

Chemical Analysis Report

NE-DIST-2020-12-29-01

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

Event Description: **Pellicer Creek and Pringle makeup**
Request ID: **RQ-2020-12-28-03**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Colin Wright, Program Administrator

Date Certified: 26-JAN-2021 08:31

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular background.

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Metals, 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: Pellicer Creek @ Styles Creek

Collection Date/Time: 12/28/2020 11:00

Field ID: G5NE0592

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2215894	EPA 180.1 Rev. 2.0	Turbidity	2.3		NTU	P391828	
	EPA 300.0 Rev. 2.1	Bromide	45		mg Br/L	P392117	
		Sulfate	1.7E+03		mg SO4/L	P392043	
	SM 2320 B-2011	Total Alkalinity	98	A	mg CaCO3/L	P391893	
	SM 2540 D-2011	TSS	3	UA	mg/L	P392116	
	SM 4500 F-C-2011	Fluoride	0.78		mg F/L	P391895	
2215895	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P391886	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.50		mg N/L	P392096	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P391853	
	EPA 365.1 Rev. 2.0	Total-P	0.039		mg P/L	P391912	
	SM 5310 B-2011	Organic Carbon	8.9		mg C/L	P391942	
2215905	EPA 8321B	2,4-D	0.0055	I	ug/L	P391795	
		Acesulfame K**	0.10	UJ	ug/L	P391850	SUR
		AMPA**	0.10	UJ	ug/L	P391850	SUR
		Sucralose**	0.22		ug/L	P391850	
		Acetaminophen**	0.0080	U	ug/L	P391795	
		Acetamiprid**	0.0020	U	ug/L	P391795	
		Endothal**	0.25	UJ	ug/L	P391850	SUR
		Glufosinate**	0.10	UJ	ug/L	P391850	SUR
		Glyphosate**	0.10	UJ	ug/L	P391850	SUR
		Afidopyropen**	0.0020	U	ug/L	P391795	
		Bentazon	0.011		ug/L	P391795	
		Benzovindiflupyr**	0.0020	U	ug/L	P391795	
		Carbamazepine**	8.0E-04	U	ug/L	P391795	
		Clothianidin**	0.0020	U	ug/L	P391795	
		Dinotefuran**	0.0020	U	ug/L	P391795	
		Diuron	0.0020	U	ug/L	P391795	
		Fenuron	0.016	U	ug/L	P391795	
		Fluridone**	8.0E-04	U	ug/L	P391795	
		Imazapyr**	0.057		ug/L	P391795	
		Hydrocodone**	0.0020	U	ug/L	P391795	
		Ibuprofen**	0.020	U	ug/L	P391795	
		Imidacloprid	0.0020	U	ug/L	P391795	
		Linuron	0.0040	U	ug/L	P391795	
		Mandestrobin**	0.0020	U	ug/L	P391795	
		MCP	0.0020	U	ug/L	P391795	
		Naproxen**	0.0080	U	ug/L	P391795	
		Primidone**	0.0040	U	ug/L	P391795	
		Pyraclostrobin**	0.0020	U	ug/L	P391795	
		Thiamethoxam**	0.0020	U	ug/L	P391795	
		Tolfenpyrad**	0.0020	U	ug/L	P391795	
		Triclopyr**	0.0040	U	ug/L	P391795	
2215906	EPA 200.7 Rev. 4.4	Calcium	277		mg/L	P392005	
		Chromium	7.8	I	ug/L	P392005	

Field ID: G5NE0592

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2215906	EPA 200.7 Rev. 4.4	Iron	140	I	ug/L	P392005	
		Magnesium	844		mg/L	P392005	
		Manganese	6.5	I	ug/L	P392005	
		Zinc	15	U	ug/L	P392005	
	EPA 200.8 Rev. 5.4	Aluminum	172	J	ug/L	P392005	MS
		Antimony	0.20	U	ug/L	P392005	
		Arsenic	1.50		ug/L	P392005	
		Beryllium	0.040	U	ug/L	P392005	
		Cadmium	0.080	U	ug/L	P392005	
		Copper	1.6	U	ug/L	P392005	
		Lead	0.80	U	ug/L	P392005	
		Nickel	2.0	U	ug/L	P392005	
		Selenium	0.80	U	ug/L	P392005	
		Silver	0.040	U	ug/L	P392005	
		Thallium	0.40	U	ug/L	P392005	
2215909	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.023		mg P/L	P391827	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Bromide: Batch matrix spike recoveries and relative percent difference are unavailable because of high analyte concentration in the QC sample.

