

Chemical Analysis Report

SE-DIST-2019-10-11-01

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

Event Description: **SMP-LW Drainage**
Request ID: **RQ-2019-10-07-31**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Drew Liddick

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 06-NOV-2019 16:59

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored background.

NON-CONFORMANCE REPORT INCLUDED

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: E-3 @ Palmetto Park

Collection Date/Time: 10/10/2019 12:15

Field ID: G3SE0034

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2127333	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P372375	
	EPA 300.0 Rev. 2.1	Chloride	45		mg Cl/L	P372761	
		Sulfate	26		mg SO4/L	P372765	
	SM 2120 B	Color (true)	39		PCU	P372533	
	SM 2320 B-97	Total Alkalinity	152		mg CaCO3/L	P372647	
	SM 2540 C-97	TDS	270		mg/L	P372899	
	SM 2540 D-97	TSS	2	I	mg/L	P372870	
	SM 4500 F-C-97	Fluoride	0.20		mg F/L	P372649	
2127334	EPA 350.1 Rev. 2.0	Ammonia-N	0.060		mg N/L	P372774	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.87		mg N/L	P372392	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.064		mg N/L	P372728	
	EPA 365.1 Rev. 2.0	Total-P	0.045		mg P/L	P372472	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P372777	
2127335	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.012		mg P/L	P372368	
2127378	EPA 200.7 Rev. 4.4	Barium	16.4		ug/L	P372501	
		Calcium	63.2		mg/L	P372501	
		Iron	30	U	ug/L	P372501	
		Magnesium	4.67		mg/L	P372501	
		Potassium	5.4		mg/L	P372501	
		Sodium	30.1		mg/L	P372501	
		Zinc	5.0	U	ug/L	P372501	
	EPA 200.8 Rev. 5.4	Aluminum	42		ug/L	P372501	
		Antimony	0.21		ug/L	P372501	
		Arsenic	2.69		ug/L	P372501	
		Boron**	45.8		ug/L	P372501	
		Cadmium	0.020	U	ug/L	P372501	
		Chromium	0.41	I	ug/L	P372501	
		Copper	7.15		ug/L	P372501	
		Lead	0.20	U	ug/L	P372501	
		Nickel	0.50	U	ug/L	P372501	
		Selenium	0.30	I	ug/L	P372501	
		Silver	0.010	U	ug/L	P372501	
		Thallium	0.10	U	ug/L	P372501	
							MS

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Sample Location: E-2 @ Glades

Collection Date/Time: 10/10/2019 12:55

Field ID: G3SE0035

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2127330	EPA 180.1 Rev. 2.0	Turbidity	2.4		NTU	P372375	
	EPA 300.0 Rev. 2.1	Chloride	50		mg Cl/L	P372761	
		Sulfate	31		mg SO4/L	P372765	
		Color (true)	46		PCU	P372533	
	SM 2320 B-97	Total Alkalinity	160		mg CaCO3/L	P372647	
	SM 2540 C-97	TDS	307		mg/L	P372899	
	SM 2540 D-97	TSS	3	I	mg/L	P372870	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P372649	
2127331	EPA 350.1 Rev. 2.0	Ammonia-N	0.035		mg N/L	P372774	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P372392	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.067		mg N/L	P372728	
	EPA 365.1 Rev. 2.0	Total-P	0.099		mg P/L	P372472	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P372777	
2127332	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.056		mg P/L	P372368	
2127377	EPA 200.7 Rev. 4.4	Barium	15.6		ug/L	P372501	
		Calcium	67.5		mg/L	P372501	
		Iron	30	U	ug/L	P372501	
		Magnesium	5.29		mg/L	P372501	
		Potassium	6.3		mg/L	P372501	
		Sodium	33.3		mg/L	P372501	
		Zinc	5.0	U	ug/L	P372501	
	EPA 200.8 Rev. 5.4	Aluminum	34		ug/L	P372501	
		Antimony	0.23		ug/L	P372501	
		Arsenic	2.85		ug/L	P372501	
		Boron**	54.3		ug/L	P372501	
		Cadmium	0.020	U	ug/L	P372501	
		Chromium	0.48	I	ug/L	P372501	
		Copper	1.84		ug/L	P372501	MS
		Lead	0.20	U	ug/L	P372501	
		Nickel	0.50	U	ug/L	P372501	
		Selenium	0.20	U	ug/L	P372501	
		Silver	0.010	U	ug/L	P372501	
		Thallium	0.10	U	ug/L	P372501	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Sample Location: E-1 West @ Glades

Collection Date/Time: 10/10/2019 13:15

Field ID: G3SE0033

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2127327	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P372375	
	EPA 300.0 Rev. 2.1	Chloride	44		mg Cl/L	P372761	
		Sulfate	25		mg SO4/L	P372765	
	SM 2120 B	Color (true)	49		PCU	P372533	
	SM 2320 B-97	Total Alkalinity	189		mg CaCO3/L	P372647	
	SM 2540 C-97	TDS	310		mg/L	P372899	
	SM 2540 D-97	TSS	2	I	mg/L	P372870	
	SM 4500 F-C-97	Fluoride	0.26		mg F/L	P372649	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.17	Y	mg N/L	P372691	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0	Y	mg N/L	P372392	
2127328	EPA 353.2 Rev. 2.0	NO2NO3-N	0.017	Y	mg N/L	P372728	
	EPA 365.1 Rev. 2.0	Total-P	0.35	Y	mg P/L	P372472	
	SM 5310 B-00	Organic Carbon	13	Y	mg C/L	P372777	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.30		mg P/L	P372368	
	dissolved						
2127367	EPA 8321B	Aldicarb	0.020	U	ug/L	P372335	
		Aldicarb Sulfone	0.0020	U	ug/L	P372335	
		Aldicarb Sulfoxide	0.0020	UJ	ug/L	P372335	MS
		Carbaryl	0.0020	U	ug/L	P372335	
		Carbofuran	0.0020	U	ug/L	P372335	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P372335	
		Methiocarb	0.0020	U	ug/L	P372335	
		Methomyl	0.0020	U	ug/L	P372335	
		Oxamyl	0.0020	U	ug/L	P372335	
		Propoxur	0.0020	U	ug/L	P372335	
2127368		2,4-D	0.022		ug/L	P372252	
		Acesulfame K**	0.11	I	ug/L	P372267	
		AMPA**	1.1		ug/L	P372267	
		Sucralose**	0.11		ug/L	P372267	
		Acetaminophen**	0.0080	U	ug/L	P372252	
		Acetamiprid**	0.0020	U	ug/L	P372252	
		Endothall**	0.25	U	ug/L	P372267	
		Glufosinate**	0.10	U	ug/L	P372267	
		Glyphosate**	2.2		ug/L	P372267	
		Afidopyropen**	0.0020	UJ	ug/L	P372252	
		Bentazon	0.35		ug/L	P372252	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P372252	
		Carbamazepine**	8.0E-04	U	ug/L	P372252	
		Clothianidin**	0.0020	U	ug/L	P372252	
		Dinotefuran**	0.0042	I	ug/L	P372252	
		Diuron	0.0052	I	ug/L	P372252	
		Fenuron	0.016	U	ug/L	P372252	
		Fluridone**	0.076		ug/L	P372252	
		Imazapyr**	0.12		ug/L	P372252	

Field ID: G3SE0033

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2127368	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P372252	
		Ibuprofen**	0.020	U	ug/L	P372252	
		Imidacloprid	0.0081		ug/L	P372252	
		Linuron	0.0040	U	ug/L	P372252	
		Mandestrobin**	0.0020	UJ	ug/L	P372252	
		MCP	0.0021	I	ug/L	P372252	MS
		Naproxen**	0.0080	U	ug/L	P372252	
		Primidone**	0.0040	U	ug/L	P372252	
		Pyraclostrobin**	0.0020	U	ug/L	P372252	
		Thiamethoxam**	0.0020	U	ug/L	P372252	
		Tolfenpyrad**	0.0020	U	ug/L	P372252	
		Triclopyr**	0.0040	U	ug/L	P372252	
2127369	EPA 8270E	Aldrin	4.2	U	ng/L	P372337	
		Alpha-BHC	2.1	U	ng/L	P372337	
		Alpha-Chlordane	1.1	U	ng/L	P372337	
		Beta-BHC	11	U	ng/L	P372337	
		Bifenthrin**	4.2	U	ng/L	P372337	MS
		Delta-BHC	8.5	U	ng/L	P372337	
		Gamma-BHC	8.5	U	ng/L	P372337	
		Carbophenothion	11	U	ng/L	P372337	
		Chlorothalonil	2.1	U	ng/L	P372337	
		Cis-Nonachlor**	1.1	U	ng/L	P372337	
		Cypermethrin	21	U	ng/L	P372337	
		DDD-p,p'	6.3	U	ng/L	P372337	
		DDE-p,p'	6.3	U	ng/L	P372337	
		DDT-p,p'	7.4	U	ng/L	P372337	
		Dicofol	32	U	ng/L	P372337	
		Dieldrin	4.2	U	ng/L	P372337	
		Endosulfan I	4.2	U	ng/L	P372337	
		Endosulfan II	4.2	U	ng/L	P372337	
		Endosulfan Sulfate	2.1	U	ng/L	P372337	
		Endrin	2.1	U	ng/L	P372337	
		Endrin Aldehyde	2.1	U	ng/L	P372337	
		Endrin Ketone	2.1	U	ng/L	P372337	
		Ethalfuralin**	3.2	U	ng/L	P372337	
		Gamma-Chlordane	1.1	U	ng/L	P372337	
		Heptachlor	1.6	U	ng/L	P372337	
		Heptachlor Epoxide	2.1	U	ng/L	P372337	
		Hexachlorobenzene	2.1	U	ng/L	P372337	
		Methoxychlor	4.2	U	ng/L	P372337	
		Mirex	2.1	U	ng/L	P372337	
		Permethrin	11	U	ng/L	P372337	
		Trans-Nonachlor**	1.1	U	ng/L	P372337	
		Trifluralin	2.6	U	ng/L	P372337	
		Chlordane	5.3	U	ng/L	P372337	
	EPA 8276						

