Chemical Analysis Report

NW-DIST-2018-11-20-01

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

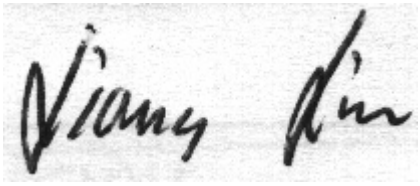
Event Description: **Choctawhatchee North run**
Request ID: **RQ-2018-11-12-25**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 208
Pensacola, FL 32502-5794
Attn: Cheryl Bunch

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: Liang Lin, Environmental Administrator

Date Certified: 17-DEC-2018 15:23



NON-CONFORMANCE REPORT INCLUDED

Case Narrative

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

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

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

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

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited 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: Sand Hammock Pond at Center **Collection Date/Time: 11/19/2018 10:20**

Field ID: G3NW0077 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2042756	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P354998	
	EPA 300.0 Rev. 2.1	Chloride	3.5		mg Cl/L	P355364	
		Sulfate	0.20	U	mg SO4/L	P355367	
	SM 2120 B	Color (true)	27		PCU	P355004	
	SM 2320 B-97	Total Alkalinity	5.2		mg CaCO3/L	P355467	
	SM 2540 C-97	TDS	24	I	mg/L	P355236	
	SM 2540 D-97	TSS	2	U	mg/L	P355195	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P355472	
2042758	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P355161	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.44		mg N/L	P355122	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.010		mg N/L	P355258	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P355030	
	SM 5310 B-00	Organic Carbon	4.1		mg C/L	P355172	
2042760	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P354993	

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

Sample Location: East Pittman Creek upstream of Hwy 179 **Collection Date/Time: 11/19/2018 12:00**

Field ID: G3NW0157 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2042750	EPA 180.1 Rev. 2.0	Turbidity	3.9		NTU	P354998	
	EPA 300.0 Rev. 2.1	Chloride	4.3		mg Cl/L	P355364	
		Sulfate	0.64		mg SO4/L	P355367	
	SM 2120 B	Color (true)	59		PCU	P355004	
	SM 2320 B-97	Total Alkalinity	7.7		mg CaCO3/L	P355467	
	SM 2540 C-97	TDS	38		mg/L	P355236	
	SM 2540 D-97	TSS	3	I	mg/L	P355195	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P355472	
2042752	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P355161	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.33		mg N/L	P355122	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.56		mg N/L	P355258	
	EPA 365.1 Rev. 2.0	Total-P	0.012		mg P/L	P355030	
	SM 5310 B-00	Organic Carbon	6.7		mg C/L	P355172	
2042754	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P354993	
2042771	EPA 8321B	Aldicarb	0.020	UY	ug/L	P354744	MS
		Aldicarb Sulfone	0.0020	UY	ug/L	P354744	
		Aldicarb Sulfoxide	0.0020	UY	ug/L	P354744	MS
		Carbaryl	0.0020	UY	ug/L	P354744	
		Carbofuran	0.0020	UY	ug/L	P354744	
		3-Hydroxycarbofuran	0.0020	UY	ug/L	P354744	
		Methiocarb	0.0020	UY	ug/L	P354744	
		Methomyl	0.0020	UY	ug/L	P354744	
		Oxamyl	0.0020	UY	ug/L	P354744	
		Propoxur	0.0020	UY	ug/L	P354744	
2042773		2,4-D	0.0020	U	ug/L	P354744	
		Sucralose**	0.010	U	ug/L	P355085	
		Bentazon	8.0E-04	U	ug/L	P354744	
		MCPP	0.0020	U	ug/L	P354744	
		Triclopyr**	0.0040	U	ug/L	P354744	
		Imidacloprid	0.0020	U	ug/L	P354744	
		Diuron	0.0020	U	ug/L	P354744	
		Pyraclostrobin**	0.0020	U	ug/L	P354744	
		Primidone**	0.0040	U	ug/L	P354744	
		Linuron	0.0040	U	ug/L	P354744	
		Acetaminophen**	0.0080	U	ug/L	P354744	
		Fenuron	0.016	U	ug/L	P354744	
		Imazapyr**	0.011	I	ug/L	P354744	
		Carbamazepine**	8.0E-04	U	ug/L	P354744	
		Fluridone**	4.0E-04	U	ug/L	P354744	
		Hydrocodone**	8.0E-04	U	ug/L	P354744	
		Naproxen**	0.0080	U	ug/L	P354744	
		Ibuprofen**	0.020	U	ug/L	P354744	
		Glyphosate**	0.10	U	ug/L	P354971	

Field ID: G3NW0157 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2042773	EPA 8321B	AMPA**	0.10	U	ug/L	P354971	
		Endothall**	0.25	U	ug/L	P354971	
		Glufosinate**	0.10	U	ug/L	P354971	
		Acesulfame K**	0.10	U	ug/L	P354971	
2042777	EPA 8270D	Aldrin	4.3	U	ng/L	P355010	
		Alpha-BHC	2.2	U	ng/L	P355010	
		Beta-BHC	4.3	U	ng/L	P355010	
		Delta-BHC	4.3	U	ng/L	P355010	MS
		Gamma-BHC	4.3	U	ng/L	P355010	
		Carbophenothion	4.3	U	ng/L	P355010	RPD
		Chlorothalonil	2.2	U	ng/L	P355010	MS, RPD
		Cypermethrin	22	U	ng/L	P355010	
		DDD-p,p'	3.3	U	ng/L	P355010	
		DDE-p,p'	3.3	U	ng/L	P355010	
		DDT-p,p'	3.3	U	ng/L	P355010	
		Dieldrin	4.3	U	ng/L	P355010	
		Endosulfan I	4.3	U	ng/L	P355010	
		Endosulfan II	4.3	U	ng/L	P355010	RPD
		Endosulfan Sulfate	2.2	U	ng/L	P355010	
		Endrin	2.2	U	ng/L	P355010	
		Endrin Aldehyde	2.2	U	ng/L	P355010	
		Heptachlor	1.6	U	ng/L	P355010	
		Heptachlor Epoxide	2.2	U	ng/L	P355010	
		Methoxychlor	4.3	U	ng/L	P355010	
		Mirex	2.2	U	ng/L	P355010	
		Permethrin	11	U	ng/L	P355010	
		Trifluralin	1.1	U	ng/L	P355010	
		Alpha-Chlordane	1.1	U	ng/L	P355010	
		Gamma-Chlordane	1.1	U	ng/L	P355010	
		Endrin Ketone	2.2	U	ng/L	P355010	
		Dicofol	33	U	ng/L	P355010	
	EPA 8276	Chlordane	2.7	U	ng/L	P355010	
		Toxaphene	33	U	ng/L	P355010	
2042779	EPA 8270D	Alachlor	0.26	U	ng/L	P354965	
		Ametryn	0.34	U	ng/L	P354965	
		Atrazine	0.67	I	ng/L	P354965	
		Atrazine Desethyl	1.6	U	ng/L	P354965	
		Azinphos Methyl	2.3	U	ng/L	P354965	
		Bromacil	0.52	U	ng/L	P354965	
		Butylate	0.41	UJ	ng/L	P354965	RPD
		Chlorpyrifos Ethyl	0.26	U	ng/L	P354965	
		Chlorpyrifos Methyl	0.10	U	ng/L	P354965	
		Demeton	2.1	U	ng/L	P354965	
		Diazinon	0.13	U	ng/L	P354965	
		Disulfoton	0.52	U	ng/L	P354965	

Field ID: G3NW0157 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2042779	EPA 8270D	EPTC	1.3	UJ	ng/L	P354965	RPD
		Ethion	0.16	U	ng/L	P354965	
		Ethoprop	0.10	U	ng/L	P354965	
		Fenamiphos	0.26	U	ng/L	P354965	
		Fipronil	0.26	U	ng/L	P354965	
		Fipronil Sulfide	0.16	U	ng/L	P354965	
		Fipronil Sulfone	0.16	UJ	ng/L	P354965	CCV
		Hexazinone	0.71	I	ng/L	P354965	
		Malathion	0.36	U	ng/L	P354965	
		Metribuzin	0.21	UJ	ng/L	P354965	RPD
		Mevinphos	0.52	U	ng/L	P354965	
		Molinate	0.31	U	ng/L	P354965	
		Norflurazon	0.52	U	ng/L	P354965	
		Pendimethalin	1.0	U	ng/L	P354965	
		Phorate	0.26	U	ng/L	P354965	
		Prometon	0.93	U	ng/L	P354965	
		Prometryn	0.21	UJ	ng/L	P354965	CCV
		Simazine	0.52	U	ng/L	P354965	
		Terbufos	0.10	U	ng/L	P354965	
		Terbuthylazine	0.44	U	ng/L	P354965	
		Fonofos	0.21	U	ng/L	P354965	
		Metalaxyl	0.26	U	ng/L	P354965	
		Metolachlor	0.46	I	ng/L	P354965	
		Acetochlor	0.26	U	ng/L	P354965	
		Cyanazine	0.52	U	ng/L	P354965	
		Parathion Ethyl	0.26	U	ng/L	P354965	
		Parathion Methyl	0.26	U	ng/L	P354965	
		Dimethenamid**	0.10	U	ng/L	P354965	
		Fipronil Desulfinyl**	0.13	UJ	ng/L	P354965	
		Dithiopyr**	0.10	U	ng/L	P354965	
		Prodiamine**	0.18	U	ng/L	P354965	
		Oxadiazon**	0.10	U	ng/L	P354965	
		Tebuconazole**	1.3	IJ	ng/L	P354965	RPD
2042783	EPA 200.7 Rev. 4.4	Calcium	3.52		mg/L	P355092	
		Iron	850		ug/L	P355092	
		Magnesium	1.16		mg/L	P355092	
		Potassium	0.86	I	mg/L	P355092	
		Sodium	2.1		mg/L	P355092	
		Zinc	5.0	U	ug/L	P355092	
	EPA 200.8 Rev. 5.4	Arsenic	0.37		ug/L	P355092	
		Cadmium	0.032	I	ug/L	P355092	
		Chromium	0.47	I	ug/L	P355092	
		Copper	0.27	I	ug/L	P355092	
		Lead	0.19	I	ug/L	P355092	
		Nickel	0.35	I	ug/L	P355092	

Field ID: G3NW0157 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2042783	EPA 200.8 Rev. 5.4	Silver	0.010	U	ug/L	P355092	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.
EPA 8270D: Estimated value for Fipronil Desulfinyl due to lack of the second source standard. Refer to the narrative for an explanation of QC Codes.

