

Chemical Analysis Report

SO-DIST-2020-02-25-02

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

Event Description: **2020 SMP : DeSoto Cricks**
Request ID: **RQ-2020-02-24-39**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901-3381
Attn: Nicole Reistad

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: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 19-MAR-2020 09:25



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: HawthorneCreek@Reynolds

Collection Date/Time: 02/24/2020 11:50

Field ID: G3SD0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2160465	EPA 180.1 Rev. 2.0	Turbidity	0.80		NTU	P379640	
	EPA 300.0 Rev. 2.1	Chloride	190		mg Cl/L	P380162	
		Sulfate	140		mg SO4/L	P380165	
	SM 2120 B-2011	Color (true)	50	A	PCU	P379674	
	SM 2320 B-2011	Total Alkalinity	144		mg CaCO3/L	P380175	
	SM 2540 C-2011	TDS	652		mg/L	P379979	
	SM 2540 D-2011	TSS	2	I	mg/L	P379974	
2160466	SM 4500 F-C-2011	Fluoride	0.40		mg F/L	P380680	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.025		mg N/L	P379913	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.86		mg N/L	P379760	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.48		mg N/L	P380100	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P380041	
2160467	SM 5310 B-2011	Organic Carbon	12		mg C/L	P379712	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.12		mg P/L	P379688	
2160477	EPA 8321B	2,4-D	0.0090		ug/L	P379716	
		Acesulfame K**	0.10	U	ug/L	P379709	
		AMPA**	1.2		ug/L	P379709	
		Sucralose**	0.52		ug/L	P379709	
		Acetaminophen**	0.0080	U	ug/L	P379716	
		Acetamiprid**	0.0020	U	ug/L	P379716	
		Endothall**	0.25	U	ug/L	P379709	
		Glufosinate**	0.10	U	ug/L	P379709	
		Glyphosate**	0.74		ug/L	P379709	
		Afidopyropen**	0.0020	UJ	ug/L	P379716	
		Bentazon	0.027		ug/L	P379716	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P379716	
		Carbamazepine**	0.0027	I	ug/L	P379716	
		Clothianidin**	0.12		ug/L	P379716	
		Dinotefuran**	0.0024	I	ug/L	P379716	
		Diuron	0.010		ug/L	P379716	
		Fenuron	0.14		ug/L	P379716	
		Fluridone**	8.0E-04	U	ug/L	P379716	
		Imazapyr**	0.018		ug/L	P379716	
		Hydrocodone**	0.0020	U	ug/L	P379716	
		Ibuprofen**	0.020	U	ug/L	P379716	
		Imidacloprid	0.61		ug/L	P379716	
		Linuron	0.0040	U	ug/L	P379716	
		Mandestrobin**	0.0020	UJ	ug/L	P379716	
		MCP	0.0020	UJ	ug/L	P379716	LCS, MS
		Naproxen**	0.0080	U	ug/L	P379716	
		Primidone**	0.0040	U	ug/L	P379716	
		Pyraclostrobin**	0.0020	U	ug/L	P379716	
		Thiamethoxam**	0.40		ug/L	P379716	

Field ID: G3SD0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2160477	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P379716	
		Triclopyr**	0.0040	U	ug/L	P379716	
2160483	EPA 200.7 Rev. 4.4	Barium	43.6		ug/L	P379765	
		Calcium	106		mg/L	P379765	
		Iron	88	I	ug/L	P379765	
		Magnesium	27.3		mg/L	P379765	
		Potassium	10.7		mg/L	P379765	
		Sodium	82.7		mg/L	P379765	
		Zinc	5.0	U	ug/L	P379765	
	EPA 200.8 Rev. 5.4	Aluminum	18	I	ug/L	P379765	
		Antimony	0.67		ug/L	P379765	
		Arsenic	1.26		ug/L	P379765	
		Boron**	68.4		ug/L	P379765	
		Cadmium	0.045	I	ug/L	P379765	
		Chromium	0.40	I	ug/L	P379765	
		Copper	1.19		ug/L	P379765	
		Lead	0.20	U	ug/L	P379765	
		Nickel	2.2		ug/L	P379765	
		Selenium	0.33	I	ug/L	P379765	
		Silver	0.010	U	ug/L	P379765	
		Thallium	0.10	U	ug/L	P379765	
	SM 2340B	Hardness	377		mg/L	P379765	

Ref. Method and Comment:

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

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

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for barium and sodium 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.

Sample Location: Hog Bay @ CR 763

Collection Date/Time: 02/24/2020 12:20

Field ID: G3SD0096

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2160462	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P379640	
	EPA 300.0 Rev. 2.1	Chloride	120		mg Cl/L	P380162	
		Sulfate	140		mg SO4/L	P380165	
	SM 2120 B-2011	Color (true)	50		PCU	P379673	
	SM 2320 B-2011	Total Alkalinity	111		mg CaCO3/L	P380175	
	SM 2540 C-2011	TDS	521		mg/L	P379979	
	SM 2540 D-2011	TSS	2	U	mg/L	P379974	
	SM 4500 F-C-2011	Fluoride	0.26		mg F/L	P380680	
2160463	EPA 350.1 Rev. 2.0	Ammonia-N	0.047		mg N/L	P379913	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P379759	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.65		mg N/L	P380100	
	EPA 365.1 Rev. 2.0	Total-P	0.087		mg P/L	P380041	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P379712	
2160464	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.064		mg P/L	P379688	
2160476	EPA 8321B	2,4-D	0.0027	I	ug/L	P379716	
		Acesulfame K**	0.10	U	ug/L	P379709	
		AMPA**	0.82		ug/L	P379709	
		Sucralose**	0.56		ug/L	P379709	
		Acetaminophen**	0.0080	U	ug/L	P379716	
		Acetamiprid**	0.0020	U	ug/L	P379716	
		Endothall**	0.25	U	ug/L	P379709	
		Glufosinate**	0.10	U	ug/L	P379709	
		Glyphosate**	1.1		ug/L	P379709	
		Afidopyropen**	0.0020	UJ	ug/L	P379716	
		Bentazon	8.0E-04	U	ug/L	P379716	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P379716	
		Carbamazepine**	0.0078		ug/L	P379716	
		Clothianidin**	0.12		ug/L	P379716	
		Dinotefuran**	0.0020	U	ug/L	P379716	
		Diuron	0.0038	I	ug/L	P379716	
		Fenuron	0.016	U	ug/L	P379716	
		Fluridone**	8.0E-04	U	ug/L	P379716	
		Imazapyr**	0.024		ug/L	P379716	
		Hydrocodone**	0.0020	U	ug/L	P379716	
		Ibuprofen**	0.020	U	ug/L	P379716	
		Imidacloprid	0.78		ug/L	P379716	
		Linuron	0.0040	U	ug/L	P379716	
		Mandestrobin**	0.0020	UJ	ug/L	P379716	
		MCP	0.0020	UJ	ug/L	P379716	LCS, MS
		Naproxen**	0.0080	U	ug/L	P379716	
		Primidone**	0.0070	I	ug/L	P379716	
		Pyraclostrobin**	0.0020	U	ug/L	P379716	
		Thiamethoxam**	0.37		ug/L	P379716	

Field ID: G3SD0096

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2160476	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P379716	
		Triclopyr**	0.0040	U	ug/L	P379716	
2160482	EPA 200.7 Rev. 4.4	Barium	45.1		ug/L	P379765	
		Calcium	80.9		mg/L	P379765	
		Iron	150		ug/L	P379765	
		Magnesium	20.0		mg/L	P379765	
		Potassium	13.0		mg/L	P379765	
		Sodium	57.4		mg/L	P379765	
		Zinc	5.0	U	ug/L	P379765	
	EPA 200.8 Rev. 5.4	Aluminum	32		ug/L	P379765	
		Antimony	1.45		ug/L	P379765	
		Arsenic	1.08		ug/L	P379765	
		Boron**	88.5		ug/L	P379765	
		Cadmium	0.020	U	ug/L	P379765	
		Chromium	0.59	I	ug/L	P379765	
		Copper	1.26		ug/L	P379765	
		Lead	0.20	U	ug/L	P379765	
		Nickel	3.1		ug/L	P379765	
		Selenium	0.53	I	ug/L	P379765	
		Silver	0.010	U	ug/L	P379765	
		Thallium	0.13	I	ug/L	P379765	
	SM 2340B	Hardness	284		mg/L	P379765	

Ref. Method and Comment:

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

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

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for barium and sodium 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.

Sample Location: Joshua Creek @ 17

Collection Date/Time: 02/24/2020 13:25

Field ID: G3SD0159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2160468	EPA 180.1 Rev. 2.0	Turbidity	1.5		NTU	P379640	
	EPA 300.0 Rev. 2.1	Chloride	140		mg Cl/L	P380162	
		Sulfate	140		mg SO4/L	P380165	
	SM 2120 B-2011	Color (true)	56		PCU	P379673	
	SM 2320 B-2011	Total Alkalinity	109		mg CaCO3/L	P380175	
	SM 2540 C-2011	TDS	511		mg/L	P379979	
	SM 2540 D-2011	TSS	2	I	mg/L	P379974	
	SM 4500 F-C-2011	Fluoride	0.36		mg F/L	P380680	
2160469	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P379913	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.79		mg N/L	P379760	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.33		mg N/L	P380100	
	EPA 365.1 Rev. 2.0	Total-P	0.21		mg P/L	P380041	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P379712	
2160470	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.17		mg P/L	P379688	
2160478	EPA 8321B	Aldicarb	0.020	U	ug/L	P379532	
		Aldicarb Sulfone	0.0020	U	ug/L	P379532	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P379532	
		Carbaryl	0.0020	U	ug/L	P379532	
		Carbofuran	0.0020	U	ug/L	P379532	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P379532	
		Methiocarb	0.0020	U	ug/L	P379532	
		Methomyl	0.0020	U	ug/L	P379532	
		Oxamyl	0.0020	U	ug/L	P379532	
		Propoxur	0.0020	U	ug/L	P379532	
		2,4-D	0.041		ug/L	P379716	
		Acesulfame K**	0.10	U	ug/L	P379709	
		AMPA**	1.1		ug/L	P379709	
2160479		Sucralose**	0.10		ug/L	P380454	
		Acetaminophen**	0.0080	U	ug/L	P379716	
		Acetamiprid**	0.0020	U	ug/L	P379716	
		Endothall**	0.25	U	ug/L	P379709	
		Glufosinate**	0.10	U	ug/L	P379709	
		Glyphosate**	0.70		ug/L	P379709	
		Afidopyropen**	0.0020	UJ	ug/L	P379716	
		Bentazon	0.012		ug/L	P379716	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P379716	
		Carbamazepine**	0.0016	I	ug/L	P379716	
		Clothianidin**	0.12		ug/L	P379716	
		Dinotefuran**	0.0020	U	ug/L	P379716	
		Diuron	0.0076	I	ug/L	P379716	
		Fenuron	0.065		ug/L	P379716	
		Fluridone**	8.0E-04	U	ug/L	P379716	
		Imazapyr**	0.15		ug/L	P379716	

