

Chemical Analysis Report

TLH-ROC-2022-04-07-01

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

Event Description: **Run 13**
Request ID: **RQ-2022-02-28-39**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
Tallahassee, FL 32399
Attn: Michael Eckles

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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 28-APR-2022 12:06

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the "T" and a long horizontal stroke at the end.

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: Williford Spring

Collection Date/Time: 04/07/2022 09:40

Field ID: G3TLHR0009

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2317711	DEP SOP: NU-094-1	Color (true)**	2.5	U	PCU	P412119	
	EPA 180.1 Rev. 2.0	Turbidity	0.15	I	NTU	P412100	
	EPA 300.0 Rev. 2.1	Chloride	2.7		mg Cl/L	P412417	
		Sulfate	1.4		mg SO4/L	P412419	
	SM 2320 B-2011	Total Alkalinity	65		mg CaCO3/L	P412472	
	SM 2540 C-2011	TDS	78		mg/L	P412422	
	SM 2540 D-2011	TSS	2	U	mg/L	P412427	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P412474	
2317713	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P412248	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P412327	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P412230	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P412665	
	SM 5310 B-2011	Organic Carbon	0.60	I	mg C/L	P412206	
2317715	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.012		mg P/L	P412104	

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: Merial Lake Center

Collection Date/Time: 04/07/2022 10:25

Field ID: G3TLHR0014

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2317712	DEP SOP: NU-094-1	Color (true)**	5.2	I	PCU	P412119	
	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P412100	
	EPA 300.0 Rev. 2.1	Chloride	2.6		mg Cl/L	P412417	
		Sulfate	1.9		mg SO4/L	P412419	
	SM 2320 B-2011	Total Alkalinity	0.92	I	mg CaCO3/L	P412472	
	SM 2540 C-2011	TDS	20	I	mg/L	P412423	
	SM 2540 D-2011	TSS	2	I	mg/L	P412428	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P412474	
2317714	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P412249	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.21		mg N/L	P412327	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P412230	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P412665	
	SM 5310 B-2011	Organic Carbon	3.4		mg C/L	P412206	
2317716	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P412104	

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: Bayou George Upstream John Pitts Rd

Collection Date/Time: 04/07/2022 11:15

Field ID: G3TLHR0052

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2317717	DEP SOP: NU-094-1	Color (true)**	220		PCU	P412119	
	EPA 180.1 Rev. 2.0	Turbidity	5.9		NTU	P412100	
	EPA 300.0 Rev. 2.1	Chloride	4.0		mg Cl/L	P412417	
		Sulfate	1.3		mg SO4/L	P412419	
	SM 2320 B-2011	Total Alkalinity	1.9	I	mg CaCO3/L	P412472	
	SM 2540 C-2011	TDS	56		mg/L	P412423	
	SM 2540 D-2011	TSS	4	IA	mg/L	P412428	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P412474	
2317718	EPA 350.1 Rev. 2.0	Ammonia-N	0.086		mg N/L	P412249	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.69		mg N/L	P412328	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.039		mg N/L	P412334	
	EPA 365.1 Rev. 2.0	Total-P	0.021		mg P/L	P412665	
	SM 5310 B-2011	Organic Carbon	18		mg C/L	P412206	
2317719	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P412104	
2317725	EPA 8321B	2,4-D	0.0020	U	ug/L	P412180	
		Acesulfame K	0.10	U	ug/L	P412076	
		2,4,5-T	0.0040	U	ug/L	P412180	
		AMPA	0.10	U	ug/L	P412076	
		Acetaminophen	0.0080	U	ug/L	P412180	
		Acetamiprid	0.0020	U	ug/L	P412180	
		Endothall	0.25	U	ug/L	P412076	
		Glufosinate	0.10	U	ug/L	P412076	
		Glyphosate	0.10	U	ug/L	P412076	
		Afidopyrophen	0.0020	U	ug/L	P412180	
		Bentazon	8.0E-04	U	ug/L	P412180	
		Sucralose	0.020	I	ug/L	P412076	
		Benzovindiflupyr	0.0020	U	ug/L	P412180	
		Carbamazepine	8.0E-04	U	ug/L	P412180	
		Clothianidin	0.0020	U	ug/L	P412180	
		Dinotefuran	0.0020	U	ug/L	P412180	
		Diuron	0.0020	U	ug/L	P412180	
		Fenuron	0.032	U	ug/L	P412180	
		Fluridone	8.0E-04	U	ug/L	P412180	
		Imazapyr	0.14		ug/L	P412180	
		Hydrocodone	0.0020	U	ug/L	P412180	
		Ibuprofen	0.020	U	ug/L	P412180	
		Imidacloprid	0.0020	U	ug/L	P412180	
		Linuron	0.0040	U	ug/L	P412180	
		Mandestrobin	0.0020	U	ug/L	P412180	
		MCP	0.0040	U	ug/L	P412180	
		Naproxen	0.0080	U	ug/L	P412180	
		Primidone	0.0040	U	ug/L	P412180	
		Pyraclostrobin	0.0020	U	ug/L	P412180	