Sample Location: East Pittman Creek upstream of Hwy 179 **Collection Date/Time: 11/19/2018 12:10**

Field ID: G3NW0157_DUP Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2042751	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P354998	
	EPA 300.0 Rev. 2.1	Chloride	4.3		mg Cl/L	P355364	
		Sulfate	0.63		mg SO4/L	P355367	
	SM 2120 B	Color (true)	58		PCU	P355004	
	SM 2320 B-97	Total Alkalinity	7.3		mg CaCO3/L	P355467	
	SM 2540 C-97	TDS	38		mg/L	P355236	
	SM 2540 D-97	TSS	2	I	mg/L	P355195	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P355472	
2042753	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P355161	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.35		mg N/L	P355122	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.56		mg N/L	P355258	
	EPA 365.1 Rev. 2.0	Total-P	0.013		mg P/L	P355030	
	SM 5310 B-00	Organic Carbon	6.7		mg C/L	P355172	
2042755	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P354993	
2042772	EPA 8321B	Aldicarb	0.020	UY	ug/L	P354744	MS
		Aldicarb Sulfone	0.0020	UY	ug/L	P354744	
		Aldicarb Sulfoxide	0.0020	UY	ug/L	P354744	MS
		Carbaryl	0.0020	UY	ug/L	P354744	
		Carbofuran	0.0020	UY	ug/L	P354744	
		3-Hydroxycarbofuran	0.0020	UY	ug/L	P354744	
		Methiocarb	0.0020	UY	ug/L	P354744	
		Methomyl	0.0020	UY	ug/L	P354744	
		Oxamyl	0.0020	UY	ug/L	P354744	
		Propoxur	0.0020	UY	ug/L	P354744	
2042774		2,4-D	0.0020	U	ug/L	P354744	
		Sucralose**	0.010	U	ug/L	P355085	
		Bentazon	8.0E-04	U	ug/L	P354744	
		MCPP	0.0020	U	ug/L	P354744	
		Triclopyr**	0.0040	U	ug/L	P354744	
		Imidacloprid	0.0020	U	ug/L	P354744	
		Diuron	0.0020	U	ug/L	P354744	
		Pyraclostrobin**	0.0020	U	ug/L	P354744	
		Primidone**	0.0040	U	ug/L	P354744	
		Linuron	0.0040	U	ug/L	P354744	
		Acetaminophen**	0.0080	U	ug/L	P354744	
		Fenuron	0.016	U	ug/L	P354744	
		Imazapyr**	0.013	I	ug/L	P354744	
		Carbamazepine**	8.0E-04	U	ug/L	P354744	
		Fluridone**	4.0E-04	U	ug/L	P354744	
		Hydrocodone**	8.0E-04	U	ug/L	P354744	
		Naproxen**	0.0080	U	ug/L	P354744	
		Ibuprofen**	0.020	U	ug/L	P354744	
		Glyphosate**	0.10	U	ug/L	P354971	

Field ID: G3NW0157_DUP Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2042774	EPA 8321B	AMPA**	0.10	U	ug/L	P354971	
		Endothall**	0.25	U	ug/L	P354971	
		Glufosinate**	0.10	U	ug/L	P354971	
		Acesulfame K**	0.10	U	ug/L	P354971	
2042778	EPA 8270D	Aldrin	4.5	U	ng/L	P355010	
		Alpha-BHC	2.3	U	ng/L	P355010	
		Beta-BHC	4.5	U	ng/L	P355010	
		Delta-BHC	4.5	U	ng/L	P355010	MS
		Gamma-BHC	4.5	U	ng/L	P355010	
		Carbophenothion	4.5	U	ng/L	P355010	RPD
		Chlorothalonil	2.3	U	ng/L	P355010	MS, RPD
		Cypermethrin	23	U	ng/L	P355010	
		DDD-p,p'	3.4	U	ng/L	P355010	
		DDE-p,p'	3.4	U	ng/L	P355010	
		DDT-p,p'	3.4	U	ng/L	P355010	
		Dieldrin	4.5	U	ng/L	P355010	
		Endosulfan I	4.5	U	ng/L	P355010	
		Endosulfan II	4.5	U	ng/L	P355010	RPD
		Endosulfan Sulfate	2.3	U	ng/L	P355010	
		Endrin	2.3	U	ng/L	P355010	
		Endrin Aldehyde	2.3	U	ng/L	P355010	
		Heptachlor	1.7	U	ng/L	P355010	
		Heptachlor Epoxide	2.3	U	ng/L	P355010	
		Methoxychlor	4.5	U	ng/L	P355010	
		Mirex	2.3	U	ng/L	P355010	
		Permethrin	11	U	ng/L	P355010	
		Trifluralin	1.1	U	ng/L	P355010	
		Alpha-Chlordane	1.1	U	ng/L	P355010	
		Gamma-Chlordane	1.1	U	ng/L	P355010	
		Endrin Ketone	2.3	U	ng/L	P355010	
		Dicofol	34	U	ng/L	P355010	
	EPA 8276	Chlordane	2.8	U	ng/L	P355010	
		Toxaphene	34	U	ng/L	P355010	
2042780	EPA 8270D	Alachlor	0.27	U	ng/L	P354965	
		Ametryn	0.35	U	ng/L	P354965	
		Atrazine	0.64	I	ng/L	P354965	
		Atrazine Desethyl	1.6	U	ng/L	P354965	
		Azinphos Methyl	2.4	U	ng/L	P354965	
		Bromacil	0.54	U	ng/L	P354965	
		Butylate	0.43	UJ	ng/L	P354965	RPD
		Chlorpyrifos Ethyl	0.27	U	ng/L	P354965	
		Chlorpyrifos Methyl	0.11	U	ng/L	P354965	
		Demeton	2.2	U	ng/L	P354965	
		Diazinon	0.14	U	ng/L	P354965	
		Disulfoton	0.54	U	ng/L	P354965	

Field ID: G3NW0157_DUP Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2042780	EPA 8270D	EPTC	1.4	UJ	ng/L	P354965	RPD
		Ethion	0.16	U	ng/L	P354965	
		Ethoprop	0.11	U	ng/L	P354965	
		Fenamiphos	0.27	U	ng/L	P354965	
		Fipronil	0.27	U	ng/L	P354965	
		Fipronil Sulfide	0.16	U	ng/L	P354965	
		Fipronil Sulfone	0.16	UJ	ng/L	P354965	CCV
		Hexazinone	0.74	I	ng/L	P354965	
		Malathion	0.38	U	ng/L	P354965	
		Metribuzin	0.22	UJ	ng/L	P354965	RPD
		Mevinphos	0.54	U	ng/L	P354965	
		Molinate	0.33	U	ng/L	P354965	
		Norflurazon	0.54	U	ng/L	P354965	
		Pendimethalin	1.1	U	ng/L	P354965	
		Phorate	0.27	U	ng/L	P354965	
		Prometon	0.98	U	ng/L	P354965	
		Prometryn	0.22	UJ	ng/L	P354965	CCV
		Simazine	0.54	U	ng/L	P354965	
		Terbufos	0.11	U	ng/L	P354965	
		Terbuthylazine	0.46	U	ng/L	P354965	
		Fonofos	0.22	U	ng/L	P354965	
		Metalaxyl	0.27	U	ng/L	P354965	
		Metolachlor	0.47	I	ng/L	P354965	
		Acetochlor	0.27	U	ng/L	P354965	
		Cyanazine	0.54	U	ng/L	P354965	
		Parathion Ethyl	0.27	U	ng/L	P354965	
		Parathion Methyl	0.27	U	ng/L	P354965	
		Dimethenamid**	0.11	U	ng/L	P354965	
		Fipronil Desulfinyl**	0.14	UJ	ng/L	P354965	
		Dithiopyr**	0.11	U	ng/L	P354965	
		Prodiamine**	0.19	U	ng/L	P354965	
		Oxadiazon**	0.11	U	ng/L	P354965	
		Tebuconazole**	1.4	IJ	ng/L	P354965	RPD
2042784	EPA 200.7 Rev. 4.4	Calcium	3.61		mg/L	P355092	
		Iron	850		ug/L	P355092	
		Magnesium	1.16		mg/L	P355092	
		Potassium	0.85	I	mg/L	P355092	
		Sodium	2.2		mg/L	P355092	
		Zinc	5.0	U	ug/L	P355092	
	EPA 200.8 Rev. 5.4	Arsenic	0.35		ug/L	P355092	
		Cadmium	0.033	I	ug/L	P355092	
		Chromium	0.43	I	ug/L	P355092	
		Copper	0.26	I	ug/L	P355092	
		Lead	0.23		ug/L	P355092	
		Nickel	0.35	I	ug/L	P355092	

Field ID: G3NW0157_DUP Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2042784	EPA 200.8 Rev. 5.4	Silver	0.010	U	ug/L	P355092	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.
EPA 8270D: Estimated value for Fipronil Desulfinyl due to lack of the second source standard. Refer to the narrative for an explanation of QC Codes.

Sample Location: East Pittman Creek upstream of Hwy 179 **Collection Date/Time: 11/19/2018 12:15**

Field ID: BLANK_11132018 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2042762	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P354998	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P355364	
		Sulfate	0.20	U	mg SO4/L	P355367	
	SM 2120 B	Color (true)	2.5	U	PCU	P355004	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P355467	
	SM 2540 C-97	TDS	15	U	mg/L	P355236	
	SM 2540 D-97	TSS	2	U	mg/L	P355195	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P355472	
2042763	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P355161	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P355122	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P355258	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P355030	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P355172	
2042764	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P354993	
2042775	EPA 8321B	Aldicarb	0.020	UY	ug/L	P354744	MS
		Aldicarb Sulfone	0.0020	UY	ug/L	P354744	
		Aldicarb Sulfoxide	0.0020	UY	ug/L	P354744	MS
		Carbaryl	0.0020	UY	ug/L	P354744	
		Carbofuran	0.0020	UY	ug/L	P354744	
		3-Hydroxycarbofuran	0.0020	UY	ug/L	P354744	
		Methiocarb	0.0020	UY	ug/L	P354744	
		Methomyl	0.0020	UY	ug/L	P354744	
		Oxamyl	0.0020	UY	ug/L	P354744	
		Propoxur	0.0020	UY	ug/L	P354744	
2042776		2,4-D	0.0020	U	ug/L	P354744	
		Sucralose**	0.010	U	ug/L	P355085	
		Bentazon	8.0E-04	U	ug/L	P354744	
		MCPP	0.0020	U	ug/L	P354744	
		Triclopyr**	0.0040	U	ug/L	P354744	
		Imidacloprid	0.0020	U	ug/L	P354744	
		Diuron	0.0020	U	ug/L	P354744	
		Pyraclostrobin**	0.0020	U	ug/L	P354744	
		Primidone**	0.0040	U	ug/L	P354744	
		Linuron	0.0040	U	ug/L	P354744	
		Acetaminophen**	0.0080	U	ug/L	P354744	
		Fenuron	0.016	U	ug/L	P354744	
		Imazapyr**	0.0040	U	ug/L	P354744	
		Carbamazepine**	8.0E-04	U	ug/L	P354744	
		Fluridone**	4.0E-04	U	ug/L	P354744	
		Hydrocodone**	8.0E-04	U	ug/L	P354744	
		Naproxen**	0.0080	U	ug/L	P354744	
		Ibuprofen**	0.020	U	ug/L	P354744	
		Glyphosate**	0.10	U	ug/L	P354971	

Field ID: BLANK_11132018 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2042776	EPA 8321B	AMPA**	0.10	U	ug/L	P354971	
		Endothall**	0.25	U	ug/L	P354971	
		Glufosinate**	0.10	U	ug/L	P354971	
		Acesulfame K**	0.10	U	ug/L	P354971	
2042781	EPA 8270D	Aldrin	4.7	U	ng/L	P355010	
		Alpha-BHC	2.3	U	ng/L	P355010	
		Beta-BHC	4.7	U	ng/L	P355010	
		Delta-BHC	4.7	U	ng/L	P355010	MS
		Gamma-BHC	4.7	U	ng/L	P355010	
		Carbophenothion	4.7	U	ng/L	P355010	RPD
		Chlorothalonil	2.3	U	ng/L	P355010	MS, RPD
		Cypermethrin	23	U	ng/L	P355010	
		DDD-p,p'	3.5	U	ng/L	P355010	
		DDE-p,p'	3.5	U	ng/L	P355010	
		DDT-p,p'	3.5	U	ng/L	P355010	
		Dieldrin	4.7	U	ng/L	P355010	
		Endosulfan I	4.7	U	ng/L	P355010	
		Endosulfan II	4.7	U	ng/L	P355010	RPD
		Endosulfan Sulfate	2.3	U	ng/L	P355010	
		Endrin	2.3	U	ng/L	P355010	
		Endrin Aldehyde	2.3	U	ng/L	P355010	
		Heptachlor	1.8	U	ng/L	P355010	
		Heptachlor Epoxide	2.3	U	ng/L	P355010	
		Methoxychlor	4.7	U	ng/L	P355010	
		Mirex	2.3	U	ng/L	P355010	
		Permethrin	12	U	ng/L	P355010	
		Trifluralin	1.2	U	ng/L	P355010	
		Alpha-Chlordane	1.2	U	ng/L	P355010	
		Gamma-Chlordane	1.2	U	ng/L	P355010	
		Endrin Ketone	2.3	U	ng/L	P355010	
		Dicofol	35	U	ng/L	P355010	
	EPA 8276	Chlordane	2.9	U	ng/L	P355010	
		Toxaphene	35	U	ng/L	P355010	
2042782	EPA 8270D	Alachlor	0.28	U	ng/L	P354965	
		Ametryn	0.36	U	ng/L	P354965	
		Atrazine	0.28	U	ng/L	P354965	
		Atrazine Desethyl	1.7	U	ng/L	P354965	
		Azinphos Methyl	2.5	U	ng/L	P354965	
		Bromacil	0.55	U	ng/L	P354965	
		Butylate	0.44	UJ	ng/L	P354965	RPD
		Chlorpyrifos Ethyl	0.28	U	ng/L	P354965	
		Chlorpyrifos Methyl	0.11	U	ng/L	P354965	
		Demeton	2.2	U	ng/L	P354965	
		Diazinon	0.14	U	ng/L	P354965	
		Disulfoton	0.55	U	ng/L	P354965	

