

Chemical Analysis Report

TLH-ROC-2022-04-18-01

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

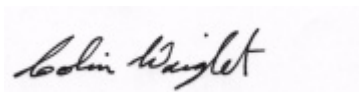
Event Description: **Run 15**
Request ID: **RQ-2022-02-21-76**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
Tallahassee, FL 32399
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Certified by: Colin Wright, Program Administrator

Date Certified: 09-MAY-2022 10:56

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: 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: Camp Branch @ CR173

Collection Date/Time: 04/18/2022 09:20

Field ID: G3TLHR0004

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2319867	DEP SOP: NU-094-1	Color (true)**	78		PCU	P412565	
	EPA 180.1 Rev. 2.0	Turbidity	23		NTU	P412572	
	EPA 300.0 Rev. 2.1	Chloride	2.9		mg Cl/L	P412953	
		Sulfate	1.4		mg SO4/L	P412956	
	SM 2320 B-2011	Total Alkalinity	9.4		mg CaCO3/L	P412807	
	SM 2540 C-2011	TDS	45		mg/L	P413061	
	SM 2540 D-2011	TSS	10		mg/L	P412988	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P412810	
2319868	EPA 350.1 Rev. 2.0	Ammonia-N	0.030		mg N/L	P412627	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.76	J	mg N/L	P412929	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.037		mg N/L	P412609	
	EPA 365.1 Rev. 2.0	Total-P	0.085		mg P/L	P412796	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P412783	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Little Creek @ Treatment Plant Rd.

Collection Date/Time: 04/18/2022 11:15

Field ID: G3TLHR0002

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2319869	DEP SOP: NU-094-1	Color (true)**	50	A	PCU	P412565	
	EPA 180.1 Rev. 2.0	Turbidity	36		NTU	P412572	
	EPA 300.0 Rev. 2.1	Chloride	4.0		mg Cl/L	P412953	
		Sulfate	1.7		mg SO4/L	P412956	
	SM 2320 B-2011	Total Alkalinity	40		mg CaCO3/L	P412807	
	SM 2540 C-2011	TDS	90		mg/L	P413062	
	SM 2540 D-2011	TSS	8	I	mg/L	P412989	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P412810	
2319870	EPA 350.1 Rev. 2.0	Ammonia-N	0.034		mg N/L	P412627	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.70		mg N/L	P412933	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.16		mg N/L	P412609	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P412796	
	SM 5310 B-2011	Organic Carbon	9.3		mg C/L	P412783	
2319877	EPA 8321B	2,4-D	0.037		ug/L	P412554	
		Acesulfame K	0.10	U	ug/L	P412505	
		2,4,5-T	0.0040	U	ug/L	P412554	
		AMPA	0.10	U	ug/L	P412505	
		Acetaminophen	0.0080	U	ug/L	P412554	
		Acetamiprid	0.0020	U	ug/L	P412554	
		Endothall	0.25	U	ug/L	P412505	
		Glufosinate	0.10	U	ug/L	P412505	
		Glyphosate	0.10	U	ug/L	P412505	
		Afidopyropen	0.0020	U	ug/L	P412554	
		Bentazon	8.0E-04	U	ug/L	P412554	
		Sucralose	0.046		ug/L	P412505	
		Benzovindiflupyr	0.0020	U	ug/L	P412554	
		Carbamazepine	8.0E-04	U	ug/L	P412554	
		Clothianidin	0.018		ug/L	P412554	
		Dinotefuran	0.0020	U	ug/L	P412554	
		Diuron	0.0073	I	ug/L	P412554	
		Fenuron	0.032	U	ug/L	P412554	
		Fluridone	8.0E-04	U	ug/L	P412554	
		Imazapyr	0.022		ug/L	P412554	
		Hydrocodone	0.0020	U	ug/L	P412554	
		Ibuprofen	0.020	U	ug/L	P412554	
		Imidacloprid	0.0020	U	ug/L	P412554	MS
		Linuron	0.0040	U	ug/L	P412554	
		Mandestrobin	0.0020	U	ug/L	P412554	
		MCPP	0.0039	I	ug/L	P412554	
		Naproxen	0.0080	U	ug/L	P412554	
		Primidone	0.0040	U	ug/L	P412554	
		Pyraclostrobin	0.0020	U	ug/L	P412554	
		Silvex	0.0040	U	ug/L	P412554	RPD
		Thiamethoxam	0.0020	U	ug/L	P412554	MS

Field ID: G3TLHR0002

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2319877	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P412554	
		Triclopyr	0.0040	U	ug/L	P412554	

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

Sample Location: Little Creek @ Ezell Rd.

