

Chemical Analysis Report

SE-DIST-2020-02-18-01

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

Event Description: **SMP- LW Drainage**
Request ID: **RQ-2020-01-27-23**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 11-MAR-2020 16:57



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: E-2 West @ Atlantic

Collection Date/Time: 02/17/2020 10:50

Field ID: G3SE0007

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2158476	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P379135	
	EPA 300.0 Rev. 2.1	Chloride	29		mg Cl/L	P379681	
		Sulfate	22		mg SO4/L	P379684	
	SM 2120 B-2011	Color (true)	54	A	PCU	P379206	
	SM 2320 B-2011	Total Alkalinity	155		mg CaCO3/L	P379416	
	SM 2540 C-2011	TDS	254	A	mg/L	P379820	
	SM 2540 D-2011	TSS	3	IA	mg/L	P379600	
	SM 4500 F-C-2011	Fluoride	0.18		mg F/L	P379421	
2158477	EPA 350.1 Rev. 2.0	Ammonia-N	0.19		mg N/L	P379562	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.94		mg N/L	P379286	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.34		mg N/L	P379853	
	EPA 365.1 Rev. 2.0	Total-P	0.26		mg P/L	P379658	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P379361	
2158478	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.21		mg P/L	P379142	

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: E-1 West @ Glades

Collection Date/Time: 02/17/2020 11:20

Field ID: G3SE0033

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2158479	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P379137	
	EPA 300.0 Rev. 2.1	Chloride	33	A	mg Cl/L	P379718	
		Sulfate	17	A	mg SO4/L	P379721	
		Color (true)	46		PCU	P379206	
	SM 2320 B-2011	Total Alkalinity	190		mg CaCO3/L	P379416	
	SM 2540 C-2011	TDS	271		mg/L	P379820	
	SM 2540 D-2011	TSS	4	I	mg/L	P379600	
	SM 4500 F-C-2011	Fluoride	0.25		mg F/L	P379421	
2158480	EPA 350.1 Rev. 2.0	Ammonia-N	0.049		mg N/L	P379562	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P379286	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	I	mg N/L	P379853	
	EPA 365.1 Rev. 2.0	Total-P	0.29		mg P/L	P379658	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P379361	
2158481	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.22		mg P/L	P379144	

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: Hillsboro Canal @ Pioneer Park

Collection Date/Time: 02/17/2020 12:30

Field ID: G3SE0028

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2158501	EPA 8321B	2,4-D	0.019		ug/L	P379190	
		Acesulfame K**	0.10	U	ug/L	P379179	
		AMPA**	1.0	U	ug/L	P379179	
		Sucralose**	0.084		ug/L	P379179	
		Acetaminophen**	0.0080	U	ug/L	P379190	
		Endothall**	0.25	U	ug/L	P379179	
		Acetamiprid**	0.0020	U	ug/L	P379190	RPD
		Glufosinate**	1.0	U	ug/L	P379179	MS
		Glyphosate**	2.1	I	ug/L	P379179	MS
		Afidopyropen**	0.0020	UJ	ug/L	P379190	
		Bentazon	0.14		ug/L	P379190	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P379190	
		Carbamazepine**	8.0E-04	U	ug/L	P379190	
		Clothianidin**	0.0044	I	ug/L	P379190	
		Dinotefuran**	0.015		ug/L	P379190	
		Diuron	0.052		ug/L	P379190	
		Fenuron	0.016	U	ug/L	P379190	
		Fluridone**	0.063		ug/L	P379190	
		Imazapyr**	0.23		ug/L	P379190	
		Hydrocodone**	0.0020	U	ug/L	P379190	
		Ibuprofen**	0.020	U	ug/L	P379190	
		Imidacloprid	0.060		ug/L	P379190	
		Linuron	0.0040	U	ug/L	P379190	
		Mandestrobin**	0.0020	UJ	ug/L	P379190	
		MCPP	0.0023	I	ug/L	P379190	
		Naproxen**	0.0080	U	ug/L	P379190	
		Primidone**	0.0040	U	ug/L	P379190	
		Pyraclostrobin**	0.0098		ug/L	P379190	
		Thiamethoxam**	0.013		ug/L	P379190	
		Tolfenpyrad**	0.0020	U	ug/L	P379190	
		Triclopyr**	0.0040	U	ug/L	P379190	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for bentazon and imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8321B: MDL for some parameters elevated due to matrix interference.