Field ID: BLANK_11132018 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2042782	EPA 8270D	EPTC	1.4	UJ	ng/L	P354965	RPD
		Ethion	0.17	U	ng/L	P354965	
		Ethoprop	0.11	U	ng/L	P354965	
		Fenamiphos	0.28	U	ng/L	P354965	
		Fipronil	0.28	U	ng/L	P354965	
		Fipronil Sulfide	0.17	U	ng/L	P354965	
		Fipronil Sulfone	0.17	UJ	ng/L	P354965	CCV
		Hexazinone	0.55	U	ng/L	P354965	
		Malathion	0.39	U	ng/L	P354965	
		Metribuzin	0.22	UJ	ng/L	P354965	RPD
		Mevinphos	0.55	U	ng/L	P354965	
		Molinate	0.33	U	ng/L	P354965	
		Norflurazon	0.55	U	ng/L	P354965	
		Pendimethalin	1.1	U	ng/L	P354965	
		Phorate	0.28	U	ng/L	P354965	
		Prometon	0.99	U	ng/L	P354965	
		Prometryn	0.22	UJ	ng/L	P354965	CCV
		Simazine	0.55	U	ng/L	P354965	
		Terbufos	0.11	U	ng/L	P354965	
		Terbuthylazine	0.47	U	ng/L	P354965	
		Fonofos	0.22	U	ng/L	P354965	
		Metalaxyl	0.28	U	ng/L	P354965	
		Metolachlor	0.28	U	ng/L	P354965	
		Acetochlor	0.28	U	ng/L	P354965	
		Cyanazine	0.55	U	ng/L	P354965	
		Parathion Ethyl	0.28	U	ng/L	P354965	
		Parathion Methyl	0.28	U	ng/L	P354965	
		Dimethenamid**	0.11	U	ng/L	P354965	
		Fipronil Desulfinyl**	0.14	UJ	ng/L	P354965	
		Dithiopyr**	0.11	U	ng/L	P354965	
		Prodiamine**	0.19	U	ng/L	P354965	
		Oxadiazon**	0.11	U	ng/L	P354965	
		Tebuconazole**	0.55	UJ	ng/L	P354965	RPD
2042785	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P355092	
		Iron	30	U	ug/L	P355092	
		Magnesium	0.040	U	mg/L	P355092	
		Potassium	0.30	U	mg/L	P355092	
		Sodium	0.50	U	mg/L	P355092	
		Zinc	5.0	U	ug/L	P355092	
	EPA 200.8 Rev. 5.4	Arsenic	0.050	U	ug/L	P355092	
		Cadmium	0.020	U	ug/L	P355092	
		Chromium	0.40	U	ug/L	P355092	
		Copper	0.20	U	ug/L	P355092	
		Lead	0.050	U	ug/L	P355092	
		Nickel	0.20	U	ug/L	P355887	

Field ID: BLANK_11132018 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2042785	EPA 200.8 Rev. 5.4	Silver	0.010	U	ug/L	P355092	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.
EPA 8270D: Estimated value for Fipronil Desulfinyl due to lack of the second source standard. Refer to the narrative for an explanation of QC Codes.

Sample Location: Seven Runs upstream of Hwy 81 **Collection Date/Time: 11/19/2018 13:30**

Field ID: G3NW0116 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2042757	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P354998	
	EPA 300.0 Rev. 2.1	Chloride	2.3		mg Cl/L	P355364	
		Sulfate	2.0		mg SO4/L	P355367	
	SM 2120 B	Color (true)	52	A	PCU	P355004	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P355467	
	SM 2540 C-97	TDS	20	I	mg/L	P355236	
	SM 2540 D-97	TSS	2	U	mg/L	P355195	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P355472	
2042759	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P355161	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.17	I	mg N/L	P355122	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.074		mg N/L	P355258	
	EPA 365.1 Rev. 2.0	Total-P	0.005	I	mg P/L	P355030	
	SM 5310 B-00	Organic Carbon	4.7		mg C/L	P355172	
2042761	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P354993	

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

Non-Conformance Report

NCR ID: 7337

Event(s)	Job(s)	Sample(s)	Test(s)
NW-DIST-2018-11-20-01	TLH-2018-11-20-19	2042771	
NW-DIST-2018-11-20-01	TLH-2018-11-20-19	2042772	
NW-DIST-2018-11-20-01	TLH-2018-11-20-19	2042775	

NCR Type: SHIPPING/RECEIVING **NCR Category: Preservation Not Intact**

Observation: Samples containers for W-CARB-AA were not pre-preserved in lab before collection.

Resolution: Customer contacted. Data will be qualified as appropriate.

Authorized by/Date: Joshua Ayres 11/27/2018

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

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P354998

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P355092

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P355092

Component	Result	Code	Units
Arsenic	0.050	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
Silver	0.010	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P355887

Component	Result	Code	Units
Nickel	0.20	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355364

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355367

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P355161

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: P355122

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P355258

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P355030

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P354993

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

Reference Method: EPA 8270D
Batch ID: P354965

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: P354965

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
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270D
Batch ID: P355010

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	4.0	U	ng/L
Carbophenothion	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	3.0	U	ng/L
DDE-p,p'	3.0	U	ng/L
DDT-p,p'	3.0	U	ng/L
Delta-BHC	4.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Gamma-BHC	4.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trifluralin	1.0	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8276
Batch ID: P355010

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Toxaphene	30	U	ng/L

Reference Method: EPA 8321B
Batch ID: P354744

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
3-Hydroxycarbofuran	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	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
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Oxamyl	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Propoxur	0.0020	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P354971

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

Reference Method: EPA 8321B
Batch ID: P355085

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 2120 B
Batch ID: P355004

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P355467

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

Reference Method: SM 2540 C-97
Batch ID: P355236

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P355195

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P355472

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P355172

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: P355092

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	96.3		P	85 - 115
Iron	98.5		P	85 - 115
Magnesium	101		P	85 - 115
Potassium	96.7		P	85 - 115
Sodium	96.1		P	85 - 115
Zinc	94.0		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P355092

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	103		P	85 - 115
Cadmium	105		P	85 - 115
Chromium	103		P	85 - 115
Copper	101		P	85 - 115
Lead	99.1		P	85 - 115
Nickel	101		P	85 - 115
Silver	97.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P355887

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Nickel	101		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355364

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355367

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P355161

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P355122

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P355258

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: P355030

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	97.1		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P354993

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

Reference Method: EPA 8270D
Batch ID: P354965

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	99.2	102	P/P	74 - 119
Alachlor	94.1	91.8	P/P	75 - 118
Ametryn	84.2	81.2	P/P	59 - 137
Atrazine	94.0	89.2	P/P	73 - 120
Atrazine Desethyl	73.6	65.8	P/P	19 - 129
Azinphos Methyl	89.1	95.9	P/P	65 - 181
Bromacil	72.7	76.5	P/P	43 - 123
Butylate	42.4	63.9	P/P	28 - 85.0
Chlorpyrifos Ethyl	90.7	95.0	P/P	55 - 112
Chlorpyrifos Methyl	112	88.2	P/P	35 - 124
Cyanazine	99.5	79.3	P/P	26 - 262
Demeton	71.1	80.6	P/P	43 - 122
Diazinon	110	95.5	P/P	72 - 120
Dimethenamid	98.9	100	P/P	60 - 130
Disulfoton	110	84.1	P/P	45 - 137
Dithiopyr	103	106	P/P	60 - 130
EPTC	45.2	66.3	P/P	28 - 95.0
Ethion	94.9	92.7	P/P	63 - 127
Ethoprop	81.8	93.4	P/P	63 - 109
Fenamiphos	95.5	91.7	P/P	66 - 136
Fipronil	69.5	92.8	P/P	63 - 126
Fipronil Sulfide	69.3	76.8	P/P	59 - 123
Fipronil Sulfone	69.0	79.5	P/P	56 - 122
Fonofos	102	83.6	P/P	64 - 114
Hexazinone	106	120	P/P	49 - 144
Malathion	94.0	93.4	P/P	68 - 131
Metalaxyl	88.2	87.2	P/P	57 - 126
Metolachlor	77.4	89.5	P/P	75 - 118
Metribuzin	107	75.8	P/P	46 - 169
Mevinphos	77.9	85.7	P/P	34 - 126
Molinate	57.8	75.4	P/P	37 - 101
Norflurazon	70.3	69.2	P/P	63 - 127
Oxadiazon	91.2	114	P/P	60 - 130
Parathion Ethyl	91.6	91.3	P/P	78 - 109

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P354965

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Parathion Methyl	117	108	P/P	74 - 123
Pendimethalin	107	109	P/P	51 - 130
Phorate	77.0	77.7	P/P	53 - 116
Prodiamine	74.4	88.2	P/P	60 - 130
Prometon	75.6	87.7	P/P	66 - 124
Prometryn	81.2	91.7	P/P	66 - 124
Simazine	98.9	95.5	P/P	62 - 134
Tebuconazole	53.2	83.6	P/P	30 - 100
Terbufos	102	83.9	P/P	59 - 115
Terbuthylazine	98.5	106	P/P	76 - 113

Reference Method: EPA 8270D
Batch ID: P355010

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	63.2	63.3	P/P	24 - 89.0
Alpha-BHC	102	98.4	P/P	58 - 117
Alpha-Chlordane	89.8	90.9	P/P	56 - 115
Beta-BHC	118	120	P/P	55 - 137
Carbophenothion	68.2	70.8	P/P	37 - 145
Chlorothalonil	115	114	P/P	26 - 163
Cypermethrin	69.2	71.3	P/P	42 - 156
DDD-p,p'	97.9	103	P/P	59 - 129
DDE-p,p'	87.5	88.0	P/P	52 - 117
DDT-p,p'	93.1	95.9	P/P	48 - 128
Delta-BHC	154	147	P/P	59 - 158
Dicofol	99.2	107	P/P	19 - 124
Dieldrin	95.3	95.4	P/P	57 - 126
Endosulfan I	95.4	95.3	P/P	59 - 133
Endosulfan II	105	117	P/P	58 - 148
Endosulfan Sulfate	91.7	94.7	P/P	56 - 135
Endrin	98.3	98.2	P/P	50 - 140
Endrin Aldehyde	105	105	P/P	47 - 141
Endrin Ketone	91.1	90.7	P/P	63 - 123
Gamma-BHC	109	107	P/P	59 - 132
Gamma-Chlordane	86.5	88.5	P/P	55 - 112
Heptachlor	74.5	71.7	P/P	45 - 102
Heptachlor Epoxide	92.6	93.5	P/P	61 - 116
Methoxychlor	109	113	P/P	60 - 133
Mirex	61.1	62.7	P/P	40 - 98.0
Permethrin	74.7	74.2	P/P	45 - 131
Trifluralin	86.7	88.9	P/P	38 - 179

Reference Method: EPA 8276
Batch ID: P355010

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	69.5	73.8	P/P	47 - 125
Toxaphene	71.8	70.2	P/P	46 - 147

