

Chemical Analysis Report

SW-DIST-2020-10-29-01

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

Event Description: **Chito & McDonald**

Request ID: **RQ-2020-10-26-47**

Customer: **SW-DIST**

Project ID: **SMP**

Send Reports to:

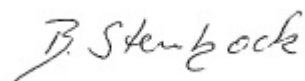
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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 20-NOV-2020 16:40



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: Chito Branch in Park

Collection Date/Time: 10/28/2020 12:10

Field ID: G2SW0133

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2205350	EPA 180.1 Rev. 2.0	Turbidity	2.3		NTU	P389498	
	EPA 300.0 Rev. 2.1	Chloride	21	A	mg Cl/L	P389956	
		Sulfate	45	A	mg SO4/L	P389958	
	SM 2120 B-2011	Color (true)	180		PCU	P389514	
	SM 2320 B-2011	Total Alkalinity	61		mg CaCO3/L	P389621	
	SM 2540 C-2011	TDS	206	A	mg/L	P389962	
	SM 2540 D-2011	TSS	2	UA	mg/L	P389682	
	SM 4500 F-C-2011	Fluoride	0.41		mg F/L	P389625	
2205352	EPA 350.1 Rev. 2.0	Ammonia-N	0.017		mg N/L	P389587	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.75		mg N/L	P389763	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P389536	
	EPA 365.1 Rev. 2.0	Total-P	0.29		mg P/L	P389636	
	SM 5310 B-2011	Organic Carbon	18		mg C/L	P389654	
2205354	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.23		mg P/L	P389512	
2205360	EPA 8321B	2,4-D	0.0020	U	ug/L	P389267	
		Acesulfame K**	0.10	U	ug/L	P389458	
		AMPA**	24		ug/L	P389458	
		Sucralose**	0.20		ug/L	P389458	
		Acetaminophen**	0.0081	I	ug/L	P389267	
		Endothall**	0.25	U	ug/L	P389458	
		Acetamiprid**	0.0020	U	ug/L	P389267	RPD
		Glufosinate**	0.10	U	ug/L	P389458	
		Glyphosate**	1.6		ug/L	P389458	
		Afidopyropen**	0.0020	U	ug/L	P389267	MS, RPD
		Bentazon	0.021		ug/L	P389267	MS
		Benzovindiflupyr**	0.0020	U	ug/L	P389267	
		Carbamazepine**	8.0E-04	U	ug/L	P389267	
		Clothianidin**	0.0099		ug/L	P389267	
		Dinotefuran**	0.0020	U	ug/L	P389267	
		Diuron	0.0020	U	ug/L	P389267	
		Fenuron	0.016	U	ug/L	P389267	
		Fluridone**	8.0E-04	U	ug/L	P389267	
		Imazapyr**	0.049		ug/L	P389267	
		Hydrocodone**	0.0020	U	ug/L	P389267	
		Ibuprofen**	0.020	U	ug/L	P389267	
		Imidacloprid	0.081		ug/L	P389267	
		Linuron	0.0040	U	ug/L	P389267	
		Mandestrobin**	0.0020	U	ug/L	P389267	
		MCPD	0.0020	U	ug/L	P389267	
		Naproxen**	0.0080	U	ug/L	P389267	
		Primidone**	0.0040	U	ug/L	P389267	
		Pyraclostrobin**	0.0020	U	ug/L	P389267	
		Thiamethoxam**	0.052		ug/L	P389267	

Field ID: G2SW0133

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2205360	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P389267	
		Triclopyr**	0.0040	U	ug/L	P389267	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Mcdonald Branch @ Thompson Rd.

