

Chemical Analysis Report

NE-DIST-2019-09-18-02

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

Event Description: **SCI Puncheon, and Miller Marine**

Request ID: **RQ-2019-09-16-13**

Customer: **NE-DIST**

Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
Attn: Jeremy Parrish

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: 08-OCT-2019 17:24



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: MILLER CREEK AT ATLANTIC BLVD

Collection Date/Time: 09/17/2019 12:25

Field ID: G2NE0005

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2120237	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P370998	
	EPA 300.0	Bromide	15		mg Br/L	P371116	
	SM 2320 B-97	Total Alkalinity	80		mg CaCO3/L	P371515	
	SM 2540 D-97	TSS	6	I	mg/L	P371395	
	SM 4500 F-C-97	Fluoride	0.35		mg F/L	P371519	
2120238	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P371196	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.81		mg N/L	P370960	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.077		mg N/L	P371048	
	EPA 365.1 Rev. 2.0	Total-P	0.076		mg P/L	P370985	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P371109	
2120239	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.045		mg P/L	P370904	
2120253	EPA 8321B	2,4-D	0.012	J	ug/L	P370852	MS
		Acesulfame K**	0.10	UJ	ug/L	P370917	SUR
		AMPA**	1.0	U	ug/L	P370917	
		Sucralose**	0.92		ug/L	P370917	
		Acetaminophen**	0.0080	U	ug/L	P370852	
		Acetamiprid**	0.0020	U	ug/L	P370852	
		Endothall**	0.25	UJ	ug/L	P370917	SUR
		Glufosinate**	1.0	U	ug/L	P370917	
		Glyphosate**	1.0	U	ug/L	P370917	
		Afidopyropen**	0.0020	UJ	ug/L	P370852	
		Bentazon	0.0067		ug/L	P370852	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P370852	
		Carbamazepine**	0.0012	I	ug/L	P370852	
		Clothianidin**	0.0020	U	ug/L	P370852	
		Dinotefuran**	0.0020	U	ug/L	P370852	
		Diuron	0.078		ug/L	P370852	
		Fenuron	0.016	U	ug/L	P370852	
		Fluridone**	0.0058		ug/L	P370852	
		Imazapyr**	0.041		ug/L	P370852	
		Hydrocodone**	0.0020	U	ug/L	P370852	
		Ibuprofen**	0.020	U	ug/L	P370852	
		Imidacloprid	0.011	J	ug/L	P370852	MS
		Linuron	0.0040	U	ug/L	P370852	
		Mandestrobin**	0.0020	UJ	ug/L	P370852	
		MCP	0.0020	UJ	ug/L	P370852	LCS, MS
		Naproxen**	0.0080	U	ug/L	P370852	
		Primidone**	0.0040	U	ug/L	P370852	
		Pyraclostrobin**	0.0020	U	ug/L	P370852	
		Thiamethoxam**	0.0020	U	ug/L	P370852	
		Tolfenpyrad**	0.0020	U	ug/L	P370852	
		Triclopyr**	0.0040	U	ug/L	P370852	

Field ID: G2NE0005

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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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. Refer to the narrative for an explanation of QC Codes.
EPA 8321B: Refer to the narrative for an explanation of QC Codes. Surrogate spike recovery exceeding the control limits. Results confirmed in sample duplicate. MDL for some parameters elevated due to matrix interference.

Sample Location: PUNCHEON ABOVE POINT MEADOWS DR

Collection Date/Time: 09/17/2019 09:20

Field ID: G2NE1181

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2120234	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P370989	
	EPA 300.0 Rev. 2.1	Chloride	43		mg Cl/L	P371126	
		Sulfate	52		mg SO4/L	P371130	
	SM 2120 B	Color (true)	81		PCU	P370951	
	SM 2320 B-97	Total Alkalinity	67		mg CaCO3/L	P371114	
	SM 2540 C-97	TDS	255		mg/L	P371461	
	SM 2540 D-97	TSS	3	I	mg/L	P371394	
	SM 4500 F-C-97	Fluoride	0.082	I	mg F/L	P371118	
2120235	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P371194	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.54		mg N/L	P370964	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.094		mg N/L	P371146	
	EPA 365.1 Rev. 2.0	Total-P	0.062		mg P/L	P371065	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P371109	
2120236	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.042		mg P/L	P370907	
2120252	EPA 8321B	2,4-D	0.0057	I	ug/L	P370771	
		Acesulfame K**	0.10	U	ug/L	P370917	
		AMPA**	0.24	I	ug/L	P370917	
		Sucralose**	0.34		ug/L	P370917	
		Acetaminophen**	0.0080	U	ug/L	P370771	
		Acetamiprid**	0.0020	U	ug/L	P370771	
		Endothall**	0.25	U	ug/L	P370917	
		Glufosinate**	0.10	U	ug/L	P370917	
		Glyphosate**	0.17	I	ug/L	P370917	
		Afidopyropen**	0.0020	UJ	ug/L	P370771	
		Bentazon	0.062		ug/L	P370771	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P370771	
		Carbamazepine**	8.0E-04	U	ug/L	P370771	
		Clothianidin**	0.0054	I	ug/L	P370771	
		Dinotefuran**	0.0020	U	ug/L	P370771	
		Diuron	0.076		ug/L	P370771	
		Fenuron	0.016	U	ug/L	P370771	
		Fluridone**	0.053		ug/L	P370771	
		Imazapyr**	0.38		ug/L	P370771	
		Hydrocodone**	0.0020	U	ug/L	P370771	
		Ibuprofen**	0.020	U	ug/L	P370771	
		Imidacloprid	0.014		ug/L	P370771	
		Linuron	0.0040	U	ug/L	P370771	
		Mandestrobin**	0.0020	UJ	ug/L	P370771	
		MCP	0.0020	U	ug/L	P370771	
		Naproxen**	0.0080	U	ug/L	P370771	
		Primidone**	0.0040	U	ug/L	P370771	
		Pyraclostrobin**	0.0020	U	ug/L	P370771	
		Thiamethoxam**	0.0020	U	ug/L	P370771	

Field ID: G2NE1181

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2120252	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P370771	
		Triclopyr**	0.0040	U	ug/L	P370771	
2120254	EPA 200.7 Rev. 4.4	Barium	31.0		ug/L	P371002	
		Calcium	42.4		mg/L	P371002	
		Iron	200		ug/L	P371002	
		Magnesium	9.27		mg/L	P371002	
		Potassium	3.3		mg/L	P371002	
		Sodium	22.5		mg/L	P371002	
		Zinc	5.0	U	ug/L	P371002	
	EPA 200.8 Rev. 5.4	Aluminum	153		ug/L	P371002	
		Antimony	0.062	I	ug/L	P371002	
		Arsenic	0.73		ug/L	P371002	
		Boron**	31.1		ug/L	P371002	
		Cadmium	0.020	U	ug/L	P371002	
		Chromium	0.40	U	ug/L	P371002	
		Copper	2.21		ug/L	P371002	
		Lead	0.20	U	ug/L	P371002	
		Nickel	0.89	I	ug/L	P371002	
		Selenium	0.20	U	ug/L	P371002	
		Silver	0.010	U	ug/L	P371002	
		Thallium	0.10	U	ug/L	P371002	
2120267	EPA 8270E	Acetochlor	0.25	U	ng/L	P370888	
		Alachlor	0.25	U	ng/L	P370888	
		Ametryn	2.1	I	ng/L	P370888	
		Atrazine	8.7		ng/L	P370888	
		Atrazine Desethyl	4.9	I	ng/L	P370888	
		Azinphos Methyl	5.1	U	ng/L	P370888	
		Bromacil	0.51	U	ng/L	P370888	
		Butylate	0.41	U	ng/L	P370888	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P370888	
		Chlorpyrifos Methyl	0.10	U	ng/L	P370888	
		Cyanazine	3.3	U	ng/L	P370888	
		Demeton	7.1	U	ng/L	P370888	
		Diazinon	0.13	U	ng/L	P370888	
		Dimethenamid**	0.10	U	ng/L	P370888	
		Disulfoton	0.51	U	ng/L	P370888	
		Dithiopyr**	0.18	I	ng/L	P370888	
		EPTC	1.3	U	ng/L	P370888	
		Ethion	0.15	U	ng/L	P370888	
		Ethoprop	0.10	U	ng/L	P370888	
		Fenamiphos	0.51	U	ng/L	P370888	
		Fipronil	0.29	I	ng/L	P370888	
		Fipronil Desulfinyl**	0.70		ng/L	P370888	
		Fipronil Sulfide	1.6		ng/L	P370888	
		Fipronil Sulfone	2.4		ng/L	P370888	

