

Chemical Analysis Report

TLH-ROC-2019-01-29-01

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

Event Description: **SCI Kits**
Request ID: **RQ-2018-12-31-35**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
Tallahassee, FL 32399
Attn: Michael Eckles

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 20-FEB-2019 11:07

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first name.

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: UNNAMED BRANCH @ FLAT CREEK RD

Collection Date/Time: 01/29/2019 08:30

Field ID: FB_01292019

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2057895	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P358074	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P358372	
		Sulfate	0.20	U	mg SO4/L	P358373	
	SM 2120 B	Color (true)	2.5	U	PCU	P358005	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P358555	
	SM 2540 C-97	TDS	15	U	mg/L	P358342	
	SM 2540 D-97	TSS	2	U	mg/L	P358331	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P358558	
2057897	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P358206	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P358152	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.010		mg N/L	P358110	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P358158	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P358265	
2057899	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P358011	
2057906	EPA 8321B	2,4-D	0.0020	U	ug/L	P358017	MS
		Sucralose**	0.010	U	ug/L	P358146	
		Bentazon	8.0E-04	U	ug/L	P358017	
		MCP	0.0020	U	ug/L	P358017	MS
		Triclopyr**	0.0040	U	ug/L	P358017	
		Imidacloprid	0.0020	U	ug/L	P358017	
		Diuron	0.0020	U	ug/L	P358017	MS
		Pyraclostrobin**	0.0020	U	ug/L	P358017	
		Primidone**	0.0040	U	ug/L	P358017	
		Linuron	0.0040	U	ug/L	P358017	MS
		Acetaminophen**	0.0080	U	ug/L	P358017	
		Fenuron	0.016	UJ	ug/L	P358017	LCS
		Imazapyr**	0.0040	U	ug/L	P358017	
		Carbamazepine**	8.0E-04	U	ug/L	P358017	
		Fluridone**	8.0E-04	U	ug/L	P358017	
		Hydrocodone**	0.0020	U	ug/L	P358017	
		Naproxen**	0.0080	U	ug/L	P358017	
		Ibuprofen**	0.020	U	ug/L	P358017	
		Glyphosate**	0.10	U	ug/L	P358146	MS
		AMPA**	0.10	U	ug/L	P358146	
		Endothall**	0.25	U	ug/L	P358146	
		Glufosinate**	0.10	U	ug/L	P358146	RPD
		Acesulfame K**	0.10	U	ug/L	P358146	
2057908	EPA 200.7 Rev. 4.4	Barium	1.0	U	ug/L	P358299	
		Calcium	0.075	U	mg/L	P358299	
		Iron	30	U	ug/L	P358299	
		Magnesium	0.040	U	mg/L	P358299	
		Potassium	0.30	U	mg/L	P358299	
		Sodium	0.50	U	mg/L	P358299	

Field ID: FB_01292019

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2057908	EPA 200.7 Rev. 4.4	Zinc	5.0	U	ug/L	P358299	
	EPA 200.8 Rev. 5.4	Aluminum	5.0	U	ug/L	P358299	
		Antimony	0.050	U	ug/L	P358953	
		Arsenic	0.050	U	ug/L	P358299	
		Boron**	2.0	U	ug/L	P358299	
		Cadmium	0.020	U	ug/L	P358299	
		Chromium	0.40	U	ug/L	P358299	
		Copper	0.40	U	ug/L	P358299	
		Lead	0.20	U	ug/L	P358299	
		Nickel	0.50	U	ug/L	P358299	
		Selenium	0.20	U	ug/L	P358299	
		Silver	0.010	U	ug/L	P358299	
		Thallium	0.10	U	ug/L	P358299	
2057910	EPA 8270D	Acetochlor	0.25	U	ng/L	P358144	
		Alachlor	0.25	U	ng/L	P358144	
		Ametryn	0.61	U	ng/L	P358144	
		Atrazine	0.25	U	ng/L	P358144	
		Atrazine Desethyl	1.5	U	ng/L	P358144	RPD
		Azinphos Methyl	2.3	U	ng/L	P358144	
		Bromacil	0.51	U	ng/L	P358144	
		Butylate	0.40	U	ng/L	P358144	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P358144	MS
		Chlorpyrifos Methyl	0.10	U	ng/L	P358144	
		Cyanazine	3.3	U	ng/L	P358144	
		Demeton	7.1	U	ng/L	P358144	
		Diazinon	0.13	U	ng/L	P358144	
		Dimethenamid**	0.10	U	ng/L	P358144	
		Disulfoton	0.51	U	ng/L	P358144	
		Dithiopyr**	0.10	U	ng/L	P358144	
		EPTC	1.3	U	ng/L	P358144	
		Ethion	0.15	U	ng/L	P358144	RPD
		Ethoprop	0.10	U	ng/L	P358144	
		Fenamiphos	0.51	UJ	ng/L	P358144	RPD
		Fipronil	0.25	U	ng/L	P358144	
		Fipronil Desulfinyl**	0.13	U	ng/L	P358144	
		Fipronil Sulfide	0.15	U	ng/L	P358144	
		Fipronil Sulfone	0.15	U	ng/L	P358144	
		Fonofos	0.20	U	ng/L	P358144	
		Hexazinone	0.51	U	ng/L	P358144	
		Malathion	0.35	U	ng/L	P358144	MS, RPD
		Metalaxyl	0.25	U	ng/L	P358144	
		Metolachlor	0.51	U	ng/L	P358144	
		Metribuzin	0.76	UJ	ng/L	P358144	CCV
		Mevinphos	0.51	U	ng/L	P358144	
		Molinate	0.30	U	ng/L	P358144	

Field ID: FB_01292019

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2057910	EPA 8270D	Norflurazon	0.51	U	ng/L	P358144	
		Oxadiazon**	0.10	U	ng/L	P358144	
		Parathion Ethyl	0.25	U	ng/L	P358144	
		Parathion Methyl	0.56	U	ng/L	P358144	
		Pendimethalin	1.0	U	ng/L	P358144	
		Phorate	0.25	U	ng/L	P358144	
		Prodiamine**	0.18	U	ng/L	P358144	
		Prometon	0.91	U	ng/L	P358144	
		Prometryn	0.20	U	ng/L	P358144	
		Simazine	0.51	U	ng/L	P358144	
		Tebuconazole**	0.51	UJ	ng/L	P358144	LCS, RPD
		Terbufos	0.10	U	ng/L	P358144	
		Terbutylazine	0.43	U	ng/L	P358144	

Ref. Method and Comment:

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 353.2 Rev. 2.0: The result was confirmed on 01/31/2019.

EPA 8321B: Refer to the narrative for an explanation of QC Codes.

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

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for boron are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

EPA 8270D: Refer to the narrative for an explanation of QC Codes.