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P354744

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	79.9		P	40 - 150
3-Hydroxycarbofuran	86.3		P	40 - 150
Acetaminophen	96.2		P	30 - 150
Aldicarb	69.3		P	30 - 150
Aldicarb Sulfone	79.5		P	40 - 150
Aldicarb Sulfoxide	79.1		P	40 - 150
Bentazon	83.4		P	30 - 150
Carbamazepine	74.3		P	40 - 150
Carbaryl	62.4		P	40 - 150
Carbofuran	65.9		P	40 - 150
Diuron	68.8		P	40 - 150
Fenuron	84.7		P	40 - 150
Fluridone	94.8		P	40 - 150
Hydrocodone	85.3		P	40 - 150
Ibuprofen	70.3		P	40 - 150
Imazapyr	74.2		P	40 - 150
Imidacloprid	97.6		P	40 - 160
Linuron	58.2		P	40 - 150
MCPP	96.8		P	40 - 150
Methiocarb	54.8		P	40 - 150
Methomyl	86.6		P	40 - 150
Naproxen	81.4		P	40 - 150
Oxamyl	79.9		P	40 - 150
Primidone	64.0		P	40 - 150
Propoxur	64.1		P	40 - 150
Pyraclostrobin	71.8		P	40 - 150
Triclopyr	60.6		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P354971

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	94.5		P	40 - 150
AMPA	84.4		P	40 - 150
Endothall	79.2		P	40 - 150
Glufosinate	75.2		P	40 - 150
Glyphosate	62.4		P	40 - 140

Reference Method: EPA 8321B
Batch ID: P355085

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	97.8		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P355004

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.7		P	85 - 115

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P355467

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.7		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P355472

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.9		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P355172

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.4		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P355092

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2042743	Calcium	96.1		P	80 - 120
2042743	Iron	101		P	80 - 120
2042743	Magnesium	95.1		P	80 - 120
2042743	Potassium	98.9		P	80 - 120
2042743	Sodium	98.0		P	80 - 120
2042743	Zinc	93.9		P	80 - 120
2042892	Calcium	97.3		P	80 - 120
2042892	Iron	95.5	94.4	P/P	80 - 120
2042892	Magnesium	97.9	96.1	P/P	80 - 120
2042892	Potassium	93.9	93.4	P/P	80 - 120
2042892	Sodium	96.8		P	80 - 120
2042892	Zinc	90.3	88.0	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P355092

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2042743	Arsenic	103		P	80 - 120
2042743	Cadmium	107		P	80 - 120
2042743	Chromium	104		P	80 - 120
2042743	Copper	97.5		P	80 - 120
2042743	Lead	100		P	80 - 120
2042743	Nickel	98.1		P	80 - 120
2042743	Silver	98.5		P	80 - 120
2042892	Arsenic	105	104	P/P	80 - 120
2042892	Cadmium	108	108	P/P	80 - 120
2042892	Chromium	106	105	P/P	80 - 120
2042892	Copper	98.5	97.5	P/P	80 - 120
2042892	Lead	103	102	P/P	80 - 120
2042892	Nickel	96.2	94.7	P/P	80 - 120
2042892	Silver	99.2	98.0	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P355887

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2042890	Nickel	96.6	96.9	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355364

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2042719	Chloride	96.2		P	90 - 110
2043000	Chloride	97.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355367

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2042719	Sulfate	97.1		P	90 - 110
2043000	Sulfate	101		P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P355161

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2042752	Ammonia-N	100	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P355122

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2042758	Kjeldahl Nitrogen	101	99.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P355258

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2042758	NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P355030

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2042722	Total-P	97.8	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P354993

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2042761	O-Phosphate-P	99.9	101	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P354965

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2043264	Acetochlor	96.5	86.0	P/P	67 - 125
2043264	Alachlor	86.6	75.9	P/P	69 - 123
2043264	Ametryn	86.2	65.5	P/P	52 - 151
2043264	Atrazine	92.4	86.5	P/P	71 - 125
2043264	Atrazine Desethyl	49.8	57.2	P/P	10 - 129
2043264	Azinphos Methyl	79.3	78.6	P/P	48 - 200
2043264	Bromacil	69.6	54.4	P/P	46 - 130
2043264	Butylate	41.4	47.6	P/P	10 - 85.0
2043264	Chlorpyrifos Ethyl	105	92.4	P/P	54 - 115
2043264	Chlorpyrifos Methyl	96.6	92.0	P/P	44 - 117
2043264	Cyanazine	75.1	73.7	P/P	10 - 262
2043264	Demeton	70.9	79.2	P/P	24 - 145
2043264	Diazinon	92.2	90.8	P/P	66 - 129
2043264	Dimethenamid	94.8	85.0	P/P	60 - 130
2043264	Disulfoton	94.9	95.7	P/P	45 - 139
2043264	Dithiopyr	97.5	87.7	P/P	60 - 130
2043264	EPTC	39.1	48.5	P/P	10 - 86.0
2043264	Ethion	98.6	83.4	P/P	59 - 133
2043264	Ethoprop	80.5	86.1	P/P	54 - 116
2043264	Fenamiphos	84.9	95.9	P/P	55 - 140
2043264	Fipronil	75.4	77.1	P/P	37 - 142
2043264	Fipronil Sulfide	73.0	73.6	P/P	37 - 130

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P354965

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2043264	Fipronil Sulfone	57.7	62.7	P/P	18 - 143
2043264	Fonofos	92.7	94.1	P/P	55 - 118
2043264	Hexazinone	91.1	106	P/P	62 - 140
2043264	Malathion	95.7	79.5	P/P	64 - 132
2043264	Metalaxyl	88.2	74.1	P/P	55 - 129
2043264	Metolachlor	90.6	74.5	P/P	56 - 137
2043264	Metribuzin	89.4	87.3	P/P	16 - 218
2043264	Mevinphos	70.6	83.3	P/P	34 - 129
2043264	Molinate	52.4	63.0	P/P	16 - 99.0
2043264	Norflurazon	61.4	52.9	P/P	43 - 135
2043264	Oxadiazon	98.1	97.3	P/P	60 - 130
2043264	Parathion Ethyl	88.6	86.7	P/P	71 - 112
2043264	Parathion Methyl	96.8	103	P/P	65 - 127
2043264	Pendimethalin	130	104	P/P	35 - 159
2043264	Phorate	86.6	98.3	P/P	41 - 129
2043264	Prodiamine	91.0	79.5	P/P	60 - 130
2043264	Prometon	80.1	81.3	P/P	56 - 140
2043264	Prometryn	82.2	72.6	P/P	65 - 130
2043264	Simazine	93.4	100	P/P	54 - 148
2043264	Tebuconazole	60.3	49.1	P/P	30 - 100
2043264	Terbufos	88.3	99.3	P/P	53 - 126
2043264	Terbuthylazine	96.8	103	P/P	73 - 114

Reference Method: EPA 8270D
Batch ID: P355010

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2042275	Aldrin	72.6	65.3	P/P	26 - 96.0
2042275	Alpha-BHC	106	99.4	P/P	51 - 123
2042275	Alpha-Chlordane	95.5	81.1	P/P	45 - 120
2042275	Beta-BHC	128	97.2	P/P	43 - 146
2042275	Carbophenothion	143	105	P/P	26 - 179
2042275	Chlorothalonil	236	135	F/P	10 - 215
2042275	Cypermethrin	93.1	79.6	P/P	35 - 169
2042275	DDD-p,p'	103	88.5	P/P	49 - 131
2042275	DDE-p,p'	92.0	78.9	P/P	39 - 127
2042275	DDT-p,p'	94.3	86.3	P/P	49 - 120
2042275	Delta-BHC	189	146	F/P	49 - 187
2042275	Dicofol	107	88.7	P/P	10 - 129
2042275	Dieldrin	105	90.9	P/P	46 - 132
2042275	Endosulfan I	101	90.9	P/P	57 - 130
2042275	Endosulfan II	130	95.4	P/P	52 - 148
2042275	Endosulfan Sulfate	97.3	79.6	P/P	55 - 129
2042275	Endrin	104	88.3	P/P	45 - 133
2042275	Endrin Aldehyde	85.8	81.3	P/P	26 - 140
2042275	Endrin Ketone	112	91.6	P/P	60 - 125
2042275	Gamma-BHC	139	127	P/P	50 - 145
2042275	Gamma-Chlordane	92.1	76.6	P/P	44 - 118
2042275	Heptachlor	73.5	68.7	P/P	35 - 106
2042275	Heptachlor Epoxide	98.1	82.7	P/P	52 - 123
2042275	Methoxychlor	107	103	P/P	54 - 132
2042275	Mirex	74.0	64.5	P/P	36 - 107

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P355010

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2042275	Permethrin	81.2	72.8	P/P	47 - 135
2042275	Trifluralin	93.0	83.5	P/P	32 - 228

Reference Method: EPA 8276
Batch ID: P355010

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2042862	Chlordane	81.3	80.5	P/P	41 - 134
2042862	Toxaphene	80.6	79.2	P/P	39 - 158

Reference Method: EPA 8321B
Batch ID: P354744

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2042004	3-Hydroxycarbofuran	53.4	59.2	P/P	40 - 150
2042004	Aldicarb	28.5	35.1	F/P	30 - 150
2042004	Aldicarb Sulfone	66.4	71.0	P/P	40 - 150
2042004	Aldicarb Sulfoxide	37.5	43.4	F/P	40 - 150
2042004	Carbaryl	44.4	51.4	P/P	40 - 150
2042004	Carbofuran	43.9	50.2	P/P	40 - 150
2042004	Methiocarb	44.6	53.8	P/P	40 - 150
2042004	Methomyl	79.4	68.5	P/P	40 - 150
2042004	Oxamyl	69.7	73.4	P/P	40 - 150
2042004	Propoxur	45.5	43.7	P/P	40 - 150
2042354	2,4-D	103	99.6	P/P	40 - 150
2042354	Acetaminophen	114	117	P/P	30 - 150
2042354	Bentazon	45.6	50.4	P/P	30 - 150
2042354	Carbamazepine	75.5	79.1	P/P	40 - 150
2042354	Diuron	66.9	69.6	P/P	40 - 150
2042354	Fenuron	79.6	82.6	P/P	40 - 150
2042354	Fluridone	88.3	103	P/P	40 - 150
2042354	Hydrocodone	80.1	80.7	P/P	40 - 150
2042354	Ibuprofen	81.7	90.2	P/P	40 - 150
2042354	Imazapyr	92.9	82.5	P/P	40 - 150
2042354	Imidacloprid	131	131	P/P	40 - 160
2042354	Linuron	64.7	64.6	P/P	40 - 150
2042354	MCPP	142	131	P/P	40 - 150
2042354	Naproxen	86.2	71.7	P/P	40 - 150
2042354	Primidone	70.7	72.9	P/P	40 - 150
2042354	Pyraclostrobin	51.6	51.7	P/P	40 - 150
2042354	Triclopyr	97.7	89.9	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P354971

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2042005	Acesulfame K	137	131	P/P	40 - 150
2042005	AMPA	94.9	90.2	P/P	40 - 150
2042005	Endothall	84.1	75.5	P/P	40 - 150
2042005	Glufosinate	69.3	71.9	P/P	40 - 150
2042005	Glyphosate	68.1	67.5	P/P	40 - 140

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P355085

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2042005	Sucralose	85.2	101	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P355472

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2042882	Fluoride	98.5	99.7	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P355172

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2042722	Organic Carbon	95.4	93.0	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P354998

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042811	Turbidity	3.59	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P355092

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042892	Calcium	0.644	Spike	P	0 - 20
2042892	Iron	0.922	Spike	P	0 - 20
2042892	Magnesium	1.02	Spike	P	0 - 20
2042892	Potassium	0.444	Spike	P	0 - 20
2042892	Sodium	0.0570	Spike	P	0 - 20
2042892	Zinc	2.58	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P355092

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042892	Arsenic	1.54	Spike	P	0 - 20
2042892	Cadmium	0.748	Spike	P	0 - 20
2042892	Chromium	0.795	Spike	P	0 - 20
2042892	Copper	1.06	Spike	P	0 - 20
2042892	Lead	0.825	Spike	P	0 - 20
2042892	Nickel	1.57	Spike	P	0 - 20
2042892	Silver	1.20	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P355887