Collection Date/Time: 04/18/2022 11:45

Field ID: G3TLHR0003

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2319878	EPA 8321B	2,4-D	0.035		ug/L	P412554	
		Acesulfame K	0.10	U	ug/L	P412593	
		2,4,5-T	0.0040	U	ug/L	P412554	
		AMPA	0.10	U	ug/L	P412593	
		Acetaminophen	0.0080	U	ug/L	P412554	
		Acetamiprid	0.0020	U	ug/L	P412554	
		Endothall	0.25	U	ug/L	P412593	
		Glufosinate	0.10	U	ug/L	P412593	
		Glyphosate	0.10	U	ug/L	P412593	
		Afidopyropen	0.0020	U	ug/L	P412554	
		Bentazon	8.0E-04	U	ug/L	P412554	
		Sucralose	0.010	I	ug/L	P412593	
		Benzovindiflupyr	0.0020	U	ug/L	P412554	
		Carbamazepine	8.0E-04	U	ug/L	P412554	
		Clothianidin	0.036		ug/L	P412554	
		Dinotefuran	0.0020	U	ug/L	P412554	
		Diuron	0.0020	U	ug/L	P412554	
		Fenuron	0.032	U	ug/L	P412554	
		Fluridone	8.0E-04	U	ug/L	P412554	
		Imazapyr	0.025		ug/L	P412554	
		Hydrocodone	0.0020	U	ug/L	P412554	
		Ibuprofen	0.020	U	ug/L	P412554	
		Imidacloprid	0.0020	U	ug/L	P412554	MS
		Linuron	0.0040	U	ug/L	P412554	
		Mandestrobin	0.0020	U	ug/L	P412554	
		MCPP	0.0020	U	ug/L	P412554	
		Naproxen	0.0080	U	ug/L	P412554	
		Primidone	0.0040	U	ug/L	P412554	
		Pyraclostrobin	0.0020	U	ug/L	P412554	
		Silvex	0.0040	U	ug/L	P412554	RPD
		Thiamethoxam	0.0020	U	ug/L	P412554	MS
		Tolfenpyrad	0.0020	U	ug/L	P412554	
		Triclopyr	0.0040	U	ug/L	P412554	

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P412565

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412572

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412953

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412956

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412627

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412929

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412933

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412609

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P412796

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P412505

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: P412554

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.089		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	0.032	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
Silvex	0.0040	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: P412593

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P412807

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-2011
Batch ID: P413061

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011
Batch ID: P413062

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P412988

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P412989

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P412810

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P412783

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P412565

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	103		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412572

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	95.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412953

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412956

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412627

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412929

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412933

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412609

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: P412796

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P412505

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	115		P	40 - 150
AMPA	98.9		P	40 - 150
Endothall	132		P	40 - 150
Glufosinate	93.2		P	40 - 150
Glyphosate	119		P	40 - 150
Sucralose	124		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P412554

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	90.5		P	30 - 160
2,4,5-T	105		P	30 - 160
Acetaminophen	88.1		P	30 - 150
Acetamiprid	104		P	30 - 160
Afidopyropen	72.8		P	30 - 160
Bentazon	59.1		P	30 - 150
Benzovindiflupyr	96.1		P	30 - 160
Carbamazepine	110		P	30 - 160
Clothianidin	108		P	30 - 160
Dinotefuran	104		P	30 - 160
Diuron	98.4		P	30 - 160
Fenuron	103		P	30 - 160
Fluridone	95.6		P	30 - 160
Hydrocodone	101		P	30 - 160
Ibuprofen	80.8		P	30 - 160
Imazapyr	98.9		P	30 - 160
Imidacloprid	104		P	30 - 160
Linuron	82.4		P	30 - 160
Mandestrobin	104		P	30 - 160
MCPP	116		P	30 - 160
Naproxen	112		P	30 - 160
Primidone	108		P	30 - 160
Pyraclostrobin	101		P	30 - 160
Silvex	106		P	30 - 160
Thiamethoxam	104		P	30 - 160
Tolfenpyrad	63.4		P	30 - 160
Triclopyr	112		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P412593

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	103		P	40 - 150
AMPA	99.6		P	40 - 150
Endothall	94.6		P	40 - 150
Glufosinate	96.6		P	40 - 150
Glyphosate	92.9		P	40 - 150
Sucralose	92.3		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P412807