Sample Location: UNNAMED BRANCH @ FLAT CREEK RD

Collection Date/Time: 01/29/2019 11:00

Field ID: G2TLHR0031

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2057896	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P358074	
	EPA 300.0 Rev. 2.1	Chloride	3.9		mg Cl/L	P358372	
		Sulfate	1.9		mg SO4/L	P358373	
	SM 2120 B	Color (true)	44		PCU	P358005	
	SM 2320 B-97	Total Alkalinity	35		mg CaCO3/L	P358555	
	SM 2540 C-97	TDS	47		mg/L	P358345	
	SM 2540 D-97	TSS	11		mg/L	P358334	
	SM 4500 F-C-97	Fluoride	0.083	I	mg F/L	P358558	
2057898	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P358206	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.19	I	mg N/L	P358152	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.18		mg N/L	P358110	
	EPA 365.1 Rev. 2.0	Total-P	0.049		mg P/L	P358158	
	SM 5310 B-00	Organic Carbon	3.2		mg C/L	P358265	
2057900	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.022		mg P/L	P358011	
2057907	EPA 8321B	2,4-D	0.0020	U	ug/L	P358017	MS
		Sucralose**	0.022	I	ug/L	P358574	
		Bentazon	8.0E-04	U	ug/L	P358017	
		MCP	0.0020	U	ug/L	P358017	MS
		Triclopyr**	0.0040	U	ug/L	P358017	
		Imidacloprid	0.0020	U	ug/L	P358017	
		Diuron	0.0020	U	ug/L	P358017	MS
		Pyraclostrobin**	0.0020	U	ug/L	P358017	
		Primidone**	0.0040	U	ug/L	P358017	
		Linuron	0.0040	U	ug/L	P358017	MS
		Acetaminophen**	0.0080	U	ug/L	P358017	
		Fenuron	0.016	UJ	ug/L	P358017	LCS
		Imazapyr**	0.022		ug/L	P358017	
		Carbamazepine**	8.0E-04	U	ug/L	P358017	
		Fluridone**	8.0E-04	U	ug/L	P358017	
		Hydrocodone**	0.0020	U	ug/L	P358017	
		Naproxen**	0.0080	U	ug/L	P358017	
		Ibuprofen**	0.020	U	ug/L	P358017	
		Glyphosate**	0.10	U	ug/L	P358146	MS
		AMPA**	0.10	U	ug/L	P358146	
		Endothall**	0.25	U	ug/L	P358146	
		Glufosinate**	0.10	U	ug/L	P358146	RPD
		Acesulfame K**	0.10	U	ug/L	P358146	
2057909	EPA 200.7 Rev. 4.4	Barium	13.7		ug/L	P358299	
		Calcium	9.96		mg/L	P358299	
		Iron	450		ug/L	P358299	
		Magnesium	4.56		mg/L	P358299	
		Potassium	0.34	I	mg/L	P358299	
		Sodium	2.4		mg/L	P358299	

Field ID: G2TLHR0031

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2057909	EPA 200.7 Rev. 4.4	Zinc	5.0	U	ug/L	P358299	
	EPA 200.8 Rev. 5.4	Aluminum	221	J	ug/L	P358299	
		Antimony	0.050	U	ug/L	P358953	
		Arsenic	0.33		ug/L	P358299	
		Boron**	8.8		ug/L	P358299	
		Cadmium	0.020	U	ug/L	P358299	
		Chromium	0.52	I	ug/L	P358299	
		Copper	0.40	U	ug/L	P358299	
		Lead	0.20	U	ug/L	P358299	
		Nickel	0.50	U	ug/L	P358299	
		Selenium	0.20	U	ug/L	P358299	
		Silver	0.010	U	ug/L	P358299	
		Thallium	0.10	U	ug/L	P358299	
2057911	EPA 8270D	Acetochlor	0.25	U	ng/L	P358144	
		Alachlor	0.25	U	ng/L	P358144	
		Ametryn	0.59	U	ng/L	P358144	
		Atrazine	0.25	U	ng/L	P358144	
		Atrazine Desethyl	1.5	U	ng/L	P358144	RPD
		Azinphos Methyl	2.2	U	ng/L	P358144	
		Bromacil	0.49	U	ng/L	P358144	
		Butylate	0.39	U	ng/L	P358144	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P358144	MS
		Chlorpyrifos Methyl	0.098	U	ng/L	P358144	
		Cyanazine	3.2	U	ng/L	P358144	
		Demeton	6.9	U	ng/L	P358144	
		Diazinon	0.12	U	ng/L	P358144	
		Dimethenamid**	0.098	U	ng/L	P358144	
		Disulfoton	0.49	U	ng/L	P358144	
		Dithiopyr**	0.098	U	ng/L	P358144	
		EPTC	1.2	U	ng/L	P358144	
		Ethion	0.15	U	ng/L	P358144	RPD
		Ethoprop	0.098	U	ng/L	P358144	
		Fenamiphos	0.49	UJ	ng/L	P358144	RPD
		Fipronil	0.25	U	ng/L	P358144	
		Fipronil Desulfinyl**	0.12	U	ng/L	P358144	
		Fipronil Sulfide	0.15	U	ng/L	P358144	
		Fipronil Sulfone	0.15	U	ng/L	P358144	
		Fonofos	0.20	U	ng/L	P358144	
		Hexazinone	0.49	U	ng/L	P358144	
		Malathion	0.34	U	ng/L	P358144	MS, RPD
		Metalaxyl	0.25	U	ng/L	P358144	
		Metolachlor	0.49	U	ng/L	P358144	
		Metribuzin	0.74	UJ	ng/L	P358144	CCV
		Mevinphos	0.49	U	ng/L	P358144	
		Molinate	0.29	U	ng/L	P358144	

Field ID: G2TLHR0031

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2057911	EPA 8270D	Norflurazon	0.49	U	ng/L	P358144	
		Oxadiazon**	0.098	U	ng/L	P358144	
		Parathion Ethyl	0.25	U	ng/L	P358144	
		Parathion Methyl	0.54	U	ng/L	P358144	
		Pendimethalin	0.98	U	ng/L	P358144	
		Phorate	0.25	U	ng/L	P358144	
		Prodiamine**	0.17	U	ng/L	P358144	
		Prometon	0.88	U	ng/L	P358144	
		Prometryn	0.20	U	ng/L	P358144	
		Simazine	0.49	U	ng/L	P358144	
		Tebuconazole**	0.49	UJ	ng/L	P358144	LCS, RPD
		Terbufos	0.098	U	ng/L	P358144	
		Terbutylazine	0.42	U	ng/L	P358144	

Ref. Method and Comment:

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 8321B: Refer to the narrative for an explanation of QC Codes.

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

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for boron are unavailable for one of two spiked samples because of high analyte concentration in the QC sample. The sample was digested and analyzed twice and it appears to be heterogeneous with respect to aluminum.

