.16	Spike	P	0 - 29
2407741	Permethrin	3.61	Spike	P	0 - 44
2407741	Phenothrin	1.53	Spike	P	0 - 56
2407741	Piperonyl Butoxide	2.81	Spike	P	0 - 100
2407741	Prallethrin	4.64	Spike	P	0 - 42
2407741	Tau-Fluvalinate	7.22	Spike	P	0 - 54
2407741	Tetramethrin	6.69	Spike	P	0 - 51
2407741	Trans-Nonachlor	2.19	Spike	P	0 - 37
2407741	Triclosan Methyl	8.57	Spike	P	0 - 31
2407741	Trifluralin	2.49	Spike	P	0 - 30

Reference Method: EPA 8276
Batch ID: P429735

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2407610	Chlordane	1.24	Spike	P	0 - 25
2407610	Toxaphene	0.401	Spike	P	0 - 26

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P430157

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408312	Total Alkalinity	1.67	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P430183

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408073	TDS	7.07	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P429887

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408651	Fluoride	0.0	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P429854

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408155	Organic Carbon	1.90	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2408292

Field Sample ID: G4NW0016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	70.7	P	29 - 130
EPA 8270E	Decachlorobiphenyl	66.2	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	59.3	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	62.6	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	49.2	P	30 - 101
EPA 8276	PCNB	90.6	P	48 - 121

Lab Sample ID: 2408293

Field Sample ID: FB_05082023

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	68.1	P	29 - 130
EPA 8270E	Decachlorobiphenyl	41.5	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	72.1	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	69.4	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	49.8	P	30 - 101
EPA 8276	PCNB	102	P	48 - 121

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A119070

Included Lab Sample IDs: 2408280, 2408282, 2408284

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	101	P/P	90 - 110
Chloride	97.5	101	P/P	90 - 110
Sulfate	96.8	99.3	P/P	90 - 110
Sulfate	99.3	99.6	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A119071

Included Lab Sample IDs: 2408280, 2408282, 2408284

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A119076

Included Lab Sample IDs: 2408280, 2408282, 2408284

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.0	98.0	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A119099

Included Lab Sample IDs: 2408281, 2408283, 2408285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.5	99.0	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119153

Included Lab Sample IDs: 2408307, 2408308

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.4	100	P/P	90 - 110
Antimony	101	101	P/P	90 - 110
Antimony	102	102	P/P	90 - 110
Arsenic	99.4	99.3	P/P	90 - 110
Arsenic	99.9	99.8	P/P	90 - 110
Barium	100	100	P/P	90 - 110
Barium	102	101	P/P	90 - 110
Beryllium	98.3	98.6	P/P	90 - 110
Beryllium	98.4	98.7	P/P	90 - 110
Boron	101	97.6	P/P	90 - 110
Boron	95.2	95.7	P/P	90 - 110
Cadmium	99.7	101	P/P	90 - 110
Cadmium	100	100	P/P	90 - 110
Chromium	97.8	98.9	P/P	90 - 110
Chromium	98.8	99.4	P/P	90 - 110
Cobalt	101	101	P/P	90 - 110
Cobalt	102	102	P/P	90 - 110
Copper	96.4	97.3	P/P	90 - 110
Lead	102	102	P/P	90 - 110
Manganese	100	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119153

Included Lab Sample IDs: 2408307, 2408308

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Manganese	98.0	99.7	P/P	90 - 110
Molybdenum	98.4	99.3	P/P	90 - 110
Molybdenum	99.6	98.9	P/P	90 - 110
Nickel	98.1	98.6	P/P	90 - 110
Nickel	98.7	98.2	P/P	90 - 110
Selenium	101	100	P/P	90 - 110
Selenium	99.9	99.7	P/P	90 - 110
Thallium	102	99.8	P/P	90 - 110
Thallium	99.4	102	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A119156

Included Lab Sample IDs: 2408281, 2408283, 2408285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	97.6	P/P	90 - 110
Organic Carbon	97.6	96.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A119172

Included Lab Sample IDs: 2408281, 2408283, 2408285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.2	97.2	P/P	90 - 110
Total-P	97.5	97.2	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119177