Field ID: G3SD0159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2160479	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P379716	
		Ibuprofen**	0.020	U	ug/L	P379716	
		Imidacloprid	0.42		ug/L	P379716	
		Linuron	0.0040	U	ug/L	P379716	
		Mandestrobin**	0.0020	UJ	ug/L	P379716	
		MCP	0.0020	UJ	ug/L	P379716	LCS, MS
		Naproxen**	0.0080	U	ug/L	P379716	
		Primidone**	0.0040	U	ug/L	P379716	
		Pyraclostrobin**	0.0020	U	ug/L	P379716	
		Thiamethoxam**	0.39		ug/L	P379716	
		Tolfenpyrad**	0.0020	U	ug/L	P379716	
		Triclopyr**	0.0040	U	ug/L	P379716	
2160480	EPA 8270E	Aldrin	4.3	U	ng/L	P379650	
		Alpha-BHC	2.1	U	ng/L	P379650	
		Alpha-Chlordane	1.1	U	ng/L	P379650	
		Beta-BHC	11	U	ng/L	P379650	
		Beta-Cyfluthrin**	16	U	ng/L	P379650	
		Bifenthrin**	4.3	U	ng/L	P379650	
		Delta-BHC	8.6	UJ	ng/L	P379650	CCV
		Gamma-BHC	8.6	U	ng/L	P379650	
		Chlorothalonil	2.1	UJ	ng/L	P379650	CCV
		Cis-Nonachlor**	1.1	I	ng/L	P379650	
		Cypermethrin	21	U	ng/L	P379650	
		Dacthal**	1.1	U	ng/L	P379650	
		DDD-p,p'	6.4	U	ng/L	P379650	
		DDE-p,p'	6.4	U	ng/L	P379650	
		DDT-p,p'	7.5	U	ng/L	P379650	
		Dicofol	32	U	ng/L	P379650	
		Dieldrin	4.3	U	ng/L	P379650	
		Endosulfan I	4.3	U	ng/L	P379650	
		Endosulfan II	4.3	U	ng/L	P379650	
		Endosulfan Sulfate	2.1	U	ng/L	P379650	
		Endrin	2.1	U	ng/L	P379650	
		Endrin Aldehyde	2.1	U	ng/L	P379650	
		Endrin Ketone	2.1	U	ng/L	P379650	
		Ethalfuralin**	3.2	U	ng/L	P379650	
		Gamma-Chlordane	1.1	U	ng/L	P379650	
		Heptachlor	1.6	U	ng/L	P379650	
		Heptachlor Epoxide	2.1	U	ng/L	P379650	
		Hexachlorobenzene	2.1	U	ng/L	P379650	
		Lambda-Cyhalothrin**	16	U	ng/L	P379650	
		Methoxychlor	4.3	U	ng/L	P379650	
		Mirex	2.1	U	ng/L	P379650	
		Permethrin	11	U	ng/L	P379650	
		Phenothrin**	32	U	ng/L	P379650	

Field ID: G3SD0159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2160480	EPA 8270E	Prallethrin**	32	U	ng/L	P379650	
		Trans-Nonachlor**	1.1	U	ng/L	P379650	
		Trifluralin	2.7	U	ng/L	P379650	
		Chlordane	17	I	ng/L	P379650	
		Toxaphene	32	U	ng/L	P379650	
2160481	EPA 8270E	Acetochlor	0.24	U	ng/L	P379639	
		Alachlor	0.24	U	ng/L	P379639	
		Ametryn	0.58	U	ng/L	P379639	
		Atrazine	1.5		ng/L	P379639	
		Atrazine Desethyl	1.5	U	ng/L	P379639	
		Azinphos Methyl	4.8	U	ng/L	P379639	
		Bromacil	870		ng/L	P379639	
		Butylate	0.39	UJ	ng/L	P379639	RPD
		Carbophenothion	0.48	U	ng/L	P379639	
		Chlorpyrifos Ethyl	5.8		ng/L	P379639	
		Chlorpyrifos Methyl	0.048	U	ng/L	P379639	
		Cyanazine	3.1	U	ng/L	P379639	
		Demeton	6.8	U	ng/L	P379639	
		Diazinon	0.12	U	ng/L	P379639	
		Dimethenamid**	0.097	U	ng/L	P379639	
		Disulfoton	0.48	U	ng/L	P379639	
		Dithiopyr**	0.097	U	ng/L	P379639	
		EPTC	1.2	UJ	ng/L	P379639	LCS, RPD
		Ethion	0.15	U	ng/L	P379639	
		Ethoprop	0.097	U	ng/L	P379639	
		Fenamiphos	0.48	U	ng/L	P379639	
		Fipronil	0.24	U	ng/L	P379639	
		Fipronil Desulfinyl**	0.12	U	ng/L	P379639	
		Fipronil Sulfide	0.15	U	ng/L	P379639	
		Fipronil Sulfone	0.15	U	ng/L	P379639	
		Flumioxazin**	1.7	U	ng/L	P379639	
		Fonofos	0.19	U	ng/L	P379639	
		Hexazinone	26		ng/L	P379639	
		Imazalil**	0.73	U	ng/L	P379639	
		Malathion	0.34	U	ng/L	P379639	
		Metalaxyl	61		ng/L	P379639	
		Metolachlor	16		ng/L	P379639	
		Metribuzin	3.1	U	ng/L	P379639	
		Mevinphos	0.48	U	ng/L	P379639	
		Molinate	0.29	U	ng/L	P379639	
		Norflurazon	1.0E+03		ng/L	P379639	
		Oxadiazon**	0.16	I	ng/L	P379639	
		Parathion Ethyl	0.24	U	ng/L	P379639	
		Parathion Methyl	0.53	U	ng/L	P379639	
		Pendimethalin	0.97	U	ng/L	P379639	

Field ID: G3SD0159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2160481	EPA 8270E	Phorate	0.24	U	ng/L	P379639	
		Prodiamine**	0.17	U	ng/L	P379639	
		Prometon	0.87	U	ng/L	P379639	
		Prometryn	0.19	U	ng/L	P379639	
		Pronamide**	0.15	U	ng/L	P379639	
		Propiconazole**	0.48	U	ng/L	P379639	
		Simazine	0.48	U	ng/L	P379639	
		Sulfentrazone**	5.2	J	ng/L	P379639	LCS
		Tebuconazole**	1.4	I	ng/L	P379639	
		Terbufos	0.097	U	ng/L	P379639	
		Terbuthylazine	0.41	U	ng/L	P379639	
2160484	EPA 200.7 Rev. 4.4	Barium	37.6		ug/L	P379765	
		Calcium	83.7		mg/L	P379765	
		Iron	200		ug/L	P379765	
		Magnesium	25.9		mg/L	P379765	
		Potassium	11.4		mg/L	P379765	
		Sodium	58.2		mg/L	P379765	
		Zinc	5.0	U	ug/L	P379765	
	EPA 200.8 Rev. 5.4	Aluminum	47		ug/L	P379765	
		Antimony	0.48		ug/L	P379765	
		Arsenic	0.95		ug/L	P379765	
		Boron**	64.4		ug/L	P379765	
		Cadmium	0.052	I	ug/L	P379765	
		Chromium	0.54	I	ug/L	P379765	
		Copper	0.96		ug/L	P379765	
		Lead	0.20	U	ug/L	P379765	
		Nickel	1.6	I	ug/L	P379765	
		Selenium	0.24	I	ug/L	P379765	
		Silver	0.010	U	ug/L	P379765	
		Thallium	0.10	U	ug/L	P379765	
		Hardness	316		mg/L	P379765	

Ref. Method and Comment:

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

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

EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8270E: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for barium and sodium 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.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379640

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P379765

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: P379765

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380162

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380165

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379913

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: P379759

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379760

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380100

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P380041

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379688

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

Reference Method: EPA 8270E
Batch ID: P379639

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	5.0	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Carbophenothion	0.50	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P379639

Component	Result	Code	Units
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Flumioxazin	1.8	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	3.2	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
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8270E
Batch ID: P379650

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	10	U	ng/L
Beta-Cyfluthrin	15	U	ng/L
Bifenthrin	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
Dacthal	1.0	U	ng/L
DDD-p,p'	6.0	U	ng/L
DDE-p,p'	6.0	U	ng/L
DDT-p,p'	7.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P379650

Component	Result	Code	Units
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
Ethalfuralin	3.0	U	ng/L
Gamma-BHC	8.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Lambda-Cyhalothrin	15	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Phenothrin	30	U	ng/L
Prallethrin	30	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8276
Batch ID: P379650

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

Reference Method: EPA 8321B
Batch ID: P379532

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

Reference Method: EPA 8321B
Batch ID: P379709

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.014	I	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P379716

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

Reference Method: EPA 8321B
Batch ID: P380454

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B-2011
Batch ID: P379673

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B-2011
Batch ID: P379674

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P380175

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-2011
Batch ID: P379979

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P379974

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P380680

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P379712

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: P379765

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	103		P	85 - 115
Calcium	109		P	85 - 115
Iron	105		P	85 - 115
Magnesium	113		P	85 - 115
Potassium	102		P	85 - 115
Sodium	101		P	85 - 115
Zinc	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P379765

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	80 - 120
Antimony	95.7		P	80 - 120
Arsenic	102		P	80 - 120
Boron	105		P	80 - 120
Cadmium	100		P	80 - 120
Chromium	103		P	80 - 120
Copper	102		P	80 - 120
Lead	98.6		P	80 - 120
Nickel	103		P	80 - 120
Selenium	98.6		P	80 - 120
Silver	98.4		P	80 - 120
Thallium	101		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380162

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380165

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379913

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379759

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P379760

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P380100

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P380041

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P379688

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

Reference Method: EPA 8270E
 Batch ID: P379639

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	90.1	89.6	P/P	71 - 122
Alachlor	91.9	91.9	P/P	70 - 121
Ametryn	99.0	96.5	P/P	49 - 137
Atrazine	99.5	100	P/P	76 - 125
Atrazine Desethyl	76.5	82.9	P/P	31 - 144
Azinphos Methyl	130	134	P/P	67 - 150
Bromacil	65.1	72.2	P/P	36 - 121
Butylate	33.1	64.7	P/P	33 - 88.0
Carbophenothion	105	108	P/P	50 - 150
Chlorpyrifos Ethyl	98.7	102	P/P	73 - 117
Chlorpyrifos Methyl	99.2	98.1	P/P	68 - 121
Cyanazine	103	98.8	P/P	20 - 250
Demeton	77.1	87.3	P/P	30 - 123
Diazinon	89.2	88.2	P/P	70 - 128
Dimethenamid	88.3	90.2	P/P	66 - 122
Disulfoton	81.6	88.8	P/P	46 - 124
Dithiopyr	88.8	88.3	P/P	69 - 122
EPTC	20.7	53.8	F/P	31 - 90.0
Ethion	102	108	P/P	45 - 135
Ethoprop	84.8	88.5	P/P	59 - 118
Fenamiphos	99.4	99.3	P/P	30 - 136
Fipronil	87.8	91.9	P/P	57 - 127
Fipronil Desulfinyl	92.4	93.9	P/P	51 - 122
Fipronil Sulfide	85.8	82.3	P/P	57 - 119
Fipronil Sulfone	87.0	92.4	P/P	51 - 119
Flumioxazin	82.6	99.5	P/P	70 - 200
Fonofos	91.0	91.1	P/P	60 - 120
Hexazinone	100	101	P/P	57 - 142

