

Chemical Analysis Report

TLH-ROC-2021-07-26-01

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

Event Description: **Run 11**
Request ID: **RQ-2021-07-26-59**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
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2600 Blair Stone Rd
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Date Certified: 19-AUG-2021 10:39



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: Mule Creek @ Alvie Holmes Rd

Collection Date/Time: 07/26/2021 10:40

Field ID: G3TLHR0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2264936	EPA 180.1 Rev. 2.0	Turbidity	4.5	A	NTU	P401601	
	EPA 300.0 Rev. 2.1	Chloride	4.7		mg Cl/L	P401813	
	SM 2120 B-2011	Color (true)	82	A	PCU	P401605	
	SM 2320 B-2011	Total Alkalinity	7.0		mg CaCO3/L	P401668	
	SM 2540 C-2011	TDS	42		mg/L	P402087	
	SM 2540 D-2011	TSS	2	I	mg/L	P401830	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P401672	
2264937	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P402046	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.27		mg N/L	P402392	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.022		mg N/L	P401627	
	EPA 365.1 Rev. 2.0	Total-P	0.018		mg P/L	P401693	
	SM 5310 B-2011	Organic Carbon	6.2		mg C/L	P402026	
2264938	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.007	I	mg P/L	P401598	

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: Sandy Creek Upstream Boat ramp

Collection Date/Time: 07/26/2021 10:50

Field ID: G3TLHR0037

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2264942	EPA 180.1 Rev. 2.0	Turbidity	5.8	A	NTU	P401603	
	SM 2320 B-2011	Total Alkalinity	1.3	I	mg CaCO3/L	P401668	
	SM 2540 D-2011	TSS	5	I	mg/L	P401833	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P401672	
2264944	EPA 350.1 Rev. 2.0	Ammonia-N	0.043		mg N/L	P402046	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.46		mg N/L	P402392	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.048		mg N/L	P401627	
	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P401693	
	SM 5310 B-2011	Organic Carbon	14		mg C/L	P402026	
2264946	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P401598	

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: Eagle Nest Continuous Monitoring

Collection Date/Time: 07/26/2021 11:40

Field ID: G3TLHR0019

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2264943	EPA 180.1 Rev. 2.0	Turbidity	5.9		NTU	P401603	
	SM 2320 B-2011	Total Alkalinity	30		mg CaCO3/L	P401668	
	SM 2540 D-2011	TSS	4	I	mg/L	P401833	
	SM 4500 F-C-2011	Fluoride	0.16		mg F/L	P401672	
2264945	EPA 350.1 Rev. 2.0	Ammonia-N	0.025		mg N/L	P401886	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.86		mg N/L	P402409	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.024		mg N/L	P401952	
	EPA 365.1 Rev. 2.0	Total-P	0.035		mg P/L	P401693	
	SM 5310 B-2011	Organic Carbon	16		mg C/L	P402026	
2264947	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P401600	

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: SANDY CREEK

Collection Date/Time: 07/26/2021 12:15

Field ID: G3TLHR0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2264939	EPA 180.1 Rev. 2.0	Turbidity	6.7		NTU	P401601	
	EPA 300.0 Rev. 2.1	Chloride	3.8		mg Cl/L	P401813	
	SM 2120 B-2011	Color (true)	190		PCU	P401605	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P401668	
	SM 2540 C-2011	TDS	42		mg/L	P402087	
	SM 2540 D-2011	TSS	9	I	mg/L	P401830	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P401672	
2264940	EPA 350.1 Rev. 2.0	Ammonia-N	0.063		mg N/L	P402046	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.55		mg N/L	P402392	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.043		mg N/L	P401627	
	EPA 365.1 Rev. 2.0	Total-P	0.015		mg P/L	P401693	
	SM 5310 B-2011	Organic Carbon	14		mg C/L	P402026	
2264941	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P401598	
2264960	EPA 8321B	2,4-D	0.0020	U	ug/L	P401633	
		Acesulfame K	0.10	U	ug/L	P401536	
		2,4,5-T	0.0040	U	ug/L	P401633	
		AMPA	0.10	U	ug/L	P401536	
		Acetaminophen	0.0080	U	ug/L	P401633	
		Acetamiprid	0.0020	U	ug/L	P401633	
		Endothall	0.25	U	ug/L	P401536	
		Glufosinate	0.10	U	ug/L	P401536	
		Glyphosate	0.10	U	ug/L	P401536	
		Afidopyropen	0.0020	U	ug/L	P401633	
		Bentazon	8.0E-04	U	ug/L	P401633	
		Sucralose	0.010	U	ug/L	P401536	
		Benzovindiflupyr	0.0020	U	ug/L	P401633	
		Carbamazepine	8.0E-04	U	ug/L	P401633	
		Clothianidin	0.0020	U	ug/L	P401633	
		Dinotefuran	0.0020	U	ug/L	P401633	
		Diuron	0.0020	U	ug/L	P401633	
		Fenuron	0.016	U	ug/L	P401633	
		Fluridone	8.0E-04	U	ug/L	P401633	
		Imazapyr	0.034		ug/L	P401633	
		Hydrocodone	0.0020	U	ug/L	P401633	
		Ibuprofen	0.020	U	ug/L	P401633	
		Imidacloprid	0.0020	U	ug/L	P401633	
		Linuron	0.0040	U	ug/L	P401633	
		Mandestrobin	0.0020	U	ug/L	P401633	
		MCPP	0.0020	U	ug/L	P401633	
		Naproxen	0.0080	U	ug/L	P401633	
		Primidone	0.0040	U	ug/L	P401633	
		Pyraclostrobin	0.0020	U	ug/L	P401633	
		Thiamethoxam	0.0020	U	ug/L	P401633	

