

Chemical Analysis Report

SO-DIST-2018-12-04-01

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

Event Description: **SCI: Reference Stream**
Request ID: **RQ-2018-11-12-60**
Customer: **SO-DIST**
Project ID: **SCIREF**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901
Attn: Maryann Dugan

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 09-JAN-2019 14:38

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

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Metals, Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited 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: MyrtleSlough@PinelIsland

Collection Date/Time: 12/03/2018 10:30

Field ID: G3SD0095

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2045644	EPA 180.1 Rev. 2.0	Turbidity	11	A	NTU	P355569	
	EPA 300.0 Rev. 2.1	Chloride	37		mg Cl/L	P355799	
		Sulfate	17		mg SO4/L	P355801	
	SM 2120 B	Color (true)	57		PCU	P355541	
	SM 2320 B-97	Total Alkalinity	275		mg CaCO3/L	P355716	
	SM 2540 C-97	TDS	414		mg/L	P355997	
	SM 2540 D-97	TSS	3	I	mg/L	P356009	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P355719	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.19		mg N/L	P355767	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.87		mg N/L	P355702	
2045646	EPA 353.2 Rev. 2.0	NO2NO3-N	0.26		mg N/L	P355661	
	EPA 365.1 Rev. 2.0	Total-P	0.028		mg P/L	P355743	
	SM 5310 B-00	Organic Carbon	17		mg C/L	P355794	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.007	I	mg P/L	P355553	
	dissolved						
2045739	EPA 8321B	2,4-D	0.0020	U	ug/L	P355375	
		Sucralose**	0.019	I	ug/L	P355526	
		Bentazon	0.0013	I	ug/L	P355375	
		MCP	0.0020	U	ug/L	P355375	
		Triclopyr**	0.0040	U	ug/L	P355375	
		Imidacloprid	0.0020	U	ug/L	P355375	MS
		Diuron	0.0020	U	ug/L	P355375	
		Pyraclostrobin**	0.0020	U	ug/L	P355375	
		Primidone**	0.0040	U	ug/L	P355375	
		Linuron	0.0040	U	ug/L	P355375	
		Acetaminophen**	0.0080	U	ug/L	P355375	
		Fenuron	0.016	U	ug/L	P355375	
		Imazapyr**	0.0047	I	ug/L	P355375	
		Carbamazepine**	8.0E-04	U	ug/L	P355375	
		Fluridone**	0.0072		ug/L	P355375	
		Hydrocodone**	8.0E-04	U	ug/L	P355375	
		Naproxen**	0.0080	U	ug/L	P355375	MS, RPD
		Ibuprofen**	0.020	U	ug/L	P355375	
		Glyphosate**	0.10	U	ug/L	P355526	
		AMPA**	0.10	U	ug/L	P355526	
		Endothall**	0.25	U	ug/L	P355526	
		Glufosinate**	0.10	U	ug/L	P355526	
		Acesulfame K**	0.10	U	ug/L	P355526	
	EPA 200.7 Rev. 4.4	Barium	40.2		ug/L	P355673	
		Calcium	111		mg/L	P355673	
		Iron	950		ug/L	P355673	
		Magnesium	5.11		mg/L	P355673	
		Potassium	0.84	I	mg/L	P355673	
		Sodium	25.3		mg/L	P355673	

Field ID: G3SD0095

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2045749	EPA 200.7 Rev. 4.4	Zinc	5.0	U	ug/L	P355673	
		Aluminum	90		ug/L	P355673	
	EPA 200.8 Rev. 5.4	Antimony	0.063	I	ug/L	P355673	
		Arsenic	1.09		ug/L	P355673	
		Boron**	46.3		ug/L	P355673	
		Cadmium	0.020	U	ug/L	P355673	
		Chromium	0.40	U	ug/L	P355673	
		Copper	0.20	U	ug/L	P355673	
		Lead	0.060	I	ug/L	P355673	
		Nickel	0.29	I	ug/L	P355673	
		Selenium	0.20	I	ug/L	P355673	
		Silver	0.010	U	ug/L	P355673	
		Thallium	0.10	U	ug/L	P355673	
2045832	EPA 8270D	Alachlor	0.25	U	ng/L	P355765	
		Ametryn	0.33	UJ	ng/L	P355765	LCS
		Atrazine	0.90	I	ng/L	P355765	
		Atrazine Desethyl	1.5	U	ng/L	P355765	MS
		Azinphos Methyl	2.3	U	ng/L	P355765	
		Bromacil	0.51	U	ng/L	P355765	
		Butylate	0.41	U	ng/L	P355765	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P355765	
		Chlorpyrifos Methyl	0.10	U	ng/L	P355765	
		Demeton	2.0	UJ	ng/L	P355765	CCV
		Diazinon	0.13	U	ng/L	P355765	
		Disulfoton	0.51	U	ng/L	P355765	
		EPTC	1.3	U	ng/L	P355765	
		Ethion	0.15	U	ng/L	P355765	MS
		Ethoprop	0.10	U	ng/L	P355765	
		Fenamiphos	0.25	U	ng/L	P355765	
		Fipronil	0.25	U	ng/L	P355765	
		Fipronil Sulfide	0.15	U	ng/L	P355765	
		Fipronil Sulfone	0.15	U	ng/L	P355765	
		Hexazinone	9.8	J	ng/L	P355765	
		Malathion	0.35	U	ng/L	P355765	
		Metribuzin	0.20	UJ	ng/L	P355765	LCS, MS
		Mevinphos	0.51	U	ng/L	P355765	
		Molinate	0.30	U	ng/L	P355765	
		Norflurazon	1.8	I	ng/L	P355765	
		Pendimethalin	1.0	U	ng/L	P355765	
		Phorate	0.25	U	ng/L	P355765	
		Prometon	0.91	U	ng/L	P355765	
		Prometryn	0.20	U	ng/L	P355765	
		Simazine	0.51	U	ng/L	P355765	
		Terbufos	0.10	U	ng/L	P355765	
		Terbutylazine	0.43	U	ng/L	P355765	

Field ID: G3SD0095

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2045832	EPA 8270D	Fonofos	0.20	U	ng/L	P355765	
		Metalaxyl	0.25	U	ng/L	P355765	
		Metolachlor	0.25	U	ng/L	P355765	
		Acetochlor	0.25	U	ng/L	P355765	
		Cyanazine	0.51	U	ng/L	P355765	
		Parathion Ethyl	0.25	U	ng/L	P355765	
		Parathion Methyl	0.25	U	ng/L	P355765	
		Dimethenamid**	0.10	U	ng/L	P355765	
		Fipronil Desulfinyl**	0.13	UJ	ng/L	P355765	
		Dithiopyr**	0.10	U	ng/L	P355765	
		Prodiamine**	0.18	U	ng/L	P355765	
		Oxadiazon**	0.10	U	ng/L	P355765	
		Tebuconazole**	0.51	U	ng/L	P355765	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 potassium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