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042890	Nickel	0.303	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355364

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042719	Chloride	0.0541	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P355367

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042719	Sulfate	0.526	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P355161

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042752	Ammonia-N	1.69	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P355122

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042758	Kjeldahl Nitrogen	1.24	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P355258

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042758	NO2NO3-N	0.473	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P355030

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042722	Total-P	3.45	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P354993

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042761	O-Phosphate-P	0.698	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P354965

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2043264	Acetochlor	11.5	Spike	P	0 - 30
2043264	Alachlor	13.2	Spike	P	0 - 30
2043264	Ametryn	27.3	Spike	P	0 - 30
2043264	Atrazine	6.61	Spike	P	0 - 30
2043264	Atrazine Desethyl	13.9	Spike	P	0 - 30
2043264	Azinphos Methyl	0.868	Spike	P	0 - 30
2043264	Bromacil	24.5	Spike	P	0 - 30
2043264	Butylate	13.9	Spike	P	0 - 30
2043264	Chlorpyrifos Ethyl	12.4	Spike	P	0 - 30
2043264	Chlorpyrifos Methyl	4.86	Spike	P	0 - 30
2043264	Cyanazine	1.84	Spike	P	0 - 30
2043264	Demeton	11.1	Spike	P	0 - 30
2043264	Diazinon	1.53	Spike	P	0 - 30
2043264	Dimethenamid	10.9	Spike	P	0 - 30
2043264	Disulfoton	0.812	Spike	P	0 - 30
2043264	Dithiopyr	10.5	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P354965

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2043264	EPTC	21.6	Spike	P	0 - 30
2043264	Ethion	16.7	Spike	P	0 - 30
2043264	Ethoprop	6.70	Spike	P	0 - 30
2043264	Fenamiphos	12.1	Spike	P	0 - 30
2043264	Fipronil	2.23	Spike	P	0 - 30
2043264	Fipronil Sulfide	0.861	Spike	P	0 - 30
2043264	Fipronil Sulfone	8.31	Spike	P	0 - 30
2043264	Fonofos	1.53	Spike	P	0 - 30
2043264	Hexazinone	14.9	Spike	P	0 - 30
2043264	Malathion	18.5	Spike	P	0 - 30
2043264	Metalaxyl	17.5	Spike	P	0 - 30
2043264	Metolachlor	19.5	Spike	P	0 - 30
2043264	Metribuzin	2.32	Spike	P	0 - 30
2043264	Mevinphos	16.5	Spike	P	0 - 30
2043264	Molinate	18.4	Spike	P	0 - 30
2043264	Norflurazon	14.9	Spike	P	0 - 30
2043264	Oxadiazon	0.749	Spike	P	0 - 30
2043264	Parathion Ethyl	2.17	Spike	P	0 - 30
2043264	Parathion Methyl	6.51	Spike	P	0 - 30
2043264	Pendimethalin	21.9	Spike	P	0 - 30
2043264	Phorate	12.8	Spike	P	0 - 30
2043264	Prodiamine	13.5	Spike	P	0 - 30
2043264	Prometon	1.44	Spike	P	0 - 30
2043264	Prometryn	12.4	Spike	P	0 - 30
2043264	Simazine	6.86	Spike	P	0 - 30
2043264	Tebuconazole	20.6	Spike	P	0 - 30
2043264	Terbufos	11.7	Spike	P	0 - 30
2043264	Terbuthylazine	6.64	Spike	P	0 - 30
LFB	Acetochlor	2.75	LCS	P	0 - 30
LFB	Alachlor	2.48	LCS	P	0 - 30
LFB	Ametryn	3.62	LCS	P	0 - 30
LFB	Atrazine	5.29	LCS	P	0 - 30
LFB	Atrazine Desethyl	11.2	LCS	P	0 - 30
LFB	Azinphos Methyl	7.40	LCS	P	0 - 30
LFB	Bromacil	5.14	LCS	P	0 - 30
LFB	Butylate	40.5	LCS	F	0 - 30
LFB	Chlorpyrifos Ethyl	4.57	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	24.1	LCS	P	0 - 30
LFB	Cyanazine	22.6	LCS	P	0 - 30
LFB	Demeton	12.6	LCS	P	0 - 30
LFB	Diazinon	14.2	LCS	P	0 - 30
LFB	Dimethenamid	1.24	LCS	P	0 - 30
LFB	Disulfoton	27.0	LCS	P	0 - 30
LFB	Dithiopyr	2.48	LCS	P	0 - 30
LFB	EPTC	37.8	LCS	F	0 - 30
LFB	Ethion	2.38	LCS	P	0 - 30
LFB	Ethoprop	13.2	LCS	P	0 - 30
LFB	Fenamiphos	4.06	LCS	P	0 - 30
LFB	Fipronil	28.7	LCS	P	0 - 30
LFB	Fipronil Sulfide	10.3	LCS	P	0 - 30
LFB	Fipronil Sulfone	14.2	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P354965

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fonofos	20.2	LCS	P	0 - 30
LFB	Hexazinone	12.6	LCS	P	0 - 30
LFB	Malathion	0.674	LCS	P	0 - 30
LFB	Metalaxyl	1.09	LCS	P	0 - 30
LFB	Metolachlor	14.5	LCS	P	0 - 30
LFB	Metribuzin	34.5	LCS	F	0 - 30
LFB	Mevinphos	9.61	LCS	P	0 - 30
LFB	Molinate	26.3	LCS	P	0 - 30
LFB	Norflurazon	1.66	LCS	P	0 - 30
LFB	Oxadiazon	21.8	LCS	P	0 - 30
LFB	Parathion Ethyl	0.303	LCS	P	0 - 30
LFB	Parathion Methyl	7.69	LCS	P	0 - 30
LFB	Pendimethalin	2.18	LCS	P	0 - 30
LFB	Phorate	0.959	LCS	P	0 - 30
LFB	Prodiamine	16.9	LCS	P	0 - 30
LFB	Prometon	14.8	LCS	P	0 - 30
LFB	Prometryn	12.1	LCS	P	0 - 30
LFB	Simazine	3.51	LCS	P	0 - 30
LFB	Tebuconazole	44.4	LCS	F	0 - 30
LFB	Terbufos	19.7	LCS	P	0 - 30
LFB	Terbuthylazine	7.04	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P355010

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042275	Aldrin	10.7	Spike	P	0 - 30
2042275	Alpha-BHC	6.25	Spike	P	0 - 30
2042275	Alpha-Chlordane	16.3	Spike	P	0 - 30
2042275	Beta-BHC	27.3	Spike	P	0 - 30
2042275	Carbophenothion	31.3	Spike	F	0 - 30
2042275	Chlorothalonil	54.4	Spike	F	0 - 30
2042275	Cypermethrin	15.6	Spike	P	0 - 30
2042275	DDD-p,p'	14.9	Spike	P	0 - 30
2042275	DDE-p,p'	15.3	Spike	P	0 - 30
2042275	DDT-p,p'	8.86	Spike	P	0 - 30
2042275	Delta-BHC	25.9	Spike	P	0 - 30
2042275	Dicofol	18.8	Spike	P	0 - 30
2042275	Dieldrin	14.0	Spike	P	0 - 30
2042275	Endosulfan I	10.1	Spike	P	0 - 30
2042275	Endosulfan II	30.5	Spike	F	0 - 30
2042275	Endosulfan Sulfate	20.0	Spike	P	0 - 30
2042275	Endrin	16.5	Spike	P	0 - 30
2042275	Endrin Aldehyde	5.37	Spike	P	0 - 30
2042275	Endrin Ketone	19.7	Spike	P	0 - 30
2042275	Gamma-BHC	8.77	Spike	P	0 - 30
2042275	Gamma-Chlordane	18.3	Spike	P	0 - 30
2042275	Heptachlor	6.76	Spike	P	0 - 30
2042275	Heptachlor Epoxide	17.0	Spike	P	0 - 30
2042275	Methoxychlor	4.49	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P355010

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042275	Mirex	13.8	Spike	P	0 - 30
2042275	Permethrin	10.9	Spike	P	0 - 30
2042275	Trifluralin	10.9	Spike	P	0 - 30
LFB	Aldrin	0.0518	LCS	P	0 - 30
LFB	Alpha-BHC	3.25	LCS	P	0 - 30
LFB	Alpha-Chlordane	1.19	LCS	P	0 - 30
LFB	Beta-BHC	1.54	LCS	P	0 - 30
LFB	Carbophenothion	3.70	LCS	P	0 - 30
LFB	Chlorothalonil	0.633	LCS	P	0 - 30
LFB	Cypermethrin	2.99	LCS	P	0 - 30
LFB	DDD-p,p'	4.72	LCS	P	0 - 30
LFB	DDE-p,p'	0.625	LCS	P	0 - 30
LFB	DDT-p,p'	2.92	LCS	P	0 - 30
LFB	Delta-BHC	4.51	LCS	P	0 - 30
LFB	Dicofol	7.33	LCS	P	0 - 30
LFB	Dieldrin	0.133	LCS	P	0 - 30
LFB	Endosulfan I	0.116	LCS	P	0 - 30
LFB	Endosulfan II	11.0	LCS	P	0 - 30
LFB	Endosulfan Sulfate	3.26	LCS	P	0 - 30
LFB	Endrin	0.0651	LCS	P	0 - 30
LFB	Endrin Aldehyde	0.662	LCS	P	0 - 30
LFB	Endrin Ketone	0.475	LCS	P	0 - 30
LFB	Gamma-BHC	1.52	LCS	P	0 - 30
LFB	Gamma-Chlordane	2.28	LCS	P	0 - 30
LFB	Heptachlor	3.84	LCS	P	0 - 30
LFB	Heptachlor Epoxide	0.949	LCS	P	0 - 30
LFB	Methoxychlor	2.83	LCS	P	0 - 30
LFB	Mirex	2.57	LCS	P	0 - 30
LFB	Permethrin	0.733	LCS	P	0 - 30
LFB	Trifluralin	2.58	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P355010

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042862	Chlordane	1.01	Spike	P	0 - 30
2042862	Toxaphene	1.70	Spike	P	0 - 30
LFB	Chlordane	6.01	LCS	P	0 - 30
LFB	Toxaphene	2.20	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P354744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042004	3-Hydroxycarbofuran	10.2	Spike	P	0 - 30
2042004	Aldicarb	20.6	Spike	P	0 - 30
2042004	Aldicarb Sulfone	6.65	Spike	P	0 - 30
2042004	Aldicarb Sulfoxide	14.5	Spike	P	0 - 30
2042004	Carbaryl	14.5	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P354744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042004	Carbofuran	13.5	Spike	P	0 - 30
2042004	Methiocarb	18.7	Spike	P	0 - 30
2042004	Methomyl	14.8	Spike	P	0 - 30
2042004	Oxamyl	5.17	Spike	P	0 - 30
2042004	Propoxur	4.07	Spike	P	0 - 30
2042354	2,4-D	3.35	Spike	P	0 - 30
2042354	Acetaminophen	2.12	Spike	P	0 - 30
2042354	Bentazon	9.54	Spike	P	0 - 30
2042354	Carbamazepine	4.66	Spike	P	0 - 30
2042354	Diuron	3.84	Spike	P	0 - 30
2042354	Fenuron	3.73	Spike	P	0 - 30
2042354	Fluridone	15.6	Spike	P	0 - 30
2042354	Hydrocodone	0.769	Spike	P	0 - 30
2042354	Ibuprofen	9.96	Spike	P	0 - 30
2042354	Imazapyr	11.1	Spike	P	0 - 30
2042354	Imidacloprid	0.375	Spike	P	0 - 30
2042354	Linuron	0.0690	Spike	P	0 - 30
2042354	MCPP	7.96	Spike	P	0 - 30
2042354	Naproxen	18.4	Spike	P	0 - 30
2042354	Primidone	3.13	Spike	P	0 - 30
2042354	Pyraclostrobin	0.156	Spike	P	0 - 30
2042354	Triclopyr	8.41	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P354971