Field ID: G3TLHR0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2264960	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P401633	
		Triclopyr	0.0040	U	ug/L	P401633	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P401601

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P401603

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P401813

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P401886

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402046

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402392

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402409

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P401627

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P401952

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P401693

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P401598

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P401600

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

Reference Method: EPA 8321B

Batch ID: P401536

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: P401633

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	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P401633

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

Reference Method: SM 2120 B-2011

Batch ID: P401605

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011

Batch ID: P401668

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

Reference Method: SM 2540 C-2011

Batch ID: P402087

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P401830

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P401833

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011

Batch ID: P401672

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P402026

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: P401813

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P401886

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402046

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402392

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402409

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P401627

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P401952

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: P401693

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401598

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401600

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.9		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P401536

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	101		P	40 - 150
AMPA	115		P	40 - 150
Endothall	74.0		P	40 - 150
Glufosinate	104		P	40 - 150
Glyphosate	97.1		P	40 - 150
Sucralose	101		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P401633

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	118		P	40 - 150
2,4,5-T	121		P	40 - 150
Acetaminophen	107		P	30 - 150
Acetamiprid	88.4		P	40 - 150
Afidopyropen	64.9		P	40 - 150
Bentazon	113		P	30 - 150
Benzovindiflupyr	86.8		P	40 - 150
Carbamazepine	101		P	40 - 150
Clothianidin	99.5		P	40 - 150
Dinotefuran	89.4		P	40 - 150
Diuron	107		P	40 - 150
Fenuron	98.9		P	40 - 150
Fluridone	95.1		P	40 - 150
Hydrocodone	95.4		P	40 - 150
Ibuprofen	88.8		P	40 - 150
Imazapyr	107		P	40 - 150
Imidacloprid	100		P	40 - 150
Linuron	84.9		P	40 - 150
Mandestrobin	86.1		P	40 - 150
MCPP	116		P	40 - 150
Naproxen	86.6		P	40 - 150
Primidone	105		P	40 - 150
Pyraclostrobin	82.4		P	40 - 150
Thiamethoxam	93.5		P	40 - 150
Tolfenpyrad	48.2		P	30 - 150
Triclopyr	114		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P401605

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.6		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P401668

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P401672

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P402026

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.7		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P401813

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264570	Chloride	99.6		P	90 - 110
2264691	Chloride	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P401886

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264703	Ammonia-N	94.8	97.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402046

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262276	Ammonia-N	97.8	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402392

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264693	Kjeldahl Nitrogen	101	111	P/F	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402409

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264828	Kjeldahl Nitrogen	108	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P401627

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264774	NO2NO3-N	102	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P401952

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264945	NO2NO3-N	96.6	96.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P401693

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264940	Total-P	109	110	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401598

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264983	O-Phosphate-P	99.5	99.7	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401600

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265118	O-Phosphate-P	92.2	92.1	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P401536

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264960	Acesulfame K	145	144	P/P	40 - 150
2264960	AMPA	91.9	91.6	P/P	40 - 150
2264960	Endothall	99.9	104	P/P	40 - 150
2264960	Glufosinate	105	102	P/P	40 - 150
2264960	Glyphosate	79.6	78.4	P/P	40 - 150
2264960	Sucralose	101	103	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P401633