EPA 8270D: Estimated value for Fipronil Desulfinyl due to lack of the second source standard. Estimation for Hexazinone due to internal standard recovery outside control limits. MS accuracies for Atrazine, Simazine, Ametryn, Fipronil, Fipronil Sulfide, Fipronil Sulfone not assessed due to high content of these parameters in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Sample Location: Hawthorne Creek @ Reynolds St

Collection Date/Time: 12/03/2018 11:05

Field ID: G3SD0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2045645	EPA 180.1 Rev. 2.0	Turbidity	3.4		NTU	P355569	
	EPA 300.0 Rev. 2.1	Chloride	130		mg Cl/L	P355799	
		Sulfate	120		mg SO4/L	P355801	
	SM 2120 B	Color (true)	64		PCU	P355541	
	SM 2320 B-97	Total Alkalinity	132		mg CaCO3/L	P355716	
	SM 2540 C-97	TDS	554	A	mg/L	P355997	
	SM 2540 D-97	TSS	3	IA	mg/L	P356009	
	SM 4500 F-C-97	Fluoride	0.37		mg F/L	P355719	
2045647	EPA 350.1 Rev. 2.0	Ammonia-N	0.033		mg N/L	P355767	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.91		mg N/L	P355702	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.62		mg N/L	P355661	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P355743	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P355794	
2045649	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.13		mg P/L	P355553	
2045740	EPA 8321B	2,4-D	0.0074	I	ug/L	P355375	
		Sucralose**	0.068		ug/L	P355526	
		Bentazon	0.0014	I	ug/L	P355375	
		MCP	0.0020	U	ug/L	P355375	
		Triclopyr**	0.0040	U	ug/L	P355375	
		Imidacloprid	0.77		ug/L	P355375	MS
		Diuron	0.027		ug/L	P355375	
		Pyraclostrobin**	0.0020	U	ug/L	P355375	
		Primidone**	0.0040	U	ug/L	P355375	
		Linuron	0.0040	U	ug/L	P355375	
		Acetaminophen**	0.0080	U	ug/L	P355375	
		Fenuron	0.092		ug/L	P355375	
		Imazapyr**	0.0040	U	ug/L	P355375	
		Carbamazepine**	0.0011	I	ug/L	P355375	
		Fluridone**	4.0E-04	U	ug/L	P355375	
		Hydrocodone**	8.0E-04	U	ug/L	P355375	
		Naproxen**	0.0080	U	ug/L	P355375	MS, RPD
		Ibuprofen**	0.020	U	ug/L	P355375	
		Glyphosate**	1.3		ug/L	P355526	
		AMPA**	1.5		ug/L	P355526	
		Endothall**	0.25	U	ug/L	P355526	
		Glufosinate**	0.10	U	ug/L	P355526	
		Acesulfame K**	0.10	U	ug/L	P355526	
2045750	EPA 200.7 Rev. 4.4	Barium	35.3		ug/L	P355673	
		Calcium	92.6		mg/L	P355673	
		Iron	310		ug/L	P355673	
		Magnesium	20.3		mg/L	P355673	
		Potassium	10.1		mg/L	P355673	
		Sodium	55.9		mg/L	P355673	

Field ID: G3SD0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2045750	EPA 200.7 Rev. 4.4	Zinc	5.0	U	ug/L	P355673	
		Aluminum	81		ug/L	P355673	
	EPA 200.8 Rev. 5.4	Antimony	0.83		ug/L	P355673	
		Arsenic	1.59		ug/L	P355673	
		Boron**	73.8		ug/L	P355673	
		Cadmium	0.020	I	ug/L	P355673	
		Chromium	0.67	I	ug/L	P355673	
		Copper	1.66		ug/L	P355673	
		Lead	0.088	I	ug/L	P355673	
		Nickel	1.89		ug/L	P355673	
		Selenium	0.23	I	ug/L	P355673	
		Silver	0.010	U	ug/L	P355673	
		Thallium	0.10	U	ug/L	P355673	
2045833	EPA 8270D	Alachlor	0.24	U	ng/L	P355765	
		Ametryn	1.6	J	ng/L	P355765	LCS
		Atrazine	2.2		ng/L	P355765	
		Atrazine Desethyl	1.4	U	ng/L	P355765	MS
		Azinphos Methyl	2.2	U	ng/L	P355765	
		Bromacil	1.6E+03		ng/L	P355765	
		Butylate	0.38	U	ng/L	P355765	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P355765	
		Chlorpyrifos Methyl	0.096	U	ng/L	P355765	
		Demeton	1.9	UJ	ng/L	P355765	CCV
		Diazinon	0.12	U	ng/L	P355765	
		Disulfoton	0.48	U	ng/L	P355765	
		EPTC	1.2	U	ng/L	P355765	
		Ethion	0.14	U	ng/L	P355765	MS
		Ethoprop	0.096	U	ng/L	P355765	
		Fenamiphos	0.24	U	ng/L	P355765	
		Fipronil	0.24	U	ng/L	P355765	
		Fipronil Sulfide	0.14	U	ng/L	P355765	
		Fipronil Sulfone	0.14	U	ng/L	P355765	
		Hexazinone	0.48	U	ng/L	P355765	
		Malathion	0.34	U	ng/L	P355765	
		Metribuzin	0.57	IJ	ng/L	P355765	LCS, MS
		Mevinphos	0.48	U	ng/L	P355765	
		Molinate	0.29	U	ng/L	P355765	
		Norflurazon	1.4E+03		ng/L	P355765	
		Pendimethalin	0.96	U	ng/L	P355765	
		Phorate	0.24	U	ng/L	P355765	
		Prometon	0.86	U	ng/L	P355765	
		Prometryn	0.19	U	ng/L	P355765	
		Simazine	0.48	U	ng/L	P355765	
		Terbufos	0.096	U	ng/L	P355765	
		Terbutylazine	0.41	U	ng/L	P355765	

Field ID: G3SD0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2045833	EPA 8270D	Fonofos	0.19	U	ng/L	P355765	
		Metalaxyl	190		ng/L	P355765	
		Metolachlor	9.1		ng/L	P355765	
		Acetochlor	0.24	U	ng/L	P355765	
		Cyanazine	0.48	U	ng/L	P355765	
		Parathion Ethyl	0.24	U	ng/L	P355765	
		Parathion Methyl	0.24	U	ng/L	P355765	
		Dimethenamid**	0.096	U	ng/L	P355765	
		Fipronil Desulfinyl**	0.12	UJ	ng/L	P355765	
		Dithiopyr**	0.096	U	ng/L	P355765	
		Prodiamine**	0.17	U	ng/L	P355765	
		Oxadiazon**	0.096	U	ng/L	P355765	
		Tebuconazole**	0.48	U	ng/L	P355765	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 potassium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

EPA 8270D: Estimated value for Fipronil Desulfinyl due to lack of the second source standard. MS accuracies for Atrazine, Simazine, Ametryn, Fipronil, Fipronil Sulfide, Fipronil Sulfone not assessed due to high content of these parameters in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P355569

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P355673

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: P355673

Component	Result	Code	Units
Aluminum	3.0	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	0.20	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	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: P355799