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

EPA 8321B: MS accuracy for bentazon 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.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium and magnesium are unavailable because of high analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Pellicer 1.3 Mi Downstream of I95

Collection Date/Time: 12/28/2020 11:30

Field ID: G5NE0593

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2215896	EPA 180.1 Rev. 2.0	Turbidity	3.4	A	NTU	P391828	
	EPA 300.0 Rev. 2.1	Bromide	7.2		mg Br/L	P392117	
	SM 2320 B-2011	Total Alkalinity	69		mg CaCO3/L	P391892	
	SM 2540 D-2011	TSS	4	IA	mg/L	P392115	
	SM 4500 F-C-2011	Fluoride	0.18		mg F/L	P391894	MS
2215897	EPA 350.1 Rev. 2.0	Ammonia-N	0.026		mg N/L	P391886	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.77		mg N/L	P392096	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	I	mg N/L	P391853	
	EPA 365.1 Rev. 2.0	Total-P	0.073		mg P/L	P391912	
	SM 5310 B-2011	Organic Carbon	20		mg C/L	P391941	
2215898	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.042		mg P/L	P391827	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Bromide: Batch matrix spike recoveries and relative percent difference are unavailable because of high analyte concentration in the QC sample.

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P391828

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P392005

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Chromium	1.0	U	ug/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Manganese	1.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P392005

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Beryllium	0.010	U	ug/L
Cadmium	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P392043

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P392117

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391886

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P392096

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P391853

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P391912

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P391827

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

Reference Method: EPA 8321B

Batch ID: P391795

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

Reference Method: EPA 8321B

Batch ID: P391850

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P391850

Component	Result	Code	Units
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: SM 2320 B-2011
Batch ID: P391892

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

Reference Method: SM 2320 B-2011
Batch ID: P391893

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

Reference Method: SM 2540 D-2011
Batch ID: P392115

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P392116

Component	Result	Code	Units
TSS	3	U	

Reference Method: SM 4500 F-C-2011
Batch ID: P391894

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-2011
Batch ID: P391895

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P391941

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

Reference Method: SM 5310 B-2011
Batch ID: P391942

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P392005

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	99.8		P	85 - 115
Chromium	103		P	85 - 115
Iron	103		P	85 - 115
Magnesium	98.2		P	85 - 115
Manganese	103		P	85 - 115
Zinc	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P392005

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	94.3		P	85 - 115
Arsenic	98.2		P	85 - 115
Beryllium	94.7		P	85 - 115
Cadmium	93.7		P	85 - 115
Copper	93.9		P	85 - 115
Lead	100		P	85 - 115
Nickel	93.0		P	85 - 115
Selenium	97.3		P	85 - 115
Silver	104		P	85 - 115
Thallium	95.5		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P392043

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P392117

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	97.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391886

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P392096

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391853

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P391912

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P391827

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

Reference Method: EPA 8321B

Batch ID: P391795

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	136		P	30 - 160
Acetaminophen	94.9		P	30 - 160
Acetamiprid	104		P	30 - 160
Afidopyropen	69.0		P	30 - 160
Bentazon	107		P	30 - 160
Benzovindiflupyr	80.8		P	30 - 160
Carbamazepine	88.3		P	30 - 160
Clothianidin	89.9		P	30 - 160
Dinotefuran	103		P	30 - 160
Diuron	68.4		P	30 - 160
Fenuron	95.7		P	30 - 160
Fluridone	88.2		P	30 - 160
Hydrocodone	103		P	30 - 160
Ibuprofen	72.1		P	30 - 160
Imazapyr	98.5		P	30 - 160
Imidacloprid	127		P	30 - 160
Linuron	69.6		P	30 - 160
Mandestrobin	105		P	30 - 160
MCPP	119		P	30 - 160
Naproxen	70.7		P	30 - 160
Primidone	94.8		P	30 - 160
Pyraclostrobin	78.0		P	30 - 160
Thiamethoxam	91.3		P	30 - 160
Tolfenpyrad	51.4		P	30 - 160
Triclopyr	111		P	30 - 160