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P379639

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Imazalil	83.6	85.0	P/P	50 - 150
Malathion	109	112	P/P	67 - 128
Metalaxyl	95.1	94.6	P/P	21 - 148
Metolachlor	89.7	91.0	P/P	70 - 120
Metribuzin	136	124	P/P	20 - 253
Mevinphos	87.0	93.1	P/P	47 - 116
Molinate	56.4	72.9	P/P	41 - 99.0
Norflurazon	90.3	89.9	P/P	54 - 127
Oxadiazon	91.7	90.7	P/P	65 - 122
Parathion Ethyl	93.1	91.9	P/P	71 - 113
Parathion Methyl	105	104	P/P	73 - 129
Pendimethalin	89.3	90.8	P/P	63 - 130
Phorate	83.9	78.3	P/P	48 - 118
Prodiamine	52.5	57.1	P/P	20 - 144
Prometon	88.1	93.0	P/P	53 - 120
Prometryn	91.3	90.9	P/P	63 - 119
Pronamide	96.4	102	P/P	50 - 150
Propiconazole	86.8	88.4	P/P	50 - 150
Simazine	95.6	100	P/P	77 - 129
Sulfentrazone	20.0	21.1	F/F	50 - 150
Tebuconazole	63.7	66.9	P/P	20 - 118
Terbufos	88.5	92.4	P/P	61 - 119
Terbutylazine	92.5	92.4	P/P	75 - 119

Reference Method: EPA 8270E
Batch ID: P379650

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	61.1	64.7	P/P	20 - 87.0
Alpha-BHC	91.0	85.9	P/P	65 - 142
Alpha-Chlordane	85.5	86.4	P/P	58 - 106
Beta-BHC	100	98.7	P/P	65 - 179
Beta-Cyfluthrin	97.2	92.5	P/P	50 - 150
Bifenthrin	84.9	87.0	P/P	38 - 128
Chlorothalonil	126	97.2	P/P	20 - 214
Cis-Nonachlor	91.1	90.1	P/P	56 - 113
Cypermethrin	95.5	90.4	P/P	37 - 130
Dacthal	90.2	90.1	P/P	50 - 150
DDD-p,p'	96.5	95.0	P/P	66 - 119
DDE-p,p'	82.0	83.1	P/P	53 - 108
DDT-p,p'	75.8	76.4	P/P	57 - 133
Delta-BHC	139	125	P/P	68 - 187
Dicofol	82.0	87.8	P/P	66 - 123
Diieldrin	92.9	96.3	P/P	65 - 111
Endosulfan I	99.0	91.4	P/P	65 - 115
Endosulfan II	107	102	P/P	68 - 133
Endosulfan Sulfate	100	97.1	P/P	62 - 127
Endrin	94.8	99.2	P/P	64 - 122
Endrin Aldehyde	79.0	80.5	P/P	61 - 132
Endrin Ketone	98.4	100	P/P	66 - 120
Ethalfuralin	74.1	74.0	P/P	57 - 127
Gamma-BHC	110	101	P/P	71 - 158

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P379650

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Gamma-Chlordane	80.2	80.3	P/P	53 - 106
Heptachlor	68.9	68.6	P/P	45 - 96.0
Heptachlor Epoxide	87.6	87.4	P/P	64 - 109
Hexachlorobenzene	64.8	65.1	P/P	46 - 103
Lambda-Cyhalothrin	91.0	85.1	P/P	50 - 150
Methoxychlor	90.7	91.4	P/P	69 - 149
Mirex	65.7	66.2	P/P	31 - 90.0
Permethrin	74.3	74.8	P/P	41 - 108
Phenothrin	62.5	63.5	P/P	50 - 150
Prallethrin	73.1	69.5	P/P	40 - 140
Trans-Nonachlor	83.8	84.2	P/P	50 - 107
Trifluralin	74.8	75.0	P/P	58 - 119

Reference Method: EPA 8276
Batch ID: P379650

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	92.2	92.2	P/P	47 - 119
Toxaphene	77.3	83.3	P/P	41 - 112

Reference Method: EPA 8321B
Batch ID: P379532

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	75.7		P	30 - 160
Aldicarb	131		P	30 - 160
Aldicarb Sulfone	86.0		P	30 - 160
Aldicarb Sulfoxide	85.8		P	30 - 160
Carbaryl	60.8		P	30 - 160
Carbofuran	65.3		P	30 - 160
Methiocarb	61.8		P	30 - 160
Methomyl	76.1		P	30 - 160
Oxamyl	76.9		P	30 - 160
Propoxur	65.5		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P379709

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	119		P	40 - 150
AMPA	126		P	40 - 150
Endothall	87.3		P	40 - 150
Glufosinate	133		P	40 - 150
Glyphosate	120		P	40 - 140
Sucralose	107		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P379716

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	125		P	30 - 160
Acetaminophen	81.6		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P379716

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetamiprid	89.8		P	30 - 160
Afidopyropen	83.0		P	30 - 160
Bentazon	102		P	30 - 160
Benzovindiflupyr	77.0		P	30 - 160
Carbamazepine	92.2		P	30 - 160
Clothianidin	61.7		P	30 - 160
Dinotefuran	74.3		P	30 - 160
Diuron	78.4		P	30 - 160
Fenuron	93.1		P	30 - 160
Fluridone	86.7		P	30 - 160
Hydrocodone	79.0		P	30 - 160
Ibuprofen	70.5		P	30 - 160
Imazapyr	71.9		P	30 - 160
Imidacloprid	90.9		P	30 - 160
Linuron	72.4		P	30 - 160
Mandestrobin	91.5		P	30 - 160
MCPP	167		F	30 - 160
Naproxen	69.0		P	30 - 160
Primidone	77.8		P	30 - 160
Pyraclostrobin	76.4		P	30 - 160
Thiamethoxam	84.8		P	30 - 160
Tolfenpyrad	60.8		P	30 - 160
Triclopyr	113		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P380454

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	98.2		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P379673

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	85 - 115

Reference Method: SM 2120 B-2011
Batch ID: P379674

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.9		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P380175

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	105		P	98 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P380680

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

Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P380680

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.9		P	92 - 103

Reference Method: SM 5310 B-2011
Batch ID: P379712

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P379765

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160096	Calcium	99.2	99.7	P/P	80 - 120
2160096	Iron	101	102	P/P	80 - 120
2160096	Magnesium	102	101	P/P	80 - 120
2160096	Potassium	102		P	80 - 120
2160096	Zinc	105	104	P/P	80 - 120
2160441	Barium	98.7		P	80 - 120
2160441	Calcium	102		P	80 - 120
2160441	Iron	100		P	80 - 120
2160441	Magnesium	103		P	80 - 120
2160441	Potassium	99.2		P	80 - 120
2160441	Sodium	99.1		P	80 - 120
2160441	Zinc	104		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P379765

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160096	Aluminum	96.5	95.1	P/P	80 - 120
2160096	Antimony	83.9	83.5	P/P	80 - 120
2160096	Arsenic	105	104	P/P	80 - 120
2160096	Cadmium	92.0	89.8	P/P	80 - 120
2160096	Chromium	99.7	99.1	P/P	80 - 120
2160096	Copper	96.8	98.2	P/P	80 - 120
2160096	Lead	103	101	P/P	80 - 120
2160096	Nickel	104	101	P/P	80 - 120
2160096	Selenium	97.6	98.3	P/P	80 - 120
2160096	Silver	94.0	94.4	P/P	80 - 120
2160096	Thallium	106	107	P/P	80 - 120
2160441	Aluminum	95.3		P	80 - 120
2160441	Antimony	95.2		P	80 - 120
2160441	Arsenic	104		P	80 - 120
2160441	Boron	101		P	80 - 120
2160441	Cadmium	102		P	80 - 120
2160441	Chromium	101		P	80 - 120
2160441	Copper	99.4		P	80 - 120
2160441	Lead	101		P	80 - 120
2160441	Nickel	99.3		P	80 - 120
2160441	Selenium	94.3		P	80 - 120
2160441	Silver	96.1		P	80 - 120
2160441	Thallium	108		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380162

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160357	Chloride	96.9		P	90 - 110
2160425	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380165

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380165

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160357	Sulfate	97.5		P	90 - 110
2160425	Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379913

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160489	Ammonia-N	100	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379759

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160383	Kjeldahl Nitrogen	101	97.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379760

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160489	Kjeldahl Nitrogen	106	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380100

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160431	NO2NO3-N	95.7	95.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P380041

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160430	Total-P	105	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379688

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160381	O-Phosphate-P	94.3	96.2	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P379639

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160075	Acetochlor	90.0	82.5	P/P	68 - 126
2160075	Alachlor	94.7	85.6	P/P	66 - 125
2160075	Ametryn	81.0	80.4	P/P	31 - 182
2160075	Atrazine Desethyl	57.1	66.9	P/P	13 - 161
2160075	Azinphos Methyl	137	131	P/P	54 - 162
2160075	Bromacil	75.0	75.4	P/P	34 - 144
2160075	Butylate	34.9	26.9	P/P	16 - 92.0
2160075	Carbophenothion	99.1	101	P/P	50 - 150
2160075	Chlorpyrifos Ethyl	105	109	P/P	63 - 124

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P379639

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160075	Chlorpyrifos Methyl	98.2	94.9	P/P	64 - 125
2160075	Cyanazine	97.2	98.6	P/P	13 - 245
2160075	Demeton	89.7	90.0	P/P	20 - 154
2160075	Diazinon	90.6	89.3	P/P	66 - 141
2160075	Dimethenamid	91.5	86.4	P/P	50 - 130
2160075	Disulfoton	90.2	91.7	P/P	55 - 130
2160075	Dithiopyr	94.7	91.6	P/P	66 - 122
2160075	EPTC	29.7	20.5	P/P	15 - 93.0
2160075	Ethion	96.5	103	P/P	15 - 148
2160075	Ethoprop	93.3	95.0	P/P	59 - 126
2160075	Fenamiphos	87.2	101	P/P	39 - 137
2160075	Fipronil	92.2	89.6	P/P	47 - 131
2160075	Fipronil Desulfinyl	92.3	91.6	P/P	43 - 121
2160075	Fipronil Sulfide	80.1	82.5	P/P	29 - 134
2160075	Fipronil Sulfone	84.4	88.1	P/P	19 - 131
2160075	Flumioxazin	133	133	P/P	70 - 200
2160075	Fonofos	83.1	89.6	P/P	62 - 128
2160075	Hexazinone	98.9	99.7	P/P	58 - 154
2160075	Imazalil	123	125	P/P	50 - 150
2160075	Malathion	111	110	P/P	54 - 135
2160075	Metalaxyl	93.2	89.1	P/P	46 - 136
2160075	Metolachlor	93.9	89.2	P/P	62 - 126
2160075	Metribuzin	186	177	P/P	44 - 277
2160075	Mevinphos	91.9	88.7	P/P	44 - 135
2160075	Molinate	63.3	53.8	P/P	31 - 104
2160075	Norflurazon	83.1	83.2	P/P	32 - 134
2160075	Oxadiazon	90.5	83.6	P/P	55 - 123
2160075	Parathion Ethyl	97.8	95.1	P/P	67 - 120
2160075	Parathion Methyl	105	102	P/P	70 - 140
2160075	Pendimethalin	88.7	72.0	P/P	59 - 145
2160075	Phorate	86.3	89.6	P/P	52 - 127
2160075	Prodiamine	108	106	P/P	11 - 157
2160075	Prometon	89.5	89.0	P/P	55 - 130
2160075	Prometryn	92.1	89.7	P/P	55 - 127
2160075	Pronamide	79.9	87.5	P/P	50 - 150
2160075	Propiconazole	79.0	71.3	P/P	50 - 150
2160075	Tebuconazole	60.0	59.4	P/P	10 - 122
2160075	Terbufos	95.9	95.5	P/P	65 - 131
2160075	Terbuthylazine	93.5	95.5	P/P	63 - 131