Field ID: G3SE0033

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2127369	EPA 8276	Toxaphene	32	U	ng/L	P372337	
2127370	EPA 8270E	Acetochlor	0.26	U	ng/L	P372333	
		Alachlor	0.26	U	ng/L	P372333	
		Ametryn	2.8		ng/L	P372333	
		Atrazine	9.4		ng/L	P372333	
		Atrazine Desethyl	1.6	U	ng/L	P372333	
		Azinphos Methyl	5.3	U	ng/L	P372333	
		Bromacil	0.53	U	ng/L	P372333	MS
		Butylate	0.42	U	ng/L	P372333	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P372333	
		Chlorpyrifos Methyl	0.11	U	ng/L	P372333	
		Cyanazine	3.4	U	ng/L	P372333	
		Demeton	7.4	U	ng/L	P372333	
		Diazinon	0.13	U	ng/L	P372333	
		Dimethenamid**	0.11	U	ng/L	P372333	
		Disulfoton	0.53	U	ng/L	P372333	
		Dithiopyr**	0.39	I	ng/L	P372333	
		EPTC	1.3	U	ng/L	P372333	
		Ethion	0.16	U	ng/L	P372333	
		Ethoprop	0.11	U	ng/L	P372333	
		Fenamiphos	0.53	U	ng/L	P372333	
		Fipronil	0.56	I	ng/L	P372333	
		Fipronil Desulfinyl**	0.71		ng/L	P372333	
		Fipronil Sulfide	0.79		ng/L	P372333	
		Fipronil Sulfone	0.90		ng/L	P372333	
		Fonofos	0.21	U	ng/L	P372333	
		Hexazinone	3.2		ng/L	P372333	
		Malathion	0.37	U	ng/L	P372333	
		Metalaxyl	1.0	I	ng/L	P372333	
		Metolachlor	4.9		ng/L	P372333	
		Metribuzin	0.79	U	ng/L	P372333	MS
		Mevinphos	0.53	U	ng/L	P372333	
		Molinate	0.32	U	ng/L	P372333	
		Norflurazon	0.53	U	ng/L	P372333	
		Oxadiazon**	4.2		ng/L	P372333	
		Parathion Ethyl	0.26	U	ng/L	P372333	
		Parathion Methyl	0.58	U	ng/L	P372333	
		Pendimethalin	1.1	U	ng/L	P372333	
		Phorate	0.26	U	ng/L	P372333	
		Prodiamine**	0.18	U	ng/L	P372333	MS
		Prometon	0.95	U	ng/L	P372333	
		Prometryn	0.21	U	ng/L	P372333	
		Simazine	0.53	U	ng/L	P372333	
		Tebuconazole**	0.79	I	ng/L	P372333	
		Terbufos	0.11	U	ng/L	P372333	

Field ID: G3SE0033

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2127370	EPA 8270E	Terbutylazine	0.45	U	ng/L	P372333	
2127376	EPA 200.7 Rev. 4.4	Barium	15.9		ug/L	P372501	
		Calcium	74.8		mg/L	P372501	
		Iron	51	I	ug/L	P372501	
		Magnesium	6.11		mg/L	P372501	
		Potassium	8.1		mg/L	P372501	
		Sodium	30.9		mg/L	P372501	
		Zinc	5.0	U	ug/L	P372501	
	EPA 200.8 Rev. 5.4	Aluminum	13	I	ug/L	P372501	
		Antimony	0.20	I	ug/L	P372501	
		Arsenic	1.62		ug/L	P372501	
		Boron**	58.2	Y	ug/L	P372501	
		Cadmium	0.020	U	ug/L	P372501	
		Chromium	0.57	I	ug/L	P372501	
		Copper	1.66		ug/L	P372501	MS
		Lead	0.20	U	ug/L	P372501	
		Nickel	0.50	U	ug/L	P372501	
		Selenium	0.20	U	ug/L	P372501	
		Silver	0.010	U	ug/L	P372501	
		Thallium	0.10	U	ug/L	P372501	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

EPA 351.2 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

EPA 353.2 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

EPA 365.1 Rev. 2.0: Total-P: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

SM 5310 B-00: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

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

EPA 200.8 Rev. 5.4: The sample was preserved improperly for boron. The sample was preserved upon being received in the laboratory.

Sample Location: E-3 @ Clint Moore Boca

Collection Date/Time: 10/10/2019 14:00

Field ID: G3SE0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2127324	EPA 180.1 Rev. 2.0	Turbidity	2.3		NTU	P372375	
	EPA 300.0 Rev. 2.1	Chloride	46		mg Cl/L	P372761	
		Sulfate	23		mg SO4/L	P372765	
		Color (true)	51		PCU	P372533	
	SM 2320 B-97	Total Alkalinity	156		mg CaCO3/L	P372647	
	SM 2540 C-97	TDS	294	A	mg/L	P372899	
	SM 2540 D-97	TSS	4	IA	mg/L	P372870	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P372649	
2127325	EPA 350.1 Rev. 2.0	Ammonia-N	0.020		mg N/L	P372693	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.94		mg N/L	P372392	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.074		mg N/L	P372728	
	EPA 365.1 Rev. 2.0	Total-P	0.21		mg P/L	P372472	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P372777	
2127326	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.062		mg P/L	P372368	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Non-Conformance Report

NCR ID: 7955

Event(s)

SE-DIST-2019-10-11-01

Job(s)

TLH-2019-10-11-37

Sample(s)

2127328

Test(s)

NCR Type: SHIPPING/RECEIVING

NCR Category: Preservation Not Intact

Observation: Sample not preserved to pH < 2.

Resolution: Sample preserved in the laboratory with sulfuric acid on 10/11/2019
H2SO4 Lot# SA9010030 | Expiration Date: 04/10/2020
Data will be qualified as appropriate.

Authorized by/Date: Joshua Ayres 10/21/2019

NCR ID: 7971

Event(s)

SE-DIST-2019-10-11-01

Job(s)

TLH-2019-10-11-51

Sample(s)

2127376

Test(s)

NCR Type: SHIPPING/RECEIVING

NCR Category: Preservation Not Intact

Observation: Sample not preserved to pH < 2.

Resolution: Sample preserved in the laboratory with nitric acid 10/11/2019 at 11:30.
HNO3 Lot# NA9129070 | Expiration Date: 05/09/2020
Data will be qualified as appropriate.

Authorized by/Date: Joshua Ayres 10/21/2019

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry	Colin Wright	(850) 245-8085
Biology	Cheryl Swanson	(850) 245-8177

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P372375

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P372501

Component	Result	Code	Units
Barium	1.0	U	ug/L
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
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P372501

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	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: P372761

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372765

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372691

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372693

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372774

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372392

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372728

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372472

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372368

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: EPA 8270E
Batch ID: P372333

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	5.0	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	7.0	U	ng/L
Diazinon	0.12	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P372333

Component	Result	Code	Units
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.30	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	0.75	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8270E
Batch ID: P372337

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	10	U	ng/L
Bifenthrin	4.0	U	ng/L
Carbophenothion	10	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	6.0	U	ng/L
DDE-p,p'	6.0	U	ng/L
DDT-p,p'	7.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P372337

Component	Result	Code	Units
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Ethalfuralin	3.0	U	ng/L
Gamma-BHC	8.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8276
Batch ID: P372337

Component	Result	Code	Units
Chlordane	5.0	U	ng/L
Toxaphene	30	U	ng/L

Reference Method: EPA 8321B
Batch ID: P372252

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P372267

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P372335

Component	Result	Code	Units
3-Hydroxycarbofuran	0.0020	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Propoxur	0.0020	U	ug/L

Reference Method: SM 2120 B
Batch ID: P372533

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P372647

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

Reference Method: SM 2540 C-97
Batch ID: P372899

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P372870

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P372649

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P372777

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P372501

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	101		P	85 - 115
Calcium	101		P	85 - 115
Iron	108		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	102		P	85 - 115
Sodium	105		P	85 - 115
Zinc	99.1		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P372501

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.3		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	98.7		P	85 - 115
Boron	97.9		P	85 - 115
Cadmium	100		P	85 - 115
Chromium	92.8		P	85 - 115
Copper	92.5		P	85 - 115
Lead	97.6		P	85 - 115
Nickel	94.4		P	85 - 115
Selenium	94.4		P	85 - 115
Silver	98.6		P	85 - 115
Thallium	99.6		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372761

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372765

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372691

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372693

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P372774

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P372392

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	95.9		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P372728

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P372472

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	98.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P372368

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.1		P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P372333

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	98.9	94.1	P/P	69 - 122
Alachlor	97.8	95.1	P/P	71 - 120
Ametryn	98.1	96.2	P/P	47 - 138
Atrazine	102	96.7	P/P	74 - 124
Atrazine Desethyl	81.6	77.3	P/P	38 - 138
Azinphos Methyl	93.0	91.2	P/P	69 - 154
Bromacil	76.6	74.7	P/P	39 - 121
Butylate	53.3	71.2	P/P	27 - 87.0
Chlorpyrifos Ethyl	96.3	95.1	P/P	69 - 118
Chlorpyrifos Methyl	87.6	89.8	P/P	70 - 120
Cyanazine	106	110	P/P	20 - 250
Demeton	64.0	53.7	P/P	39 - 118
Diazinon	94.0	94.4	P/P	68 - 127
Dimethenamid	98.7	94.5	P/P	66 - 125
Disulfoton	77.8	78.3	P/P	52 - 126
Dithiopyr	98.0	96.5	P/P	67 - 127
EPTC	59.5	71.3	P/P	24 - 88.0
Ethion	101	100	P/P	51 - 132
Ethoprop	80.4	80.0	P/P	58 - 117
Fenamiphos	96.1	94.4	P/P	38 - 139
Fipronil	107	102	P/P	61 - 124
Fipronil Desulfinyl	95.2	91.1	P/P	47 - 120