EPA 8270D: 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: P358074

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P358299

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: P358299

Component	Result	Code	Units
Aluminum	5.0	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 200.8 Rev. 5.4
Batch ID: P358953

Component	Result	Code	Units
Antimony	0.050	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358372

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358373

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P358206

Component	Result	Code	Units
-----------	--------	------	-------

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P358206

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P358152

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P358110

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P358158

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P358011

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

Reference Method: EPA 8270D
Batch ID: P358144

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	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	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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270D
Batch ID: P358144

Component	Result	Code	Units
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
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 8321B
Batch ID: P358017

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	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
MCP	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: P358146

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P358146

Component	Result	Code	Units
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.028	I	ug/L

Reference Method: EPA 8321B
Batch ID: P358574

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P358005

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P358555

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

Reference Method: SM 2540 C-97
Batch ID: P358342

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P358345

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P358331

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P358334

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P358558

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: P358265

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: P358299

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	105		P	85 - 115
Calcium	104		P	85 - 115
Iron	110		P	85 - 115
Magnesium	103		P	85 - 115
Potassium	101		P	85 - 115
Sodium	103		P	85 - 115
Zinc	104		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P358299

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	107		P	85 - 115
Arsenic	108		P	85 - 115
Boron	107		P	85 - 115
Cadmium	105		P	85 - 115
Chromium	99.0		P	85 - 115
Copper	101		P	85 - 115
Lead	101		P	85 - 115
Nickel	101		P	85 - 115
Selenium	102		P	85 - 115
Silver	105		P	85 - 115
Thallium	96.1		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P358953

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Antimony	102		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358372

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358373

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P358206

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P358152

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
-----------	---------	---------	-----------	----------------

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P358152

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P358110

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: P358158

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P358011

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

Reference Method: EPA 8270D
 Batch ID: P358144

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	98.1	93.2	P/P	71 - 121
Alachlor	105	96.5	P/P	72 - 119
Ametryn	96.0	102	P/P	47 - 144
Atrazine	95.3	93.5	P/P	75 - 123
Atrazine Desethyl	76.7	81.7	P/P	45 - 133
Azinphos Methyl	108	111	P/P	66 - 165
Bromacil	74.2	81.1	P/P	43 - 123
Butylate	77.0	67.3	P/P	27 - 83.0
Chlorpyrifos Ethyl	101	90.3	P/P	70 - 117
Chlorpyrifos Methyl	92.4	84.1	P/P	71 - 120
Cyanazine	80.3	84.4	P/P	34 - 264
Demeton	70.5	71.4	P/P	41 - 122
Diazinon	98.3	89.6	P/P	70 - 127
Dimethenamid	104	95.6	P/P	60 - 130
Disulfoton	78.0	82.1	P/P	56 - 127
Dithiopyr	96.9	89.8	P/P	60 - 130
EPTC	73.7	70.3	P/P	24 - 84.0
Ethion	107	106	P/P	53 - 132
Ethoprop	98.8	82.8	P/P	57 - 117
Fenamiphos	57.4	86.1	P/P	55 - 136
Fipronil	96.1	101	P/P	64 - 126
Fipronil Desulfinyl	98.2	94.9	P/P	60 - 130
Fipronil Sulfide	99.7	100	P/P	57 - 120
Fipronil Sulfone	99.9	99.0	P/P	52 - 115
Fonofos	80.8	76.4	P/P	61 - 121
Hexazinone	122	93.2	P/P	62 - 131
Malathion	99.8	99.8	P/P	67 - 126
Metaxyl	55.2	59.1	P/P	54 - 128

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D

Batch ID: P358144

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Metolachlor	104	99.2	P/P	71 - 118
Metribuzin	78.6	76.1	P/P	42 - 221
Mevinphos	87.4	84.4	P/P	45 - 114
Molinate	81.4	75.8	P/P	33 - 91.0
Norflurazon	83.2	104	P/P	60 - 123
Oxadiazon	107	106	P/P	60 - 130
Parathion Ethyl	84.0	91.0	P/P	73 - 111
Parathion Methyl	96.4	96.0	P/P	74 - 126
Pendimethalin	92.1	89.5	P/P	63 - 131
Phorate	72.9	73.8	P/P	54 - 115
Prodiamine	103	98.1	P/P	60 - 130
Prometon	87.3	93.3	P/P	61 - 120
Prometryn	96.1	98.9	P/P	62 - 126
Simazine	110	101	P/P	75 - 126
Tebuconazole	27.9	90.9	F/P	30 - 100
Terbufos	78.6	76.5	P/P	65 - 116
Terbutylazine	106	97.2	P/P	73 - 117

Reference Method: EPA 8321B

Batch ID: P358017

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	83.2		P	40 - 150
Acetaminophen	97.6		P	30 - 150
Bentazon	69.4		P	30 - 150
Carbamazepine	96.0		P	40 - 150
Diuron	82.8		P	40 - 150
Fenuron	171		F	40 - 150
Fluridone	95.0		P	40 - 150
Hydrocodone	98.2		P	40 - 150
Ibuprofen	79.6		P	40 - 150
Imazapyr	91.7		P	40 - 150
Imidacloprid	92.7		P	40 - 160
Linuron	77.2		P	40 - 150
MCPP	96.9		P	40 - 150
Naproxen	87.0		P	40 - 150
Primidone	92.8		P	40 - 150
Pyraclostrobin	75.4		P	40 - 150
Triclopyr	70.5		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P358146

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	95.8		P	40 - 150
AMPA	118		P	40 - 150
Endothall	84.7		P	40 - 150
Glufosinate	114		P	40 - 150
Glyphosate	118		P	40 - 140
Sucralose	90.7		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P358574

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	80.6		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P358005

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

Reference Method: SM 2320 B-97
Batch ID: P358555

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P358558

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.4		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P358265

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P358299

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2058022	Barium	109		P	80 - 120
2058022	Calcium	111		P	80 - 120
2058022	Iron	113		P	80 - 120
2058022	Magnesium	111		P	80 - 120
2058022	Potassium	106		P	80 - 120
2058022	Sodium	110		P	80 - 120
2058022	Zinc	115		P	80 - 120
2058118	Barium	105	109	P/P	80 - 120
2058118	Calcium	114		P	80 - 120
2058118	Iron	105	109	P/P	80 - 120
2058118	Sodium	112		P	80 - 120
2058118	Zinc	104	108	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P358299

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2058022	Aluminum	95.3		P	80 - 120
2058022	Arsenic	112		P	80 - 120
2058022	Boron	101		P	80 - 120
2058022	Cadmium	108		P	80 - 120
2058022	Chromium	103		P	80 - 120
2058022	Copper	103		P	80 - 120
2058022	Lead	105		P	80 - 120
2058022	Nickel	104		P	80 - 120
2058022	Selenium	105		P	80 - 120
2058022	Silver	105		P	80 - 120
2058022	Thallium	104		P	80 - 120
2058118	Aluminum	100	102	P/P	80 - 120
2058118	Arsenic	109	109	P/P	80 - 120
2058118	Cadmium	107	107	P/P	80 - 120
2058118	Chromium	98.2	96.3	P/P	80 - 120
2058118	Copper	95.9	97.0	P/P	80 - 120
2058118	Lead	102	102	P/P	80 - 120
2058118	Nickel	96.3	96.3	P/P	80 - 120
2058118	Selenium	84.3	83.8	P/P	80 - 120
2058118	Silver	105	104	P/P	80 - 120
2058118	Thallium	100	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P358953

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2058063	Antimony	110	109	P/P	80 - 120
2058090	Antimony	105		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358372

