

Chemical Analysis Report

NE-DIST-2020-08-25-01

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

Event Description: **Gainesville**
Request ID: **RQ-2020-08-10-08**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 16-SEP-2020 13:05

A handwritten signature in black ink, appearing to read "Liang Lin", 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: 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: Lake Alice Center

Collection Date/Time: 08/24/2020 10:30

Field ID: 20020052

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2191999	EPA 180.1 Rev. 2.0	Turbidity	0.70		NTU	P386525	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P387059	
		Sulfate	19		mg SO4/L	P387064	
	SM 2120 B-2011	Color (true)	32		PCU	P386528	
	SM 2320 B-2011	Total Alkalinity	60		mg CaCO3/L	P386621	
	SM 2540 C-2011	TDS	130		mg/L	P386993	
	SM 2540 D-2011	TSS	2	U	mg/L	P386986	
	SM 4500 F-C-2011	Fluoride	0.26		mg F/L	P386623	
2192000	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P387015	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.46		mg N/L	P386610	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P386543	
	EPA 365.1 Rev. 2.0	Total-P	0.33		mg P/L	P386553	
	SM 5310 B-2011	Organic Carbon	6.5		mg C/L	P386595	
2192001	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.30		mg P/L	P386535	
2192006	EPA 8276	Chlordane	5.4	U	ng/L	P386513	
		Toxaphene	32	U	ng/L	P386513	
2192007	EPA 8321B	2,4-D	0.0045	I	ug/L	P386554	
		Acesulfame K**	0.10	UJ	ug/L	P386539	MS
		AMPA**	0.21	I	ug/L	P386539	
		Sucralose**	0.45	J	ug/L	P386539	RPD
		Acetaminophen**	0.0080	U	ug/L	P386554	
		Endothall**	0.25	U	ug/L	P386539	
		Acetamiprid**	0.0020	U	ug/L	P386554	
		Glufosinate**	0.10	U	ug/L	P386539	
		Glyphosate**	0.63		ug/L	P386539	
		Afidopyropen**	0.0020	U	ug/L	P386554	
		Bentazon	8.6E-04	I	ug/L	P386554	
		Benzovindiflupyr**	0.0020	U	ug/L	P386554	
		Carbamazepine**	8.0E-04	U	ug/L	P386554	
		Clothianidin**	0.0020	U	ug/L	P386554	
		Dinotefuran**	0.0042	I	ug/L	P386554	
		Diuron	0.011		ug/L	P386554	
		Fenuron	0.016	U	ug/L	P386554	
		Fluridone**	0.0038		ug/L	P386554	
		Imazapyr**	1.3		ug/L	P386554	
		Hydrocodone**	0.0020	U	ug/L	P386554	
		Ibuprofen**	0.020	U	ug/L	P386554	
		Imidacloprid	0.0028	I	ug/L	P386554	
		Linuron	0.0040	U	ug/L	P386554	
		Mandestrobin**	0.0020	U	ug/L	P386554	
		MCPP	0.0020	U	ug/L	P386554	
		Naproxen**	0.0080	U	ug/L	P386554	
		Primidone**	0.0040	U	ug/L	P386554	

Field ID: 20020052

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2192007	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P386554	
		Thiamethoxam**	0.0020	U	ug/L	P386554	
		Tolfenpyrad**	0.0020	U	ug/L	P386554	
		Triclopyr**	0.0040	U	ug/L	P386554	

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Calf Creek At Se 27th St.