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042005	Acesulfame K	4.13	Spike	P	0 - 30
2042005	AMPA	5.05	Spike	P	0 - 30
2042005	Endothall	10.8	Spike	P	0 - 30
2042005	Glufosinate	3.75	Spike	P	0 - 30
2042005	Glyphosate	0.793	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P355085

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042005	Sucralose	16.6	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P355004

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042757	Color (true)	2.84	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2320 B-97
Batch ID: P355467

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042882	Total Alkalinity	0.600	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P355236

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042833	TDS	9.39	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P355472

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042882	Fluoride	0.921	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P355172

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2042722	Organic Carbon	1.78	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: 2042771
Field Sample ID: G3NW0157

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	49.7	P	30 - 160

Lab Sample ID: 2042772
Field Sample ID: G3NW0157_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	46.7	P	30 - 160

Lab Sample ID: 2042773
Field Sample ID: G3NW0157

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	101	P	30 - 160
EPA 8321B	Acetaminophen-d4	90.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	75.0	P	30 - 160
EPA 8321B	Diuron-d6	77.6	P	30 - 160
EPA 8321B	Endothall-d6	85.3	P	40 - 160
EPA 8321B	Endothall-d6	85.3	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	71.1	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	71.1	P	40 - 160
EPA 8321B	Ibuprofen-d3	94.8	P	30 - 160
EPA 8321B	Primidone-d5	57.3	P	30 - 160
EPA 8321B	Sucralose-d6	108	P	40 - 160
EPA 8321B	Sucralose-d6	108	P	40 - 160

Lab Sample ID: 2042774
Field Sample ID: G3NW0157_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	96.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	94.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	79.2	P	30 - 160
EPA 8321B	Diuron-d6	88.2	P	30 - 160
EPA 8321B	Endothall-d6	89.0	P	40 - 160
EPA 8321B	Endothall-d6	89.0	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	78.6	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	78.6	P	40 - 160
EPA 8321B	Ibuprofen-d3	91.0	P	30 - 160
EPA 8321B	Primidone-d5	62.8	P	30 - 160
EPA 8321B	Sucralose-d6	94.2	P	40 - 160
EPA 8321B	Sucralose-d6	94.2	P	40 - 160

Lab Sample ID: 2042775
Field Sample ID: BLANK_11132018

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	65.1	P	30 - 160

Lab Sample ID: 2042776
Field Sample ID: BLANK_11132018

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits

Quality Assurance Report
Surrogates

Lab Sample ID: 2042776
Field Sample ID: BLANK_11132018

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	88.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	83.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	84.3	P	30 - 160
EPA 8321B	Diuron-d6	89.9	P	30 - 160
EPA 8321B	Endothall-d6	85.3	P	40 - 160
EPA 8321B	Endothall-d6	85.3	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	88.3	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	88.3	P	40 - 160
EPA 8321B	Ibuprofen-d3	88.0	P	30 - 160
EPA 8321B	Primidone-d5	120	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	40 - 160
EPA 8321B	Sucralose-d6	109	P	40 - 160

Lab Sample ID: 2042777
Field Sample ID: G3NW0157

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	60.3	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	56.8	P	34 - 101
EPA 8276	Decachlorobiphenyl	47.0	P	31 - 108
EPA 8276	PCNB	70.1	P	62 - 142

Lab Sample ID: 2042778
Field Sample ID: G3NW0157_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	62.0	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	56.6	P	34 - 101
EPA 8276	Decachlorobiphenyl	47.3	P	31 - 108
EPA 8276	PCNB	73.7	P	62 - 142

Lab Sample ID: 2042779
Field Sample ID: G3NW0157

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	86.3	P	71 - 126
EPA 8270D	Terbufos-d10	84.0	P	59 - 149

Lab Sample ID: 2042780
Field Sample ID: G3NW0157_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	86.0	P	71 - 126
EPA 8270D	Terbufos-d10	94.9	P	59 - 149

Lab Sample ID: 2042781
Field Sample ID: BLANK_11132018

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	76.0	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	76.7	P	34 - 101
EPA 8276	Decachlorobiphenyl	59.1	P	31 - 108

Quality Assurance Report
Surrogates

Lab Sample ID: 2042781
Field Sample ID: BLANK_11132018

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8276	PCNB	89.7	P	62 - 142

Lab Sample ID: 2042782
Field Sample ID: BLANK_11132018

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	80.6	P	71 - 126
EPA 8270D	Terbufos-d10	94.6	P	59 - 149

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A87896
Included Lab Sample IDs: 2042754, 2042755, 2042760, 2042761, 2042764

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.4	P/P	90 - 110
O-Phosphate-P	98.8	98.3	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A87897
Included Lab Sample IDs: 2042750, 2042751, 2042756, 2042757, 2042762

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

Reference Method: SM 2120 B
Run ID: A87898
Included Lab Sample IDs: 2042750, 2042751, 2042756, 2042757, 2042762

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.6	99.4	P/P	85 - 115

Reference Method: EPA 8321B
Run ID: A87927
Included Lab Sample IDs: 2042773, 2042774, 2042776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	86.9	84.1	P/P	60 - 160
Glufosinate	78.6	78.3	P/P	60 - 160
Glyphosate	63.0	65.3	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A87945
Included Lab Sample IDs: 2042773, 2042774, 2042776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	81.8	90.4	P/P	60 - 160
Endothall	83.1	81.9	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A87959
Included Lab Sample IDs: 2042752, 2042753, 2042758, 2042759, 2042763

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A87980
Included Lab Sample IDs: 2042752, 2042753, 2042758, 2042759, 2042763

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A87982
Included Lab Sample IDs: 2042783, 2042784, 2042785

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	103	99.7	P/P	90 - 110
Calcium	99.7	101	P/P	90 - 110
Iron	102	98.3	P/P	90 - 110
Iron	98.3	99.5	P/P	90 - 110
Magnesium	102	98.2	P/P	90 - 110
Magnesium	98.2	99.2	P/P	90 - 110
Potassium	102	98.4	P/P	90 - 110
Potassium	98.4	99.5	P/P	90 - 110
Sodium	100	101	P/P	90 - 110
Sodium	103	100	P/P	90 - 110
Zinc	93.1	98.9	P/P	90 - 110
Zinc	98.9	91.4	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A87989
Included Lab Sample IDs: 2042752, 2042753, 2042758, 2042759, 2042763

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.0	95.7	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A87992
Included Lab Sample IDs: 2042777, 2042778, 2042781

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	94.8		P	80 - 120
Toxaphene	93.4		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A87993
Included Lab Sample IDs: 2042750, 2042751, 2042756, 2042757, 2042762

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

Reference Method: EPA 8270D
Run ID: A88002
Included Lab Sample IDs: 2042781

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	90.6		P	80 - 120
Alpha-BHC	88.6		P	80 - 120
Alpha-Chlordane	92.4		P	80 - 120
Beta-BHC	94.5		P	80 - 120
Carbophenothion	91.2		P	80 - 120
Chlorothalonil	104		P	80 - 120
Cypermethrin	85.7		P	80 - 120
DDD-p,p'	92.4		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270D
Run ID: A88002
Included Lab Sample IDs: 2042781

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
DDE-p,p'	93.5		P	80 - 120
DDT-p,p'	99.0		P	80 - 120
Delta-BHC	96.5		P	80 - 120
Dicofol	97.3		P	80 - 120
Dieldrin	88.1		P	80 - 120
Endosulfan I	89.8		P	80 - 120
Endosulfan II	85.8		P	80 - 120
Endosulfan Sulfate	93.3		P	80 - 120
Endrin	93.3		P	80 - 120
Endrin Aldehyde	85.6		P	80 - 120
Endrin Ketone	92.3		P	80 - 120
Gamma-BHC	84.8		P	80 - 120
Gamma-Chlordane	91.7		P	80 - 120
Heptachlor	90.2		P	80 - 120
Heptachlor Epoxide	91.7		P	80 - 120
Methoxychlor	98.8		P	80 - 120
Mirex	95.2		P	80 - 120
Permethrin	89.1		P	80 - 120
Trifluralin	98.1		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A88004
Included Lab Sample IDs: 2042752, 2042753, 2042758, 2042759, 2042763

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

Reference Method: EPA 8321B
Run ID: A88012
Included Lab Sample IDs: 2042773, 2042774, 2042776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	107	98.4	P/P	50 - 150
3-Hydroxycarbofuran	100	110	P/P	50 - 150
3-Hydroxycarbofuran	111	107	P/P	50 - 150
Acetaminophen	114	118	P/P	60 - 160
Aldicarb	107	84.8	P/P	60 - 150
Aldicarb	142	95.9	P/P	60 - 150
Aldicarb Sulfone	77.0	89.3	P/P	50 - 150
Aldicarb Sulfone	95.8	101	P/P	50 - 150
Aldicarb Sulfoxide	96.8	96.9	P/P	50 - 150
Aldicarb Sulfoxide	97.2	95.3	P/P	50 - 150
Bentazon	119	118	P/P	50 - 160
Carbamazepine	118	110	P/P	60 - 160
Carbaryl	92.7	100	P/P	60 - 150
Carbaryl	98.2	101	P/P	60 - 150
Carbofuran	102	112	P/P	50 - 150
Carbofuran	99.5	103	P/P	50 - 150
Diuron	99.7	103	P/P	60 - 150
Fenuron	115	111	P/P	60 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A88012
Included Lab Sample IDs: 2042773, 2042774, 2042776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluridone	91.2	119	P/P	60 - 160
Hydrocodone	119	108	P/P	60 - 150
Ibuprofen	83.4	97.4	P/P	50 - 160
Imazapyr	90.0	94.4	P/P	50 - 150
Imidacloprid	109	102	P/P	60 - 160
Linuron	99.4	108	P/P	60 - 150
MCPP	114	99.3	P/P	50 - 150
Methiocarb	91.8	98.3	P/P	50 - 150
Methiocarb	98.8	103	P/P	50 - 150
Methomyl	108	105	P/P	50 - 150
Methomyl	94.9	99.8	P/P	50 - 150
Naproxen	73.2	87.8	P/P	50 - 160
Oxamyl	101	100	P/P	50 - 150
Oxamyl	85.8	95.0	P/P	50 - 150
Primidone	154	105	P/P	60 - 160
Propoxur	90.4	97.0	P/P	50 - 150
Propoxur	98.4	111	P/P	50 - 150
Pyraclostrobin	65.1	150	P/P	60 - 150
Triclopyr	96.0	95.5	P/P	50 - 160

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A88017
Included Lab Sample IDs: 2042752, 2042753, 2042758, 2042759, 2042763

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

Reference Method: EPA 8321B
Run ID: A88023
Included Lab Sample IDs: 2042773, 2042774, 2042776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	85.6	80.1	P/P	60 - 160

Reference Method: EPA 8270D
Run ID: A88049
Included Lab Sample IDs: 2042777, 2042778

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	95.2		P	80 - 120
Alpha-BHC	93.0		P	80 - 120
Alpha-Chlordane	94.5		P	80 - 120
Beta-BHC	89.7		P	80 - 120
Carbophenothion	98.0		P	80 - 120
Chlorothalonil	97.1		P	80 - 120
Cypermethrin	86.2		P	80 - 120
DDD-p,p'	83.2		P	80 - 120
DDE-p,p'	95.7		P	80 - 120
DDT-p,p'	102		P	80 - 120
Delta-BHC	93.3		P	80 - 120
Dicofol	96.8		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270D
Run ID: A88049
Included Lab Sample IDs: 2042777, 2042778

