

Chemical Analysis Report

SW-DIST-2019-04-09-05

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

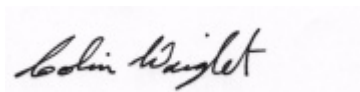
Event Description: **SCIs**
Request ID: **RQ-2019-04-15-08**
Customer: **SW-DIST**
Project ID: **SCIREF**

Send Reports to:
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Certified by: Colin Wright, Program Administrator

Date Certified: 01-MAY-2019 14:16

A handwritten signature in black ink, appearing to read "Colin Wright", is shown on a light-colored background.

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: Manatee River E. Fork @ Duette Park

Collection Date/Time: 04/08/2019 12:40

Field ID: G2SW0105

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2076583	EPA 180.1 Rev. 2.0	Turbidity	5.8		NTU	P361820	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P362267	
		Sulfate	48		mg SO4/L	P362270	
	SM 2120 B	Color (true)	74		PCU	P361861	
	SM 2320 B-97	Total Alkalinity	45		mg CaCO3/L	P362173	RPD
	SM 2540 C-97	TDS	161		mg/L	P362515	
	SM 2540 D-97	TSS	6	I	mg/L	P362232	
	SM 4500 F-C-97	Fluoride	0.35		mg F/L	P362179	
2076584	EPA 350.1 Rev. 2.0	Ammonia-N	0.027		mg N/L	P362286	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.47		mg N/L	P362265	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P362331	
	EPA 365.1 Rev. 2.0	Total-P	0.40		mg P/L	P362148	
	SM 5310 B-00	Organic Carbon	9.5		mg C/L	P361977	
2076585	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.33		mg P/L	P361839	
2076589	EPA 8321B	2,4-D	0.0020	U	ug/L	P361794	
		Acesulfame K**	0.10	U	ug/L	P361901	MS
		AMPA**	0.72		ug/L	P361901	
		Sucralose**	0.010	U	ug/L	P361901	
		Acetaminophen**	0.0080	U	ug/L	P361794	
		Endothall**	0.25	U	ug/L	P361901	
		Glufosinate**	0.10	U	ug/L	P361901	
		Bentazon	0.0011	I	ug/L	P361794	
		Glyphosate**	0.42		ug/L	P361901	MS
		Carbamazepine**	8.0E-04	U	ug/L	P361794	
		Diuron	0.0020	I	ug/L	P361794	
		Fenuron	0.016	U	ug/L	P361794	
		Fluridone**	8.0E-04	U	ug/L	P361794	
		Imazapyr**	0.013	I	ug/L	P361794	
		Hydrocodone**	0.0020	U	ug/L	P361794	
		Ibuprofen**	0.020	U	ug/L	P361794	
		Imidacloprid	0.045		ug/L	P361794	MS
		Linuron	0.0040	U	ug/L	P361794	
		MCP	0.0020	U	ug/L	P361794	
		Naproxen**	0.0080	U	ug/L	P361794	
		Primidone**	0.0040	U	ug/L	P361794	
		Pyraclostrobin**	0.0020	U	ug/L	P361794	
		Triclopyr**	0.0040	U	ug/L	P361794	
2076590	EPA 200.7 Rev. 4.4	Barium	9.7		ug/L	P361914	
		Calcium	24.5		mg/L	P361914	
		Iron	310		ug/L	P362088	
		Magnesium	10.5		mg/L	P361914	
		Potassium	6.0		mg/L	P361914	
		Sodium	7.8		mg/L	P361914	

Field ID: G2SW0105

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2076590	EPA 200.7 Rev. 4.4	Zinc	5.0	U	ug/L	P361914	
		Aluminum	218		ug/L	P361914	
	EPA 200.8 Rev. 5.4	Antimony	0.078	I	ug/L	P361914	
		Arsenic	0.42		ug/L	P361914	
		Boron**	31.7		ug/L	P361914	
		Cadmium	0.020	U	ug/L	P361914	
		Chromium	0.55	I	ug/L	P361914	
		Copper	1.56		ug/L	P361914	
		Lead	0.26	I	ug/L	P361914	
		Nickel	0.50	U	ug/L	P361914	
		Selenium	0.20	U	ug/L	P361914	
		Silver	0.010	U	ug/L	P361914	
		Thallium	0.10	U	ug/L	P361914	
2076591	EPA 8270D	Acetochlor	0.26	U	ng/L	P362087	
		Alachlor	0.26	U	ng/L	P362087	
		Ametryn	0.62	U	ng/L	P362087	
		Atrazine	2.0		ng/L	P362087	
		Atrazine Desethyl	1.5	U	ng/L	P362087	
		Azinphos Methyl	5.1	U	ng/L	P362087	
		Bromacil	180		ng/L	P362087	
		Butylate	0.41	U	ng/L	P362087	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P362087	
		Chlorpyrifos Methyl	0.10	U	ng/L	P362087	
		Cyanazine	3.3	U	ng/L	P362087	
		Demeton	7.2	U	ng/L	P362087	
		Diazinon	0.13	U	ng/L	P362087	
		Dimethenamid**	0.19	I	ng/L	P362087	
		Disulfoton	0.51	U	ng/L	P362087	
		Dithiopyr**	0.11	I	ng/L	P362087	
		EPTC	1.3	U	ng/L	P362087	RPD
		Ethion	0.15	UJ	ng/L	P362087	LCS
		Ethoprop	0.10	U	ng/L	P362087	
		Fenamiphos	0.51	U	ng/L	P362087	
		Fipronil	0.26	U	ng/L	P362087	
		Fipronil Desulfinyl**	0.13	U	ng/L	P362087	
		Fipronil Sulfide	0.15	U	ng/L	P362087	
		Fipronil Sulfone	0.15	U	ng/L	P362087	
		Fonofos	0.21	U	ng/L	P362087	
		Hexazinone	0.51	U	ng/L	P362087	
		Malathion	0.36	U	ng/L	P362087	
		Metalaxyl	15		ng/L	P362087	
		Metolachlor	4.3		ng/L	P362087	
		Metribuzin	230	J	ng/L	P362087	CCV, LCS, MS
		Mevinphos	0.51	U	ng/L	P362087	