Sample Location: E-4 @ Clint Moore

Collection Date/Time: 02/17/2020 13:00

Field ID: G3SE0019

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2158482	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P379137	
	EPA 300.0 Rev. 2.1	Chloride	34		mg Cl/L	P379718	
		Sulfate	9.6		mg SO4/L	P379721	
	SM 2120 B-2011	Color (true)	79		PCU	P379206	
	SM 2320 B-2011	Total Alkalinity	184		mg CaCO3/L	P379416	
	SM 2540 C-2011	TDS	278		mg/L	P379820	
	SM 2540 D-2011	TSS	3	I	mg/L	P379600	
	SM 4500 F-C-2011	Fluoride	0.14		mg F/L	P379421	
2158484	EPA 350.1 Rev. 2.0	Ammonia-N	0.24		mg N/L	P379562	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P379286	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.21		mg N/L	P379853	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P379658	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P379361	
2158486	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.083		mg P/L	P379144	
2158503	EPA 8321B	2,4-D	0.030		ug/L	P379190	
		Acesulfame K**	0.10	U	ug/L	P379179	
		AMPA**	0.25	I	ug/L	P379179	
		Sucralose**	0.10		ug/L	P379179	
		Acetaminophen**	0.0080	U	ug/L	P379190	
		Endothall**	0.25	U	ug/L	P379179	
		Acetamiprid**	0.0020	U	ug/L	P379190	RPD
		Glufosinate**	0.10	U	ug/L	P379179	MS
		Glyphosate**	1.3		ug/L	P379179	MS
		Afidopyropen**	0.0020	UJ	ug/L	P379190	
		Bentazon	0.22		ug/L	P379190	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P379190	
		Carbamazepine**	8.0E-04	U	ug/L	P379190	
		Clothianidin**	0.0035	I	ug/L	P379190	
		Dinotefuran**	0.0051	I	ug/L	P379190	
		Diuron	0.028		ug/L	P379190	
		Fenuron	0.035	I	ug/L	P379190	
		Fluridone**	0.058		ug/L	P379190	
		Imazapyr**	0.20		ug/L	P379190	
		Hydrocodone**	0.0020	U	ug/L	P379190	
		Ibuprofen**	0.020	U	ug/L	P379190	
		Imidacloprid	0.055		ug/L	P379190	
		Linuron	0.0040	U	ug/L	P379190	
		Mandestrobin**	0.0020	UJ	ug/L	P379190	
		MCP	0.0059	I	ug/L	P379190	
		Naproxen**	0.0080	U	ug/L	P379190	
		Primidone**	0.0040	U	ug/L	P379190	
		Pyraclostrobin**	0.0020	U	ug/L	P379190	
		Thiamethoxam**	0.0020	U	ug/L	P379190	

Field ID: G3SE0019

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2158503	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P379190	
		Triclopyr**	0.0040	U	ug/L	P379190	

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: J - second source check standards for some analytes were not available for analysis. MS accuracy for bentazon and imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: E-4 @ Clint Moore

Collection Date/Time: 02/17/2020 13:10

Field ID: G3SE0019_DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2158483	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P379137	
	EPA 300.0 Rev. 2.1	Chloride	34		mg Cl/L	P379718	
		Sulfate	9.6		mg SO4/L	P379721	
	SM 2120 B-2011	Color (true)	78		PCU	P379206	
	SM 2320 B-2011	Total Alkalinity	184		mg CaCO3/L	P379416	
	SM 2540 C-2011	TDS	261		mg/L	P379820	
	SM 2540 D-2011	TSS	3	I	mg/L	P379600	
	SM 4500 F-C-2011	Fluoride	0.14		mg F/L	P379421	
2158485	EPA 350.1 Rev. 2.0	Ammonia-N	0.23		mg N/L	P379562	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P379286	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.21		mg N/L	P379853	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P379776	
	SM 5310 B-2011	Organic Carbon	14		mg C/L	P379361	
2158487	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.081		mg P/L	P379144	
2158504	EPA 8321B	2,4-D	0.030		ug/L	P379190	
		Acesulfame K**	0.10	U	ug/L	P379179	
		AMPA**	0.25	I	ug/L	P379179	
		Sucralose**	0.11		ug/L	P379179	
		Acetaminophen**	0.0080	U	ug/L	P379190	
		Endothall**	0.25	U	ug/L	P379179	
		Acetamiprid**	0.0020	U	ug/L	P379190	RPD
		Glufosinate**	0.10	U	ug/L	P379179	MS
		Glyphosate**	1.6		ug/L	P379179	MS
		Afidopyropen**	0.0020	UJ	ug/L	P379190	
		Bentazon	0.24		ug/L	P379190	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P379190	
		Carbamazepine**	8.0E-04	U	ug/L	P379190	
		Clothianidin**	0.0037	I	ug/L	P379190	
		Dinotefuran**	0.0056	I	ug/L	P379190	
		Diuron	0.025		ug/L	P379190	
		Fenuron	0.037	I	ug/L	P379190	
		Fluridone**	0.057		ug/L	P379190	
		Imazapyr**	0.21		ug/L	P379190	
		Hydrocodone**	0.0020	U	ug/L	P379190	
		Ibuprofen**	0.020	U	ug/L	P379190	
		Imidacloprid	0.060		ug/L	P379190	
		Linuron	0.0040	U	ug/L	P379190	
		Mandestrobin**	0.0020	UJ	ug/L	P379190	
		MCP	0.0072	I	ug/L	P379190	
		Naproxen**	0.0080	U	ug/L	P379190	
		Primidone**	0.0040	U	ug/L	P379190	
		Pyraclostrobin**	0.0020	U	ug/L	P379190	
		Thiamethoxam**	0.0020	U	ug/L	P379190	

Field ID: G3SE0019_DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2158504	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P379190	
		Triclopyr**	0.0040	U	ug/L	P379190	

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: J - second source check standards for some analytes were not available for analysis. MS accuracy for bentazon and imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Tidal Creek to Lox