Field ID: G3TLHR0052

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2317725	EPA 8321B	Silvex	0.0040	U	ug/L	P412180	
		Thiamethoxam	0.0020	U	ug/L	P412180	
		Tolfenpyrad	0.0020	U	ug/L	P412180	
		Triclopyr	0.0040	U	ug/L	P412180	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P412119

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412100

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412417

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412419

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412248

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412249

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412327

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412328

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412230

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P412334

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P412665

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P412104

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

Reference Method: EPA 8321B

Batch ID: P412076

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: P412180

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	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	0.032	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	0.0040	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: P412180

Component	Result	Code	Units
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: SM 2320 B-2011
Batch ID: P412472

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

Reference Method: SM 2540 C-2011
Batch ID: P412422

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011
Batch ID: P412423

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P412427

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P412428

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P412474

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P412206

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: P412119

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: P412100

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412417

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412419

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412248

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412249

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412327

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.7		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412328

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.9		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412230

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P412334

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P412665

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P412104

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.9		P	90 - 110

Reference Method: EPA 8321B

Batch ID: P412076

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	84.8		P	40 - 150
AMPA	116		P	40 - 150
Endothall	57.8		P	40 - 150
Glufosinate	104		P	40 - 150
Glyphosate	107		P	40 - 150
Sucralose	85.7		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P412180

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	110		P	40 - 150
2,4,5-T	84.6		P	40 - 150
Acetaminophen	52.0		P	30 - 150
Acetamiprid	75.7		P	40 - 150
Afidopyropen	63.9		P	40 - 150
Bentazon	112		P	30 - 150
Benzovindiflupyr	81.1		P	40 - 150
Carbamazepine	96.9		P	40 - 150
Clothianidin	76.7		P	40 - 150
Dinotefuran	80.7		P	40 - 150
Diuron	72.5		P	40 - 150
Fenuron	119		P	40 - 150
Fluridone	66.9		P	40 - 150
Hydrocodone	72.9		P	40 - 150
Ibuprofen	56.5		P	40 - 150
Imazapyr	91.9		P	40 - 150
Imidacloprid	82.4		P	40 - 150
Linuron	70.8		P	40 - 150
Mandestrobin	60.5		P	40 - 150
MCPP	128		P	40 - 150
Naproxen	74.6		P	40 - 150
Primidone	59.7		P	40 - 150
Pyraclostrobin	76.9		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P412180

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Silvex	86.8		P	40 - 150
Thiamethoxam	81.4		P	40 - 150
Tolfenpyrad	41.3		P	30 - 150
Triclopyr	86.1		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P412472

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.1		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P412474

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.5		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P412206

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412417

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317561	Chloride	97.2		P	90 - 110
2317711	Chloride	96.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412419

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317561	Sulfate	97.6		P	90 - 110
2317711	Sulfate	97.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412248

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317600	Ammonia-N	97.4	97.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412249

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317714	Ammonia-N	99.8	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412327

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317796	Kjeldahl Nitrogen	102	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412328

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317718	Kjeldahl Nitrogen	98.6	95.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412230

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317601	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412334

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317756	NO2NO3-N	95.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P412665

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317602	Total-P	106	104	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P412104

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317548	O-Phosphate-P	98.1	98.6	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P412076