Included Lab Sample IDs: 2408307, 2408308

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.4	98.2	P/P	90 - 110
Silver	101	100	P/P	90 - 110
Silver	102	101	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A119179

Included Lab Sample IDs: 2408280, 2408282, 2408284

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119202

Included Lab Sample IDs: 2408308

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	96.7	94.3	P/P	90 - 110
Lead	101	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A119207

Included Lab Sample IDs: 2408307, 2408308

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	102	P/P	90 - 110
Calcium	102	102	P/P	90 - 110
Iron	101	101	P/P	90 - 110
Iron	102	103	P/P	90 - 110
Magnesium	100	100	P/P	90 - 110
Magnesium	101	102	P/P	90 - 110
Potassium	101	101	P/P	90 - 110
Potassium	101	102	P/P	90 - 110
Sodium	105	105	P/P	90 - 110
Sodium	106	106	P/P	90 - 110
Strontium	103	103	P/P	90 - 110
Strontium	103	103	P/P	90 - 110
Tin	100	101	P/P	90 - 110
Tin	103	102	P/P	90 - 110
Titanium	100	99.9	P/P	90 - 110
Titanium	100	99.7	P/P	90 - 110
Vanadium	100	99.9	P/P	90 - 110
Vanadium	100	100	P/P	90 - 110
Zinc	104	103	P/P	90 - 110
Zinc	106	104	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A119218

Included Lab Sample IDs: 2408292, 2408293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	102		P	80 - 120
Alpha-BHC	97.6		P	80 - 120
Alpha-Chlordane	108		P	80 - 120
Beta-BHC	95.9		P	80 - 120
Beta-Cyfluthrin	92.6		P	80 - 120
Bifenthrin	94.3		P	80 - 120
Carbophenothion	98.8		P	80 - 120
Chlorothalonil	95.8		P	80 - 120
Cis-Nonachlor	98.8		P	80 - 120
Cypermethrin	91.8		P	80 - 120
Dacthal	103		P	80 - 120
DDD-p,p'	94.8		P	80 - 120
DDE-p,p'	99.5		P	80 - 120
Delta-BHC	92.6		P	80 - 120
Deltamethrin	85.2		P	80 - 120
Dichlobenil	98.3		P	80 - 120
Dicofol	97.8		P	80 - 120
Dieldrin	99.2		P	80 - 120
Endosulfan I	103		P	80 - 120
Endosulfan II	101		P	80 - 120
Endosulfan Sulfate	88.1		P	80 - 120
Endrin	102		P	80 - 120
Endrin Aldehyde	98.4		P	80 - 120
Endrin Ketone	90.6		P	80 - 120
Esfenvalerate	91.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A119218

Included Lab Sample IDs: 2408292, 2408293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ethalfuralin	104		P	80 - 120
Fenpropathrin	95.1		P	80 - 120
Gamma-BHC	97.2		P	80 - 120
Gamma-Chlordane	102		P	80 - 120
Heptachlor	100		P	80 - 120
Heptachlor Epoxide	104		P	80 - 120
Hexachlorobenzene	102		P	80 - 120
Kepone	71.2*		F	80 - 120
Lambda-Cyhalothrin	93.0		P	80 - 120
Methoprene	96.5		P	80 - 120
Methoxychlor	94.1		P	80 - 120
MGK-264	94.2		P	80 - 120
Mirex	98.2		P	80 - 120
Oxychlordane	101		P	80 - 120
Permethrin	94.2		P	80 - 120
Phenothrin	96.0		P	80 - 120
Piperonyl Butoxide	92.1		P	80 - 120
Prallethrin	97.7		P	80 - 120
Tau-Fluvalinate	88.1		P	80 - 120
Tetramethrin	93.1		P	80 - 120
Trans-Nonachlor	102		P	80 - 120
Triclosan Methyl	109		P	80 - 120
Trifluralin	98.3		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A119221

Included Lab Sample IDs: 2408281, 2408283, 2408285

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A119245

Included Lab Sample IDs: 2408281, 2408283, 2408285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	99.2	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A119251

Included Lab Sample IDs: 2408292, 2408293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.8		P	80 - 120
Toxaphene	97.2		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A119302

