

Chemical Analysis Report

SW-DIST-2019-10-17-01

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

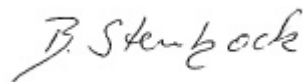
Event Description: **SCIs**
Request ID: **RQ-2019-10-14-03**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
Attn: Ben Paswater

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: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 12-NOV-2019 17:36



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: Gamble Creek @ Golf Course Rd

Collection Date/Time: 10/16/2019 12:30

Field ID: G2SW0107

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2129039	EPA 180.1 Rev. 2.0	Turbidity	4.3	A	NTU	P372677	
	EPA 300.0 Rev. 2.1	Chloride	22		mg Cl/L	P373556	
		Sulfate	130		mg SO4/L	P373561	
	SM 2120 B	Color (true)	57		PCU	P372684	
	SM 2320 B-97	Total Alkalinity	109		mg CaCO3/L	P372878	
	SM 2540 C-97	TDS	388		mg/L	P373146	
	SM 2540 D-97	TSS	8	I	mg/L	P372912	
	SM 4500 F-C-97	Fluoride	0.56		mg F/L	P372882	
2129040	EPA 350.1 Rev. 2.0	Ammonia-N	0.056		mg N/L	P372985	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.64		mg N/L	P373033	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.26		mg N/L	P372809	
	EPA 365.1 Rev. 2.0	Total-P	0.38		mg P/L	P372905	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P372968	
2129041	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.29		mg P/L	P372701	
2129045	EPA 8321B	2,4-D	0.0032	I	ug/L	P372737	
		Acesulfame K**	0.10	U	ug/L	P372594	
		AMPA**	5.6		ug/L	P372594	
		Sucralose**	0.083		ug/L	P372594	
		Acetaminophen**	0.0080	U	ug/L	P372737	
		Acetamiprid**	0.0020	U	ug/L	P372737	
		Endothall**	0.25	U	ug/L	P372594	
		Glufosinate**	0.10	U	ug/L	P372594	
		Glyphosate**	6.1		ug/L	P372594	
		Afidopyropen**	0.0020	UJ	ug/L	P372737	
		Bentazon	1.0		ug/L	P372737	
		Benzovindiflupyr**	0.0020	I J	ug/L	P372737	
		Carbamazepine**	8.0E-04	U	ug/L	P372737	
		Clothianidin**	0.0029	I	ug/L	P372737	
		Dinotefuran**	0.031		ug/L	P372737	
		Diuron	0.0093		ug/L	P372737	
		Fenuron	0.016	U	ug/L	P372737	
		Fluridone**	8.0E-04	U	ug/L	P372737	
		Imazapyr**	0.017		ug/L	P372737	
		Hydrocodone**	0.0020	U	ug/L	P372737	
		Ibuprofen**	0.020	U	ug/L	P372737	
		Imidacloprid	0.021		ug/L	P372737	MS
		Linuron	0.0040	U	ug/L	P372737	
		Mandestrobin**	0.0020	UJ	ug/L	P372737	
		MCP	0.0020	U	ug/L	P372737	
		Naproxen**	0.0080	U	ug/L	P372737	
		Primidone**	0.0040	U	ug/L	P372737	
		Pyraclostrobin**	0.0084		ug/L	P372737	
		Thiamethoxam**	0.021		ug/L	P372737	MS

Field ID: G2SW0107

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2129045	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P372737	
		Triclopyr**	0.0040	U	ug/L	P372737	
2129046	EPA 200.7 Rev. 4.4	Barium	22.1		ug/L	P372820	
		Calcium	56.8		mg/L	P372820	
		Iron	360		ug/L	P372820	
		Magnesium	23.6		mg/L	P372820	
		Potassium	8.5		mg/L	P372820	
		Sodium	12.5		mg/L	P372820	
		Zinc	5.0	U	ug/L	P372820	
	EPA 200.8 Rev. 5.4	Aluminum	195		ug/L	P372820	
		Antimony	0.11	I	ug/L	P372820	
		Arsenic	0.90		ug/L	P372820	
		Boron**	46.0		ug/L	P372820	
		Cadmium	0.020	U	ug/L	P372820	
		Chromium	0.52	I	ug/L	P372820	
		Copper	1.90		ug/L	P372820	
		Lead	0.27	I	ug/L	P372820	
		Nickel	0.50	U	ug/L	P372820	
		Selenium	0.20	U	ug/L	P372820	
		Silver	0.010	U	ug/L	P372820	
		Thallium	0.10	U	ug/L	P372820	
2129047	EPA 8270E	Acetochlor	0.26	U	ng/L	P372696	
		Alachlor	0.26	U	ng/L	P372696	
		Ametryn	0.63	U	ng/L	P372696	
		Atrazine	200		ng/L	P372696	
		Atrazine Desethyl	12		ng/L	P372696	
		Azinphos Methyl	5.2	U	ng/L	P372696	
		Bromacil	71		ng/L	P372696	
		Butylate	0.42	U	ng/L	P372696	
		Chlorpyrifos Ethyl	1.3		ng/L	P372696	
		Chlorpyrifos Methyl	0.10	U	ng/L	P372696	
		Cyanazine	3.4	U	ng/L	P372696	
		Demeton	7.3	UJ	ng/L	P372696	LCS, MS
		Diazinon	0.13	U	ng/L	P372696	
		Dimethenamid**	0.10	U	ng/L	P372696	
		Disulfoton	0.52	U	ng/L	P372696	
		Dithiopyr**	0.10	U	ng/L	P372696	
		EPTC	1.3	U	ng/L	P372696	
		Ethion	0.16	U	ng/L	P372696	
		Ethoprop	0.10	U	ng/L	P372696	
		Fenamiphos	0.52	U	ng/L	P372696	
		Fipronil	0.26	U	ng/L	P372696	
		Fipronil Desulfinyl**	0.13	U	ng/L	P372696	
		Fipronil Sulfide	1.6	J	ng/L	P372696	CCV
		Fipronil Sulfone	3.7		ng/L	P372696	