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P372333

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fipronil Sulfide	98.3	91.7	P/P	56 - 119
Fipronil Sulfone	92.1	88.9	P/P	50 - 117
Fonofos	77.8	83.8	P/P	60 - 121
Hexazinone	111	103	P/P	55 - 137
Malathion	96.5	94.3	P/P	66 - 126
Metalaxyl	101	97.7	P/P	33 - 140
Metolachlor	99.9	98.6	P/P	69 - 119
Metribuzin	104	105	P/P	31 - 238
Mevinphos	77.5	76.1	P/P	42 - 113
Molinate	64.1	71.2	P/P	32 - 96.0
Norflurazon	99.7	93.6	P/P	54 - 123
Oxadiazon	103	98.7	P/P	63 - 128
Parathion Ethyl	94.0	91.2	P/P	72 - 111
Parathion Methyl	95.1	90.6	P/P	74 - 126
Pendimethalin	94.0	95.2	P/P	61 - 131
Phorate	85.8	80.5	P/P	51 - 115
Prodiamine	95.0	90.3	P/P	38 - 144
Prometon	98.1	94.0	P/P	54 - 119
Prometryn	94.7	99.0	P/P	63 - 120
Simazine	102	99.6	P/P	75 - 126
Tebuconazole	97.1	96.8	P/P	20 - 119
Terbufos	82.1	84.2	P/P	64 - 116
Terbuthylazine	104	97.1	P/P	73 - 117

Reference Method: EPA 8270E
Batch ID: P372337

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	54.8	52.2	P/P	20 - 93.0
Alpha-BHC	109	111	P/P	55 - 133
Alpha-Chlordane	95.8	92.7	P/P	58 - 112
Beta-BHC	119	119	P/P	54 - 168
Bifenthrin	116	116	P/P	30 - 134
Carbophenothion	101	99.0	P/P	26 - 147
Chlorothalonil	93.5	93.2	P/P	20 - 155
Cis-Nonachlor	102	99.0	P/P	54 - 115
Cypermethrin	117	118	P/P	40 - 137
DDD-p,p'	106	104	P/P	65 - 129
DDE-p,p'	96.5	95.7	P/P	57 - 116
DDT-p,p'	94.2	94.1	P/P	53 - 133
Delta-BHC	117	119	P/P	59 - 178
Dicofol	99.5	99.7	P/P	24 - 138
Dieldrin	98.5	93.2	P/P	60 - 120
Endosulfan I	102	99.3	P/P	64 - 118
Endosulfan II	109	111	P/P	58 - 142
Endosulfan Sulfate	103	102	P/P	60 - 127
Endrin	98.5	100	P/P	59 - 122
Endrin Aldehyde	102	101	P/P	49 - 132
Endrin Ketone	107	105	P/P	64 - 121
Ethalfuralin	97.9	103	P/P	60 - 126
Gamma-BHC	115	114	P/P	57 - 154
Gamma-Chlordane	92.6	89.1	P/P	56 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P372337

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Heptachlor	89.7	86.3	P/P	46 - 96.0
Heptachlor Epoxide	96.7	93.0	P/P	61 - 112
Hexachlorobenzene	91.1	89.9	P/P	44 - 98.0
Methoxychlor	106	106	P/P	63 - 134
Mirex	86.8	87.0	P/P	45 - 100
Permethrin	106	107	P/P	53 - 115
Trans-Nonachlor	97.1	93.1	P/P	47 - 110
Trifluralin	101	101	P/P	39 - 142

Reference Method: EPA 8276
Batch ID: P372337

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	85.1	87.4	P/P	43 - 128
Toxaphene	81.8	78.8	P/P	38 - 140

Reference Method: EPA 8321B
Batch ID: P372252

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	131		P	40 - 160
Acetaminophen	87.2		P	30 - 160
Acetamiprid	95.8		P	40 - 160
Afidopyropen	89.3		P	40 - 160
Bentazon	105		P	30 - 160
Benzovindiflupyr	96.3		P	40 - 160
Carbamazepine	98.1		P	40 - 160
Clothianidin	78.4		P	40 - 160
Dinotefuran	91.9		P	40 - 160
Diuron	95.8		P	40 - 160
Fenuron	115		P	40 - 160
Fluridone	96.0		P	40 - 160
Hydrocodone	96.8		P	40 - 160
Ibuprofen	87.3		P	30 - 160
Imazapyr	98.6		P	40 - 160
Imidacloprid	96.5		P	40 - 160
Linuron	84.6		P	40 - 160
Mandestrobin	94.6		P	40 - 160
MCPP	146		P	40 - 160
Naproxen	103		P	40 - 160
Primidone	87.5		P	40 - 160
Pyraclostrobin	98.0		P	30 - 160
Thiamethoxam	89.3		P	40 - 160
Tolfenpyrad	63.9		P	40 - 160
Triclopyr	115		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P372267

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	85.6		P	40 - 150
AMPA	131		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P372267

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endothall	81.9		P	40 - 150
Glufosinate	103		P	40 - 150
Glyphosate	91.3		P	40 - 140
Sucralose	102		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P372335

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	92.9		P	40 - 160
Aldicarb	86.3		P	30 - 160
Aldicarb Sulfone	92.4		P	40 - 160
Aldicarb Sulfoxide	82.2		P	40 - 160
Carbaryl	71.9		P	40 - 160
Carbofuran	85.0		P	40 - 160
Methiocarb	82.8		P	40 - 160
Methomyl	79.3		P	40 - 160
Oxamyl	97.0		P	40 - 160
Propoxur	83.3		P	40 - 160

Reference Method: SM 2120 B
Batch ID: P372533

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.9		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P372647

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P372649

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.2		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P372777

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	102		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P372501

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126946	Barium	96.2		P	80 - 120
2126946	Iron	104		P	80 - 120
2126946	Magnesium	106		P	80 - 120
2126946	Potassium	102		P	80 - 120
2126946	Sodium	101		P	80 - 120
2126946	Zinc	97.5		P	80 - 120
2127444	Barium	97.7	98.6	P/P	80 - 120
2127444	Calcium	99.3		P	80 - 120
2127444	Iron	104	104	P/P	80 - 120
2127444	Magnesium	101		P	80 - 120
2127444	Potassium	102		P	80 - 120
2127444	Sodium	102		P	80 - 120
2127444	Zinc	98.3	99.4	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P372501

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126946	Aluminum	95.0		P	80 - 120
2126946	Antimony	105		P	80 - 120
2126946	Arsenic	101		P	80 - 120
2126946	Boron	92.5		P	80 - 120
2126946	Cadmium	99.6		P	80 - 120
2126946	Chromium	90.7		P	80 - 120
2126946	Copper	62.4		F	80 - 120
2126946	Lead	100		P	80 - 120
2126946	Nickel	91.0		P	80 - 120
2126946	Selenium	97.7		P	80 - 120
2126946	Silver	97.7		P	80 - 120
2126946	Thallium	105		P	80 - 120
2127444	Aluminum	98.4	98.6	P/P	80 - 120
2127444	Antimony	105	105	P/P	80 - 120
2127444	Arsenic	103	104	P/P	80 - 120
2127444	Boron	95.8	99.6	P/P	80 - 120
2127444	Cadmium	98.5	99.6	P/P	80 - 120
2127444	Chromium	89.0	87.1	P/P	80 - 120
2127444	Copper	92.3	87.7	P/P	80 - 120
2127444	Lead	102	101	P/P	80 - 120
2127444	Nickel	94.6	94.9	P/P	80 - 120
2127444	Selenium	99.9	97.7	P/P	80 - 120
2127444	Silver	99.3	100	P/P	80 - 120
2127444	Thallium	106	104	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372761

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127138	Chloride	101	102	P/P	90 - 110
2127259	Chloride	100		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372765

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127138	Sulfate	102	102	P/P	90 - 110
2127259	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372691

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127020	Ammonia-N	99.0	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372693

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127188	Ammonia-N	101	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372774

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127432	Ammonia-N	101	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372392

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127426	Kjeldahl Nitrogen	96.3	97.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372728

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127325	NO2NO3-N	99.4	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372472

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127247	Total-P	99.8	97.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372368

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127433	O-Phosphate-P	97.9	99.7	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P372333

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127410	Acetochlor	105	94.6	P/P	63 - 129
2127410	Alachlor	102	91.4	P/P	65 - 127
2127410	Ametryn	89.5	90.1	P/P	40 - 164

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P372333

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127410	Atrazine	123	111	P/P	66 - 135
2127410	Atrazine Desethyl	155	138	P/P	14 - 157
2127410	Azinphos Methyl	110	111	P/P	49 - 180
2127410	Bromacil	167	140	F/F	48 - 130
2127410	Butylate	58.8	44.0	P/P	10 - 94.0
2127410	Chlorpyrifos Ethyl	88.8	83.9	P/P	58 - 123
2127410	Chlorpyrifos Methyl	96.7	88.8	P/P	58 - 125
2127410	Cyanazine	172	158	P/P	24 - 253
2127410	Demeton	94.0	69.6	P/P	25 - 149
2127410	Diazinon	119	109	P/P	59 - 144
2127410	Dimethenamid	100	94.3	P/P	46 - 139
2127410	Disulfoton	115	98.7	P/P	54 - 132
2127410	Dithiopyr	98.4	92.8	P/P	64 - 130
2127410	EPTC	66.9	53.1	P/P	10 - 92.0
2127410	Ethion	79.9	80.1	P/P	30 - 148
2127410	Ethoprop	115	93.3	P/P	50 - 130
2127410	Fenamiphos	115	107	P/P	49 - 142
2127410	Fipronil	100	98.3	P/P	46 - 140
2127410	Fipronil Desulfinyl	82.7	81.2	P/P	30 - 121
2127410	Fipronil Sulfide	79.4	78.1	P/P	31 - 136
2127410	Fipronil Sulfone	75.9	75.4	P/P	16 - 136
2127410	Fonofos	113	97.0	P/P	55 - 129
2127410	Hexazinone	108	103	P/P	56 - 141
2127410	Malathion	82.7	85.4	P/P	56 - 135
2127410	Metalaxyl	106	99.4	P/P	54 - 135
2127410	Metolachlor	90.0	82.8	P/P	51 - 140
2127410	Metribuzin	256	233	F/P	45 - 254
2127410	Mevinphos	104	99.7	P/P	33 - 131
2127410	Molinate	87.1	75.8	P/P	14 - 98.0
2127410	Norflurazon	86.4	89.9	P/P	34 - 136
2127410	Oxadiazon	87.2	79.4	P/P	67 - 116
2127410	Parathion Ethyl	102	92.6	P/P	66 - 118
2127410	Parathion Methyl	114	105	P/P	64 - 136
2127410	Pendimethalin	106	95.6	P/P	59 - 144
2127410	Phorate	119	101	P/P	42 - 130
2127410	Prodiamine	42.4	38.9	P/F	42 - 148
2127410	Prometon	97.8	93.2	P/P	59 - 134
2127410	Prometryn	97.5	88.9	P/P	54 - 135
2127410	Simazine	112	114	P/P	53 - 156
2127410	Tebuconazole	38.0	48.6	P/P	10 - 131
2127410	Terbufos	115	101	P/P	57 - 131
2127410	Terbuthylazine	105	97.6	P/P	68 - 125