Collection Date/Time: 10/28/2020 11:45

Field ID: G2SW0093

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2205351	EPA 180.1 Rev. 2.0	Turbidity	0.90		NTU	P389498	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P389956	
		Sulfate	15		mg SO4/L	P389958	
	SM 2120 B-2011	Color (true)	50		PCU	P389514	
	SM 2320 B-2011	Total Alkalinity	71	A	mg CaCO3/L	P389621	
	SM 2540 C-2011	TDS	130		mg/L	P389962	
	SM 2540 D-2011	TSS	2	U	mg/L	P389682	
2205353	SM 4500 F-C-2011	Fluoride	0.24		mg F/L	P389625	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P389587	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.33		mg N/L	P390109	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.70		mg N/L	P389536	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P389636	
2205355	SM 5310 B-2011	Organic Carbon	5.0		mg C/L	P389654	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.16		mg P/L	P389512	
2205361	EPA 8321B	2,4-D	0.0020	U	ug/L	P389267	
		Acesulfame K**	0.10	U	ug/L	P389458	
		AMPA**	0.10	U	ug/L	P389458	
		Sucralose**	0.13		ug/L	P389458	
		Acetaminophen**	0.0080	U	ug/L	P389267	
		Endothall**	0.25	U	ug/L	P389458	
		Acetamiprid**	0.0020	U	ug/L	P389267	RPD
		Glufosinate**	0.10	U	ug/L	P389458	
		Glyphosate**	0.10	U	ug/L	P389458	
		Afidopyropen**	0.0020	U	ug/L	P389267	MS, RPD
		Bentazon	8.0E-04	U	ug/L	P389267	MS
		Benzovindiflupyr**	0.0020	U	ug/L	P389267	
		Carbamazepine**	8.0E-04	U	ug/L	P389267	
		Clothianidin**	0.0020	U	ug/L	P389267	
		Dinotefuran**	0.0020	U	ug/L	P389267	
		Diuron	0.0020	U	ug/L	P389267	
		Fenuron	0.016	U	ug/L	P389267	
		Fluridone**	0.0037		ug/L	P389267	
		Imazapyr**	0.0040	U	ug/L	P389267	
		Hydrocodone**	0.0020	U	ug/L	P389267	
		Ibuprofen**	0.020	U	ug/L	P389267	
		Imidacloprid	0.0020	U	ug/L	P389267	
		Linuron	0.0040	U	ug/L	P389267	
		Mandestrobin**	0.0020	U	ug/L	P389267	
		MCP	0.0020	U	ug/L	P389267	
		Naproxen**	0.0080	U	ug/L	P389267	
		Primidone**	0.0062	I	ug/L	P389267	
		Pyraclostrobin**	0.0020	U	ug/L	P389267	
		Thiamethoxam**	0.0020	U	ug/L	P389267	

Field ID: G2SW0093

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2205361	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P389267	
		Triclopyr**	0.0040	U	ug/L	P389267	

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P389498

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389956

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389958

Component	Result	Code	Units
Sulfate	0.20	U	mg SO ₄ /L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389587

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389763

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P390109

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389536

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389636

Component	Result	Code	Units
Total-P	0.005	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389512

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
 Batch ID: P389267

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

Reference Method: EPA 8321B
 Batch ID: P389458

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

Reference Method: SM 2120 B-2011
 Batch ID: P389514

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
 Batch ID: P389621

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-2011
Batch ID: P389962

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P389682

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P389625

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P389654

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: P389956

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389958

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389587

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389763

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P390109

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389536

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389636

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389512

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	96.2		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P389267

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	60.0	73.1	P/P	30 - 160
Acetaminophen	35.8	42.9	P/P	30 - 160
Acetamiprid	58.2	50.3	P/P	30 - 160
Afidopyropen	46.0	36.5	P/P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P389267

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bentazon	51.6	49.9	P/P	30 - 160
Benzovindiflupyr	75.1	79.7	P/P	30 - 160
Carbamazepine	68.8	61.1	P/P	30 - 160
Clothianidin	78.7	79.1	P/P	30 - 160
Dinotefuran	60.3	57.1	P/P	30 - 160
Diuron	74.0	70.1	P/P	30 - 160
Fenuron	95.7	92.0	P/P	30 - 160
Fluridone	77.0	74.5	P/P	30 - 160
Hydrocodone	77.1	78.6	P/P	30 - 160
Ibuprofen	62.9	66.1	P/P	30 - 160
Imazapyr	76.3	72.7	P/P	30 - 160
Imidacloprid	78.3	80.4	P/P	30 - 160
Linuron	82.1	91.5	P/P	30 - 160
Mandestrobin	77.8	75.5	P/P	30 - 160
MCPP	71.3	63.3	P/P	30 - 160
Naproxen	59.3	50.9	P/P	30 - 160
Primidone	79.2	82.6	P/P	30 - 160
Pyraclostrobin	51.6	51.6	P/P	30 - 160
Thiamethoxam	72.3	88.3	P/P	30 - 160
Tolfenpyrad	32.3	30.5	P/P	30 - 160
Triclopyr	55.5	45.4	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P389458

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	102		P	40 - 150
AMPA	91.9		P	40 - 150
Endothall	88.6		P	40 - 150
Glufosinate	90.0		P	40 - 150
Glyphosate	95.8		P	40 - 140
Sucralose	105		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P389514