Field ID: G2SW0107

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2129047	EPA 8270E	Fonofos	0.21	U	ng/L	P372696	
		Hexazinone	0.73	I	ng/L	P372696	
		Malathion	0.37	U	ng/L	P372696	
		Metalaxyl	79		ng/L	P372696	
		Metolachlor	1.3E+03		ng/L	P372696	
		Metribuzin	72	J	ng/L	P372696	CCV
		Mevinphos	0.52	U	ng/L	P372696	
		Molinate	0.31	U	ng/L	P372696	
		Norflurazon	2.9		ng/L	P372696	
		Oxadiazon**	0.10	U	ng/L	P372696	
		Parathion Ethyl	0.26	UJ	ng/L	P372696	MS
		Parathion Methyl	0.57	U	ng/L	P372696	
		Pendimethalin	1.0	U	ng/L	P372696	
		Phorate	0.26	U	ng/L	P372696	
		Prodiamine**	0.18	U	ng/L	P372696	
		Prometon	0.94	U	ng/L	P372696	
		Prometryn	0.21	U	ng/L	P372696	
		Simazine	0.52	U	ng/L	P372696	
		Tebuconazole**	1.7	I	ng/L	P372696	
		Terbufos	0.10	U	ng/L	P372696	
		Terbuthylazine	0.44	U	ng/L	P372696	

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

EPA 8270E: MS accuracy for bromacil, metolachlor, fipronil sulfone, atrazine, metalaxyl, and metribuzin 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.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P372677

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P372820

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: P372820

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: P373556

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373561

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372985

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: P373033

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P372809

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P372905

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P372701

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

Reference Method: EPA 8270E
 Batch ID: P372696

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	5.0	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	7.0	U	ng/L
Diazinon	0.12	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.30	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P372696

Component	Result	Code	Units
Metolachlor	0.50	U	ng/L
Metribuzin	0.75	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8321B
Batch ID: P372594

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

Reference Method: EPA 8321B
Batch ID: P372737

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P372737

Component	Result	Code	Units
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: SM 2120 B
Batch ID: P372684

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P372878

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

Reference Method: SM 2540 C-97
Batch ID: P373146

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P372912

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P372882

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P372968

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: P372820

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	106		P	85 - 115
Calcium	105		P	85 - 115
Iron	103		P	85 - 115
Magnesium	107		P	85 - 115
Potassium	98.9		P	85 - 115
Sodium	101		P	85 - 115
Zinc	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P372820

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.9		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	99.7		P	85 - 115
Boron	94.7		P	85 - 115
Cadmium	97.9		P	85 - 115
Chromium	98.0		P	85 - 115
Copper	95.4		P	85 - 115
Lead	99.4		P	85 - 115
Nickel	97.1		P	85 - 115
Selenium	91.3		P	85 - 115
Silver	102		P	85 - 115
Thallium	102		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373556

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373561

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372985

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373033

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 353.2 Rev. 2.0
 Batch ID: P372809

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: P372905

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	96.6		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P372701

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

Reference Method: EPA 8270E
 Batch ID: P372696

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	103	93.9	P/P	69 - 122
Alachlor	104	99.1	P/P	71 - 120
Ametryn	82.1	80.9	P/P	47 - 138
Atrazine	93.0	95.1	P/P	74 - 124
Atrazine Desethyl	87.0	78.1	P/P	38 - 138
Azinphos Methyl	109	89.1	P/P	69 - 154
Bromacil	87.8	80.2	P/P	39 - 121
Butylate	69.6	62.9	P/P	27 - 87.0
Chlorpyrifos Ethyl	106	97.5	P/P	69 - 118
Chlorpyrifos Methyl	97.1	90.4	P/P	70 - 120
Cyanazine	139	123	P/P	20 - 250
Demeton	174	159	F/F	39 - 118
Diazinon	97.6	84.9	P/P	68 - 127
Dimethenamid	89.4	83.0	P/P	66 - 125
Disulfoton	94.3	85.2	P/P	52 - 126
Dithiopyr	93.0	87.2	P/P	67 - 127
EPTC	63.4	59.7	P/P	24 - 88.0
Ethion	56.5	53.4	P/P	51 - 132
Ethoprop	94.5	87.1	P/P	58 - 117
Fenamiphos	86.5	87.9	P/P	38 - 139
Fipronil	91.5	84.7	P/P	61 - 124
Fipronil Desulfinyl	68.1	60.4	P/P	47 - 120
Fipronil Sulfide	105	85.0	P/P	56 - 119
Fipronil Sulfone	90.1	82.8	P/P	50 - 117
Fonofos	95.7	90.0	P/P	60 - 121
Hexazinone	111	102	P/P	55 - 137
Malathion	92.6	87.1	P/P	66 - 126
Metalaxyl	105	96.8	P/P	33 - 140
Metolachlor	107	94.4	P/P	69 - 119
Metribuzin	177	149	P/P	31 - 238
Mevinphos	96.5	90.7	P/P	42 - 113
Molinate	70.8	65.9	P/P	32 - 96.0
Norflurazon	107	103	P/P	54 - 123
Oxadiazon	84.1	76.2	P/P	63 - 128

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P372696

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Parathion Ethyl	106	89.3	P/P	72 - 111
Parathion Methyl	110	90.7	P/P	74 - 126
Pendimethalin	98.3	86.1	P/P	61 - 131
Phorate	67.4	82.7	P/P	51 - 115
Prodiamine	61.4	55.5	P/P	38 - 144
Prometon	92.3	80.5	P/P	54 - 119
Prometryn	93.8	83.5	P/P	63 - 120
Simazine	104	96.7	P/P	75 - 126
Tebuconazole	52.3	52.8	P/P	20 - 119
Terbufos	102	96.3	P/P	64 - 116
Terbuthylazine	88.4	80.1	P/P	73 - 117

Reference Method: EPA 8321B
Batch ID: P372594

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	84.1		P	40 - 150
AMPA	117		P	40 - 150
Endothall	92.6		P	40 - 150
Glufosinate	82.4		P	40 - 150
Glyphosate	81.0		P	40 - 140
Sucralose	99.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P372737