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317274	Acesulfame K	128	135	P/P	40 - 150
2317274	AMPA	116	96.3	P/P	40 - 150
2317274	Endothall	91.0	73.4	P/P	40 - 150
2317274	Glufosinate	104	88.5	P/P	40 - 150
2317274	Glyphosate	100	96.9	P/P	40 - 150
2317274	Sucralose	92.6	93.6	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P412180

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2316982	2,4,5-T	128	125	P/P	40 - 150
2316982	Acetaminophen	94.4	107	P/P	30 - 150
2316982	Acetamiprid	92.9	103	P/P	40 - 150
2316982	Afidopyropen	71.5	70.0	P/P	40 - 150
2316982	Benzovindiflupyr	80.6	97.3	P/P	40 - 150
2316982	Carbamazepine	92.1	104	P/P	40 - 150
2316982	Clothianidin	69.5	121	P/P	40 - 150
2316982	Dinotefuran	120	130	P/P	40 - 150
2316982	Diuron	97.6	91.7	P/P	40 - 150
2316982	Fenuron	118	110	P/P	40 - 150
2316982	Fluridone	65.1	72.1	P/P	40 - 150
2316982	Hydrocodone	90.4	102	P/P	40 - 150
2316982	Ibuprofen	52.0	65.4	P/P	40 - 150
2316982	Imazapyr	86.7	105	P/P	40 - 150
2316982	Linuron	58.6	68.7	P/P	40 - 150
2316982	Mandestrobin	84.0	92.5	P/P	40 - 150
2316982	MCPP	141	146	P/P	40 - 150
2316982	Naproxen	116	85.9	P/P	40 - 150
2316982	Primidone	96.0	115	P/P	40 - 150
2316982	Pyraclostrobin	84.3	93.6	P/P	40 - 150
2316982	Silvex	115	136	P/P	40 - 150
2316982	Tolfenpyrad	59.4	45.5	P/P	30 - 150
2316982	Triclopyr	116	133	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P412474

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317794	Fluoride	97.6	101	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P412206

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317479	Organic Carbon	97.2	97.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P412119

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317642	Color (true)	3.54	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412100

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317642	Turbidity	4.67	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412417

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317561	Chloride	0.398	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412419

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317561	Sulfate	0.703	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412248

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317600	Ammonia-N	0.186	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412249

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317714	Ammonia-N	0.798	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412327

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317796	Kjeldahl Nitrogen	2.21	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412328

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317718	Kjeldahl Nitrogen	2.15	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P412230

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317601	NO2NO3-N	0.499	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P412334

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317756	NO2NO3-N	0.478	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P412665

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317602	Total-P	1.44	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P412104

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317548	O-Phosphate-P	0.465	Spike	P	0 - 20

Reference Method: EPA 8321B

Batch ID: P412076

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317274	Acesulfame K	4.86	Spike	P	0 - 30
2317274	AMPA	18.8	Spike	P	0 - 30
2317274	Endothall	21.4	Spike	P	0 - 30
2317274	Glufosinate	15.7	Spike	P	0 - 30
2317274	Glyphosate	3.54	Spike	P	0 - 30
2317274	Sucralose	0.993	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P412180

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316982	2,4-D	8.21	Spike	P	0 - 30
2316982	2,4,5-T	2.30	Spike	P	0 - 30
2316982	Acetaminophen	12.3	Spike	P	0 - 30
2316982	Acetamiprid	10.4	Spike	P	0 - 30
2316982	Afidopyropen	2.11	Spike	P	0 - 30
2316982	Bentazon	2.18	Spike	P	0 - 30
2316982	Benzovindiflupyr	18.8	Spike	P	0 - 30
2316982	Carbamazepine	12.2	Spike	P	0 - 30
2316982	Clothianidin	26.8	Spike	P	0 - 30
2316982	Dinotefuran	7.97	Spike	P	0 - 30
2316982	Diuron	5.38	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P412180