Collection Date/Time: 02/17/2020 14:20

Field ID: G2SE0027

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2158473	EPA 180.1 Rev. 2.0	Turbidity	2.2		NTU	P379139	
	EPA 300.0 Rev. 2.1	Bromide	34		mg Br/L	P379450	
	SM 2320 B-2011	Total Alkalinity	148		mg CaCO3/L	P379417	
	SM 2540 D-2011	TSS	3	IA	mg/L	P379605	
	SM 4500 F-C-2011	Fluoride	0.73		mg F/L	P379422	
2158474	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P379458	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.55		mg N/L	P379283	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.019		mg N/L	P379272	
	EPA 365.1 Rev. 2.0	Total-P	0.029		mg P/L	P379736	
	SM 5310 B-2011	Organic Carbon	6.9		mg C/L	P379362	
2158475	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.011		mg P/L	P379143	
2158502	EPA 8321B	2,4-D	0.0037	I	ug/L	P379190	
		Acesulfame K**	0.10	U	ug/L	P379179	
		AMPA**	0.10	UJ	ug/L	P379179	SUR
		Sucralose**	0.027	I	ug/L	P379179	
		Acetaminophen**	0.0080	U	ug/L	P379190	
		Endothall**	0.25	U	ug/L	P379179	
		Acetamiprid**	0.0020	U	ug/L	P379190	RPD
		Glufosinate**	0.10	UJ	ug/L	P379179	MS, SUR
		Glyphosate**	0.10	UJ	ug/L	P379179	MS, SUR
		Afidopyropen**	0.0020	UJ	ug/L	P379190	
		Bentazon	0.051		ug/L	P379190	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P379190	
		Carbamazepine**	8.0E-04	U	ug/L	P379190	
		Clothianidin**	0.0020	U	ug/L	P379190	
		Dinotefuran**	0.0020	U	ug/L	P379190	
		Diuron	0.0020	U	ug/L	P379190	
		Fenuron	0.016	U	ug/L	P379190	
		Fluridone**	0.0048		ug/L	P379190	
		Imazapyr**	0.070		ug/L	P379190	
		Hydrocodone**	0.0020	U	ug/L	P379190	
		Ibuprofen**	0.020	U	ug/L	P379190	
		Imidacloprid	0.0032	I	ug/L	P379190	
		Linuron	0.0040	U	ug/L	P379190	
		Mandestrobin**	0.0020	UJ	ug/L	P379190	
		MCPP	0.0028	I	ug/L	P379190	
		Naproxen**	0.0080	U	ug/L	P379190	
		Primidone**	0.0040	U	ug/L	P379190	
		Pyraclostrobin**	0.0020	U	ug/L	P379190	
		Thiamethoxam**	0.0020	U	ug/L	P379190	
		Tolfenpyrad**	0.0020	U	ug/L	P379190	
		Triclopyr**	0.0040	U	ug/L	P379190	

Field ID: G2SE0027

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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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: J - second source check standards for some analytes were not available for analysis. MS accuracy for bentazon and imazapyr could not be assessed due to high concentration of parameter in the spiked sample.
EPA 8321B: Results confirmed in sample duplicate. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379135

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379137

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379139

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379450

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379681

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379684

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379718

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379721

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379458

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379562

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379283

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379286

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379272

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379853

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379658

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379736

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379776

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379142

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379143

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379144

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

Reference Method: EPA 8321B
Batch ID: P379179

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: P379190

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B-2011
Batch ID: P379206

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P379416

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

Reference Method: SM 2320 B-2011
Batch ID: P379417

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

Reference Method: SM 2540 C-2011
Batch ID: P379820

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P379600

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P379605

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P379421

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-2011
Batch ID: P379422

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P379361

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P379362

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: P379450

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379681

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379684

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379718

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	96.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379721

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379458

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	93.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379562

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379283

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.9		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379286

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379272

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: P379853

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: P379658

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379736

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379776

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: P379142

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379143

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379144

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

Reference Method: EPA 8321B
Batch ID: P379179

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	95.5		P	40 - 150
AMPA	98.1		P	40 - 150
Endothall	86.8		P	40 - 150
Glufosinate	95.0		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P379179

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	93.1		P	40 - 140
Sucralose	113		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P379190

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	133		P	30 - 160
Acetaminophen	88.1		P	30 - 160
Acetamiprid	82.0		P	30 - 160
Afidopyropen	71.5		P	30 - 160
Bentazon	76.6		P	30 - 160
Benzovindiflupyr	78.1		P	30 - 160
Carbamazepine	80.5		P	30 - 160
Clothianidin	70.9		P	30 - 160
Dinotefuran	79.0		P	30 - 160
Diuron	78.7		P	30 - 160
Fenuron	91.3		P	30 - 160
Fluridone	92.4		P	30 - 160
Hydrocodone	82.6		P	30 - 160
Ibuprofen	86.7		P	30 - 160
Imazapyr	90.1		P	30 - 160
Imidacloprid	89.6		P	30 - 160
Linuron	73.5		P	30 - 160
Mandestrobin	87.7		P	30 - 160
MCPP	131		P	30 - 160
Naproxen	83.9		P	30 - 160
Primidone	79.7		P	30 - 160
Pyraclostrobin	82.3		P	30 - 160
Thiamethoxam	86.9		P	30 - 160
Tolfenpyrad	58.6		P	30 - 160
Triclopyr	105		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P379206

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P379416

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	98 - 106

Reference Method: SM 2320 B-2011
Batch ID: P379417

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	98 - 106

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P379421

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.0		P	92 - 103

Reference Method: SM 4500 F-C-2011
Batch ID: P379422

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.0		P	92 - 103

Reference Method: SM 5310 B-2011
Batch ID: P379361

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.0		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P379362

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379450

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158277	Bromide	99.3	99.0	P/P	90 - 110
2159024	Bromide	97.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379681