Field ID: G2SW0105

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2076591	EPA 8270D	Molinate	0.31	U	ng/L	P362087	
		Norflurazon	110		ng/L	P362087	
		Oxadiazon**	0.35	I	ng/L	P362087	
		Parathion Ethyl	0.26	U	ng/L	P362087	
		Parathion Methyl	0.57	U	ng/L	P362087	
		Pendimethalin	5.1		ng/L	P362087	MS
		Phorate	0.26	U	ng/L	P362087	
		Prodiamine**	0.18	UJ	ng/L	P362087	LCS, MS
		Prometon	0.93	U	ng/L	P362087	
		Prometryn	0.21	U	ng/L	P362087	
		Simazine	9.2		ng/L	P362087	
		Tebuconazole**	0.51	U	ng/L	P362087	
		Terbufos	0.10	U	ng/L	P362087	
		Terbuthylazine	0.44	U	ng/L	P362087	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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

EPA 8270D: MS accuracy for metolachlor not assessed due to high content of this parameter in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P361820

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P361914

Component	Result	Code	Units
Barium	1.0	U	ug/L
Calcium	0.075	U	mg/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 200.7 Rev. 4.4
Batch ID: P362088

Component	Result	Code	Units
Iron	30	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P361914

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: P362267

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362270

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P362286

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P362286

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P362265

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362331

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362148

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361839

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

Reference Method: EPA 8270D
Batch ID: P362087

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P362087

Component	Result	Code	Units
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.30	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
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: P361794

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

Reference Method: EPA 8321B
Batch ID: P361901

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P361901

Component	Result	Code	Units
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: P361861

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P362173

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

Reference Method: SM 2540 C-97
Batch ID: P362515

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P362232

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P362179

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P361977

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: P361914

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	99.5		P	85 - 115
Calcium	100		P	85 - 115
Magnesium	99.1		P	85 - 115
Potassium	97.3		P	85 - 115
Sodium	96.6		P	85 - 115
Zinc	98.8		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P362088

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P361914

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	97.7		P	85 - 115
Arsenic	106		P	85 - 115
Boron	103		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	92.2		P	85 - 115
Copper	105		P	85 - 115
Lead	100		P	85 - 115
Nickel	105		P	85 - 115
Selenium	101		P	85 - 115
Silver	98.7		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362267

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362270

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P362286

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P362265

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P362265

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P362331

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P362148

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P361839

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

Reference Method: EPA 8270D
 Batch ID: P362087

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	88.8	92.3	P/P	71 - 121
Alachlor	87.4	91.7	P/P	72 - 119
Ametryn	91.1	90.4	P/P	47 - 144
Atrazine	105	111	P/P	75 - 123
Atrazine Desethyl	112	111	P/P	45 - 133
Azinphos Methyl	93.4	93.9	P/P	66 - 165
Bromacil	73.8	74.0	P/P	43 - 123
Butylate	45.7	57.7	P/P	27 - 83.0
Chlorpyrifos Ethyl	87.8	86.0	P/P	70 - 117
Chlorpyrifos Methyl	90.9	90.9	P/P	71 - 120
Cyanazine	186	194	P/P	34 - 264
Demeton	78.2	76.1	P/P	41 - 122
Diazinon	95.7	102	P/P	70 - 127
Dimethenamid	81.6	84.2	P/P	60 - 130
Disulfoton	87.0	83.9	P/P	56 - 127
Dithiopyr	90.3	94.7	P/P	60 - 130
EPTC	48.7	63.1	P/P	24 - 84.0
Ethion	56.6	44.2	P/F	53 - 132
Ethoprop	92.5	95.0	P/P	57 - 117
Fenamiphos	94.2	82.8	P/P	55 - 136
Fipronil	88.8	93.1	P/P	64 - 126
Fipronil Desulfinyl	79.2	82.1	P/P	60 - 130
Fipronil Sulfide	87.1	87.8	P/P	57 - 120
Fipronil Sulfone	80.6	77.5	P/P	52 - 115
Fonofos	94.8	101	P/P	61 - 121
Hexazinone	91.5	92.4	P/P	62 - 131
Malathion	90.5	86.5	P/P	67 - 126
Metaxyl	92.1	94.2	P/P	54 - 128

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P362087

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Metolachlor	86.7	90.2	P/P	71 - 118
Metribuzin	241	242	F/F	42 - 221
Mevinphos	85.3	86.7	P/P	45 - 114
Molinate	58.5	69.9	P/P	33 - 91.0
Norflurazon	89.7	89.7	P/P	60 - 123
Oxadiazon	91.7	90.8	P/P	60 - 130
Parathion Ethyl	86.7	88.7	P/P	73 - 111
Parathion Methyl	97.2	96.3	P/P	74 - 126
Pendimethalin	95.3	98.2	P/P	63 - 131
Phorate	90.0	93.9	P/P	54 - 115
Prodiamine	51.2	52.9	F/F	60 - 130
Prometon	85.0	87.4	P/P	61 - 120
Prometryn	85.4	89.9	P/P	62 - 126
Simazine	104	107	P/P	75 - 126
Tebuconazole	37.2	32.5	P/P	30 - 100
Terbufos	94.2	104	P/P	65 - 116
Terbutylazine	92.3	100	P/P	73 - 117