Field ID: G2NE1181

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2120267	EPA 8270E	Fonofos	0.20	U	ng/L	P370888	
		Hexazinone	0.51	U	ng/L	P370888	
		Malathion	0.36	U	ng/L	P370888	
		Metaxyl	0.31	U	ng/L	P370888	
		Metolachlor	0.51	U	ng/L	P370888	
		Metribuzin	0.76	U	ng/L	P370888	
		Mevinphos	0.51	U	ng/L	P370888	
		Molinate	0.31	U	ng/L	P370888	
		Norflurazon	0.51	U	ng/L	P370888	
		Oxadiazon**	9.2		ng/L	P370888	
		Parathion Ethyl	0.25	U	ng/L	P370888	
		Parathion Methyl	0.56	U	ng/L	P370888	
		Pendimethalin	1.0	U	ng/L	P370888	
		Phorate	0.25	U	ng/L	P370888	
		Prodiamine**	0.18	U	ng/L	P370888	
		Prometon	0.92	U	ng/L	P370888	
		Prometryn	0.20	U	ng/L	P370888	
		Simazine	1.7	I	ng/L	P370888	
		Tebuconazole**	0.51	U	ng/L	P370888	
		Terbufos	0.10	U	ng/L	P370888	
		Terbuthylazine	0.43	U	ng/L	P370888	

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.

EPA 8270E: MS accuracy for atrazine not assessed due to high content of this parameter in the sample spiked.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P370989

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P370998

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P371002

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: P371002

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
Batch ID: P371116

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371126

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371130

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371194

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371196

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P370960

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P370964

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371048

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371146

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P370985

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371065

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P370904

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P370907

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

Reference Method: EPA 8270E
Batch ID: P370888

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
Metaxyl	0.30	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	0.75	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P370888

Component	Result	Code	Units
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: P370771

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: P370852

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P370852

Component	Result	Code	Units
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: P370917

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: SM 2120 B
Batch ID: P370951

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P371114

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

Reference Method: SM 2320 B-97
Batch ID: P371515

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

Reference Method: SM 2540 C-97
Batch ID: P371461

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P371394

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P371395

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P371118

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P371519

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P371109

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: P371002

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	100		P	85 - 115
Calcium	108		P	85 - 115
Iron	107		P	85 - 115
Magnesium	110		P	85 - 115
Potassium	104		P	85 - 115
Sodium	107		P	85 - 115
Zinc	97.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371002

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.3		P	85 - 115
Antimony	99.7		P	85 - 115
Arsenic	102		P	85 - 115
Boron	101		P	85 - 115
Cadmium	96.3		P	85 - 115
Chromium	95.2		P	85 - 115
Copper	101		P	85 - 115
Lead	98.7		P	85 - 115
Nickel	100		P	85 - 115
Selenium	100		P	85 - 115
Silver	101		P	85 - 115
Thallium	99.6		P	85 - 115

Reference Method: EPA 300.0
Batch ID: P371116

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371126

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371130

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371194

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.7		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371196

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P370960

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P370964

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.7		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371048

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371146

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	102		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P370985

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	97.2		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371065

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P370904

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P370907

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.3		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P370888

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	97.8	105	P/P	69 - 122
Alachlor	97.0	103	P/P	71 - 120
Ametryn	99.1	102	P/P	47 - 138
Atrazine	102	101	P/P	74 - 124
Atrazine Desethyl	67.4	74.1	P/P	38 - 138
Azinphos Methyl	98.9	100	P/P	69 - 154
Bromacil	92.4	86.4	P/P	39 - 121
Butylate	57.2	60.2	P/P	27 - 87.0
Chlorpyrifos Ethyl	92.2	95.5	P/P	69 - 118
Chlorpyrifos Methyl	75.0	79.1	P/P	70 - 120
Cyanazine	72.6	91.9	P/P	20 - 250
Demeton	64.9	62.5	P/P	39 - 118
Diazinon	90.5	97.8	P/P	68 - 127
Dimethenamid	101	105	P/P	66 - 125
Disulfoton	68.0	68.3	P/P	52 - 126
Dithiopyr	94.7	100	P/P	67 - 127
EPTC	63.7	66.4	P/P	24 - 88.0
Ethion	96.9	94.9	P/P	51 - 132
Ethoprop	82.9	93.1	P/P	58 - 117
Fenamiphos	96.1	83.5	P/P	38 - 139
Fipronil	111	107	P/P	61 - 124
Fipronil Desulfinyl	97.0	96.5	P/P	47 - 120
Fipronil Sulfide	91.5	85.9	P/P	56 - 119
Fipronil Sulfone	97.6	95.6	P/P	50 - 117
Fonofos	65.9	70.2	P/P	60 - 121
Hexazinone	111	119	P/P	55 - 137
Malathion	98.1	100	P/P	66 - 126
Metaxyl	78.6	83.2	P/P	33 - 140
Metolachlor	99.9	102	P/P	69 - 119
Metribuzin	77.3	85.5	P/P	31 - 238
Mevinphos	80.6	90.1	P/P	42 - 113
Molinate	69.7	77.8	P/P	32 - 96.0
Norflurazon	110	108	P/P	54 - 123
Oxadiazon	98.8	96.6	P/P	63 - 128
Parathion Ethyl	85.5	88.3	P/P	72 - 111
Parathion Methyl	81.3	84.6	P/P	74 - 126
Pendimethalin	84.8	84.9	P/P	61 - 131
Phorate	74.4	75.3	P/P	51 - 115
Prodiamine	104	93.4	P/P	38 - 144
Prometon	100	98.0	P/P	54 - 119
Prometryn	96.1	98.2	P/P	63 - 120
Simazine	100	96.5	P/P	75 - 126
Tebuconazole	97.4	97.5	P/P	20 - 119
Terbufos	69.4	73.9	P/P	64 - 116
Terbutylazine	97.5	98.5	P/P	73 - 117

Reference Method: EPA 8321B
Batch ID: P370771

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	148		P	40 - 160
Acetaminophen	76.0		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
 Batch ID: P370771

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetamiprid	95.9		P	40 - 160
Afidopyropen	101		P	40 - 160
Bentazon	125		P	30 - 160
Benzovindiflupyr	94.1		P	40 - 160
Carbamazepine	103		P	40 - 160
Clothianidin	90.9		P	40 - 160
Dinotefuran	88.3		P	40 - 160
Diuron	107		P	40 - 160
Fenuron	101		P	40 - 160
Fluridone	97.3		P	40 - 160
Hydrocodone	93.1		P	40 - 160
Ibuprofen	96.4		P	30 - 160
Imazapyr	93.2		P	40 - 160
Imidacloprid	99.5		P	40 - 160
Linuron	84.6		P	40 - 160
Mandestrobin	92.2		P	40 - 160
MCPP	146		P	40 - 160
Naproxen	96.9		P	40 - 160
Primidone	93.5		P	40 - 160
Pyraclostrobin	91.9		P	30 - 160
Thiamethoxam	90.7		P	40 - 160
Tolfenpyrad	73.2		P	40 - 160
Triclopyr	120		P	30 - 160