Reference Method: EPA 8270E
Batch ID: P372337

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127450	Aldrin	68.4	64.1	P/P	25 - 92.0
2127450	Alpha-BHC	114	106	P/P	48 - 150
2127450	Alpha-Chlordane	91.0	88.9	P/P	50 - 115
2127450	Beta-BHC	122	115	P/P	39 - 184
2127450	Bifenthrin	120	117	F/F	46 - 116

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P372337

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127450	Carbophenothion	116	112	P/P	27 - 180
2127450	Chlorothalonil	98.9	106	P/P	10 - 216
2127450	Cis-Nonachlor	95.1	92.3	P/P	55 - 112
2127450	Cypermethrin	127	123	P/P	40 - 153
2127450	DDD-p,p'	98.5	96.4	P/P	53 - 128
2127450	DDE-p,p'	90.3	89.5	P/P	48 - 116
2127450	DDT-p,p'	90.3	89.3	P/P	47 - 128
2127450	Delta-BHC	127	122	P/P	48 - 221
2127450	Dicofol	102	103	P/P	10 - 147
2127450	Dieldrin	91.8	89.7	P/P	48 - 128
2127450	Endosulfan I	100	101	P/P	58 - 126
2127450	Endosulfan II	110	106	P/P	50 - 150
2127450	Endosulfan Sulfate	107	103	P/P	56 - 130
2127450	Endrin	104	96.8	P/P	50 - 126
2127450	Endrin Aldehyde	79.7	74.1	P/P	12 - 145
2127450	Endrin Ketone	106	105	P/P	59 - 132
2127450	Ethalfuralin	104	99.1	P/P	65 - 122
2127450	Gamma-BHC	127	104	P/P	40 - 190
2127450	Gamma-Chlordane	87.9	85.5	P/P	50 - 112
2127450	Heptachlor	85.1	79.7	P/P	41 - 98.0
2127450	Heptachlor Epoxide	93.4	90.6	P/P	55 - 117
2127450	Hexachlorobenzene	85.8	83.2	P/P	47 - 91.0
2127450	Methoxychlor	99.2	99.5	P/P	55 - 133
2127450	Mirex	88.6	85.4	P/P	44 - 101
2127450	Permethrin	109	104	P/P	52 - 124
2127450	Trans-Nonachlor	88.6	87.8	P/P	53 - 99.0
2127450	Trifluralin	104	98.0	P/P	10 - 201

Reference Method: EPA 8276
Batch ID: P372337

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126105	Chlordane	98.9	106	P/P	34 - 136
2126105	Toxaphene	96.4	83.3	P/P	22 - 152

Reference Method: EPA 8321B
Batch ID: P372252

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126726	2,4-D	129	133	P/P	40 - 160
2126726	Acetaminophen	82.4	83.4	P/P	30 - 160
2126726	Afidopyropen	88.6	82.8	P/P	40 - 160
2126726	Bentazon	91.4	89.3	P/P	30 - 160
2126726	Benzovindiflupyr	97.2	98.9	P/P	40 - 160
2126726	Carbamazepine	107	102	P/P	40 - 160
2126726	Clothianidin	106	105	P/P	40 - 160
2126726	Dinotefuran	105	99.9	P/P	40 - 160
2126726	Diuron	96.6	92.3	P/P	40 - 160
2126726	Fenuron	106	101	P/P	40 - 160
2126726	Fluridone	88.3	90.0	P/P	40 - 160
2126726	Hydrocodone	107	104	P/P	40 - 160
2126726	Ibuprofen	89.9	87.4	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P372252

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126726	Imazapyr	122	115	P/P	40 - 160
2126726	Linuron	80.5	79.3	P/P	40 - 160
2126726	Mandestrobin	102	92.2	P/P	40 - 160
2126726	MCCP	165	161	F/F	40 - 160
2126726	Naproxen	111	105	P/P	40 - 160
2126726	Primidone	97.7	99.2	P/P	40 - 160
2126726	Pyraclostrobin	97.5	93.7	P/P	30 - 160
2126726	Tolfenpyrad	70.8	69.1	P/P	40 - 160
2126726	Triclopyr	116	131	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P372267

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127171	Acesulfame K	108	110	P/P	40 - 150
2127171	AMPA	147	137	P/P	40 - 150
2127171	Endothall	92.2	102	P/P	40 - 150
2127171	Glufosinate	117	104	P/P	40 - 150
2127171	Glyphosate	121	117	P/P	40 - 140
2127171	Sucralose	86.6	82.5	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P372335

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127367	3-Hydroxycarbofuran	89.8	99.4	P/P	40 - 160
2127367	Aldicarb	59.7	73.4	P/P	30 - 160
2127367	Aldicarb Sulfone	96.7	116	P/P	40 - 160
2127367	Aldicarb Sulfoxide	37.9	40.5	F/P	40 - 160
2127367	Carbaryl	73.8	77.9	P/P	40 - 160
2127367	Carbofuran	69.0	73.4	P/P	40 - 160
2127367	Methiocarb	74.3	80.2	P/P	40 - 160
2127367	Methomyl	64.5	77.7	P/P	40 - 160
2127367	Oxamyl	86.9	91.3	P/P	40 - 160
2127367	Propoxur	69.7	72.7	P/P	40 - 160

Reference Method: SM 4500 F-C-97
Batch ID: P372649

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127226	Fluoride	95.1	94.6	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P372777

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127328	Organic Carbon	101	96.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P372375

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127299	Turbidity	3.49	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P372501

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127444	Barium	0.849	Spike	P	0 - 20
2127444	Calcium	0.600	Spike	P	0 - 20
2127444	Iron	0.294	Spike	P	0 - 20
2127444	Magnesium	0.000457	Spike	P	0 - 20
2127444	Potassium	0.0740	Spike	P	0 - 20
2127444	Sodium	0.290	Spike	P	0 - 20
2127444	Zinc	1.08	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P372501

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127444	Aluminum	0.206	Spike	P	0 - 20
2127444	Antimony	0.303	Spike	P	0 - 20
2127444	Arsenic	0.896	Spike	P	0 - 20
2127444	Boron	2.58	Spike	P	0 - 20
2127444	Cadmium	1.14	Spike	P	0 - 20
2127444	Chromium	2.21	Spike	P	0 - 20
2127444	Copper	4.99	Spike	P	0 - 20
2127444	Lead	0.744	Spike	P	0 - 20
2127444	Nickel	0.396	Spike	P	0 - 20
2127444	Selenium	2.19	Spike	P	0 - 20
2127444	Silver	0.935	Spike	P	0 - 20
2127444	Thallium	1.31	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372761

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127138	Chloride	0.361	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372765

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127138	Sulfate	0.0117	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372691

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127020	Ammonia-N	1.74	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372693

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127188	Ammonia-N	1.35	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372774

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127432	Ammonia-N	0.603	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372392

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127426	Kjeldahl Nitrogen	0.719	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372728

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127325	NO2NO3-N	0.730	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372472

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127247	Total-P	2.10	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372368

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127433	O-Phosphate-P	1.82	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P372333

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127410	Acetochlor	10.4	Spike	P	0 - 30
2127410	Alachlor	11.0	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P372333