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	136		P	40 - 160
Acetaminophen	89.7		P	30 - 160
Acetamiprid	92.4		P	40 - 160
Afidopyropen	97.2		P	40 - 160
Bentazon	70.9		P	30 - 160
Benzovindiflupyr	95.5		P	40 - 160
Carbamazepine	102		P	40 - 160
Clothianidin	91.7		P	40 - 160
Dinotefuran	91.6		P	40 - 160
Diuron	83.9		P	40 - 160
Fenuron	92.0		P	40 - 160
Fluridone	90.1		P	40 - 160
Hydrocodone	96.7		P	40 - 160
Ibuprofen	92.4		P	30 - 160
Imazapyr	85.6		P	40 - 160
Imidacloprid	101		P	40 - 160
Linuron	80.2		P	40 - 160
Mandestrobin	86.9		P	40 - 160
MCPP	134		P	40 - 160
Naproxen	109		P	40 - 160
Primidone	85.9		P	40 - 160
Pyraclostrobin	89.4		P	30 - 160
Thiamethoxam	111		P	40 - 160
Tolfenpyrad	56.6		P	40 - 160
Triclopyr	130		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2120 B
Batch ID: P372684

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.5		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P372878

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

Reference Method: SM 4500 F-C-97
Batch ID: P372882

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.8		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P372968

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P372820

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129032	Barium	102		P	80 - 120
2129032	Calcium	98.8		P	80 - 120
2129032	Iron	102		P	80 - 120
2129032	Magnesium	101		P	80 - 120
2129032	Potassium	105		P	80 - 120
2129032	Sodium	99.8		P	80 - 120
2129032	Zinc	97.5		P	80 - 120
2129218	Barium	104	104	P/P	80 - 120
2129218	Calcium	102	106	P/P	80 - 120
2129218	Iron	104	107	P/P	80 - 120
2129218	Magnesium	105	110	P/P	80 - 120
2129218	Potassium	104	108	P/P	80 - 120
2129218	Sodium	95.3	98.4	P/P	80 - 120
2129218	Zinc	101	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P372820

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129032	Aluminum	98.6		P	80 - 120
2129032	Antimony	106		P	80 - 120
2129032	Arsenic	104		P	80 - 120
2129032	Boron	94.5		P	80 - 120
2129032	Cadmium	103		P	80 - 120
2129032	Chromium	95.7		P	80 - 120
2129032	Copper	96.1		P	80 - 120
2129032	Lead	103		P	80 - 120
2129032	Nickel	93.1		P	80 - 120
2129032	Selenium	88.6		P	80 - 120
2129032	Silver	106		P	80 - 120
2129032	Thallium	108		P	80 - 120
2129218	Aluminum	95.0	95.9	P/P	80 - 120
2129218	Antimony	102	102	P/P	80 - 120
2129218	Arsenic	101	101	P/P	80 - 120
2129218	Boron	92.6	94.0	P/P	80 - 120
2129218	Cadmium	99.2	99.6	P/P	80 - 120
2129218	Chromium	95.0	94.5	P/P	80 - 120
2129218	Copper	99.7	93.8	P/P	80 - 120
2129218	Lead	100	100	P/P	80 - 120
2129218	Nickel	92.6	94.0	P/P	80 - 120
2129218	Selenium	84.7	85.4	P/P	80 - 120
2129218	Silver	103	103	P/P	80 - 120
2129218	Thallium	102	103	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373556

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2128687	Chloride	101		P	90 - 110
2128994	Chloride	99.9		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373561

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2128687	Sulfate	99.6		P	90 - 110
2128994	Sulfate	99.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372985

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2128997	Ammonia-N	101	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373033

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129040	Kjeldahl Nitrogen	95.8	110	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372809

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129040	NO2NO3-N	97.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372905

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129040	Total-P	95.1	92.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372701

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129063	O-Phosphate-P	93.9	96.1	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P372696

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129047	Acetochlor	97.1	97.0	P/P	63 - 129
2129047	Alachlor	104	102	P/P	65 - 127
2129047	Ametryn	83.2	86.7	P/P	40 - 164
2129047	Atrazine Desethyl	72.0	98.2	P/P	14 - 157
2129047	Azinphos Methyl	99.6	91.3	P/P	49 - 180
2129047	Butylate	58.3	49.9	P/P	10 - 94.0
2129047	Chlorpyrifos Ethyl	118	117	P/P	58 - 123
2129047	Chlorpyrifos Methyl	98.5	98.0	P/P	58 - 125
2129047	Cyanazine	171	170	P/P	24 - 253
2129047	Demeton	188	180	F/F	25 - 149
2129047	Diazinon	96.0	99.0	P/P	59 - 144
2129047	Dimethenamid	95.2	89.9	P/P	46 - 139
2129047	Disulfoton	97.5	93.7	P/P	54 - 132
2129047	Dithiopyr	91.1	91.0	P/P	64 - 130
2129047	EPTC	53.0	47.9	P/P	10 - 92.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P372696

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129047	Ethion	90.0	73.4	P/P	30 - 148
2129047	Ethoprop	102	96.8	P/P	50 - 130
2129047	Fenamiphos	85.9	89.4	P/P	49 - 142
2129047	Fipronil	101	98.7	P/P	46 - 140
2129047	Fipronil Desulfinyl	70.0	68.4	P/P	30 - 121
2129047	Fipronil Sulfide	101	100	P/P	31 - 136
2129047	Fonofos	105	102	P/P	55 - 129
2129047	Hexazinone	121	121	P/P	56 - 141
2129047	Malathion	103	101	P/P	56 - 135
2129047	Mevinphos	104	93.1	P/P	33 - 131
2129047	Molinate	70.3	63.2	P/P	14 - 98.0
2129047	Norflurazon	111	99.6	P/P	34 - 136
2129047	Oxadiazon	88.7	88.0	P/P	67 - 116
2129047	Parathion Ethyl	131	128	F/F	66 - 118
2129047	Parathion Methyl	121	124	P/P	64 - 136
2129047	Pendimethalin	123	129	P/P	59 - 144
2129047	Phorate	81.8	82.7	P/P	42 - 130
2129047	Prodiamine	62.2	61.6	P/P	42 - 148
2129047	Prometon	106	127	P/P	59 - 134
2129047	Prometryn	92.4	94.9	P/P	54 - 135
2129047	Simazine	129	133	P/P	53 - 156
2129047	Tebuconazole	76.6	61.8	P/P	10 - 131
2129047	Terbufos	104	109	P/P	57 - 131
2129047	Terbutylazine	91.5	89.9	P/P	68 - 125

