

Chemical Analysis Report

NE-DIST-2022-06-24-01

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **LSJR Main**
Request ID: **RQ-2022-06-13-17**
Customer: **NE-DIST**
Project ID: **SMP**

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Date Certified: 18-JUL-2022 10:38



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: Miller Creek at Atlantic Blvd

Collection Date/Time: 06/23/2022 12:30

Field ID: G2NE0005

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2337069	EPA 180.1 Rev. 2.0	Turbidity	12		NTU	P415726	
	SM 2320 B-2011	Total Alkalinity	127		mg CaCO3/L	P415960	
	SM 2540 D-2011	TSS	11		mg/L	P416193	
	SM 4500-F- C-2011	Fluoride	0.39		mg F/L	P416334	
2337070	EPA 350.1 Rev. 2.0	Ammonia-N	0.20		mg N/L	P415991	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.96		mg N/L	P416108	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P416292	
	EPA 365.1 Rev. 2.0	Total-P	0.25		mg P/L	P415933	
	SM 5310 B-2011	Organic Carbon	9.0		mg C/L	P416029	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Little Pottsburg Creek at Emerson

Collection Date/Time: 06/23/2022 12:55

Field ID: 20030070

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2337071	DEP SOP: NU-094-1	Color (true)	20		PCU	P415731	
	EPA 180.1 Rev. 2.0	Turbidity	7.8		NTU	P415726	
	EPA 300.0 Rev. 2.1	Chloride	140		mg Cl/L	P416147	
		Sulfate	87		mg SO4/L	P416150	
	SM 2320 B-2011	Total Alkalinity	171		mg CaCO3/L	P415958	
	SM 2540 C-2011	TDS	533		mg/L	P416222	
	SM 2540 D-2011	TSS	4	I	mg/L	P416189	
2337072	SM 4500-F- C-2011	Fluoride	0.36		mg F/L	P415963	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.19		mg N/L	P416045	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.69		mg N/L	P415920	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.22		mg N/L	P416401	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P416022	
2337083	SM 5310 B-2011	Organic Carbon	6.2		mg C/L	P415857	
	EPA 200.7 Rev. 4.4	Calcium	76.5		mg/L	P415766	
		Iron	860		ug/L	P415766	
		Magnesium	22.0		mg/L	P415766	
		Potassium	4.7		mg/L	P415766	
		Sodium	80.2		mg/L	P415766	
		Strontium	1.47E+03		ug/L	P415766	
		Tin	6.0	U	ug/L	P415766	
		Titanium	1.6	I	ug/L	P415766	
		Vanadium	2.0	U	ug/L	P415766	
		Zinc	7.3	I	ug/L	P415766	
	EPA 200.8 Rev. 5.4	Aluminum	22		ug/L	P415766	
		Antimony	0.13	I	ug/L	P415766	
		Arsenic	0.81		ug/L	P415766	
		Barium	47.5		ug/L	P415766	
		Beryllium	0.010	U	ug/L	P415766	
		Boron	66.3		ug/L	P415766	
		Cadmium	0.020	U	ug/L	P415766	
		Chromium	0.40	U	ug/L	P415766	
		Cobalt	0.096		ug/L	P415766	
		Copper	0.94		ug/L	P415766	
		Lead	0.27	I	ug/L	P415766	
		Manganese	61.7		ug/L	P415766	
		Molybdenum	0.68		ug/L	P415766	
		Nickel	0.56	I	ug/L	P415766	
		Selenium	0.20	U	ug/L	P415766	
		Silver	0.010	U	ug/L	P415766	
		Thallium	0.10	U	ug/L	P415766	
	SM 2340 B-2011	Hardness	282		mg/L	P415766	

Ref. Method and Comment:

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

Sample Location: Little Pottsburg Creek at Bedford Road

Collection Date/Time: 06/23/2022 13:10

Field ID: 20030756

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2337082	EPA 200.7 Rev. 4.4	Calcium	67.0		mg/L	P415766	
		Iron	760		ug/L	P415766	
		Magnesium	11.6		mg/L	P415766	
		Potassium	2.2		mg/L	P415766	
		Sodium	19.1		mg/L	P415766	
		Strontium	1.10E+03		ug/L	P415766	
		Tin	6.0	U	ug/L	P415766	
		Titanium	1.5	I	ug/L	P415766	
		Vanadium	2.0	U	ug/L	P415766	
		Zinc	5.7	I	ug/L	P415766	
	EPA 200.8 Rev. 5.4	Aluminum	25		ug/L	P415766	
		Antimony	0.13	I	ug/L	P415766	
		Arsenic	1.08		ug/L	P415766	
		Barium	41.4		ug/L	P415766	
		Beryllium	0.010	U	ug/L	P415766	
		Boron	48.7		ug/L	P415766	
		Cadmium	0.020	U	ug/L	P415766	
		Chromium	0.40	U	ug/L	P415766	
		Cobalt	0.084		ug/L	P415766	
		Copper	0.77	I	ug/L	P415766	
		Lead	0.25	I	ug/L	P415766	
		Manganese	40.8		ug/L	P415766	
		Molybdenum	0.78		ug/L	P415766	
		Nickel	0.58	I	ug/L	P415766	
		Selenium	0.20	U	ug/L	P415766	
		Silver	0.010	U	ug/L	P415766	
		Thallium	0.10	U	ug/L	P415766	
	SM 2340 B-2011	Hardness	215		mg/L	P415766	

Sample Location: Miramar at San Jose

Collection Date/Time: 06/23/2022 13:35

Field ID: G2NE1164

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2337073	DEP SOP: NU-094-1	Color (true)	15		PCU	P415731	
	EPA 180.1 Rev. 2.0	Turbidity	3.0		NTU	P415726	
	EPA 300.0 Rev. 2.1	Chloride	49		mg Cl/L	P416147	
		Sulfate	75		mg SO4/L	P416150	
	SM 2320 B-2011	Total Alkalinity	79		mg CaCO3/L	P415958	
	SM 2540 C-2011	TDS	278		mg/L	P416222	
	SM 2540 D-2011	TSS	3	I	mg/L	P416189	
	SM 4500-F- C-2011	Fluoride	0.11		mg F/L	P415963	
2337074	EPA 350.1 Rev. 2.0	Ammonia-N	0.098		mg N/L	P416045	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.40		mg N/L	P415920	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.4		mg N/L	P416401	
	EPA 365.1 Rev. 2.0	Total-P	0.079		mg P/L	P416022	
	SM 5310 B-2011	Organic Carbon	3.8		mg C/L	P415857	
2337079	EPA 8270E	Aldrin	0.73	U	ng/L	P416037	
		Alpha-BHC	0.11	U	ng/L	P416037	
		Alpha-Chlordane	1.5		ng/L	P416037	
		PCB-1016	2.2	U	ng/L	P416037	
		Beta-BHC	0.56	I	ng/L	P416037	
		PCB-1221	2.2	U	ng/L	P416037	
		Beta-Cyfluthrin	1.4	U	ng/L	P416037	
		PCB-1232	2.2	U	ng/L	P416037	
		Bifenthrin	0.73	I	ng/L	P416037	
		PCB-1242	2.2	U	ng/L	P416037	
		PCB-1248	2.2	U	ng/L	P416037	
		Chlorothalonil	1.4	U	ng/L	P416037	
		PCB-1254	2.2	U	ng/L	P416037	
		Cis-Nonachlor	0.22	U	ng/L	P416037	
		PCB-1260	2.2	U	ng/L	P416037	
		Cypermethrin	1.7	U	ng/L	P416037	
		Dacthal	0.17	U	ng/L	P416037	
		DDD-p,p'	0.30	I	ng/L	P416037	
		DDE-p,p'	0.22	U	ng/L	P416037	
		DDT-p,p'	0.38	I	ng/L	P416037	
		Delta-BHC	0.45	U	ng/L	P416037	
		Deltamethrin	1.4	U	ng/L	P416037	
		Dichlobenil	1.1	I	ng/L	P416037	
		Dicofol	1.4	U	ng/L	P416037	
		Diieldrin	22		ng/L	P416037	
		Endosulfan I	0.45	U	ng/L	P416037	
		Endosulfan II	0.45	U	ng/L	P416037	
		Endosulfan Sulfate	0.34	U	ng/L	P416037	
		Endrin	0.45	U	ng/L	P416037	
		Endrin Aldehyde	0.84	U	ng/L	P416037	
		Endrin Ketone	0.63	I	ng/L	P416037	