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264998	2,4-D	98.6	111	P/P	40 - 150
2264998	2,4,5-T	107	116	P/P	40 - 150
2264998	Acetaminophen	104	115	P/P	30 - 150
2264998	Acetamiprid	82.9	85.1	P/P	40 - 150
2264998	Afidopyrophen	58.4	50.0	P/P	40 - 150
2264998	Bentazon	95.2	107	P/P	30 - 150
2264998	Benzovindiflupyr	80.7	89.7	P/P	40 - 150
2264998	Carbamazepine	94.2	105	P/P	40 - 150
2264998	Clothianidin	95.7	105	P/P	40 - 150
2264998	Dinotefuran	96.8	100	P/P	40 - 150
2264998	Diuron	94.1	105	P/P	40 - 150
2264998	Fenuron	88.1	95.5	P/P	40 - 150
2264998	Fluridone	86.9	96.2	P/P	40 - 150
2264998	Hydrocodone	90.2	98.4	P/P	40 - 150
2264998	Ibuprofen	96.8	89.8	P/P	40 - 150
2264998	Imazapyr	94.4	105	P/P	40 - 150
2264998	Imidacloprid	110	120	P/P	40 - 150
2264998	Linuron	76.0	88.3	P/P	40 - 150
2264998	Mandestrobin	82.9	91.3	P/P	40 - 150
2264998	MCP	107	118	P/P	40 - 150
2264998	Naproxen	86.3	92.2	P/P	40 - 150
2264998	Primidone	102	107	P/P	40 - 150
2264998	Pyraclostrobin	78.6	87.7	P/P	40 - 150
2264998	Thiamethoxam	102	110	P/P	40 - 150
2264998	Tolfenpyrad	47.8	54.0	P/P	30 - 150
2264998	Triclopyr	103	109	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P401672

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265061	Fluoride	99.0	99.0	P/P	92 - 107

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P402026

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264683	Organic Carbon	95.9	97.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P401601

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264936	Turbidity	0.223	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P401603

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264942	Turbidity	0.173	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P401813

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264691	Chloride	0.392	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P401886

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264703	Ammonia-N	1.81	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402046

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262276	Ammonia-N	0.0	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402392

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264693	Kjeldahl Nitrogen	5.60	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402409

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264828	Kjeldahl Nitrogen	0.686	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P401627

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264774	NO2NO3-N	0.494	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P401952

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264945	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P401693

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264940	Total-P	0.707	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P401598

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264983	O-Phosphate-P	0.201	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P401600

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265118	O-Phosphate-P	0.109	Spike	P	0 - 20

Reference Method: EPA 8321B

Batch ID: P401536

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264960	Acesulfame K	0.811	Spike	P	0 - 30
2264960	AMPA	0.390	Spike	P	0 - 30
2264960	Endothall	3.67	Spike	P	0 - 30
2264960	Glufosinate	2.67	Spike	P	0 - 30
2264960	Glyphosate	1.57	Spike	P	0 - 30
2264960	Sucralose	1.65	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P401633

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264998	2,4-D	9.08	Spike	P	0 - 30
2264998	2,4,5-T	7.96	Spike	P	0 - 30
2264998	Acetaminophen	10.7	Spike	P	0 - 30
2264998	Acetamiprid	2.62	Spike	P	0 - 30
2264998	Afidopyropen	15.6	Spike	P	0 - 30
2264998	Bentazon	7.74	Spike	P	0 - 30
2264998	Benzovindiflupyr	10.6	Spike	P	0 - 30
2264998	Carbamazepine	10.1	Spike	P	0 - 30
2264998	Clothianidin	9.03	Spike	P	0 - 30
2264998	Dinotefuran	3.39	Spike	P	0 - 30
2264998	Diuron	8.95	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P401633