Reference Method: EPA 8321B
 Batch ID: P370852

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	137		P	40 - 160
Acetaminophen	82.5		P	30 - 160
Acetamiprid	101		P	40 - 160
Afidopyropen	103		P	40 - 160
Bentazon	114		P	30 - 160
Benzovindiflupyr	94.8		P	40 - 160
Carbamazepine	106		P	40 - 160
Clothianidin	94.7		P	40 - 160
Dinotefuran	88.9		P	40 - 160
Diuron	106		P	40 - 160
Fenuron	102		P	40 - 160
Fluridone	97.8		P	40 - 160
Hydrocodone	99.1		P	40 - 160
Ibuprofen	96.6		P	30 - 160
Imazapyr	89.4		P	40 - 160
Imidacloprid	106		P	40 - 160
Linuron	82.1		P	40 - 160
Mandestrobin	94.5		P	40 - 160
MCPP	160		F	40 - 160
Naproxen	94.4		P	40 - 160
Primidone	92.1		P	40 - 160
Pyraclostrobin	92.8		P	30 - 160
Thiamethoxam	96.7		P	40 - 160
Tolfenpyrad	69.9		P	40 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P370852

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Triclopyr	139		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P370917

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	74.5		P	40 - 150
AMPA	126		P	40 - 150
Endothall	145		P	40 - 150
Glufosinate	128		P	40 - 150
Glyphosate	126		P	40 - 140
Sucralose	138		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P370951

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P371114

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

Reference Method: SM 2320 B-97
Batch ID: P371515

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P371118

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.2		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P371519

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.1		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P371109

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.7		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P371002

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2119832	Barium	103	99.8	P/P	80 - 120
2119832	Calcium	101		P	80 - 120
2119832	Iron	110	109	P/P	80 - 120
2119832	Magnesium	113	110	P/P	80 - 120
2119832	Potassium	109	108	P/P	80 - 120
2119832	Sodium	105	105	P/P	80 - 120
2119832	Zinc	101	97.6	P/P	80 - 120
2120147	Barium	95.2		P	80 - 120
2120147	Calcium	105		P	80 - 120
2120147	Iron	103		P	80 - 120
2120147	Magnesium	99.1		P	80 - 120
2120147	Potassium	97.1		P	80 - 120
2120147	Sodium	97.6		P	80 - 120
2120147	Zinc	95.5		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371002

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2119832	Aluminum	98.1	97.4	P/P	80 - 120
2119832	Antimony	101	100	P/P	80 - 120
2119832	Arsenic	102	102	P/P	80 - 120
2119832	Boron	104	105	P/P	80 - 120
2119832	Cadmium	99.2	97.6	P/P	80 - 120
2119832	Chromium	95.3	94.9	P/P	80 - 120
2119832	Copper	107	102	P/P	80 - 120
2119832	Lead	99.9	100	P/P	80 - 120
2119832	Nickel	102	101	P/P	80 - 120
2119832	Selenium	99.6	99.4	P/P	80 - 120
2119832	Silver	105	102	P/P	80 - 120
2119832	Thallium	103	103	P/P	80 - 120
2120147	Aluminum	96.0		P	80 - 120
2120147	Antimony	101		P	80 - 120
2120147	Arsenic	103		P	80 - 120
2120147	Boron	101		P	80 - 120
2120147	Cadmium	95.4		P	80 - 120
2120147	Chromium	95.4		P	80 - 120
2120147	Copper	101		P	80 - 120
2120147	Lead	99.5		P	80 - 120
2120147	Nickel	99.6		P	80 - 120
2120147	Selenium	98.6		P	80 - 120
2120147	Silver	99.8		P	80 - 120
2120147	Thallium	101		P	80 - 120

Reference Method: EPA 300.0
Batch ID: P371116

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2120060	Bromide	95.7	96.1	P/P	90 - 110
2120064	Bromide	95.2		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371126

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2120211	Chloride	104		P	90 - 110
2120445	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371130

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2120211	Sulfate	104		P	90 - 110
2120445	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371194

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2120456	Ammonia-N	96.7	96.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371196

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2120134	Ammonia-N	98.1	99.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P370960

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2120260	Kjeldahl Nitrogen	98.8	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P370964

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2120122	Kjeldahl Nitrogen	102	108	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371048

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2120238	NO2NO3-N	99.6	99.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371146

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2120214	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P370985

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2119787	Total-P	94.8	96.5	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P371065

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2120214	Total-P	96.7	99.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P370904

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2120239	O-Phosphate-P	95.9	96.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P370907

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2120132	O-Phosphate-P	96.7	97.6	P/P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P370888

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2119146	Acetochlor	108	113	P/P	63 - 129
2119146	Alachlor	101	108	P/P	65 - 127
2119146	Ametryn	139	144	P/P	40 - 164
2119146	Atrazine Desethyl	116	112	P/P	14 - 157
2119146	Azinphos Methyl	99.0	126	P/P	49 - 180
2119146	Bromacil	92.9	113	P/P	48 - 130
2119146	Butylate	61.9	65.3	P/P	10 - 94.0
2119146	Chlorpyrifos Ethyl	88.1	87.4	P/P	58 - 123
2119146	Chlorpyrifos Methyl	99.7	100	P/P	58 - 125
2119146	Cyanazine	128	139	P/P	24 - 253
2119146	Demeton	97.5	102	P/P	25 - 149
2119146	Diazinon	115	123	P/P	59 - 144
2119146	Dimethenamid	106	110	P/P	46 - 139
2119146	Disulfoton	103	101	P/P	54 - 132
2119146	Dithiopyr	105	108	P/P	64 - 130
2119146	EPTC	66.1	70.9	P/P	10 - 92.0
2119146	Ethion	60.3	55.3	P/P	30 - 148
2119146	Ethoprop	104	107	P/P	50 - 130
2119146	Fenamiphos	103	95.9	P/P	49 - 142
2119146	Fipronil	113	114	P/P	46 - 140
2119146	Fipronil Desulfinyl	97.1	99.7	P/P	30 - 121
2119146	Fipronil Sulfide	108	92.6	P/P	31 - 136
2119146	Fipronil Sulfone	81.8	84.0	P/P	16 - 136
2119146	Fonofos	104	109	P/P	55 - 129
2119146	Hexazinone	126	123	P/P	56 - 141
2119146	Malathion	102	95.4	P/P	56 - 135
2119146	Metalaxyl	98.7	102	P/P	54 - 135
2119146	Metolachlor	100	104	P/P	51 - 140
2119146	Metribuzin	206	203	P/P	45 - 254
2119146	Mevinphos	99.5	105	P/P	33 - 131
2119146	Molinate	86.6	95.0	P/P	14 - 98.0
2119146	Norflurazon	103	105	P/P	34 - 136
2119146	Oxadiazon	96.1	97.0	P/P	67 - 116
2119146	Parathion Ethyl	97.5	101	P/P	66 - 118

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P370888

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2119146	Parathion Methyl	109	114	P/P	64 - 136
2119146	Pendimethalin	98.3	102	P/P	59 - 144
2119146	Phorate	108	114	P/P	42 - 130
2119146	Prodiamine	53.1	53.2	P/P	42 - 148
2119146	Prometon	108	108	P/P	59 - 134
2119146	Prometryn	111	119	P/P	54 - 135
2119146	Simazine	111	109	P/P	53 - 156
2119146	Tebuconazole	57.4	50.1	P/P	10 - 131
2119146	Terbufos	114	118	P/P	57 - 131
2119146	Terbutylazine	101	102	P/P	68 - 125