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057693	Chloride	97.8		P	90 - 110
2057955	Chloride	95.6		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358373

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057693	Sulfate	97.8		P	90 - 110
2057955	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P358206

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057845	Ammonia-N	100	91.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P358152

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057898	Kjeldahl Nitrogen	107	108	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P358110

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057290	NO2NO3-N	97.5	97.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P358158

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057752	Total-P	99.9	96.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P358011

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057676	O-Phosphate-P	96.5	98.9	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P358144

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057773	Acetochlor	99.0	118	P/P	63 - 129
2057773	Alachlor	106	114	P/P	65 - 127
2057773	Ametryn	130	142	P/P	40 - 164
2057773	Atrazine	93.5	115	P/P	66 - 135
2057773	Atrazine Desethyl	80.3	112	P/P	14 - 157
2057773	Azinphos Methyl	128	157	P/P	49 - 180
2057773	Bromacil	87.5	91.1	P/P	48 - 130
2057773	Butylate	64.1	64.5	P/P	10 - 94.0
2057773	Chlorpyrifos Ethyl	124	102	F/P	58 - 123
2057773	Chlorpyrifos Methyl	101	91.5	P/P	58 - 125
2057773	Cyanazine	90.7	93.1	P/P	24 - 253
2057773	Demeton	93.9	100	P/P	25 - 149
2057773	Diazinon	103	129	P/P	59 - 144
2057773	Dimethenamid	103	107	P/P	60 - 130
2057773	Disulfoton	105	98.6	P/P	54 - 132

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P358144

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057773	Dithiopyr	89.3	90.1	P/P	60 - 130
2057773	EPTC	60.3	67.6	P/P	10 - 92.0
2057773	Ethion	106	54.0	P/P	30 - 148
2057773	Ethoprop	98.4	101	P/P	50 - 130
2057773	Fenamiphos	101	135	P/P	49 - 142
2057773	Fipronil	91.5	104	P/P	46 - 140
2057773	Fipronil Desulfinyl	82.9	83.3	P/P	60 - 130
2057773	Fipronil Sulfide	95.8	99.5	P/P	31 - 136
2057773	Fipronil Sulfone	95.9	76.7	P/P	16 - 136
2057773	Fonofos	91.1	90.1	P/P	55 - 129
2057773	Hexazinone	102	91.0	P/P	56 - 141
2057773	Malathion	105	54.4	P/F	56 - 135
2057773	Metalaxyl	99.0	100	P/P	54 - 135
2057773	Metolachlor	103	110	P/P	51 - 140
2057773	Metribuzin	140	148	P/P	45 - 254
2057773	Mevinphos	95.9	96.3	P/P	33 - 131
2057773	Molinate	83.9	91.1	P/P	14 - 98.0
2057773	Norflurazon	98.9	115	P/P	34 - 136
2057773	Oxadiazon	98.6	92.8	P/P	60 - 130
2057773	Parathion Ethyl	82.8	85.8	P/P	66 - 118
2057773	Parathion Methyl	115	127	P/P	64 - 136
2057773	Pendimethalin	88.7	90.9	P/P	59 - 144
2057773	Phorate	106	94.0	P/P	42 - 130
2057773	Prodiamine	93.5	83.5	P/P	60 - 130
2057773	Prometon	95.8	110	P/P	59 - 134
2057773	Prometryn	88.4	81.6	P/P	54 - 135
2057773	Simazine	111	103	P/P	53 - 156
2057773	Tebuconazole	95.1	43.6	P/P	30 - 100
2057773	Terbufos	98.3	101	P/P	57 - 131
2057773	Terbutylazine	101	103	P/P	68 - 125

Reference Method: EPA 8321B
Batch ID: P358017

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057771	2,4-D	122	157	P/F	40 - 150
2057771	Acetaminophen	87.0	75.3	P/P	30 - 150
2057771	Bentazon	42.8	47.3	P/P	30 - 150
2057771	Carbamazepine	51.8	55.7	P/P	40 - 150
2057771	Diuron	35.6	37.9	F/F	40 - 150
2057771	Fenuron	80.6	82.7	P/P	40 - 150
2057771	Fluridone	80.2	85.8	P/P	40 - 150
2057771	Hydrocodone	67.3	67.7	P/P	40 - 150
2057771	Ibuprofen	61.2	69.0	P/P	40 - 150
2057771	Imazapyr	80.3	79.9	P/P	40 - 150
2057771	Imidacloprid	109	113	P/P	40 - 160
2057771	Linuron	37.9	43.5	F/P	40 - 150
2057771	MCPP	158	180	F/F	40 - 150
2057771	Naproxen	62.5	65.8	P/P	40 - 150
2057771	Primidone	70.9	74.4	P/P	40 - 150
2057771	Pyraclostrobin	55.9	68.0	P/P	40 - 150
2057771	Triclopyr	83.2	109	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P358146

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057632	Acesulfame K	77.6	76.9	P/P	40 - 150
2057632	AMPA	57.6	85.0	P/P	40 - 150
2057632	Endothall	94.7	84.3	P/P	40 - 150
2057632	Glufosinate	84.7	125	P/P	40 - 150
2057632	Glyphosate	116	153	P/F	40 - 140
2057632	Sucralose	84.4	84.2	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P358574

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2061097	Sucralose	109	87.6	P/P	40 - 150

Reference Method: SM 5310 B-00
Batch ID: P358265

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057898	Organic Carbon	97.1	98.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P358074

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057956	Turbidity	4.54	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P358299

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2058118	Barium	4.05	Spike	P	0 - 20
2058118	Calcium	4.01	Spike	P	0 - 20
2058118	Iron	3.58	Spike	P	0 - 20
2058118	Magnesium	4.05	Spike	P	0 - 20
2058118	Potassium	0.735	Spike	P	0 - 20
2058118	Sodium	4.73	Spike	P	0 - 20
2058118	Zinc	3.81	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P358299

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2058118	Aluminum	2.20	Spike	P	0 - 20
2058118	Arsenic	0.170	Spike	P	0 - 20
2058118	Boron	1.44	Spike	P	0 - 20
2058118	Cadmium	0.231	Spike	P	0 - 20
2058118	Chromium	1.97	Spike	P	0 - 20
2058118	Copper	1.11	Spike	P	0 - 20
2058118	Lead	0.311	Spike	P	0 - 20
2058118	Nickel	0.0557	Spike	P	0 - 20
2058118	Selenium	0.580	Spike	P	0 - 20
2058118	Silver	1.34	Spike	P	0 - 20
2058118	Thallium	0.943	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P358953

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2058063	Antimony	0.515	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P358372

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057693	Chloride	0.188	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P358373

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
--------------------------	-----------	-----------	-------------------	-----------	----------------

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358373

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057693	Sulfate	0.321	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P358206

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057845	Ammonia-N	7.59	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P358152

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057898	Kjeldahl Nitrogen	0.819	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P358110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057290	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P358158

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057752	Total-P	2.06	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P358011