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264998	Fenuron	8.08	Spike	P	0 - 30
2264998	Fluridone	10.1	Spike	P	0 - 30
2264998	Hydrocodone	8.75	Spike	P	0 - 30
2264998	Ibuprofen	7.51	Spike	P	0 - 30
2264998	Imazapyr	8.09	Spike	P	0 - 30
2264998	Imidacloprid	7.84	Spike	P	0 - 30
2264998	Linuron	15.0	Spike	P	0 - 30
2264998	Mandestrobin	9.64	Spike	P	0 - 30
2264998	MCCP	9.10	Spike	P	0 - 30
2264998	Naproxen	6.67	Spike	P	0 - 30
2264998	Primidone	4.91	Spike	P	0 - 30
2264998	Pyraclostrobin	10.9	Spike	P	0 - 30
2264998	Thiamethoxam	7.64	Spike	P	0 - 30
2264998	Tolfenpyrad	12.4	Spike	P	0 - 30
2264998	Triclopyr	5.20	Spike	P	0 - 30

Reference Method: SM 2120 B-2011

Batch ID: P401605

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264936	Color (true)	1.42	Sample	P	0 - 20

Reference Method: SM 2320 B-2011

Batch ID: P401668

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265061	Total Alkalinity	1.21	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011

Batch ID: P402087

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264968	TDS	6.25	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011

Batch ID: P401672

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265061	Fluoride	0.0	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011

Batch ID: P402026

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264683	Organic Carbon	0.900	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: 2264960

Field Sample ID: G3TLHR0001

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	108	P	30 - 160
EPA 8321B	Acetaminophen-d4	105	P	30 - 160
EPA 8321B	Carbamazepine-d10	95.7	P	30 - 160
EPA 8321B	Diuron-d6	78.4	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	70.8	P	30 - 160
EPA 8321B	Primidone-d5	91.5	P	30 - 160
EPA 8321B	Sucralose-d6	103	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A106851

Included Lab Sample IDs: 2264938, 2264941, 2264946, 2264947

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.8	96.9	P/P	90 - 110
O-Phosphate-P	99.4	98.6	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A106852

Included Lab Sample IDs: 2264936, 2264939, 2264942, 2264943

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	100	P/P	95 - 105
Turbidity	100	99.5	P/P	95 - 105

Reference Method: SM 2120 B-2011

Run ID: A106853

Included Lab Sample IDs: 2264936, 2264939

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	101	P/P	90 - 115
Color (true)	99.7	101	P/P	90 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A106874

Included Lab Sample IDs: 2264937, 2264940, 2264944

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

Reference Method: SM 2320 B-2011

Run ID: A106891

Included Lab Sample IDs: 2264936, 2264939, 2264942, 2264943

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	104	P/P	90 - 110
Total Alkalinity	104	100	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A106891

Included Lab Sample IDs: 2264936, 2264939, 2264942, 2264943

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

Reference Method: EPA 8321B

Run ID: A106898

Included Lab Sample IDs: 2264960

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	114	119	P/P	60 - 160
Glufosinate	102	102	P/P	60 - 160
Glyphosate	104	102	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A106904
Included Lab Sample IDs: 2264960

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	98.7	99.5	P/P	60 - 160
Endothall	80.5	84.0	P/P	60 - 160
Sucralose	96.7	98.5	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A106905
Included Lab Sample IDs: 2264936, 2264939

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

Reference Method: EPA 8321B
Run ID: A106940
Included Lab Sample IDs: 2264960

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	88.6	92.0	P/P	50 - 150
2,4,5-T	94.9	95.6	P/P	50 - 150
Acetaminophen	108	104	P/P	60 - 160
Acetamiprid	94.7	96.1	P/P	50 - 150
Afidopyropen	92.5	94.0	P/P	50 - 150
Bentazon	104	107	P/P	50 - 160
Benzovindiflupyr	93.7	93.9	P/P	50 - 150
Carbamazepine	96.3	99.3	P/P	60 - 150
Clothianidin	93.0	95.5	P/P	60 - 150
Dinotefuran	99.8	104	P/P	50 - 150
Diuron	111	113	P/P	60 - 160
Fenuron	95.5	96.7	P/P	60 - 150
Fluridone	97.1	98.6	P/P	60 - 160
Hydrocodone	99.0	100	P/P	60 - 150
Ibuprofen	106	97.4	P/P	50 - 160
Imazapyr	104	107	P/P	50 - 150
Imidacloprid	90.3	91.9	P/P	60 - 150
Linuron	95.1	102	P/P	60 - 150
Mandestrobin	94.0	96.4	P/P	50 - 150
MCPP	90.0	90.4	P/P	50 - 150
Naproxen	91.9	108	P/P	50 - 160
Primidone	102	101	P/P	60 - 150
Pyraclostrobin	95.0	97.5	P/P	60 - 150
Thiamethoxam	92.4	97.6	P/P	50 - 150
Tolfenpyrad	94.5	95.2	P/P	60 - 150
Triclopyr	90.8	90.6	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A106965
Included Lab Sample IDs: 2264937, 2264940, 2264944, 2264945