Field ID: G2NE1164

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2337079	EPA 8270E	Esfenvalerate	0.84	U	ng/L	P416037	
		Ethalfuralin	0.17	U	ng/L	P416037	
		Fenpropathrin	0.28	U	ng/L	P416037	
		Gamma-BHC	0.57	I	ng/L	P416037	
		Gamma-Chlordane	1.1	I	ng/L	P416037	
		Heptachlor	0.22	U	ng/L	P416037	
		Heptachlor Epoxide	5.4		ng/L	P416037	
		Hexachlorobenzene**	1.1	U	ng/L	P416037	
		Kepone	5.6	U	ng/L	P416037	
		Lambda-Cyhalothrin	1.6	I	ng/L	P416037	
		Methoprene	0.84	U	ng/L	P416037	
		Methoxychlor	0.34	U	ng/L	P416037	
		MGK-264	0.22	U	ng/L	P416037	
		Mirex	0.79	U	ng/L	P416037	
		Oxychlordane	0.34	U	ng/L	P416037	
		Permethrin	1.8	U	ng/L	P416037	
		Phenothrin	1.0	U	ng/L	P416037	
		Piperonyl Butoxide	1.0		ng/L	P416037	
		Prallethrin	2.2	U	ng/L	P416037	
		Tau-Fluvalinate	0.28	U	ng/L	P416037	
		Tetramethrin	0.84	U	ng/L	P416037	
		Trans-Nonachlor	0.33	I	ng/L	P416037	
		Triclosan Methyl	0.17	U	ng/L	P416037	
		Trifluralin	0.22	U	ng/L	P416037	
	EPA 8276	Chlordane	12	I	ng/L	P416037	
		Toxaphene	17	U	ng/L	P416037	

Ref. Method and Comment:

SM 2540 C-2011: The reported result is consistent with the conductivity measured in the laboratory, 549 umhos/cm.

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

Sample Location: Big Pottsburg CR Bowden Rd

Collection Date/Time: 06/23/2022 14:30

Field ID: 20030068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2337080	EPA 8270E	Aldrin	0.68	U	ng/L	P416037	
		Alpha-BHC	0.10	U	ng/L	P416037	
		Alpha-Chlordane	0.21	U	ng/L	P416037	
		PCB-1016	2.1	U	ng/L	P416037	
		Beta-BHC	0.10	U	ng/L	P416037	
		PCB-1221	2.1	U	ng/L	P416037	
		Beta-Cyfluthrin	1.3	U	ng/L	P416037	
		PCB-1232	2.1	U	ng/L	P416037	
		Bifenthrin	0.52	U	ng/L	P416037	
		PCB-1242	2.1	U	ng/L	P416037	
		PCB-1248	2.1	U	ng/L	P416037	
		Chlorothalonil	1.3	U	ng/L	P416037	
		PCB-1254	2.1	U	ng/L	P416037	
		Cis-Nonachlor	0.21	U	ng/L	P416037	
		PCB-1260	2.1	U	ng/L	P416037	
		Cypermethrin	1.6	U	ng/L	P416037	
		Dacthal	0.16	U	ng/L	P416037	
		DDD-p,p'	0.26	U	ng/L	P416037	
		DDE-p,p'	0.21	U	ng/L	P416037	
		DDT-p,p'	0.26	U	ng/L	P416037	
		Delta-BHC	0.42	U	ng/L	P416037	
		Deltamethrin	1.3	U	ng/L	P416037	
		Dichlobenil	0.26	U	ng/L	P416037	
		Dicofol	1.3	U	ng/L	P416037	
		Dieldrin	0.43	I	ng/L	P416037	
		Endosulfan I	0.42	U	ng/L	P416037	
		Endosulfan II	0.42	U	ng/L	P416037	
		Endosulfan Sulfate	0.31	U	ng/L	P416037	
		Endrin	0.42	U	ng/L	P416037	
		Endrin Aldehyde	0.78	U	ng/L	P416037	
		Endrin Ketone	0.42	U	ng/L	P416037	
		Esfenvalerate	0.78	U	ng/L	P416037	
		Ethalfuralin	0.16	U	ng/L	P416037	
		Fenpropathrin	0.26	U	ng/L	P416037	
		Gamma-BHC	0.13	U	ng/L	P416037	
		Gamma-Chlordane	0.21	U	ng/L	P416037	
		Heptachlor	0.21	U	ng/L	P416037	
		Heptachlor Epoxide	0.26	U	ng/L	P416037	
		Hexachlorobenzene**	1.0	U	ng/L	P416037	
		Kepone	5.2	U	ng/L	P416037	
		Lambda-Cyhalothrin	0.78	U	ng/L	P416037	
		Methoprene	0.78	U	ng/L	P416037	
		Methoxychlor	0.31	U	ng/L	P416037	
		MGK-264	0.21	U	ng/L	P416037	

Field ID: 20030068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2337080	EPA 8270E	Mirex	0.73	U	ng/L	P416037	
		Oxychlordane	0.31	U	ng/L	P416037	
		Permethrin	1.7	U	ng/L	P416037	
		Phenothrin	0.94	U	ng/L	P416037	
		Piperonyl Butoxide	0.16	U	ng/L	P416037	
		Prallethrin	2.1	U	ng/L	P416037	
		Tau-Fluvalinate	0.26	U	ng/L	P416037	
		Tetramethrin	0.78	U	ng/L	P416037	
		Trans-Nonachlor	0.21	U	ng/L	P416037	
		Triclosan Methyl	0.16	U	ng/L	P416037	
		Trifluralin	0.21	U	ng/L	P416037	
	EPA 8276	Chlordane	2.6	U	ng/L	P416037	
		Toxaphene	16	U	ng/L	P416037	