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158344	Chloride	100		P	90 - 110
2158391	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379684

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158344	Sulfate	98.8		P	90 - 110
2158391	Sulfate	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379718

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158479	Chloride	99.6		P	90 - 110
2158532	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379721

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158479	Sulfate	96.8		P	90 - 110
2158532	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379458

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158474	Ammonia-N	97.7	96.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379562

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158404	Ammonia-N	100	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379283

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158607	Kjeldahl Nitrogen	98.8	97.4	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379286

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158514	Kjeldahl Nitrogen	109	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379272

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158333	NO2NO3-N	99.0	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379853

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158466	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379658

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158399	Total-P	105	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379736

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158446	Total-P	99.4	99.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379776

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158485	Total-P	103	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379142

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158283	O-Phosphate-P	99.6	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379143

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158334	O-Phosphate-P	96.8	92.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379144

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158486	O-Phosphate-P	95.0	96.8	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P379179

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158377	Acesulfame K	79.3	75.2	P/P	40 - 150
2158377	AMPA	83.7	77.7	P/P	40 - 150
2158377	Endothall	106	97.5	P/P	40 - 150
2158377	Glufosinate	195	246	F/F	40 - 150
2158377	Glyphosate	183	213	F/F	40 - 140
2158377	Sucralose	108	101	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P379190

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158377	2,4-D	131	142	P/P	30 - 160
2158377	Acetaminophen	92.5	114	P/P	30 - 160
2158377	Acetamiprid	78.4	57.3	P/P	30 - 160
2158377	Afidopyropen	87.0	80.3	P/P	30 - 160
2158377	Benzovindiflupyr	75.4	82.7	P/P	30 - 160
2158377	Carbamazepine	66.9	70.5	P/P	30 - 160
2158377	Clothianidin	92.3	104	P/P	30 - 160
2158377	Dinotefuran	119	120	P/P	30 - 160
2158377	Diuron	63.8	65.4	P/P	30 - 160
2158377	Fenuron	77.4	71.1	P/P	30 - 160
2158377	Fluridone	88.0	90.0	P/P	30 - 160
2158377	Hydrocodone	78.4	95.1	P/P	30 - 160
2158377	Ibuprofen	79.4	82.2	P/P	30 - 160
2158377	Imidacloprid	157	138	P/P	30 - 160
2158377	Linuron	75.0	71.5	P/P	30 - 160
2158377	Mandestrobin	84.9	88.5	P/P	30 - 160
2158377	MCP	133	134	P/P	30 - 160
2158377	Naproxen	97.3	117	P/P	30 - 160
2158377	Primidone	85.7	88.2	P/P	30 - 160
2158377	Pyraclostrobin	83.5	88.0	P/P	30 - 160
2158377	Thiamethoxam	108	121	P/P	30 - 160
2158377	Tolfenpyrad	57.1	57.5	P/P	30 - 160
2158377	Triclopyr	115	130	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P379421

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158297	Fluoride	98.8	99.3	P/P	89 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P379422

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158843	Fluoride	98.6	100	P/P	89 - 106

Reference Method: SM 5310 B-2011
Batch ID: P379361

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158477	Organic Carbon	99.8	101	P/P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P379362

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158474	Organic Carbon	98.2	98.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379135

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158302	Turbidity	0.966	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379137

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158390	Turbidity	4.94	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379139

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158696	Turbidity	0.881	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379450

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158277	Bromide	0.270	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379681

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158344	Chloride	1.30	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379684

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158344	Sulfate	1.23	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379718

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158479	Chloride	0.696	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379721

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158479	Sulfate	1.03	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379458

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158474	Ammonia-N	1.13	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379562

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158404	Ammonia-N	0.735	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379283

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158607	Kjeldahl Nitrogen	1.26	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379286

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158514	Kjeldahl Nitrogen	2.82	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379272

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158333	NO2NO3-N	2.00	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379853

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158466	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379658

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158399	Total-P	1.39	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379736

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158446	Total-P	0.0246	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379776

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158485	Total-P	0.615	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379142

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158283	O-Phosphate-P	0.203	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379143

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158334	O-Phosphate-P	2.17	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158486	O-Phosphate-P	1.01	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P379179

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158377	Acesulfame K	4.80	Spike	P	0 - 30
2158377	AMPA	7.50	Spike	P	0 - 30
2158377	Endothall	8.73	Spike	P	0 - 30
2158377	Glufosinate	23.2	Spike	P	0 - 30
2158377	Glyphosate	15.1	Spike	P	0 - 30
2158377	Sucralose	5.72	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P379190

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158377	2,4-D	8.66	Spike	P	0 - 30
2158377	Acetaminophen	20.6	Spike	P	0 - 30
2158377	Acetamiprid	31.1	Spike	F	0 - 30
2158377	Afidopyropen	8.04	Spike	P	0 - 30
2158377	Bentazon	21.0	Spike	P	0 - 30
2158377	Benzovindiflupyr	9.23	Spike	P	0 - 30
2158377	Carbamazepine	5.32	Spike	P	0 - 30
2158377	Clothianidin	12.3	Spike	P	0 - 30
2158377	Dinotefuran	0.777	Spike	P	0 - 30
2158377	Diuron	2.51	Spike	P	0 - 30
2158377	Fenuron	8.43	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P379190