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127410	Ametryn	0.680	Spike	P	0 - 30
2127410	Atrazine	7.93	Spike	P	0 - 30
2127410	Atrazine Desethyl	11.7	Spike	P	0 - 30
2127410	Azinphos Methyl	0.985	Spike	P	0 - 30
2127410	Bromacil	17.8	Spike	P	0 - 30
2127410	Butylate	28.8	Spike	P	0 - 30
2127410	Chlorpyrifos Ethyl	5.64	Spike	P	0 - 30
2127410	Chlorpyrifos Methyl	8.60	Spike	P	0 - 30
2127410	Cyanazine	8.79	Spike	P	0 - 30
2127410	Demeton	29.8	Spike	P	0 - 30
2127410	Diazinon	8.89	Spike	P	0 - 30
2127410	Dimethenamid	6.21	Spike	P	0 - 30
2127410	Disulfoton	15.3	Spike	P	0 - 30
2127410	Dithiopyr	5.85	Spike	P	0 - 30
2127410	EPTC	23.0	Spike	P	0 - 30
2127410	Ethion	0.233	Spike	P	0 - 30
2127410	Ethoprop	21.3	Spike	P	0 - 30
2127410	Fenamiphos	6.78	Spike	P	0 - 30
2127410	Fipronil	1.98	Spike	P	0 - 30
2127410	Fipronil Desulfinyl	1.84	Spike	P	0 - 30
2127410	Fipronil Sulfide	1.23	Spike	P	0 - 30
2127410	Fipronil Sulfone	0.364	Spike	P	0 - 30
2127410	Fonofos	15.1	Spike	P	0 - 30
2127410	Hexazinone	4.79	Spike	P	0 - 30
2127410	Malathion	3.21	Spike	P	0 - 30
2127410	Metalaxyl	4.92	Spike	P	0 - 30
2127410	Metolachlor	7.46	Spike	P	0 - 30
2127410	Metribuzin	9.11	Spike	P	0 - 30
2127410	Mevinphos	4.18	Spike	P	0 - 30
2127410	Molinate	13.9	Spike	P	0 - 30
2127410	Norflurazon	3.96	Spike	P	0 - 30
2127410	Oxadiazon	9.01	Spike	P	0 - 30
2127410	Parathion Ethyl	9.61	Spike	P	0 - 30
2127410	Parathion Methyl	8.54	Spike	P	0 - 30
2127410	Pendimethalin	10.5	Spike	P	0 - 30
2127410	Phorate	16.8	Spike	P	0 - 30
2127410	Prodiamine	8.57	Spike	P	0 - 30
2127410	Prometon	4.79	Spike	P	0 - 30
2127410	Prometryn	9.20	Spike	P	0 - 30
2127410	Simazine	1.24	Spike	P	0 - 30
2127410	Tebuconazole	24.6	Spike	P	0 - 30
2127410	Terbufos	13.4	Spike	P	0 - 30
2127410	Terbutylazine	6.91	Spike	P	0 - 30
LFB	Acetochlor	4.93	LCS	P	0 - 30
LFB	Alachlor	2.84	LCS	P	0 - 30
LFB	Ametryn	1.98	LCS	P	0 - 30
LFB	Atrazine	5.76	LCS	P	0 - 30
LFB	Atrazine Desethyl	5.44	LCS	P	0 - 30
LFB	Azinphos Methyl	1.95	LCS	P	0 - 30
LFB	Bromacil	2.54	LCS	P	0 - 30
LFB	Butylate	28.7	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P372333

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Chlorpyrifos Ethyl	1.29	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	2.46	LCS	P	0 - 30
LFB	Cyanazine	3.85	LCS	P	0 - 30
LFB	Demeton	17.4	LCS	P	0 - 30
LFB	Diazinon	0.458	LCS	P	0 - 30
LFB	Dimethenamid	4.39	LCS	P	0 - 30
LFB	Disulfoton	0.537	LCS	P	0 - 30
LFB	Dithiopyr	1.53	LCS	P	0 - 30
LFB	EPTC	18.0	LCS	P	0 - 30
LFB	Ethion	0.753	LCS	P	0 - 30
LFB	Ethoprop	0.486	LCS	P	0 - 30
LFB	Fenamiphos	1.76	LCS	P	0 - 30
LFB	Fipronil	5.42	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	4.43	LCS	P	0 - 30
LFB	Fipronil Sulfide	6.89	LCS	P	0 - 30
LFB	Fipronil Sulfone	3.56	LCS	P	0 - 30
LFB	Fonofos	7.49	LCS	P	0 - 30
LFB	Hexazinone	7.76	LCS	P	0 - 30
LFB	Malathion	2.29	LCS	P	0 - 30
LFB	Metalaxyl	3.18	LCS	P	0 - 30
LFB	Metolachlor	1.28	LCS	P	0 - 30
LFB	Metribuzin	1.48	LCS	P	0 - 30
LFB	Mevinphos	1.90	LCS	P	0 - 30
LFB	Molinate	10.4	LCS	P	0 - 30
LFB	Norflurazon	6.28	LCS	P	0 - 30
LFB	Oxadiazon	4.32	LCS	P	0 - 30
LFB	Parathion Ethyl	3.00	LCS	P	0 - 30
LFB	Parathion Methyl	4.84	LCS	P	0 - 30
LFB	Pendimethalin	1.37	LCS	P	0 - 30
LFB	Phorate	6.48	LCS	P	0 - 30
LFB	Prodiamine	5.01	LCS	P	0 - 30
LFB	Prometon	4.31	LCS	P	0 - 30
LFB	Prometryn	4.44	LCS	P	0 - 30
LFB	Simazine	2.16	LCS	P	0 - 30
LFB	Tebuconazole	0.318	LCS	P	0 - 30
LFB	Terbufos	2.52	LCS	P	0 - 30
LFB	Terbutylazine	6.72	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P372337

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127450	Aldrin	6.61	Spike	P	0 - 30
2127450	Alpha-BHC	6.98	Spike	P	0 - 30
2127450	Alpha-Chlordane	2.29	Spike	P	0 - 30
2127450	Beta-BHC	6.16	Spike	P	0 - 30
2127450	Bifenthrin	2.87	Spike	P	0 - 30
2127450	Carbophenothion	3.47	Spike	P	0 - 30
2127450	Chlorothalonil	6.82	Spike	P	0 - 30
2127450	Cis-Nonachlor	2.99	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P372337

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127450	Cypermethrin	3.06	Spike	P	0 - 30
2127450	DDD-p,p'	2.13	Spike	P	0 - 30
2127450	DDE-p,p'	0.835	Spike	P	0 - 30
2127450	DDT-p,p'	1.10	Spike	P	0 - 30
2127450	Delta-BHC	4.46	Spike	P	0 - 30
2127450	Dicofol	0.0675	Spike	P	0 - 30
2127450	Dieldrin	2.26	Spike	P	0 - 30
2127450	Endosulfan I	0.591	Spike	P	0 - 30
2127450	Endosulfan II	4.15	Spike	P	0 - 30
2127450	Endosulfan Sulfate	3.99	Spike	P	0 - 30
2127450	Endrin	7.00	Spike	P	0 - 30
2127450	Endrin Aldehyde	7.32	Spike	P	0 - 30
2127450	Endrin Ketone	0.205	Spike	P	0 - 30
2127450	Ethalfuralin	4.36	Spike	P	0 - 30
2127450	Gamma-BHC	19.8	Spike	P	0 - 30
2127450	Gamma-Chlordane	2.81	Spike	P	0 - 30
2127450	Heptachlor	6.57	Spike	P	0 - 30
2127450	Heptachlor Epoxide	3.03	Spike	P	0 - 30
2127450	Hexachlorobenzene	3.06	Spike	P	0 - 30
2127450	Methoxychlor	0.277	Spike	P	0 - 30
2127450	Mirex	3.67	Spike	P	0 - 30
2127450	Permethrin	4.48	Spike	P	0 - 30
2127450	Trans-Nonachlor	0.889	Spike	P	0 - 30
2127450	Trifluralin	6.30	Spike	P	0 - 30
LFB	Aldrin	4.84	LCS	P	0 - 30
LFB	Alpha-BHC	1.10	LCS	P	0 - 30
LFB	Alpha-Chlordane	3.34	LCS	P	0 - 30
LFB	Beta-BHC	0.151	LCS	P	0 - 30
LFB	Bifenthrin	0.414	LCS	P	0 - 30
LFB	Carbophenothion	1.88	LCS	P	0 - 30
LFB	Chlorothalonil	0.404	LCS	P	0 - 30
LFB	Cis-Nonachlor	3.38	LCS	P	0 - 30
LFB	Cypermethrin	0.567	LCS	P	0 - 30
LFB	DDD-p,p'	1.52	LCS	P	0 - 30
LFB	DDE-p,p'	0.840	LCS	P	0 - 30
LFB	DDT-p,p'	0.164	LCS	P	0 - 30
LFB	Delta-BHC	2.39	LCS	P	0 - 30
LFB	Dicofol	0.186	LCS	P	0 - 30
LFB	Dieldrin	5.51	LCS	P	0 - 30
LFB	Endosulfan I	2.94	LCS	P	0 - 30
LFB	Endosulfan II	2.45	LCS	P	0 - 30
LFB	Endosulfan Sulfate	1.65	LCS	P	0 - 30
LFB	Endrin	1.77	LCS	P	0 - 30
LFB	Endrin Aldehyde	0.901	LCS	P	0 - 30
LFB	Endrin Ketone	2.52	LCS	P	0 - 30
LFB	Ethalfuralin	5.28	LCS	P	0 - 30
LFB	Gamma-BHC	1.55	LCS	P	0 - 30
LFB	Gamma-Chlordane	3.85	LCS	P	0 - 30
LFB	Heptachlor	3.92	LCS	P	0 - 30
LFB	Heptachlor Epoxide	3.91	LCS	P	0 - 30
LFB	Hexachlorobenzene	1.36	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P372337

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Methoxychlor	0.0871	LCS	P	0 - 30
LFB	Mirex	0.187	LCS	P	0 - 30
LFB	Permethrin	0.822	LCS	P	0 - 30
LFB	Trans-Nonachlor	4.21	LCS	P	0 - 30
LFB	Trifluralin	0.0357	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P372337

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126105	Chlordane	6.85	Spike	P	0 - 30
2126105	Toxaphene	14.5	Spike	P	0 - 30
LFB	Chlordane	2.66	LCS	P	0 - 30
LFB	Toxaphene	3.78	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P372252

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126726	2,4-D	2.09	Spike	P	0 - 30
2126726	Acetaminophen	1.28	Spike	P	0 - 30
2126726	Acetamiprid	3.06	Spike	P	0 - 30
2126726	Afidopyropen	6.75	Spike	P	0 - 30
2126726	Bentazon	2.23	Spike	P	0 - 30
2126726	Benzovindiflupyr	1.72	Spike	P	0 - 30
2126726	Carbamazepine	4.31	Spike	P	0 - 30
2126726	Clothianidin	0.883	Spike	P	0 - 30
2126726	Dinotefuran	4.62	Spike	P	0 - 30
2126726	Diuron	3.91	Spike	P	0 - 30
2126726	Fenuron	3.81	Spike	P	0 - 30
2126726	Fluridone	1.23	Spike	P	0 - 30
2126726	Hydrocodone	2.56	Spike	P	0 - 30
2126726	Ibuprofen	2.83	Spike	P	0 - 30
2126726	Imazapyr	4.28	Spike	P	0 - 30
2126726	Imidacloprid	3.20	Spike	P	0 - 30
2126726	Linuron	1.54	Spike	P	0 - 30
2126726	Mandestrobin	10.6	Spike	P	0 - 30
2126726	MCPP	1.88	Spike	P	0 - 30
2126726	Naproxen	5.98	Spike	P	0 - 30
2126726	Primidone	1.42	Spike	P	0 - 30
2126726	Pyraclostrobin	3.91	Spike	P	0 - 30
2126726	Thiamethoxam	0.934	Spike	P	0 - 30
2126726	Tolfenpyrad	2.39	Spike	P	0 - 30
2126726	Triclopyr	12.5	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P372267