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	98.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A107003

Included Lab Sample IDs: 2264945

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	96.8	95.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A107033

Included Lab Sample IDs: 2264945

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

Reference Method: SM 5310 B-2011

Run ID: A107056

Included Lab Sample IDs: 2264937, 2264940, 2264944, 2264945

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.6	97.2	P/P	90 - 110
Organic Carbon	97.2	97.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A107059

Included Lab Sample IDs: 2264937, 2264940, 2264944

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A107273

Included Lab Sample IDs: 2264945

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	102	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					0.223	
	Turbidity					0.173	
EPA 300.0 Rev. 2.1	Chloride	96.6	100	99.6		0.392	
EPA 350.1 Rev. 2.0	Ammonia-N	97.6	94.8	97.2			1.81
	Ammonia-N	100	97.8	97.8			0.0
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	111	101			5.60
	Kjeldahl Nitrogen	102	108	107			0.686
EPA 353.2 Rev. 2.0	NO2NO3-N	101	102	101			0.494
	NO2NO3-N	100	96.6	96.6			0.0
EPA 365.1 Rev. 2.0	Total-P	106	109	110			0.707
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	99.5	99.7			0.201
	O-Phosphate-P	99.9	92.2	92.1			0.109
EPA 8321B	2,4-D	118	98.6	111			9.08
	2,4,5-T	121	107	116			7.96
	Acesulfame K	101	145	144			0.811
	Acetaminophen	107	104	115			10.7
	Acetamiprid	88.4	82.9	85.1			2.62
	Afidopyropen	64.9	58.4	50.0			15.6
	AMPA	115	91.9	91.6			0.390
	Bentazon	113	95.2	107			7.74
	Benzovindiflupyr	86.8	80.7	89.7			10.6
	Carbamazepine	101	94.2	105			10.1
	Clothianidin	99.5	95.7	105			9.03
	Dinotefuran	89.4	96.8	100			3.39
	Diuron	107	94.1	105			8.95
	Endothall	74.0	99.9	104			3.67
	Fenuron	98.9	88.1	95.5			8.08
	Fluridone	95.1	86.9	96.2			10.1
	Glufosinate	104	105	102			2.67
	Glyphosate	97.1	79.6	78.4			1.57
	Hydrocodone	95.4	90.2	98.4			8.75
	Ibuprofen	88.8	96.8	89.8			7.51
	Imazapyr	107	94.4	105			8.09
	Imidacloprid	100	110	120			7.84
	Linuron	84.9	76.0	88.3			15.0
	Mandestrobin	86.1	82.9	91.3			9.64
	MCPP	116	107	118			9.10
	Naproxen	86.6	86.3	92.2			6.67
	Primidone	105	102	107			4.91
	Pyraclostrobin	82.4	78.6	87.7			10.9
	Sucralose	101	101	103			1.65
	Thiamethoxam	93.5	102	110			7.64
	Tolfenpyrad	48.2	47.8	54.0			12.4
	Triclopyr	114	103	109			5.20
SM 2120 B-2011	Color (true)	98.6				1.42	
SM 2320 B-2011	Total Alkalinity	102				1.21	
SM 2540 C-2011	TDS					6.25	
SM 4500 F-C-2011	Fluoride	101	99.0	99.0			0.0
SM 5310 B-2011	Organic Carbon	95.7	95.9	97.2			0.900

Reference Method Descriptions

Method	Description	Associated Samples
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Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2264936, 2264939, 2264942, 2264943
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2264936, 2264939
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2264937, 2264940, 2264944, 2264945
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2264937, 2264940, 2264944, 2264945
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2264937, 2264940, 2264944, 2264945
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2264937, 2264940, 2264944, 2264945
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2264938, 2264941, 2264946, 2264947
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2264960
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2264936, 2264939
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2264936, 2264939, 2264942, 2264943
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2264936, 2264939
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2264936, 2264939, 2264942, 2264943
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2264936, 2264939, 2264942, 2264943
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2264937, 2264940, 2264944, 2264945