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.6		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P412810

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.6		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P412783

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412953

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2319884	Chloride	101		P	90 - 110
2319984	Chloride	99.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412956

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2319884	Sulfate	99.4		P	90 - 110
2319984	Sulfate	97.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412627

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2319739	Ammonia-N	97.4	97.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412929

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2319868	Kjeldahl Nitrogen	108	113	P/F	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412933

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2319886	Kjeldahl Nitrogen	99.3	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412609

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2319868	NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P412796

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2319805	Total-P	102	104	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P412505

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2319559	Acesulfame K	113	115	P/P	40 - 150
2319559	AMPA	81.6	85.9	P/P	40 - 150
2319559	Endothall	133	121	P/P	40 - 150
2319559	Glufosinate	108	101	P/P	40 - 150
2319559	Glyphosate	122	115	P/P	40 - 150
2319559	Sucralose	124	140	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P412554

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2319995	2,4-D	108	84.5	P/P	30 - 160
2319995	2,4,5-T	109	82.1	P/P	30 - 160
2319995	Acetaminophen	97.0	80.2	P/P	30 - 150
2319995	Acetamiprid	115	102	P/P	30 - 160
2319995	Afidopyropen	80.9	76.6	P/P	30 - 160
2319995	Bentazon	39.7	31.9	P/P	30 - 150
2319995	Benzovindiflupyr	88.7	76.5	P/P	30 - 160
2319995	Carbamazepine	102	88.3	P/P	30 - 160
2319995	Clothianidin	130	110	P/P	30 - 160
2319995	Dinotefuran	128	115	P/P	30 - 160
2319995	Diuron	84.0	73.4	P/P	30 - 160
2319995	Fenuron	87.8	77.7	P/P	30 - 160
2319995	Fluridone	90.0	75.0	P/P	30 - 160
2319995	Hydrocodone	110	89.0	P/P	30 - 160
2319995	Ibuprofen	76.8	68.1	P/P	30 - 160
2319995	Imazapyr	112	90.0	P/P	30 - 160
2319995	Imidacloprid	184	159	F/P	30 - 160
2319995	Linuron	70.8	64.4	P/P	30 - 160
2319995	Mandestrobin	95.0	81.5	P/P	30 - 160
2319995	MCCP	129	98.5	P/P	30 - 160
2319995	Naproxen	92.3	86.1	P/P	30 - 160
2319995	Primidone	106	105	P/P	30 - 160
2319995	Pyraclostrobin	97.7	80.9	P/P	30 - 160
2319995	Silvex	113	80.5	P/P	30 - 160
2319995	Thiamethoxam	170	148	F/P	30 - 160
2319995	Tolfenpyrad	61.0	48.9	P/P	30 - 160
2319995	Triclopyr	122	96.2	P/P	30 - 160

Reference Method: EPA 8321B

Batch ID: P412593

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2319878	Acesulfame K	106	110	P/P	40 - 150
2319878	AMPA	106	108	P/P	40 - 150
2319878	Endothall	100	104	P/P	40 - 150
2319878	Glufosinate	98.5	106	P/P	40 - 150
2319878	Glyphosate	89.8	90.1	P/P	40 - 150
2319878	Sucralose	99.0	102	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P412810

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2319704	Fluoride	100	99.4	P/P	92 - 107

Reference Method: SM 5310 B-2011

Batch ID: P412783

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2319870	Organic Carbon	97.1	97.9	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P412565

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2319869	Color (true)	3.49	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412572

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2320005	Turbidity	2.14	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412953

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2319884	Chloride	5.81	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412956

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2319884	Sulfate	4.79	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412627

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2319739	Ammonia-N	0.148	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412929

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2319868	Kjeldahl Nitrogen	2.87	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412933

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2319886	Kjeldahl Nitrogen	4.13	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412609

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2319868	NO2NO3-N	0.418	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P412796

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2319805	Total-P	1.77	Spike	P	0 - 20

Reference Method: EPA 8321B

Batch ID: P412505

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2319559	Acesulfame K	1.93	Spike	P	0 - 30
2319559	AMPA	4.44	Spike	P	0 - 30
2319559	Endothall	9.11	Spike	P	0 - 30
2319559	Glufosinate	6.04	Spike	P	0 - 30
2319559	Glyphosate	4.75	Spike	P	0 - 30
2319559	Sucralose	5.27	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P412554