Reference Method: EPA 8321B
Batch ID: P372594

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2128620	Acesulfame K	50.6	61.0	P/P	40 - 150
2128620	AMPA	61.1	63.7	P/P	40 - 150
2128620	Endothall	58.1	63.1	P/P	40 - 150
2128620	Glufosinate	80.6	76.7	P/P	40 - 150
2128620	Glyphosate	82.8	79.0	P/P	40 - 140
2128620	Sucralose	114	104	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P372737

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129103	2,4-D	121	114	P/P	40 - 160
2129103	Acetaminophen	67.3	71.5	P/P	30 - 160
2129103	Acetamiprid	103	99.2	P/P	40 - 160
2129103	Afidopyropen	99.7	106	P/P	40 - 160
2129103	Benzovindiflupyr	102	102	P/P	40 - 160
2129103	Carbamazepine	86.0	89.1	P/P	40 - 160
2129103	Clothianidin	93.1	95.2	P/P	40 - 160
2129103	Dinotefuran	110	113	P/P	40 - 160
2129103	Diuron	69.7	72.4	P/P	40 - 160
2129103	Fenuron	81.9	77.9	P/P	40 - 160
2129103	Fluridone	74.5	91.1	P/P	40 - 160
2129103	Hydrocodone	95.6	105	P/P	40 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P372737

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129103	Ibuprofen	79.2	79.0	P/P	30 - 160
2129103	Imidacloprid	178	181	F/F	40 - 160
2129103	Linuron	74.8	79.5	P/P	40 - 160
2129103	Mandestrobin	97.8	99.7	P/P	40 - 160
2129103	MCPP	116	121	P/P	40 - 160
2129103	Naproxen	93.4	81.7	P/P	40 - 160
2129103	Primidone	88.4	92.5	P/P	40 - 160
2129103	Pyraclostrobin	97.5	96.4	P/P	30 - 160
2129103	Thiamethoxam	163	162	F/F	40 - 160
2129103	Tolfenpyrad	71.5	71.8	P/P	40 - 160
2129103	Triclopyr	118	114	P/P	30 - 160

Reference Method: SM 4500 F-C-97
Batch ID: P372882

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2128512	Fluoride	97.3	95.9	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P372968

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129062	Organic Carbon	103	99.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P372677

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129039	Turbidity	0.234	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P372820

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129218	Barium	0.226	Spike	P	0 - 20
2129218	Calcium	3.79	Spike	P	0 - 20
2129218	Iron	3.18	Spike	P	0 - 20
2129218	Magnesium	4.07	Spike	P	0 - 20
2129218	Potassium	4.34	Spike	P	0 - 20
2129218	Sodium	2.13	Spike	P	0 - 20
2129218	Zinc	0.434	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P372820

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129218	Aluminum	0.942	Spike	P	0 - 20
2129218	Antimony	0.348	Spike	P	0 - 20
2129218	Arsenic	0.705	Spike	P	0 - 20
2129218	Boron	1.42	Spike	P	0 - 20
2129218	Cadmium	0.379	Spike	P	0 - 20
2129218	Chromium	0.555	Spike	P	0 - 20
2129218	Copper	6.04	Spike	P	0 - 20
2129218	Lead	0.0968	Spike	P	0 - 20
2129218	Nickel	1.43	Spike	P	0 - 20
2129218	Selenium	0.751	Spike	P	0 - 20
2129218	Silver	0.693	Spike	P	0 - 20
2129218	Thallium	0.635	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373556

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2128687	Chloride	0.164	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373561

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2128687	Sulfate	0.522	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372985

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2128997	Ammonia-N	1.13	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373033

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129040	Kjeldahl Nitrogen	8.83	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372809

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129040	NO2NO3-N	0.216	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372905

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129040	Total-P	1.42	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372701

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129063	O-Phosphate-P	2.22	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P372696

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129047	Acetochlor	0.0689	Spike	P	0 - 30
2129047	Alachlor	1.27	Spike	P	0 - 30
2129047	Ametryn	4.12	Spike	P	0 - 30
2129047	Atrazine	2.72	Spike	P	0 - 30
2129047	Atrazine Desethyl	16.7	Spike	P	0 - 30
2129047	Azinphos Methyl	8.78	Spike	P	0 - 30
2129047	Bromacil	3.98	Spike	P	0 - 30
2129047	Butylate	15.5	Spike	P	0 - 30
2129047	Chlorpyrifos Ethyl	0.263	Spike	P	0 - 30
2129047	Chlorpyrifos Methyl	0.585	Spike	P	0 - 30
2129047	Cyanazine	0.951	Spike	P	0 - 30
2129047	Demeton	4.68	Spike	P	0 - 30
2129047	Diazinon	3.12	Spike	P	0 - 30
2129047	Dimethenamid	5.64	Spike	P	0 - 30
2129047	Disulfoton	3.99	Spike	P	0 - 30
2129047	Dithiopyr	0.118	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P372696