Sample Location: Big Pottsburg CR at Belfort Rd

Collection Date/Time: 06/23/2022 14:50

Field ID: 20030064

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2337081	EPA 8270E	Aldrin	0.72	U	ng/L	P416037	
		Alpha-BHC	0.11	U	ng/L	P416037	
		Alpha-Chlordane	0.22	U	ng/L	P416037	
		PCB-1016	2.2	U	ng/L	P416037	
		Beta-BHC	0.11	U	ng/L	P416037	
		PCB-1221	2.2	U	ng/L	P416037	
		Beta-Cyfluthrin	1.4	U	ng/L	P416037	
		PCB-1232	2.2	U	ng/L	P416037	
		Bifenthrin	0.55	U	ng/L	P416037	
		PCB-1242	2.2	U	ng/L	P416037	
		PCB-1248	2.2	U	ng/L	P416037	
		Chlorothalonil	1.4	U	ng/L	P416037	
		PCB-1254	2.2	U	ng/L	P416037	
		Cis-Nonachlor	0.22	U	ng/L	P416037	
		PCB-1260	2.2	U	ng/L	P416037	
		Cypermethrin	1.7	U	ng/L	P416037	
		Dacthal	0.17	U	ng/L	P416037	
		DDD-p,p'	0.28	U	ng/L	P416037	
		DDE-p,p'	0.22	U	ng/L	P416037	
		DDT-p,p'	0.28	U	ng/L	P416037	
		Delta-BHC	0.44	U	ng/L	P416037	
		Deltamethrin	1.4	U	ng/L	P416037	
		Dichlobenil	0.28	U	ng/L	P416037	
		Dicofol	1.4	U	ng/L	P416037	
		Dieldrin	0.44	U	ng/L	P416037	
		Endosulfan I	0.44	U	ng/L	P416037	
		Endosulfan II	0.44	U	ng/L	P416037	
		Endosulfan Sulfate	0.33	U	ng/L	P416037	
		Endrin	0.44	U	ng/L	P416037	
		Endrin Aldehyde	0.83	U	ng/L	P416037	
		Endrin Ketone	0.44	U	ng/L	P416037	
		Esfenvalerate	0.83	U	ng/L	P416037	
		Ethalfuralin	0.17	U	ng/L	P416037	
		Fenpropathrin	0.28	U	ng/L	P416037	
		Gamma-BHC	0.14	U	ng/L	P416037	
		Gamma-Chlordane	0.22	U	ng/L	P416037	
		Heptachlor	0.22	U	ng/L	P416037	
		Heptachlor Epoxide	0.28	U	ng/L	P416037	
		Hexachlorobenzene**	1.1	U	ng/L	P416037	
		Kepone	5.5	U	ng/L	P416037	
		Lambda-Cyhalothrin	0.83	U	ng/L	P416037	
		Methoprene	0.83	U	ng/L	P416037	
		Methoxychlor	0.33	U	ng/L	P416037	
		MGK-264	0.22	U	ng/L	P416037	

Field ID: 20030064

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2337081	EPA 8270E	Mirex	0.77	U	ng/L	P416037	
		Oxychlordane	0.33	U	ng/L	P416037	
		Permethrin	1.8	U	ng/L	P416037	
		Phenothrin	1.0	U	ng/L	P416037	
		Piperonyl Butoxide	0.17	U	ng/L	P416037	
		Prallethrin	2.2	U	ng/L	P416037	
		Tau-Fluvalinate	0.28	U	ng/L	P416037	
		Tetramethrin	0.83	U	ng/L	P416037	
		Trans-Nonachlor	0.22	U	ng/L	P416037	
		Triclosan Methyl	0.17	U	ng/L	P416037	
		Trifluralin	0.22	U	ng/L	P416037	
	EPA 8276	Chlordane	2.8	U	ng/L	P416037	
		Toxaphene	17	U	ng/L	P416037	

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P415731

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P415726

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P415766

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: P415766

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: P416147

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: P416150

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415991

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P416045

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415920

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416108

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416292

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416401

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415933

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P416022

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P416037

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P416037

Component	Result	Code	Units
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.70	U	ng/L
Mirex	0.70	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P416037

Component	Result	Code	Units
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: P416037

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Chlordane	2.5	U	ng/L
Toxaphene	15	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: SM 2320 B-2011

Batch ID: P415958

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

Reference Method: SM 2320 B-2011

Batch ID: P415960

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

Reference Method: SM 2540 C-2011

Batch ID: P416222

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P416189

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P416193

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P415963

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500-F- C-2011
Batch ID: P416334

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P415857

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

Reference Method: SM 5310 B-2011
Batch ID: P416029

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: P415731

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.0		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P415726

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	95.7		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P415766

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	101		P	85 - 115
Iron	100		P	85 - 115
Magnesium	96.7		P	85 - 115
Potassium	107		P	85 - 115
Sodium	98.0		P	85 - 115
Strontium	106		P	85 - 115
Tin	110		P	85 - 115
Titanium	108		P	85 - 115
Vanadium	100		P	85 - 115
Zinc	106		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P415766

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	102		P	85 - 115
Barium	104		P	85 - 115
Beryllium	101		P	85 - 115
Boron	103		P	85 - 115
Cadmium	98.2		P	85 - 115
Chromium	98.3		P	85 - 115
Cobalt	99.8		P	85 - 115
Copper	98.5		P	85 - 115
Lead	99.1		P	85 - 115
Manganese	97.5		P	85 - 115
Molybdenum	99.9		P	85 - 115
Nickel	101		P	85 - 115
Selenium	99.7		P	85 - 115
Silver	98.1		P	85 - 115
Thallium	99.9		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416147

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416150

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415991

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P416045

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415920

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416108

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416292

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416401

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415933

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P416022

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P416037

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	42.3		P	10 - 93.0
Alpha-BHC	104		P	75 - 106
Alpha-Chlordane	81.3		P	50 - 109
Beta-BHC	113		P	36 - 138
Beta-Cyfluthrin	81.8		P	23 - 167
Bifenthrin	49.9		P	11 - 123
Chlorothalonil	78.3		P	27 - 190
Cis-Nonachlor	74.2		P	40 - 111
Cypermethrin	80.6		P	25 - 155
Dacthal	99.6		P	72 - 119
DDD-p,p'	80.1		P	47 - 108
DDE-p,p'	84.0		P	48 - 107
DDT-p,p'	75.9		P	49 - 111
Delta-BHC	112		P	54 - 138
Deltamethrin	83.3		P	22 - 189
Dichlobenil	104		P	32 - 113
Dicofol	76.5		P	50 - 108
Dieldrin	84.0		P	56 - 110
Endosulfan I	82.0		P	60 - 105
Endosulfan II	79.1		P	50 - 120
Endosulfan Sulfate	107		P	55 - 121
Endrin	75.0		P	31 - 119
Endrin Aldehyde	96.5		P	36 - 116
Endrin Ketone	110		P	69 - 177
Esfenvalerate	71.4		P	10 - 179
Ethalfuralin	77.4		P	49 - 99.0
Fenpropathrin	76.4		P	35 - 119
Gamma-BHC	105		P	69 - 120
Gamma-Chlordane	76.6		P	45 - 107
Heptachlor	69.5		P	41 - 100
Heptachlor Epoxide	83.5		P	58 - 106
Hexachlorobenzene	69.9		P	39 - 100
Kepone	60.3		P	10 - 191
Lambda-Cyhalothrin	60.9		P	21 - 206
Methoprene	53.2		P	10 - 129
Methoxychlor	90.2		P	61 - 111
MGK-264	82.6		P	20 - 123
Mirex	60.1		P	10 - 182
Oxychlordane	80.5		P	39 - 110
PCB-1016	90.3		P	48 - 112
PCB-1260	86.7		P	44 - 118
Permethrin	78.2		P	26 - 152
Phenothrin	39.4		P	10 - 109
Piperonyl Butoxide	127		P	19 - 147
Prallethrin	78.8		P	14 - 109
Tau-Fluvalinate	62.7		P	16 - 134
Tetramethrin	82.6		P	10 - 125
Trans-Nonachlor	79.2		P	45 - 107
Triclosan Methyl	80.0		P	60 - 110
Trifluralin	74.5		P	44 - 101