Reference Method: EPA 8321B
Batch ID: P361794

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	72.6		P	40 - 150
Acetaminophen	82.7		P	30 - 150
Bentazon	86.7		P	30 - 150
Carbamazepine	81.0		P	40 - 150
Diuron	69.9		P	40 - 150
Fenuron	96.3		P	40 - 150
Fluridone	99.0		P	40 - 150
Hydrocodone	79.3		P	40 - 150
Ibuprofen	99.9		P	40 - 150
Imazapyr	84.3		P	40 - 150
Imidacloprid	87.5		P	40 - 150
Linuron	74.6		P	40 - 150
MCPP	86.7		P	40 - 150
Naproxen	61.3		P	40 - 150
Primidone	72.0		P	40 - 150
Pyraclostrobin	61.2		P	40 - 150
Triclopyr	51.1		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P361901

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	117		P	40 - 150
AMPA	96.9		P	40 - 150
Endothall	113		P	40 - 150
Glufosinate	116		P	40 - 150
Glyphosate	83.8		P	40 - 140
Sucralose	108		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2120 B
Batch ID: P361861

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

Reference Method: SM 2320 B-97
Batch ID: P362173

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

Reference Method: SM 4500 F-C-97
Batch ID: P362179

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.5		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P361977

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	102		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P361914

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2076733	Barium	97.7	98.1	P/P	80 - 120
2076733	Calcium	97.7		P	80 - 120
2076733	Magnesium	98.1		P	80 - 120
2076733	Potassium	96.9	97.7	P/P	80 - 120
2076733	Sodium	98.7		P	80 - 120
2076733	Zinc	95.3	95.8	P/P	80 - 120
2076791	Barium	98.7		P	80 - 120
2076791	Calcium	101		P	80 - 120
2076791	Magnesium	102		P	80 - 120
2076791	Potassium	98.4		P	80 - 120
2076791	Sodium	102		P	80 - 120
2076791	Zinc	97.0		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P362088

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2076730	Iron	102	103	P/P	80 - 120
2076732	Iron	103		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P361914

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2076733	Aluminum	95.6	95.7	P/P	80 - 120
2076733	Antimony	98.6	98.4	P/P	80 - 120
2076733	Arsenic	106	105	P/P	80 - 120
2076733	Boron	102	101	P/P	80 - 120
2076733	Cadmium	102	102	P/P	80 - 120
2076733	Chromium	89.6	89.4	P/P	80 - 120
2076733	Copper	99.2	99.7	P/P	80 - 120
2076733	Lead	99.4	99.4	P/P	80 - 120
2076733	Nickel	100	101	P/P	80 - 120
2076733	Selenium	101	100	P/P	80 - 120
2076733	Silver	96.4	96.9	P/P	80 - 120
2076733	Thallium	105	105	P/P	80 - 120
2076791	Aluminum	107		P	80 - 120
2076791	Antimony	95.4		P	80 - 120
2076791	Arsenic	103		P	80 - 120
2076791	Boron	99.9		P	80 - 120
2076791	Cadmium	100		P	80 - 120
2076791	Chromium	88.8		P	80 - 120
2076791	Copper	110		P	80 - 120
2076791	Lead	99.2		P	80 - 120
2076791	Nickel	103		P	80 - 120
2076791	Selenium	99.0		P	80 - 120
2076791	Silver	96.0		P	80 - 120
2076791	Thallium	102		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362267

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2076390	Chloride	106		P	90 - 110
2076511	Chloride	108		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362270

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2076390	Sulfate	107		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P362286

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2076548	Ammonia-N	97.8	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P362265

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2076551	Kjeldahl Nitrogen	108	109	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362331

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2076584	NO2NO3-N	101	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362148

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2076616	Total-P	96.9	95.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361839

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2076614	O-Phosphate-P	96.4	98.2	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P362087

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078075	Acetochlor	89.7	98.5	P/P	63 - 129
2078075	Alachlor	86.7	92.7	P/P	65 - 127
2078075	Ametryn	84.2	92.8	P/P	40 - 164
2078075	Atrazine	102	106	P/P	66 - 135
2078075	Atrazine Desethyl	110	120	P/P	14 - 157
2078075	Azinphos Methyl	86.8	91.5	P/P	49 - 180
2078075	Bromacil	92.6	104	P/P	48 - 130
2078075	Butylate	51.4	68.5	P/P	10 - 94.0
2078075	Chlorpyrifos Ethyl	83.9	91.3	P/P	58 - 123

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P362087

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078075	Chlorpyrifos Methyl	87.8	93.2	P/P	58 - 125
2078075	Cyanazine	187	197	P/P	24 - 253
2078075	Demeton	73.1	87.9	P/P	25 - 149
2078075	Diazinon	95.9	102	P/P	59 - 144
2078075	Dimethenamid	72.4	77.3	P/P	60 - 130
2078075	Disulfoton	81.9	94.2	P/P	54 - 132
2078075	Dithiopyr	89.4	97.4	P/P	60 - 130
2078075	EPTC	55.6	75.8	P/P	10 - 92.0
2078075	Ethion	43.2	53.6	P/P	30 - 148
2078075	Ethoprop	85.6	96.1	P/P	50 - 130
2078075	Fenamiphos	81.4	92.9	P/P	49 - 142
2078075	Fipronil	87.3	96.7	P/P	46 - 140
2078075	Fipronil Desulfinylnl	77.6	84.1	P/P	60 - 130
2078075	Fipronil Sulfide	85.9	94.0	P/P	31 - 136
2078075	Fipronil Sulfone	77.2	85.2	P/P	16 - 136
2078075	Fonofos	96.9	104	P/P	55 - 129
2078075	Hexazinone	93.6	108	P/P	56 - 141
2078075	Malathion	87.8	95.1	P/P	56 - 135
2078075	Metalaxyl	89.6	98.0	P/P	54 - 135
2078075	Metribuzin	238	273	P/F	45 - 254
2078075	Mevinphos	82.8	89.8	P/P	33 - 131
2078075	Molinate	65.0	67.6	P/P	14 - 98.0
2078075	Norflurazon	80.0	94.3	P/P	34 - 136
2078075	Oxadiazon	87.4	96.6	P/P	60 - 130
2078075	Parathion Ethyl	86.7	93.9	P/P	66 - 118
2078075	Parathion Methyl	94.3	103	P/P	64 - 136
2078075	Pendimethalin	52.2	57.6	F/F	59 - 144
2078075	Phorate	86.2	94.7	P/P	42 - 130
2078075	Prodiamine	52.6	57.9	F/F	60 - 130
2078075	Prometon	86.0	94.8	P/P	59 - 134
2078075	Prometryn	84.8	93.1	P/P	54 - 135
2078075	Simazine	104	117	P/P	53 - 156
2078075	Tebuconazole	31.7	36.6	P/P	30 - 100
2078075	Terbufos	97.2	104	P/P	57 - 131
2078075	Terbuthylazine	93.0	101	P/P	68 - 125