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

Reference Method: SM 2320 B-2011
Batch ID: P389621

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.2		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P389625

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	103		P	90 - 106

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P389654

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389956

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2205350	Chloride	99.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389958

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2205350	Sulfate	96.0		P	90 - 110
2206213	Sulfate	99.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389587

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2205353	Ammonia-N	99.1	97.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389763

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2205394	Kjeldahl Nitrogen	105	110	P/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389536

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2205352	NO2NO3-N	97.5	98.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389636

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2205049	Total-P	104	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389512

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2205337	O-Phosphate-P	94.8	95.2	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P389267

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2205160	2,4-D	55.0	46.0	P/P	30 - 160
2205160	Acetaminophen	66.2	68.5	P/P	30 - 160
2205160	Acetamiprid	54.4	31.8	P/P	30 - 160
2205160	Afidopyrophen	38.0	26.0	P/F	30 - 160
2205160	Bentazon	29.6	5.43	F/F	30 - 160
2205160	Benzovindiflupyr	64.8	55.8	P/P	30 - 160
2205160	Carbamazepine	49.7	45.5	P/P	30 - 160
2205160	Clothianidin	71.1	52.1	P/P	30 - 160
2205160	Dinotefuran	78.3	67.5	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P389267

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2205160	Diuron	50.0	38.0	P/P	30 - 160
2205160	Fenuron	74.5	88.2	P/P	30 - 160
2205160	Fluridone	62.6	53.2	P/P	30 - 160
2205160	Hydrocodone	71.5	60.6	P/P	30 - 160
2205160	Ibuprofen	48.2	47.3	P/P	30 - 160
2205160	Imazapyr	99.3	76.1	P/P	30 - 160
2205160	Imidacloprid	120	96.1	P/P	30 - 160
2205160	Linuron	66.1	59.4	P/P	30 - 160
2205160	Mandestrobin	66.2	60.8	P/P	30 - 160
2205160	MCP	57.1	55.6	P/P	30 - 160
2205160	Naproxen	41.4	48.9	P/P	30 - 160
2205160	Primidone	87.4	66.4	P/P	30 - 160
2205160	Pyraclostrobin	52.0	52.0	P/P	30 - 160
2205160	Thiamethoxam	103	77.8	P/P	30 - 160
2205160	Tolfenpyrad	30.0	33.1	P/P	30 - 160
2205160	Triclopyr	43.9	39.8	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P389458

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204746	Acesulfame K	129	137	P/P	40 - 150
2204746	AMPA	120	128	P/P	40 - 150
2204746	Endothall	97.2	96.2	P/P	40 - 150
2204746	Glufosinate	90.4	93.1	P/P	40 - 150
2204746	Glyphosate	76.6	83.3	P/P	40 - 140
2204746	Sucralose	105	113	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P389625

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2205351	Fluoride	104	106	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P389654

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2205353	Organic Carbon	101	102	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P389498

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2205312	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389956

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2205350	Chloride	0.739	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389958

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2205350	Sulfate	0.680	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389587

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2205353	Ammonia-N	1.22	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389763

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2205394	Kjeldahl Nitrogen	3.17	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P390109

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2207327	Kjeldahl Nitrogen	1.90	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389536

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2205352	NO2NO3-N	0.275	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389636

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2205049	Total-P	3.19	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389512

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2205337	O-Phosphate-P	0.421	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P389267