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129047	EPTC	10.1	Spike	P	0 - 30
2129047	Ethion	20.3	Spike	P	0 - 30
2129047	Ethoprop	5.62	Spike	P	0 - 30
2129047	Fenamiphos	3.96	Spike	P	0 - 30
2129047	Fipronil	1.87	Spike	P	0 - 30
2129047	Fipronil Desulfinyl	2.36	Spike	P	0 - 30
2129047	Fipronil Sulfide	0.444	Spike	P	0 - 30
2129047	Fipronil Sulfone	4.88	Spike	P	0 - 30
2129047	Fonofos	2.53	Spike	P	0 - 30
2129047	Hexazinone	0.412	Spike	P	0 - 30
2129047	Malathion	2.13	Spike	P	0 - 30
2129047	Metaxyl	1.54	Spike	P	0 - 30
2129047	Metolachlor	2.24	Spike	P	0 - 30
2129047	Metribuzin	20.4	Spike	P	0 - 30
2129047	Mevinphos	11.5	Spike	P	0 - 30
2129047	Molinate	10.7	Spike	P	0 - 30
2129047	Norflurazon	9.03	Spike	P	0 - 30
2129047	Oxadiazon	0.791	Spike	P	0 - 30
2129047	Parathion Ethyl	2.35	Spike	P	0 - 30
2129047	Parathion Methyl	2.24	Spike	P	0 - 30
2129047	Pendimethalin	4.42	Spike	P	0 - 30
2129047	Phorate	1.11	Spike	P	0 - 30
2129047	Prodiamine	0.883	Spike	P	0 - 30
2129047	Prometon	17.7	Spike	P	0 - 30
2129047	Prometryn	2.67	Spike	P	0 - 30
2129047	Simazine	3.49	Spike	P	0 - 30
2129047	Tebuconazole	17.8	Spike	P	0 - 30
2129047	Terbufos	4.13	Spike	P	0 - 30
2129047	Terbutylazine	1.69	Spike	P	0 - 30
LFB	Acetochlor	9.33	LCS	P	0 - 30
LFB	Alachlor	4.76	LCS	P	0 - 30
LFB	Ametryn	1.52	LCS	P	0 - 30
LFB	Atrazine	2.14	LCS	P	0 - 30
LFB	Atrazine Desethyl	10.8	LCS	P	0 - 30
LFB	Azinphos Methyl	19.8	LCS	P	0 - 30
LFB	Bromacil	9.06	LCS	P	0 - 30
LFB	Butylate	10.1	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	8.08	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	7.12	LCS	P	0 - 30
LFB	Cyanazine	12.4	LCS	P	0 - 30
LFB	Demeton	9.41	LCS	P	0 - 30
LFB	Diazinon	13.9	LCS	P	0 - 30
LFB	Dimethenamid	7.45	LCS	P	0 - 30
LFB	Disulfoton	10.2	LCS	P	0 - 30
LFB	Dithiopyr	6.47	LCS	P	0 - 30
LFB	EPTC	5.91	LCS	P	0 - 30
LFB	Ethion	5.73	LCS	P	0 - 30
LFB	Ethoprop	8.11	LCS	P	0 - 30
LFB	Fenamiphos	1.60	LCS	P	0 - 30
LFB	Fipronil	7.80	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	12.0	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P372696

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fipronil Sulfide	21.0	LCS	P	0 - 30
LFB	Fipronil Sulfone	8.52	LCS	P	0 - 30
LFB	Fonofos	6.13	LCS	P	0 - 30
LFB	Hexazinone	8.33	LCS	P	0 - 30
LFB	Malathion	6.14	LCS	P	0 - 30
LFB	Metalaxyl	7.79	LCS	P	0 - 30
LFB	Metolachlor	12.5	LCS	P	0 - 30
LFB	Metribuzin	17.0	LCS	P	0 - 30
LFB	Mevinphos	6.19	LCS	P	0 - 30
LFB	Molinate	7.20	LCS	P	0 - 30
LFB	Norflurazon	3.98	LCS	P	0 - 30
LFB	Oxadiazon	9.83	LCS	P	0 - 30
LFB	Parathion Ethyl	17.3	LCS	P	0 - 30
LFB	Parathion Methyl	19.0	LCS	P	0 - 30
LFB	Pendimethalin	13.2	LCS	P	0 - 30
LFB	Phorate	20.3	LCS	P	0 - 30
LFB	Prodiamine	10.2	LCS	P	0 - 30
LFB	Prometon	13.7	LCS	P	0 - 30
LFB	Prometryn	11.6	LCS	P	0 - 30
LFB	Simazine	6.87	LCS	P	0 - 30
LFB	Tebuconazole	0.945	LCS	P	0 - 30
LFB	Terbufos	5.58	LCS	P	0 - 30
LFB	Terbuthylazine	9.78	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P372594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2128620	Acesulfame K	18.5	Spike	P	0 - 30
2128620	AMPA	3.37	Spike	P	0 - 30
2128620	Endothall	1.53	Spike	P	0 - 30
2128620	Glufosinate	4.95	Spike	P	0 - 30
2128620	Glyphosate	3.02	Spike	P	0 - 30
2128620	Sucralose	8.16	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P372737

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129103	2,4-D	5.72	Spike	P	0 - 30
2129103	Acetaminophen	6.08	Spike	P	0 - 30
2129103	Acetamiprid	4.23	Spike	P	0 - 30
2129103	Afidopyropen	5.87	Spike	P	0 - 30
2129103	Benzovindiflupyr	0.307	Spike	P	0 - 30
2129103	Carbamazepine	3.52	Spike	P	0 - 30
2129103	Clothianidin	2.13	Spike	P	0 - 30
2129103	Dinotefuran	3.11	Spike	P	0 - 30
2129103	Diuron	3.75	Spike	P	0 - 30
2129103	Fenuron	4.99	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
 Batch ID: P372737

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129103	Fluridone	10.3	Spike	P	0 - 30
2129103	Hydrocodone	9.74	Spike	P	0 - 30
2129103	Ibuprofen	0.322	Spike	P	0 - 30
2129103	Imazapyr	2.55	Spike	P	0 - 30
2129103	Imidacloprid	1.13	Spike	P	0 - 30
2129103	Linuron	6.05	Spike	P	0 - 30
2129103	Mandestrobin	1.92	Spike	P	0 - 30
2129103	MCP	4.47	Spike	P	0 - 30
2129103	Naproxen	13.4	Spike	P	0 - 30
2129103	Primidone	4.55	Spike	P	0 - 30
2129103	Pyraclostrobin	1.18	Spike	P	0 - 30
2129103	Thiamethoxam	0.471	Spike	P	0 - 30
2129103	Tolfenpyrad	0.435	Spike	P	0 - 30
2129103	Triclopyr	3.52	Spike	P	0 - 30