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355801

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P355767

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P355702

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P355661

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P355743

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P355553

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

Reference Method: EPA 8270D
 Batch ID: P355765

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.32	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.2	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	0.50	U	ng/L
Demeton	2.0	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
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.25	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
Metalaxyl	0.25	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P355765

Component	Result	Code	Units
Metolachlor	0.25	U	ng/L
Metribuzin	0.20	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	0.25	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 8321B
Batch ID: P355375

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	4.0E-04	U	ug/L
Hydrocodone	8.0E-04	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
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P355526

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2120 B
Batch ID: P355541

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P355716

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

Reference Method: SM 2540 C-97
Batch ID: P355997

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P356009

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P355719

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P355794

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: P355673

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	104		P	80 - 120
Calcium	105		P	80 - 120
Iron	102		P	80 - 120
Magnesium	107		P	80 - 120
Potassium	98.9		P	80 - 120
Sodium	95.1		P	85 - 115
Zinc	104		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P355673

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	102		P	85 - 115
Antimony	105		P	85 - 115
Arsenic	102		P	85 - 115
Boron	100		P	85 - 115
Cadmium	107		P	85 - 115
Chromium	99.5		P	85 - 115
Copper	96.3		P	85 - 115
Lead	105		P	85 - 115
Nickel	97.2		P	85 - 115
Selenium	105		P	85 - 115
Silver	102		P	85 - 115
Thallium	98.2		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355799

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355801

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P355767

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P355702

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P355661

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P355743

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P355553

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	96.9		P	90 - 110

Reference Method: EPA 8270D
 Batch ID: P355765

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	95.3	97.3	P/P	74 - 119
Alachlor	95.2	100	P/P	75 - 118
Ametryn	124	142	P/F	59 - 137
Atrazine	104	108	P/P	73 - 120
Atrazine Desethyl	84.6	90.8	P/P	19 - 129
Azinphos Methyl	95.2	103	P/P	65 - 181
Bromacil	86.6	91.2	P/P	43 - 123
Butylate	71.5	66.3	P/P	28 - 85.0
Chlorpyrifos Ethyl	102	101	P/P	55 - 112
Chlorpyrifos Methyl	99.2	97.1	P/P	35 - 124
Cyanazine	202	260	P/P	26 - 262
Demeton	89.3	90.2	P/P	43 - 122
Diazinon	93.0	98.6	P/P	72 - 120
Dimethenamid	93.5	95.8	P/P	60 - 130
Disulfoton	97.7	94.9	P/P	45 - 137
Dithiopyr	98.4	101	P/P	60 - 130
EPTC	65.8	64.5	P/P	28 - 95.0
Ethion	88.6	70.9	P/P	63 - 127
Ethoprop	87.4	88.5	P/P	63 - 109
Fenamiphos	78.8	86.9	P/P	66 - 136
Fipronil	68.0	79.9	P/P	63 - 126
Fipronil Desulfinyl	66.8	69.6	P/P	60 - 130
Fipronil Sulfide	70.2	91.0	P/P	59 - 123
Fipronil Sulfone	65.3	75.9	P/P	56 - 122
Fonofos	90.2	87.7	P/P	64 - 114
Hexazinone	101	92.2	P/P	49 - 144
Malathion	97.1	93.4	P/P	68 - 131
Metalaxyl	90.6	91.7	P/P	57 - 126
Metolachlor	95.8	99.9	P/P	75 - 118
Metribuzin	199	223	F/F	46 - 169
Mevinphos	82.5	73.4	P/P	34 - 126
Molinate	76.0	76.9	P/P	37 - 101
Norflurazon	70.8	79.9	P/P	63 - 127
Oxadiazon	96.8	95.4	P/P	60 - 130

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P355765

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Parathion Ethyl	88.7	86.3	P/P	78 - 109
Parathion Methyl	97.9	100	P/P	74 - 123
Pendimethalin	93.3	93.0	P/P	51 - 130
Phorate	96.4	94.9	P/P	53 - 116
Prodiamine	92.8	90.0	P/P	60 - 130
Prometon	87.3	74.2	P/P	66 - 124
Prometryn	87.7	88.1	P/P	66 - 124
Simazine	98.9	104	P/P	62 - 134
Tebuconazole	64.4	63.6	P/P	30 - 100
Terbufos	99.2	96.3	P/P	59 - 115
Terbuthylazine	91.1	101	P/P	76 - 113

Reference Method: EPA 8321B
Batch ID: P355375

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	60.3		P	40 - 150
Acetaminophen	71.3		P	30 - 150
Bentazon	31.6		P	30 - 150
Carbamazepine	82.4		P	40 - 150
Diuron	67.0		P	40 - 150
Fenuron	99.4		P	40 - 150
Fluridone	96.9		P	40 - 150
Hydrocodone	96.2		P	40 - 150
Ibuprofen	59.7		P	40 - 150
Imazapyr	76.3		P	40 - 150
Imidacloprid	90.9		P	40 - 160
Linuron	70.9		P	40 - 150
MCPP	81.7		P	40 - 150
Naproxen	52.5		P	40 - 150
Primidone	70.9		P	40 - 150
Pyraclostrobin	60.9		P	40 - 150
Triclopyr	49.6		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P355526

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	139		P	40 - 150
AMPA	105		P	40 - 150
Endothall	122		P	40 - 150
Glufosinate	75.6		P	40 - 150
Glyphosate	72.6		P	40 - 140
Sucralose	148		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P355541

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	105		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P355716

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P355719

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.8		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P355794

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P355673

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2045970	Barium	97.7		P	80 - 120
2045970	Calcium	104		P	80 - 120
2045970	Iron	101		P	80 - 120
2045970	Magnesium	108		P	80 - 120
2045970	Potassium	99.5		P	80 - 120
2045970	Sodium	98.1		P	80 - 120
2045970	Zinc	100		P	80 - 120
2046513	Barium	102	103	P/P	80 - 120
2046513	Calcium	101		P	80 - 120
2046513	Iron	102		P	80 - 120
2046513	Magnesium	105	103	P/P	80 - 120
2046513	Sodium	95.8		P	80 - 120
2046513	Zinc	105	106	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P355673

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2045970	Aluminum	99.8		P	80 - 120
2045970	Antimony	109		P	80 - 120
2045970	Arsenic	104		P	80 - 120
2045970	Boron	101		P	80 - 120
2045970	Cadmium	108		P	80 - 120
2045970	Chromium	100		P	80 - 120
2045970	Copper	94.8		P	80 - 120
2045970	Lead	109		P	80 - 120
2045970	Nickel	95.1		P	80 - 120
2045970	Selenium	103		P	80 - 120
2045970	Silver	104		P	80 - 120
2045970	Thallium	105		P	80 - 120
2046513	Aluminum	100	98.8	P/P	80 - 120
2046513	Antimony	104	103	P/P	80 - 120
2046513	Arsenic	102	101	P/P	80 - 120
2046513	Boron	99.7	100	P/P	80 - 120
2046513	Cadmium	111	111	P/P	80 - 120
2046513	Chromium	102	102	P/P	80 - 120
2046513	Copper	92.9	91.9	P/P	80 - 120
2046513	Lead	108	108	P/P	80 - 120
2046513	Nickel	91.8	92.3	P/P	80 - 120
2046513	Selenium	102	98.9	P/P	80 - 120
2046513	Silver	105	104	P/P	80 - 120
2046513	Thallium	101	100	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355799