Reference Method: EPA 8270E
Batch ID: P379650

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160696	Aldrin	68.2	69.1	P/P	32 - 82.0
2160696	Alpha-BHC	88.5	88.8	P/P	68 - 157
2160696	Alpha-Chlordane	86.2	85.4	P/P	54 - 108
2160696	Beta-BHC	99.3	99.3	P/P	54 - 200
2160696	Beta-Cyfluthrin	137	135	P/P	50 - 150
2160696	Bifenthrin	104	106	P/P	49 - 124
2160696	Chlorothalonil	22.0	19.7	P/P	10 - 289
2160696	Cis-Nonachlor	93.5	94.8	P/P	53 - 112

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P379650

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160696	Cypermethrin	116	119	P/P	43 - 141
2160696	Dacthal	88.0	88.5	P/P	50 - 150
2160696	DDD-p,p'	95.7	97.0	P/P	58 - 125
2160696	DDE-p,p'	79.8	83.8	P/P	50 - 108
2160696	DDT-p,p'	77.8	77.4	P/P	52 - 140
2160696	Delta-BHC	152	147	P/P	61 - 228
2160696	Dicofol	75.4	76.1	P/P	59 - 130
2160696	Dieldrin	90.6	95.1	P/P	57 - 121
2160696	Endosulfan I	101	94.9	P/P	62 - 123
2160696	Endosulfan II	110	110	P/P	48 - 163
2160696	Endosulfan Sulfate	110	108	P/P	63 - 132
2160696	Endrin	98.6	100	P/P	58 - 128
2160696	Endrin Aldehyde	78.7	79.3	P/P	44 - 126
2160696	Endrin Ketone	103	104	P/P	68 - 127
2160696	Ethalfuralin	74.1	72.6	P/P	55 - 131
2160696	Gamma-BHC	107	112	P/P	54 - 206
2160696	Gamma-Chlordane	80.8	80.6	P/P	52 - 105
2160696	Heptachlor	70.9	72.0	P/P	47 - 94.0
2160696	Heptachlor Epoxide	86.7	88.4	P/P	61 - 113
2160696	Hexachlorobenzene	63.6	62.3	P/P	45 - 100
2160696	Lambda-Cyhalothrin	127	124	P/P	50 - 150
2160696	Methoxychlor	91.4	90.4	P/P	63 - 153
2160696	Mirex	76.2	76.6	P/P	38 - 90.0
2160696	Permethrin	87.5	88.2	P/P	45 - 112
2160696	Phenothrin	84.3	84.7	P/P	50 - 150
2160696	Prallethrin	74.4	76.0	P/P	40 - 140
2160696	Trans-Nonachlor	85.7	86.4	P/P	50 - 103
2160696	Trifluralin	75.6	74.8	P/P	57 - 122

Reference Method: EPA 8276
Batch ID: P379650

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160600	Chlordane	70.4	74.5	P/P	34 - 129
2160600	Toxaphene	85.7	87.3	P/P	26 - 123

Reference Method: EPA 8321B
Batch ID: P379532

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160072	3-Hydroxycarbofuran	64.2	70.9	P/P	30 - 160
2160072	Aldicarb	39.3	37.0	P/P	30 - 160
2160072	Aldicarb Sulfone	80.6	86.5	P/P	30 - 160
2160072	Aldicarb Sulfoxide	37.8	39.5	P/P	30 - 160
2160072	Carbaryl	53.9	53.5	P/P	30 - 160
2160072	Carbofuran	51.8	49.7	P/P	30 - 160
2160072	Methiocarb	53.8	57.9	P/P	30 - 160
2160072	Methomyl	67.0	64.0	P/P	30 - 160
2160072	Oxamyl	62.5	66.2	P/P	30 - 160
2160072	Propoxur	52.0	57.7	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P379709

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160294	Acesulfame K	42.9	40.1	P/P	40 - 150
2160294	AMPA	67.1	90.0	P/P	40 - 150
2160294	Endothall	124	119	P/P	40 - 150
2160294	Glufosinate	134	129	P/P	40 - 150
2160294	Glyphosate	61.4	78.5	P/P	40 - 140
2160294	Sucralose	101	99.4	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P379716

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160407	2,4-D	140	143	P/P	30 - 160
2160407	Acetaminophen	74.3	72.2	P/P	30 - 160
2160407	Acetamiprid	94.5	101	P/P	30 - 160
2160407	Afidopyropen	98.5	95.0	P/P	30 - 160
2160407	Benzovindiflupyr	75.2	77.8	P/P	30 - 160
2160407	Carbamazepine	86.9	91.0	P/P	30 - 160
2160407	Clothianidin	84.0	85.4	P/P	30 - 160
2160407	Dinotefuran	103	106	P/P	30 - 160
2160407	Diuron	60.6	65.1	P/P	30 - 160
2160407	Fenuron	70.5	72.6	P/P	30 - 160
2160407	Hydrocodone	90.7	89.6	P/P	30 - 160
2160407	Ibuprofen	72.1	57.1	P/P	30 - 160
2160407	Imidacloprid	159	159	P/P	30 - 160
2160407	Linuron	61.5	62.9	P/P	30 - 160
2160407	Mandestrobin	84.7	90.6	P/P	30 - 160
2160407	MCP	174	174	F/F	30 - 160
2160407	Naproxen	107	111	P/P	30 - 160
2160407	Primidone	85.9	78.8	P/P	30 - 160
2160407	Pyraclostrobin	80.4	82.9	P/P	30 - 160
2160407	Thiamethoxam	127	128	P/P	30 - 160
2160407	Tolfenpyrad	49.8	49.6	P/P	30 - 160
2160407	Triclopyr	141	134	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P380454

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160294	Sucralose	103	105	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P380680

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160306	Fluoride	98.5	99.4	P/P	89 - 106

Reference Method: SM 5310 B-2011
Batch ID: P379712

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160431	Organic Carbon	98.1		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379640

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160425	Turbidity	3.85	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P379765

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160096	Barium	0.118	Spike	P	0 - 20
2160096	Calcium	0.288	Spike	P	0 - 20
2160096	Iron	0.991	Spike	P	0 - 20
2160096	Magnesium	0.288	Spike	P	0 - 20
2160096	Potassium	0.813	Spike	P	0 - 20
2160096	Sodium	0.417	Spike	P	0 - 20
2160096	Zinc	0.787	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P379765

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160096	Aluminum	1.41	Spike	P	0 - 20
2160096	Antimony	0.508	Spike	P	0 - 20
2160096	Arsenic	0.942	Spike	P	0 - 20
2160096	Boron	0.178	Spike	P	0 - 20
2160096	Cadmium	2.41	Spike	P	0 - 20
2160096	Chromium	0.628	Spike	P	0 - 20
2160096	Copper	1.30	Spike	P	0 - 20
2160096	Lead	1.55	Spike	P	0 - 20
2160096	Nickel	2.43	Spike	P	0 - 20
2160096	Selenium	0.670	Spike	P	0 - 20
2160096	Silver	0.438	Spike	P	0 - 20
2160096	Thallium	0.435	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380162

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160357	Chloride	0.524	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380165

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160357	Sulfate	0.344	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P379913

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160489	Ammonia-N	0.924	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P379759

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160383	Kjeldahl Nitrogen	2.01	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P379760

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160489	Kjeldahl Nitrogen	2.69	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P380100

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160431	NO2NO3-N	0.504	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P380041

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160430	Total-P	0.614	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P379688

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160381	O-Phosphate-P	1.74	Spike	P	0 - 20

Reference Method: EPA 8270E
 Batch ID: P379639

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160075	Acetochlor	8.62	Spike	P	0 - 30
2160075	Alachlor	10.2	Spike	P	0 - 30
2160075	Ametryn	0.544	Spike	P	0 - 30
2160075	Atrazine	6.69	Spike	P	0 - 30
2160075	Atrazine Desethyl	10.9	Spike	P	0 - 30
2160075	Azinphos Methyl	4.18	Spike	P	0 - 30
2160075	Bromacil	0.560	Spike	P	0 - 30
2160075	Butylate	25.8	Spike	P	0 - 30
2160075	Carbophenothion	2.32	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P379639

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160075	Chlorpyrifos Ethyl	3.90	Spike	P	0 - 30
2160075	Chlorpyrifos Methyl	3.43	Spike	P	0 - 30
2160075	Cyanazine	1.47	Spike	P	0 - 30
2160075	Demeton	0.304	Spike	P	0 - 30
2160075	Diazinon	1.50	Spike	P	0 - 30
2160075	Dimethenamid	5.72	Spike	P	0 - 30
2160075	Disulfoton	1.66	Spike	P	0 - 30
2160075	Dithiopyr	3.06	Spike	P	0 - 30
2160075	EPTC	36.7	Spike	F	0 - 30
2160075	Ethion	6.52	Spike	P	0 - 30
2160075	Ethoprop	1.86	Spike	P	0 - 30
2160075	Fenamiphos	14.8	Spike	P	0 - 30
2160075	Fipronil	2.94	Spike	P	0 - 30
2160075	Fipronil Desulfinyl	0.635	Spike	P	0 - 30
2160075	Fipronil Sulfide	2.04	Spike	P	0 - 30
2160075	Fipronil Sulfone	2.57	Spike	P	0 - 30
2160075	Flumioxazin	0.295	Spike	P	0 - 30
2160075	Fonofos	7.55	Spike	P	0 - 30
2160075	Hexazinone	0.757	Spike	P	0 - 30
2160075	Imazalil	1.71	Spike	P	0 - 30
2160075	Malathion	0.485	Spike	P	0 - 30
2160075	Metalaxyl	4.41	Spike	P	0 - 30
2160075	Metolachlor	5.20	Spike	P	0 - 30
2160075	Metribuzin	4.81	Spike	P	0 - 30
2160075	Mevinphos	3.59	Spike	P	0 - 30
2160075	Molinate	16.3	Spike	P	0 - 30
2160075	Norflurazon	0.173	Spike	P	0 - 30
2160075	Oxadiazon	6.24	Spike	P	0 - 30
2160075	Parathion Ethyl	2.77	Spike	P	0 - 30
2160075	Parathion Methyl	2.98	Spike	P	0 - 30
2160075	Pendimethalin	20.7	Spike	P	0 - 30
2160075	Phorate	3.67	Spike	P	0 - 30
2160075	Prodiamine	1.92	Spike	P	0 - 30
2160075	Prometon	0.496	Spike	P	0 - 30
2160075	Prometryn	2.66	Spike	P	0 - 30
2160075	Pronamide	7.73	Spike	P	0 - 30
2160075	Propiconazole	6.06	Spike	P	0 - 30
2160075	Simazine	3.75	Spike	P	0 - 30
2160075	Sulfentrazone	13.2	Spike	P	0 - 30
2160075	Tebuconazole	1.04	Spike	P	0 - 30
2160075	Terbufos	0.509	Spike	P	0 - 30
2160075	Terbutylazine	2.21	Spike	P	0 - 30
LFB	Acetochlor	0.616	LCS	P	0 - 30
LFB	Alachlor	0.0893	LCS	P	0 - 30
LFB	Ametryn	2.55	LCS	P	0 - 30
LFB	Atrazine	0.694	LCS	P	0 - 30
LFB	Atrazine Desethyl	7.96	LCS	P	0 - 30
LFB	Azinphos Methyl	3.08	LCS	P	0 - 30
LFB	Bromacil	10.4	LCS	P	0 - 30
LFB	Butylate	64.5	LCS	F	0 - 30
LFB	Carbophenothion	2.76	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P379639