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316982	Fenuron	6.94	Spike	P	0 - 30
2316982	Fluridone	10.1	Spike	P	0 - 30
2316982	Hydrocodone	11.8	Spike	P	0 - 30
2316982	Ibuprofen	22.8	Spike	P	0 - 30
2316982	Imazapyr	17.5	Spike	P	0 - 30
2316982	Imidacloprid	13.6	Spike	P	0 - 30
2316982	Linuron	15.8	Spike	P	0 - 30
2316982	Mandestrobin	9.58	Spike	P	0 - 30
2316982	MCCP	3.91	Spike	P	0 - 30
2316982	Naproxen	29.9	Spike	P	0 - 30
2316982	Primidone	17.7	Spike	P	0 - 30
2316982	Pyraclostrobin	10.4	Spike	P	0 - 30
2316982	Silvex	17.1	Spike	P	0 - 30
2316982	Thiamethoxam	0.302	Spike	P	0 - 30
2316982	Tolfenpyrad	26.5	Spike	P	0 - 30
2316982	Triclopyr	13.2	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P412472

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317794	Total Alkalinity	1.16	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011

Batch ID: P412422

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317343	TDS	6.98	Sample	P	0 - 10

Reference Method: SM 2540 C-2011

Batch ID: P412423

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317415	TDS	3.72	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011

Batch ID: P412474

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317794	Fluoride	2.04	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011

Batch ID: P412206

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317479	Organic Carbon	0.0664	Spike	P	0 - 20

Quality Assurance Report Precision

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

Quality Assurance Report Surrogates

Lab Sample ID: 2317725

Field Sample ID: G3TLHR0052

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	128	P	30 - 160
EPA 8321B	Acetaminophen-d4	111	P	30 - 160
EPA 8321B	Carbamazepine-d10	114	P	30 - 160
EPA 8321B	Diuron-d6	48.4	P	30 - 160
EPA 8321B	Endothall-d6	107	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	98.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	89.0	P	30 - 160
EPA 8321B	Primidone-d5	100	P	30 - 160
EPA 8321B	Sucralose-d6	133	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A111369

Included Lab Sample IDs: 2317711, 2317712, 2317717

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	98.5	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A111370

Included Lab Sample IDs: 2317715, 2317716, 2317719

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.9	98.2	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A111381

Included Lab Sample IDs: 2317711, 2317712, 2317717

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	105	P/P	85 - 115

Reference Method: EPA 8321B

Run ID: A111413

Included Lab Sample IDs: 2317725

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	132	125	P/P	60 - 160
Glufosinate	129	129	P/P	60 - 160
Glyphosate	121	123	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A111419

Included Lab Sample IDs: 2317725

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	90.4	86.0	P/P	60 - 160
Endothall	75.8	87.5	P/P	60 - 160
Sucralose	92.1	94.4	P/P	60 - 160

Reference Method: SM 5310 B-2011

Run ID: A111422

Included Lab Sample IDs: 2317713, 2317714, 2317718

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.8	97.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A111425

Included Lab Sample IDs: 2317713, 2317714

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A111429

Included Lab Sample IDs: 2317713, 2317714, 2317718

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A111443

Included Lab Sample IDs: 2317711, 2317712, 2317717

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.2	99.7	P/P	90 - 110
Chloride	98.7	98.2	P/P	90 - 110
Sulfate	100	99.3	P/P	90 - 110
Sulfate	99.3	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A111459

Included Lab Sample IDs: 2317718

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A111499

Included Lab Sample IDs: 2317725

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	111	118	P/P	50 - 150
2,4,5-T	127	133	P/P	50 - 150
Acetaminophen	89.2	91.4	P/P	60 - 160
Acetamiprid	86.5	89.1	P/P	50 - 150
Afidopyropen	87.3	88.0	P/P	50 - 150
Bentazon	155	143	P/P	50 - 160
Benzovindiflupyr	95.9	89.6	P/P	50 - 150
Carbamazepine	94.5	97.1	P/P	60 - 150
Clothianidin	83.7	107	P/P	60 - 150
Dinotefuran	87.2	84.6	P/P	50 - 150
Diuron	119	122	P/P	60 - 160
Fenuron	88.9	91.0	P/P	60 - 150
Fluridone	88.8	105	P/P	60 - 160
Hydrocodone	90.9	92.0	P/P	60 - 150
Ibuprofen	60.8	113	P/P	50 - 160
Imazapyr	95.2	98.3	P/P	50 - 150
Imidacloprid	83.3	84.6	P/P	60 - 150
Linuron	68.0	68.3	P/P	60 - 150
Mandestrobin	92.4	87.5	P/P	50 - 150
MCPP	114	128	P/P	50 - 150
Naproxen	88.7	79.3	P/P	50 - 160
Primidone	122	78.4	P/P	60 - 150
Pyraclostrobin	92.7	103	P/P	60 - 150
Silvex	134	138	P/P	50 - 150
Thiamethoxam	86.0	80.3	P/P	50 - 150
Tolfenpyrad	95.9	78.3	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A111499
Included Lab Sample IDs: 2317725