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2045840	Chloride	99.6		P	90 - 110
2045843	Chloride	97.9		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355801

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2045840	Sulfate	97.9		P	90 - 110
2045843	Sulfate	99.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P355767

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2045913	Ammonia-N	99.4	98.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P355702

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2045646	Kjeldahl Nitrogen	101	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P355661

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2045646	NO2NO3-N	100		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P355743

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2045646	Total-P	100	98.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P355553

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2045842	O-Phosphate-P	93.0	94.3	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P355765

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2046828	Acetochlor	104	108	P/P	67 - 125
2046828	Alachlor	110	105	P/P	69 - 123
2046828	Atrazine Desethyl	150	131	F/F	10 - 129
2046828	Azinphos Methyl	116	109	P/P	48 - 200
2046828	Bromacil	99.0	87.8	P/P	46 - 130
2046828	Butylate	71.2	81.7	P/P	10 - 85.0
2046828	Chlorpyrifos Ethyl	100	108	P/P	54 - 115
2046828	Chlorpyrifos Methyl	93.4	97.8	P/P	44 - 117
2046828	Cyanazine	253	259	P/P	10 - 262
2046828	Demeton	95.5	98.8	P/P	24 - 145
2046828	Diazinon	107	112	P/P	66 - 129
2046828	Dimethenamid	92.1	103	P/P	60 - 130
2046828	Disulfoton	98.0	105	P/P	45 - 139
2046828	Dithiopyr	98.2	101	P/P	60 - 130
2046828	EPTC	68.7	72.8	P/P	10 - 86.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
 Batch ID: P355765

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2046828	Ethion	40.3	53.1	F/F	59 - 133
2046828	Ethoprop	87.0	88.3	P/P	54 - 116
2046828	Fenamiphos	105	81.4	P/P	55 - 140
2046828	Fipronil Desulfinyl	70.5	61.5	P/P	60 - 130
2046828	Fonofos	88.6	88.0	P/P	55 - 118
2046828	Hexazinone	86.9	94.1	P/P	62 - 140
2046828	Malathion	86.7	91.5	P/P	64 - 132
2046828	Metalaxyl	93.3	93.3	P/P	55 - 129
2046828	Metolachlor	108	112	P/P	56 - 137
2046828	Metribuzin	232	229	F/F	16 - 218
2046828	Mevinphos	84.8	85.7	P/P	34 - 129
2046828	Molinate	88.7	90.6	P/P	16 - 99.0
2046828	Norflurazon	89.3	82.2	P/P	43 - 135
2046828	Oxadiazon	89.0	87.4	P/P	60 - 130
2046828	Parathion Ethyl	87.4	92.1	P/P	71 - 112
2046828	Parathion Methyl	98.8	101	P/P	65 - 127
2046828	Pendimethalin	101	109	P/P	35 - 159
2046828	Phorate	96.6	92.4	P/P	41 - 129
2046828	Prodiamine	114	107	P/P	60 - 130
2046828	Prometon	104	98.4	P/P	56 - 140
2046828	Prometryn	82.7	81.2	P/P	65 - 130
2046828	Tebuconazole	23.3	38.3	F/P	30 - 100
2046828	Terbufos	99.8	102	P/P	53 - 126
2046828	Terbutylazine	91.7	95.7	P/P	73 - 114

Reference Method: EPA 8321B
 Batch ID: P355375

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2044604	2,4-D	85.9	94.2	P/P	40 - 150
2044604	Acetaminophen	83.5	85.3	P/P	30 - 150
2044604	Bentazon	34.5	39.4	P/P	30 - 150
2044604	Carbamazepine	77.3	82.2	P/P	40 - 150
2044604	Diuron	59.1	64.3	P/P	40 - 150
2044604	Fenuron	87.4	89.5	P/P	40 - 150
2044604	Fluridone	97.0	104	P/P	40 - 150
2044604	Hydrocodone	113	117	P/P	40 - 150
2044604	Ibuprofen	60.7	67.9	P/P	40 - 150
2044604	Imazapyr	113	98.3	P/P	40 - 150
2044604	Imidacloprid	177	180	F/F	40 - 160
2044604	Linuron	65.1	65.6	P/P	40 - 150
2044604	MCP	107	115	P/P	40 - 150
2044604	Naproxen	34.7	58.8	F/P	40 - 150
2044604	Primidone	85.8	87.1	P/P	40 - 150
2044604	Pyraclostrobin	60.6	60.2	P/P	40 - 150
2044604	Triclopyr	63.6	64.5	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P355526

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2045739	Acesulfame K	136	139	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P355526

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2045739	AMPA	72.6	71.6	P/P	40 - 150
2045739	Endothall	116	129	P/P	40 - 150
2045739	Glufosinate	47.3	43.4	P/P	40 - 150
2045739	Glyphosate	58.4	54.1	P/P	40 - 140
2045739	Sucralose	138	139	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P355719

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2045910	Fluoride	99.2	99.8	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P355794

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2045586	Organic Carbon	98.5	97.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P355569

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2045644	Turbidity	4.57	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P355673

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2046513	Barium	0.660	Spike	P	0 - 20
2046513	Calcium	0.807	Spike	P	0 - 20
2046513	Iron	1.02	Spike	P	0 - 20
2046513	Magnesium	0.699	Spike	P	0 - 20
2046513	Potassium	1.03	Spike	P	0 - 20
2046513	Sodium	0.107	Spike	P	0 - 20
2046513	Zinc	0.811	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P355673

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2046513	Aluminum	1.41	Spike	P	0 - 20
2046513	Antimony	1.08	Spike	P	0 - 20
2046513	Arsenic	1.01	Spike	P	0 - 20
2046513	Boron	0.200	Spike	P	0 - 20
2046513	Cadmium	0.0610	Spike	P	0 - 20
2046513	Chromium	0.677	Spike	P	0 - 20
2046513	Copper	1.02	Spike	P	0 - 20
2046513	Lead	0.632	Spike	P	0 - 20
2046513	Nickel	0.523	Spike	P	0 - 20
2046513	Selenium	3.14	Spike	P	0 - 20
2046513	Silver	1.15	Spike	P	0 - 20
2046513	Thallium	0.744	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355799

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2045840	Chloride	1.29	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355801

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2045840	Sulfate	1.29	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P355767

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2045913	Ammonia-N	0.468	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P355702

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2045646	Kjeldahl Nitrogen	1.79	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P355661

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2045646	NO2NO3-N	0.651	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P355743

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2045646	Total-P	1.32	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P355553

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2045842	O-Phosphate-P	1.03	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P355765