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Chlorpyrifos Ethyl	3.25	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	1.07	LCS	P	0 - 30
LFB	Cyanazine	3.92	LCS	P	0 - 30
LFB	Demeton	12.5	LCS	P	0 - 30
LFB	Diazinon	1.13	LCS	P	0 - 30
LFB	Dimethenamid	2.12	LCS	P	0 - 30
LFB	Disulfoton	8.47	LCS	P	0 - 30
LFB	Dithiopyr	0.518	LCS	P	0 - 30
LFB	EPTC	89.0	LCS	F	0 - 30
LFB	Ethion	4.86	LCS	P	0 - 30
LFB	Ethoprop	4.21	LCS	P	0 - 30
LFB	Fenamiphos	0.0579	LCS	P	0 - 30
LFB	Fipronil	4.57	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	1.61	LCS	P	0 - 30
LFB	Fipronil Sulfide	4.21	LCS	P	0 - 30
LFB	Fipronil Sulfone	6.06	LCS	P	0 - 30
LFB	Flumioxazin	18.6	LCS	P	0 - 30
LFB	Fonofos	0.118	LCS	P	0 - 30
LFB	Hexazinone	0.304	LCS	P	0 - 30
LFB	Imazalil	1.66	LCS	P	0 - 30
LFB	Malathion	2.27	LCS	P	0 - 30
LFB	Metalaxyl	0.490	LCS	P	0 - 30
LFB	Metolachlor	1.41	LCS	P	0 - 30
LFB	Metribuzin	9.33	LCS	P	0 - 30
LFB	Mevinphos	6.79	LCS	P	0 - 30
LFB	Molinate	25.5	LCS	P	0 - 30
LFB	Norflurazon	0.400	LCS	P	0 - 30
LFB	Oxadiazon	1.05	LCS	P	0 - 30
LFB	Parathion Ethyl	1.34	LCS	P	0 - 30
LFB	Parathion Methyl	0.653	LCS	P	0 - 30
LFB	Pendimethalin	1.60	LCS	P	0 - 30
LFB	Phorate	6.90	LCS	P	0 - 30
LFB	Prodiamine	8.25	LCS	P	0 - 30
LFB	Prometon	5.45	LCS	P	0 - 30
LFB	Prometryn	0.443	LCS	P	0 - 30
LFB	Pronamide	5.85	LCS	P	0 - 30
LFB	Propiconazole	1.80	LCS	P	0 - 30
LFB	Simazine	4.74	LCS	P	0 - 30
LFB	Sulfentrazone	5.74	LCS	P	0 - 30
LFB	Tebuconazole	4.90	LCS	P	0 - 30
LFB	Terbufos	4.26	LCS	P	0 - 30
LFB	Terbutylazine	0.185	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P379650

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160696	Aldrin	1.35	Spike	P	0 - 30
2160696	Alpha-BHC	0.347	Spike	P	0 - 30
2160696	Alpha-Chlordane	0.981	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E
Batch ID: P379650

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160696	Beta-BHC	0.0166	Spike	P	0 - 30
2160696	Beta-Cyfluthrin	1.99	Spike	P	0 - 30
2160696	Bifenthrin	1.51	Spike	P	0 - 30
2160696	Chlorothalonil	10.9	Spike	P	0 - 30
2160696	Cis-Nonachlor	1.40	Spike	P	0 - 30
2160696	Cypermethrin	2.31	Spike	P	0 - 30
2160696	Dacthal	0.536	Spike	P	0 - 30
2160696	DDD-p,p'	1.40	Spike	P	0 - 30
2160696	DDE-p,p'	4.85	Spike	P	0 - 30
2160696	DDT-p,p'	0.510	Spike	P	0 - 30
2160696	Delta-BHC	3.83	Spike	P	0 - 30
2160696	Dicofol	0.865	Spike	P	0 - 30
2160696	Dieldrin	4.84	Spike	P	0 - 30
2160696	Endosulfan I	6.23	Spike	P	0 - 30
2160696	Endosulfan II	0.640	Spike	P	0 - 30
2160696	Endosulfan Sulfate	1.41	Spike	P	0 - 30
2160696	Endrin	1.66	Spike	P	0 - 30
2160696	Endrin Aldehyde	0.838	Spike	P	0 - 30
2160696	Endrin Ketone	0.904	Spike	P	0 - 30
2160696	Ethalfuralin	2.05	Spike	P	0 - 30
2160696	Gamma-BHC	4.39	Spike	P	0 - 30
2160696	Gamma-Chlordane	0.158	Spike	P	0 - 30
2160696	Heptachlor	1.60	Spike	P	0 - 30
2160696	Heptachlor Epoxide	1.97	Spike	P	0 - 30
2160696	Hexachlorobenzene	1.96	Spike	P	0 - 30
2160696	Lambda-Cyhalothrin	2.18	Spike	P	0 - 30
2160696	Methoxychlor	1.03	Spike	P	0 - 30
2160696	Mirex	0.521	Spike	P	0 - 30
2160696	Permethrin	0.782	Spike	P	0 - 30
2160696	Phenothrin	0.433	Spike	P	0 - 30
2160696	Prallethrin	2.08	Spike	P	0 - 30
2160696	Trans-Nonachlor	0.830	Spike	P	0 - 30
2160696	Trifluralin	1.10	Spike	P	0 - 30
LFB	Aldrin	5.65	LCS	P	0 - 30
LFB	Alpha-BHC	5.77	LCS	P	0 - 30
LFB	Alpha-Chlordane	1.03	LCS	P	0 - 30
LFB	Beta-BHC	1.68	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	4.95	LCS	P	0 - 30
LFB	Bifenthrin	2.50	LCS	P	0 - 30
LFB	Chlorothalonil	25.5	LCS	P	0 - 30
LFB	Cis-Nonachlor	1.09	LCS	P	0 - 30
LFB	Cypermethrin	5.48	LCS	P	0 - 30
LFB	Dacthal	0.198	LCS	P	0 - 30
LFB	DDD-p,p'	1.54	LCS	P	0 - 30
LFB	DDE-p,p'	1.27	LCS	P	0 - 30
LFB	DDT-p,p'	0.709	LCS	P	0 - 30
LFB	Delta-BHC	11.1	LCS	P	0 - 30
LFB	Dicofol	6.81	LCS	P	0 - 30
LFB	Dieldrin	3.65	LCS	P	0 - 30
LFB	Endosulfan I	7.98	LCS	P	0 - 30
LFB	Endosulfan II	4.83	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P379650

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Endosulfan Sulfate	3.14	LCS	P	0 - 30
LFB	Endrin	4.61	LCS	P	0 - 30
LFB	Endrin Aldehyde	1.86	LCS	P	0 - 30
LFB	Endrin Ketone	1.85	LCS	P	0 - 30
LFB	Ethalfuralin	0.119	LCS	P	0 - 30
LFB	Gamma-BHC	8.79	LCS	P	0 - 30
LFB	Gamma-Chlordane	0.124	LCS	P	0 - 30
LFB	Heptachlor	0.506	LCS	P	0 - 30
LFB	Heptachlor Epoxide	0.245	LCS	P	0 - 30
LFB	Hexachlorobenzene	0.347	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	6.74	LCS	P	0 - 30
LFB	Methoxychlor	0.761	LCS	P	0 - 30
LFB	Mirex	0.768	LCS	P	0 - 30
LFB	Permethrin	0.616	LCS	P	0 - 30
LFB	Phenothrin	1.45	LCS	P	0 - 30
LFB	Prallethrin	5.12	LCS	P	0 - 30
LFB	Trans-Nonachlor	0.543	LCS	P	0 - 30
LFB	Trifluralin	0.265	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P379650

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160600	Chlordane	4.88	Spike	P	0 - 30
2160600	Toxaphene	1.78	Spike	P	0 - 30
LFB	Chlordane	0.00795	LCS	P	0 - 30
LFB	Toxaphene	7.37	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P379532

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160072	3-Hydroxycarbofuran	9.89	Spike	P	0 - 30
2160072	Aldicarb	6.17	Spike	P	0 - 30
2160072	Aldicarb Sulfone	6.99	Spike	P	0 - 30
2160072	Aldicarb Sulfoxide	4.38	Spike	P	0 - 30
2160072	Carbaryl	0.796	Spike	P	0 - 30
2160072	Carbofuran	4.16	Spike	P	0 - 30
2160072	Methiocarb	7.33	Spike	P	0 - 30
2160072	Methomyl	4.70	Spike	P	0 - 30
2160072	Oxamyl	5.62	Spike	P	0 - 30
2160072	Propoxur	10.5	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P379709

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160294	Acesulfame K	6.70	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P379709

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160294	AMPA	29.1	Spike	P	0 - 30
2160294	Endothall	3.83	Spike	P	0 - 30
2160294	Glufosinate	4.15	Spike	P	0 - 30
2160294	Glyphosate	24.5	Spike	P	0 - 30
2160294	Sucralose	1.35	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P379716