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	07/26/2021			07/27/2021 15:40	Sarah A Nixon	2264936, 2264939, 2264942, 2264943
EPA 300.0 Rev. 2.1	07/26/2021			07/31/2021 00:58	Lipi Saha	2264936
	07/26/2021			07/31/2021 01:10	Lipi Saha	2264939
EPA 350.1 Rev. 2.0	07/26/2021			08/03/2021 12:16	Roberta Tatti	2264945
	07/26/2021			08/05/2021 12:40	Roberta Tatti	2264937
	07/26/2021			08/05/2021 12:41	Roberta Tatti	2264940
	07/26/2021			08/05/2021 12:43	Roberta Tatti	2264944
EPA 351.2 Rev. 2.0	07/26/2021	08/12/2021 14:27	Benjamin T. Nordmann	08/13/2021 11:19	Virginia P. Brown	2264937
	07/26/2021	08/12/2021 14:27	Benjamin T. Nordmann	08/13/2021 11:20	Virginia P. Brown	2264940
	07/26/2021	08/12/2021 14:27	Benjamin T. Nordmann	08/13/2021 11:22	Virginia P. Brown	2264944
	07/26/2021	08/13/2021 13:07	Madeline Gruver	08/16/2021 14:36	Virginia P. Brown	2264945
EPA 353.2 Rev. 2.0	07/26/2021			07/28/2021 10:10	Beverly Y. Sanders	2264937
	07/26/2021			07/28/2021 10:11	Beverly Y. Sanders	2264940
	07/26/2021			07/28/2021 10:12	Beverly Y. Sanders	2264944
	07/26/2021			08/04/2021 10:06	Beverly Y. Sanders	2264945
EPA 365.1 Rev. 2.0	07/26/2021	07/29/2021 12:32	Simonne.V. Calhoun	07/30/2021 14:35	Shengyu Ding	2264937
	07/26/2021	07/29/2021 12:32	Simonne.V. Calhoun	07/30/2021 14:36	Shengyu Ding	2264940
	07/26/2021	07/29/2021 12:32	Simonne.V. Calhoun	07/30/2021 14:37	Shengyu Ding	2264944
	07/26/2021	07/29/2021 12:32	Simonne.V. Calhoun	07/30/2021 14:38	Shengyu Ding	2264945
EPA 365.1 Rev. 2.0 dissolved	07/26/2021			07/27/2021 14:51	Ping Hua	2264938
	07/26/2021			07/27/2021 14:52	Ping Hua	2264941
	07/26/2021			07/27/2021 14:53	Ping Hua	2264946
	07/26/2021			07/27/2021 15:26	Ping Hua	2264947
EPA 8321B	07/26/2021	07/28/2021 08:30	Pramila Ghimire	07/28/2021 13:13	Juyoung Kim	2264960
	07/26/2021	07/28/2021 08:30	Pramila Ghimire	07/28/2021 16:54	Pramila Ghimire	2264960
	07/26/2021	07/29/2021 09:00	Hoor Shaik	07/29/2021 22:47	Juyoung Kim	2264960
SM 2120 B-2011	07/26/2021			07/27/2021 16:36	Madeline Gruver	2264936
	07/26/2021			07/27/2021 17:08	Madeline Gruver	2264939
SM 2320 B-2011	07/26/2021			07/28/2021 16:41	Dale L. Simmons	2264936
	07/26/2021			07/28/2021 16:49	Dale L. Simmons	2264939
	07/26/2021			07/28/2021 16:58	Dale L. Simmons	2264942
	07/26/2021			07/28/2021 19:21	Dale L. Simmons	2264943
SM 2540 C-2011	07/26/2021			07/30/2021 15:15	Yijie Li	2264936, 2264939
SM 2540 D-2011	07/26/2021			07/30/2021 15:15	Yijie Li	2264936, 2264939, 2264942, 2264943
SM 4500 F-C-2011	07/26/2021			07/28/2021 16:41	Dale L. Simmons	2264936
	07/26/2021			07/28/2021 16:49	Dale L. Simmons	2264939
	07/26/2021			07/28/2021 16:58	Dale L. Simmons	2264942
	07/26/2021			07/28/2021 19:21	Dale L. Simmons	2264943
SM 5310 B-2011	07/26/2021			08/05/2021 07:01	Madeline Gruver	2264937
	07/26/2021			08/05/2021 07:11	Madeline Gruver	2264940

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-2011	07/26/2021			08/05/2021 07:21	Madeline Gruver	2264944
	07/26/2021			08/05/2021 07:52	Madeline Gruver	2264945