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057676	O-Phosphate-P	2.46	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P358144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057773	Acetochlor	17.1	Spike	P	0 - 30
2057773	Alachlor	6.43	Spike	P	0 - 30
2057773	Ametryn	8.97	Spike	P	0 - 30
2057773	Atrazine	6.64	Spike	P	0 - 30
2057773	Atrazine Desethyl	32.9	Spike	F	0 - 30
2057773	Azinphos Methyl	20.2	Spike	P	0 - 30
2057773	Bromacil	4.05	Spike	P	0 - 30
2057773	Butylate	0.654	Spike	P	0 - 30
2057773	Chlorpyrifos Ethyl	19.5	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270D

Batch ID: P358144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057773	Chlorpyrifos Methyl	10.2	Spike	P	0 - 30
2057773	Cyanazine	2.66	Spike	P	0 - 30
2057773	Demeton	6.72	Spike	P	0 - 30
2057773	Diazinon	22.7	Spike	P	0 - 30
2057773	Dimethenamid	3.08	Spike	P	0 - 30
2057773	Disulfoton	6.17	Spike	P	0 - 30
2057773	Dithiopyr	0.875	Spike	P	0 - 30
2057773	EPTC	11.4	Spike	P	0 - 30
2057773	Ethion	64.7	Spike	F	0 - 30
2057773	Ethoprop	2.71	Spike	P	0 - 30
2057773	Fenamiphos	28.8	Spike	P	0 - 30
2057773	Fipronil	12.7	Spike	P	0 - 30
2057773	Fipronil Desulfinyl	0.481	Spike	P	0 - 30
2057773	Fipronil Sulfide	3.81	Spike	P	0 - 30
2057773	Fipronil Sulfone	20.2	Spike	P	0 - 30
2057773	Fonofos	1.10	Spike	P	0 - 30
2057773	Hexazinone	6.12	Spike	P	0 - 30
2057773	Malathion	63.0	Spike	F	0 - 30
2057773	Metalaxyl	0.858	Spike	P	0 - 30
2057773	Metolachlor	5.68	Spike	P	0 - 30
2057773	Metribuzin	5.52	Spike	P	0 - 30
2057773	Mevinphos	0.495	Spike	P	0 - 30
2057773	Molinate	8.18	Spike	P	0 - 30
2057773	Norflurazon	15.1	Spike	P	0 - 30
2057773	Oxadiazon	5.16	Spike	P	0 - 30
2057773	Parathion Ethyl	3.60	Spike	P	0 - 30
2057773	Parathion Methyl	9.26	Spike	P	0 - 30
2057773	Pendimethalin	2.46	Spike	P	0 - 30
2057773	Phorate	12.2	Spike	P	0 - 30
2057773	Prodiamine	11.2	Spike	P	0 - 30
2057773	Prometon	13.7	Spike	P	0 - 30
2057773	Prometryn	7.98	Spike	P	0 - 30
2057773	Simazine	5.76	Spike	P	0 - 30
2057773	Tebuconazole	41.6	Spike	F	0 - 30
2057773	Terbufos	2.27	Spike	P	0 - 30
2057773	Terbuthylazine	1.62	Spike	P	0 - 30
LFB	Acetochlor	5.12	LCS	P	0 - 30
LFB	Alachlor	8.11	LCS	P	0 - 30
LFB	Ametryn	6.37	LCS	P	0 - 30
LFB	Atrazine	1.92	LCS	P	0 - 30
LFB	Atrazine Desethyl	6.35	LCS	P	0 - 30
LFB	Azinphos Methyl	2.86	LCS	P	0 - 30
LFB	Bromacil	8.98	LCS	P	0 - 30
LFB	Butylate	13.5	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	10.7	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	9.42	LCS	P	0 - 30
LFB	Cyanazine	4.95	LCS	P	0 - 30
LFB	Demeton	1.27	LCS	P	0 - 30
LFB	Diazinon	9.33	LCS	P	0 - 30
LFB	Dimethenamid	8.60	LCS	P	0 - 30
LFB	Disulfoton	5.07	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270D

Batch ID: P358144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Dithiopyr	7.60	LCS	P	0 - 30
LFB	EPTC	4.66	LCS	P	0 - 30
LFB	Ethion	1.68	LCS	P	0 - 30
LFB	Ethoprop	17.6	LCS	P	0 - 30
LFB	Fenamiphos	40.0	LCS	F	0 - 30
LFB	Fipronil	5.22	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	3.38	LCS	P	0 - 30
LFB	Fipronil Sulfide	0.558	LCS	P	0 - 30
LFB	Fipronil Sulfone	0.903	LCS	P	0 - 30
LFB	Fonofos	5.62	LCS	P	0 - 30
LFB	Hexazinone	27.1	LCS	P	0 - 30
LFB	Malathion	0.0194	LCS	P	0 - 30
LFB	Metalaxyl	6.76	LCS	P	0 - 30
LFB	Metolachlor	4.63	LCS	P	0 - 30
LFB	Metribuzin	3.15	LCS	P	0 - 30
LFB	Mevinphos	3.47	LCS	P	0 - 30
LFB	Molinate	7.04	LCS	P	0 - 30
LFB	Norflurazon	22.4	LCS	P	0 - 30
LFB	Oxadiazon	1.11	LCS	P	0 - 30
LFB	Parathion Ethyl	7.94	LCS	P	0 - 30
LFB	Parathion Methyl	0.467	LCS	P	0 - 30
LFB	Pendimethalin	2.92	LCS	P	0 - 30
LFB	Phorate	1.22	LCS	P	0 - 30
LFB	Prodiamine	4.89	LCS	P	0 - 30
LFB	Prometon	6.62	LCS	P	0 - 30
LFB	Prometryn	2.86	LCS	P	0 - 30
LFB	Simazine	8.45	LCS	P	0 - 30
LFB	Tebuconazole	106	LCS	F	0 - 30
LFB	Terbufos	2.78	LCS	P	0 - 30
LFB	Terbutylazine	8.90	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P358017

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057771	2,4-D	18.4	Spike	P	0 - 30
2057771	Acetaminophen	14.4	Spike	P	0 - 30
2057771	Bentazon	3.20	Spike	P	0 - 30
2057771	Carbamazepine	7.19	Spike	P	0 - 30
2057771	Diuron	5.13	Spike	P	0 - 30
2057771	Fenuron	2.63	Spike	P	0 - 30
2057771	Fluridone	6.31	Spike	P	0 - 30
2057771	Hydrocodone	0.602	Spike	P	0 - 30
2057771	Ibuprofen	12.0	Spike	P	0 - 30
2057771	Imazapyr	0.192	Spike	P	0 - 30
2057771	Imidacloprid	3.67	Spike	P	0 - 30
2057771	Linuron	13.6	Spike	P	0 - 30
2057771	MCP	12.7	Spike	P	0 - 30
2057771	Naproxen	5.17	Spike	P	0 - 30
2057771	Primidone	4.81	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P358017

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057771	Pyraclostrobin	19.5	Spike	P	0 - 30
2057771	Triclopyr	26.7	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P358146