Reference Method: SM 2120 B
 Batch ID: P372684

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2128994	Color (true)	2.82	Sample	P	0 - 20

Reference Method: SM 2320 B-97
 Batch ID: P372878

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2128512	Total Alkalinity	0.554	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
 Batch ID: P373146

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129111	TDS	1.10	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P372882

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2128512	Fluoride	0.960	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
 Batch ID: P372968

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129062	Organic Carbon	2.62	Spike	P	0 - 20

Quality Assurance Report Precision

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

Quality Assurance Report Surrogates

Lab Sample ID: 2129045
Field Sample ID: G2SW0107

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	124	P	30 - 160
EPA 8321B	Acetaminophen-d4	72.9	P	30 - 160
EPA 8321B	Bentazon-d7	32.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	94.8	P	30 - 160
EPA 8321B	Diuron-d6	80.0	P	30 - 160
EPA 8321B	Endothall-d6	79.4	P	30 - 160
EPA 8321B	Endothall-d6	79.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	82.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	82.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	83.0	P	30 - 160
EPA 8321B	Primidone-d5	90.4	P	30 - 160
EPA 8321B	Sucralose-d6	96.0	P	30 - 160
EPA 8321B	Sucralose-d6	96.0	P	30 - 160

Lab Sample ID: 2129047
Field Sample ID: G2SW0107

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	102	P	68 - 130
EPA 8270E	Terbufos-d10	98.2	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A95040

Included Lab Sample IDs: 2129039

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	99.5	P/P	95 - 105

Reference Method: SM 2120 B

Run ID: A95042

Included Lab Sample IDs: 2129039

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.3	99.3	P/P	90 - 115

Reference Method: EPA 8321B

Run ID: A95044

Included Lab Sample IDs: 2129045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	94.5	83.9	P/P	60 - 160
Glufosinate	101	86.6	P/P	60 - 160
Glyphosate	105	98.7	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A95048

Included Lab Sample IDs: 2129041

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.8	99.7	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A95073

Included Lab Sample IDs: 2129045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	97.6	128	P/P	60 - 160
Endothall	98.6	91.0	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A95074

Included Lab Sample IDs: 2129045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	101	98.8	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A95097

Included Lab Sample IDs: 2129040

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A95110
Included Lab Sample IDs: 2129045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	110	102	P/P	50 - 150
Acetaminophen	104	95.1	P/P	60 - 160
Acetamiprid	101	107	P/P	50 - 150
Afidopyropen	118	115	P/P	50 - 150
Bentazon	102	101	P/P	50 - 160
Benzovindiflupyr	116	116	P/P	50 - 150
Carbamazepine	108	105	P/P	60 - 150
Clothianidin	108	75.5	P/P	60 - 150
Dinotefuran	98.1	96.7	P/P	50 - 150
Diuron	105	104	P/P	60 - 150
Fenuron	105	102	P/P	60 - 150
Fluridone	108	112	P/P	60 - 160
Hydrocodone	107	99.6	P/P	60 - 150
Ibuprofen	96.5	78.6	P/P	50 - 160
Imazapyr	93.1	85.9	P/P	50 - 150
Imidacloprid	102	94.4	P/P	60 - 150
Linuron	93.1	97.6	P/P	60 - 150
Mandestrobin	107	113	P/P	50 - 150
MCPP	97.4	97.4	P/P	50 - 150
Naproxen	95.4	93.3	P/P	50 - 160
Primidone	107	103	P/P	60 - 150
Pyraclostrobin	110	106	P/P	60 - 150
Thiamethoxam	122	120	P/P	50 - 150
Tolfenpyrad	110	109	P/P	60 - 150
Triclopyr	103	110	P/P	50 - 150

Reference Method: SM 2320 B-97
Run ID: A95130
Included Lab Sample IDs: 2129039

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

Reference Method: SM 4500 F-C-97
Run ID: A95130
Included Lab Sample IDs: 2129039

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.6	99.1	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A95158
Included Lab Sample IDs: 2129046

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	99.4	98.4	P/P	90 - 110
Iron	99.1	98.4	P/P	90 - 110
Magnesium	100	99.1	P/P	90 - 110
Potassium	98.5	98.3	P/P	90 - 110
Sodium	96.5	95.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00
Run ID: A95164
Included Lab Sample IDs: 2129040

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A95172
Included Lab Sample IDs: 2129040

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.9	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A95190
Included Lab Sample IDs: 2129046

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	105	103	P/P	90 - 110
Zinc	105	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A95205
Included Lab Sample IDs: 2129040

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.6	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A95278
Included Lab Sample IDs: 2129040

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	96.8	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A95307
Included Lab Sample IDs: 2129039

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

Reference Method: EPA 8270E
Run ID: A95396
Included Lab Sample IDs: 2129047

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	104		P	80 - 120
Alachlor	103		P	80 - 120
Ametryn	99.6		P	80 - 120
Atrazine Desethyl	90.3		P	80 - 120
Azinphos Methyl	96.2		P	80 - 120
Bromacil	106		P	80 - 120
Butylate	96.9		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A95396
Included Lab Sample IDs: 2129047

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlorpyrifos Ethyl	103		P	80 - 120
Chlorpyrifos Methyl	97.5		P	80 - 120
Cyanazine	81.9		P	80 - 120
Demeton	101		P	80 - 120
Diazinon	103		P	80 - 120
Dimethenamid	105		P	80 - 120
Disulfoton	99.5		P	80 - 120
Dithiopyr	103		P	80 - 120
EPTC	101		P	80 - 120
Ethion	101		P	80 - 120
Ethoprop	100		P	80 - 120
Fenamiphos	96.8		P	80 - 120
Fipronil	105		P	80 - 120
Fipronil Desulfinyl	103		P	80 - 120
Fipronil Sulfide	122*		F	80 - 120
Fipronil Sulfone	97.9		P	80 - 120
Fonofos	98.7		P	80 - 120
Hexazinone	98.3		P	80 - 120
Malathion	93.9		P	80 - 120
Metalaxyl	106		P	80 - 120
Metribuzin	72.3*		F	80 - 120
Mevinphos	103		P	80 - 120
Molinate	98.7		P	80 - 120
Norflurazon	105		P	80 - 120
Oxadiazon	106		P	80 - 120
Parathion Ethyl	100		P	80 - 120
Parathion Methyl	96.3		P	80 - 120
Pendimethalin	98.1		P	80 - 120
Phorate	105		P	80 - 120
Prodiamine	97.2		P	80 - 120
Prometon	101		P	80 - 120
Prometryn	95.7		P	80 - 120
Simazine	98.0		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	100		P	80 - 120
Terbuthylazine	104		P	80 - 120