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127171	Acesulfame K	1.95	Spike	P	0 - 30
2127171	AMPA	6.51	Spike	P	0 - 30
2127171	Endothall	10.1	Spike	P	0 - 30
2127171	Glufosinate	12.2	Spike	P	0 - 30
2127171	Glyphosate	3.61	Spike	P	0 - 30
2127171	Sucralose	4.84	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P372335

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127367	3-Hydroxycarbofuran	10.1	Spike	P	0 - 30
2127367	Aldicarb	20.5	Spike	P	0 - 30
2127367	Aldicarb Sulfone	18.1	Spike	P	0 - 30
2127367	Aldicarb Sulfoxide	6.79	Spike	P	0 - 30
2127367	Carbaryl	5.36	Spike	P	0 - 30
2127367	Carbofuran	6.17	Spike	P	0 - 30
2127367	Methiocarb	7.71	Spike	P	0 - 30
2127367	Methomyl	18.5	Spike	P	0 - 30
2127367	Oxamyl	4.96	Spike	P	0 - 30
2127367	Propoxur	4.18	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P372533

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127259	Color (true)	3.35	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P372647

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127226	Total Alkalinity	0.0444	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P372899

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127324	TDS	5.79	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P372649

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127226	Fluoride	0.477	Spike	P	0 - 2.5

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P372777

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127328	Organic Carbon	3.23	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2127367
Field Sample ID: G3SE0033

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	74.9	P	30 - 160

Lab Sample ID: 2127368
Field Sample ID: G3SE0033

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	152	P	30 - 160
EPA 8321B	Acetaminophen-d4	78.5	P	30 - 160
EPA 8321B	Bentazon-d7	71.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	92.8	P	30 - 160
EPA 8321B	Diuron-d6	86.5	P	30 - 160
EPA 8321B	Endothall-d6	112	P	30 - 160
EPA 8321B	Endothall-d6	112	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	104	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	104	P	30 - 160
EPA 8321B	Ibuprofen-d3	95.9	P	30 - 160
EPA 8321B	Primidone-d5	95.3	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160

Lab Sample ID: 2127369
Field Sample ID: G3SE0033

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	106	P	39 - 109
EPA 8270E	Tetrachloro-m-xylene	83.3	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	68.2	P	30 - 103
EPA 8276	PCNB	129	P	37 - 143

Lab Sample ID: 2127370
Field Sample ID: G3SE0033

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	120	P	68 - 130
EPA 8270E	Terbufos-d10	110	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A94905

Included Lab Sample IDs: 2127326, 2127329, 2127332, 2127335

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	98.6	P/P	90 - 110
O-Phosphate-P	99.1	99.8	P/P	90 - 110
O-Phosphate-P	99.8	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A94912

Included Lab Sample IDs: 2127368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	77.0	76.8	P/P	60 - 160
Endothall	89.3	94.0	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A94917

Included Lab Sample IDs: 2127368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	131	84.3	P/P	60 - 160
Glufosinate	111	69.7	P/P	60 - 160
Glyphosate	97.4	72.8	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A94919

Included Lab Sample IDs: 2127368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	116	117	P/P	50 - 150
Acetaminophen	104	102	P/P	60 - 160
Acetamiprid	100	105	P/P	50 - 150
Afidopyropen	98.4	94.3	P/P	50 - 150
Bentazon	102	101	P/P	50 - 160
Benzovindiflupyr	101	102	P/P	50 - 150
Carbamazepine	109	107	P/P	60 - 150
Clothianidin	101	110	P/P	60 - 150
Dinotefuran	100	99.0	P/P	50 - 150
Diuron	109	105	P/P	60 - 150
Fenuron	121	116	P/P	60 - 150
Fluridone	102	107	P/P	60 - 160
Hydrocodone	97.8	99.5	P/P	60 - 150
Ibuprofen	91.7	97.9	P/P	50 - 160
Imazapyr	101	110	P/P	50 - 150
Imidacloprid	103	99.0	P/P	60 - 150
Linuron	107	109	P/P	60 - 150
Mandestrobin	105	103	P/P	50 - 150
MCPP	97.3	105	P/P	50 - 150
Naproxen	154	144	P/P	50 - 160
Primidone	99.6	93.0	P/P	60 - 150
Pyraclostrobin	97.5	95.9	P/P	60 - 150
Thiamethoxam	99.2	93.6	P/P	50 - 150
Tolfenpyrad	111	111	P/P	60 - 150
Triclopyr	99.0	107	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A94921

Included Lab Sample IDs: 2127324, 2127327, 2127330, 2127333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.0	98.5	P/P	95 - 105

Reference Method: EPA 8321B

Run ID: A94940

Included Lab Sample IDs: 2127368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	116	113	P/P	60 - 160

Reference Method: SM 2120 B

Run ID: A94980

Included Lab Sample IDs: 2127324, 2127327, 2127330, 2127333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	98.8	P/P	90 - 115

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A94982

Included Lab Sample IDs: 2127325, 2127328, 2127331, 2127334

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A95003

Included Lab Sample IDs: 2127324, 2127327, 2127330, 2127333

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A95005

Included Lab Sample IDs: 2127325, 2127328, 2127331

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A95011

Included Lab Sample IDs: 2127376, 2127377, 2127378

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	100	100	P/P	90 - 110
Calcium	97.8	97.6	P/P	90 - 110
Iron	100	99.4	P/P	90 - 110
Magnesium	101	99.8	P/P	90 - 110
Potassium	100	101	P/P	90 - 110
Sodium	101	103	P/P	90 - 110
Zinc	97.7	98.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A95020

Included Lab Sample IDs: 2127334

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

Reference Method: SM 2320 B-97

Run ID: A95027

Included Lab Sample IDs: 2127324, 2127327, 2127330, 2127333

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

Reference Method: SM 4500 F-C-97

Run ID: A95027

Included Lab Sample IDs: 2127324, 2127327, 2127330, 2127333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A95031

Included Lab Sample IDs: 2127325, 2127328, 2127331, 2127334

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A95045

Included Lab Sample IDs: 2127325, 2127328

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

Reference Method: EPA 8321B

Run ID: A95046

Included Lab Sample IDs: 2127367

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	105	100	P/P	60 - 150
Aldicarb	101	91.5	P/P	60 - 150
Aldicarb Sulfone	87.1	103	P/P	50 - 150
Aldicarb Sulfoxide	95.7	97.1	P/P	50 - 150
Carbaryl	121	123	P/P	60 - 150
Carbofuran	103	107	P/P	50 - 150
Methiocarb	104	111	P/P	50 - 150
Methomyl	95.4	99.0	P/P	50 - 150
Oxamyl	96.8	98.0	P/P	50 - 150
Propoxur	104	106	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A95050
Included Lab Sample IDs: 2127369

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	108		P	80 - 120
Alpha-BHC	111		P	80 - 120
Alpha-Chlordane	106		P	80 - 120
Beta-BHC	114		P	80 - 120
Bifenthrin	108		P	80 - 120
Carbophenothion	104		P	80 - 120
Chlorothalonil	101		P	80 - 120
Cis-Nonachlor	106		P	80 - 120
Cypermethrin	100		P	80 - 120
DDD-p,p'	110		P	80 - 120
DDE-p,p'	104		P	80 - 120
DDT-p,p'	109		P	80 - 120
Delta-BHC	104		P	80 - 120
Dicofol	106		P	80 - 120
Dieldrin	109		P	80 - 120
Endosulfan I	105		P	80 - 120
Endosulfan II	114		P	80 - 120
Endosulfan Sulfate	104		P	80 - 120
Endrin	102		P	80 - 120
Endrin Aldehyde	104		P	80 - 120
Endrin Ketone	108		P	80 - 120
Ethalfuralin	111		P	80 - 120
Gamma-BHC	110		P	80 - 120
Gamma-Chlordane	104		P	80 - 120
Heptachlor	107		P	80 - 120
Heptachlor Epoxide	106		P	80 - 120
Hexachlorobenzene	115		P	80 - 120
Methoxychlor	108		P	80 - 120
Mirex	104		P	80 - 120
Permethrin	105		P	80 - 120
Trans-Nonachlor	107		P	80 - 120
Trifluralin	112		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A95080
Included Lab Sample IDs: 2127331, 2127334

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	100	P/P	90 - 110
Ammonia-N	99.5	100	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A95081
Included Lab Sample IDs: 2127325, 2127328, 2127331, 2127334

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	104	95.8	P/P	90 - 110
Organic Carbon	104	104	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A95156
Included Lab Sample IDs: 2127370