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2205160	2,4-D	16.0	Spike	P	0 - 30
2205160	Acetaminophen	3.34	Spike	P	0 - 30
2205160	Acetamiprid	52.5	Spike	F	0 - 30
2205160	Afidopyrophen	37.5	Spike	F	0 - 30
2205160	Bentazon	21.4	Spike	P	0 - 30
2205160	Benzovindiflupyr	14.9	Spike	P	0 - 30
2205160	Carbamazepine	5.68	Spike	P	0 - 30
2205160	Clothianidin	29.2	Spike	P	0 - 30
2205160	Dinotefuran	14.8	Spike	P	0 - 30
2205160	Diuron	27.2	Spike	P	0 - 30
2205160	Fenuron	16.9	Spike	P	0 - 30
2205160	Fluridone	9.06	Spike	P	0 - 30
2205160	Hydrocodone	16.5	Spike	P	0 - 30
2205160	Ibuprofen	1.81	Spike	P	0 - 30
2205160	Imazapyr	15.2	Spike	P	0 - 30
2205160	Imidacloprid	19.1	Spike	P	0 - 30
2205160	Linuron	10.7	Spike	P	0 - 30
2205160	Mandestrobin	8.52	Spike	P	0 - 30
2205160	MCP	2.70	Spike	P	0 - 30
2205160	Naproxen	16.4	Spike	P	0 - 30
2205160	Primidone	24.5	Spike	P	0 - 30
2205160	Pyraclostrobin	0.0825	Spike	P	0 - 30
2205160	Thiamethoxam	27.5	Spike	P	0 - 30
2205160	Tolfenpyrad	9.66	Spike	P	0 - 30
2205160	Triclopyr	9.72	Spike	P	0 - 30
LFB	2,4-D	19.7	LCS	P	0 - 30
LFB	Acetaminophen	18.0	LCS	P	0 - 30
LFB	Acetamiprid	14.4	LCS	P	0 - 30
LFB	Afidopyrophen	23.0	LCS	P	0 - 30
LFB	Bentazon	3.53	LCS	P	0 - 30
LFB	Benzovindiflupyr	5.96	LCS	P	0 - 30
LFB	Carbamazepine	11.9	LCS	P	0 - 30
LFB	Clothianidin	0.496	LCS	P	0 - 30
LFB	Dinotefuran	5.41	LCS	P	0 - 30
LFB	Diuron	5.41	LCS	P	0 - 30
LFB	Fenuron	4.00	LCS	P	0 - 30
LFB	Fluridone	3.33	LCS	P	0 - 30
LFB	Hydrocodone	1.88	LCS	P	0 - 30
LFB	Ibuprofen	4.84	LCS	P	0 - 30
LFB	Imazapyr	4.73	LCS	P	0 - 30
LFB	Imidacloprid	2.61	LCS	P	0 - 30
LFB	Linuron	10.8	LCS	P	0 - 30
LFB	Mandestrobin	2.97	LCS	P	0 - 30
LFB	MCP	11.8	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P389267

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Naproxen	15.1	LCS	P	0 - 30
LFB	Primidone	4.20	LCS	P	0 - 30
LFB	Pyraclostrobin	0.118	LCS	P	0 - 30
LFB	Thiamethoxam	20.0	LCS	P	0 - 30
LFB	Tolfenpyrad	5.64	LCS	P	0 - 30
LFB	Triclopyr	19.9	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P389458

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204746	Acesulfame K	5.90	Spike	P	0 - 30
2204746	AMPA	6.58	Spike	P	0 - 30
2204746	Endothall	0.961	Spike	P	0 - 30
2204746	Glufosinate	2.96	Spike	P	0 - 30
2204746	Glyphosate	8.41	Spike	P	0 - 30
2204746	Sucralose	6.97	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P389514

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2205249	Color (true)	2.18	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P389621

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2205351	Total Alkalinity	1.11	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P389962

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2205350	TDS	1.46	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P389625

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2205351	Fluoride	0.953	Spike	P	0 - 2.8

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P389654

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2205353	Organic Carbon	0.947	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2205360
Field Sample ID: G2SW0133

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	52.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	75.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	45.6	P	30 - 160
EPA 8321B	Diuron-d6	42.4	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	106	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	106	P	30 - 160
EPA 8321B	Ibuprofen-d3	58.6	P	30 - 160
EPA 8321B	Primidone-d5	74.9	P	30 - 160
EPA 8321B	Sucralose-d6	59.5	P	30 - 160
EPA 8321B	Sucralose-d6	59.5	P	30 - 160

Lab Sample ID: 2205361
Field Sample ID: G2SW0093

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	63.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	81.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	61.7	P	30 - 160
EPA 8321B	Diuron-d6	64.4	P	30 - 160
EPA 8321B	Endothall-d6	94.9	P	30 - 160
EPA 8321B	Endothall-d6	94.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	101	P	30 - 160
EPA 8321B	Ibuprofen-d3	68.5	P	30 - 160
EPA 8321B	Primidone-d5	99.6	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A101865

Included Lab Sample IDs: 2205350, 2205351

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A101866

Included Lab Sample IDs: 2205354, 2205355

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.3	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A101867

Included Lab Sample IDs: 2205350, 2205351

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	103	P/P	90 - 115
Color (true)	103	104	P/P	90 - 115

Reference Method: EPA 8321B

Run ID: A101873

Included Lab Sample IDs: 2205360, 2205361

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	114	111	P/P	50 - 160
Endothall	98.7	100	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A101878