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057632	Acesulfame K	0.928	Spike	P	0 - 30
2057632	AMPA	22.8	Spike	P	0 - 30
2057632	Endothall	11.6	Spike	P	0 - 30
2057632	Glufosinate	38.1	Spike	F	0 - 30
2057632	Glyphosate	17.3	Spike	P	0 - 30
2057632	Sucralose	0.256	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P358574

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2061097	Sucralose	21.3	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P358005

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057957	Color (true)	4.36	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P358555

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2058115	Total Alkalinity	0.494	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P358342

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057455	TDS	1.40	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P358345

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057751	TDS	6.06	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P358558

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2058115	Fluoride	0.509	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P358265

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057898	Organic Carbon	0.836	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: 2057906

Field Sample ID: FB_01292019

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	84.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	78.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	60.1	P	30 - 160
EPA 8321B	Diuron-d6	61.4	P	30 - 160
EPA 8321B	Endothall-d6	89.8	P	40 - 160
EPA 8321B	Endothall-d6	89.8	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	59.8	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	59.8	P	40 - 160
EPA 8321B	Ibuprofen-d3	63.7	P	30 - 160
EPA 8321B	Primidone-d5	74.4	P	30 - 160
EPA 8321B	Sucralose-d6	90.2	P	40 - 160
EPA 8321B	Sucralose-d6	90.2	P	40 - 160

Lab Sample ID: 2057907

Field Sample ID: G2TLHR0031

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	83.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	82.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	60.3	P	30 - 160
EPA 8321B	Diuron-d6	58.2	P	30 - 160
EPA 8321B	Endothall-d6	77.8	P	40 - 160
EPA 8321B	Endothall-d6	77.8	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	63.4	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	63.4	P	40 - 160
EPA 8321B	Ibuprofen-d3	72.8	P	30 - 160
EPA 8321B	Primidone-d5	80.9	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	40 - 160
EPA 8321B	Sucralose-d6	104	P	40 - 160

Lab Sample ID: 2057910

Field Sample ID: FB_01292019

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	104	P	68 - 130
EPA 8270D	Terbufos-d10	83.9	P	61 - 136

Lab Sample ID: 2057911

Field Sample ID: G2TLHR0031

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	115	P	68 - 130
EPA 8270D	Terbufos-d10	96.4	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A89075

Included Lab Sample IDs: 2057895, 2057896

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A89077

Included Lab Sample IDs: 2057899, 2057900

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.9	98.1	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A89102

Included Lab Sample IDs: 2057895, 2057896

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	100	P/P	95 - 105

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A89117

Included Lab Sample IDs: 2057897, 2057898

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: A89146

Included Lab Sample IDs: 2057897, 2057898

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	92.9	99.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A89161

Included Lab Sample IDs: 2057897, 2057898

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

Reference Method: EPA 8321B

Run ID: A89162

Included Lab Sample IDs: 2057906, 2057907

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	89.0	104	P/P	50 - 150
Acetaminophen	109	111	P/P	60 - 160
Bentazon	74.5	77.5	P/P	50 - 160
Carbamazepine	106	100	P/P	60 - 150
Diuron	107	109	P/P	60 - 150
Fenuron	104	104	P/P	60 - 150
Fluridone	102	103	P/P	60 - 160
Hydrocodone	98.4	96.6	P/P	60 - 150
Ibuprofen	99.0	78.1	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A89162

Included Lab Sample IDs: 2057906, 2057907

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imazapyr	95.1	85.7	P/P	50 - 150
Imidacloprid	96.7	96.3	P/P	60 - 150
Linuron	94.7	98.7	P/P	60 - 150
MCPP	88.2	97.9	P/P	50 - 150
Naproxen	124	81.2	P/P	50 - 160
Primidone	104	103	P/P	60 - 150
Pyraclostrobin	99.5	102	P/P	60 - 150
Triclopyr	114	112	P/P	50 - 150

Reference Method: SM 5310 B-00

Run ID: A89165

Included Lab Sample IDs: 2057897, 2057898

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.4	97.2	P/P	90 - 110
Organic Carbon	97.5	97.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A89169

Included Lab Sample IDs: 2057897, 2057898

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	107	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A89179

Included Lab Sample IDs: 2057906, 2057907

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	120	123	P/P	60 - 160
AMPA	123	118	P/P	60 - 160
Glufosinate	90.6	96.1	P/P	60 - 160
Glufosinate	96.1	91.8	P/P	60 - 160
Glyphosate	104	103	P/P	60 - 160
Glyphosate	96.9	104	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A89189

Included Lab Sample IDs: 2057906, 2057907

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	99.1	91.1	P/P	60 - 160
Endothall	79.8	81.5	P/P	60 - 160

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A89204

Included Lab Sample IDs: 2057908, 2057909

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	109	107	P/P	90 - 110
Barium	98.6	109	P/P	95 - 105

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A89204

Included Lab Sample IDs: 2057908, 2057909

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	106	P/P	95 - 105
Calcium	106	105	P/P	90 - 110
Iron	101	108	P/P	95 - 105
Iron	108	105	P/P	90 - 110
Magnesium	102	108	P/P	95 - 105
Magnesium	108	105	P/P	90 - 110
Potassium	105	103	P/P	90 - 110
Potassium	97.4	105	P/P	95 - 105
Sodium	106	106	P/P	90 - 110
Sodium	98.6	106	P/P	95 - 105
Zinc	109	107	P/P	90 - 110
Zinc	98.6	109	P/P	95 - 105

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A89205

Included Lab Sample IDs: 2057895, 2057896

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

Reference Method: EPA 8321B

Run ID: A89207

Included Lab Sample IDs: 2057906

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	91.9	78.3	P/P	60 - 160

Reference Method: SM 2320 B-97

Run ID: A89272

Included Lab Sample IDs: 2057895, 2057896

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.9	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A89272

Included Lab Sample IDs: 2057895, 2057896

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	101	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A89350

Included Lab Sample IDs: 2057908, 2057909

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	101	103	P/P	90 - 110
Aluminum	103	96.4	P/P	90 - 110
Boron	101	101	P/P	90 - 110
Boron	101	96.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A89350

Included Lab Sample IDs: 2057908, 2057909

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cadmium	98.7	99.6	P/P	90 - 110
Cadmium	99.6	99.5	P/P	90 - 110
Chromium	97.0	99.4	P/P	90 - 110
Chromium	97.8	97.0	P/P	90 - 110
Copper	98.2	97.8	P/P	90 - 110
Copper	99.5	98.2	P/P	90 - 110
Lead	102	99.6	P/P	90 - 110
Lead	99.6	102	P/P	90 - 110
Silver	100	99.9	P/P	90 - 110
Silver	99.9	98.7	P/P	90 - 110
Thallium	91.6	93.6	P/P	90 - 110
Thallium	93.3	91.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A89414

Included Lab Sample IDs: 2057908, 2057909

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	99.4	100	P/P	90 - 110
Nickel	97.9	99.8	P/P	90 - 110
Selenium	96.3	97.8	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A89457