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160407	2,4-D	1.90	Spike	P	0 - 30
2160407	Acetaminophen	2.86	Spike	P	0 - 30
2160407	Acetamiprid	6.86	Spike	P	0 - 30
2160407	Afidopyropen	3.68	Spike	P	0 - 30
2160407	Bentazon	10.6	Spike	P	0 - 30
2160407	Benzovindiflupyr	3.38	Spike	P	0 - 30
2160407	Carbamazepine	3.80	Spike	P	0 - 30
2160407	Clothianidin	1.66	Spike	P	0 - 30
2160407	Dinotefuran	3.42	Spike	P	0 - 30
2160407	Diuron	7.21	Spike	P	0 - 30
2160407	Fenuron	2.91	Spike	P	0 - 30
2160407	Fluridone	0.433	Spike	P	0 - 30
2160407	Hydrocodone	1.23	Spike	P	0 - 30
2160407	Ibuprofen	23.3	Spike	P	0 - 30
2160407	Imazapyr	17.3	Spike	P	0 - 30
2160407	Imidacloprid	0.326	Spike	P	0 - 30
2160407	Linuron	2.40	Spike	P	0 - 30
2160407	Mandestrobin	6.74	Spike	P	0 - 30
2160407	MCP	0.236	Spike	P	0 - 30
2160407	Naproxen	4.29	Spike	P	0 - 30
2160407	Primidone	7.05	Spike	P	0 - 30
2160407	Pyraclostrobin	3.18	Spike	P	0 - 30
2160407	Thiamethoxam	0.742	Spike	P	0 - 30
2160407	Tolfenpyrad	0.414	Spike	P	0 - 30
2160407	Triclopyr	5.10	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P380454

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160294	Sucralose	1.22	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P379673

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160379	Color (true)	0.531	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2120 B-2011
Batch ID: P379674

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160465	Color (true)	0.405	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P380175

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160306	Total Alkalinity	0.192	Sample	P	0 - 2.8

Reference Method: SM 2540 C-2011
Batch ID: P379979

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160429	TDS	3.59	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P380680

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160306	Fluoride	0.467	Spike	P	0 - 2.5

Reference Method: SM 5310 B-2011
Batch ID: P379712

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160431	Organic Carbon	0.557	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2160476
Field Sample ID: G3SD0096

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	102	P	30 - 160
EPA 8321B	Acetaminophen-d4	62.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	88.2	P	30 - 160
EPA 8321B	Diuron-d6	69.3	P	30 - 160
EPA 8321B	Endothall-d6	99.5	P	30 - 160
EPA 8321B	Endothall-d6	99.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	109	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	109	P	30 - 160
EPA 8321B	Ibuprofen-d3	78.4	P	30 - 160
EPA 8321B	Primidone-d5	86.4	P	30 - 160
EPA 8321B	Sucralose-d6	57.7	P	30 - 160
EPA 8321B	Sucralose-d6	57.7	P	30 - 160

Lab Sample ID: 2160477
Field Sample ID: G3SD0011

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	98.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	58.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	85.8	P	30 - 160
EPA 8321B	Diuron-d6	56.8	P	30 - 160
EPA 8321B	Endothall-d6	80.7	P	30 - 160
EPA 8321B	Endothall-d6	80.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	97.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	97.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	77.9	P	30 - 160
EPA 8321B	Primidone-d5	70.3	P	30 - 160
EPA 8321B	Sucralose-d6	107	P	30 - 160
EPA 8321B	Sucralose-d6	107	P	30 - 160

Lab Sample ID: 2160478
Field Sample ID: G3SD0159

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	55.4	P	30 - 160

Lab Sample ID: 2160479
Field Sample ID: G3SD0159

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	91.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	60.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	86.8	P	30 - 160
EPA 8321B	Diuron-d6	61.8	P	30 - 160
EPA 8321B	Endothall-d6	146	P	30 - 160
EPA 8321B	Endothall-d6	146	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	112	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	112	P	30 - 160
EPA 8321B	Ibuprofen-d3	77.2	P	30 - 160
EPA 8321B	Primidone-d5	81.9	P	30 - 160
EPA 8321B	Sucralose-d6	44.9	P	30 - 160
EPA 8321B	Sucralose-d6	33.8	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2160479
Field Sample ID: G3SD0159

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	44.9	P	30 - 160
EPA 8321B	Sucralose-d6	33.8	P	30 - 160

Lab Sample ID: 2160480
Field Sample ID: G3SD0159

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	89.0	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	64.0	P	34 - 106
EPA 8276	Decachlorobiphenyl	71.4	P	26 - 97.0
EPA 8276	PCNB	117	P	38 - 141

Lab Sample ID: 2160481
Field Sample ID: G3SD0159

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	103	P	72 - 135
EPA 8270E	Terbufos-d10	90.4	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A97813

Included Lab Sample IDs: 2160462, 2160465, 2160468

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

Reference Method: SM 2120 B-2011

Run ID: A97827

Included Lab Sample IDs: 2160462, 2160465, 2160468

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A97828

Included Lab Sample IDs: 2160464, 2160467, 2160470

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.9	96.8	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A97841

Included Lab Sample IDs: 2160463, 2160466, 2160469

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.5	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A97877

Included Lab Sample IDs: 2160463, 2160466, 2160469

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.0	105	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A97922

Included Lab Sample IDs: 2160482, 2160483, 2160484

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	101	102	P/P	90 - 110
Calcium	99.5	99.5	P/P	90 - 110
Iron	101	99.3	P/P	90 - 110
Magnesium	102	101	P/P	90 - 110
Potassium	99.4	99.8	P/P	90 - 110
Sodium	99.1	98.7	P/P	90 - 110
Zinc	101	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A97928

Included Lab Sample IDs: 2160463, 2160466, 2160469

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	99.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A97956

Included Lab Sample IDs: 2160476, 2160477, 2160479

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	112	106	P/P	60 - 160
Endothall	116	115	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A97959

Included Lab Sample IDs: 2160476, 2160477, 2160479

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	81.3	79.7	P/P	40 - 200
Glufosinate	123	115	P/P	40 - 200
Glyphosate	123	121	P/P	40 - 200

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A97967

Included Lab Sample IDs: 2160482, 2160483, 2160484

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.6	99.1	P/P	90 - 110
Antimony	91.3	94.8	P/P	90 - 110
Arsenic	104	103	P/P	90 - 110
Boron	106	104	P/P	90 - 110
Cadmium	97.1	98.8	P/P	90 - 110
Chromium	102	103	P/P	90 - 110
Lead	99.7	99.9	P/P	90 - 110
Nickel	104	103	P/P	90 - 110
Selenium	98.1	96.8	P/P	90 - 110
Silver	95.6	95.5	P/P	90 - 110
Thallium	94.7	95.2	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A98000

Included Lab Sample IDs: 2160482, 2160483, 2160484

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	97.0	98.0	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A98001

Included Lab Sample IDs: 2160462, 2160465, 2160468

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	98.2	P/P	90 - 110
Chloride	99.4	100	P/P	90 - 110
Sulfate	101	98.5	P/P	90 - 110
Sulfate	99.6	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A98011

Included Lab Sample IDs: 2160463, 2160466, 2160469

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A98011

Included Lab Sample IDs: 2160463, 2160466, 2160469

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A98012

Included Lab Sample IDs: 2160463, 2160466, 2160469

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

Reference Method: EPA 8276

Run ID: A98015

Included Lab Sample IDs: 2160480

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	99.4		P	80 - 120
Toxaphene	107		P	80 - 120

Reference Method: SM 2320 B-2011

Run ID: A98031

Included Lab Sample IDs: 2160462, 2160465, 2160468

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	105	101	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A98049

Included Lab Sample IDs: 2160480

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	105		P	80 - 120
Alpha-BHC	103		P	80 - 120
Alpha-Chlordane	104		P	80 - 120
Beta-BHC	96.9		P	80 - 120
Beta-Cyfluthrin	102		P	80 - 120
Bifenthrin	97.7		P	80 - 120
Chlorothalonil	145*		F	80 - 120
Cis-Nonachlor	106		P	80 - 120
Cypermethrin	98.7		P	80 - 120
Dacthal	104		P	80 - 120
DDD-p,p'	105		P	80 - 120
DDE-p,p'	99.4		P	80 - 120
DDT-p,p'	99.1		P	80 - 120
Delta-BHC	120*		F	80 - 120
Dicofol	101		P	80 - 120
Dieldrin	108		P	80 - 120
Endosulfan I	108		P	80 - 120
Endosulfan II	113		P	80 - 120
Endosulfan Sulfate	108		P	80 - 120
Endrin	114		P	80 - 120
Endrin Aldehyde	95.2		P	80 - 120
Endrin Ketone	107		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A98049

Included Lab Sample IDs: 2160480

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ethalfuralin	98.0		P	80 - 120
Gamma-BHC	111		P	80 - 120
Gamma-Chlordane	101		P	80 - 120
Heptachlor	101		P	80 - 120
Heptachlor Epoxide	104		P	80 - 120
Hexachlorobenzene	101		P	80 - 120
Lambda-Cyhalothrin	98.5		P	80 - 120
Methoxychlor	98.4		P	80 - 120
Mirex	98.2		P	80 - 120
Permethrin	88.4		P	80 - 120
Phenothrin	86.5		P	80 - 120
Prallethrin	97.1		P	80 - 120
Trans-Nonachlor	106		P	80 - 120
Trifluralin	99.0		P	80 - 120

Reference Method: EPA 8321B

Run ID: A98067

Included Lab Sample IDs: 2160476, 2160477, 2160479

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	95.1	89.0	P/P	50 - 150
3-Hydroxycarbofuran	88.1	92.0	P/P	60 - 150
Acetaminophen	114	122	P/P	60 - 160
Acetamiprid	93.8	94.4	P/P	50 - 150
Afidopyropen	103	103	P/P	50 - 150
Aldicarb	92.9	75.4	P/P	60 - 150
Aldicarb Sulfone	85.4	89.6	P/P	50 - 150
Aldicarb Sulfoxide	99.1	93.7	P/P	50 - 150
Bentazon	107	104	P/P	50 - 160
Benzovindiflupyr	102	97.8	P/P	50 - 150
Carbamazepine	101	97.5	P/P	60 - 150
Carbaryl	108	109	P/P	60 - 150
Carbofuran	98.7	95.3	P/P	50 - 150
Clothianidin	84.5	96.1	P/P	60 - 150
Dinotefuran	81.7	83.7	P/P	50 - 150
Diuron	83.6	91.7	P/P	60 - 150
Fenuron	88.7	89.6	P/P	60 - 150
Fluridone	99.5	98.9	P/P	60 - 160
Hydrocodone	85.2	94.5	P/P	60 - 150
Ibuprofen	80.1	79.7	P/P	50 - 160
Imazapyr	79.2	101	P/P	50 - 150
Imidacloprid	87.3	86.6	P/P	60 - 150
Linuron	65.1	106	P/P	60 - 150
Mandestrobin	107	103	P/P	50 - 150
MCPP	89.3	88.5	P/P	50 - 150
Methiocarb	90.6	95.0	P/P	50 - 150
Methomyl	90.2	93.9	P/P	50 - 150
Naproxen	69.0	90.7	P/P	50 - 160
Oxamyl	93.7	97.1	P/P	50 - 150
Primidone	97.7	101	P/P	60 - 150
Propoxur	106	104	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A98067

Included Lab Sample IDs: 2160476, 2160477, 2160479

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	103	98.9	P/P	60 - 150
Thiamethoxam	77.5	99.9	P/P	50 - 150
Tolfenpyrad	103	99.3	P/P	60 - 150
Triclopyr	97.4	98.3	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A98073