Collection Date/Time: 08/24/2020 12:10

Field ID: G1NE0931

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2191996	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P386525	
	EPA 300.0 Rev. 2.1	Chloride	10		mg Cl/L	P387059	
		Sulfate	5.7		mg SO4/L	P387064	
	SM 2120 B-2011	Color (true)	96	A	PCU	P386528	
	SM 2320 B-2011	Total Alkalinity	87		mg CaCO3/L	P386621	
	SM 2540 C-2011	TDS	147		mg/L	P386993	
	SM 2540 D-2011	TSS	2	I	mg/L	P386986	
	SM 4500 F-C-2011	Fluoride	0.14		mg F/L	P386623	
2191997	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P386701	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.62		mg N/L	P386610	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P386542	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P386553	
	SM 5310 B-2011	Organic Carbon	15		mg C/L	P386595	
2191998	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.10		mg P/L	P386544	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P386525

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387059

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387064

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P386701

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387015

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386610

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386542

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386543

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P386553

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: P386535

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386544

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

Reference Method: EPA 8276
Batch ID: P386513

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

Reference Method: EPA 8321B
Batch ID: P386539

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

Reference Method: EPA 8321B
Batch ID: P386554

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P386554

Component	Result	Code	Units
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B-2011
Batch ID: P386528

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P386621

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

Reference Method: SM 2540 C-2011
Batch ID: P386993

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P386986

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P386623

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P386595

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387059

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387064

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P386701

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387015

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386610

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	104		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386542

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	102		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386543

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	102		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P386553

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386535

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386544

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

Reference Method: EPA 8276
Batch ID: P386513

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	93.4	94.7	P/P	47 - 119
Toxaphene	97.2	94.4	P/P	41 - 112

Reference Method: EPA 8321B
Batch ID: P386539

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	77.3		P	40 - 150
AMPA	92.1		P	40 - 150
Endothall	85.0		P	40 - 150
Glufosinate	89.5		P	40 - 150
Glyphosate	78.3		P	40 - 140
Sucralose	97.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P386554

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	128		P	30 - 160
Acetaminophen	85.6		P	30 - 160
Acetamiprid	77.4		P	30 - 160
Afidopyropen	55.8		P	30 - 160
Bentazon	74.7		P	30 - 160
Benzovindiflupyr	76.5		P	30 - 160
Carbamazepine	63.3		P	30 - 160
Clothianidin	79.6		P	30 - 160
Dinotefuran	97.3		P	30 - 160
Diuron	67.4		P	30 - 160
Fenuron	94.2		P	30 - 160
Fluridone	77.8		P	30 - 160
Hydrocodone	84.2		P	30 - 160
Ibuprofen	95.3		P	30 - 160
Imazapyr	92.1		P	30 - 160
Imidacloprid	95.7		P	30 - 160
Linuron	72.0		P	30 - 160
Mandestrobin	78.2		P	30 - 160
MCPP	135		P	30 - 160
Naproxen	89.5		P	30 - 160
Primidone	86.4		P	30 - 160
Pyraclostrobin	62.6		P	30 - 160
Thiamethoxam	97.2		P	30 - 160
Tolfenpyrad	45.9		P	30 - 160
Triclopyr	114		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2120 B-2011
Batch ID: P386528

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

Reference Method: SM 2320 B-2011
Batch ID: P386621

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P386623

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.1		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P386595

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	100		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387059

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2191971	Chloride	97.5		P	90 - 110
2192041	Chloride	97.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387064

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2191971	Sulfate	95.2		P	90 - 110
2192041	Sulfate	95.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P386701

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2191972	Ammonia-N	97.8	95.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387015

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192024	Ammonia-N	98.6	98.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386610

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192000	Kjeldahl Nitrogen	105	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386542

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2191898	NO2NO3-N	97.6	99.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386543

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192000	NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P386553

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2191952	Total-P	101	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386544

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192058	O-Phosphate-P	102	99.7	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8276
Batch ID: P386513

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192006	Chlordane	78.5	97.8	P/P	34 - 129
2192006	Toxaphene	88.4	109	P/P	26 - 123

Reference Method: EPA 8321B
Batch ID: P386539

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192007	Acesulfame K	31.4	31.9	F/F	40 - 150
2192007	AMPA	85.1	88.8	P/P	40 - 150
2192007	Endothall	114	101	P/P	40 - 150
2192007	Glufosinate	85.9	89.9	P/P	40 - 150
2192007	Glyphosate	74.3	81.8	P/P	40 - 140
2192007	Sucralose	41.7	70.3	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P386554