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2046828	Acetochlor	3.62	Spike	P	0 - 30
2046828	Alachlor	5.52	Spike	P	0 - 30
2046828	Ametryn	10.8	Spike	P	0 - 30
2046828	Atrazine	4.43	Spike	P	0 - 30
2046828	Atrazine Desethyl	13.7	Spike	P	0 - 30
2046828	Azinphos Methyl	6.14	Spike	P	0 - 30
2046828	Bromacil	9.41	Spike	P	0 - 30
2046828	Butylate	13.7	Spike	P	0 - 30
2046828	Chlorpyrifos Ethyl	7.35	Spike	P	0 - 30
2046828	Chlorpyrifos Methyl	4.64	Spike	P	0 - 30
2046828	Cyanazine	2.71	Spike	P	0 - 30
2046828	Demeton	3.39	Spike	P	0 - 30
2046828	Diazinon	4.48	Spike	P	0 - 30
2046828	Dimethenamid	11.3	Spike	P	0 - 30
2046828	Disulfoton	6.75	Spike	P	0 - 30
2046828	Dithiopyr	2.36	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P355765

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2046828	EPTC	5.82	Spike	P	0 - 30
2046828	Ethion	27.5	Spike	P	0 - 30
2046828	Ethoprop	1.34	Spike	P	0 - 30
2046828	Fenamiphos	25.0	Spike	P	0 - 30
2046828	Fipronil	12.6	Spike	P	0 - 30
2046828	Fipronil Desulfinyl	9.88	Spike	P	0 - 30
2046828	Fipronil Sulfide	13.7	Spike	P	0 - 30
2046828	Fipronil Sulfone	19.9	Spike	P	0 - 30
2046828	Fonofos	0.697	Spike	P	0 - 30
2046828	Hexazinone	7.89	Spike	P	0 - 30
2046828	Malathion	5.31	Spike	P	0 - 30
2046828	Metaxyl	0.0563	Spike	P	0 - 30
2046828	Metolachlor	3.85	Spike	P	0 - 30
2046828	Metribuzin	1.29	Spike	P	0 - 30
2046828	Mevinphos	1.13	Spike	P	0 - 30
2046828	Molinate	2.15	Spike	P	0 - 30
2046828	Norflurazon	8.32	Spike	P	0 - 30
2046828	Oxadiazon	1.68	Spike	P	0 - 30
2046828	Parathion Ethyl	5.16	Spike	P	0 - 30
2046828	Parathion Methyl	2.49	Spike	P	0 - 30
2046828	Pendimethalin	8.37	Spike	P	0 - 30
2046828	Phorate	4.44	Spike	P	0 - 30
2046828	Prodiamine	4.18	Spike	P	0 - 30
2046828	Prometon	5.76	Spike	P	0 - 30
2046828	Prometryn	1.72	Spike	P	0 - 30
2046828	Simazine	1.42	Spike	P	0 - 30
2046828	Tebuconazole	19.5	Spike	P	0 - 30
2046828	Terbufos	2.16	Spike	P	0 - 30
2046828	Terbutylazine	4.24	Spike	P	0 - 30
LFB	Acetochlor	2.06	LCS	P	0 - 30
LFB	Alachlor	4.95	LCS	P	0 - 30
LFB	Ametryn	13.7	LCS	P	0 - 30
LFB	Atrazine	4.19	LCS	P	0 - 30
LFB	Atrazine Desethyl	7.05	LCS	P	0 - 30
LFB	Azinphos Methyl	7.68	LCS	P	0 - 30
LFB	Bromacil	5.19	LCS	P	0 - 30
LFB	Butylate	7.56	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	1.34	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	2.10	LCS	P	0 - 30
LFB	Cyanazine	24.9	LCS	P	0 - 30
LFB	Demeton	1.06	LCS	P	0 - 30
LFB	Diazinon	5.80	LCS	P	0 - 30
LFB	Dimethenamid	2.44	LCS	P	0 - 30
LFB	Disulfoton	2.83	LCS	P	0 - 30
LFB	Dithiopyr	2.85	LCS	P	0 - 30
LFB	EPTC	2.03	LCS	P	0 - 30
LFB	Ethion	22.2	LCS	P	0 - 30
LFB	Ethoprop	1.21	LCS	P	0 - 30
LFB	Fenamiphos	9.73	LCS	P	0 - 30
LFB	Fipronil	16.1	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	4.24	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P355765

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fipronil Sulfide	25.8	LCS	P	0 - 30
LFB	Fipronil Sulfone	15.1	LCS	P	0 - 30
LFB	Fonofos	2.85	LCS	P	0 - 30
LFB	Hexazinone	8.72	LCS	P	0 - 30
LFB	Malathion	3.95	LCS	P	0 - 30
LFB	Metalaxyl	1.20	LCS	P	0 - 30
LFB	Metolachlor	4.19	LCS	P	0 - 30
LFB	Metribuzin	11.3	LCS	P	0 - 30
LFB	Mevinphos	11.7	LCS	P	0 - 30
LFB	Molinate	1.07	LCS	P	0 - 30
LFB	Norflurazon	12.1	LCS	P	0 - 30
LFB	Oxadiazon	1.54	LCS	P	0 - 30
LFB	Parathion Ethyl	2.81	LCS	P	0 - 30
LFB	Parathion Methyl	2.50	LCS	P	0 - 30
LFB	Pendimethalin	0.335	LCS	P	0 - 30
LFB	Phorate	1.64	LCS	P	0 - 30
LFB	Prodiamine	3.12	LCS	P	0 - 30
LFB	Prometon	16.2	LCS	P	0 - 30
LFB	Prometryn	0.457	LCS	P	0 - 30
LFB	Simazine	5.26	LCS	P	0 - 30
LFB	Tebuconazole	1.24	LCS	P	0 - 30
LFB	Terbufos	2.91	LCS	P	0 - 30
LFB	Terbuthylazine	9.87	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P355375

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2044604	2,4-D	8.84	Spike	P	0 - 30
2044604	Acetaminophen	1.13	Spike	P	0 - 30
2044604	Bentazon	12.0	Spike	P	0 - 30
2044604	Carbamazepine	6.13	Spike	P	0 - 30
2044604	Diuron	6.61	Spike	P	0 - 30
2044604	Fenuron	2.34	Spike	P	0 - 30
2044604	Fluridone	6.65	Spike	P	0 - 30
2044604	Hydrocodone	3.32	Spike	P	0 - 30
2044604	Ibuprofen	11.2	Spike	P	0 - 30
2044604	Imazapyr	7.20	Spike	P	0 - 30
2044604	Imidacloprid	1.85	Spike	P	0 - 30
2044604	Linuron	0.692	Spike	P	0 - 30
2044604	MCPP	6.79	Spike	P	0 - 30
2044604	Naproxen	39.6	Spike	F	0 - 30
2044604	Primidone	1.54	Spike	P	0 - 30
2044604	Pyraclostrobin	0.548	Spike	P	0 - 30
2044604	Triclopyr	1.39	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
 Batch ID: P355526

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2045739	Acesulfame K	1.95	Spike	P	0 - 30
2045739	AMPA	1.39	Spike	P	0 - 30
2045739	Endothall	10.8	Spike	P	0 - 30
2045739	Glufosinate	8.72	Spike	P	0 - 30
2045739	Glyphosate	7.57	Spike	P	0 - 30
2045739	Sucralose	1.17	Spike	P	0 - 30