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dieldrin	95.2		P	80 - 120
Endosulfan I	94.0		P	80 - 120
Endosulfan II	114		P	80 - 120
Endosulfan Sulfate	93.8		P	80 - 120
Endrin	92.1		P	80 - 120
Endrin Aldehyde	92.6		P	80 - 120
Endrin Ketone	92.7		P	80 - 120
Gamma-BHC	92.7		P	80 - 120
Gamma-Chlordane	94.2		P	80 - 120
Heptachlor	92.8		P	80 - 120
Heptachlor Epoxide	94.1		P	80 - 120
Methoxychlor	100		P	80 - 120
Mirex	99.3		P	80 - 120
Permethrin	88.6		P	80 - 120
Trifluralin	93.3		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A88076
Included Lab Sample IDs: 2042783, 2042784, 2042785

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	101	99.6	P/P	90 - 110
Arsenic	102	101	P/P	90 - 110
Arsenic	99.9	102	P/P	90 - 110
Cadmium	102	103	P/P	90 - 110
Chromium	101	104	P/P	90 - 110
Chromium	104	105	P/P	90 - 110
Chromium	105	106	P/P	90 - 110
Copper	102	100	P/P	90 - 110
Copper	102	102	P/P	90 - 110
Copper	99.8	102	P/P	90 - 110
Lead	101	102	P/P	90 - 110
Lead	102	103	P/P	90 - 110
Lead	102	102	P/P	90 - 110
Nickel	102	100	P/P	90 - 110
Nickel	102	102	P/P	90 - 110
Silver	96.1	97.5	P/P	90 - 110
Silver	97.1	98.2	P/P	90 - 110
Silver	97.5	97.1	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A88097
Included Lab Sample IDs: 2042750, 2042751, 2042756, 2042757, 2042762

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	97.9	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500 F-C-97
Run ID: A88097
Included Lab Sample IDs: 2042750, 2042751, 2042756, 2042757, 2042762

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

Reference Method: EPA 8270D
Run ID: A88119
Included Lab Sample IDs: 2042779, 2042780, 2042782

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	111		P	80 - 120
Alachlor	115		P	80 - 120
Ametryn	105		P	80 - 120
Atrazine	91.5		P	80 - 120
Atrazine Desethyl	95.1		P	80 - 120
Azinphos Methyl	90.8		P	80 - 120
Bromacil	115		P	80 - 120
Butylate	96.5		P	80 - 120
Chlorpyrifos Ethyl	98.8		P	80 - 120
Chlorpyrifos Methyl	115		P	80 - 120
Cyanazine	94.8		P	80 - 120
Demeton	98.8		P	80 - 120
Diazinon	106		P	80 - 120
Dimethenamid	107		P	80 - 120
Disulfoton	112		P	80 - 120
Dithiopyr	112		P	80 - 120
EPTC	100		P	80 - 120
Ethion	98.7		P	80 - 120
Ethoprop	93.4		P	80 - 120
Fenamiphos	95.8		P	80 - 120
Fipronil	117		P	80 - 120
Fipronil Desulfinyl	107		P	80 - 120
Fipronil Sulfide	117		P	80 - 120
Fipronil Sulfone	128*		F	80 - 120
Fonofos	110		P	80 - 120
Hexazinone	96.5		P	80 - 120
Malathion	106		P	80 - 120
Metalaxyl	118		P	80 - 120
Metolachlor	112		P	80 - 120
Metribuzin	97.9		P	80 - 120
Mevinphos	104		P	80 - 120
Molinate	96.8		P	80 - 120
Norflurazon	96.4		P	80 - 120
Oxadiazon	113		P	80 - 120
Parathion Ethyl	97.7		P	80 - 120
Parathion Methyl	110		P	80 - 120
Pendimethalin	109		P	80 - 120
Phorate	110		P	80 - 120
Prodiamine	114		P	80 - 120
Prometon	99.6		P	80 - 120
Prometryn	124*		F	80 - 120
Simazine	103		P	80 - 120
Tebuconazole	92.7		P	80 - 120
Terbufos	103		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270D
Run ID: A88119
Included Lab Sample IDs: 2042779, 2042780, 2042782

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A88262
Included Lab Sample IDs: 2042783, 2042784

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A88319
Included Lab Sample IDs: 2042785

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Nickel	103	103	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			Precision		
							LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							3.59	
EPA 200.7 Rev. 4.4	Calcium	96.3		96.1	97.3				0.644
	Iron	98.5		101	95.5	94.4			0.922
	Magnesium	101		95.1	97.9	96.1			1.02
	Potassium	96.7		98.9	93.9	93.4			0.444
	Sodium	96.1		98.0	96.8				0.0570
	Zinc	94.0		93.9	90.3	88.0			2.58
EPA 200.8 Rev. 5.4	Arsenic	103		103	105	104			1.54
	Cadmium	105		107	108	108			0.748
	Chromium	103		104	106	105			0.795
	Copper	101		97.5	98.5	97.5			1.06
	Lead	99.1		100	103	102			0.825
	Nickel	101		98.1	96.2	94.7			1.57
	Nickel	101		96.6	96.9				0.303
	Silver	97.8		98.5	99.2	98.0			1.20
EPA 300.0 Rev. 2.1	Chloride	98.3		96.2	97.3			0.0541	
	Sulfate	99.4		97.1	101			0.526	
EPA 350.1 Rev. 2.0	Ammonia-N	95.7		100	98.2				1.69
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103		101	99.6				1.24
EPA 353.2 Rev. 2.0	NO2NO3-N	100		100	101				0.473
EPA 365.1 Rev. 2.0	Total-P	97.1		97.8	102				3.45
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102		99.9	101				0.698
EPA 8270D	Acetochlor	99.2	102	86.0	96.5		2.75		11.5
	Alachlor	94.1	91.8	86.6	75.9		2.48		13.2
	Aldrin	63.2	63.3	72.6	65.3		0.0518		10.7
	Alpha-BHC	102	98.4	106	99.4		3.25		6.25
	Alpha-Chlordane	89.8	90.9	95.5	81.1		1.19		16.3
	Ametryn	84.2	81.2	86.2	65.5		3.62		27.3
	Atrazine	94.0	89.2	92.4	86.5		5.29		6.61
	Atrazine Desethyl	73.6	65.8	57.2	49.8		11.2		13.9
	Azinphos Methyl	89.1	95.9	78.6	79.3		7.40		0.868
	Beta-BHC	118	120	128	97.2		1.54		27.3
	Bromacil	72.7	76.5	54.4	69.6		5.14		24.5
	Butylate	42.4	63.9	47.6	41.4		40.5		13.9
	Carbophenothion	68.2	70.8	105	143		3.70		31.3
	Chlorothalonil	115	114	135	236		0.633		54.4
	Chlorpyrifos Ethyl	90.7	95.0	92.4	105		4.57		12.4
	Chlorpyrifos Methyl	112	88.2	92.0	96.6		24.1		4.86
	Cyanazine	99.5	79.3	73.7	75.1		22.6		1.84
	Cypermethrin	69.2	71.3	79.6	93.1		2.99		15.6
	DDD-p,p'	97.9	103	88.5	103		4.72		14.9
	DDE-p,p'	87.5	88.0	92.0	78.9		0.625		15.3
	DDT-p,p'	93.1	95.9	94.3	86.3		2.92		8.86
	Delta-BHC	154	147	189	146		4.51		25.9
	Demeton	71.1	80.6	70.9	79.2		12.6		11.1
	Diazinon	110	95.5	92.2	90.8		14.2		1.53
	Dicofol	99.2	107	107	88.7		7.33		18.8
	Dieldrin	95.3	95.4	105	90.9		0.133		14.0
	Dimethenamid	98.9	100	85.0	94.8		1.24		10.9
	Disulfoton	110	84.1	94.9	95.7		27.0		0.812
	Dithiopyr	103	106	87.7	97.5		2.48		10.5
	Endosulfan I	95.4	95.3	101	90.9		0.116		10.1
	Endosulfan II	105	117	130	95.4		11.0		30.5
	Endosulfan Sulfate	91.7	94.7	97.3	79.6		3.26		20.0

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270D	Endrin	98.3	98.2	104	88.3	0.0651		16.5
	Endrin Aldehyde	105	105	85.8	81.3	0.662		5.37
	Endrin Ketone	91.1	90.7	112	91.6	0.475		19.7
	EPTC	45.2	66.3	39.1	48.5	37.8		21.6
	Ethion	94.9	92.7	98.6	83.4	2.38		16.7
	Ethoprop	81.8	93.4	80.5	86.1	13.2		6.70
	Fenamiphos	95.5	91.7	84.9	95.9	4.06		12.1
	Fipronil	69.5	92.8	75.4	77.1	28.7		2.23
	Fipronil Sulfide	69.3	76.8	73.0	73.6	10.3		0.861
	Fipronil Sulfone	69.0	79.5	57.7	62.7	14.2		8.31
	Fonofos	102	83.6	94.1	92.7	20.2		1.53
	Gamma-BHC	109	107	127	139	1.52		8.77
	Gamma-Chlordane	86.5	88.5	92.1	76.6	2.28		18.3
	Heptachlor	74.5	71.7	73.5	68.7	3.84		6.76
	Heptachlor Epoxide	92.6	93.5	98.1	82.7	0.949		17.0
	Hexazinone	106	120	91.1	106	12.6		14.9
	Malathion	94.0	93.4	95.7	79.5	0.674		18.5
	Metalaxyl	88.2	87.2	74.1	88.2	1.09		17.5
	Methoxychlor	109	113	107	103	2.83		4.49
	Metolachlor	77.4	89.5	74.5	90.6	14.5		19.5
	Metribuzin	107	75.8	89.4	87.3	34.5		2.32
	Mevinphos	77.9	85.7	70.6	83.3	9.61		16.5
	Mirex	61.1	62.7	74.0	64.5	2.57		13.8
	Molinate	57.8	75.4	52.4	63.0	26.3		18.4
	Norflurazon	70.3	69.2	61.4	52.9	1.66		14.9
	Oxadiazon	91.2	114	98.1	97.3	21.8		0.749
	Parathion Ethyl	91.6	91.3	86.7	88.6	0.303		2.17
	Parathion Methyl	117	108	103	96.8	7.69		6.51
	Pendimethalin	107	109	130	104	2.18		21.9
	Permethrin	74.7	74.2	81.2	72.8	0.733		10.9
	Phorate	77.0	77.7	86.6	98.3	0.959		12.8
	Prodiamine	74.4	88.2	79.5	91.0	16.9		13.5
	Prometon	75.6	87.7	80.1	81.3	14.8		1.44
	Prometryn	81.2	91.7	82.2	72.6	12.1		12.4
	Simazine	98.9	95.5	100	93.4	3.51		6.86
	Tebuconazole	53.2	83.6	60.3	49.1	44.4		20.6
	Terbufos	102	83.9	99.3	88.3	19.7		11.7
	Terbuthylazine	98.5	106	103	96.8	7.04		6.64
	Trifluralin	86.7	88.9	93.0	83.5	2.58		10.9
EPA 8276	Chlordane	69.5	73.8	81.3	80.5	6.01		1.01
	Toxaphene	71.8	70.2	80.6	79.2	2.20		1.70
EPA 8321B	2,4-D	79.9		103	99.6			3.35
	3-Hydroxycarbofuran	86.3		53.4	59.2			10.2
	Acesulfame K	94.5		137	131			4.13
	Acetaminophen	96.2		114	117			2.12
	Aldicarb	69.3		28.5	35.1			20.6
	Aldicarb Sulfone	79.5		66.4	71.0			6.65
	Aldicarb Sulfoxide	79.1		37.5	43.4			14.5
	AMPA	84.4		94.9	90.2			5.05
	Bentazon	83.4		45.6	50.4			9.54
	Carbamazepine	74.3		75.5	79.1			4.66
	Carbaryl	62.4		44.4	51.4			14.5
	Carbofuran	65.9		43.9	50.2			13.5
	Diuron	68.8		66.9	69.6			3.84