Reference Method: EPA 8321B
Batch ID: P361794

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2076485	2,4-D	66.0	72.2	P/P	40 - 150
2076485	Acetaminophen	77.8	82.4	P/P	30 - 150
2076485	Bentazon	91.4	122	P/P	30 - 150
2076485	Carbamazepine	78.0	87.7	P/P	40 - 150
2076485	Diuron	60.8	68.5	P/P	40 - 150
2076485	Fenuron	104	104	P/P	40 - 150
2076485	Fluridone	134	110	P/P	40 - 150
2076485	Hydrocodone	91.3	92.9	P/P	40 - 150
2076485	Ibuprofen	70.6	61.8	P/P	40 - 150
2076485	Imazapyr	74.4	72.7	P/P	40 - 150
2076485	Imidacloprid	136	162	P/F	40 - 150
2076485	Linuron	74.2	58.7	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P361794

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2076485	MCP	92.8	105	P/P	40 - 150
2076485	Naproxen	57.9	69.1	P/P	40 - 150
2076485	Primidone	71.7	63.1	P/P	40 - 150
2076485	Pyraclostrobin	76.2	98.0	P/P	40 - 150
2076485	Triclopyr	46.6	55.9	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P361901

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2076373	Acesulfame K	178	234	F/F	40 - 150
2076373	AMPA	94.3	95.6	P/P	40 - 150
2076373	Endothall	76.1	77.6	P/P	40 - 150
2076373	Glufosinate	108	109	P/P	40 - 150
2076373	Glyphosate	145	151	F/F	40 - 140
2076373	Sucralose	95.1	97.4	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P362179

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2076930	Fluoride	100	100	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P361977

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2076545	Organic Carbon	102	102	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P361820

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2076543	Turbidity	11.7	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P361914

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2076733	Barium	0.398	Spike	P	0 - 20
2076733	Calcium	1.14	Spike	P	0 - 20
2076733	Magnesium	0.861	Spike	P	0 - 20
2076733	Potassium	0.677	Spike	P	0 - 20
2076733	Sodium	1.25	Spike	P	0 - 20
2076733	Zinc	0.529	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P362088

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2076730	Iron	0.905	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P361914

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2076733	Aluminum	0.131	Spike	P	0 - 20
2076733	Antimony	0.141	Spike	P	0 - 20
2076733	Arsenic	0.518	Spike	P	0 - 20
2076733	Boron	0.370	Spike	P	0 - 20
2076733	Cadmium	0.180	Spike	P	0 - 20
2076733	Chromium	0.241	Spike	P	0 - 20
2076733	Copper	0.513	Spike	P	0 - 20
2076733	Lead	0.0531	Spike	P	0 - 20
2076733	Nickel	0.524	Spike	P	0 - 20
2076733	Selenium	0.554	Spike	P	0 - 20
2076733	Silver	0.513	Spike	P	0 - 20
2076733	Thallium	0.279	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362267

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2076390	Chloride	9.70	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362270

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362270

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2076390	Sulfate	9.97	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P362286

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2076548	Ammonia-N	3.42	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P362265

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2076551	Kjeldahl Nitrogen	1.43	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362331

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2076584	NO2NO3-N	1.35	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362148

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2076616	Total-P	1.44	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361839

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2076614	O-Phosphate-P	1.85	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P362087

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078075	Acetochlor	9.32	Spike	P	0 - 30
2078075	Alachlor	6.78	Spike	P	0 - 30
2078075	Ametryn	9.72	Spike	P	0 - 30
2078075	Atrazine	3.16	Spike	P	0 - 30
2078075	Atrazine Desethyl	8.75	Spike	P	0 - 30
2078075	Azinphos Methyl	5.34	Spike	P	0 - 30
2078075	Bromacil	12.0	Spike	P	0 - 30
2078075	Butylate	28.5	Spike	P	0 - 30
2078075	Chlorpyrifos Ethyl	8.48	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P362087