Included Lab Sample IDs: 2408280, 2408282, 2408284

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.6	98.1	P/P	90 - 110
Total Alkalinity	98.1	97.2	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A119304

Included Lab Sample IDs: 2408292, 2408293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	99.6		P	80 - 120
PCB-1260	104		P	80 - 120

Reference Method: EPA 8270E

Run ID: A119319

Included Lab Sample IDs: 2408292, 2408293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
DDT-p,p'	98.7		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)	101					2.67	
EPA 180.1 Rev. 2.0	Turbidity	97.6					0.985	
EPA 200.7 Rev. 4.4	Calcium	101	100	103	102			1.53
	Iron	102	102	104	105			1.69
	Magnesium	101	101	103	101			1.53
	Potassium	100	101	102	103			0.862
	Sodium	105	106	106	106			0.0486
	Strontium	104	104	104	105			0.373
	Tin	104	102	103	101			0.887
	Titanium	101	103	102	102			1.30
	Vanadium	103	103	103	104			0.396
	Zinc	108	108	107	109			0.980
EPA 200.8 Rev. 5.4	Aluminum	101	101	101	100			0.515
	Antimony	103	103	103	104			0.416
	Arsenic	99.7	100	101	103			0.531
	Barium	102	104	104	104			0.346
	Beryllium	98.1	95.5	96.7	98.2			1.06
	Boron	103	103	104	102			1.40
	Cadmium	99.8	102	103	101			1.62
	Chromium	98.2	100	100	97.2			0.179
	Cobalt	102	103	104	101			0.349
	Copper	98.1	100	100	99.1			0.138
	Lead	102	104	105	104			0.962
	Manganese	99.5	102	102	98.7			0.309
	Molybdenum	99.1	99.5	101	102			1.42
	Nickel	98.7	99.4	99.3	98.5			0.0693
	Selenium	99.2	101	101	102			0.488
	Silver	107	104	104	102			0.0980
	Thallium	100	102	105	103			3.07
EPA 300.0 Rev. 2.1	Chloride	99.3	98.7	97.9			0.265	
	Sulfate	97.9	97.6	98.2			0.218	
EPA 350.1 Rev. 2.0	Ammonia-N	98.2	98.6	99.6				0.793
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	98.4	107				6.12
EPA 353.2 Rev. 2.0	NO2NO3-N	102	100	100				0.267
EPA 365.1 Rev. 2.0	Total-P	103	104	104				0.234
EPA 8270E	Aldrin	47.4	45.4	42.9				5.76
	Alpha-BHC	84.0	80.6	80.4				0.212
	Alpha-Chlordane	67.8	57.8	64.0				10.2
	Beta-BHC	93.9	96.2	91.5				5.01
	Beta-Cyfluthrin	59.9	77.1	80.0				3.70
	Bifenthrin	41.6	58.7	61.9				5.19
	Carbophenothion	56.2	51.2	50.5				1.31
	Chlorothalonil	78.2	82.1	84.8				3.23
	Cis-Nonachlor	62.2	52.6	52.3				0.575
	Cypermethrin	67.3	79.2	76.9				2.90
	Dacthal	100	98.5	74.7				27.4
	DDD-p,p'	62.9	52.9	56.0				5.84
	DDE-p,p'	65.5	53.4	56.6				5.73
	DDT-p,p'	61.8	59.5	59.4				0.297
	Delta-BHC	92.1	90.7	90.8				0.168
	Deltamethrin	76.8	91.2	99.0				8.12
	Dichlobenil	89.3	77.0	76.5				0.666
	Dicofol	72.7	72.9	68.9				5.70
	Dieldrin	69.1	56.3	57.9				2.81