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8276

Batch ID: P416037

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	103		P	61 - 118
Toxaphene	118		P	51 - 122

Reference Method: SM 2320 B-2011

Batch ID: P415958

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

Reference Method: SM 2320 B-2011

Batch ID: P415960

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.7		P	94 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P415963

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.3		P	96 - 104

Reference Method: SM 4500-F- C-2011

Batch ID: P416334

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	96 - 104

Reference Method: SM 5310 B-2011

Batch ID: P415857

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.4		P	85 - 115

Reference Method: SM 5310 B-2011

Batch ID: P416029

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P415766

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337019	Calcium	94.9		P	80 - 120
2337019	Iron	95.6	99.4	P/P	80 - 120
2337019	Magnesium	96.4		P	80 - 120
2337019	Potassium	105	103	P/P	80 - 120
2337019	Sodium	97.1		P	80 - 120
2337019	Strontium	105	105	P/P	80 - 120
2337019	Tin	106	104	P/P	80 - 120
2337019	Titanium	103	107	P/P	80 - 120
2337019	Vanadium	97.0	101	P/P	80 - 120
2337019	Zinc	96.4	100	P/P	80 - 120
2337035	Calcium	108		P	80 - 120
2337035	Iron	104		P	80 - 120
2337035	Magnesium	106		P	80 - 120
2337035	Potassium	108		P	80 - 120
2337035	Sodium	107		P	80 - 120
2337035	Strontium	110		P	80 - 120
2337035	Tin	109		P	80 - 120
2337035	Titanium	109		P	80 - 120
2337035	Vanadium	101		P	80 - 120
2337035	Zinc	107		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P415766

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337019	Aluminum	99.3	99.8	P/P	80 - 120
2337019	Antimony	102	104	P/P	80 - 120
2337019	Arsenic	100	102	P/P	80 - 120
2337019	Barium	102	105	P/P	80 - 120
2337019	Beryllium	100	101	P/P	80 - 120
2337019	Boron	101	101	P/P	80 - 120
2337019	Cadmium	101	103	P/P	80 - 120
2337019	Chromium	99.3	100	P/P	80 - 120
2337019	Cobalt	98.4	98.9	P/P	80 - 120
2337019	Copper	94.5	96.2	P/P	80 - 120
2337019	Lead	98.4	99.5	P/P	80 - 120
2337019	Manganese	99.5	99.5	P/P	80 - 120
2337019	Molybdenum	102	103	P/P	80 - 120
2337019	Nickel	99.0	101	P/P	80 - 120
2337019	Selenium	97.8	97.9	P/P	80 - 120
2337019	Silver	97.6	98.8	P/P	80 - 120
2337019	Thallium	101	103	P/P	80 - 120
2337035	Aluminum	101		P	80 - 120
2337035	Antimony	103		P	80 - 120
2337035	Arsenic	100		P	80 - 120
2337035	Barium	104		P	80 - 120
2337035	Beryllium	99.6		P	80 - 120
2337035	Boron	103		P	80 - 120
2337035	Cadmium	101		P	80 - 120
2337035	Chromium	100		P	80 - 120
2337035	Cobalt	98.2		P	80 - 120
2337035	Copper	99.1		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P415766

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337035	Lead	99.9		P	80 - 120
2337035	Manganese	101		P	80 - 120
2337035	Molybdenum	101		P	80 - 120
2337035	Nickel	99.1		P	80 - 120
2337035	Selenium	96.4		P	80 - 120
2337035	Silver	99.2		P	80 - 120
2337035	Thallium	101		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416147

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2336966	Chloride	95.8		P	90 - 110
2337151	Chloride	95.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416150

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2336966	Sulfate	97.0		P	90 - 110
2337151	Sulfate	94.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415991

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2335950	Ammonia-N	95.4	99.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P416045

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337008	Ammonia-N	99.8	99.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415920

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2336974	Kjeldahl Nitrogen	99.7	99.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416108

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337243	Kjeldahl Nitrogen	96.4	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416292

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337241	NO2NO3-N	104	104	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416401

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337072	NO2NO3-N	99.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415933

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2336586	Total-P	95.5	96.2	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P416037

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337270	PCB-1016	95.4	94.8	P/P	46 - 111
2337270	PCB-1260	85.0	86.2	P/P	45 - 114
2337274	Aldrin	62.3	63.3	P/P	10 - 89.0
2337274	Alpha-BHC	100	101	P/P	71 - 105
2337274	Alpha-Chlordane	86.8	90.7	P/P	43 - 107
2337274	Beta-BHC	128	115	P/P	57 - 152
2337274	Beta-Cyfluthrin	99.8	106	P/P	29 - 186
2337274	Bifenthrin	70.6	77.6	P/P	19 - 119
2337274	Chlorothalonil	131	108	P/P	10 - 245
2337274	Cis-Nonachlor	66.6	77.6	P/P	36 - 110
2337274	Cypermethrin	94.1	104	P/P	24 - 169
2337274	Dacthal	101	101	P/P	62 - 115
2337274	DDD-p,p'	73.4	75.4	P/P	36 - 109
2337274	DDE-p,p'	96.1	89.2	P/P	30 - 114
2337274	DDT-p,p'	84.3	83.0	P/P	42 - 108
2337274	Delta-BHC	128	114	P/P	60 - 164
2337274	Deltamethrin	100	107	P/P	10 - 210
2337274	Dichlobenil	75.4	79.9	P/P	23 - 108
2337274	Dicofol	77.2	81.3	P/P	44 - 109
2337274	Dieldrin	88.2	88.6	P/P	37 - 119
2337274	Endosulfan I	95.8	94.9	P/P	52 - 105
2337274	Endosulfan II	65.7	73.3	P/P	35 - 127
2337274	Endosulfan Sulfate	81.7	88.9	P/P	39 - 130
2337274	Endrin	68.4	73.5	P/P	30 - 116
2337274	Endrin Aldehyde	65.4	76.0	P/P	20 - 110
2337274	Endrin Ketone	87.4	91.9	P/P	48 - 134
2337274	Esfenvalerate	85.9	99.0	P/P	10 - 199
2337274	Ethalfuralin	89.0	88.3	P/P	48 - 95.0
2337274	Fenpropathrin	84.4	86.1	P/P	37 - 121
2337274	Gamma-BHC	115	108	P/P	61 - 126
2337274	Gamma-Chlordane	94.5	92.7	P/P	39 - 105
2337274	Heptachlor	72.6	81.2	P/P	38 - 96.0
2337274	Heptachlor Epoxide	91.0	94.2	P/P	42 - 114
2337274	Hexachlorobenzene	78.0	76.4	P/P	39 - 93.0
2337274	Kepone	59.9	51.6	P/P	10 - 215
2337274	Lambda-Cyhalothrin	80.2	91.7	P/P	10 - 204
2337274	Methoprene	82.6	73.0	P/P	17 - 108
2337274	Methoxychlor	91.9	93.4	P/P	56 - 115
2337274	MGK-264	91.0	87.4	P/P	35 - 120
2337274	Mirex	63.3	68.9	P/P	10 - 178