Reference Method: SM 2120 B
 Batch ID: P355541

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2045840	Color (true)	2.26	Sample	P	0 - 20

Reference Method: SM 2320 B-97
 Batch ID: P355716

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2045910	Total Alkalinity	0.529	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
 Batch ID: P355997

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2045645	TDS	4.69	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P355719

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2045910	Fluoride	0.463	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
 Batch ID: P355794

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2045586	Organic Carbon	0.655	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
 Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Lab Sample ID: 2045739
Field Sample ID: G3SD0095

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	71.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	99.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	73.4	P	30 - 160
EPA 8321B	Diuron-d6	67.4	P	30 - 160
EPA 8321B	Endothall-d6	154	P	40 - 160
EPA 8321B	Endothall-d6	154	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	51.1	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	51.1	P	40 - 160
EPA 8321B	Ibuprofen-d3	94.6	P	30 - 160
EPA 8321B	Primidone-d5	70.4	P	30 - 160
EPA 8321B	Sucralose-d6	146	P	40 - 160
EPA 8321B	Sucralose-d6	146	P	40 - 160

Lab Sample ID: 2045740
Field Sample ID: G3SD0011

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	77.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	81.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	60.5	P	30 - 160
EPA 8321B	Diuron-d6	69.2	P	30 - 160
EPA 8321B	Endothall-d6	119	P	40 - 160
EPA 8321B	Endothall-d6	119	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	52.8	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	52.8	P	40 - 160
EPA 8321B	Ibuprofen-d3	81.1	P	30 - 160
EPA 8321B	Primidone-d5	74.4	P	30 - 160
EPA 8321B	Sucralose-d6	86.2	P	40 - 160
EPA 8321B	Sucralose-d6	86.2	P	40 - 160

Lab Sample ID: 2045832
Field Sample ID: G3SD0095

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	85.7	P	71 - 126
EPA 8270D	Terbufos-d10	100	P	59 - 149

Lab Sample ID: 2045833
Field Sample ID: G3SD0011

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	91.8	P	71 - 126
EPA 8270D	Terbufos-d10	101	P	59 - 149

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A88127

Included Lab Sample IDs: 2045644, 2045645

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	104	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A88131

Included Lab Sample IDs: 2045648, 2045649

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.5	99.8	P/P	90 - 110
O-Phosphate-P	99.8	99.1	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A88139

Included Lab Sample IDs: 2045644, 2045645

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A88169

Included Lab Sample IDs: 2045646, 2045647

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A88194

Included Lab Sample IDs: 2045644, 2045645

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.6	101	P/P	90 - 110
Sulfate	98.8	102	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A88198

Included Lab Sample IDs: 2045739, 2045740

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	94.7	98.1	P/P	60 - 160
Glufosinate	66.9	67.8	P/P	60 - 160
Glyphosate	95.4	67.6	P/P	60 - 160

Reference Method: SM 2320 B-97

Run ID: A88201

Included Lab Sample IDs: 2045644, 2045645

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.8	100	P/P	90 - 110
Total Alkalinity	99.8	98.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97

Run ID: A88201

Included Lab Sample IDs: 2045644, 2045645

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A88216

Included Lab Sample IDs: 2045646, 2045647

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

Reference Method: SM 5310 B-00

Run ID: A88225

Included Lab Sample IDs: 2045646, 2045647

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.4	98.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A88230

Included Lab Sample IDs: 2045647

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

Reference Method: EPA 8321B

Run ID: A88237

Included Lab Sample IDs: 2045739, 2045740

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	109	80.0	P/P	60 - 150
Acesulfame K	84.6		P	60 - 150
Endothall	62.1		P	60 - 150
Endothall	95.7	85.3	P/P	60 - 150

Reference Method: EPA 8321B

Run ID: A88245

Included Lab Sample IDs: 2045739, 2045740

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	85.0	83.4	P/P	50 - 150
Acetaminophen	76.4	82.9	P/P	60 - 160
Bentazon	104	108	P/P	50 - 160
Carbamazepine	109	114	P/P	60 - 160
Diuron	107	104	P/P	60 - 150
Fenuron	93.9	92.1	P/P	60 - 150
Fluridone	106	104	P/P	60 - 160
Hydrocodone	93.2	90.7	P/P	60 - 150
Ibuprofen	79.0	74.1	P/P	50 - 160
Imazapyr	71.1	84.4	P/P	50 - 150
Imidacloprid	87.4	90.1	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A88245

Included Lab Sample IDs: 2045739, 2045740

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Linuron	92.0	107	P/P	60 - 150
MCP	92.4	95.6	P/P	50 - 150
Naproxen	126	106	P/P	50 - 160
Primidone	84.3	95.6	P/P	60 - 160
Pyraclostrobin	104	97.5	P/P	60 - 150
Triclopyr	86.3	106	P/P	50 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A88252

Included Lab Sample IDs: 2045646

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A88265

Included Lab Sample IDs: 2045749, 2045750

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sodium	94.8	95.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A88281

Included Lab Sample IDs: 2045749, 2045750

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	100	98.9	P/P	90 - 110
Calcium	103	97.5	P/P	90 - 110
Iron	102	96.2	P/P	90 - 110
Magnesium	102	97.0	P/P	90 - 110
Potassium	99.6	94.4	P/P	90 - 110
Zinc	100	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A88320

Included Lab Sample IDs: 2045646, 2045647

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	97.1	P/P	90 - 110
Kjeldahl Nitrogen	97.1	99.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A88326

Included Lab Sample IDs: 2045739, 2045740

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	103	105	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A88401

Included Lab Sample IDs: 2045832, 2045833

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	92.5		P	80 - 120
Alachlor	96.3		P	80 - 120
Ametryn	104		P	80 - 120
Atrazine	97.0		P	80 - 120
Atrazine Desethyl	104		P	80 - 120
Azinphos Methyl	93.0		P	80 - 120
Bromacil	102		P	80 - 120
Butylate	99.5		P	80 - 120
Chlorpyrifos Ethyl	96.1		P	80 - 120
Chlorpyrifos Methyl	98.6		P	80 - 120
Cyanazine	96.9		P	80 - 120
Demeton	61.6*		F	80 - 120
Diazinon	94.8		P	80 - 120
Dimethenamid	95.0		P	80 - 120
Disulfoton	98.3		P	80 - 120
Dithiopyr	94.5		P	80 - 120
EPTC	94.6		P	80 - 120
Ethion	98.3		P	80 - 120
Ethoprop	97.1		P	80 - 120
Fenamiphos	97.5		P	80 - 120
Fipronil	91.7		P	80 - 120
Fipronil Desulfinyl	89.1		P	80 - 120
Fipronil Sulfide	100		P	80 - 120
Fipronil Sulfone	97.1		P	80 - 120
Fonofos	94.2		P	80 - 120
Hexazinone	98.4		P	80 - 120
Malathion	95.3		P	80 - 120
Metalaxyl	97.7		P	80 - 120
Metolachlor	97.3		P	80 - 120
Metribuzin	96.1		P	80 - 120
Mevinphos	97.3		P	80 - 120
Molinate	94.6		P	80 - 120
Norflurazon	92.0		P	80 - 120
Oxadiazon	97.6		P	80 - 120
Parathion Ethyl	95.7		P	80 - 120
Parathion Methyl	95.5		P	80 - 120
Pendimethalin	97.5		P	80 - 120
Phorate	94.2		P	80 - 120
Prodiamine	101		P	80 - 120
Prometon	89.2		P	80 - 120
Prometryn	95.5		P	80 - 120
Simazine	100		P	80 - 120
Tebuconazole	92.5		P	80 - 120
Terbufos	96.3		P	80 - 120
Terbutylazine	93.8		P	80 - 120