Included Lab Sample IDs: 2205352, 2205353

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

Reference Method: EPA 8321B

Run ID: A101880

Included Lab Sample IDs: 2205360, 2205361

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	105	98.5	P/P	50 - 160
AMPA	98.5	106	P/P	50 - 160
Glufosinate	102	104	P/P	50 - 160
Glyphosate	104	102	P/P	50 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A101893

Included Lab Sample IDs: 2205352, 2205353

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	99.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A101910

Included Lab Sample IDs: 2205350, 2205351

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.4	97.4	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A101910

Included Lab Sample IDs: 2205350, 2205351

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

Reference Method: SM 5310 B-2011

Run ID: A101919

Included Lab Sample IDs: 2205352, 2205353

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	101	104	P/P	90 - 110
Organic Carbon	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A101955

Included Lab Sample IDs: 2205352, 2205353

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	103	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A101966

Included Lab Sample IDs: 2205360, 2205361

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	106	107	P/P	50 - 150
Acetaminophen	104	112	P/P	60 - 160
Acetamiprid	105	105	P/P	50 - 150
Afidopyropen	95.0	99.4	P/P	50 - 150
Bentazon	106	101	P/P	50 - 160
Benzovindiflupyr	127	107	P/P	50 - 150
Carbamazepine	110	108	P/P	60 - 150
Clothianidin	103	103	P/P	60 - 150
Dinotefuran	88.2	94.9	P/P	50 - 150
Diuron	106	112	P/P	60 - 160
Fenuron	110	116	P/P	60 - 150
Fluridone	101	90.4	P/P	60 - 160
Hydrocodone	107	113	P/P	60 - 150
Ibuprofen	93.4	98.7	P/P	50 - 160
Imazapyr	115	106	P/P	50 - 160
Imidacloprid	108	107	P/P	60 - 150
Linuron	89.1	86.2	P/P	60 - 150
Mandestrobin	114	112	P/P	50 - 150
MCPP	116	118	P/P	50 - 150
Naproxen	68.2	101	P/P	50 - 160
Primidone	110	115	P/P	60 - 150
Pyraclostrobin	101	101	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A101966

Included Lab Sample IDs: 2205360, 2205361

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Thiamethoxam	117	114	P/P	50 - 150
Tolfenpyrad	115	114	P/P	60 - 150
Triclopyr	117	119	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A101999

Included Lab Sample IDs: 2205360, 2205361

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	113	106	P/P	50 - 160

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A102026

Included Lab Sample IDs: 2205352

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	99.1	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A102065

Included Lab Sample IDs: 2205350, 2205351

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	99.8	P/P	90 - 110
Sulfate	102	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A102172

Included Lab Sample IDs: 2205353

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	106	P/P	90 - 110

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision	MS
							SMP	
EPA 180.1 Rev. 2.0	Turbidity						0.0	
EPA 300.0 Rev. 2.1	Chloride	100		99.1			0.739	
	Sulfate	101		96.0	99.1		0.680	
EPA 350.1 Rev. 2.0	Ammonia-N	99.2		99.1	97.6			1.22
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101		105	110			3.17
	Kjeldahl Nitrogen	108						1.90
EPA 353.2 Rev. 2.0	NO2NO3-N	100		97.5	98.0			0.275
EPA 365.1 Rev. 2.0	Total-P	102		104	108			3.19
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.2		94.8	95.2			0.421
EPA 8321B	2,4-D	60.0	73.1	55.0	46.0	19.7		16.0
	Acesulfame K	102		129	137			5.90
	Acetaminophen	35.8	42.9	66.2	68.5	18.0		3.34
	Acetamiprid	58.2	50.3	54.4	31.8	14.4		52.5
	Afidopyropen	46.0	36.5	38.0	26.0	23.0		37.5
	AMPA	91.9		120	128			6.58
	Bentazon	49.9	51.6	29.6	5.43	3.53		21.4
	Benzovindiflupyr	75.1	79.7	64.8	55.8	5.96		14.9
	Carbamazepine	68.8	61.1	49.7	45.5	11.9		5.68
	Clothianidin	78.7	79.1	71.1	52.1	0.496		29.2
	Dinotefuran	60.3	57.1	78.3	67.5	5.41		14.8
	Diuron	74.0	70.1	50.0	38.0	5.41		27.2
	Endothall	88.6		97.2	96.2			0.961
	Fenuron	95.7	92.0	74.5	88.2	4.00		16.9
	Fluridone	77.0	74.5	62.6	53.2	3.33		9.06
	Glufosinate	90.0		90.4	93.1			2.96
	Glyphosate	95.8		76.6	83.3			8.41
	Hydrocodone	77.1	78.6	71.5	60.6	1.88		16.5
	Ibuprofen	62.9	66.1	48.2	47.3	4.84		1.81
	Imazapyr	76.3	72.7	99.3	76.1	4.73		15.2
	Imidacloprid	78.3	80.4	120	96.1	2.61		19.1
	Linuron	82.1	91.5	66.1	59.4	10.8		10.7
	Mandestrobin	77.8	75.5	66.2	60.8	2.97		8.52
	MCP	71.3	63.3	57.1	55.6	11.8		2.70
	Naproxen	59.3	50.9	41.4	48.9	15.1		16.4
	Primidone	79.2	82.6	87.4	66.4	4.20		24.5
	Pyraclostrobin	51.6	51.6	52.0	52.0	0.118		0.0825
	Sucralose	105		105	113			6.97
	Thiamethoxam	72.3	88.3	103	77.8	20.0		27.5
	Tolfenpyrad	32.3	30.5	30.0	33.1	5.64		9.66
	Triclopyr	55.5	45.4	43.9	39.8	19.9		9.72
SM 2120 B-2011	Color (true)	103					2.18	
SM 2320 B-2011	Total Alkalinity	98.2					1.11	
SM 2540 C-2011	TDS						1.46	
SM 4500 F-C-2011	Fluoride	103		104	106			0.953
SM 5310 B-2011	Organic Carbon	102		101	102			0.947