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	101		P	80 - 120
Alachlor	105		P	80 - 120
Ametryn	104		P	80 - 120
Atrazine	102		P	80 - 120
Atrazine Desethyl	96.2		P	80 - 120
Azinphos Methyl	93.0		P	80 - 120
Bromacil	102		P	80 - 120
Butylate	99.8		P	80 - 120
Chlorpyrifos Ethyl	98.6		P	80 - 120
Chlorpyrifos Methyl	97.5		P	80 - 120
Cyanazine	98.5		P	80 - 120
Demeton	94.5		P	80 - 120
Diazinon	102		P	80 - 120
Dimethenamid	104		P	80 - 120
Disulfoton	96.1		P	80 - 120
Dithiopyr	103		P	80 - 120
EPTC	101		P	80 - 120
Ethion	95.4		P	80 - 120
Ethoprop	98.2		P	80 - 120
Fenamiphos	97.9		P	80 - 120
Fipronil	103		P	80 - 120
Fipronil Desulfinyl	103		P	80 - 120
Fipronil Sulfide	96.2		P	80 - 120
Fipronil Sulfone	99.7		P	80 - 120
Fonofos	96.6		P	80 - 120
Hexazinone	100		P	80 - 120
Malathion	95.6		P	80 - 120
Metalaxyl	102		P	80 - 120
Metolachlor	105		P	80 - 120
Metribuzin	99.6		P	80 - 120
Mevinphos	98.0		P	80 - 120
Molinate	98.3		P	80 - 120
Norflurazon	98.1		P	80 - 120
Oxadiazon	101		P	80 - 120
Parathion Ethyl	97.4		P	80 - 120
Parathion Methyl	96.8		P	80 - 120
Pendimethalin	98.6		P	80 - 120
Phorate	95.7		P	80 - 120
Prodiamine	97.3		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	103		P	80 - 120
Simazine	98.9		P	80 - 120
Tebuconazole	106		P	80 - 120
Terbufos	95.7		P	80 - 120
Terbutylazine	100		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A95182
Included Lab Sample IDs: 2127376, 2127377, 2127378

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: A95182

Included Lab Sample IDs: 2127376, 2127377, 2127378

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.2	101	P/P	90 - 110
Antimony	102	103	P/P	90 - 110
Arsenic	102	103	P/P	90 - 110
Boron	97.7	100	P/P	90 - 110
Cadmium	102	103	P/P	90 - 110
Lead	99.5	101	P/P	90 - 110
Nickel	96.7	98.3	P/P	90 - 110
Selenium	102	105	P/P	90 - 110
Silver	100	101	P/P	90 - 110
Thallium	96.7	97.8	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A95228

Included Lab Sample IDs: 2127376, 2127377, 2127378

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	93.2	92.1	P/P	90 - 110
Copper	93.0	92.8	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
EPA 180.1 Rev. 2.0	Turbidity							3.49	
EPA 200.7 Rev. 4.4	Barium	101		96.2	97.7	98.6			0.849
	Calcium	101		99.3					0.600
	Iron	108		104	104	104			0.294
	Magnesium	102		106	101				0.0004
	Potassium	102		102	102				0.0740
	Sodium	105		101	102				0.290
	Zinc	99.1		97.5	98.3	99.4			1.08
EPA 200.8 Rev. 5.4	Aluminum	97.3		95.0	98.4	98.6			0.206
	Antimony	102		105	105	105			0.303
	Arsenic	98.7		101	103	104			0.896
	Boron	97.9		92.5	95.8	99.6			2.58
	Cadmium	100		99.6	98.5	99.6			1.14
	Chromium	92.8		90.7	89.0	87.1			2.21
	Copper	92.5		62.4	92.3	87.7			4.99
	Lead	97.6		100	102	101			0.744
	Nickel	94.4		91.0	94.6	94.9			0.396
	Selenium	94.4		97.7	99.9	97.7			2.19
	Silver	98.6		97.7	99.3	100			0.935
	Thallium	99.6		105	106	104			1.31
EPA 300.0 Rev. 2.1	Chloride	99.8		101	102	100			0.361
	Sulfate	99.9		102	102	101			0.0117
EPA 350.1 Rev. 2.0	Ammonia-N	99.9		99.0	101				1.74
	Ammonia-N	99.5		101	102				1.35
	Ammonia-N	99.6		101	100				0.603
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	95.9		96.3	97.3				0.719
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5		99.4	100				0.730
EPA 365.1 Rev. 2.0	Total-P	98.0		99.8	97.6				2.10
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.1		97.9	99.7				1.82
EPA 8270E	Acetochlor	98.9	94.1	105	94.6		4.93		10.4
	Alachlor	97.8	95.1	102	91.4		2.84		11.0
	Aldrin	54.8	52.2	68.4	64.1		4.84		6.61
	Alpha-BHC	109	111	114	106		1.10		6.98
	Alpha-Chlordane	95.8	92.7	91.0	88.9		3.34		2.29
	Ametryn	98.1	96.2	89.5	90.1		1.98		0.680
	Atrazine	102	96.7	123	111		5.76		7.93
	Atrazine Desethyl	81.6	77.3	155	138		5.44		11.7
	Azinphos Methyl	93.0	91.2	110	111		1.95		0.985
	Beta-BHC	119	119	122	115		0.151		6.16
	Bifenthrin	116	116	120	117		0.414		2.87
	Bromacil	76.6	74.7	167	140		2.54		17.8
	Butylate	53.3	71.2	58.8	44.0		28.7		28.8
	Carbophenothion	101	99.0	112	116		1.88		3.47
	Chlorothalonil	93.5	93.2	106	98.9		0.404		6.82
	Chlorpyrifos Ethyl	96.3	95.1	88.8	83.9		1.29		5.64
	Chlorpyrifos Methyl	87.6	89.8	96.7	88.8		2.46		8.60
	Cis-Nonachlor	102	99.0	95.1	92.3		3.38		2.99
	Cyanazine	106	110	172	158		3.85		8.79
	Cypermethrin	117	118	127	123		0.567		3.06
	DDD-p,p'	106	104	98.5	96.4		1.52		2.13
	DDE-p,p'	96.5	95.7	90.3	89.5		0.840		0.835
	DDT-p,p'	94.2	94.1	90.3	89.3		0.164		1.10
	Delta-BHC	117	119	127	122		2.39		4.46
	Demeton	64.0	53.7	94.0	69.6		17.4		29.8

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Diazinon	94.0	94.4	119	109	0.458		8.89
	Dicofol	99.5	99.7	102	103	0.186		0.0675
	Dieldrin	98.5	93.2	91.8	89.7	5.51		2.26
	Dimethenamid	98.7	94.5	100	94.3	4.39		6.21
	Disulfoton	77.8	78.3	115	98.7	0.537		15.3
	Dithiopyr	98.0	96.5	98.4	92.8	1.53		5.85
	Endosulfan I	102	99.3	100	101	2.94		0.591
	Endosulfan II	109	111	110	106	2.45		4.15
	Endosulfan Sulfate	103	102	107	103	1.65		3.99
	Endrin	98.5	100	104	96.8	1.77		7.00
	Endrin Aldehyde	102	101	79.7	74.1	0.901		7.32
	Endrin Ketone	107	105	106	105	2.52		0.205
	EPTC	59.5	71.3	66.9	53.1	18.0		23.0
	Ethalfuralin	97.9	103	104	99.1	5.28		4.36
	Ethion	101	100	79.9	80.1	0.753		0.233
	Ethoprop	80.4	80.0	115	93.3	0.486		21.3
	Fenamiphos	96.1	94.4	115	107	1.76		6.78
	Fipronil	107	102	100	98.3	5.42		1.98
	Fipronil Desulfinyl	95.2	91.1	82.7	81.2	4.43		1.84
	Fipronil Sulfide	98.3	91.7	79.4	78.1	6.89		1.23
	Fipronil Sulfone	92.1	88.9	75.9	75.4	3.56		0.364
	Fonofos	77.8	83.8	113	97.0	7.49		15.1
	Gamma-BHC	115	114	127	104	1.55		19.8
	Gamma-Chlordane	92.6	89.1	87.9	85.5	3.85		2.81
	Heptachlor	89.7	86.3	85.1	79.7	3.92		6.57
	Heptachlor Epoxide	96.7	93.0	93.4	90.6	3.91		3.03
	Hexachlorobenzene	91.1	89.9	85.8	83.2	1.36		3.06
	Hexazinone	111	103	108	103	7.76		4.79
	Malathion	96.5	94.3	82.7	85.4	2.29		3.21
	Metalaxyl	101	97.7	106	99.4	3.18		4.92
	Methoxychlor	106	106	99.2	99.5	0.0871		0.277
	Metolachlor	99.9	98.6	90.0	82.8	1.28		7.46
	Metribuzin	104	105	256	233	1.48		9.11
	Mevinphos	77.5	76.1	104	99.7	1.90		4.18
	Mirex	86.8	87.0	88.6	85.4	0.187		3.67
	Molinate	64.1	71.2	87.1	75.8	10.4		13.9
	Norflurazon	99.7	93.6	86.4	89.9	6.28		3.96
	Oxadiazon	103	98.7	87.2	79.4	4.32		9.01
	Parathion Ethyl	94.0	91.2	102	92.6	3.00		9.61
	Parathion Methyl	95.1	90.6	114	105	4.84		8.54
	Pendimethalin	94.0	95.2	106	95.6	1.37		10.5
	Permethrin	106	107	109	104	0.822		4.48
	Phorate	85.8	80.5	119	101	6.48		16.8
	Prodiamine	95.0	90.3	42.4	38.9	5.01		8.57
	Prometon	98.1	94.0	97.8	93.2	4.31		4.79
	Prometryn	94.7	99.0	97.5	88.9	4.44		9.20
	Simazine	102	99.6	112	114	2.16		1.24
	Tebuconazole	97.1	96.8	38.0	48.6	0.318		24.6
	Terbufos	82.1	84.2	115	101	2.52		13.4
	Terbuthylazine	104	97.1	105	97.6	6.72		6.91
	Trans-Nonachlor	97.1	93.1	88.6	87.8	4.21		0.889
	Trifluralin	101	101	104	98.0	0.0357		6.30
EPA 8276	Chlordane	85.1	87.4	98.9	106	2.66		6.85
	Toxaphene	81.8	78.8	96.4	83.3	3.78		14.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8321B	2,4-D	131	129	133		2.09
	3-Hydroxycarbofuran	92.9	89.8	99.4		10.1
	Acesulfame K	85.6	108	110		1.95
	Acetaminophen	87.2	82.4	83.4		1.28
	Acetamiprid	95.8				3.06
	Afidopyropen	89.3	88.6	82.8		6.75
	Aldicarb	86.3	59.7	73.4		20.5
	Aldicarb Sulfone	92.4	96.7	116		18.1
	Aldicarb Sulfoxide	82.2	37.9	40.5		6.79
	AMPA	131	147	137		6.51
	Bentazon	105	91.4	89.3		2.23
	Benzovindiflupyr	96.3	97.2	98.9		1.72
	Carbamazepine	98.1	107	102		4.31
	Carbaryl	71.9	77.9	73.8		5.36
	Carbofuran	85.0	73.4	69.0		6.17
	Clothianidin	78.4	106	105		0.883
	Dinotefuran	91.9	105	99.9		4.62
	Diuron	95.8	96.6	92.3		3.91
	Endothall	81.9	92.2	102		10.1
	Fenuron	115	106	101		3.81
	Fluridone	96.0	88.3	90.0		1.23
	Glufosinate	103	117	104		12.2
	Glyphosate	91.3	121	117		3.61
	Hydrocodone	96.8	107	104		2.56
	Ibuprofen	87.3	89.9	87.4		2.83
	Imazapyr	98.6	122	115		4.28
	Imidacloprid	96.5				3.20
	Linuron	84.6	80.5	79.3		1.54
	Mandestrobin	94.6	102	92.2		10.6
	MCPP	146	165	161		1.88
	Methiocarb	82.8	80.2	74.3		7.71
	Methomyl	79.3	64.5	77.7		18.5
	Naproxen	103	111	105		5.98
	Oxamyl	97.0	86.9	91.3		4.96
	Primidone	87.5	97.7	99.2		1.42
	Propoxur	83.3	69.7	72.7		4.18
	Pyraclostrobin	98.0	97.5	93.7		3.91
	Sucralose	102	86.6	82.5		4.84
	Thiamethoxam	89.3				0.934
	Tolfenpyrad	63.9	70.8	69.1		2.39
	Triclopyr	115	116	131		12.5
SM 2120 B	Color (true)	98.9			3.35	
SM 2320 B-97	Total Alkalinity	104			0.0444	
SM 2540 C-97	TDS				5.79	
SM 4500 F-C-97	Fluoride	96.2	95.1	94.6		0.477
SM 5310 B-00	Organic Carbon	102	101	96.0		3.23