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Endothall	79.2	84.1	75.5			10.8
	Fenuron	84.7	79.6	82.6			3.73
	Fluridone	94.8	88.3	103			15.6
	Glufosinate	75.2	69.3	71.9			3.75
	Glyphosate	62.4	68.1	67.5			0.793
	Hydrocodone	85.3	80.1	80.7			0.769
	Ibuprofen	70.3	90.2	81.7			9.96
	Imazapyr	74.2	92.9	82.5			11.1
	Imidacloprid	97.6	131	131			0.375
	Linuron	58.2	64.7	64.6			0.0690
	MCPP	96.8	142	131			7.96
	Methiocarb	54.8	44.6	53.8			18.7
	Methomyl	86.6	79.4	68.5			14.8
	Naproxen	81.4	86.2	71.7			18.4
	Oxamyl	79.9	69.7	73.4			5.17
	Primidone	64.0	70.7	72.9			3.13
	Propoxur	64.1	45.5	43.7			4.07
	Pyraclostrobin	71.8	51.6	51.7			0.156
	Sucralose	97.8	85.2	101			16.6
	Triclopyr	60.6	97.7	89.9			8.41
SM 2120 B	Color (true)	97.7				2.84	
SM 2320 B-97	Total Alkalinity	99.7				0.600	
SM 2540 C-97	TDS					9.39	
SM 4500 F-C-97	Fluoride	97.9	98.5	99.7			0.921
SM 5310 B-00	Organic Carbon	95.4	95.4	93.0			1.78

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2042750, 2042751, 2042756, 2042757, 2042762
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2042783, 2042784, 2042785
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2042783, 2042784, 2042785
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2042750, 2042751, 2042756, 2042757, 2042762
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2042750, 2042751, 2042756, 2042757, 2042762
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2042752, 2042753, 2042758, 2042759, 2042763
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2042752, 2042753, 2042758, 2042759, 2042763
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2042752, 2042753, 2042758, 2042759, 2042763
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2042752, 2042753, 2042758, 2042759, 2042763
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2042754, 2042755, 2042760, 2042761, 2042764
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2042777, 2042778, 2042781
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2042779, 2042780, 2042782
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2042777, 2042778, 2042781
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2042771, 2042772, 2042775
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2042773, 2042774, 2042776

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2042773, 2042774, 2042776
SM 2120 B / E31780	True Color measured at 450 nm	2042750, 2042751, 2042756, 2042757, 2042762
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2042750, 2042751, 2042756, 2042757, 2042762
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2042750, 2042751, 2042756, 2042757, 2042762
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2042750, 2042751, 2042756, 2042757, 2042762
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2042750, 2042751, 2042756, 2042757, 2042762
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2042752, 2042753, 2042758, 2042759, 2042763

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	11/20/2018			11/20/2018 16:59	Megan Treadwell	2042750, 2042751, 2042756, 2042757, 2042762
EPA 200.7 Rev. 4.4	11/20/2018	11/26/2018 14:15	Elliott D. Healy	11/27/2018 18:44	Betina Topolski	2042785
	11/20/2018	11/26/2018 14:15	Elliott D. Healy	11/27/2018 20:23	Betina Topolski	2042783
	11/20/2018	11/26/2018 14:15	Elliott D. Healy	11/27/2018 20:28	Betina Topolski	2042784
EPA 200.8 Rev. 5.4	11/20/2018	11/26/2018 14:15	Elliott D. Healy	11/29/2018 18:57	Allison Taylor	2042785
	11/20/2018	11/26/2018 14:15	Elliott D. Healy	11/29/2018 21:51	Allison Taylor	2042783
	11/20/2018	11/26/2018 14:15	Elliott D. Healy	11/29/2018 22:29	Allison Taylor	2042784
	11/20/2018	11/26/2018 14:15	Elliott D. Healy	12/07/2018 17:26	Allison Taylor	2042783
	11/20/2018	11/26/2018 14:15	Elliott D. Healy	12/07/2018 17:35	Allison Taylor	2042784
	11/20/2018	12/10/2018 14:50	Elliott D. Healy	12/12/2018 03:40	Allison Taylor	2042785
EPA 300.0 Rev. 2.1	11/20/2018			11/29/2018 23:20	Lipi Saha	2042750
	11/20/2018			11/29/2018 23:32	Lipi Saha	2042751
	11/20/2018			11/30/2018 00:08	Lipi Saha	2042756
	11/20/2018			11/30/2018 00:20	Lipi Saha	2042757
	11/20/2018			11/30/2018 00:32	Lipi Saha	2042762
EPA 350.1 Rev. 2.0	11/20/2018			11/26/2018 14:47	Ping Hua	2042752
	11/20/2018			11/26/2018 14:49	Ping Hua	2042753
	11/20/2018			11/26/2018 14:50	Ping Hua	2042758
	11/20/2018			11/26/2018 14:52	Ping Hua	2042759
	11/20/2018			11/26/2018 14:58	Ping Hua	2042763
EPA 351.2 Rev. 2.0	11/20/2018	11/27/2018 12:30	Adrian Shelby	11/28/2018 10:07	Joseph Suarez	2042752
	11/20/2018	11/27/2018 12:30	Adrian Shelby	11/28/2018 10:09	Joseph Suarez	2042753
	11/20/2018	11/27/2018 12:30	Adrian Shelby	11/28/2018 10:10	Joseph Suarez	2042758
	11/20/2018	11/27/2018 12:30	Adrian Shelby	11/28/2018 10:18	Joseph Suarez	2042759
	11/20/2018	11/27/2018 12:30	Adrian Shelby	11/28/2018 10:20	Joseph Suarez	2042763
EPA 353.2 Rev. 2.0	11/20/2018			11/28/2018 12:53	Lauren Bottorf	2042758
	11/20/2018			11/28/2018 13:00	Lauren Bottorf	2042763
	11/20/2018			11/28/2018 13:03	Lauren Bottorf	2042752
	11/20/2018			11/28/2018 13:04	Lauren Bottorf	2042753
	11/20/2018			11/28/2018 13:05	Lauren Bottorf	2042759
EPA 365.1 Rev. 2.0	11/20/2018	11/21/2018 13:00	Sima Feizi	11/26/2018 15:22	Beverly Y. Sanders	2042763
	11/20/2018	11/21/2018 13:00	Sima Feizi	11/26/2018 15:25	Beverly Y. Sanders	2042752
	11/20/2018	11/21/2018 13:00	Sima Feizi	11/26/2018 15:26	Beverly Y. Sanders	2042753
	11/20/2018	11/21/2018 13:00	Sima Feizi	11/26/2018 15:27	Beverly Y. Sanders	2042758
	11/20/2018	11/21/2018 13:00	Sima Feizi	11/26/2018 15:28	Beverly Y. Sanders	2042759
EPA 365.1 Rev. 2.0 dissolved	11/20/2018			11/20/2018 14:41	Jhamieka S. Greenwood	2042761
	11/20/2018			11/20/2018 15:14	Jhamieka S. Greenwood	2042764
	11/20/2018			11/20/2018 15:15	Jhamieka S. Greenwood	2042754, 2042755
	11/20/2018			11/20/2018 15:17	Jhamieka S. Greenwood	2042760

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270D	11/20/2018	11/21/2018 08:00	Fe-Val Siddell	11/27/2018 20:21	Vandana T. Nagar	2042779
	11/20/2018	11/21/2018 08:00	Fe-Val Siddell	11/27/2018 20:45	Vandana T. Nagar	2042780
	11/20/2018	11/21/2018 08:00	Fe-Val Siddell	11/27/2018 21:09	Vandana T. Nagar	2042782
	11/20/2018	11/21/2018 08:30	Rasheda Ghaffari	11/28/2018 01:30	Arthur Maknenko	2042781
	11/20/2018	11/21/2018 08:30	Rasheda Ghaffari	11/29/2018 17:21	Arthur Maknenko	2042777
	11/20/2018	11/21/2018 08:30	Rasheda Ghaffari	11/29/2018 17:51	Arthur Maknenko	2042778
EPA 8276	11/20/2018	11/21/2018 08:30	Rasheda Ghaffari	11/28/2018 04:40	Dinesh Mishra	2042777
	11/20/2018	11/21/2018 08:30	Rasheda Ghaffari	11/28/2018 05:36	Dinesh Mishra	2042778
	11/20/2018	11/21/2018 08:30	Rasheda Ghaffari	11/28/2018 06:31	Dinesh Mishra	2042781
EPA 8321B	11/20/2018	11/21/2018 07:30	Rebecca Ware	11/21/2018 09:05	Rebecca Ware	2042773
	11/20/2018	11/21/2018 07:30	Rebecca Ware	11/21/2018 09:16	Rebecca Ware	2042774
	11/20/2018	11/21/2018 07:30	Rebecca Ware	11/21/2018 09:26	Rebecca Ware	2042776
	11/20/2018	11/21/2018 07:30	Rebecca Ware	11/21/2018 13:44	Rebecca Ware	2042773
	11/20/2018	11/21/2018 07:30	Rebecca Ware	11/21/2018 13:58	Rebecca Ware	2042774
	11/20/2018	11/21/2018 07:30	Rebecca Ware	11/21/2018 14:12	Rebecca Ware	2042776
	11/20/2018	11/21/2018 07:30	Rebecca Ware	11/28/2018 11:18	Rebecca Ware	2042773
	11/20/2018	11/21/2018 07:30	Rebecca Ware	11/28/2018 11:32	Rebecca Ware	2042774
	11/20/2018	11/21/2018 07:30	Rebecca Ware	11/28/2018 11:46	Rebecca Ware	2042776
	11/20/2018	11/21/2018 10:00	Hoor Shaik	11/28/2018 03:09	Juyoung Kim	2042772
	11/20/2018	11/21/2018 10:00	Hoor Shaik	11/28/2018 03:25	Juyoung Kim	2042775
	11/20/2018	11/21/2018 10:00	Hoor Shaik	11/28/2018 07:00	Juyoung Kim	2042773
	11/20/2018	11/21/2018 10:00	Hoor Shaik	11/28/2018 07:17	Juyoung Kim	2042774
	11/20/2018	11/21/2018 10:00	Hoor Shaik	11/28/2018 07:33	Juyoung Kim	2042776
	11/20/2018	11/21/2018 10:00	Hoor Shaik	11/28/2018 12:01	Juyoung Kim	2042771
SM 2120 B	11/20/2018			11/20/2018 15:23	Chelsea Hernandez	2042750
	11/20/2018			11/20/2018 15:24	Chelsea Hernandez	2042751
	11/20/2018			11/20/2018 15:25	Chelsea Hernandez	2042756
	11/20/2018			11/20/2018 15:26	Chelsea Hernandez	2042757
	11/20/2018			11/20/2018 15:27	Chelsea Hernandez	2042762
SM 2320 B-97	11/20/2018			11/29/2018 23:54	Dale L. Simmons	2042750
	11/20/2018			11/30/2018 00:05	Dale L. Simmons	2042751
	11/20/2018			11/30/2018 00:16	Dale L. Simmons	2042756
	11/20/2018			11/30/2018 00:27	Dale L. Simmons	2042757
	11/20/2018			11/30/2018 00:41	Dale L. Simmons	2042762
SM 2540 C-97	11/20/2018			11/21/2018 16:40	Blanca Fach	2042750, 2042751, 2042756, 2042757, 2042762
SM 2540 D-97	11/20/2018			11/21/2018 16:40	Blanca Fach	2042750, 2042751, 2042756, 2042757, 2042762
SM 4500 F-C-97	11/20/2018			11/29/2018 23:54	Dale L. Simmons	2042750
	11/20/2018			11/30/2018 00:05	Dale L. Simmons	2042751

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	11/20/2018			11/30/2018 00:16	Dale L. Simmons	2042756
	11/20/2018			11/30/2018 00:27	Dale L. Simmons	2042757
	11/20/2018			11/30/2018 00:41	Dale L. Simmons	2042762
SM 5310 B-00	11/20/2018			11/21/2018 23:42	Megan Treadwell	2042752
	11/20/2018			11/21/2018 23:55	Megan Treadwell	2042753
	11/20/2018			11/22/2018 00:09	Megan Treadwell	2042758
	11/20/2018			11/22/2018 00:22	Megan Treadwell	2042759
	11/20/2018			11/22/2018 00:35	Megan Treadwell	2042763