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2191761	2,4-D	121	128	P/P	30 - 160
2191761	Acetaminophen	103	106	P/P	30 - 160
2191761	Acetamiprid	83.4	85.8	P/P	30 - 160
2191761	Afidopyropen	55.4	56.4	P/P	30 - 160
2191761	Bentazon	70.3	81.2	P/P	30 - 160
2191761	Benzovindiflupyr	73.1	73.1	P/P	30 - 160
2191761	Carbamazepine	59.1	60.4	P/P	30 - 160
2191761	Clothianidin	95.7	92.8	P/P	30 - 160
2191761	Dinotefuran	112	113	P/P	30 - 160
2191761	Diuron	60.4	64.9	P/P	30 - 160
2191761	Fenuron	86.6	90.1	P/P	30 - 160
2191761	Fluridone	78.0	73.2	P/P	30 - 160
2191761	Hydrocodone	88.7	90.3	P/P	30 - 160
2191761	Ibuprofen	75.0	88.3	P/P	30 - 160
2191761	Imazapyr	103	132	P/P	30 - 160
2191761	Imidacloprid	142	132	P/P	30 - 160
2191761	Linuron	69.0	70.5	P/P	30 - 160
2191761	Mandestrobin	75.3	76.5	P/P	30 - 160
2191761	MCPD	134	132	P/P	30 - 160
2191761	Naproxen	89.4	76.4	P/P	30 - 160
2191761	Primidone	107	108	P/P	30 - 160
2191761	Pyraclostrobin	62.4	61.4	P/P	30 - 160
2191761	Thiamethoxam	128	127	P/P	30 - 160
2191761	Tolfenpyrad	47.8	58.3	P/P	30 - 160
2191761	Triclopyr	103	120	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P386623

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192055	Fluoride	95.0	96.8	P/P	94 - 107

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P386595

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2191946	Organic Carbon	102	101	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P386525

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191990	Turbidity	4.34	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387059

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191971	Chloride	1.33	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387064

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191971	Sulfate	1.13	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P386701

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191972	Ammonia-N	2.05	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387015

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192024	Ammonia-N	0.101	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386610

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192000	Kjeldahl Nitrogen	1.23	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386542

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191898	NO2NO3-N	1.90	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386543

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192000	NO2NO3-N	0.962	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P386553

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191952	Total-P	0.288	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386535

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192001	O-Phosphate-P	0.243	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386544

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192058	O-Phosphate-P	2.05	Spike	P	0 - 20

Reference Method: EPA 8276
Batch ID: P386513

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192006	Chlordane	21.8	Spike	P	0 - 30
2192006	Toxaphene	21.0	Spike	P	0 - 30
LFB	Chlordane	1.46	LCS	P	0 - 30
LFB	Toxaphene	2.86	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P386539

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192007	Acesulfame K	1.69	Spike	P	0 - 30
2192007	AMPA	3.43	Spike	P	0 - 30
2192007	Endothall	12.2	Spike	P	0 - 30
2192007	Glufosinate	4.58	Spike	P	0 - 30
2192007	Glyphosate	5.36	Spike	P	0 - 30
2192007	Sucralose	38.6	Spike	F	0 - 30

Reference Method: EPA 8321B
Batch ID: P386554

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191761	2,4-D	5.72	Spike	P	0 - 30
2191761	Acetaminophen	3.22	Spike	P	0 - 30
2191761	Acetamiprid	2.87	Spike	P	0 - 30
2191761	Afidopyropen	1.87	Spike	P	0 - 30
2191761	Bentazon	14.5	Spike	P	0 - 30
2191761	Benzovindiflupyr	0.00820	Spike	P	0 - 30
2191761	Carbamazepine	2.21	Spike	P	0 - 30
2191761	Clothianidin	3.07	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P386554