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Triclopyr	109	115	P/P	50 - 150

Reference Method: SM 2320 B-2011
Run ID: A111514
Included Lab Sample IDs: 2317711, 2317712, 2317717

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.2	95.6	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A111514
Included Lab Sample IDs: 2317711, 2317712, 2317717

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.5	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A111587
Included Lab Sample IDs: 2317713, 2317714, 2317718

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	97.1	P/P	90 - 110
Kjeldahl Nitrogen	98.7	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A111701
Included Lab Sample IDs: 2317713, 2317714, 2317718

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	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	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	103				3.54	
EPA 180.1 Rev. 2.0	Turbidity	95.8				4.67	
EPA 300.0 Rev. 2.1	Chloride	97.5	97.2	96.8		0.398	
	Sulfate	98.3	97.6	97.2		0.703	
EPA 350.1 Rev. 2.0	Ammonia-N	96.8	97.4	97.6			0.186
	Ammonia-N	95.4	99.8	101			0.798
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.7	102	106			2.21
	Kjeldahl Nitrogen	98.9	98.6	95.3			2.15
EPA 353.2 Rev. 2.0	NO2NO3-N	100	100	100			0.499
	NO2NO3-N	99.5	95.8				0.478
EPA 365.1 Rev. 2.0	Total-P	104	106	104			1.44
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.9	98.1	98.6			0.465
EPA 8321B	2,4-D	110					8.21
	2,4,5-T	84.6	128	125			2.30
	Acesulfame K	84.8	128	135			4.86
	Acetaminophen	52.0	94.4	107			12.3
	Acetamiprid	75.7	92.9	103			10.4
	Afidopyropen	63.9	71.5	70.0			2.11
	AMPA	116	116	96.3			18.8
	Bentazon	112					2.18
	Benzovindiflupyr	81.1	80.6	97.3			18.8
	Carbamazepine	96.9	92.1	104			12.2
	Clothianidin	76.7	69.5	121			26.8
	Dinotefuran	80.7	120	130			7.97
	Diuron	72.5	97.6	91.7			5.38
	Endothall	57.8	91.0	73.4			21.4
	Fenuron	119	118	110			6.94
	Fluridone	66.9	65.1	72.1			10.1
	Glufosinate	104	104	88.5			15.7
	Glyphosate	107	96.9	100			3.54
	Hydrocodone	72.9	90.4	102			11.8
	Ibuprofen	56.5	52.0	65.4			22.8
	Imazapyr	91.9	86.7	105			17.5
	Imidacloprid	82.4					13.6
	Linuron	70.8	58.6	68.7			15.8
	Mandestrobin	60.5	84.0	92.5			9.58
	MCPP	128	141	146			3.91
	Naproxen	74.6	116	85.9			29.9
	Primidone	59.7	96.0	115			17.7
	Pyraclostrobin	76.9	84.3	93.6			10.4
	Silvex	86.8	115	136			17.1
	Sucralose	85.7	92.6	93.6			0.993
	Thiamethoxam	81.4					0.302
	Tolfenpyrad	41.3	59.4	45.5			26.5
	Triclopyr	86.1	116	133			13.2
SM 2320 B-2011	Total Alkalinity	98.1				1.16	
SM 2540 C-2011	TDS					6.98	
	TDS					3.72	
SM 4500-F- C-2011	Fluoride	94.5	97.6	101			2.04
SM 5310 B-2011	Organic Carbon	96.4	97.2	97.2			0.0664

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2317711, 2317712, 2317717
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2317711, 2317712, 2317717
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2317711, 2317712, 2317717
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2317711, 2317712, 2317717
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2317713, 2317714, 2317718
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2317713, 2317714, 2317718
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2317713, 2317714, 2317718
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2317713, 2317714, 2317718
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2317715, 2317716, 2317719
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2317725
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2317711, 2317712, 2317717
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2317711, 2317712, 2317717
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2317711, 2317712, 2317717
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2317711, 2317712, 2317717
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2317713, 2317714, 2317718