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078075	Chlorpyrifos Methyl	5.96	Spike	P	0 - 30
2078075	Cyanazine	4.73	Spike	P	0 - 30
2078075	Demeton	18.4	Spike	P	0 - 30
2078075	Diazinon	6.38	Spike	P	0 - 30
2078075	Dimethenamid	5.92	Spike	P	0 - 30
2078075	Disulfoton	14.0	Spike	P	0 - 30
2078075	Dithiopyr	8.60	Spike	P	0 - 30
2078075	EPTC	30.8	Spike	F	0 - 30
2078075	Ethion	21.5	Spike	P	0 - 30
2078075	Ethoprop	11.5	Spike	P	0 - 30
2078075	Fenamiphos	13.2	Spike	P	0 - 30
2078075	Fipronil	10.1	Spike	P	0 - 30
2078075	Fipronil Desulfinyl	7.93	Spike	P	0 - 30
2078075	Fipronil Sulfide	9.02	Spike	P	0 - 30
2078075	Fipronil Sulfone	9.89	Spike	P	0 - 30
2078075	Fonofos	6.89	Spike	P	0 - 30
2078075	Hexazinone	11.4	Spike	P	0 - 30
2078075	Malathion	7.94	Spike	P	0 - 30
2078075	Metalaxyl	8.14	Spike	P	0 - 30
2078075	Metolachlor	7.41	Spike	P	0 - 30
2078075	Metribuzin	12.8	Spike	P	0 - 30
2078075	Mevinphos	8.14	Spike	P	0 - 30
2078075	Molinate	3.90	Spike	P	0 - 30
2078075	Norflurazon	13.6	Spike	P	0 - 30
2078075	Oxadiazon	10.0	Spike	P	0 - 30
2078075	Parathion Ethyl	7.91	Spike	P	0 - 30
2078075	Parathion Methyl	9.22	Spike	P	0 - 30
2078075	Pendimethalin	5.39	Spike	P	0 - 30
2078075	Phorate	9.40	Spike	P	0 - 30
2078075	Prodiamine	9.62	Spike	P	0 - 30
2078075	Prometon	9.76	Spike	P	0 - 30
2078075	Prometryn	9.43	Spike	P	0 - 30
2078075	Simazine	11.4	Spike	P	0 - 30
2078075	Tebuconazole	14.5	Spike	P	0 - 30
2078075	Terbufos	7.15	Spike	P	0 - 30
2078075	Terbuthylazine	8.10	Spike	P	0 - 30
LFB	Acetochlor	3.90	LCS	P	0 - 30
LFB	Alachlor	4.82	LCS	P	0 - 30
LFB	Ametryn	0.717	LCS	P	0 - 30
LFB	Atrazine	5.46	LCS	P	0 - 30
LFB	Atrazine Desethyl	1.14	LCS	P	0 - 30
LFB	Azinphos Methyl	0.529	LCS	P	0 - 30
LFB	Bromacil	0.194	LCS	P	0 - 30
LFB	Butylate	23.3	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	2.00	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	0.00138	LCS	P	0 - 30
LFB	Cyanazine	4.23	LCS	P	0 - 30
LFB	Demeton	2.71	LCS	P	0 - 30
LFB	Diazinon	6.84	LCS	P	0 - 30
LFB	Dimethenamid	3.07	LCS	P	0 - 30
LFB	Disulfoton	3.69	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P362087

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Dithiopyr	4.75	LCS	P	0 - 30
LFB	EPTC	25.7	LCS	P	0 - 30
LFB	Ethion	24.5	LCS	P	0 - 30
LFB	Ethoprop	2.71	LCS	P	0 - 30
LFB	Fenamiphos	12.9	LCS	P	0 - 30
LFB	Fipronil	4.73	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	3.57	LCS	P	0 - 30
LFB	Fipronil Sulfide	0.850	LCS	P	0 - 30
LFB	Fipronil Sulfone	3.93	LCS	P	0 - 30
LFB	Fonofos	6.26	LCS	P	0 - 30
LFB	Hexazinone	0.933	LCS	P	0 - 30
LFB	Malathion	4.57	LCS	P	0 - 30
LFB	Metaxyl	2.25	LCS	P	0 - 30
LFB	Metolachlor	4.00	LCS	P	0 - 30
LFB	Metribuzin	0.398	LCS	P	0 - 30
LFB	Mevinphos	1.67	LCS	P	0 - 30
LFB	Molinate	17.6	LCS	P	0 - 30
LFB	Norflurazon	0.0193	LCS	P	0 - 30
LFB	Oxadiazon	0.959	LCS	P	0 - 30
LFB	Parathion Ethyl	2.33	LCS	P	0 - 30
LFB	Parathion Methyl	0.880	LCS	P	0 - 30
LFB	Pendimethalin	3.03	LCS	P	0 - 30
LFB	Phorate	4.27	LCS	P	0 - 30
LFB	Prodiamine	3.16	LCS	P	0 - 30
LFB	Prometon	2.77	LCS	P	0 - 30
LFB	Prometryn	5.21	LCS	P	0 - 30
LFB	Simazine	2.83	LCS	P	0 - 30
LFB	Tebuconazole	13.7	LCS	P	0 - 30
LFB	Terbufos	9.93	LCS	P	0 - 30
LFB	Terbutylazine	8.51	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P361794

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2076485	2,4-D	8.99	Spike	P	0 - 30
2076485	Acetaminophen	5.73	Spike	P	0 - 30
2076485	Bentazon	8.92	Spike	P	0 - 30
2076485	Carbamazepine	11.0	Spike	P	0 - 30
2076485	Diuron	11.9	Spike	P	0 - 30
2076485	Fenuron	0.624	Spike	P	0 - 30
2076485	Fluridone	9.07	Spike	P	0 - 30
2076485	Hydrocodone	1.75	Spike	P	0 - 30
2076485	Ibuprofen	13.2	Spike	P	0 - 30
2076485	Imazapyr	1.83	Spike	P	0 - 30
2076485	Imidacloprid	16.2	Spike	P	0 - 30
2076485	Linuron	23.3	Spike	P	0 - 30
2076485	MCP	12.3	Spike	P	0 - 30
2076485	Naproxen	17.6	Spike	P	0 - 30
2076485	Primidone	12.8	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P361794

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2076485	Pyraclostrobin	25.1	Spike	P	0 - 30
2076485	Triclopyr	18.1	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P361901