Reference Method: EPA 8321B
Batch ID: P370771

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2119072	2,4-D	141	141	P/P	40 - 160
2119072	Acetaminophen	88.5	86.5	P/P	30 - 160
2119072	Acetamiprid	110	100	P/P	40 - 160
2119072	Afidopyropen	109	93.4	P/P	40 - 160
2119072	Bentazon	109	101	P/P	30 - 160
2119072	Benzovindiflupyr	96.0	93.5	P/P	40 - 160
2119072	Carbamazepine	108	102	P/P	40 - 160
2119072	Clothianidin	102	97.1	P/P	40 - 160
2119072	Dinotefuran	103	101	P/P	40 - 160
2119072	Diuron	106	103	P/P	40 - 160
2119072	Fenuron	100	98.4	P/P	40 - 160
2119072	Fluridone	94.4	92.7	P/P	40 - 160
2119072	Hydrocodone	103	95.6	P/P	40 - 160
2119072	Ibuprofen	92.9	93.2	P/P	30 - 160
2119072	Imazapyr	112	103	P/P	40 - 160
2119072	Imidacloprid	124	136	P/P	40 - 160
2119072	Linuron	82.3	81.0	P/P	40 - 160
2119072	Mandestrobin	95.2	95.3	P/P	40 - 160
2119072	MCP	151	147	P/P	40 - 160
2119072	Naproxen	97.8	95.8	P/P	40 - 160
2119072	Primidone	86.4	88.8	P/P	40 - 160
2119072	Pyraclostrobin	91.3	92.0	P/P	30 - 160
2119072	Thiamethoxam	118	115	P/P	40 - 160
2119072	Tolfenpyrad	71.1	73.6	P/P	40 - 160
2119072	Triclopyr	111	122	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P370852

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2120253	2,4-D	165	159	F/P	40 - 160
2120253	Acetaminophen	78.8	77.4	P/P	30 - 160
2120253	Acetamiprid	119	128	P/P	40 - 160
2120253	Afidopyropen	113	108	P/P	40 - 160
2120253	Bentazon	79.6	77.9	P/P	30 - 160
2120253	Benzovindiflupyr	101	102	P/P	40 - 160
2120253	Carbamazepine	101	103	P/P	40 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P370852

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2120253	Clothianidin	103	107	P/P	40 - 160
2120253	Dinotefuran	116	118	P/P	40 - 160
2120253	Diuron	93.5	88.0	P/P	40 - 160
2120253	Fenuron	97.5	96.4	P/P	40 - 160
2120253	Fluridone	100	98.4	P/P	40 - 160
2120253	Hydrocodone	92.9	110	P/P	40 - 160
2120253	Ibuprofen	103	97.1	P/P	30 - 160
2120253	Imazapyr	128	122	P/P	40 - 160
2120253	Imidacloprid	200	200	F/F	40 - 160
2120253	Linuron	81.8	83.5	P/P	40 - 160
2120253	Mandestrobin	96.7	96.4	P/P	40 - 160
2120253	MCPP	171	167	F/F	40 - 160
2120253	Naproxen	97.9	81.4	P/P	40 - 160
2120253	Primidone	103	109	P/P	40 - 160
2120253	Pyraclostrobin	99.9	94.7	P/P	30 - 160
2120253	Thiamethoxam	144	148	P/P	40 - 160
2120253	Tolfenpyrad	80.6	75.4	P/P	40 - 160
2120253	Triclopyr	127	103	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P370917

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2119620	Acesulfame K	60.3	55.1	P/P	40 - 150
2119620	AMPA	115	108	P/P	40 - 150
2119620	Endothall	115	105	P/P	40 - 150
2119620	Glufosinate	115	116	P/P	40 - 150
2119620	Glyphosate	111	110	P/P	40 - 140
2119620	Sucralose	147	133	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P371118

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2120062	Fluoride	98.1	97.4	P/P	89 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P371519

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2119124	Fluoride	95.1	95.1	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P371109

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2120091	Organic Carbon	98.1	98.9	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P370989

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120599	Turbidity	0.510	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P370998

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120124	Turbidity	6.51	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P371002

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119832	Barium	3.34	Spike	P	0 - 20
2119832	Calcium	1.90	Spike	P	0 - 20
2119832	Iron	1.40	Spike	P	0 - 20
2119832	Magnesium	2.14	Spike	P	0 - 20
2119832	Potassium	0.782	Spike	P	0 - 20
2119832	Sodium	0.428	Spike	P	0 - 20
2119832	Zinc	3.27	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371002

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119832	Aluminum	0.769	Spike	P	0 - 20
2119832	Antimony	0.464	Spike	P	0 - 20
2119832	Arsenic	0.280	Spike	P	0 - 20
2119832	Boron	0.307	Spike	P	0 - 20
2119832	Cadmium	1.63	Spike	P	0 - 20
2119832	Chromium	0.511	Spike	P	0 - 20
2119832	Copper	4.58	Spike	P	0 - 20
2119832	Lead	0.121	Spike	P	0 - 20
2119832	Nickel	1.21	Spike	P	0 - 20
2119832	Selenium	0.197	Spike	P	0 - 20
2119832	Silver	2.80	Spike	P	0 - 20
2119832	Thallium	0.0415	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P371116

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120060	Bromide	0.450	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371126

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120211	Chloride	0.727	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371130

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120211	Sulfate	1.25	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371194

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120456	Ammonia-N	0.497	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371196

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120134	Ammonia-N	1.25	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P370960

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120260	Kjeldahl Nitrogen	2.54	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P370964

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120122	Kjeldahl Nitrogen	3.76	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371048

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120238	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371146

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120214	NO2NO3-N	0.499	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P370985

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119787	Total-P	1.76	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371065

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120214	Total-P	2.53	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P370904

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120239	O-Phosphate-P	0.497	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P370907

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120132	O-Phosphate-P	0.721	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P370888

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119146	Acetochlor	4.58	Spike	P	0 - 30
2119146	Alachlor	6.72	Spike	P	0 - 30
2119146	Ametryn	3.53	Spike	P	0 - 30
2119146	Atrazine	9.33	Spike	P	0 - 30
2119146	Atrazine Desethyl	2.48	Spike	P	0 - 30
2119146	Azinphos Methyl	23.7	Spike	P	0 - 30
2119146	Bromacil	19.1	Spike	P	0 - 30
2119146	Butylate	5.29	Spike	P	0 - 30
2119146	Chlorpyrifos Ethyl	0.761	Spike	P	0 - 30
2119146	Chlorpyrifos Methyl	0.506	Spike	P	0 - 30
2119146	Cyanazine	8.33	Spike	P	0 - 30
2119146	Demeton	4.98	Spike	P	0 - 30
2119146	Diazinon	6.68	Spike	P	0 - 30
2119146	Dimethenamid	3.88	Spike	P	0 - 30
2119146	Disulfoton	1.58	Spike	P	0 - 30
2119146	Dithiopyr	2.51	Spike	P	0 - 30
2119146	EPTC	6.98	Spike	P	0 - 30
2119146	Ethion	8.68	Spike	P	0 - 30
2119146	Ethoprop	2.49	Spike	P	0 - 30
2119146	Fenamiphos	6.83	Spike	P	0 - 30
2119146	Fipronil	0.693	Spike	P	0 - 30
2119146	Fipronil Desulfinyl	2.66	Spike	P	0 - 30
2119146	Fipronil Sulfide	15.2	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P370888