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P416037

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337274	Oxychlordane	90.9	86.2	P/P	47 - 91.0
2337274	Permethrin	91.0	97.1	P/P	27 - 170
2337274	Phenothrin	67.1	72.2	P/P	10 - 133
2337274	Piperonyl Butoxide	104	104	P/P	23 - 150
2337274	Prallethrin	91.5	87.4	P/P	21 - 113
2337274	Tau-Fluvalinate	75.9	93.7	P/P	16 - 158
2337274	Tetramethrin	93.7	93.5	P/P	22 - 132
2337274	Trans-Nonachlor	91.8	94.9	P/P	43 - 102
2337274	Triclosan Methyl	96.6	89.5	P/P	49 - 109
2337274	Trifluralin	87.9	83.7	P/P	48 - 93.0

Reference Method: EPA 8276

Batch ID: P416037

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337270	Chlordane	99.0	99.0	P/P	55 - 128
2337270	Toxaphene	133	146	P/P	57 - 211

Reference Method: SM 4500-F- C-2011

Batch ID: P415963

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337006	Fluoride	102	102	P/P	94 - 104

Reference Method: SM 4500-F- C-2011

Batch ID: P416334

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2338588	Fluoride	97.2	98.9	P/P	94 - 104

Reference Method: SM 5310 B-2011

Batch ID: P415857

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337032	Organic Carbon	97.4	97.3	P/P	85 - 115

Reference Method: SM 5310 B-2011

Batch ID: P416029

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337070	Organic Carbon	93.7	94.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P415731

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337151	Color (true)	2.55	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P415726

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337031	Turbidity	3.23	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P415766

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337019	Calcium	1.21	Spike	P	0 - 20
2337019	Iron	3.87	Spike	P	0 - 20
2337019	Magnesium	2.69	Spike	P	0 - 20
2337019	Potassium	1.97	Spike	P	0 - 20
2337019	Sodium	3.84	Spike	P	0 - 20
2337019	Strontium	0.485	Spike	P	0 - 20
2337019	Tin	1.65	Spike	P	0 - 20
2337019	Titanium	3.35	Spike	P	0 - 20
2337019	Vanadium	3.46	Spike	P	0 - 20
2337019	Zinc	3.66	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P415766

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337019	Aluminum	0.466	Spike	P	0 - 20
2337019	Antimony	1.57	Spike	P	0 - 20
2337019	Arsenic	1.97	Spike	P	0 - 20
2337019	Barium	2.47	Spike	P	0 - 20
2337019	Beryllium	0.260	Spike	P	0 - 20
2337019	Boron	0.151	Spike	P	0 - 20
2337019	Cadmium	2.17	Spike	P	0 - 20
2337019	Chromium	0.812	Spike	P	0 - 20
2337019	Cobalt	0.555	Spike	P	0 - 20
2337019	Copper	1.54	Spike	P	0 - 20
2337019	Lead	1.05	Spike	P	0 - 20
2337019	Manganese	0.000708	Spike	P	0 - 20
2337019	Molybdenum	0.771	Spike	P	0 - 20
2337019	Nickel	1.52	Spike	P	0 - 20
2337019	Selenium	0.155	Spike	P	0 - 20
2337019	Silver	1.30	Spike	P	0 - 20
2337019	Thallium	2.23	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416147

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336966	Chloride	0.102	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416150

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336966	Sulfate	0.163	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415991

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2335950	Ammonia-N	2.91	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P416045

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337008	Ammonia-N	0.375	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415920

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336974	Kjeldahl Nitrogen	0.394	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416108

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337243	Kjeldahl Nitrogen	4.24	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416292

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337241	NO2NO3-N	0.480	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416401

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337072	NO2NO3-N	0.937	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P415933

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336586	Total-P	0.713	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P416022

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337152	Total-P	0.732	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P416037

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337270	PCB-1016	0.577	Spike	P	0 - 32
2337270	PCB-1260	1.41	Spike	P	0 - 31
2337274	Aldrin	1.56	Spike	P	0 - 37
2337274	Alpha-BHC	0.0311	Spike	P	0 - 16
2337274	Alpha-Chlordane	3.91	Spike	P	0 - 28
2337274	Beta-BHC	10.5	Spike	P	0 - 32
2337274	Beta-Cyfluthrin	6.45	Spike	P	0 - 41
2337274	Bifenthrin	9.38	Spike	P	0 - 36
2337274	Chlorothalonil	19.1	Spike	P	0 - 54
2337274	Cis-Nonachlor	15.3	Spike	P	0 - 33
2337274	Cypermethrin	9.55	Spike	P	0 - 38
2337274	Dacthal	0.0154	Spike	P	0 - 23
2337274	DDD-p,p'	2.72	Spike	P	0 - 35
2337274	DDE-p,p'	7.43	Spike	P	0 - 27
2337274	DDT-p,p'	1.56	Spike	P	0 - 31
2337274	Delta-BHC	11.6	Spike	P	0 - 30
2337274	Deltamethrin	6.41	Spike	P	0 - 76
2337274	Dichlobenil	5.77	Spike	P	0 - 33
2337274	Dicofol	5.24	Spike	P	0 - 24
2337274	Dieldrin	0.415	Spike	P	0 - 35
2337274	Endosulfan I	0.916	Spike	P	0 - 25
2337274	Endosulfan II	11.0	Spike	P	0 - 31
2337274	Endosulfan Sulfate	8.49	Spike	P	0 - 38
2337274	Endrin	7.19	Spike	P	0 - 53
2337274	Endrin Aldehyde	14.9	Spike	P	0 - 81
2337274	Endrin Ketone	5.02	Spike	P	0 - 33
2337274	Esfenvalerate	14.1	Spike	P	0 - 46
2337274	Ethalfuralin	0.751	Spike	P	0 - 22
2337274	Fenpropathrin	1.90	Spike	P	0 - 29
2337274	Gamma-BHC	6.86	Spike	P	0 - 17
2337274	Gamma-Chlordane	1.91	Spike	P	0 - 28
2337274	Heptachlor	11.2	Spike	P	0 - 28
2337274	Heptachlor Epoxide	3.50	Spike	P	0 - 23
2337274	Hexachlorobenzene	2.06	Spike	P	0 - 22
2337274	Kepone	14.8	Spike	P	0 - 61
2337274	Lambda-Cyhalothrin	13.4	Spike	P	0 - 52
2337274	Methoprene	12.4	Spike	P	0 - 38