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2319995	2,4-D	24.1	Spike	P	0 - 30
2319995	2,4,5-T	28.6	Spike	P	0 - 30
2319995	Acetaminophen	18.9	Spike	P	0 - 30
2319995	Acetamiprid	11.4	Spike	P	0 - 30
2319995	Afidopyropen	5.51	Spike	P	0 - 30
2319995	Bentazon	21.7	Spike	P	0 - 30
2319995	Benzovindiflupyr	14.8	Spike	P	0 - 30
2319995	Carbamazepine	14.6	Spike	P	0 - 30
2319995	Clothianidin	17.0	Spike	P	0 - 30
2319995	Dinotefuran	10.6	Spike	P	0 - 30
2319995	Diuron	13.4	Spike	P	0 - 30
2319995	Fenuron	12.1	Spike	P	0 - 30
2319995	Fluridone	18.2	Spike	P	0 - 30
2319995	Hydrocodone	21.0	Spike	P	0 - 30
2319995	Ibuprofen	12.0	Spike	P	0 - 30
2319995	Imazapyr	21.5	Spike	P	0 - 30
2319995	Imidacloprid	14.8	Spike	P	0 - 30
2319995	Linuron	9.42	Spike	P	0 - 30
2319995	Mandestrobin	15.3	Spike	P	0 - 30
2319995	MCP	26.9	Spike	P	0 - 30
2319995	Naproxen	6.90	Spike	P	0 - 30
2319995	Primidone	0.363	Spike	P	0 - 30
2319995	Pyraclostrobin	18.9	Spike	P	0 - 30
2319995	Silvex	33.3	Spike	F	0 - 30
2319995	Thiamethoxam	13.5	Spike	P	0 - 30
2319995	Tolfenpyrad	22.1	Spike	P	0 - 30
2319995	Triclopyr	23.3	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P412593

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2319878	Acesulfame K	3.55	Spike	P	0 - 30
2319878	AMPA	2.21	Spike	P	0 - 30
2319878	Endothall	3.93	Spike	P	0 - 30
2319878	Glufosinate	7.61	Spike	P	0 - 30
2319878	Glyphosate	0.343	Spike	P	0 - 30
2319878	Sucralose	3.20	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P412807

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2319704	Total Alkalinity	0.146	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P413061

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2319726	TDS	4.49	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
Batch ID: P413062

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2319891	TDS	6.74	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P412810

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2319704	Fluoride	0.476	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P412783

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2319870	Organic Carbon	0.556	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2319877

Field Sample ID: G3TLHR0002

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	89.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	94.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	108	P	30 - 160
EPA 8321B	Diuron-d6	86.5	P	30 - 160
EPA 8321B	Endothall-d6	116	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	93.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	73.4	P	30 - 160
EPA 8321B	Primidone-d5	96.4	P	30 - 160
EPA 8321B	Sucralose-d6	144	P	30 - 160

Lab Sample ID: 2319878

Field Sample ID: G3TLHR0003

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	124	P	30 - 160
EPA 8321B	Acetaminophen-d4	115	P	30 - 160
EPA 8321B	Carbamazepine-d10	127	P	30 - 160
EPA 8321B	Diuron-d6	93.0	P	30 - 160
EPA 8321B	Endothall-d6	97.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	89.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	108	P	30 - 160
EPA 8321B	Primidone-d5	98.6	P	30 - 160
EPA 8321B	Sucralose-d6	96.3	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A111556

Included Lab Sample IDs: 2319867, 2319869

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	104	103	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A111559

Included Lab Sample IDs: 2319867, 2319869

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A111570

Included Lab Sample IDs: 2319868, 2319870

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A111574

Included Lab Sample IDs: 2319868, 2319870

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.6	97.9	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A111606

Included Lab Sample IDs: 2319877

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	92.5	93.2	P/P	60 - 160
Sucralose	105	104	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A111608

Included Lab Sample IDs: 2319877

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	87.4	85.6	P/P	60 - 160
Endothall	103	102	P/P	60 - 160
Glufosinate	89.7	95.0	P/P	60 - 160
Glyphosate	110	115	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A111640

Included Lab Sample IDs: 2319878

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	102	95.4	P/P	60 - 160
Sucralose	99.9	99.3	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A111644

Included Lab Sample IDs: 2319868, 2319870

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.6	97.8	P/P	90 - 110
Organic Carbon	97.8	99.3	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A111655

Included Lab Sample IDs: 2319878

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	110	106	P/P	60 - 160
Endothall	101	100	P/P	60 - 160
Glufosinate	108	106	P/P	60 - 160
Glyphosate	105	104	P/P	60 - 160