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119146	Fipronil Sulfone	2.36	Spike	P	0 - 30
2119146	Fonofos	5.10	Spike	P	0 - 30
2119146	Hexazinone	2.19	Spike	P	0 - 30
2119146	Malathion	6.94	Spike	P	0 - 30
2119146	Metalaxyl	3.26	Spike	P	0 - 30
2119146	Metolachlor	3.92	Spike	P	0 - 30
2119146	Metribuzin	1.27	Spike	P	0 - 30
2119146	Mevinphos	5.30	Spike	P	0 - 30
2119146	Molinate	9.31	Spike	P	0 - 30
2119146	Norflurazon	1.68	Spike	P	0 - 30
2119146	Oxadiazon	0.928	Spike	P	0 - 30
2119146	Parathion Ethyl	3.78	Spike	P	0 - 30
2119146	Parathion Methyl	4.15	Spike	P	0 - 30
2119146	Pendimethalin	4.03	Spike	P	0 - 30
2119146	Phorate	5.17	Spike	P	0 - 30
2119146	Prodiamine	0.241	Spike	P	0 - 30
2119146	Prometon	0.00866	Spike	P	0 - 30
2119146	Prometryn	7.14	Spike	P	0 - 30
2119146	Simazine	1.47	Spike	P	0 - 30
2119146	Tebuconazole	12.1	Spike	P	0 - 30
2119146	Terbufos	3.35	Spike	P	0 - 30
2119146	Terbutylazine	1.00	Spike	P	0 - 30
LFB	Acetochlor	6.99	LCS	P	0 - 30
LFB	Alachlor	5.74	LCS	P	0 - 30
LFB	Ametryn	3.41	LCS	P	0 - 30
LFB	Atrazine	1.30	LCS	P	0 - 30
LFB	Atrazine Desethyl	9.49	LCS	P	0 - 30
LFB	Azinphos Methyl	1.57	LCS	P	0 - 30
LFB	Bromacil	6.71	LCS	P	0 - 30
LFB	Butylate	5.08	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	3.46	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	5.34	LCS	P	0 - 30
LFB	Cyanazine	23.4	LCS	P	0 - 30
LFB	Demeton	3.80	LCS	P	0 - 30
LFB	Diazinon	7.79	LCS	P	0 - 30
LFB	Dimethenamid	3.54	LCS	P	0 - 30
LFB	Disulfoton	0.356	LCS	P	0 - 30
LFB	Dithiopyr	5.66	LCS	P	0 - 30
LFB	EPTC	4.23	LCS	P	0 - 30
LFB	Ethion	2.11	LCS	P	0 - 30
LFB	Ethoprop	11.6	LCS	P	0 - 30
LFB	Fenamiphos	14.0	LCS	P	0 - 30
LFB	Fipronil	2.98	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	0.565	LCS	P	0 - 30
LFB	Fipronil Sulfide	6.33	LCS	P	0 - 30
LFB	Fipronil Sulfone	2.05	LCS	P	0 - 30
LFB	Fonofos	6.33	LCS	P	0 - 30
LFB	Hexazinone	7.24	LCS	P	0 - 30
LFB	Malathion	2.06	LCS	P	0 - 30
LFB	Metalaxyl	5.65	LCS	P	0 - 30
LFB	Metolachlor	1.92	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P370888

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Metribuzin	10.1	LCS	P	0 - 30
LFB	Mevinphos	11.2	LCS	P	0 - 30
LFB	Molinate	11.1	LCS	P	0 - 30
LFB	Norflurazon	1.72	LCS	P	0 - 30
LFB	Oxadiazon	2.30	LCS	P	0 - 30
LFB	Parathion Ethyl	3.23	LCS	P	0 - 30
LFB	Parathion Methyl	3.97	LCS	P	0 - 30
LFB	Pendimethalin	0.115	LCS	P	0 - 30
LFB	Phorate	1.33	LCS	P	0 - 30
LFB	Prodiamine	10.9	LCS	P	0 - 30
LFB	Prometon	2.19	LCS	P	0 - 30
LFB	Prometryn	2.22	LCS	P	0 - 30
LFB	Simazine	3.89	LCS	P	0 - 30
LFB	Tebuconazole	0.184	LCS	P	0 - 30
LFB	Terbufos	6.27	LCS	P	0 - 30
LFB	Terbutylazine	1.06	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P370771

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119072	2,4-D	0.219	Spike	P	0 - 30
2119072	Acetaminophen	2.37	Spike	P	0 - 30
2119072	Acetamiprid	8.84	Spike	P	0 - 30
2119072	Afidopyropen	15.0	Spike	P	0 - 30
2119072	Bentazon	7.30	Spike	P	0 - 30
2119072	Benzovindiflupyr	2.61	Spike	P	0 - 30
2119072	Carbamazepine	5.56	Spike	P	0 - 30
2119072	Clothianidin	5.27	Spike	P	0 - 30
2119072	Dinotefuran	2.02	Spike	P	0 - 30
2119072	Diuron	2.37	Spike	P	0 - 30
2119072	Fenuron	1.65	Spike	P	0 - 30
2119072	Fluridone	1.79	Spike	P	0 - 30
2119072	Hydrocodone	7.85	Spike	P	0 - 30
2119072	Ibuprofen	0.280	Spike	P	0 - 30
2119072	Imazapyr	8.42	Spike	P	0 - 30
2119072	Imidacloprid	6.52	Spike	P	0 - 30
2119072	Linuron	1.66	Spike	P	0 - 30
2119072	Mandestrobin	0.115	Spike	P	0 - 30
2119072	MCPP	2.13	Spike	P	0 - 30
2119072	Naproxen	2.00	Spike	P	0 - 30
2119072	Primidone	2.79	Spike	P	0 - 30
2119072	Pyraclostrobin	0.692	Spike	P	0 - 30
2119072	Thiamethoxam	2.87	Spike	P	0 - 30
2119072	Tolfenpyrad	3.55	Spike	P	0 - 30
2119072	Triclopyr	9.27	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P370852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120253	2,4-D	3.54	Spike	P	0 - 30
2120253	Acetaminophen	1.85	Spike	P	0 - 30
2120253	Acetamiprid	6.75	Spike	P	0 - 30
2120253	Afidopyropen	3.85	Spike	P	0 - 30
2120253	Bentazon	1.54	Spike	P	0 - 30
2120253	Benzovindiflupyr	1.71	Spike	P	0 - 30
2120253	Carbamazepine	1.32	Spike	P	0 - 30
2120253	Clothianidin	2.98	Spike	P	0 - 30
2120253	Dinotefuran	2.24	Spike	P	0 - 30
2120253	Diuron	2.90	Spike	P	0 - 30
2120253	Fenuron	1.19	Spike	P	0 - 30
2120253	Fluridone	1.23	Spike	P	0 - 30
2120253	Hydrocodone	17.0	Spike	P	0 - 30
2120253	Ibuprofen	5.55	Spike	P	0 - 30
2120253	Imazapyr	3.29	Spike	P	0 - 30
2120253	Imidacloprid	0.125	Spike	P	0 - 30
2120253	Linuron	2.04	Spike	P	0 - 30
2120253	Mandestrobin	0.256	Spike	P	0 - 30
2120253	MCPP	2.62	Spike	P	0 - 30
2120253	Naproxen	18.5	Spike	P	0 - 30
2120253	Primidone	5.38	Spike	P	0 - 30
2120253	Pyraclostrobin	5.39	Spike	P	0 - 30
2120253	Thiamethoxam	3.06	Spike	P	0 - 30
2120253	Tolfenpyrad	6.67	Spike	P	0 - 30
2120253	Triclopyr	20.8	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P370917

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119620	Acesulfame K	9.13	Spike	P	0 - 30
2119620	AMPA	6.30	Spike	P	0 - 30
2119620	Endothall	9.18	Spike	P	0 - 30
2119620	Glufosinate	0.610	Spike	P	0 - 30
2119620	Glyphosate	0.974	Spike	P	0 - 30
2119620	Sucralose	9.12	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P370951

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120326	Color (true)	3.78	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P371114

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120062	Total Alkalinity	0.468	Sample	P	0 - 2.8

Quality Assurance Report Precision

Reference Method: SM 2320 B-97
 Batch ID: P371515

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2121389	Total Alkalinity	0.179	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
 Batch ID: P371461

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120213	TDS	2.86	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P371118