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158377	Fluridone	1.75	Spike	P	0 - 30
2158377	Hydrocodone	19.2	Spike	P	0 - 30
2158377	Ibuprofen	3.35	Spike	P	0 - 30
2158377	Imazapyr	2.90	Spike	P	0 - 30
2158377	Imidacloprid	12.8	Spike	P	0 - 30
2158377	Linuron	4.70	Spike	P	0 - 30
2158377	Mandestrobin	4.07	Spike	P	0 - 30
2158377	MCP	0.847	Spike	P	0 - 30
2158377	Naproxen	18.7	Spike	P	0 - 30
2158377	Primidone	2.92	Spike	P	0 - 30
2158377	Pyraclostrobin	5.19	Spike	P	0 - 30
2158377	Thiamethoxam	11.2	Spike	P	0 - 30
2158377	Tolfenpyrad	0.759	Spike	P	0 - 30
2158377	Triclopyr	11.8	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P379206

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158476	Color (true)	1.87	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P379416

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158297	Total Alkalinity	0.288	Sample	P	0 - 2.8

Reference Method: SM 2320 B-2011
Batch ID: P379417

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158843	Total Alkalinity	0.563	Sample	P	0 - 2.8

Reference Method: SM 2540 C-2011
Batch ID: P379820

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158476	TDS	2.76	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P379421

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158297	Fluoride	0.477	Spike	P	0 - 2.5

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-2011
Batch ID: P379422

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158843	Fluoride	0.972	Spike	P	0 - 2.5

Reference Method: SM 5310 B-2011
Batch ID: P379361

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158477	Organic Carbon	0.707	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P379362

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158474	Organic Carbon	0.260	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2158501
Field Sample ID: G3SE0028

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	123	P	30 - 160
EPA 8321B	Acetaminophen-d4	91.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	79.5	P	30 - 160
EPA 8321B	Diuron-d6	69.5	P	30 - 160
EPA 8321B	Endothall-d6	98.0	P	30 - 160
EPA 8321B	Endothall-d6	98.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	114	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	114	P	30 - 160
EPA 8321B	Ibuprofen-d3	88.2	P	30 - 160
EPA 8321B	Primidone-d5	92.7	P	30 - 160
EPA 8321B	Sucralose-d6	32.0	P	30 - 160
EPA 8321B	Sucralose-d6	32.0	P	30 - 160

Lab Sample ID: 2158502
Field Sample ID: G2SE0027

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	115	P	30 - 160
EPA 8321B	Acetaminophen-d4	93.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	71.6	P	30 - 160
EPA 8321B	Diuron-d6	63.6	P	30 - 160
EPA 8321B	Endothall-d6	78.0	P	30 - 160
EPA 8321B	Endothall-d6	78.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	0.0	F	30 - 160
EPA 8321B	Glyphosate 13C 15N	0.0	F	30 - 160
EPA 8321B	Ibuprofen-d3	80.4	P	30 - 160
EPA 8321B	Primidone-d5	95.4	P	30 - 160
EPA 8321B	Sucralose-d6	34.2	P	30 - 160
EPA 8321B	Sucralose-d6	34.2	P	30 - 160

Lab Sample ID: 2158503
Field Sample ID: G3SE0019

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	97.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	92.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	73.0	P	30 - 160
EPA 8321B	Diuron-d6	64.3	P	30 - 160
EPA 8321B	Endothall-d6	124	P	30 - 160
EPA 8321B	Endothall-d6	124	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	103	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	103	P	30 - 160
EPA 8321B	Ibuprofen-d3	85.3	P	30 - 160
EPA 8321B	Primidone-d5	94.6	P	30 - 160
EPA 8321B	Sucralose-d6	94.2	P	30 - 160
EPA 8321B	Sucralose-d6	94.2	P	30 - 160

Lab Sample ID: 2158504
Field Sample ID: G3SE0019_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	131	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2158504

Field Sample ID: G3SE0019_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	90.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	70.6	P	30 - 160
EPA 8321B	Diuron-d6	67.4	P	30 - 160
EPA 8321B	Endothall-d6	114	P	30 - 160
EPA 8321B	Endothall-d6	114	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	119	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	119	P	30 - 160
EPA 8321B	Ibuprofen-d3	85.8	P	30 - 160
EPA 8321B	Primidone-d5	96.5	P	30 - 160
EPA 8321B	Sucralose-d6	90.7	P	30 - 160
EPA 8321B	Sucralose-d6	90.7	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A97621

Included Lab Sample IDs: 2158473, 2158476, 2158479, 2158482, 2158483

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	101	P/P	95 - 105
Turbidity	100	100	P/P	95 - 105
Turbidity	99.5	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A97622

Included Lab Sample IDs: 2158475, 2158478, 2158481, 2158486, 2158487

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	95.7	95.3	P/P	90 - 110
O-Phosphate-P	97.4	99.3	P/P	90 - 110
O-Phosphate-P	98.3	95.7	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A97655

Included Lab Sample IDs: 2158476, 2158479, 2158482, 2158483

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	98.6	P/P	90 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A97683

Included Lab Sample IDs: 2158474

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	103	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A97709

Included Lab Sample IDs: 2158474, 2158477, 2158480, 2158484, 2158485

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.5	97.8	P/P	90 - 110
Kjeldahl Nitrogen	98.8	99.9	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A97718

Included Lab Sample IDs: 2158474, 2158477, 2158480, 2158484, 2158485

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.1	100	P/P	90 - 110
Organic Carbon	99.3	100	P/P	90 - 110
Organic Carbon	100	96.9	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A97739