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191761	Dinotefuran	0.801	Spike	P	0 - 30
2191761	Diuron	7.21	Spike	P	0 - 30
2191761	Fenuron	3.97	Spike	P	0 - 30
2191761	Fluridone	5.15	Spike	P	0 - 30
2191761	Hydrocodone	1.83	Spike	P	0 - 30
2191761	Ibuprofen	16.3	Spike	P	0 - 30
2191761	Imazapyr	25.2	Spike	P	0 - 30
2191761	Imidacloprid	6.80	Spike	P	0 - 30
2191761	Linuron	2.18	Spike	P	0 - 30
2191761	Mandestrobin	1.53	Spike	P	0 - 30
2191761	MCPP	1.37	Spike	P	0 - 30
2191761	Naproxen	15.7	Spike	P	0 - 30
2191761	Primidone	0.789	Spike	P	0 - 30
2191761	Pyraclostrobin	1.70	Spike	P	0 - 30
2191761	Thiamethoxam	0.828	Spike	P	0 - 30
2191761	Tolfenpyrad	19.6	Spike	P	0 - 30
2191761	Triclopyr	14.8	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P386528

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191996	Color (true)	0.692	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P386621

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192055	Total Alkalinity	0.680	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P386993

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191971	TDS	0.866	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P386623

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192055	Fluoride	0.915	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P386595

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

Reference Method: SM 5310 B-2011
Batch ID: P386595

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191946	Organic Carbon	0.0720	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2192006
Field Sample ID: 20020052

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8276	Decachlorobiphenyl	50.3	P	26 - 97.0
EPA 8276	PCNB	73.8	P	38 - 141

Lab Sample ID: 2192007
Field Sample ID: 20020052

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	107	P	30 - 160
EPA 8321B	Acetaminophen-d4	83.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	51.3	P	30 - 160
EPA 8321B	Diuron-d6	51.8	P	30 - 160
EPA 8321B	Endothall-d6	104	P	30 - 160
EPA 8321B	Endothall-d6	104	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	72.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	72.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	97.0	P	30 - 160
EPA 8321B	Primidone-d5	98.6	P	30 - 160
EPA 8321B	Sucralose-d6	94.1	P	30 - 160
EPA 8321B	Sucralose-d6	94.1	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A100641

Included Lab Sample IDs: 2191996, 2191999

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

Reference Method: SM 2120 B-2011

Run ID: A100642

Included Lab Sample IDs: 2191996, 2191999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.5	99.4	P/P	90 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A100651

Included Lab Sample IDs: 2191997, 2192000

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A100652

Included Lab Sample IDs: 2191998

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

Reference Method: SM 5310 B-2011

Run ID: A100665

Included Lab Sample IDs: 2191997, 2192000

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	102	99.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A100666

Included Lab Sample IDs: 2191997, 2192000

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

Reference Method: EPA 8321B

Run ID: A100670

Included Lab Sample IDs: 2192007

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	98.4	97.2	P/P	60 - 160
Glufosinate	87.7	93.0	P/P	60 - 160
Glyphosate	79.7	87.0	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A100671

Included Lab Sample IDs: 2192007

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

Reference Method: EPA 8321B
Run ID: A100671
Included Lab Sample IDs: 2192007

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	92.9	84.0	P/P	60 - 160
Endothall	97.3	102	P/P	60 - 160

Reference Method: SM 2320 B-2011
Run ID: A100675
Included Lab Sample IDs: 2191996, 2191999

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

Reference Method: SM 4500 F-C-2011
Run ID: A100675
Included Lab Sample IDs: 2191996, 2191999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A100700
Included Lab Sample IDs: 2191997, 2192000

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

Reference Method: EPA 8321B
Run ID: A100703
Included Lab Sample IDs: 2192007

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	95.5	97.3	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A100709
Included Lab Sample IDs: 2191997

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.3	98.4	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A100758
Included Lab Sample IDs: 2192007

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	119	115	P/P	50 - 150
Acetaminophen	118	125	P/P	60 - 160
Acetamiprid	126	127	P/P	50 - 150
Afidopyrophen	82.3	94.8	P/P	50 - 150
Bentazon	94.1	142	P/P	50 - 160
Benzovindiflupyr	122	122	P/P	50 - 150
Carbamazepine	109	112	P/P	60 - 150
Clothianidin	112	109	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A100758
Included Lab Sample IDs: 2192007