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120062	Fluoride	0.476	Spike	P	0 - 2.5

Reference Method: SM 4500 F-C-97
 Batch ID: P371519

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119124	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
 Batch ID: P371109

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120091	Organic Carbon	0.717	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2120252
Field Sample ID: G2NE1181

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	135	P	30 - 160
EPA 8321B	Acetaminophen-d4	66.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.4	P	30 - 160
EPA 8321B	Diuron-d6	78.2	P	30 - 160
EPA 8321B	Endothall-d6	123	P	30 - 160
EPA 8321B	Endothall-d6	123	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	101	P	30 - 160
EPA 8321B	Ibuprofen-d3	77.0	P	30 - 160
EPA 8321B	Primidone-d5	91.0	P	30 - 160
EPA 8321B	Sucralose-d6	110	P	30 - 160
EPA 8321B	Sucralose-d6	110	P	30 - 160

Lab Sample ID: 2120253
Field Sample ID: G2NE0005

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	128	P	30 - 160
EPA 8321B	Acetaminophen-d4	70.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	95.4	P	30 - 160
EPA 8321B	Diuron-d6	86.6	P	30 - 160
EPA 8321B	Endothall-d6	406	F	30 - 160
EPA 8321B	Endothall-d6	406	F	30 - 160
EPA 8321B	Glyphosate 13C 15N	143	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	143	P	30 - 160
EPA 8321B	Ibuprofen-d3	81.3	P	30 - 160
EPA 8321B	Primidone-d5	101	P	30 - 160
EPA 8321B	Sucralose-d6	144	P	30 - 160
EPA 8321B	Sucralose-d6	144	P	30 - 160

Lab Sample ID: 2120267
Field Sample ID: G2NE1181

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	112	P	68 - 130
EPA 8270E	Terbufos-d10	117	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A94268

Included Lab Sample IDs: 2120234

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	102	P/P	90 - 110
Sulfate	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A94319

Included Lab Sample IDs: 2120239

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A94320

Included Lab Sample IDs: 2120236

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.0	100	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A94336

Included Lab Sample IDs: 2120234

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.9	101	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A94339

Included Lab Sample IDs: 2120234

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A94341

Included Lab Sample IDs: 2120237

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	99.5	P/P	95 - 105

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A94371

Included Lab Sample IDs: 2120238

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	99.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A94386

Included Lab Sample IDs: 2120254

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.3	98.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A94386

Included Lab Sample IDs: 2120254

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	103	105	P/P	90 - 110
Thallium	93.0	94.3	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A94387

Included Lab Sample IDs: 2120254

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	103	96.3	P/P	90 - 110
Calcium	105	100	P/P	90 - 110
Iron	107	102	P/P	90 - 110
Magnesium	106	101	P/P	90 - 110
Potassium	107	103	P/P	90 - 110
Sodium	108	105	P/P	90 - 110
Zinc	100	93.2	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A94398

Included Lab Sample IDs: 2120234

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.9	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A94398

Included Lab Sample IDs: 2120234

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.1	98.5	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A94399

Included Lab Sample IDs: 2120235, 2120238

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	105	93.6	P/P	90 - 110
Organic Carbon	93.6	98.8	P/P	90 - 110

Reference Method: EPA 300.0

Run ID: A94401

Included Lab Sample IDs: 2120237

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	105	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A94408

Included Lab Sample IDs: 2120235

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A94410

Included Lab Sample IDs: 2120252, 2120253

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	114	87.9	P/P	50 - 150
2,4-D	83.8	89.6	P/P	50 - 150
Acetaminophen	110	112	P/P	60 - 160
Acetaminophen	115	106	P/P	60 - 160
Acetamiprid	109	110	P/P	50 - 150
Acetamiprid	115	114	P/P	50 - 150
Afidopyropen	101	102	P/P	50 - 150
Afidopyropen	105	95.9	P/P	50 - 150
Bentazon	109	117	P/P	50 - 160
Bentazon	111	110	P/P	50 - 160
Benzovindiflupyr	109	107	P/P	50 - 150
Benzovindiflupyr	112	116	P/P	50 - 150
Carbamazepine	104	108	P/P	60 - 150
Carbamazepine	106	105	P/P	60 - 150
Clothianidin	102	103	P/P	60 - 150
Clothianidin	104	99.7	P/P	60 - 150
Dinotefuran	103	101	P/P	50 - 150
Dinotefuran	95.7	99.3	P/P	50 - 150
Diuron	110	110	P/P	60 - 150
Diuron	112	113	P/P	60 - 150
Fenuron	110	112	P/P	60 - 150
Fenuron	111	112	P/P	60 - 150
Fluridone	108	107	P/P	60 - 160
Fluridone	112	110	P/P	60 - 160
Hydrocodone	112	114	P/P	60 - 150
Hydrocodone	113	103	P/P	60 - 150
Ibuprofen	121	117	P/P	50 - 160
Ibuprofen	84.6	107	P/P	50 - 160
Imazapyr	106	98.2	P/P	50 - 150
Imazapyr	90.7	101	P/P	50 - 150
Imidacloprid	89.3	108	P/P	60 - 150
Imidacloprid	96.0	101	P/P	60 - 150
Linuron	105	107	P/P	60 - 150
Linuron	109	106	P/P	60 - 150
Mandestrobin	109	110	P/P	50 - 150
Mandestrobin	113	115	P/P	50 - 150
MCP	100	92.6	P/P	50 - 150
MCP	104	104	P/P	50 - 150
Naproxen	66.1	113	P/P	50 - 160
Naproxen	87.7	141	P/P	50 - 160
Primidone	102	107	P/P	60 - 150
Primidone	96.3	99.9	P/P	60 - 150
Pyraclostrobin	116	112	P/P	60 - 150
Pyraclostrobin	122	119	P/P	60 - 150
Thiamethoxam	102	103	P/P	50 - 150
Thiamethoxam	98.6	105	P/P	50 - 150
Tolfenpyrad	121	113	P/P	60 - 150
Tolfenpyrad	127	128	P/P	60 - 150
Triclopyr	108	113	P/P	50 - 150
Triclopyr	109	92.6	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A94411

Included Lab Sample IDs: 2120235

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A94412

Included Lab Sample IDs: 2120238

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.3	98.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A94421

Included Lab Sample IDs: 2120252, 2120253

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	123	125	P/P	60 - 160
Glufosinate	126	136	P/P	60 - 160
Glyphosate	131	143	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A94422

Included Lab Sample IDs: 2120238

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	99.2	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A94423

Included Lab Sample IDs: 2120252, 2120253

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	60.6	61.3	P/P	60 - 160
Endothall	147	141	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A94427

Included Lab Sample IDs: 2120235

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.3	99.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A94434