Reference Method: EPA 8270D

Run ID: A88404

Included Lab Sample IDs: 2045833

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

Reference Method: EPA 8270D

Run ID: A88404

Included Lab Sample IDs: 2045833

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromacil	96.2		P	80 - 120
Metalaxyl	83.8		P	80 - 120
Norflurazon	92.7		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A88479

Included Lab Sample IDs: 2045749, 2045750

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	103	100	P/P	90 - 110
Antimony	105	108	P/P	90 - 110
Arsenic	98.6	99.0	P/P	90 - 110
Cadmium	102	106	P/P	90 - 110
Chromium	99.2	103	P/P	90 - 110
Copper	96.3	95.6	P/P	90 - 110
Lead	106	109	P/P	90 - 110
Nickel	96.5	95.3	P/P	90 - 110
Selenium	101	103	P/P	90 - 110
Silver	99.5	102	P/P	90 - 110
Thallium	93.8	96.9	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A88617

Included Lab Sample IDs: 2045749, 2045750

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	101	101	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							4.57	
EPA 200.7 Rev. 4.4	Barium	104		97.7	102	103			0.660
	Calcium	105		104	101				0.807
	Iron	102		101	102				1.02
	Magnesium	107		108	105	103			0.699
	Potassium	98.9		99.5					1.03
	Sodium	95.1		98.1	95.8				0.107
	Zinc	104		100	105	106			0.811
EPA 200.8 Rev. 5.4	Aluminum	102		99.8	100	98.8			1.41
	Antimony	105		109	104	103			1.08
	Arsenic	102		104	102	101			1.01
	Boron	100		101	99.7	100			0.200
	Cadmium	107		108	111	111			0.0610
	Chromium	99.5		100	102	102			0.677
	Copper	96.3		94.8	92.9	91.9			1.02
	Lead	105		109	108	108			0.632
	Nickel	97.2		95.1	91.8	92.3			0.523
	Selenium	105		103	102	98.9			3.14
	Silver	102		104	105	104			1.15
	Thallium	98.2		105	101	100			0.744
EPA 300.0 Rev. 2.1	Chloride	99.1		99.6	97.9			1.29	
	Sulfate	98.6		97.9	99.1			1.29	
EPA 350.1 Rev. 2.0	Ammonia-N	101		99.4	98.9				0.468
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105		101	104				1.79
EPA 353.2 Rev. 2.0	NO2NO3-N	100		100					0.651
EPA 365.1 Rev. 2.0	Total-P	106		100	98.6				1.32
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.9		93.0	94.3				1.03
EPA 8270D	Acetochlor	97.3	95.3	104	108		2.06		3.62
	Alachlor	95.2	100	110	105		4.95		5.52
	Ametryn	124	142				13.7		10.8
	Atrazine	108	104				4.19		4.43
	Atrazine Desethyl	90.8	84.6	150	131		7.05		13.7
	Azinphos Methyl	103	95.2	116	109		7.68		6.14
	Bromacil	91.2	86.6	99.0	87.8		5.19		9.41
	Butylate	66.3	71.5	71.2	81.7		7.56		13.7
	Chlorpyrifos Ethyl	101	102	100	108		1.34		7.35
	Chlorpyrifos Methyl	97.1	99.2	93.4	97.8		2.10		4.64
	Cyanazine	260	202	253	259		24.9		2.71
	Demeton	89.3	90.2	95.5	98.8		1.06		3.39
	Diazinon	93.0	98.6	107	112		5.80		4.48
	Dimethenamid	95.8	93.5	92.1	103		2.44		11.3
	Disulfoton	97.7	94.9	98.0	105		2.83		6.75
	Dithiopyr	101	98.4	98.2	101		2.85		2.36
	EPTC	65.8	64.5	68.7	72.8		2.03		5.82
	Ethion	88.6	70.9	40.3	53.1		22.2		27.5
	Ethoprop	87.4	88.5	87.0	88.3		1.21		1.34
	Fenamiphos	78.8	86.9	105	81.4		9.73		25.0
	Fipronil	68.0	79.9				16.1		12.6
	Fipronil Desulfinyl	69.6	66.8	70.5	61.5		4.24		9.88
	Fipronil Sulfide	70.2	91.0				25.8		13.7
	Fipronil Sulfone	65.3	75.9				15.1		19.9
	Fonofos	87.7	90.2	88.6	88.0		2.85		0.697
	Hexazinone	101	92.2	86.9	94.1		8.72		7.89
	Malathion	97.1	93.4	86.7	91.5		3.95		5.31

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision	MS
							SMP	
EPA 8270D	Metalaxyl	91.7	90.6	93.3	93.3	1.20		0.0563
	Metolachlor	99.9	95.8	108	112	4.19		3.85
	Metribuzin	199	223	232	229	11.3		1.29
	Mevinphos	82.5	73.4	84.8	85.7	11.7		1.13
	Molinate	76.0	76.9	88.7	90.6	1.07		2.15
	Norflurazon	70.8	79.9	89.3	82.2	12.1		8.32
	Oxadiazon	95.4	96.8	89.0	87.4	1.54		1.68
	Parathion Ethyl	86.3	88.7	87.4	92.1	2.81		5.16
	Parathion Methyl	100	97.9	98.8	101	2.50		2.49
	Pendimethalin	93.3	93.0	101	109	0.335		8.37
	Phorate	96.4	94.9	96.6	92.4	1.64		4.44
	Prodiamine	90.0	92.8	114	107	3.12		4.18
	Prometon	74.2	87.3	104	98.4	16.2		5.76
	Prometryn	88.1	87.7	82.7	81.2	0.457		1.72
	Simazine	104	98.9			5.26		1.42
	Tebuconazole	63.6	64.4	23.3	38.3	1.24		19.5
	Terbufos	96.3	99.2	99.8	102	2.91		2.16
	Terbuthylazine	101	91.1	91.7	95.7	9.87		4.24
EPA 8321B	2,4-D	60.3		85.9	94.2			8.84
	Acesulfame K	139		136	139			1.95
	Acetaminophen	71.3		83.5	85.3			1.13
	AMPA	105		72.6	71.6			1.39
	Bentazon	31.6		34.5	39.4			12.0
	Carbamazepine	82.4		77.3	82.2			6.13
	Diuron	67.0		59.1	64.3			6.61
	Endothall	122		116	129			10.8
	Fenuron	99.4		87.4	89.5			2.34
	Fluridone	96.9		97.0	104			6.65
	Glufosinate	75.6		47.3	43.4			8.72
	Glyphosate	72.6		58.4	54.1			7.57
	Hydrocodone	96.2		113	117			3.32
	Ibuprofen	59.7		60.7	67.9			11.2
	Imazapyr	76.3		113	98.3			7.20
	Imidacloprid	90.9		177	180			1.85
	Linuron	70.9		65.1	65.6			0.692
	MCPP	81.7		107	115			6.79
	Naproxen	52.5		34.7	58.8			39.6
	Primidone	70.9		85.8	87.1			1.54
	Pyraclostrobin	60.9		60.6	60.2			0.548
SM 2120 B	Sucralose	148		138	139			1.17
	Triclopyr	49.6		63.6	64.5			1.39
SM 2120 B	Color (true)	105					2.26	
SM 2320 B-97	Total Alkalinity	100					0.529	
SM 2540 C-97	TDS						4.69	
SM 4500 F-C-97	Fluoride	99.8		99.2	99.8			0.463
SM 5310 B-00	Organic Carbon	99.8		98.5	97.6			0.655