Included Lab Sample IDs: 2057910, 2057911

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	96.5		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	98.9		P	80 - 120
Atrazine	94.6		P	80 - 120
Atrazine Desethyl	92.0		P	80 - 120
Azinphos Methyl	94.8		P	80 - 120
Bromacil	94.5		P	80 - 120
Butylate	99.6		P	80 - 120
Chlorpyrifos Ethyl	95.4		P	80 - 120
Chlorpyrifos Methyl	98.2		P	80 - 120
Cyanazine	88.5		P	80 - 120
Demeton	97.0		P	80 - 120
Diazinon	97.9		P	80 - 120
Dimethenamid	101		P	80 - 120
Disulfoton	102		P	80 - 120
Dithiopyr	94.1		P	80 - 120
EPTC	97.6		P	80 - 120
Ethion	90.5		P	80 - 120
Ethoprop	99.3		P	80 - 120
Fenamiphos	97.2		P	80 - 120
Fipronil	95.5		P	80 - 120
Fipronil Desulfinyl	100		P	80 - 120
Fipronil Sulfide	98.2		P	80 - 120
Fipronil Sulfone	99.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A89457

Included Lab Sample IDs: 2057910, 2057911

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fonofos	98.0		P	80 - 120
Hexazinone	97.9		P	80 - 120
Malathion	91.2		P	80 - 120
Metalaxyl	102		P	80 - 120
Metolachlor	99.2		P	80 - 120
Metribuzin	73.1*		F	80 - 120
Mevinphos	100		P	80 - 120
Molinate	98.0		P	80 - 120
Norflurazon	92.6		P	80 - 120
Oxadiazon	99.5		P	80 - 120
Parathion Ethyl	97.2		P	80 - 120
Parathion Methyl	100		P	80 - 120
Pendimethalin	95.6		P	80 - 120
Phorate	95.4		P	80 - 120
Prodiamine	88.2		P	80 - 120
Prometon	98.8		P	80 - 120
Prometryn	100		P	80 - 120
Simazine	101		P	80 - 120
Tebuconazole	94.1		P	80 - 120
Terbufos	92.8		P	80 - 120
Terbutylazine	98.5		P	80 - 120

Reference Method: EPA 8321B

Run ID: A89461

Included Lab Sample IDs: 2057907

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	104	105	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A89473

Included Lab Sample IDs: 2057908, 2057909

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	98.1	99.7	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							4.54	
EPA 200.7 Rev. 4.4	Barium	105		109	105	109			4.05
	Calcium	104		111	114				4.01
	Iron	110		113	105	109			3.58
	Magnesium	103		111					4.05
	Potassium	101		106					0.735
	Sodium	103		110	112				4.73
	Zinc	104		115	104	108			3.81
EPA 200.8 Rev. 5.4	Aluminum	107		95.3	100	102			2.20
	Antimony	102		110	109	105			0.515
	Arsenic	108		112	109	109			0.170
	Boron	107		101					1.44
	Cadmium	105		108	107	107			0.231
	Chromium	99.0		103	98.2	96.3			1.97
	Copper	101		103	95.9	97.0			1.11
	Lead	101		105	102	102			0.311
	Nickel	101		104	96.3	96.3			0.0557
	Selenium	102		105	84.3	83.8			0.580
	Silver	105		105	105	104			1.34
	Thallium	96.1		104	100	101			0.943
EPA 300.0 Rev. 2.1	Chloride	100		97.8	95.6			0.188	
	Sulfate	100		97.8	101			0.321	
EPA 350.1 Rev. 2.0	Ammonia-N	98.2		100	91.9				7.59
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107		107	108				0.819
EPA 353.2 Rev. 2.0	NO2NO3-N	100		97.5	97.5				0.0
EPA 365.1 Rev. 2.0	Total-P	101		99.9	96.0				2.06
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100		96.5	98.9				2.46
EPA 8270D	Acetochlor	98.1	93.2	99.0	118		5.12		17.1
	Alachlor	105	96.5	106	114		8.11		6.43
	Ametryn	96.0	102	130	142		6.37		8.97
	Atrazine	95.3	93.5	93.5	115		1.92		6.64
	Atrazine Desethyl	76.7	81.7	80.3	112		6.35		32.9
	Azinphos Methyl	108	111	128	157		2.86		20.2
	Bromacil	74.2	81.1	87.5	91.1		8.98		4.05
	Butylate	77.0	67.3	64.1	64.5		13.5		0.654
	Chlorpyrifos Ethyl	101	90.3	124	102		10.7		19.5
	Chlorpyrifos Methyl	92.4	84.1	101	91.5		9.42		10.2
	Cyanazine	80.3	84.4	90.7	93.1		4.95		2.66
	Demeton	70.5	71.4	93.9	100		1.27		6.72
	Diazinon	98.3	89.6	103	129		9.33		22.7
	Dimethenamid	104	95.6	103	107		8.60		3.08
	Disulfoton	78.0	82.1	105	98.6		5.07		6.17
	Dithiopyr	96.9	89.8	89.3	90.1		7.60		0.875
	EPTC	73.7	70.3	60.3	67.6		4.66		11.4
	Ethion	107	106	106	54.0		1.68		64.7
	Ethoprop	98.8	82.8	98.4	101		17.6		2.71
	Fenamiphos	57.4	86.1	101	135		40.0		28.8
	Fipronil	96.1	101	91.5	104		5.22		12.7
	Fipronil Desulfinyl	98.2	94.9	82.9	83.3		3.38		0.481
	Fipronil Sulfide	99.7	100	95.8	99.5		0.558		3.81
	Fipronil Sulfone	99.9	99.0	95.9	76.7		0.903		20.2
	Fonofos	80.8	76.4	91.1	90.1		5.62		1.10
	Hexazinone	122	93.2	102	91.0		27.1		6.12
	Malathion	99.8	99.8	105	54.4		0.0194		63.0