Included Lab Sample IDs: 2120235, 2120238

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	99.4	P/P	90 - 110
Ammonia-N	99.4	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A94523
 Included Lab Sample IDs: 2120267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	105		P	80 - 120
Alachlor	106		P	80 - 120
Ametryn	113		P	80 - 120
Atrazine	101		P	80 - 120
Atrazine Desethyl	95.5		P	80 - 120
Azinphos Methyl	94.7		P	80 - 120
Bromacil	106		P	80 - 120
Butylate	92.6		P	80 - 120
Chlorpyrifos Ethyl	96.0		P	80 - 120
Chlorpyrifos Methyl	97.8		P	80 - 120
Cyanazine	85.7		P	80 - 120
Demeton	93.3		P	80 - 120
Diazinon	102		P	80 - 120
Dimethenamid	106		P	80 - 120
Disulfoton	96.3		P	80 - 120
Dithiopyr	105		P	80 - 120
EPTC	100		P	80 - 120
Ethion	94.1		P	80 - 120
Ethoprop	99.0		P	80 - 120
Fenamiphos	99.5		P	80 - 120
Fipronil	103		P	80 - 120
Fipronil Desulfinyl	107		P	80 - 120
Fipronil Sulfide	98.8		P	80 - 120
Fipronil Sulfone	98.5		P	80 - 120
Fonofos	95.8		P	80 - 120
Hexazinone	99.7		P	80 - 120
Malathion	97.3		P	80 - 120
Metaxyl	107		P	80 - 120
Metolachlor	109		P	80 - 120
Metribuzin	84.1		P	80 - 120
Mevinphos	104		P	80 - 120
Molinate	94.4		P	80 - 120
Norflurazon	104		P	80 - 120
Oxadiazon	110		P	80 - 120
Parathion Ethyl	98.6		P	80 - 120
Parathion Methyl	98.3		P	80 - 120
Pendimethalin	98.3		P	80 - 120
Phorate	93.3		P	80 - 120
Prodiamine	97.2		P	80 - 120
Prometon	102		P	80 - 120
Prometryn	104		P	80 - 120
Simazine	102		P	80 - 120
Tebuconazole	106		P	80 - 120
Terbufos	93.1		P	80 - 120
Terbutylazine	97.8		P	80 - 120

Reference Method: EPA 8321B
 Run ID: A94533
 Included Lab Sample IDs: 2120252, 2120253

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

Reference Method: EPA 8321B

Run ID: A94533

Included Lab Sample IDs: 2120252, 2120253

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	137	143	P/P	60 - 160

Reference Method: SM 2320 B-97

Run ID: A94575

Included Lab Sample IDs: 2120237

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

Reference Method: SM 4500 F-C-97

Run ID: A94575

Included Lab Sample IDs: 2120237

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A9471

Included Lab Sample IDs: 2120254

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	95.8	96.3	P/P	90 - 110
Nickel	102	101	P/P	90 - 110
Selenium	99.4	99.2	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A94722

Included Lab Sample IDs: 2120254

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	101	101	P/P	90 - 110
Cadmium	96.3	95.1	P/P	90 - 110
Chromium	96.0	96.2	P/P	90 - 110
Copper	101	102	P/P	90 - 110
Lead	101	100	P/P	90 - 110
Silver	98.3	98.2	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	MS
								SMP	
EPA 180.1 Rev. 2.0	Turbidity							0.510	
	Turbidity							6.51	
EPA 200.7 Rev. 4.4	Barium	100		103	99.8	95.2			3.34
	Calcium	108		101	105				1.90
	Iron	107		110	109	103			1.40
	Magnesium	110		113	110	99.1			2.14
	Potassium	104		109	108	97.1			0.782
	Sodium	107		105	105	97.6			0.428
	Zinc	97.4		101	97.6	95.5			3.27
EPA 200.8 Rev. 5.4	Aluminum	97.3		98.1	97.4	96.0			0.769
	Antimony	99.7		101	100	101			0.464
	Arsenic	102		102	102	103			0.280
	Boron	101		104	105	101			0.307
	Cadmium	96.3		99.2	97.6	95.4			1.63
	Chromium	95.2		95.3	94.9	95.4			0.511
	Copper	101		107	102	101			4.58
	Lead	98.7		99.9	100	99.5			0.121
	Nickel	100		102	101	99.6			1.21
	Selenium	100		99.6	99.4	98.6			0.197
	Silver	101		105	102	99.8			2.80
	Thallium	99.6		103	103	101			0.0415
EPA 300.0	Bromide	98.2		95.7	96.1	95.2			0.450
EPA 300.0 Rev. 2.1	Chloride	99.8		104	103			0.727	
	Sulfate	102		104	102			1.25	
EPA 350.1 Rev. 2.0	Ammonia-N	99.7		96.7	96.1				0.497
	Ammonia-N	99.2		98.1	99.5				1.25
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.8		98.8	102				2.54
	Kjeldahl Nitrogen	99.7		102	108				3.76
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.5		99.6	99.6				0.0
	NO ₂ NO ₃ -N	102		100	100				0.499
EPA 365.1 Rev. 2.0	Total-P	97.2		94.8	96.5				1.76
	Total-P	99.8		96.7	99.2				2.53
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.4		95.9	96.6				0.497
	O-Phosphate-P	99.3		96.7	97.6				0.721
EPA 8270E	Acetochlor	97.8	105	108	113	6.99			4.58
	Alachlor	97.0	103	101	108	5.74			6.72
	Ametryn	99.1	102	139	144	3.41			3.53
	Atrazine	102	101			1.30			9.33
	Atrazine Desethyl	67.4	74.1	116	112	9.49			2.48
	Azinphos Methyl	98.9	100	99.0	126	1.57			23.7
	Bromacil	92.4	86.4	92.9	113	6.71			19.1
	Butylate	57.2	60.2	61.9	65.3	5.08			5.29
	Chlorpyrifos Ethyl	92.2	95.5	88.1	87.4	3.46			0.761
	Chlorpyrifos Methyl	75.0	79.1	99.7	100	5.34			0.506
	Cyanazine	72.6	91.9	128	139	23.4			8.33
	Demeton	64.9	62.5	97.5	102	3.80			4.98
	Diazinon	90.5	97.8	115	123	7.79			6.68
	Dimethenamid	101	105	106	110	3.54			3.88
	Disulfoton	68.0	68.3	103	101	0.356			1.58
	Dithiopyr	94.7	100	105	108	5.66			2.51
	EPTC	63.7	66.4	66.1	70.9	4.23			6.98
	Ethion	96.9	94.9	60.3	55.3	2.11			8.68
	Ethoprop	82.9	93.1	104	107	11.6			2.49
	Fenamiphos	96.1	83.5	103	95.9	14.0			6.83

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Fipronil	111	107	113	114	2.98	0.693
	Fipronil Desulfinyl	97.0	96.5	97.1	99.7	0.565	2.66
	Fipronil Sulfide	91.5	85.9	108	92.6	6.33	15.2
	Fipronil Sulfone	97.6	95.6	81.8	84.0	2.05	2.36
	Fonofos	65.9	70.2	104	109	6.33	5.10
	Hexazinone	111	119	126	123	7.24	2.19
	Malathion	98.1	100	102	95.4	2.06	6.94
	Metalaxyl	78.6	83.2	98.7	102	5.65	3.26
	Metolachlor	99.9	102	100	104	1.92	3.92
	Metribuzin	77.3	85.5	206	203	10.1	1.27
	Mevinphos	80.6	90.1	99.5	105	11.2	5.30
	Molinate	69.7	77.8	86.6	95.0	11.1	9.31
	Norflurazon	110	108	103	105	1.72	1.68
	Oxadiazon	98.8	96.6	96.1	97.0	2.30	0.928
	Parathion Ethyl	85.5	88.3	97.5	101	3.23	3.78
	Parathion Methyl	81.3	84.6	109	114	3.97	4.15
	Pendimethalin	84.8	84.9	98.3	102	0.115	4.03
	Phorate	74.4	75.3	108	114	1.33	5.17
	Prodiamine	104	93.4	53.1	53.2	10.9	0.241
	Prometon	100	98.0	108	108	2.19	0.0086
	Prometryn	96.1	98.2	111	119	2.22	7.14
	Simazine	100	96.5	111	109	3.89	1.47
	Tebuconazole	97.4	97.5	57.4	50.1	0.184	12.1
	Terbufos	69.4	73.9	114	118	6.27	3.35
	Terbuthylazine	97.5	98.5	101	102	1.06	1.00
EPA 8321B	2,4-D	148		141	141		0.219
	2,4-D	137		165	159		3.54
	Acesulfame K	74.5		60.3	55.1		9.13
	Acetaminophen	76.0		88.5	86.5		2.37
	Acetaminophen	82.5		78.8	77.4		1.85
	Acetamiprid	95.9		110	100		8.84
	Acetamiprid	101		119	128		6.75
	Afidopyropen	101		109	93.4		15.0
	Afidopyropen	103		113	108		3.85
	AMPA	126		115	108		6.30
	Bentazon	125		109	101		7.30
	Bentazon	114		79.6	77.9		1.54
	Benzovindiflupyr	94.1		96.0	93.5		2.61
	Benzovindiflupyr	94.8		101	102		1.71
	Carbamazepine	103		108	102		5.56
	Carbamazepine	106		101	103		1.32
	Clothianidin	90.9		102	97.1		5.27
	Clothianidin	94.7		103	107		2.98
	Dinotefuran	88.3		103	101		2.02
	Dinotefuran	88.9		116	118		2.24
	Diuron	107		106	103		2.37
	Diuron	106		93.5	88.0		2.90
	Endothall	145		115	105		9.18
	Fenuron	101		100	98.4		1.65
	Fenuron	102		97.5	96.4		1.19
	Fluridone	97.3		94.4	92.7		1.79
	Fluridone	97.8		100	98.4		1.23
	Glufosinate	128		115	116		0.610
	Glyphosate	126		111	110		0.974