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P416037

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337274	Methoxychlor	1.59	Spike	P	0 - 29
2337274	MGK-264	4.08	Spike	P	0 - 41
2337274	Mirex	8.49	Spike	P	0 - 39
2337274	Oxychlordane	5.34	Spike	P	0 - 33
2337274	Permethrin	6.50	Spike	P	0 - 39
2337274	Phenothrin	7.31	Spike	P	0 - 52
2337274	Piperonyl Butoxide	0.393	Spike	P	0 - 91
2337274	Prallethrin	4.55	Spike	P	0 - 34
2337274	Tau-Fluvalinate	21.0	Spike	P	0 - 41
2337274	Tetramethrin	0.220	Spike	P	0 - 43
2337274	Trans-Nonachlor	3.33	Spike	P	0 - 31
2337274	Triclosan Methyl	7.68	Spike	P	0 - 24
2337274	Trifluralin	4.88	Spike	P	0 - 23

Reference Method: EPA 8276
Batch ID: P416037

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337270	Chlordane	0.0160	Spike	P	0 - 25
2337270	Toxaphene	8.85	Spike	P	0 - 24

Reference Method: SM 2320 B-2011
Batch ID: P415958

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337006	Total Alkalinity	0.0833	Sample	P	0 - 3.8

Reference Method: SM 2320 B-2011
Batch ID: P415960

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337239	Total Alkalinity	0.0170	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011
Batch ID: P416222

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336966	TDS	7.52	Sample	P	0 - 10

Reference Method: SM 2540 D-2011
Batch ID: P416189

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336966	TSS	2.90	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500-F- C-2011
Batch ID: P415963

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337006	Fluoride	0.483	Spike	P	0 - 1.6

Reference Method: SM 4500-F- C-2011
Batch ID: P416334

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2338588	Fluoride	0.999	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P415857

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337032	Organic Carbon	0.101	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P416029

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337070	Organic Carbon	0.686	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2337079
Field Sample ID: G2NE1164

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	113	P	29 - 130
EPA 8270E	Decachlorobiphenyl	58.4	P	31 - 118
EPA 8270E	Tetrachloro-m-xylene	86.9	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	70.9	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	91.0	P	30 - 97.0
EPA 8276	PCNB	107	P	45 - 119

Lab Sample ID: 2337080
Field Sample ID: 20030068

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	96.3	P	29 - 130
EPA 8270E	Decachlorobiphenyl	58.4	P	31 - 118
EPA 8270E	Tetrachloro-m-xylene	77.0	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	69.9	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	85.7	P	30 - 97.0
EPA 8276	PCNB	112	P	45 - 119

Lab Sample ID: 2337081
Field Sample ID: 20030064

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	105	P	29 - 130
EPA 8270E	Decachlorobiphenyl	82.6	P	31 - 118
EPA 8270E	Tetrachloro-m-xylene	82.4	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	76.6	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	90.1	P	30 - 97.0
EPA 8276	PCNB	109	P	45 - 119

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A113052

Included Lab Sample IDs: 2337069, 2337071, 2337073

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

Reference Method: DEP SOP: NU-094-1

Run ID: A113054

Included Lab Sample IDs: 2337071, 2337073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.7	103	P/P	85 - 115

Reference Method: SM 5310 B-2011

Run ID: A113129

Included Lab Sample IDs: 2337072, 2337074

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.6	99.8	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A113156

Included Lab Sample IDs: 2337071, 2337073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.6	101	P/P	90 - 110
Sulfate	99.7	101	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A113157

Included Lab Sample IDs: 2337069, 2337071, 2337073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.3	99.4	P/P	90 - 110
Total Alkalinity	99.4	98.8	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A113157

Included Lab Sample IDs: 2337071, 2337073

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A113171

Included Lab Sample IDs: 2337070

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.9	97.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A113175

Included Lab Sample IDs: 2337082, 2337083

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A113175

Included Lab Sample IDs: 2337082, 2337083

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	100	99.3	P/P	90 - 110
Antimony	101	101	P/P	90 - 110
Arsenic	101	100	P/P	90 - 110
Barium	100	101	P/P	90 - 110
Beryllium	100	99.6	P/P	90 - 110
Boron	98.4	98.5	P/P	90 - 110
Cadmium	99.5	100	P/P	90 - 110
Chromium	98.7	99.2	P/P	90 - 110
Cobalt	98.4	97.8	P/P	90 - 110
Copper	98.9	98.8	P/P	90 - 110
Lead	96.7	96.8	P/P	90 - 110
Manganese	98.9	99.3	P/P	90 - 110
Molybdenum	99.6	99.2	P/P	90 - 110
Nickel	99.1	98.8	P/P	90 - 110
Selenium	99.6	99.4	P/P	90 - 110
Silver	100	99.5	P/P	90 - 110
Thallium	96.4	96.5	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A113196

Included Lab Sample IDs: 2337070

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	98.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A113212

Included Lab Sample IDs: 2337072, 2337074

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.2	97.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A113235

Included Lab Sample IDs: 2337070

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.6	98.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A113239

Included Lab Sample IDs: 2337072, 2337074

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.4	98.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A113278

Included Lab Sample IDs: 2337072, 2337074

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A113278

Included Lab Sample IDs: 2337072, 2337074

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A113284

Included Lab Sample IDs: 2337082, 2337083

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	97.7	97.2	P/P	90 - 110
Iron	96.4	96.7	P/P	90 - 110
Magnesium	96.4	96.5	P/P	90 - 110
Potassium	102	101	P/P	90 - 110
Sodium	97.9	98.0	P/P	90 - 110
Strontium	105	105	P/P	90 - 110
Titanium	104	105	P/P	90 - 110
Vanadium	104	105	P/P	90 - 110
Zinc	103	104	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A113292

Included Lab Sample IDs: 2337079, 2337080, 2337081

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	96.7		P	80 - 120
Alpha-BHC	99.2		P	80 - 120
Alpha-Chlordane	98.0		P	80 - 120
Beta-BHC	109		P	80 - 120
Beta-Cyfluthrin	94.3		P	80 - 120
Bifenthrin	91.7		P	80 - 120
Chlorothalonil	115		P	80 - 120
Cis-Nonachlor	96.5		P	80 - 120
Cypermethrin	93.5		P	80 - 120
Dacthal	92.8		P	80 - 120
DDD-p,p'	92.0		P	80 - 120
DDE-p,p'	98.7		P	80 - 120
DDT-p,p'	97.9		P	80 - 120
Delta-BHC	113		P	80 - 120
Deltamethrin	96.3		P	80 - 120
Dichlobenil	103		P	80 - 120
Dicofol	94.2		P	80 - 120
Dieldrin	94.2		P	80 - 120
Endosulfan I	105		P	80 - 120
Endosulfan II	94.8		P	80 - 120
Endosulfan Sulfate	93.2		P	80 - 120
Endrin	94.5		P	80 - 120
Endrin Aldehyde	95.2		P	80 - 120
Endrin Ketone	99.7		P	80 - 120
Esfenvalerate	94.2		P	80 - 120
Ethalfuralin	97.5		P	80 - 120
Fenpropathrin	90.9		P	80 - 120
Gamma-BHC	109		P	80 - 120
Gamma-Chlordane	102		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A113292