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2076373	Acesulfame K	27.0	Spike	P	0 - 30
2076373	AMPA	1.15	Spike	P	0 - 30
2076373	Endothall	2.04	Spike	P	0 - 30
2076373	Glufosinate	1.29	Spike	P	0 - 30
2076373	Glyphosate	4.32	Spike	P	0 - 30
2076373	Sucralose	2.34	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P361861

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2076487	Color (true)	0.0371	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P362173

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2076930	Total Alkalinity	8.08	Sample	F	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P362515

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2076489	TDS	1.89	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P362179

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2076930	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P361977

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2076545	Organic Carbon	0.520	Spike	P	0 - 20

Quality Assurance Report

Precision

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Lab Sample ID: 2076589
Field Sample ID: G2SW0105

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	74.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	87.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	85.2	P	30 - 160
EPA 8321B	Diuron-d6	73.6	P	30 - 160
EPA 8321B	Endothall-d6	72.1	P	30 - 160
EPA 8321B	Endothall-d6	72.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	158	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	158	P	30 - 160
EPA 8321B	Ibuprofen-d3	127	P	30 - 160
EPA 8321B	Primidone-d5	73.1	P	30 - 160
EPA 8321B	Sucralose-d6	90.3	P	30 - 160
EPA 8321B	Sucralose-d6	90.3	P	30 - 160

Lab Sample ID: 2076591
Field Sample ID: G2SW0105

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	101	P	68 - 130
EPA 8270D	Terbufos-d10	108	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A90551

Included Lab Sample IDs: 2076583

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A90555

Included Lab Sample IDs: 2076585

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.6	97.0	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A90564

Included Lab Sample IDs: 2076583

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	104	P/P	90 - 115

Reference Method: SM 5310 B-00

Run ID: A90618

Included Lab Sample IDs: 2076584

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	103	102	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A90641

Included Lab Sample IDs: 2076590

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	101	101	P/P	90 - 110
Calcium	102	99.6	P/P	90 - 110
Magnesium	103	101	P/P	90 - 110
Potassium	99.4	98.3	P/P	90 - 110
Sodium	101	99.9	P/P	90 - 110
Zinc	99.7	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A90651

Included Lab Sample IDs: 2076590

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	96.6	96.5	P/P	90 - 110
Antimony	96.6	96.7	P/P	90 - 110
Arsenic	103	101	P/P	90 - 110
Boron	98.0	98.2	P/P	90 - 110
Cadmium	97.4	97.7	P/P	90 - 110
Copper	105	102	P/P	90 - 110
Lead	98.4	97.4	P/P	90 - 110
Nickel	103	101	P/P	90 - 110
Selenium	98.0	95.7	P/P	90 - 110
Silver	96.5	96.6	P/P	90 - 110
Thallium	97.7	97.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A90662
Included Lab Sample IDs: 2076589

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	119	117	P/P	60 - 160
Endothall	126	133	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A90675
Included Lab Sample IDs: 2076589

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	102	110	P/P	60 - 160
Glufosinate	116	112	P/P	60 - 160
Glyphosate	109	127	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A90693
Included Lab Sample IDs: 2076590

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	94.8	92.5	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A90703
Included Lab Sample IDs: 2076583

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	97.7	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A90703
Included Lab Sample IDs: 2076583

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	104	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A90706
Included Lab Sample IDs: 2076589

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	102	91.4	P/P	60 - 160

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A90725
Included Lab Sample IDs: 2076590

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	99.4	98.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A90760

Included Lab Sample IDs: 2076583

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	103	P/P	90 - 110
Sulfate	104	104	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A90762

Included Lab Sample IDs: 2076584

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A90770

Included Lab Sample IDs: 2076584

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.0	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A90779

Included Lab Sample IDs: 2076584

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A90786

Included Lab Sample IDs: 2076584

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	98.1	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A90848

Included Lab Sample IDs: 2076589

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	95.6	86.2	P/P	50 - 150
Acetaminophen	112	113	P/P	60 - 160
Bentazon	98.7	114	P/P	50 - 160
Carbamazepine	86.3	105	P/P	60 - 150
Diuron	102	93.4	P/P	60 - 150
Fenuron	98.0	102	P/P	60 - 150
Fluridone	96.1	97.6	P/P	60 - 160
Hydrocodone	82.0	94.5	P/P	60 - 150
Ibuprofen	152	154	P/P	50 - 160
Imazapyr	103	70.8	P/P	50 - 150
Imidacloprid	94.0	101	P/P	60 - 150
Linuron	102	95.4	P/P	60 - 150
MCP	94.4	93.9	P/P	50 - 150
Naproxen	88.0	69.2	P/P	50 - 160
Primidone	84.3	75.3	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A90848

Included Lab Sample IDs: 2076589

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	101	95.0	P/P	60 - 150
Triclopyr	100	85.6	P/P	50 - 150