Reference Method: EPA 8270E
Run ID: A95399
Included Lab Sample IDs: 2129047

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	100		P	80 - 120
Metolachlor	104		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A95467
Included Lab Sample IDs: 2129046

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	100	99.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A95467

Included Lab Sample IDs: 2129046

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	101	101	P/P	90 - 110
Cadmium	100	100	P/P	90 - 110
Lead	99.4	99.2	P/P	90 - 110
Selenium	96.0	97.0	P/P	90 - 110
Silver	102	102	P/P	90 - 110
Thallium	95.3	96.1	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A95530

Included Lab Sample IDs: 2129046

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	92.9	93.7	P/P	90 - 110
Boron	90.3	90.6	P/P	90 - 110
Chromium	95.5	95.1	P/P	90 - 110
Nickel	94.0	93.7	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A95562

Included Lab Sample IDs: 2129046

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	94.3	96.1	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							0.234	
EPA 200.7 Rev. 4.4	Barium	106		102	104	104			0.226
	Calcium	105		98.8	102	106			3.79
	Iron	103		102	104	107			3.18
	Magnesium	107		101	105	110			4.07
	Potassium	98.9		105	104	108			4.34
	Sodium	101		99.8	95.3	98.4			2.13
	Zinc	103		97.5	101	101			0.434
EPA 200.8 Rev. 5.4	Aluminum	99.9		98.6	95.0	95.9			0.942
	Antimony	102		106	102	102			0.348
	Arsenic	99.7		104	101	101			0.705
	Boron	94.7		94.5	92.6	94.0			1.42
	Cadmium	97.9		103	99.2	99.6			0.379
	Chromium	98.0		95.7	95.0	94.5			0.555
	Copper	95.4		96.1	99.7	93.8			6.04
	Lead	99.4		103	100	100			0.0968
	Nickel	97.1		93.1	92.6	94.0			1.43
	Selenium	91.3		88.6	84.7	85.4			0.751
	Silver	102		106	103	103			0.693
	Thallium	102		108	102	103			0.635
EPA 300.0 Rev. 2.1	Chloride	101		101	99.9			0.164	
	Sulfate	99.8		99.6	99.7			0.522	
EPA 350.1 Rev. 2.0	Ammonia-N	99.5		101	103				1.13
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107		95.8	110				8.83
EPA 353.2 Rev. 2.0	NO2NO3-N	100		97.8					0.216
EPA 365.1 Rev. 2.0	Total-P	96.6		95.1	92.4				1.42
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102		93.9	96.1				2.22
EPA 8270E	Acetochlor	103	93.9	97.1	97.0		9.33		0.0689
	Alachlor	104	99.1	104	102		4.76		1.27
	Ametryn	82.1	80.9	83.2	86.7		1.52		4.12
	Atrazine	95.1	93.0				2.14		2.72
	Atrazine Desethyl	87.0	78.1	72.0	98.2		10.8		16.7
	Azinphos Methyl	89.1	109	99.6	91.3		19.8		8.78
	Bromacil	80.2	87.8				9.06		3.98
	Butylate	62.9	69.6	58.3	49.9		10.1		15.5
	Chlorpyrifos Ethyl	97.5	106	118	117		8.08		0.263
	Chlorpyrifos Methyl	97.1	90.4	98.5	98.0		7.12		0.585
	Cyanazine	139	123	171	170		12.4		0.951
	Demeton	174	159	188	180		9.41		4.68
	Diazinon	97.6	84.9	96.0	99.0		13.9		3.12
	Dimethenamid	89.4	83.0	95.2	89.9		7.45		5.64
	Disulfoton	94.3	85.2	97.5	93.7		10.2		3.99
	Dithiopyr	93.0	87.2	91.1	91.0		6.47		0.118
	EPTC	63.4	59.7	53.0	47.9		5.91		10.1
	Ethion	56.5	53.4	90.0	73.4		5.73		20.3
	Ethoprop	94.5	87.1	102	96.8		8.11		5.62
	Fenamiphos	86.5	87.9	85.9	89.4		1.60		3.96
	Fipronil	91.5	84.7	101	98.7		7.80		1.87
	Fipronil Desulfinyl	68.1	60.4	70.0	68.4		12.0		2.36
	Fipronil Sulfide	105	85.0	101	100		21.0		0.444
	Fipronil Sulfone	90.1	82.8				8.52		4.88
	Fonofos	95.7	90.0	105	102		6.13		2.53
	Hexazinone	111	102	121	121		8.33		0.412
	Malathion	92.6	87.1	103	101		6.14		2.13