Reference Method Descriptions

Method / DoH Cert #
EPA 180.1 Rev. 2.0 /
E31780

Description
Turbidity in aqueous matrices

Associated Samples
2127324, 2127327, 2127330, 2127333

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2127376, 2127377, 2127378
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2127376, 2127377, 2127378
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2127324, 2127327, 2127330, 2127333
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2127324, 2127327, 2127330, 2127333
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2127325, 2127328, 2127331, 2127334
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2127325, 2127328, 2127331, 2127334
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2127325, 2127328, 2127331, 2127334
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2127325, 2127328, 2127331, 2127334
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2127326, 2127329, 2127332, 2127335
EPA 8270E / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2127369
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2127370
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2127369
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2127367
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2127368
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2127368
SM 2120 B / E31780	True Color measured at 450 nm	2127324, 2127327, 2127330, 2127333
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2127324, 2127327, 2127330, 2127333
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2127324, 2127327, 2127330, 2127333
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2127324, 2127327, 2127330, 2127333
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2127324, 2127327, 2127330, 2127333
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2127325, 2127328, 2127331, 2127334

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	10/11/2019			10/11/2019 15:36	Blanca Fach	2127324, 2127327, 2127330, 2127333
EPA 200.7 Rev. 4.4	10/11/2019	10/15/2019 16:35	Elliott D. Healy	10/16/2019 17:34	Alexander Thompson	2127376
	10/11/2019	10/15/2019 16:35	Elliott D. Healy	10/16/2019 17:40	Alexander Thompson	2127377
	10/11/2019	10/15/2019 16:35	Elliott D. Healy	10/16/2019 17:46	Alexander Thompson	2127378
EPA 200.8 Rev. 5.4	10/11/2019	10/15/2019 16:35	Elliott D. Healy	10/22/2019 23:04	Robert K Palmer	2127376
	10/11/2019	10/15/2019 16:35	Elliott D. Healy	10/22/2019 23:14	Robert K Palmer	2127377
	10/11/2019	10/15/2019 16:35	Elliott D. Healy	10/22/2019 23:23	Robert K Palmer	2127378
	10/11/2019	10/15/2019 16:35	Elliott D. Healy	10/24/2019 19:11	Robert K Palmer	2127376
	10/11/2019	10/15/2019 16:35	Elliott D. Healy	10/24/2019 19:16	Robert K Palmer	2127377
	10/11/2019	10/15/2019 16:35	Elliott D. Healy	10/24/2019 19:22	Robert K Palmer	2127378
EPA 300.0 Rev. 2.1	10/11/2019			10/17/2019 12:20	Jhamieka S. Greenwood	2127324
	10/11/2019			10/17/2019 12:32	Jhamieka S. Greenwood	2127327
	10/11/2019			10/17/2019 12:44	Jhamieka S. Greenwood	2127330
	10/11/2019			10/17/2019 12:56	Jhamieka S. Greenwood	2127333
EPA 350.1 Rev. 2.0	10/11/2019			10/17/2019 11:51	Ping Hua	2127328
	10/11/2019			10/17/2019 13:08	Ping Hua	2127325
	10/11/2019			10/18/2019 13:17	Ping Hua	2127331
	10/11/2019			10/18/2019 13:25	Ping Hua	2127334
EPA 351.2 Rev. 2.0	10/11/2019	10/14/2019 13:01	Sima Feizi	10/15/2019 18:01	Jhamieka S. Greenwood	2127325
	10/11/2019	10/14/2019 13:01	Sima Feizi	10/15/2019 18:02	Jhamieka S. Greenwood	2127328
	10/11/2019	10/14/2019 13:01	Sima Feizi	10/15/2019 18:04	Jhamieka S. Greenwood	2127331
	10/11/2019	10/14/2019 13:01	Sima Feizi	10/15/2019 18:05	Jhamieka S. Greenwood	2127334
EPA 353.2 Rev. 2.0	10/11/2019			10/17/2019 10:34	Beverly Y. Sanders	2127325
	10/11/2019			10/17/2019 10:44	Beverly Y. Sanders	2127328
	10/11/2019			10/17/2019 10:45	Beverly Y. Sanders	2127331
	10/11/2019			10/17/2019 10:46	Beverly Y. Sanders	2127334
EPA 365.1 Rev. 2.0	10/11/2019	10/15/2019 13:09	Lipi Saha	10/16/2019 10:42	Rosalyn Ballman	2127325
	10/11/2019	10/15/2019 13:09	Lipi Saha	10/16/2019 10:43	Rosalyn Ballman	2127328
	10/11/2019	10/15/2019 13:09	Lipi Saha	10/16/2019 10:44	Rosalyn Ballman	2127331
	10/11/2019	10/15/2019 13:09	Lipi Saha	10/16/2019 12:54	Rosalyn Ballman	2127334
EPA 365.1 Rev. 2.0 dissolved	10/11/2019			10/11/2019 16:06	Jhamieka S. Greenwood	2127332
	10/11/2019			10/11/2019 16:13	Jhamieka S. Greenwood	2127326
	10/11/2019			10/11/2019 16:17	Jhamieka S. Greenwood	2127335
	10/11/2019			10/11/2019 16:31	Jhamieka S. Greenwood	2127329
EPA 8270E	10/11/2019	10/14/2019 09:00	Fe-Val Siddell	10/15/2019 19:37	Vandana T. Nagar	2127370
	10/11/2019	10/14/2019 09:00	Rasheda Ghaffari	10/16/2019 22:13	Arthur Maknenko	2127369
EPA 8276	10/11/2019	10/14/2019 09:00	Rasheda Ghaffari	10/18/2019 08:28	Michael Poppell	2127369
EPA 8321B	10/11/2019	10/11/2019 12:30	Hoor Shaik	10/12/2019 11:47	Juyoung Kim	2127368
	10/11/2019	10/11/2019 12:30	Hoor Shaik	10/14/2019 10:46	Juyoung Kim	2127368
	10/11/2019	10/11/2019 14:30	Mohammad Ghaffari	10/11/2019 21:09	Mohammad Ghaffari	2127368

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	10/11/2019	10/11/2019 14:30	Mohammad Ghaffari	10/12/2019 03:41	Mohammad Ghaffari	2127368
	10/11/2019	10/11/2019 14:30	Mohammad Ghaffari	10/14/2019 23:58	Mohammad Ghaffari	2127368
	10/11/2019	10/15/2019 09:00	Hoor Shaik	10/17/2019 17:50	Juyoung Kim	2127367
SM 2120 B	10/11/2019			10/11/2019 17:06	Madeline Funaro	2127324
	10/11/2019			10/11/2019 17:07	Madeline Funaro	2127327, 2127330
	10/11/2019			10/11/2019 17:08	Madeline Funaro	2127333
SM 2320 B-97	10/11/2019			10/15/2019 21:46	Dale L. Simmons	2127324
	10/11/2019			10/15/2019 22:00	Dale L. Simmons	2127327
	10/11/2019			10/15/2019 22:13	Dale L. Simmons	2127330
	10/11/2019			10/15/2019 22:26	Dale L. Simmons	2127333
SM 2540 C-97	10/11/2019			10/16/2019 13:25	Yijie Li	2127324, 2127327, 2127330, 2127333
SM 2540 D-97	10/11/2019			10/16/2019 13:25	Yijie Li	2127324, 2127327, 2127330, 2127333
SM 4500 F-C-97	10/11/2019			10/15/2019 21:46	Dale L. Simmons	2127324
	10/11/2019			10/15/2019 22:00	Dale L. Simmons	2127327
	10/11/2019			10/15/2019 22:13	Dale L. Simmons	2127330
	10/11/2019			10/15/2019 22:26	Dale L. Simmons	2127333
SM 5310 B-00	10/11/2019			10/17/2019 19:31	Madeline Funaro	2127328
	10/11/2019			10/17/2019 23:13	Madeline Funaro	2127325
	10/11/2019			10/17/2019 23:28	Madeline Funaro	2127331
	10/11/2019			10/17/2019 23:40	Madeline Funaro	2127334