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Metalaxyl	55.2	59.1	99.0	100	6.76	0.858
	Metolachlor	104	99.2	103	110	4.63	5.68
	Metribuzin	78.6	76.1	140	148	3.15	5.52
	Mevinphos	87.4	84.4	95.9	96.3	3.47	0.495
	Molinate	81.4	75.8	83.9	91.1	7.04	8.18
	Norflurazon	83.2	104	98.9	115	22.4	15.1
	Oxadiazon	107	106	98.6	92.8	1.11	5.16
	Parathion Ethyl	84.0	91.0	82.8	85.8	7.94	3.60
	Parathion Methyl	96.4	96.0	115	127	0.467	9.26
	Pendimethalin	92.1	89.5	88.7	90.9	2.92	2.46
	Phorate	72.9	73.8	106	94.0	1.22	12.2
	Prodiamine	103	98.1	93.5	83.5	4.89	11.2
	Prometon	87.3	93.3	95.8	110	6.62	13.7
	Prometryn	96.1	98.9	88.4	81.6	2.86	7.98
	Simazine	110	101	111	103	8.45	5.76
	Tebuconazole	27.9	90.9	95.1	43.6	106	41.6
	Terbufos	78.6	76.5	98.3	101	2.78	2.27
	Terbuthylazine	106	97.2	101	103	8.90	1.62
EPA 8321B	2,4-D	83.2		122	157		18.4
	Acesulfame K	95.8		77.6	76.9		0.928
	Acetaminophen	97.6		87.0	75.3		14.4
	AMPA	118		57.6	85.0		22.8
	Bentazon	69.4		42.8	47.3		3.20
	Carbamazepine	96.0		51.8	55.7		7.19
	Diuron	82.8		35.6	37.9		5.13
	Endothall	84.7		94.7	84.3		11.6
	Fenuron	171		80.6	82.7		2.63
	Fluridone	95.0		80.2	85.8		6.31
	Glufosinate	114		84.7	125		38.1
	Glyphosate	118		116	153		17.3
	Hydrocodone	98.2		67.3	67.7		0.602
	Ibuprofen	79.6		61.2	69.0		12.0
	Imazapyr	91.7		80.3	79.9		0.192
	Imidacloprid	92.7		109	113		3.67
	Linuron	77.2		37.9	43.5		13.6
	MCPP	96.9		158	180		12.7
	Naproxen	87.0		62.5	65.8		5.17
	Primidone	92.8		70.9	74.4		4.81
SM 2120 B SM 2320 B-97 SM 2540 C-97	Pyraclostrobin	75.4		55.9	68.0		19.5
	Sucralose	90.7		84.4	84.2		0.256
	Sucralose	80.6		109	87.6		21.3
	Triclopyr	70.5		83.2	109		26.7
	Color (true)	103				4.36	
	Total Alkalinity	102				0.494	
	TDS					1.40	
	TDS					6.06	
	Fluoride	98.4					0.509
	Organic Carbon	98.2		97.1	98.0		0.836

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
---------------------	-------------	--------------------

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2057895, 2057896
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2057908, 2057909
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2057908, 2057909
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2057895, 2057896
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2057895, 2057896
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2057897, 2057898
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2057897, 2057898
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2057897, 2057898
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2057897, 2057898
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2057899, 2057900
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2057910, 2057911
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2057906, 2057907
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2057906, 2057907
SM 2120 B / E31780	True Color measured at 450 nm	2057895, 2057896
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2057895, 2057896
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2057895, 2057896
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2057895, 2057896
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2057895, 2057896
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2057897, 2057898

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	01/29/2019			01/30/2019 16:34	Adrian Shelby	2057895, 2057896
EPA 200.7 Rev. 4.4	01/29/2019	02/04/2019 17:10	Elliott D. Healy	02/05/2019 16:13	Betina Topolski	2057908
	01/29/2019	02/04/2019 17:10	Elliott D. Healy	02/05/2019 17:23	Betina Topolski	2057909
EPA 200.8 Rev. 5.4	01/29/2019	02/04/2019 17:10	Elliott D. Healy	02/08/2019 18:42	Allison Taylor	2057908
	01/29/2019	02/04/2019 17:10	Elliott D. Healy	02/08/2019 20:27	Allison Taylor	2057909
	01/29/2019	02/04/2019 17:10	Elliott D. Healy	02/13/2019 20:39	Allison Taylor	2057908
	01/29/2019	02/04/2019 17:10	Elliott D. Healy	02/13/2019 21:10	Allison Taylor	2057909
	01/29/2019	02/14/2019 15:55	Elliott D. Healy	02/15/2019 18:30	Allison Taylor	2057908
	01/29/2019	02/14/2019 15:55	Elliott D. Healy	02/15/2019 19:46	Allison Taylor	2057909
EPA 300.0 Rev. 2.1	01/29/2019			02/04/2019 23:56	Lipi Saha	2057895
	01/29/2019			02/05/2019 00:11	Lipi Saha	2057896
EPA 350.1 Rev. 2.0	01/29/2019			02/01/2019 13:02	Ping Hua	2057898
	01/29/2019			02/01/2019 13:10	Ping Hua	2057897
EPA 351.2 Rev. 2.0	01/29/2019	02/01/2019 13:15	Adrian Shelby	02/04/2019 13:01	Joseph Suarez	2057897
	01/29/2019	02/01/2019 13:15	Adrian Shelby	02/04/2019 13:03	Joseph Suarez	2057898
EPA 353.2 Rev. 2.0	01/29/2019			01/31/2019 10:09	Beverly Y. Sanders	2057897
	01/29/2019			01/31/2019 10:11	Beverly Y. Sanders	2057898
EPA 365.1 Rev. 2.0	01/29/2019	01/31/2019 14:30	Sima Feizi	02/01/2019 15:07	Rosalyn Ballman	2057897
	01/29/2019	01/31/2019 14:30	Sima Feizi	02/01/2019 15:08	Rosalyn Ballman	2057898
EPA 365.1 Rev. 2.0 dissolved	01/29/2019			01/29/2019 16:35	Jhamieka S. Greenwood	2057899
	01/29/2019			01/29/2019 16:36	Jhamieka S. Greenwood	2057900
EPA 8270D	01/29/2019	02/01/2019 08:30	Rasheda Ghaffari	02/04/2019 22:55	Vandana T. Nagar	2057910
	01/29/2019	02/01/2019 08:30	Rasheda Ghaffari	02/04/2019 23:19	Vandana T. Nagar	2057911
EPA 8321B	01/29/2019	02/01/2019 09:00	Hoor Shaik	02/02/2019 00:31	Juyoung Kim	2057906
	01/29/2019	02/01/2019 09:00	Hoor Shaik	02/02/2019 01:05	Juyoung Kim	2057907
	01/29/2019	02/01/2019 09:00	Rebecca Ware	02/01/2019 13:10	Rebecca Ware	2057906
	01/29/2019	02/01/2019 09:00	Rebecca Ware	02/01/2019 13:32	Rebecca Ware	2057907
	01/29/2019	02/01/2019 09:00	Rebecca Ware	02/03/2019 01:35	Rebecca Ware	2057906
	01/29/2019	02/01/2019 09:00	Rebecca Ware	02/03/2019 01:49	Rebecca Ware	2057907
	01/29/2019	02/01/2019 09:00	Rebecca Ware	02/04/2019 18:44	Rebecca Ware	2057906
	01/29/2019	02/08/2019 12:30	Mohammad Ghaffari	02/16/2019 00:44	Mohammad Ghaffari	2057907
SM 2120 B	01/29/2019			01/29/2019 16:40	Chelsea Hernandez	2057895
	01/29/2019			01/29/2019 16:41	Chelsea Hernandez	2057896
SM 2320 B-97	01/29/2019			02/07/2019 12:15	Dale L. Simmons	2057895
	01/29/2019			02/07/2019 12:27	Dale L. Simmons	2057896
SM 2540 C-97	01/29/2019			01/31/2019 14:21	Yijie Li	2057895, 2057896
SM 2540 D-97	01/29/2019			01/31/2019 14:21	Yijie Li	2057895, 2057896
SM 4500 F-C-97	01/29/2019			02/07/2019 12:15	Dale L. Simmons	2057895
	01/29/2019			02/07/2019 12:27	Dale L. Simmons	2057896
SM 5310 B-00	01/29/2019			02/01/2019 15:09	Julia Storbeck	2057898

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-00	01/29/2019			02/01/2019 19:37	Julia Storbeck	2057897