Included Lab Sample IDs: 2158473, 2158476, 2158479, 2158482, 2158483

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	104	P/P	90 - 110
Total Alkalinity	102	105	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-2011

Run ID: A97739

Included Lab Sample IDs: 2158473, 2158476, 2158479, 2158482, 2158483

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	93.0	P/P	90 - 110
Fluoride	101	101	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A97750

Included Lab Sample IDs: 2158473

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A97754

Included Lab Sample IDs: 2158474

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.4	101	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A97771

Included Lab Sample IDs: 2158476, 2158479, 2158482, 2158483

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	100	P/P	90 - 110
Chloride	97.2	98.6	P/P	90 - 110
Sulfate	100	100	P/P	90 - 110
Sulfate	97.5	98.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A97793

Included Lab Sample IDs: 2158477, 2158480, 2158484, 2158485

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	102	P/P	90 - 110
Ammonia-N	103	102	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A97817

Included Lab Sample IDs: 2158501, 2158502, 2158503, 2158504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	96.3	67.0	P/P	60 - 160
Endothall	102	96.2	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A97819

Included Lab Sample IDs: 2158501, 2158502, 2158503, 2158504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	77.9	78.0	P/P	60 - 160
AMPA	80.1	75.4	P/P	60 - 160
Glufosinate	103	95.6	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A97819

Included Lab Sample IDs: 2158501, 2158502, 2158503, 2158504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glufosinate	109	96.6	P/P	60 - 160
Glyphosate	105	110	P/P	60 - 160
Glyphosate	113	108	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A97848

Included Lab Sample IDs: 2158477, 2158480, 2158484, 2158485

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A97855

Included Lab Sample IDs: 2158477, 2158480, 2158484

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.2	P/P	90 - 110
Total-P	99.2	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A97880

Included Lab Sample IDs: 2158485

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A97881

Included Lab Sample IDs: 2158474

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

Reference Method: EPA 8321B

Run ID: A97908

Included Lab Sample IDs: 2158501, 2158502

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	109	107	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A97978

Included Lab Sample IDs: 2158501, 2158502, 2158503, 2158504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	97.2	99.8	P/P	50 - 150
Acetaminophen	97.4	96.1	P/P	60 - 160
Acetamiprid	98.4	89.7	P/P	50 - 150
Afidopyropen	99.0	94.6	P/P	50 - 150
Bentazon	116	122	P/P	50 - 160
Benzovindiflupyr	103	94.3	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A97978

Included Lab Sample IDs: 2158501, 2158502, 2158503, 2158504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbamazepine	101	98.5	P/P	60 - 150
Clothianidin	93.8	98.8	P/P	60 - 150
Dinotefuran	103	81.8	P/P	50 - 150
Diuron	93.8	104	P/P	60 - 150
Fenuron	88.4	96.9	P/P	60 - 150
Fluridone	107	109	P/P	60 - 160
Hydrocodone	92.1	89.3	P/P	60 - 150
Ibuprofen	90.3	91.2	P/P	50 - 160
Imazapyr	109	96.0	P/P	50 - 150
Imidacloprid	101	88.7	P/P	60 - 150
Linuron	100	91.6	P/P	60 - 150
Mandestrobin	99.3	100	P/P	50 - 150
MCPP	101	104	P/P	50 - 150
Naproxen	79.6	114	P/P	50 - 160
Primidone	102	91.5	P/P	60 - 150
Pyraclostrobin	94.0	93.7	P/P	60 - 150
Thiamethoxam	104	83.7	P/P	50 - 150
Tolfenpyrad	93.2	92.0	P/P	60 - 150
Triclopyr	112	98.1	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A98066

Included Lab Sample IDs: 2158501, 2158503, 2158504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bentazon	109	105	P/P	50 - 160

Reference Method: EPA 8321B

Run ID: A98073

Included Lab Sample IDs: 2158503, 2158504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	90.3	108	P/P	60 - 160