Reference Method: SM 2320 B-2011

Run ID: A111656

Included Lab Sample IDs: 2319867, 2319869

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.9	97.6	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A111656

Included Lab Sample IDs: 2319867, 2319869

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A111715

Included Lab Sample IDs: 2319867, 2319869

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

Reference Method: EPA 8321B

Run ID: A111767

Included Lab Sample IDs: 2319877, 2319878

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	98.6	95.7	P/P	50 - 150
2,4,5-T	100	105	P/P	50 - 150
Acetaminophen	87.7	99.4	P/P	60 - 160
Acetamiprid	100	105	P/P	50 - 150
Afidopyropen	82.6	95.7	P/P	50 - 150
Bentazon	100	106	P/P	50 - 160
Benzovindiflupyr	86.7	113	P/P	50 - 150
Carbamazepine	95.0	105	P/P	60 - 150
Clothianidin	103	105	P/P	60 - 150
Dinotefuran	91.7	103	P/P	50 - 150
Diuron	101	105	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A111767

Included Lab Sample IDs: 2319877, 2319878

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fenuron	95.1	101	P/P	60 - 150
Fluridone	97.7	107	P/P	60 - 160
Hydrocodone	97.7	104	P/P	60 - 150
Ibuprofen	72.8	107	P/P	50 - 160
Imazapyr	89.8	87.7	P/P	50 - 150
Imidacloprid	93.1	101	P/P	60 - 150
Linuron	89.6	98.3	P/P	60 - 150
Mandestrobin	87.8	112	P/P	50 - 150
MCPP	101	84.6	P/P	50 - 150
Naproxen	70.9	104	P/P	50 - 160
Primidone	93.1	91.2	P/P	60 - 150
Pyraclostrobin	94.8	120	P/P	60 - 150
Silvex	85.9	88.4	P/P	50 - 150
Thiamethoxam	93.4	102	P/P	50 - 150
Tolfenpyrad	82.9	108	P/P	60 - 150
Triclopyr	111	110	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A111776

Included Lab Sample IDs: 2319870

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A111780

Included Lab Sample IDs: 2319868, 2319870

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A111794

Included Lab Sample IDs: 2319868

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	96.1	P/P	90 - 110

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
DEP SOP: NU-094-1	Color (true)	103			3.49	
EPA 180.1 Rev. 2.0	Turbidity	95.5			2.14	
EPA 300.0 Rev. 2.1	Chloride	99.4	101	99.1	5.81	
	Sulfate	99.3	99.4	97.3	4.79	
EPA 350.1 Rev. 2.0	Ammonia-N	95.8	97.4	97.6		0.148
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	108	113		2.87
	Kjeldahl Nitrogen	99.0	99.3	103		4.13
EPA 353.2 Rev. 2.0	NO2NO3-N	102	101	102		0.418
EPA 365.1 Rev. 2.0	Total-P	104	102	104		1.77
EPA 8321B	2,4-D	90.5	108	84.5		24.1
	2,4,5-T	105	109	82.1		28.6
	Acesulfame K	115	113	115		1.93
	Acesulfame K	103	106	110		3.55
	Acetaminophen	88.1	97.0	80.2		18.9
	Acetamiprid	104	115	102		11.4
	Afidopyropen	72.8	80.9	76.6		5.51
	AMPA	98.9	81.6	85.9		4.44
	AMPA	99.6	106	108		2.21
	Bentazon	59.1	39.7	31.9		21.7
	Benzovindiflupyr	96.1	88.7	76.5		14.8
	Carbamazepine	110	102	88.3		14.6
	Clothianidin	108	130	110		17.0
	Dinotefuran	104	128	115		10.6
	Diuron	98.4	84.0	73.4		13.4
	Endothall	132	133	121		9.11
	Endothall	94.6	100	104		3.93
	Fenuron	103	87.8	77.7		12.1
	Fluridone	95.6	90.0	75.0		18.2
	Glufosinate	93.2	108	101		6.04
	Glufosinate	96.6	98.5	106		7.61
	Glyphosate	119	122	115		4.75
	Glyphosate	92.9	89.8	90.1		0.343
	Hydrocodone	101	110	89.0		21.0
	Ibuprofen	80.8	76.8	68.1		12.0
	Imazapyr	98.9	112	90.0		21.5
	Imidacloprid	104	184	159		14.8
	Linuron	82.4	70.8	64.4		9.42
	Mandestrobin	104	95.0	81.5		15.3
	MCPP	116	129	98.5		26.9
	Naproxen	112	92.3	86.1		6.90
	Primidone	108	106	105		0.363
	Pyraclostrobin	101	97.7	80.9		18.9
	Silvex	106	113	80.5		33.3
	Sucralose	124	124	140		5.27
	Sucralose	92.3	99.0	102		3.20
	Thiamethoxam	104	170	148		13.5
	Tolfenpyrad	63.4	61.0	48.9		22.1
	Triclopyr	112	122	96.2		23.3
SM 2320 B-2011	Total Alkalinity	96.6			0.146	
SM 2540 C-2011	TDS				4.49	
	TDS				6.74	
SM 4500-F- C-2011	Fluoride	99.6	100	99.4		0.476
SM 5310 B-2011	Organic Carbon	96.0	97.1	97.9		0.556