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dinotefuran	115	111	P/P	50 - 150
Diuron	125	112	P/P	60 - 160
Fenuron	121	129	P/P	60 - 150
Fluridone	87.8	112	P/P	60 - 160
Hydrocodone	117	118	P/P	60 - 150
Ibuprofen	143	71.1	P/P	50 - 160
Imidacloprid	104	115	P/P	60 - 150
Linuron	117	124	P/P	60 - 150
Mandestrobin	124	127	P/P	50 - 150
MCPP	119	140	P/P	50 - 150
Naproxen	107	138	P/P	50 - 160
Primidone	106	124	P/P	60 - 150
Pyraclostrobin	112	119	P/P	60 - 150
Thiamethoxam	135	131	P/P	50 - 150
Tolfenpyrad	111	115	P/P	60 - 150
Triclopyr	116	118	P/P	50 - 150

Reference Method: EPA 8276
Run ID: A100764
Included Lab Sample IDs: 2192006

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	90.0		P	80 - 120
Toxaphene	110		P	80 - 120

Reference Method: EPA 8321B
Run ID: A100781
Included Lab Sample IDs: 2192007

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imazapyr	155	98.3	P/P	50 - 160

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A100832
Included Lab Sample IDs: 2192000

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	99.1	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A100843
Included Lab Sample IDs: 2191996, 2191999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.5	101	P/P	90 - 110
Sulfate	99.2	100	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision	
							SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						4.34	
EPA 300.0 Rev. 2.1	Chloride	97.3		97.5	97.5		1.33	
	Sulfate	96.6		95.2	95.4		1.13	
EPA 350.1 Rev. 2.0	Ammonia-N	97.4		97.8	95.6			2.05
	Ammonia-N	100		98.6	98.4			0.101
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104		105	106			1.23
EPA 353.2 Rev. 2.0	NO2NO3-N	102		97.6	99.6			1.90
	NO2NO3-N	102		104	104			0.962
EPA 365.1 Rev. 2.0	Total-P	101		101	101			0.288
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102						0.243
	O-Phosphate-P	100		102	99.7			2.05
EPA 8276	Chlordane	93.4	94.7	78.5	97.8	1.46		21.8
	Toxaphene	97.2	94.4	88.4	109	2.86		21.0
EPA 8321B	2,4-D	128		121	128			5.72
	Acesulfame K	77.3		31.4	31.9			1.69
	Acetaminophen	85.6		103	106			3.22
	Acetamiprid	77.4		83.4	85.8			2.87
	Afidopyropen	55.8		55.4	56.4			1.87
	AMPA	92.1		85.1	88.8			3.43
	Bentazon	74.7		70.3	81.2			14.5
	Benzovindiflupyr	76.5		73.1	73.1			0.0082
	Carbamazepine	63.3		59.1	60.4			2.21
	Clothianidin	79.6		95.7	92.8			3.07
	Dinotefuran	97.3		112	113			0.801
	Diuron	67.4		60.4	64.9			7.21
	Endothall	85.0		114	101			12.2
	Fenuron	94.2		86.6	90.1			3.97
	Fluridone	77.8		78.0	73.2			5.15
	Glufosinate	89.5		85.9	89.9			4.58
	Glyphosate	78.3		74.3	81.8			5.36
	Hydrocodone	84.2		88.7	90.3			1.83
	Ibuprofen	95.3		75.0	88.3			16.3
	Imazapyr	92.1		103	132			25.2
	Imidacloprid	95.7		142	132			6.80
	Linuron	72.0		69.0	70.5			2.18
	Mandestrobin	78.2		75.3	76.5			1.53
	MCPP	135		134	132			1.37
	Naproxen	89.5		89.4	76.4			15.7
	Primidone	86.4		107	108			0.789
	Pyraclostrobin	62.6		62.4	61.4			1.70
	Sucralose	97.0		41.7	70.3			38.6
	Thiamethoxam	97.2		128	127			0.828
	Tolfenpyrad	45.9		47.8	58.3			19.6
	Triclopyr	114		103	120			14.8
SM 2120 B-2011	Color (true)	97.5					0.692	
SM 2320 B-2011	Total Alkalinity	104					0.680	
SM 2540 C-2011	TDS						0.866	
SM 4500 F-C-2011	Fluoride	97.1		95.0	96.8			0.915
SM 5310 B-2011	Organic Carbon	100		102	101			0.0720