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Endosulfan I	64.9	55.5	59.6			7.12
	Endosulfan II	69.1	59.3	61.6			3.84
	Endosulfan Sulfate	66.2	54.9	60.1			9.15
	Endrin	66.3	58.5	59.4			1.52
	Endrin Aldehyde	61.8	59.3	52.9			11.3
	Endrin Ketone	95.1	73.4	94.1			24.7
	Esfenvalerate	56.4	72.6	77.8			6.91
	Ethalfuralin	63.2	61.0	64.1			4.82
	Fenpropathrin	70.2	92.1	83.0			10.3
	Gamma-BHC	91.0	91.2	87.5			4.15
	Gamma-Chlordane	66.1	57.1	59.1			3.56
	Heptachlor	59.0	54.1	56.5			4.25
	Heptachlor Epoxide	82.8	81.9	73.5			10.9
	Hexachlorobenzene	60.8	58.0	58.5			0.821
	Kepone	71.9	87.9	84.0			4.58
	Lambda-Cyhalothrin	53.2	74.7	75.9			1.58
	Methoprene	40.3	52.4	64.1			20.2
	Methoxychlor	83.4	89.4	82.7			7.83
	MGK-264	88.1	91.7	88.9			3.15
	Mirex	40.0	41.0	43.0			4.83
	Oxychlordane	69.5	68.1	67.3			1.16
	PCB-1016	69.6	72.9	70.5			3.33
	PCB-1260	60.4	65.0	64.8			0.387
	Permethrin	59.6	69.4	72.0			3.61
	Phenothrin	39.9	61.8	60.8			1.53
	Piperonyl Butoxide	79.4	63.9	66.0			2.81
	Prallethrin	60.6	60.1	62.9			4.64
	Tau-Fluvalinate	48.4	69.3	74.5			7.22
	Tetramethrin	89.2	101	94.3			6.69
	Trans-Nonachlor	63.4	58.6	57.3			2.19
	Triclosan Methyl	71.5	58.4	63.6			8.57
	Trifluralin	64.5	62.3	63.9			2.49
EPA 8276	Chlordane	64.9	75.9	75.0			1.24
	Toxaphene	67.3	86.0	85.7			0.401
SM 2320 B-2011	Total Alkalinity	98.2				1.67	
SM 2540 C-2015	TDS	105				7.07	
SM 2540 D-2015	TSS	95.9					
SM 4500-F- C-2011	Fluoride	100	103	103			0.0
SM 5310 B-2011	Organic Carbon	94.5	94.2	96.2			1.90

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2408280, 2408282, 2408284
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2408280, 2408282, 2408284
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2408307, 2408308
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2408307, 2408308
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2408280, 2408282, 2408284
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2408280, 2408282, 2408284
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2408281, 2408283, 2408285
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2408281, 2408283, 2408285

Reference Method Descriptions

Method	Description	Associated Samples
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2408281, 2408283, 2408285
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2408281, 2408283, 2408285
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2408292, 2408293
EPA 8270E	PCBs in water matrices by GC/MS/MS	2408292, 2408293
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2408292, 2408293
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2408280, 2408282, 2408284
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2408307
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2408280, 2408282, 2408284
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2408280, 2408282, 2408284
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2408280, 2408282, 2408284
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2408281, 2408283, 2408285