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2319867, 2319869
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2319867, 2319869
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2319867, 2319869
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2319867, 2319869
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2319868, 2319870
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2319868, 2319870
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2319868, 2319870
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2319868, 2319870
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2319877, 2319878
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2319867, 2319869
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2319867, 2319869
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2319867, 2319869
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2319867, 2319869
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2319868, 2319870

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	04/18/2022			04/19/2022 15:56	Anna M. Plaviak	2319867
	04/18/2022			04/19/2022 15:57	Anna M. Plaviak	2319869
EPA 180.1 Rev. 2.0	04/18/2022			04/19/2022 13:54	Sarah A Nixon	2319867
	04/18/2022			04/19/2022 13:56	Sarah A Nixon	2319869
EPA 300.0 Rev. 2.1	04/18/2022			04/26/2022 19:48	Anna M. Plaviak	2319867
	04/18/2022			04/26/2022 20:00	Anna M. Plaviak	2319869
EPA 350.1 Rev. 2.0	04/18/2022			04/20/2022 11:28	Ping Hua	2319868
	04/18/2022			04/20/2022 11:29	Ping Hua	2319870
EPA 351.2 Rev. 2.0	04/18/2022	04/27/2022 16:11	Alexandra J Mattheus	04/28/2022 12:58	Alexandra J Mattheus	2319870
	04/18/2022	04/27/2022 17:18	Alexandra J Mattheus	04/28/2022 15:46	Alexandra J Mattheus	2319868
EPA 353.2 Rev. 2.0	04/18/2022			04/20/2022 10:23	Beverly Y. Sanders	2319868
	04/18/2022			04/20/2022 10:33	Beverly Y. Sanders	2319870
EPA 365.1 Rev. 2.0	04/18/2022	04/26/2022 14:30	Simonne.V. Calhoun	04/27/2022 16:46	Sarah A Nixon	2319868
	04/18/2022	04/26/2022 14:30	Simonne.V. Calhoun	04/27/2022 16:47	Sarah A Nixon	2319870
EPA 8321B	04/18/2022	04/19/2022 10:00	Umesh Chiluwal	04/19/2022 16:02	Manjita Shrestha	2319877
	04/18/2022	04/19/2022 10:00	Umesh Chiluwal	04/20/2022 06:18	Manjita Shrestha	2319877
	04/18/2022	04/20/2022 09:00	Hoor Shaik	04/21/2022 05:27	Juyoung Kim	2319877
	04/18/2022	04/20/2022 09:00	Hoor Shaik	04/21/2022 06:01	Juyoung Kim	2319878
	04/18/2022	04/20/2022 10:50	Manjita Shrestha	04/20/2022 18:57	Manjita Shrestha	2319878
	04/18/2022	04/20/2022 10:50	Manjita Shrestha	04/22/2022 13:59	Manjita Shrestha	2319878
SM 2320 B-2011	04/18/2022			04/22/2022 05:53	Sarah A Nixon	2319867
	04/18/2022			04/22/2022 06:05	Sarah A Nixon	2319869
SM 2540 C-2011	04/18/2022			04/20/2022 15:36	Yijie Li	2319867, 2319869
SM 2540 D-2011	04/18/2022			04/20/2022 15:36	Yijie Li	2319867, 2319869
SM 4500-F- C-2011	04/18/2022			04/22/2022 05:53	Sarah A Nixon	2319867
	04/18/2022			04/22/2022 06:05	Sarah A Nixon	2319869
SM 5310 B-2011	04/18/2022			04/21/2022 02:45	Judith K. Clark	2319870
	04/18/2022			04/21/2022 06:56	Judith K. Clark	2319868