Included Lab Sample IDs: 2337079, 2337080, 2337081

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Heptachlor	97.0		P	80 - 120
Heptachlor Epoxide	98.8		P	80 - 120
Hexachlorobenzene	104		P	80 - 120
Kepone	88.3		P	80 - 120
Lambda-Cyhalothrin	94.6		P	80 - 120
Methoprene	92.2		P	80 - 120
Methoxychlor	103		P	80 - 120
MGK-264	93.5		P	80 - 120
Mirex	95.8		P	80 - 120
Oxychlordane	97.8		P	80 - 120
Permethrin	92.3		P	80 - 120
Phenothrin	87.0		P	80 - 120
Piperonyl Butoxide	90.2		P	80 - 120
Prallethrin	93.9		P	80 - 120
Tau-Fluvalinate	90.4		P	80 - 120
Tetramethrin	93.8		P	80 - 120
Trans-Nonachlor	101		P	80 - 120
Triclosan Methyl	97.4		P	80 - 120
Trifluralin	99.4		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A113317

Included Lab Sample IDs: 2337082, 2337083

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

Reference Method: EPA 8270E

Run ID: A113328

Included Lab Sample IDs: 2337079, 2337080, 2337081

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	103		P	80 - 120
PCB-1260	95.9		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A113333

Included Lab Sample IDs: 2337070

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A113343

Included Lab Sample IDs: 2337070

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8276

Run ID: A113344

Included Lab Sample IDs: 2337079, 2337080, 2337081

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	97.3		P	80 - 120
Toxaphene	106		P	80 - 120

Reference Method: SM 4500-F- C-2011

Run ID: A113368

Included Lab Sample IDs: 2337069

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A113410

Included Lab Sample IDs: 2337072, 2337074

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	106	107	P/P	90 - 110
NO2NO3-N	108	110	P/P	90 - 110

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	97.0					2.55	
EPA 180.1 Rev. 2.0	Turbidity	95.7					3.23	
EPA 200.7 Rev. 4.4	Calcium	101	94.9	108				1.21
	Iron	100	95.6	99.4	104			3.87
	Magnesium	96.7	96.4	106				2.69
	Potassium	107	105	103	108			1.97
	Sodium	98.0	97.1	107				3.84
	Strontium	106	105	105	110			0.485
	Tin	110	106	104	109			1.65
	Titanium	108	103	107	109			3.35
	Vanadium	100	97.0	101	101			3.46
	Zinc	106	96.4	100	107			3.66
EPA 200.8 Rev. 5.4	Aluminum	101	99.3	99.8	101			0.466
	Antimony	101	102	104	103			1.57
	Arsenic	102	100	102	100			1.97
	Barium	104	102	105	104			2.47
	Beryllium	101	100	101	99.6			0.260
	Boron	103	101	101	103			0.151
	Cadmium	98.2	101	103	101			2.17
	Chromium	98.3	99.3	100	100			0.812
	Cobalt	99.8	98.4	98.9	98.2			0.555
	Copper	98.5	94.5	96.2	99.1			1.54
	Lead	99.1	98.4	99.5	99.9			1.05
	Manganese	97.5	99.5	99.5	101			0.0007
	Molybdenum	99.9	102	103	101			0.771
	Nickel	101	99.0	101	99.1			1.52
	Selenium	99.7	97.8	97.9	96.4			0.155
	Silver	98.1	97.6	98.8	99.2			1.30
	Thallium	99.9	101	103	101			2.23
EPA 300.0 Rev. 2.1	Chloride	98.3	95.8	95.5			0.102	
	Sulfate	97.7	97.0	94.9			0.163	
EPA 350.1 Rev. 2.0	Ammonia-N	98.4	95.4	99.4				2.91
	Ammonia-N	94.2	99.8	99.4				0.375
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.0	99.7	99.3				0.394
	Kjeldahl Nitrogen	105	96.4	101				4.24
EPA 353.2 Rev. 2.0	NO2NO3-N	102	104	104				0.480
	NO2NO3-N	104	99.8					0.937
EPA 365.1 Rev. 2.0	Total-P	102	95.5	96.2				0.713
	Total-P	102						0.732
EPA 8270E	Aldrin	42.3	62.3	63.3				1.56
	Alpha-BHC	104	100	101				0.0311
	Alpha-Chlordane	81.3	86.8	90.7				3.91
	Beta-BHC	113	128	115				10.5
	Beta-Cyfluthrin	81.8	99.8	106				6.45
	Bifenthrin	49.9	70.6	77.6				9.38
	Chlorothalonil	78.3	131	108				19.1
	Cis-Nonachlor	74.2	66.6	77.6				15.3
	Cypermethrin	80.6	94.1	104				9.55
	Dacthal	99.6	101	101				0.0154
	DDD-p,p'	80.1	73.4	75.4				2.72
	DDE-p,p'	84.0	96.1	89.2				7.43
	DDT-p,p'	75.9	84.3	83.0				1.56
	Delta-BHC	112	128	114				11.6
	Deltamethrin	83.3	100	107				6.41

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8270E	Dichlobenil	104	75.4	79.9		5.77
	Dicofol	76.5	77.2	81.3		5.24
	Dieldrin	84.0	88.2	88.6		0.415
	Endosulfan I	82.0	95.8	94.9		0.916
	Endosulfan II	79.1	65.7	73.3		11.0
	Endosulfan Sulfate	107	81.7	88.9		8.49
	Endrin	75.0	68.4	73.5		7.19
	Endrin Aldehyde	96.5	65.4	76.0		14.9
	Endrin Ketone	110	87.4	91.9		5.02
	Esfenvalerate	71.4	85.9	99.0		14.1
	Ethalfuralin	77.4	89.0	88.3		0.751
	Fenpropathrin	76.4	84.4	86.1		1.90
	Gamma-BHC	105	115	108		6.86
	Gamma-Chlordane	76.6	94.5	92.7		1.91
	Heptachlor	69.5	72.6	81.2		11.2
	Heptachlor Epoxide	83.5	91.0	94.2		3.50
	Hexachlorobenzene	69.9	78.0	76.4		2.06
	Kepone	60.3	59.9	51.6		14.8
	Lambda-Cyhalothrin	60.9	80.2	91.7		13.4
	Methoprene	53.2	82.6	73.0		12.4
	Methoxychlor	90.2	91.9	93.4		1.59
	MGK-264	82.6	91.0	87.4		4.08
	Mirex	60.1	63.3	68.9		8.49
	Oxychlordane	80.5	90.9	86.2		5.34
	PCB-1016	90.3	95.4	94.8		0.577
	PCB-1260	86.7	85.0	86.2		1.41
	Permethrin	78.2	91.0	97.1		6.50
	Phenothrin	39.4	67.1	72.2		7.31
	Piperonyl Butoxide	127	104	104		0.393
	Prallethrin	78.8	91.5	87.4		4.55
	Tau-Fluvalinate	62.7	75.9	93.7		21.0
	Tetramethrin	82.6	93.7	93.5		0.220
	Trans-Nonachlor	79.2	91.8	94.9		3.33
	Triclosan Methyl	80.0	96.6	89.5		7.68
	Trifluralin	74.5	87.9	83.7		4.88
EPA 8276	Chlordane	103	99.0	99.0		0.0160
	Toxaphene	118	133	146		8.85
SM 2320 B-2011	Total Alkalinity	101			0.0833	
	Total Alkalinity	99.7			0.0170	
SM 2540 C-2011	TDS				7.52	
SM 2540 D-2011	TSS				2.90	
SM 4500-F- C-2011	Fluoride	99.3	102	102		0.483
	Fluoride	101	97.2	98.9		0.999
SM 5310 B-2011	Organic Carbon	98.4	97.4	97.3		0.101
	Organic Carbon	96.4	93.7	94.5		0.686