Included Lab Sample IDs: 2160476, 2160477

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	103	84.5	P/P	60 - 160

Reference Method: EPA 8270E

Run ID: A98110

Included Lab Sample IDs: 2160481

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.3		P	80 - 120
Alachlor	97.4		P	80 - 120
Ametryn	101		P	80 - 120
Atrazine	98.8		P	80 - 120
Atrazine Desethyl	86.5		P	80 - 120
Azinphos Methyl	104		P	80 - 120
Butylate	102		P	80 - 120
Carbophenothion	99.3		P	80 - 120
Chlorpyrifos Ethyl	100		P	80 - 120
Chlorpyrifos Methyl	101		P	80 - 120
Cyanazine	94.1		P	80 - 120
Demeton	99.4		P	80 - 120
Diazinon	96.5		P	80 - 120
Dimethenamid	97.3		P	80 - 120
Disulfoton	96.8		P	80 - 120
Dithiopyr	95.9		P	80 - 120
EPTC	104		P	80 - 120
Ethion	98.1		P	80 - 120
Ethoprop	96.8		P	80 - 120
Fenamiphos	100		P	80 - 120
Fipronil	97.7		P	80 - 120
Fipronil Desulfinyl	98.6		P	80 - 120
Fipronil Sulfide	93.5		P	80 - 120
Fipronil Sulfone	99.1		P	80 - 120
Flumioxazin	85.5		P	80 - 120
Fonofos	98.8		P	80 - 120
Hexazinone	95.6		P	80 - 120
Imazalil	113		P	80 - 120
Malathion	95.2		P	80 - 120
Metaxyl	97.5		P	80 - 120
Metolachlor	98.3		P	80 - 120
Metribuzin	92.2		P	80 - 120
Mevinphos	98.9		P	80 - 120
Molinate	103		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A98110

Included Lab Sample IDs: 2160481

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Oxadiazon	99.9		P	80 - 120
Parathion Ethyl	96.0		P	80 - 120
Parathion Methyl	95.3		P	80 - 120
Pendimethalin	98.8		P	80 - 120
Phorate	97.9		P	80 - 120
Prodiamine	94.2		P	80 - 120
Prometon	99.7		P	80 - 120
Prometryn	98.2		P	80 - 120
Pronamide	95.4		P	80 - 120
Propiconazole	97.8		P	80 - 120
Simazine	100		P	80 - 120
Sulfentrazone	94.0		P	80 - 120
Tebuconazole	96.3		P	80 - 120
Terbufos	98.2		P	80 - 120
Terbuthylazine	97.2		P	80 - 120

Reference Method: EPA 8270E

Run ID: A98116

Included Lab Sample IDs: 2160481

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromacil	102		P	80 - 120
Norflurazon	98.6		P	80 - 120

Reference Method: EPA 8321B

Run ID: A98193

Included Lab Sample IDs: 2160479

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	102	97.0	P/P	60 - 160

Reference Method: SM 4500 F-C-2011

Run ID: A98204

Included Lab Sample IDs: 2160462, 2160465, 2160468

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	97.6	P/P	90 - 110

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							3.85	
EPA 200.7 Rev. 4.4	Barium	103		98.7					0.118
	Calcium	109		99.2	99.7	102			0.288
	Iron	105		101	102	100			0.991
	Magnesium	113		102	101	103			0.288
	Potassium	102		102	99.2				0.813
	Sodium	101		99.1					0.417
	Zinc	103		105	104	104			0.787
EPA 200.8 Rev. 5.4	Aluminum	100		96.5	95.1	95.3			1.41
	Antimony	95.7		83.9	83.5	95.2			0.508
	Arsenic	102		105	104	104			0.942
	Boron	105		101					0.178
	Cadmium	100		92.0	89.8	102			2.41
	Chromium	103		99.7	99.1	101			0.628
	Copper	102		96.8	98.2	99.4			1.30
	Lead	98.6		103	101	101			1.55
	Nickel	103		104	101	99.3			2.43
	Selenium	98.6		97.6	98.3	94.3			0.670
	Silver	98.4		94.0	94.4	96.1			0.438
	Thallium	101		106	107	108			0.435
EPA 300.0 Rev. 2.1	Chloride	98.7		96.9	103			0.524	
	Sulfate	98.5		97.5	103			0.344	
EPA 350.1 Rev. 2.0	Ammonia-N	103		100	101				0.924
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107		101	97.5				2.01
	Kjeldahl Nitrogen	100		106	101				2.69
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.0		95.7	95.2				0.504
EPA 365.1 Rev. 2.0	Total-P	103		105	106				0.614
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101		94.3	96.2				1.74
EPA 8270E	Acetochlor	90.1	89.6	90.0	82.5		0.616		8.62
	Alachlor	91.9	91.9	94.7	85.6		0.0893		10.2
	Aldrin	61.1	64.7	68.2	69.1		5.65		1.35
	Alpha-BHC	85.9	91.0	88.5	88.8		5.77		0.347
	Alpha-Chlordane	86.4	85.5	86.2	85.4		1.03		0.981
	Ametryn	99.0	96.5	81.0	80.4		2.55		0.544
	Atrazine	99.5	100				0.694		6.69
	Atrazine Desethyl	76.5	82.9	57.1	66.9		7.96		10.9
	Azinphos Methyl	130	134	137	131		3.08		4.18
	Beta-BHC	98.7	100	99.3	99.3		1.68		0.0166
	Beta-Cyfluthrin	92.5	97.2	137	135		4.95		1.99
	Bifenthrin	87.0	84.9	104	106		2.50		1.51
	Bromacil	65.1	72.2	75.0	75.4		10.4		0.560
	Butylate	33.1	64.7	34.9	26.9		64.5		25.8
	Carbophenothion	105	108	99.1	101		2.76		2.32
	Chlorothalonil	126	97.2	22.0	19.7		25.5		10.9
	Chlorpyrifos Ethyl	98.7	102	105	109		3.25		3.90
	Chlorpyrifos Methyl	99.2	98.1	98.2	94.9		1.07		3.43
	Cis-Nonachlor	91.1	90.1	93.5	94.8		1.09		1.40
	Cyanazine	103	98.8	97.2	98.6		3.92		1.47
	Cypermethrin	90.4	95.5	116	119		5.48		2.31
	Dacthal	90.1	90.2	88.0	88.5		0.198		0.536
	DDD-p,p'	95.0	96.5	95.7	97.0		1.54		1.40
	DDE-p,p'	83.1	82.0	79.8	83.8		1.27		4.85
	DDT-p,p'	76.4	75.8	77.8	77.4		0.709		0.510
	Delta-BHC	125	139	152	147		11.1		3.83

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Demeton	77.1	87.3	89.7	90.0	12.5	0.304
	Diazinon	89.2	88.2	90.6	89.3	1.13	1.50
	Dicofol	87.8	82.0	75.4	76.1	6.81	0.865
	Dieldrin	96.3	92.9	90.6	95.1	3.65	4.84
	Dimethenamid	88.3	90.2	91.5	86.4	2.12	5.72
	Disulfoton	81.6	88.8	90.2	91.7	8.47	1.66
	Dithiopyr	88.8	88.3	94.7	91.6	0.518	3.06
	Endosulfan I	91.4	99.0	101	94.9	7.98	6.23
	Endosulfan II	102	107	110	110	4.83	0.640
	Endosulfan Sulfate	97.1	100	110	108	3.14	1.41
	Endrin	99.2	94.8	98.6	100	4.61	1.66
	Endrin Aldehyde	80.5	79.0	78.7	79.3	1.86	0.838
	Endrin Ketone	100	98.4	103	104	1.85	0.904
	EPTC	20.7	53.8	29.7	20.5	89.0	36.7
	Ethalfuralin	74.0	74.1	74.1	72.6	0.119	2.05
	Ethion	102	108	96.5	103	4.86	6.52
	Ethoprop	84.8	88.5	93.3	95.0	4.21	1.86
	Fenamiphos	99.4	99.3	87.2	101	0.0579	14.8
	Fipronil	87.8	91.9	92.2	89.6	4.57	2.94
	Fipronil Desulfinyl	92.4	93.9	92.3	91.6	1.61	0.635
	Fipronil Sulfide	85.8	82.3	80.1	82.5	4.21	2.04
	Fipronil Sulfone	87.0	92.4	84.4	88.1	6.06	2.57
	Flumioxazin	82.6	99.5	133	133	18.6	0.295
	Fonofos	91.0	91.1	83.1	89.6	0.118	7.55
	Gamma-BHC	101	110	107	112	8.79	4.39
	Gamma-Chlordane	80.3	80.2	80.8	80.6	0.124	0.158
	Heptachlor	68.6	68.9	70.9	72.0	0.506	1.60
	Heptachlor Epoxide	87.4	87.6	86.7	88.4	0.245	1.97
	Hexachlorobenzene	65.1	64.8	63.6	62.3	0.347	1.96
	Hexazinone	100	101	98.9	99.7	0.304	0.757
	Imazalil	83.6	85.0	123	125	1.66	1.71
	Lambda-Cyhalothrin	85.1	91.0	127	124	6.74	2.18
	Malathion	109	112	111	110	2.27	0.485
	Metalaxyl	95.1	94.6	93.2	89.1	0.490	4.41
	Methoxychlor	91.4	90.7	91.4	90.4	0.761	1.03
	Metolachlor	89.7	91.0	93.9	89.2	1.41	5.20
	Metribuzin	136	124	186	177	9.33	4.81
	Mevinphos	87.0	93.1	91.9	88.7	6.79	3.59
	Mirex	66.2	65.7	76.2	76.6	0.768	0.521
	Molinate	56.4	72.9	63.3	53.8	25.5	16.3
	Norflurazon	90.3	89.9	83.1	83.2	0.400	0.173
	Oxadiazon	91.7	90.7	90.5	83.6	1.05	6.24
	Parathion Ethyl	93.1	91.9	97.8	95.1	1.34	2.77
	Parathion Methyl	105	104	105	102	0.653	2.98
	Pendimethalin	89.3	90.8	88.7	72.0	1.60	20.7
	Permethrin	74.8	74.3	87.5	88.2	0.616	0.782
	Phenothrin	63.5	62.5	84.3	84.7	1.45	0.433
	Phorate	83.9	78.3	86.3	89.6	6.90	3.67
	Prallethrin	69.5	73.1	74.4	76.0	5.12	2.08
	Prodiamine	52.5	57.1	108	106	8.25	1.92
	Prometon	88.1	93.0	89.5	89.0	5.45	0.496
	Prometryn	91.3	90.9	92.1	89.7	0.443	2.66
	Pronamide	96.4	102	79.9	87.5	5.85	7.73
	Propiconazole	86.8	88.4	79.0	71.3	1.80	6.06