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery			MS % Recovery			LCS	Precision	
									SMP	MS
EPA 180.1 Rev. 2.0	Turbidity								0.966	
	Turbidity								4.94	
	Turbidity								0.881	
EPA 300.0 Rev. 2.1	Bromide	102			99.3	99.0	97.4			0.270
	Chloride	101			100	101			1.30	
	Chloride	96.7			99.6	102			0.696	
	Sulfate	102			98.8	100			1.23	
	Sulfate	97.9			96.8	101			1.03	
EPA 350.1 Rev. 2.0	Ammonia-N	93.7			97.7	96.5				1.13
	Ammonia-N	97.4			100	101				0.735
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.9			98.8	97.4				1.26
	Kjeldahl Nitrogen	101			109	104				2.82
EPA 353.2 Rev. 2.0	NO2NO3-N	101			99.0	101				2.00
	NO2NO3-N	100			100	100				0.0
EPA 365.1 Rev. 2.0	Total-P	104			105	107				1.39
	Total-P	106			99.4	99.4				0.0246
	Total-P	104			103	104				0.615
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101			99.6	100				0.203
	O-Phosphate-P	103			96.8	92.6				2.17
	O-Phosphate-P	97.9			95.0	96.8				1.01
EPA 8321B	2,4-D	133			131	142				8.66
	Acesulfame K	95.5			79.3	75.2				4.80
	Acetaminophen	88.1			92.5	114				20.6
	Acetamiprid	82.0			78.4	57.3				31.1
	Afidopyropen	71.5			87.0	80.3				8.04
	AMPA	98.1			83.7	77.7				7.50
	Bentazon	76.6								21.0
	Benzovindiflupyr	78.1			75.4	82.7				9.23
	Carbamazepine	80.5			66.9	70.5				5.32
	Clothianidin	70.9			92.3	104				12.3
	Dinotefuran	79.0			119	120				0.777
	Diuron	78.7			63.8	65.4				2.51
	Endothall	86.8			106	97.5				8.73
	Fenuron	91.3			77.4	71.1				8.43
	Fluridone	92.4			88.0	90.0				1.75
	Glufosinate	95.0			195	246				23.2
	Glyphosate	93.1			183	213				15.1
	Hydrocodone	82.6			78.4	95.1				19.2
	Ibuprofen	86.7			79.4	82.2				3.35
	Imazapyr	90.1								2.90
	Imidacloprid	89.6			157	138				12.8
	Linuron	73.5			75.0	71.5				4.70
	Mandestrobin	87.7			84.9	88.5				4.07
	MCPP	131			133	134				0.847
	Naproxen	83.9			97.3	117				18.7
	Primidone	79.7			85.7	88.2				2.92
	Pyraclostrobin	82.3			83.5	88.0				5.19
	Sucralose	113			108	101				5.72
	Thiamethoxam	86.9			108	121				11.2
	Tolfenpyrad	58.6			57.1	57.5				0.759
	Triclopyr	105			115	130				11.8
SM 2120 B-2011	Color (true)	100							1.87	
SM 2320 B-2011	Total Alkalinity	104							0.288	
	Total Alkalinity	104							0.563	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
SM 2540 C-2011	TDS				2.76	
SM 4500 F-C-2011	Fluoride	99.0	98.8	99.3		0.477
	Fluoride	99.0	98.6	100		0.972
SM 5310 B-2011	Organic Carbon	99.0	99.8	101		0.707
	Organic Carbon	96.6	98.2	98.5		0.260

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2158473, 2158476, 2158479, 2158482, 2158483
EPA 300.0 Rev. 2.1	Bromide in aqueous matrices	2158473
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2158476, 2158479, 2158482, 2158483
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2158476, 2158479, 2158482, 2158483
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2158474, 2158477, 2158480, 2158484, 2158485
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2158474, 2158477, 2158480, 2158484, 2158485
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2158474, 2158477, 2158480, 2158484, 2158485
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2158474, 2158477, 2158480, 2158484, 2158485
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2158475, 2158478, 2158481, 2158486, 2158487
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2158501, 2158502, 2158503, 2158504
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2158501, 2158502, 2158503, 2158504
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2158476, 2158479, 2158482, 2158483
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2158473, 2158476, 2158479, 2158482, 2158483
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2158476, 2158479, 2158482, 2158483
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2158473, 2158476, 2158479, 2158482, 2158483
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2158473, 2158476, 2158479, 2158482, 2158483
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2158474, 2158477, 2158480, 2158484, 2158485

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	02/18/2020			02/18/2020 16:35	Yen Ta	2158473, 2158476, 2158479, 2158482, 2158483
EPA 300.0 Rev. 2.1	02/18/2020			02/22/2020 16:53	Lipi Saha	2158473
	02/18/2020			02/26/2020 06:24	Lipi Saha	2158476
	02/18/2020			02/26/2020 12:44	Elliott Rodriguez	2158479
	02/18/2020			02/26/2020 13:33	Elliott Rodriguez	2158482
EPA 350.1 Rev. 2.0	02/18/2020			02/26/2020 13:45	Elliott Rodriguez	2158483
	02/18/2020			02/21/2020 10:34	Ping Hua	2158474
	02/18/2020			02/24/2020 12:02	Ping Hua	2158477
	02/18/2020			02/24/2020 12:04	Ping Hua	2158480
EPA 351.2 Rev. 2.0	02/18/2020			02/24/2020 14:58	Ping Hua	2158484
	02/18/2020			02/24/2020 15:00	Ping Hua	2158485
	02/18/2020	02/20/2020 13:30	Sima Feizi	02/21/2020 08:57	Jhamieka S. Greenwood	2158474
	02/18/2020	02/20/2020 13:40	Sima Feizi	02/21/2020 10:10	Jhamieka S. Greenwood	2158477
EPA 353.2 Rev. 2.0	02/18/2020	02/20/2020 13:40	Sima Feizi	02/21/2020 10:12	Jhamieka S. Greenwood	2158480
	02/18/2020	02/20/2020 13:40	Sima Feizi	02/21/2020 10:13	Jhamieka S. Greenwood	2158484
	02/18/2020	02/20/2020 13:40	Sima Feizi	02/21/2020 10:15	Jhamieka S. Greenwood	2158485
	02/18/2020			02/20/2020 13:26	Lauren Lees	2158474
EPA 365.1 Rev. 2.0	02/18/2020			02/27/2020 10:42	Beverly Y. Sanders	2158477
	02/18/2020			02/27/2020 10:43	Beverly Y. Sanders	2158480
	02/18/2020			02/27/2020 10:45	Beverly Y. Sanders	2158484
	02/18/2020			02/27/2020 10:46	Beverly Y. Sanders	2158485
EPA 365.1 Rev. 2.0 dissolved	02/18/2020	02/26/2020 14:15	Lipi Saha	02/27/2020 12:53	Benjamin T. Nordmann	2158477
	02/18/2020	02/26/2020 14:15	Lipi Saha	02/27/2020 12:54	Benjamin T. Nordmann	2158480
	02/18/2020	02/26/2020 14:15	Lipi Saha	02/27/2020 12:57	Benjamin T. Nordmann	2158484
	02/18/2020	02/27/2020 13:38	Yen Ta	02/28/2020 09:40	Lipi Saha	2158485
EPA 8321B	02/18/2020	02/27/2020 13:38	Yen Ta	02/28/2020 10:33	Lipi Saha	2158474
	02/18/2020			02/18/2020 15:50	Carlos Miranda	2158478
	02/18/2020			02/18/2020 16:25	Carlos Miranda	2158475
	02/18/2020			02/18/2020 16:31	Carlos Miranda	2158486
	02/18/2020			02/18/2020 16:37	Carlos Miranda	2158487
	02/18/2020			02/18/2020 16:44	Carlos Miranda	2158481
	02/18/2020	02/19/2020 16:00	Rebecca Ware	02/19/2020 23:14	Rebecca Ware	2158501
	02/18/2020	02/19/2020 16:00	Rebecca Ware	02/19/2020 23:28	Rebecca Ware	2158502
	02/18/2020	02/19/2020 16:00	Rebecca Ware	02/19/2020 23:42	Rebecca Ware	2158503
	02/18/2020	02/19/2020 16:00	Rebecca Ware	02/19/2020 23:56	Rebecca Ware	2158504
	02/18/2020	02/19/2020 16:00	Rebecca Ware	02/20/2020 21:30	Rebecca Ware	2158502
	02/18/2020	02/19/2020 16:00	Rebecca Ware	02/20/2020 21:40	Rebecca Ware	2158503
	02/18/2020	02/19/2020 16:00	Rebecca Ware	02/20/2020 21:51	Rebecca Ware	2158504
	02/18/2020	02/19/2020 16:00	Rebecca Ware	02/21/2020 06:02	Rebecca Ware	2158501