Reference Method Descriptions

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

Description
Turbidity in aqueous matrices

Associated Samples
2045644, 2045645

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	2045749, 2045750
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2045749, 2045750
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2045644, 2045645
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2045644, 2045645
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2045646, 2045647
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2045646, 2045647
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2045646, 2045647
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2045646, 2045647
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2045648, 2045649
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2045832, 2045833
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2045739, 2045740
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2045739, 2045740
SM 2120 B / E31780	True Color measured at 450 nm	2045644, 2045645
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2045644, 2045645
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2045644, 2045645
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2045644, 2045645
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2045644, 2045645
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2045646, 2045647

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	12/04/2018			12/04/2018 17:10	Megan Treadwell	2045644, 2045645
EPA 200.7 Rev. 4.4	12/04/2018	12/05/2018 18:00	Elliott D. Healy	12/06/2018 18:50	Martin Acosta	2045749
	12/04/2018	12/05/2018 18:00	Elliott D. Healy	12/06/2018 18:58	Martin Acosta	2045750
	12/04/2018	12/05/2018 18:00	Elliott D. Healy	12/10/2018 15:07	Martin Acosta	2045749
	12/04/2018	12/05/2018 18:00	Elliott D. Healy	12/10/2018 15:12	Martin Acosta	2045750
EPA 200.8 Rev. 5.4	12/04/2018	12/05/2018 18:00	Elliott D. Healy	01/02/2019 17:31	Allison Taylor	2045749
	12/04/2018	12/05/2018 18:00	Elliott D. Healy	01/02/2019 17:41	Allison Taylor	2045750
	12/04/2018	12/05/2018 18:00	Elliott D. Healy	12/21/2018 01:30	Allison Taylor	2045749
	12/04/2018	12/05/2018 18:00	Elliott D. Healy	12/21/2018 01:39	Allison Taylor	2045750
EPA 300.0 Rev. 2.1	12/04/2018			12/06/2018 22:04	Lipi Saha	2045644
	12/04/2018			12/06/2018 22:16	Lipi Saha	2045645
EPA 350.1 Rev. 2.0	12/04/2018			12/06/2018 11:17	Ping Hua	2045647
	12/04/2018			12/06/2018 11:27	Ping Hua	2045646
EPA 351.2 Rev. 2.0	12/04/2018	12/06/2018 11:30	Adrian Shelby	12/07/2018 14:01	Virginia P. Brown	2045646
	12/04/2018	12/06/2018 11:30	Adrian Shelby	12/07/2018 14:08	Virginia P. Brown	2045647
EPA 353.2 Rev. 2.0	12/04/2018			12/05/2018 13:26	Lauren Bottorf	2045646
	12/04/2018			12/05/2018 13:36	Lauren Bottorf	2045647
EPA 365.1 Rev. 2.0	12/04/2018	12/06/2018 12:30	Sima Feizi	12/07/2018 10:21	Beverly Y. Sanders	2045647
	12/04/2018	12/06/2018 12:30	Sima Feizi	12/07/2018 14:59	Beverly Y. Sanders	2045646
EPA 365.1 Rev. 2.0 dissolved	12/04/2018			12/04/2018 15:07	Jhamieka S. Greenwood	2045648
	12/04/2018			12/04/2018 15:14	Jhamieka S. Greenwood	2045649
EPA 8270D	12/04/2018	12/07/2018 09:00	Fe-Val Siddell	12/11/2018 16:03	Vandana T. Nagar	2045832
	12/04/2018	12/07/2018 09:00	Fe-Val Siddell	12/11/2018 16:27	Vandana T. Nagar	2045833
	12/04/2018	12/07/2018 09:00	Fe-Val Siddell	12/12/2018 15:08	Vandana T. Nagar	2045833
	12/04/2018	12/07/2018 09:00	Fe-Val Siddell	12/12/2018 15:32	Vandana T. Nagar	2045833
EPA 8321B	12/04/2018	12/05/2018 08:30	Rebecca Ware	12/05/2018 10:32	Mohammad Ghaffari	2045739
	12/04/2018	12/05/2018 08:30	Rebecca Ware	12/05/2018 10:43	Mohammad Ghaffari	2045740
	12/04/2018	12/05/2018 08:30	Rebecca Ware	12/07/2018 19:34	Rebecca Ware	2045739
	12/04/2018	12/05/2018 08:30	Rebecca Ware	12/10/2018 09:38	Rebecca Ware	2045740
	12/04/2018	12/05/2018 08:30	Rebecca Ware	12/12/2018 14:34	Mohammad Ghaffari	2045739
	12/04/2018	12/05/2018 08:30	Rebecca Ware	12/12/2018 14:48	Mohammad Ghaffari	2045740
	12/04/2018	12/05/2018 10:00	Hoor Shaik	12/07/2018 08:49	Juyoung Kim	2045739
	12/04/2018	12/05/2018 10:00	Hoor Shaik	12/07/2018 09:23	Juyoung Kim	2045740
	12/04/2018	12/05/2018 10:00	Hoor Shaik	12/07/2018 12:16	Juyoung Kim	2045740
SM 2120 B	12/04/2018			12/04/2018 14:51	Chelsea Hernandez	2045644, 2045645
SM 2320 B-97	12/04/2018			12/06/2018 04:31	Dale L. Simmons	2045644
	12/04/2018			12/06/2018 05:24	Dale L. Simmons	2045645
SM 2540 C-97	12/04/2018			12/06/2018 14:21	Yijie Li	2045644, 2045645
SM 2540 D-97	12/04/2018			12/06/2018 14:08	Yijie Li	2045644, 2045645
SM 4500 F-C-97	12/04/2018			12/06/2018 04:31	Dale L. Simmons	2045644

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-97	12/04/2018			12/06/2018 05:24	Dale L. Simmons	2045645
SM 5310 B-00	12/04/2018			12/06/2018 04:14	Megan Treadwell	2045646
	12/04/2018			12/06/2018 04:26	Megan Treadwell	2045647