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2205350, 2205351
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2205350, 2205351
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2205350, 2205351
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2205352, 2205353

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2205352, 2205353
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2205352, 2205353
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2205352, 2205353
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2205354, 2205355
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2205360, 2205361
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2205360, 2205361
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2205350, 2205351
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2205350, 2205351
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2205350, 2205351
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2205350, 2205351
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2205350, 2205351
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2205352, 2205353

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	10/29/2020			10/29/2020 16:10	Yen Ta	2205350, 2205351
EPA 300.0 Rev. 2.1	10/29/2020			11/10/2020 02:06	Lipi Saha	2205350
	10/29/2020			11/10/2020 02:58	Lipi Saha	2205351
EPA 350.1 Rev. 2.0	10/29/2020			11/01/2020 10:40	Ping Hua	2205353
	10/29/2020			11/01/2020 10:47	Ping Hua	2205352
EPA 351.2 Rev. 2.0	10/29/2020	11/04/2020 14:53	David Boose	11/05/2020 16:39	Elliott Rodriguez	2205352
	10/29/2020	11/16/2020 13:40	David Boose	11/17/2020 11:22	Elliott Rodriguez	2205353
EPA 353.2 Rev. 2.0	10/29/2020			10/30/2020 11:01	Beverly Y. Sanders	2205352
	10/29/2020			10/30/2020 11:07	Beverly Y. Sanders	2205353
EPA 365.1 Rev. 2.0	10/29/2020	11/02/2020 10:01	Yen Ta	11/04/2020 13:00	Benjamin T. Nordmann	2205352
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EPA 365.1 Rev. 2.0 dissolved	10/29/2020			10/29/2020 16:51	Samantha Davila	2205354
	10/29/2020			10/29/2020 16:52	Samantha Davila	2205355
EPA 8321B	10/29/2020	10/29/2020 11:30	Rebecca Ware	10/29/2020 15:10	Rebecca Ware	2205360
	10/29/2020	10/29/2020 11:30	Rebecca Ware	10/29/2020 15:24	Rebecca Ware	2205361
	10/29/2020	10/29/2020 11:30	Rebecca Ware	10/30/2020 12:37	Rebecca Ware	2205360
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	10/29/2020	11/03/2020 10:30	Hoor Shaik	11/04/2020 15:10	Juyoung Kim	2205360
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SM 2120 B-2011	10/29/2020			10/29/2020 15:45	Benjamin T. Nordmann	2205351
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SM 2320 B-2011	10/29/2020			10/31/2020 08:54	Samantha Davila	2205351
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SM 2540 C-2011	10/29/2020			10/30/2020 19:12	Madeline Gruver	2205350, 2205351
SM 2540 D-2011	10/29/2020			10/30/2020 19:59	Madeline Gruver	2205350, 2205351
SM 4500 F-C-2011	10/29/2020			10/31/2020 08:43	Samantha Davila	2205351
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SM 5310 B-2011	10/29/2020			11/02/2020 14:58	Touraj Touran	2205353
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