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	04/07/2022			04/07/2022 17:07	Samantha L Bates	2317711, 2317712
	04/07/2022			04/07/2022 17:13	Samantha L Bates	2317717
EPA 180.1 Rev. 2.0	04/07/2022			04/07/2022 15:47	Anna M. Plaviak	2317711, 2317712
	04/07/2022			04/07/2022 15:49	Anna M. Plaviak	2317717
EPA 300.0 Rev. 2.1	04/07/2022			04/14/2022 15:10	Anna M. Plaviak	2317711
	04/07/2022			04/14/2022 18:12	Anna M. Plaviak	2317712
EPA 350.1 Rev. 2.0	04/07/2022			04/14/2022 18:24	Anna M. Plaviak	2317717
	04/07/2022			04/12/2022 11:44	Ping Hua	2317713
	04/07/2022			04/12/2022 11:59	Ping Hua	2317714
	04/07/2022			04/12/2022 12:07	Ping Hua	2317718
EPA 351.2 Rev. 2.0	04/07/2022	04/20/2022 10:53	Samantha L Bates	04/20/2022 15:23	Alexandra J Mattheus	2317713
	04/07/2022	04/20/2022 10:53	Samantha L Bates	04/20/2022 15:24	Alexandra J Mattheus	2317714
	04/07/2022	04/20/2022 10:53	Samantha L Bates	04/20/2022 15:44	Alexandra J Mattheus	2317718
EPA 353.2 Rev. 2.0	04/07/2022			04/11/2022 17:25	Nathaniel J Jones	2317713
	04/07/2022			04/11/2022 17:27	Nathaniel J Jones	2317714
	04/07/2022			04/13/2022 15:46	Nathaniel J Jones	2317718
EPA 365.1 Rev. 2.0	04/07/2022	04/22/2022 16:40	Simonne.V. Calhoun	04/26/2022 15:23	James L Waggeberby	2317713
	04/07/2022	04/22/2022 16:40	Simonne.V. Calhoun	04/26/2022 15:24	James L Waggeberby	2317714
	04/07/2022	04/22/2022 16:40	Simonne.V. Calhoun	04/26/2022 15:25	James L Waggeberby	2317718
EPA 365.1 Rev. 2.0 dissolved	04/07/2022			04/07/2022 17:36	Nathaniel J Jones	2317715
	04/07/2022			04/07/2022 17:37	Nathaniel J Jones	2317716
	04/07/2022			04/07/2022 17:38	Nathaniel J Jones	2317719
EPA 8321B	04/07/2022	04/08/2022 14:00	Manjita Shrestha	04/08/2022 21:21	Manjita Shrestha	2317725
	04/07/2022	04/08/2022 14:00	Manjita Shrestha	04/09/2022 11:52	Manjita Shrestha	2317725
	04/07/2022	04/12/2022 08:00	June Rhew	04/13/2022 07:36	Juyoung Kim	2317725
SM 2320 B-2011	04/07/2022			04/14/2022 05:54	Dale L. Simmons	2317711
	04/07/2022			04/14/2022 06:03	Dale L. Simmons	2317712
	04/07/2022			04/14/2022 06:13	Dale L. Simmons	2317717
SM 2540 C-2011	04/07/2022			04/08/2022 15:29	Yijie Li	2317711, 2317712, 2317717
SM 2540 D-2011	04/07/2022			04/08/2022 15:29	Yijie Li	2317711, 2317712, 2317717
SM 4500-F- C-2011	04/07/2022			04/14/2022 05:54	Dale L. Simmons	2317711
	04/07/2022			04/14/2022 06:03	Dale L. Simmons	2317712
	04/07/2022			04/14/2022 06:13	Dale L. Simmons	2317717
SM 5310 B-2011	04/07/2022			04/12/2022 01:01	Judith K. Clark	2317713
	04/07/2022			04/12/2022 01:14	Judith K. Clark	2317714
	04/07/2022			04/12/2022 01:27	Judith K. Clark	2317718