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Hydrocodone	93.1	103	95.6			7.85
	Hydrocodone	99.1	92.9	110			17.0
	Ibuprofen	96.4	92.9	93.2			0.280
	Ibuprofen	96.6	103	97.1			5.55
	Imazapyr	93.2	112	103			8.42
	Imazapyr	89.4	128	122			3.29
	Imidacloprid	99.5	124	136			6.52
	Imidacloprid	106	200	200			0.125
	Linuron	84.6	82.3	81.0			1.66
	Linuron	82.1	81.8	83.5			2.04
	Mandestrobin	92.2	95.2	95.3			0.115
	Mandestrobin	94.5	96.7	96.4			0.256
	MCPP	146	151	147			2.13
	MCPP	160	171	167			2.62
	Naproxen	96.9	97.8	95.8			2.00
	Naproxen	94.4	97.9	81.4			18.5
	Primidone	93.5	86.4	88.8			2.79
	Primidone	92.1	103	109			5.38
	Pyraclostrobin	91.9	91.3	92.0			0.692
	Pyraclostrobin	92.8	99.9	94.7			5.39
	Sucralose	138	147	133			9.12
	Thiamethoxam	90.7	118	115			2.87
	Thiamethoxam	96.7	144	148			3.06
	Tolfenpyrad	73.2	71.1	73.6			3.55
	Tolfenpyrad	69.9	80.6	75.4			6.67
	Triclopyr	120	111	122			9.27
	Triclopyr	139	127	103			20.8
SM 2120 B	Color (true)	101				3.78	
SM 2320 B-97	Total Alkalinity	104				0.468	
	Total Alkalinity	101				0.179	
SM 2540 C-97	TDS					2.86	
SM 4500 F-C-97	Fluoride	97.2	98.1	97.4			0.476
	Fluoride	96.1	95.1	95.1			0.0
SM 5310 B-00	Organic Carbon	98.7	98.1	98.9			0.717

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2120234, 2120237
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2120254
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2120254
EPA 300.0 / E31780	Bromide in aqueous matrices	2120237
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2120234
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2120234
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2120235, 2120238
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2120235, 2120238
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2120235, 2120238

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2120235, 2120238
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2120236, 2120239
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2120267
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2120252, 2120253
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2120252, 2120253
SM 2120 B / E31780	True Color measured at 450 nm	2120234
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2120234, 2120237
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2120234
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2120234, 2120237
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2120234, 2120237
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2120235, 2120238

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	09/18/2019			09/18/2019 15:12	Rosalyn Ballman	2120237
	09/18/2019			09/18/2019 17:19	Samantha Davila	2120234
EPA 200.7 Rev. 4.4	09/18/2019	09/19/2019 16:45	Elliott D. Healy	09/20/2019 18:16	Alexander Thompson	2120254
EPA 200.8 Rev. 5.4	09/18/2019	09/19/2019 16:45	Elliott D. Healy	09/21/2019 07:09	Justin Cutchin	2120254
	09/18/2019	09/19/2019 16:45	Elliott D. Healy	10/04/2019 05:31	Justin Cutchin	2120254
	09/18/2019	09/19/2019 16:45	Elliott D. Healy	10/05/2019 08:10	Justin Cutchin	2120254
	09/18/2019			09/21/2019 00:13	Jhamieka S. Greenwood	2120237
EPA 300.0	09/18/2019			09/21/2019 07:26	Jhamieka S. Greenwood	2120234
EPA 300.0 Rev. 2.1	09/18/2019			09/23/2019 12:24	Ping Hua	2120235
EPA 350.1 Rev. 2.0	09/18/2019			09/23/2019 13:21	Ping Hua	2120238
	09/18/2019	09/19/2019 12:30	Sima Feizi	09/20/2019 13:44	Julia Storbeck	2120235
EPA 351.2 Rev. 2.0	09/18/2019	09/19/2019 14:00	Sima Feizi	09/20/2019 16:59	Julia Storbeck	2120238
	09/18/2019			09/20/2019 09:58	Beverly Y. Sanders	2120238
EPA 353.2 Rev. 2.0	09/18/2019			09/23/2019 10:49	Beverly Y. Sanders	2120235
	09/18/2019	09/19/2019 14:14	Lipi Saha	09/23/2019 20:01	Rosalyn Ballman	2120238
EPA 365.1 Rev. 2.0	09/18/2019	09/20/2019 13:45	Lipi Saha	09/23/2019 18:05	Rosalyn Ballman	2120235
	09/18/2019			09/18/2019 15:59	Jhamieka S. Greenwood	2120239
EPA 365.1 Rev. 2.0 dissolved	09/18/2019			09/18/2019 18:13	Jhamieka S. Greenwood	2120236
EPA 8270E	09/18/2019	09/18/2019 13:30	Rasheda Ghaffari	09/24/2019 18:23	Vandana T. Nagar	2120267
EPA 8321B	09/18/2019	09/18/2019 12:00	Hoor Shaik	09/19/2019 11:57	Juyoung Kim	2120252
	09/18/2019	09/19/2019 08:30	Hoor Shaik	09/20/2019 05:33	Juyoung Kim	2120253
	09/18/2019	09/19/2019 10:30	Rebecca Ware	09/19/2019 14:58	Rebecca Ware	2120252
	09/18/2019	09/19/2019 10:30	Rebecca Ware	09/19/2019 15:12	Rebecca Ware	2120253
	09/18/2019	09/19/2019 10:30	Rebecca Ware	09/20/2019 13:28	Rebecca Ware	2120252
	09/18/2019	09/19/2019 10:30	Rebecca Ware	09/20/2019 14:43	Rebecca Ware	2120253
	09/18/2019	09/19/2019 10:30	Rebecca Ware	09/25/2019 19:19	Rebecca Ware	2120252
	09/18/2019	09/19/2019 10:30	Rebecca Ware	09/25/2019 19:31	Rebecca Ware	2120253
	09/18/2019			09/18/2019 18:40	Madeline Funaro	2120234
SM 2120 B	09/18/2019			09/20/2019 15:56	Dale L. Simmons	2120234
SM 2320 B-97	09/18/2019			09/27/2019 02:34	Dale L. Simmons	2120237
	09/18/2019			09/20/2019 15:02	Yijie Li	2120234
SM 2540 C-97	09/18/2019			09/20/2019 15:02	Yijie Li	2120234, 2120237
SM 2540 D-97	09/18/2019			09/20/2019 15:56	Dale L. Simmons	2120234
SM 4500 F-C-97	09/18/2019			09/27/2019 00:16	Dale L. Simmons	2120237
	09/18/2019			09/21/2019 01:26	Madeline Funaro	2120235
SM 5310 B-00	09/18/2019			09/21/2019 02:04	Madeline Funaro	2120238