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Metalaxyl	105	96.8			7.79		1.54
	Metolachlor	107	94.4			12.5		2.24
	Metribuzin	177	149			17.0		20.4
	Mevinphos	90.7	96.5	104	93.1	6.19		11.5
	Molinate	65.9	70.8	70.3	63.2	7.20		10.7
	Norflurazon	103	107	111	99.6	3.98		9.03
	Oxadiazon	76.2	84.1	88.7	88.0	9.83		0.791
	Parathion Ethyl	89.3	106	131	128	17.3		2.35
	Parathion Methyl	90.7	110	121	124	19.0		2.24
	Pendimethalin	86.1	98.3	123	129	13.2		4.42
	Phorate	82.7	67.4	81.8	82.7	20.3		1.11
	Prodiamine	55.5	61.4	62.2	61.6	10.2		0.883
	Prometon	80.5	92.3	106	127	13.7		17.7
	Prometryn	83.5	93.8	92.4	94.9	11.6		2.67
	Simazine	96.7	104	129	133	6.87		3.49
	Tebuconazole	52.8	52.3	76.6	61.8	0.945		17.8
	Terbufos	96.3	102	104	109	5.58		4.13
	Terbuthylazine	80.1	88.4	91.5	89.9	9.78		1.69
EPA 8321B	2,4-D	136		121	114			5.72
	Acesulfame K	84.1		50.6	61.0			18.5
	Acetaminophen	89.7		67.3	71.5			6.08
	Acetamiprid	92.4		103	99.2			4.23
	Afidopyropen	97.2		99.7	106			5.87
	AMPA	117		61.1	63.7			3.37
	Bentazon	70.9						
	Benzovindiflupyr	95.5		102	102			0.307
	Carbamazepine	102		86.0	89.1			3.52
	Clothianidin	91.7		93.1	95.2			2.13
	Dinotefuran	91.6		110	113			3.11
	Diuron	83.9		69.7	72.4			3.75
	Endothall	92.6		58.1	63.1			1.53
	Fenuron	92.0		81.9	77.9			4.99
	Fluridone	90.1		74.5	91.1			10.3
	Glufosinate	82.4		80.6	76.7			4.95
	Glyphosate	81.0		82.8	79.0			3.02
	Hydrocodone	96.7		95.6	105			9.74
	Ibuprofen	92.4		79.2	79.0			0.322
	Imazapyr	85.6						2.55
	Imidacloprid	101		178	181			1.13
	Linuron	80.2		74.8	79.5			6.05
	Mandestrobin	86.9		97.8	99.7			1.92
	MCPP	134		116	121			4.47
	Naproxen	109		93.4	81.7			13.4
	Primidone	85.9		88.4	92.5			4.55
	Pyraclostrobin	89.4		97.5	96.4			1.18
	Sucralose	99.0		114	104			8.16
	Thiamethoxam	111		163	162			0.471
	Tolfenpyrad	56.6		71.5	71.8			0.435
	Triclopyr	130		118	114			3.52
SM 2120 B	Color (true)	97.5					2.82	
SM 2320 B-97	Total Alkalinity	104					0.554	
SM 2540 C-97	TDS						1.10	
SM 4500 F-C-97	Fluoride	94.8		97.3	95.9			0.960
SM 5310 B-00	Organic Carbon	96.2		103	99.7			2.62

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2129039
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2129046
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2129046
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2129039
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2129039
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2129040
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2129040
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2129040
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2129040
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2129041
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2129047
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2129045
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2129045
SM 2120 B / E31780	True Color measured at 450 nm	2129039
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2129039
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2129039
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2129039
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2129039
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2129040

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	10/17/2019			10/17/2019 15:48	Samantha Davila	2129039
EPA 200.7 Rev. 4.4	10/17/2019	10/21/2019 15:30	Elliott D. Healy	10/22/2019 19:04	Alexander Thompson	2129046
	10/17/2019	10/21/2019 15:30	Elliott D. Healy	10/23/2019 19:12	Alexander Thompson	2129046
EPA 200.8 Rev. 5.4	10/17/2019	10/21/2019 15:30	Elliott D. Healy	11/04/2019 20:51	Robert K Palmer	2129046
	10/17/2019	10/21/2019 15:30	Elliott D. Healy	11/06/2019 11:23	Robert K Palmer	2129046
	10/17/2019	10/21/2019 15:30	Elliott D. Healy	11/07/2019 17:08	Robert K Palmer	2129046
EPA 300.0 Rev. 2.1	10/17/2019			10/31/2019 04:22	Julia Storbeck	2129039
EPA 350.1 Rev. 2.0	10/17/2019			10/22/2019 13:29	Ping Hua	2129040
EPA 351.2 Rev. 2.0	10/17/2019	10/24/2019 13:16	Sima Feizi	10/25/2019 18:38	Jhamieka S. Greenwood	2129040
EPA 353.2 Rev. 2.0	10/17/2019			10/21/2019 10:28	Lauren Lees	2129040
EPA 365.1 Rev. 2.0	10/17/2019	10/22/2019 14:40	Lipi Saha	10/23/2019 12:22	Rosalyn Ballman	2129040
EPA 365.1 Rev. 2.0 dissolved	10/17/2019			10/17/2019 14:25	Virginia P. Brown	2129041
EPA 8270E	10/17/2019	10/18/2019 09:00	Julie Wi	10/22/2019 21:45	Vandana T. Nagar	2129047
	10/17/2019	10/18/2019 09:00	Julie Wi	10/24/2019 17:02	Vandana T. Nagar	2129047
EPA 8321B	10/17/2019	10/17/2019 12:00	Mohammad Ghaffari	10/17/2019 16:01	Mohammad Ghaffari	2129045
	10/17/2019	10/17/2019 12:00	Mohammad Ghaffari	10/18/2019 18:57	Mohammad Ghaffari	2129045
	10/17/2019	10/17/2019 12:00	Mohammad Ghaffari	10/19/2019 21:23	Mohammad Ghaffari	2129045
	10/17/2019	10/21/2019 09:00	Hoor Shaik	10/22/2019 06:47	Juyoung Kim	2129045
	10/17/2019	10/21/2019 09:00	Hoor Shaik	10/22/2019 15:58	Juyoung Kim	2129045
SM 2120 B	10/17/2019			10/17/2019 17:42	Madeline Funaro	2129039
SM 2320 B-97	10/17/2019			10/19/2019 17:47	Dale L. Simmons	2129039
SM 2540 C-97	10/17/2019			10/18/2019 16:10	Rosalyn Ballman	2129039
SM 2540 D-97	10/17/2019			10/18/2019 16:10	Rosalyn Ballman	2129039
SM 4500 F-C-97	10/17/2019			10/19/2019 17:47	Dale L. Simmons	2129039
SM 5310 B-00	10/17/2019			10/21/2019 22:26	Madeline Funaro	2129040