Reference Method: EPA 8270D

Run ID: A90967

Included Lab Sample IDs: 2076591

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	102		P	80 - 120
Alachlor	107		P	80 - 120
Ametryn	105		P	80 - 120
Atrazine	96.4		P	80 - 120
Atrazine Desethyl	89.1		P	80 - 120
Azinphos Methyl	97.7		P	80 - 120
Butylate	95.1		P	80 - 120
Chlorpyrifos Ethyl	100		P	80 - 120
Chlorpyrifos Methyl	98.9		P	80 - 120
Cyanazine	95.0		P	80 - 120
Demeton	98.2		P	80 - 120
Diazinon	102		P	80 - 120
Dimethenamid	102		P	80 - 120
Disulfoton	94.6		P	80 - 120
Dithiopyr	104		P	80 - 120
EPTC	99.7		P	80 - 120
Ethion	96.4		P	80 - 120
Ethoprop	96.8		P	80 - 120
Fenamiphos	95.4		P	80 - 120
Fipronil	103		P	80 - 120
Fipronil Desulfinyl	102		P	80 - 120
Fipronil Sulfide	96.5		P	80 - 120
Fipronil Sulfone	98.3		P	80 - 120
Fonofos	99.3		P	80 - 120
Hexazinone	99.4		P	80 - 120
Malathion	97.4		P	80 - 120
Metaxyl	105		P	80 - 120
Metolachlor	108		P	80 - 120
Mevinphos	102		P	80 - 120
Molinate	98.8		P	80 - 120
Norflurazon	101		P	80 - 120
Oxadiazon	107		P	80 - 120
Parathion Ethyl	93.2		P	80 - 120
Parathion Methyl	94.1		P	80 - 120
Pendimethalin	99.4		P	80 - 120
Phorate	96.5		P	80 - 120
Prodiamine	102		P	80 - 120
Prometon	101		P	80 - 120
Prometryn	102		P	80 - 120
Simazine	97.1		P	80 - 120
Tebuconazole	102		P	80 - 120
Terbufos	96.9		P	80 - 120
Terbutylazine	100		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A91018

Included Lab Sample IDs: 2076591

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromacil	99.7		P	80 - 120
Metribuzin	71.7*		F	80 - 120

* 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							11.7	
EPA 200.7 Rev. 4.4	Barium	99.5		97.7	98.1	98.7			0.398
	Calcium	100		97.7	101				1.14
	Iron	101		102	103	103			0.905
	Magnesium	99.1		98.1	102				0.861
	Potassium	97.3		96.9	97.7	98.4			0.677
	Sodium	96.6		98.7	102				1.25
	Zinc	98.8		95.3	95.8	97.0			0.529
EPA 200.8 Rev. 5.4	Aluminum	101		95.6	95.7	107			0.131
	Antimony	97.7		98.6	98.4	95.4			0.141
	Arsenic	106		106	105	103			0.518
	Boron	103		102	101	99.9			0.370
	Cadmium	102		102	102	100			0.180
	Chromium	92.2		89.6	89.4	88.8			0.241
	Copper	105		99.2	99.7	110			0.513
	Lead	100		99.4	99.4	99.2			0.0531
	Nickel	105		100	101	103			0.524
	Selenium	101		101	100	99.0			0.554
	Silver	98.7		96.4	96.9	96.0			0.513
	Thallium	103		105	105	102			0.279
EPA 300.0 Rev. 2.1	Chloride	103		106	108			9.70	
	Sulfate	105		107				9.97	
EPA 350.1 Rev. 2.0	Ammonia-N	99.7		97.8	101				3.42
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106		108	109				1.43
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0		101	98.5				1.35
EPA 365.1 Rev. 2.0	Total-P	98.0		96.9	95.5				1.44
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.3		96.4	98.2				1.85
EPA 8270D	Acetochlor	88.8	92.3	89.7	98.5		3.90		9.32
	Alachlor	87.4	91.7	86.7	92.7		4.82		6.78
	Ametryn	91.1	90.4	92.8	84.2		0.717		9.72
	Atrazine	105	111	106	102		5.46		3.16
	Atrazine Desethyl	112	111	120	110		1.14		8.75
	Azinphos Methyl	93.4	93.9	91.5	86.8		0.529		5.34
	Bromacil	73.8	74.0	104	92.6		0.194		12.0
	Butylate	45.7	57.7	68.5	51.4		23.3		28.5
	Chlorpyrifos Ethyl	87.8	86.0	91.3	83.9		2.00		8.48
	Chlorpyrifos Methyl	90.9	90.9	87.8	93.2		0.0013		5.96
	Cyanazine	186	194	187	197		4.23		4.73
	Demeton	78.2	76.1	73.1	87.9		2.71		18.4
	Diazinon	95.7	102	95.9	102		6.84		6.38
	Dimethenamid	81.6	84.2	72.4	77.3		3.07		5.92
	Disulfoton	87.0	83.9	81.9	94.2		3.69		14.0
	Dithiopyr	90.3	94.7	89.4	97.4		4.75		8.60
	EPTC	48.7	63.1	55.6	75.8		25.7		30.8
	Ethion	56.6	44.2	43.2	53.6		24.5		21.5
	Ethoprop	92.5	95.0	85.6	96.1		2.71		11.5
	Fenamiphos	94.2	82.8	92.9	81.4		12.9		13.2
	Fipronil	88.8	93.1	96.7	87.3		4.73		10.1
	Fipronil Desulfinyl	79.2	82.1	84.1	77.6		3.57		7.93
	Fipronil Sulfide	87.1	87.8	94.0	85.9		0.850		9.02
	Fipronil Sulfone	80.6	77.5	85.2	77.2		3.93		9.89
	Fonofos	94.8	101	104	96.9		6.26		6.89
	Hexazinone	91.5	92.4	108	93.6		0.933		11.4
	Malathion	90.5	86.5	95.1	87.8		4.57		7.94