Reference Method Descriptions

Method

Description

Associated Samples

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2191996, 2191999
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2191996, 2191999
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2191996, 2191999
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2191997, 2192000
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2191997, 2192000
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2191997, 2192000
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2191997, 2192000
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2191998, 2192001
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2192006
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2192007
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2192007
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2191996, 2191999
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2191996, 2191999
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2191996, 2191999
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2191996, 2191999
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2191996, 2191999
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2191997, 2192000

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	08/25/2020			08/25/2020 16:17	Yen Ta	2191996, 2191999
EPA 300.0 Rev. 2.1	08/25/2020			09/04/2020 19:21	Julia Storbeck	2191996
	08/25/2020			09/04/2020 19:34	Julia Storbeck	2191999
EPA 350.1 Rev. 2.0	08/25/2020			08/28/2020 11:47	Virginia P. Brown	2191997
	08/25/2020			09/05/2020 10:57	Ping Hua	2192000
EPA 351.2 Rev. 2.0	08/25/2020	08/27/2020 10:15	Sima Feizi	08/28/2020 10:40	Virginia P. Brown	2192000
	08/25/2020	08/27/2020 10:15	Sima Feizi	08/28/2020 10:46	Virginia P. Brown	2191997
EPA 353.2 Rev. 2.0	08/25/2020			08/26/2020 09:44	Beverly Y. Sanders	2191997
	08/25/2020			08/26/2020 09:51	Beverly Y. Sanders	2192000
EPA 365.1 Rev. 2.0	08/25/2020	08/26/2020 12:59	Yen Ta	08/27/2020 08:47	Benjamin T. Nordmann	2191997
	08/25/2020	08/26/2020 12:59	Yen Ta	08/27/2020 08:48	Benjamin T. Nordmann	2192000
EPA 365.1 Rev. 2.0 dissolved	08/25/2020			08/25/2020 16:20	Blanca Fach	2192001
	08/25/2020			08/26/2020 09:56	Blanca Fach	2191998
EPA 8276	08/25/2020	08/26/2020 08:00	Fe-Val Siddell	08/28/2020 05:14	Arthur Maknenko	2192006
EPA 8321B	08/25/2020	08/26/2020 09:15	Rebecca Ware	08/26/2020 10:39	Rebecca Ware	2192007
	08/25/2020	08/26/2020 09:15	Rebecca Ware	08/26/2020 16:53	Rebecca Ware	2192007
	08/25/2020	08/26/2020 09:15	Rebecca Ware	08/27/2020 15:06	Rebecca Ware	2192007
	08/25/2020	08/27/2020 08:30	Hoor Shaik	08/29/2020 16:21	Juyoung Kim	2192007
	08/25/2020	08/27/2020 08:30	Hoor Shaik	09/02/2020 11:12	Juyoung Kim	2192007
SM 2120 B-2011	08/25/2020			08/25/2020 16:11	Benjamin T. Nordmann	2191996, 2191999
SM 2320 B-2011	08/25/2020			08/26/2020 19:17	Dale L. Simmons	2191996
	08/25/2020			08/26/2020 19:29	Dale L. Simmons	2191999
SM 2540 C-2011	08/25/2020			08/27/2020 15:08	Yijie Li	2191996, 2191999
SM 2540 D-2011	08/25/2020			08/27/2020 15:08	Yijie Li	2191996, 2191999
SM 4500 F-C-2011	08/25/2020			08/26/2020 19:17	Dale L. Simmons	2191996
	08/25/2020			08/26/2020 19:29	Dale L. Simmons	2191999
SM 5310 B-2011	08/25/2020			08/26/2020 21:52	David Boose	2191997
	08/25/2020			08/26/2020 22:04	David Boose	2192000