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	05/10/2023			05/10/2023 11:00	Alexis Price	2408282, 2408284
	05/10/2023			05/10/2023 11:01	Alexis Price	2408280
EPA 180.1 Rev. 2.0	05/10/2023			05/10/2023 10:49	Anna M. Plaviak	2408282
	05/10/2023			05/10/2023 10:50	Anna M. Plaviak	2408284
	05/10/2023			05/10/2023 10:51	Anna M. Plaviak	2408280
EPA 200.7 Rev. 4.4	05/10/2023	05/11/2023 13:35	George D Taylor	05/16/2023 19:58	McKinley C Carter	2408308
	05/10/2023	05/11/2023 13:35	George D Taylor	05/16/2023 22:55	McKinley C Carter	2408307
EPA 200.8 Rev. 5.4	05/10/2023	05/11/2023 13:35	George D Taylor	05/12/2023 16:51	Conrad Hartmann	2408308
	05/10/2023	05/11/2023 13:35	George D Taylor	05/12/2023 20:15	Conrad Hartmann	2408307
	05/10/2023	05/11/2023 13:35	George D Taylor	05/15/2023 14:32	Conrad Hartmann	2408308
	05/10/2023	05/11/2023 13:35	George D Taylor	05/15/2023 16:46	Conrad Hartmann	2408307
	05/10/2023	05/11/2023 13:35	George D Taylor	05/16/2023 14:53	Conrad Hartmann	2408308
EPA 300.0 Rev. 2.1	05/10/2023			05/11/2023 21:07	James L Waggeberby	2408280
	05/10/2023			05/11/2023 21:52	James L Waggeberby	2408282
	05/10/2023			05/11/2023 22:07	James L Waggeberby	2408284
EPA 350.1 Rev. 2.0	05/10/2023			05/11/2023 14:12	Khloe J Berg	2408281
	05/10/2023			05/11/2023 14:13	Khloe J Berg	2408283
	05/10/2023			05/11/2023 14:15	Khloe J Berg	2408285
EPA 351.2 Rev. 2.0	05/10/2023	05/17/2023 10:59	Dana G. Hughes	05/18/2023 10:04	Samantha L Bates	2408281
	05/10/2023	05/17/2023 10:59	Dana G. Hughes	05/18/2023 10:06	Samantha L Bates	2408283
	05/10/2023	05/17/2023 10:59	Dana G. Hughes	05/18/2023 10:08	Samantha L Bates	2408285
EPA 353.2 Rev. 2.0	05/10/2023			05/17/2023 10:58	Beverly Y. Sanders	2408281
	05/10/2023			05/17/2023 12:14	Beverly Y. Sanders	2408283
	05/10/2023			05/17/2023 12:15	Beverly Y. Sanders	2408285
EPA 365.1 Rev. 2.0	05/10/2023	05/12/2023 12:59	Adam P Silver	05/15/2023 15:03	James L Waggeberby	2408285
	05/10/2023	05/12/2023 12:59	Adam P Silver	05/15/2023 15:13	James L Waggeberby	2408281
	05/10/2023	05/12/2023 12:59	Adam P Silver	05/15/2023 15:14	James L Waggeberby	2408283
EPA 8270E	05/10/2023	05/12/2023 09:00	Rasheda Ghaffari	05/16/2023 22:21	Michael Poppell	2408292
	05/10/2023	05/12/2023 09:00	Rasheda Ghaffari	05/16/2023 22:51	Michael Poppell	2408293
	05/10/2023	05/12/2023 09:00	Rasheda Ghaffari	05/17/2023 22:24	Vandana T. Nagar	2408292
	05/10/2023	05/12/2023 09:00	Rasheda Ghaffari	05/17/2023 22:55	Vandana T. Nagar	2408293
	05/10/2023	05/12/2023 09:00	Rasheda Ghaffari	05/18/2023 22:45	Michael Poppell	2408292
	05/10/2023	05/12/2023 09:00	Rasheda Ghaffari	05/18/2023 23:17	Michael Poppell	2408293
EPA 8276	05/10/2023	05/12/2023 09:00	Rasheda Ghaffari	05/18/2023 11:25	Arthur Maknenko	2408292
	05/10/2023	05/12/2023 09:00	Rasheda Ghaffari	05/18/2023 12:20	Arthur Maknenko	2408293
SM 2320 B-2011	05/10/2023			05/20/2023 06:27	Dale L. Simmons	2408280
	05/10/2023			05/20/2023 06:59	Dale L. Simmons	2408282
	05/10/2023			05/20/2023 07:06	Dale L. Simmons	2408284
SM 2340 B-2011	05/10/2023			05/16/2023 22:55	McKinley C Carter	2408307
SM 2540 C-2015	05/10/2023			05/12/2023 15:01	Yijie Li	2408280, 2408282, 2408284

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2540 D-2015	05/10/2023			05/12/2023 15:01	Yijie Li	2408280, 2408282, 2408284
SM 4500-F- C-2011	05/10/2023			05/15/2023 23:08	Dale L. Simmons	2408280
	05/10/2023			05/15/2023 23:13	Dale L. Simmons	2408282
	05/10/2023			05/15/2023 23:18	Dale L. Simmons	2408284
SM 5310 B-2011	05/10/2023			05/13/2023 05:33	Elise M. Gillis	2408281
	05/10/2023			05/13/2023 06:20	Elise M. Gillis	2408283
	05/10/2023			05/13/2023 06:35	Elise M. Gillis	2408285