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Metalaxyl	92.1	94.2	98.0	89.6	2.25	8.14
	Metolachlor	86.7	90.2			4.00	7.41
	Metribuzin	241	242	273	238	0.398	12.8
	Mevinphos	85.3	86.7	89.8	82.8	1.67	8.14
	Molinate	58.5	69.9	67.6	65.0	17.6	3.90
	Norflurazon	89.7	89.7	94.3	80.0	0.0193	13.6
	Oxadiazon	91.7	90.8	96.6	87.4	0.959	10.0
	Parathion Ethyl	86.7	88.7	93.9	86.7	2.33	7.91
	Parathion Methyl	97.2	96.3	103	94.3	0.880	9.22
	Pendimethalin	95.3	98.2	57.6	52.2	3.03	5.39
	Phorate	90.0	93.9	94.7	86.2	4.27	9.40
	Prodiamine	51.2	52.9	57.9	52.6	3.16	9.62
	Prometon	85.0	87.4	94.8	86.0	2.77	9.76
	Prometryn	85.4	89.9	93.1	84.8	5.21	9.43
	Simazine	104	107	117	104	2.83	11.4
	Tebuconazole	37.2	32.5	36.6	31.7	13.7	14.5
	Terbufos	94.2	104	104	97.2	9.93	7.15
	Terbuthylazine	92.3	100	101	93.0	8.51	8.10
EPA 8321B	2,4-D	72.6		66.0	72.2		8.99
	Acesulfame K	117		178	234		27.0
	Acetaminophen	82.7		77.8	82.4		5.73
	AMPA	96.9		94.3	95.6		1.15
	Bentazon	86.7		91.4	122		8.92
	Carbamazepine	81.0		78.0	87.7		11.0
	Diuron	69.9		60.8	68.5		11.9
	Endothall	113		76.1	77.6		2.04
	Fenuron	96.3		104	104		0.624
	Fluridone	99.0		134	110		9.07
	Glufosinate	116		108	109		1.29
	Glyphosate	83.8		145	151		4.32
	Hydrocodone	79.3		91.3	92.9		1.75
	Ibuprofen	99.9		70.6	61.8		13.2
	Imazapyr	84.3		74.4	72.7		1.83
	Imidacloprid	87.5		136	162		16.2
	Linuron	74.6		74.2	58.7		23.3
	MCPP	86.7		92.8	105		12.3
	Naproxen	61.3		57.9	69.1		17.6
	Primidone	72.0		71.7	63.1		12.8
	Pyraclostrobin	61.2		76.2	98.0		25.1
	Sucralose	108		95.1	97.4		2.34
	Triclopyr	51.1		46.6	55.9		18.1
SM 2120 B	Color (true)	101				0.0371	
SM 2320 B-97	Total Alkalinity	101				8.08	
SM 2540 C-97	TDS					1.89	
SM 4500 F-C-97	Fluoride	99.5		100	100		0.0
SM 5310 B-00	Organic Carbon	102		102	102		0.520

Reference Method Descriptions

Method / DoH Cert #
EPA 180.1 Rev. 2.0 /
E31780

Description
Turbidity in aqueous matrices

Associated Samples
2076583

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2076590
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2076590
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2076583
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2076583
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2076584
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2076584
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2076584
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2076584
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2076585
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2076591
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2076589
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2076589
SM 2120 B / E31780	True Color measured at 450 nm	2076583
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2076583
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2076583
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2076583
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2076583
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2076584

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	04/09/2019			04/09/2019 15:54	Adrian Shelby	2076583
EPA 200.7 Rev. 4.4	04/09/2019	04/10/2019 16:20	Elliott D. Healy	04/11/2019 14:17	Betina Topolski	2076590
	04/09/2019	04/15/2019 11:00	Alexander Thompson	04/15/2019 16:21	Betina Topolski	2076590
EPA 200.8 Rev. 5.4	04/09/2019	04/10/2019 16:20	Elliott D. Healy	04/11/2019 20:54	Robert K Palmer	2076590
	04/09/2019	04/10/2019 16:20	Elliott D. Healy	04/14/2019 21:35	Robert K Palmer	2076590
EPA 300.0 Rev. 2.1	04/09/2019			04/15/2019 23:13	Julia Storbeck	2076583
EPA 350.1 Rev. 2.0	04/09/2019			04/15/2019 13:23	Ping Hua	2076584
EPA 351.2 Rev. 2.0	04/09/2019	04/16/2019 12:00	Adrian Shelby	04/17/2019 13:05	Joseph Suarez	2076584
EPA 353.2 Rev. 2.0	04/09/2019			04/17/2019 10:14	Beverly Y. Sanders	2076584
EPA 365.1 Rev. 2.0	04/09/2019	04/15/2019 13:05	Sima Feizi	04/16/2019 14:20	Rosalyn Ballman	2076584
EPA 365.1 Rev. 2.0 dissolved	04/09/2019			04/09/2019 17:33	Julia Storbeck	2076585
EPA 8270D	04/09/2019	04/15/2019 08:30	Rasheda Ghaffari	04/16/2019 21:37	Vandana T. Nagar	2076591
	04/09/2019	04/15/2019 08:30	Rasheda Ghaffari	04/17/2019 15:29	Vandana T. Nagar	2076591
EPA 8321B	04/09/2019	04/10/2019 10:00	Hoor Shaik	04/19/2019 21:06	Juyoung Kim	2076589
	04/09/2019	04/10/2019 15:30	Rebecca Ware	04/11/2019 10:41	Rebecca Ware	2076589
	04/09/2019	04/10/2019 15:30	Rebecca Ware	04/11/2019 18:51	Rebecca Ware	2076589
	04/09/2019	04/10/2019 15:30	Rebecca Ware	04/12/2019 18:48	Rebecca Ware	2076589
SM 2120 B	04/09/2019			04/09/2019 15:55	Mariam Hanna	2076583
SM 2320 B-97	04/09/2019			04/13/2019 14:50	Dale L. Simmons	2076583
SM 2540 C-97	04/09/2019			04/11/2019 16:14	Yijie Li	2076583
SM 2540 D-97	04/09/2019			04/11/2019 16:14	Yijie Li	2076583
SM 4500 F-C-97	04/09/2019			04/13/2019 14:50	Dale L. Simmons	2076583
SM 5310 B-00	04/09/2019			04/10/2019 22:34	Julia Storbeck	2076584