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	02/18/2020	02/19/2020 16:00	Rebecca Ware	02/26/2020 22:33	Rebecca Ware	2158501
	02/18/2020	02/19/2020 16:00	Rebecca Ware	02/26/2020 22:45	Rebecca Ware	2158502
	02/18/2020	02/19/2020 16:00	Rebecca Ware	03/05/2020 11:07	Rebecca Ware	2158503
	02/18/2020	02/19/2020 16:00	Rebecca Ware	03/05/2020 11:19	Rebecca Ware	2158504
	02/18/2020	02/20/2020 10:00	Hoor Shaik	03/04/2020 04:12	Juyoung Kim	2158501
	02/18/2020	02/20/2020 10:00	Hoor Shaik	03/04/2020 04:46	Juyoung Kim	2158502
	02/18/2020	02/20/2020 10:00	Hoor Shaik	03/04/2020 05:21	Juyoung Kim	2158503
	02/18/2020	02/20/2020 10:00	Hoor Shaik	03/04/2020 05:56	Juyoung Kim	2158504
	02/18/2020	02/20/2020 10:00	Hoor Shaik	03/06/2020 01:26	Juyoung Kim	2158504
	02/18/2020	02/20/2020 10:00	Hoor Shaik	03/06/2020 12:17	Juyoung Kim	2158501
	02/18/2020	02/20/2020 10:00	Hoor Shaik	03/06/2020 12:51	Juyoung Kim	2158503
	02/18/2020			02/18/2020 17:27	Madeline Funaro	2158476
SM 2120 B-2011	02/18/2020			02/18/2020 17:28	Madeline Funaro	2158479
	02/18/2020			02/18/2020 17:29	Madeline Funaro	2158482
	02/18/2020			02/18/2020 17:30	Madeline Funaro	2158483
	02/18/2020			02/22/2020 19:14	Dale L. Simmons	2158476
SM 2320 B-2011	02/18/2020			02/22/2020 19:27	Dale L. Simmons	2158479
	02/18/2020			02/22/2020 19:40	Dale L. Simmons	2158482
	02/18/2020			02/22/2020 19:53	Dale L. Simmons	2158483
	02/18/2020			02/23/2020 02:06	Dale L. Simmons	2158473
	02/18/2020			02/21/2020 15:21	Yijie Li	2158476, 2158479, 2158482, 2158483
SM 2540 C-2011	02/18/2020			02/21/2020 15:21	Yijie Li	2158473, 2158476, 2158479, 2158482, 2158483
SM 4500 F-C-2011	02/18/2020			02/22/2020 19:14	Dale L. Simmons	2158476
	02/18/2020			02/22/2020 19:27	Dale L. Simmons	2158479
	02/18/2020			02/22/2020 19:40	Dale L. Simmons	2158482
	02/18/2020			02/22/2020 19:53	Dale L. Simmons	2158483
	02/18/2020			02/23/2020 00:40	Dale L. Simmons	2158473
SM 5310 B-2011	02/18/2020			02/19/2020 23:44	Madeline Funaro	2158477
	02/18/2020			02/20/2020 03:13	Madeline Funaro	2158480
	02/18/2020			02/20/2020 03:25	Madeline Funaro	2158484
	02/18/2020			02/20/2020 03:38	Madeline Funaro	2158485
	02/18/2020			02/20/2020 06:20	Madeline Funaro	2158474