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Simazine	95.6	100			4.74		3.75
	Sulfentrazone	20.0	21.1			5.74		13.2
	Tebuconazole	63.7	66.9	60.0	59.4	4.90		1.04
	Terbufos	88.5	92.4	95.9	95.5	4.26		0.509
	Terbuthylazine	92.5	92.4	93.5	95.5	0.185		2.21
	Trans-Nonachlor	84.2	83.8	85.7	86.4	0.543		0.830
	Trifluralin	75.0	74.8	75.6	74.8	0.265		1.10
EPA 8276	Chlordane	92.2	92.2	70.4	74.5	0.0079		4.88
	Toxaphene	77.3	83.3	85.7	87.3	7.37		1.78
EPA 8321B	2,4-D	125		140	143			1.90
	3-Hydroxycarbofuran	75.7		64.2	70.9			9.89
	Acesulfame K	119		42.9	40.1			6.70
	Acetaminophen	81.6		74.3	72.2			2.86
	Acetamiprid	89.8		94.5	101			6.86
	Afidopyropen	83.0		98.5	95.0			3.68
	Aldicarb	131		39.3	37.0			6.17
	Aldicarb Sulfone	86.0		80.6	86.5			6.99
	Aldicarb Sulfoxide	85.8		37.8	39.5			4.38
	AMPA	126		67.1	90.0			29.1
	Bentazon	102						10.6
	Benzovindiflupyr	77.0		75.2	77.8			3.38
	Carbamazepine	92.2		86.9	91.0			3.80
	Carbaryl	60.8		53.9	53.5			0.796
	Carbofuran	65.3		51.8	49.7			4.16
	Clothianidin	61.7		84.0	85.4			1.66
	Dinotefuran	74.3		103	106			3.42
	Diuron	78.4		60.6	65.1			7.21
	Endothall	87.3		124	119			3.83
	Fenuron	93.1		70.5	72.6			2.91
	Fluridone	86.7						0.433
	Glufosinate	133		134	129			4.15
	Glyphosate	120		61.4	78.5			24.5
	Hydrocodone	79.0		90.7	89.6			1.23
	Ibuprofen	70.5		72.1	57.1			23.3
	Imazapyr	71.9						17.3
	Imidacloprid	90.9		159	159			0.326
	Linuron	72.4		61.5	62.9			2.40
	Mandestrobin	91.5		84.7	90.6			6.74
	MCPP	167		174	174			0.236
	Methiocarb	61.8		53.8	57.9			7.33
	Methomyl	76.1		67.0	64.0			4.70
	Naproxen	69.0		107	111			4.29
	Oxamyl	76.9		62.5	66.2			5.62
	Primidone	77.8		85.9	78.8			7.05
	Propoxur	65.5		52.0	57.7			10.5
	Pyraclostrobin	76.4		80.4	82.9			3.18
	Sucralose	107		101	99.4			1.35
	Sucralose	98.2		103	105			1.22
	Thiamethoxam	84.8		127	128			0.742
	Tolfenpyrad	60.8		49.8	49.6			0.414
	Triclopyr	113		141	134			5.10
SM 2120 B-2011	Color (true)	100					0.531	
	Color (true)	99.9					0.405	
SM 2320 B-2011	Total Alkalinity	105					0.192	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	Precision		
				LCS	SMP	MS
SM 2540 C-2011	TDS				3.59	
SM 4500 F-C-2011	Fluoride	96.9	98.5 99.4			0.467
SM 5310 B-2011	Organic Carbon	99.8	98.1			0.557

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2160462, 2160465, 2160468
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2160482, 2160483, 2160484
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2160482, 2160483, 2160484
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2160462, 2160465, 2160468
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2160462, 2160465, 2160468
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2160463, 2160466, 2160469
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2160463, 2160466, 2160469
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2160463, 2160466, 2160469
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2160463, 2160466, 2160469
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2160464, 2160467, 2160470
EPA 8270E	Organochlorine pesticides in water matrices by GC/MS-SIM	2160480
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2160481
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2160480
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2160478
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2160476, 2160477, 2160479
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2160476, 2160477, 2160479
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2160462, 2160465, 2160468
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2160462, 2160465, 2160468
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2160482, 2160483, 2160484
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2160462, 2160465, 2160468
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2160462, 2160465, 2160468
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2160462, 2160465, 2160468
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2160463, 2160466, 2160469

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	02/25/2020			02/25/2020 16:14	Blanca Fach	2160462, 2160465, 2160468
EPA 200.7 Rev. 4.4	02/25/2020	02/27/2020 15:45	Elliott D. Healy	03/02/2020 19:08	Betina Topolski	2160482
	02/25/2020	02/27/2020 15:45	Elliott D. Healy	03/02/2020 19:15	Betina Topolski	2160483
	02/25/2020	02/27/2020 15:45	Elliott D. Healy	03/02/2020 19:23	Betina Topolski	2160484
EPA 200.8 Rev. 5.4	02/25/2020	02/27/2020 15:45	Elliott D. Healy	03/03/2020 22:03	Alexander Thompson	2160482
	02/25/2020	02/27/2020 15:45	Elliott D. Healy	03/03/2020 22:12	Alexander Thompson	2160483
	02/25/2020	02/27/2020 15:45	Elliott D. Healy	03/03/2020 22:22	Alexander Thompson	2160484
	02/25/2020	02/27/2020 15:45	Elliott D. Healy	03/04/2020 19:27	Alexander Thompson	2160482
	02/25/2020	02/27/2020 15:45	Elliott D. Healy	03/04/2020 19:37	Alexander Thompson	2160483
	02/25/2020	02/27/2020 15:45	Elliott D. Healy	03/04/2020 19:46	Alexander Thompson	2160484
EPA 300.0 Rev. 2.1	02/25/2020			03/05/2020 17:31	Lipi Saha	2160462
	02/25/2020			03/05/2020 18:07	Lipi Saha	2160465
	02/25/2020			03/05/2020 18:19	Lipi Saha	2160468
EPA 350.1 Rev. 2.0	02/25/2020			03/02/2020 13:10	Ping Hua	2160463
	02/25/2020			03/02/2020 13:12	Ping Hua	2160466
	02/25/2020			03/02/2020 13:13	Ping Hua	2160469
EPA 351.2 Rev. 2.0	02/25/2020	02/27/2020 12:00	Sima Feizi	02/28/2020 10:02	Jhamieka S. Greenwood	2160463
	02/25/2020	02/27/2020 12:00	Sima Feizi	02/28/2020 10:11	Jhamieka S. Greenwood	2160466
	02/25/2020	02/27/2020 12:00	Sima Feizi	02/28/2020 10:12	Jhamieka S. Greenwood	2160469
EPA 353.2 Rev. 2.0	02/25/2020			03/05/2020 10:11	Beverly Y. Sanders	2160463
	02/25/2020			03/05/2020 10:18	Beverly Y. Sanders	2160466
	02/25/2020			03/05/2020 10:19	Beverly Y. Sanders	2160469
EPA 365.1 Rev. 2.0	02/25/2020	03/04/2020 13:06	Yen Ta	03/05/2020 12:23	Benjamin T. Nordmann	2160463
	02/25/2020	03/04/2020 13:06	Yen Ta	03/05/2020 12:24	Benjamin T. Nordmann	2160466
	02/25/2020	03/04/2020 13:06	Yen Ta	03/05/2020 12:25	Benjamin T. Nordmann	2160469
EPA 365.1 Rev. 2.0 dissolved	02/25/2020			02/25/2020 16:57	Carlos Miranda	2160464
	02/25/2020			02/25/2020 16:58	Carlos Miranda	2160467
	02/25/2020			02/25/2020 16:59	Carlos Miranda	2160470
EPA 8270E	02/25/2020	02/26/2020 09:00	Julie Wi	02/28/2020 16:27	Vandana T. Nagar	2160481
	02/25/2020	02/26/2020 09:00	Julie Wi	03/06/2020 17:19	Vandana T. Nagar	2160481
	02/25/2020	02/28/2020 08:30	Rasheda Ghaffari	03/06/2020 20:13	Arthur Maknenko	2160480
EPA 8276	02/25/2020	02/28/2020 08:30	Rasheda Ghaffari	03/05/2020 09:03	Michael Poppell	2160480
EPA 8321B	02/25/2020	02/26/2020 08:30	Hoor Shaik	03/08/2020 03:28	Juyoung Kim	2160478
	02/25/2020	02/27/2020 11:30	Rebecca Ware	02/27/2020 19:26	Rebecca Ware	2160476
	02/25/2020	02/27/2020 11:30	Rebecca Ware	02/27/2020 19:40	Rebecca Ware	2160477
	02/25/2020	02/27/2020 11:30	Rebecca Ware	02/27/2020 19:54	Rebecca Ware	2160479
	02/25/2020	02/27/2020 11:30	Rebecca Ware	02/28/2020 14:31	Rebecca Ware	2160476
	02/25/2020	02/27/2020 11:30	Rebecca Ware	02/28/2020 14:42	Rebecca Ware	2160477
	02/25/2020	02/27/2020 11:30	Rebecca Ware	02/28/2020 14:53	Rebecca Ware	2160479
	02/25/2020	02/27/2020 11:30	Rebecca Ware	03/06/2020 12:00	Rebecca Ware	2160476

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	02/25/2020	02/27/2020 11:30	Rebecca Ware	03/06/2020 12:53	Rebecca Ware	2160477
	02/25/2020	02/28/2020 10:00	Hoor Shaik	03/08/2020 08:14	Juyoung Kim	2160476
	02/25/2020	02/28/2020 10:00	Hoor Shaik	03/08/2020 08:48	Juyoung Kim	2160477
	02/25/2020	02/28/2020 10:00	Hoor Shaik	03/08/2020 09:23	Juyoung Kim	2160479
	02/25/2020	03/11/2020 14:53	Rebecca Ware	03/12/2020 14:44	Rebecca Ware	2160479
SM 2120 B-2011	02/25/2020			02/25/2020 16:17	Madeline Funaro	2160462
	02/25/2020			02/25/2020 16:18	Madeline Funaro	2160468
	02/25/2020			02/25/2020 16:25	Madeline Funaro	2160465
SM 2320 B-2011	02/25/2020			03/05/2020 10:44	Dale L. Simmons	2160465
	02/25/2020			03/05/2020 11:31	Dale L. Simmons	2160462
	02/25/2020			03/05/2020 11:43	Dale L. Simmons	2160468
SM 2340B	02/25/2020			03/02/2020 19:08	Betina Topolski	2160482
	02/25/2020			03/02/2020 19:15	Betina Topolski	2160483
	02/25/2020			03/02/2020 19:23	Betina Topolski	2160484
SM 2540 C-2011	02/25/2020			02/26/2020 14:06	Yijie Li	2160462, 2160465, 2160468
SM 2540 D-2011	02/25/2020			02/26/2020 14:06	Yijie Li	2160462, 2160465, 2160468
SM 4500 F-C-2011	02/25/2020			03/14/2020 02:03	Dale L. Simmons	2160462
	02/25/2020			03/14/2020 02:08	Dale L. Simmons	2160465
	02/25/2020			03/14/2020 02:13	Dale L. Simmons	2160468
SM 5310 B-2011	02/25/2020			02/26/2020 22:40	Lauren Lees	2160463
	02/25/2020			02/26/2020 22:52	Lauren Lees	2160466
	02/25/2020			02/26/2020 23:05	Lauren Lees	2160469