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2337071, 2337073
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2337069, 2337071, 2337073
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2337082, 2337083

Reference Method Descriptions

Method	Description	Associated Samples
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2337082, 2337083
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2337071, 2337073
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2337071, 2337073
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2337070, 2337072, 2337074
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2337070, 2337072, 2337074
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2337070, 2337072, 2337074
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2337070, 2337072, 2337074
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2337079, 2337080, 2337081
EPA 8270E	PCBs in water matrices by GC/MS/MS	2337079, 2337080, 2337081
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2337079, 2337080, 2337081
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2337069, 2337071, 2337073
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2337082, 2337083
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2337071, 2337073
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2337069, 2337071, 2337073
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2337069, 2337071, 2337073
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2337070, 2337072, 2337074

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	06/24/2022			06/24/2022 14:34	Samantha L Bates	2337071
	06/24/2022			06/24/2022 14:35	Samantha L Bates	2337073
	06/24/2022			06/24/2022 13:32	Anna M. Plaviak	2337069
EPA 180.1 Rev. 2.0	06/24/2022			06/24/2022 13:52	Anna M. Plaviak	2337071
	06/24/2022			06/24/2022 13:53	Anna M. Plaviak	2337073
	06/24/2022	06/27/2022 09:00	Mackenzie Hunt	07/06/2022 00:21	McKinley C Carter	2337082
EPA 200.7 Rev. 4.4	06/24/2022	06/27/2022 09:00	Mackenzie Hunt	07/06/2022 00:28	McKinley C Carter	2337083
	06/24/2022	06/27/2022 09:00	Mackenzie Hunt	07/06/2022 23:14	McKinley C Carter	2337082
	06/24/2022	06/27/2022 09:00	Mackenzie Hunt	07/06/2022 23:22	McKinley C Carter	2337083
EPA 200.8 Rev. 5.4	06/24/2022	06/27/2022 09:00	Mackenzie Hunt	06/29/2022 19:16	Alexander Thompson	2337082
	06/24/2022	06/27/2022 09:00	Mackenzie Hunt	06/29/2022 19:25	Alexander Thompson	2337083
	06/24/2022			07/01/2022 17:49	Anna M. Plaviak	2337071
EPA 300.0 Rev. 2.1	06/24/2022			07/01/2022 18:01	Anna M. Plaviak	2337073
	06/24/2022			06/29/2022 15:15	Judith K. Clark	2337070
	06/24/2022			06/30/2022 13:45	Judith K. Clark	2337072
EPA 350.1 Rev. 2.0	06/24/2022			06/30/2022 13:46	Judith K. Clark	2337074
	06/24/2022	06/30/2022 14:06	Samantha L Bates	07/01/2022 12:49	Alexandra J Mattheus	2337072
	06/24/2022	06/30/2022 14:06	Samantha L Bates	07/01/2022 12:51	Alexandra J Mattheus	2337074
EPA 351.2 Rev. 2.0	06/24/2022	07/05/2022 14:05	Simonne.V. Calhoun	07/07/2022 11:19	Alexandra J Mattheus	2337070
	06/24/2022			07/07/2022 13:17	Touraj Touran	2337070
	06/24/2022			07/08/2022 15:49	Touraj Touran	2337072
EPA 353.2 Rev. 2.0	06/24/2022			07/08/2022 17:25	Touraj Touran	2337074
	06/24/2022	06/30/2022 14:54	Adam P Silver	07/01/2022 12:24	James L Waggeberby	2337070
	06/24/2022	07/01/2022 16:41	Simonne.V. Calhoun	07/05/2022 11:22	James L Waggeberby	2337072
EPA 365.1 Rev. 2.0	06/24/2022	07/01/2022 16:41	Simonne.V. Calhoun	07/05/2022 11:23	James L Waggeberby	2337074
	06/24/2022	06/29/2022 08:00	Rasheda Ghaffari	07/04/2022 18:27	Michael Poppell	2337079
	06/24/2022	06/29/2022 08:00	Rasheda Ghaffari	07/04/2022 18:57	Michael Poppell	2337080
EPA 8270E	06/24/2022	06/29/2022 08:00	Rasheda Ghaffari	07/04/2022 19:26	Michael Poppell	2337081
	06/24/2022	06/29/2022 08:00	Rasheda Ghaffari	07/06/2022 05:36	Arthur Maknenko	2337079
	06/24/2022	06/29/2022 08:00	Rasheda Ghaffari	07/06/2022 06:06	Arthur Maknenko	2337080
EPA 8276	06/24/2022	06/29/2022 08:00	Rasheda Ghaffari	07/06/2022 06:36	Arthur Maknenko	2337081
	06/24/2022	06/29/2022 08:00	Rasheda Ghaffari	07/07/2022 04:08	Julie Wi	2337079
	06/24/2022	06/29/2022 08:00	Rasheda Ghaffari	07/07/2022 05:04	Julie Wi	2337080
SM 2320 B-2011	06/24/2022	06/29/2022 08:00	Rasheda Ghaffari	07/07/2022 05:59	Julie Wi	2337081
	06/24/2022			06/29/2022 04:07	Dale L. Simmons	2337071
	06/24/2022			06/29/2022 05:19	Dale L. Simmons	2337073
SM 2340 B-2011	06/24/2022			06/29/2022 07:53	Dale L. Simmons	2337069
	06/24/2022			07/06/2022 00:21	McKinley C Carter	2337082
	06/24/2022			07/06/2022 00:28	McKinley C Carter	2337083
SM 2540 C-2011	06/24/2022			06/28/2022 16:31	Yijie Li	2337071, 2337073

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2540 D-2011	06/24/2022			06/28/2022 16:31	Yijie Li	2337069, 2337071, 2337073
SM 4500-F- C-2011	06/24/2022			06/29/2022 04:07	Dale L. Simmons	2337071
	06/24/2022			06/29/2022 05:19	Dale L. Simmons	2337073
	06/24/2022			07/07/2022 19:41	Dale L. Simmons	2337069
	06/24/2022			06/28/2022 03:44	Khloe J Berg	2337072
SM 5310 B-2011	06/24/2022			06/28/2022 03:57	Khloe J Berg	2337074
	06/24/2022			06/29/2022 21:41	Khloe J Berg	2337070