Reference Method: EPA 8321B

Batch ID: P391850

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	114		P	40 - 150
AMPA	68.4		P	40 - 150
Endothall	93.6		P	40 - 150
Glufosinate	99.6		P	40 - 150
Glyphosate	94.8		P	40 - 140
Sucralose	107		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P391892

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.1		P	93 - 104

Reference Method: SM 2320 B-2011
Batch ID: P391893

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.9		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P391894

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.7		P	90 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P391895

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	93.9		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P391941

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.3		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P391942

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P392005

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215906	Chromium	95.6	96.6	P/P	70 - 130
2215906	Iron	96.5	97.0	P/P	70 - 130
2215906	Manganese	97.2	97.0	P/P	70 - 130
2215906	Zinc	96.4	94.6	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P392005

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215906	Aluminum	137	145	F/F	70 - 130
2215906	Antimony	101	104	P/P	70 - 130
2215906	Arsenic	108	111	P/P	70 - 130
2215906	Beryllium	81.1	78.4	P/P	70 - 130
2215906	Cadmium	88.5	94.9	P/P	70 - 130
2215906	Copper	113	120	P/P	70 - 130
2215906	Lead	114	118	P/P	70 - 130
2215906	Nickel	107	112	P/P	70 - 130
2215906	Selenium	94.2	97.4	P/P	70 - 130
2215906	Silver	93.4	97.5	P/P	70 - 130
2215906	Thallium	109	116	P/P	70 - 130

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P392043

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215468	Sulfate	97.0		P	90 - 110
2215984	Sulfate	99.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P391886

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215883	Ammonia-N	97.6	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P392096

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2216495	Kjeldahl Nitrogen	79.1	78.5	F/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P391853

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215895	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P391912

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215526	Total-P	96.5	97.3	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391827

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215885	O-Phosphate-P	96.9	95.9	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P391795

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215905	2,4-D	124	123	P/P	30 - 160
2215905	Acetaminophen	79.7	79.1	P/P	30 - 160
2215905	Acetamiprid	86.6	83.7	P/P	30 - 160
2215905	Afidopyropen	63.1	64.4	P/P	30 - 160
2215905	Benzovindiflupyr	78.3	83.1	P/P	30 - 160
2215905	Carbamazepine	68.9	69.1	P/P	30 - 160
2215905	Clothianidin	82.1	79.9	P/P	30 - 160
2215905	Dinotefuran	102	98.8	P/P	30 - 160
2215905	Diuron	54.9	54.4	P/P	30 - 160
2215905	Fenuron	80.3	69.5	P/P	30 - 160
2215905	Fluridone	84.4	96.8	P/P	30 - 160
2215905	Hydrocodone	102	94.7	P/P	30 - 160
2215905	Ibuprofen	75.0	75.5	P/P	30 - 160
2215905	Imazapyr	94.3	113	P/P	30 - 160
2215905	Imidacloprid	130	133	P/P	30 - 160
2215905	Linuron	68.1	68.1	P/P	30 - 160
2215905	Mandestrobin	91.6	101	P/P	30 - 160
2215905	MCPP	101	100	P/P	30 - 160
2215905	Naproxen	65.0	71.0	P/P	30 - 160
2215905	Primidone	83.4	72.3	P/P	30 - 160
2215905	Pyraclostrobin	71.9	73.3	P/P	30 - 160
2215905	Thiamethoxam	97.6	96.9	P/P	30 - 160
2215905	Tolfenpyrad	51.0	49.9	P/P	30 - 160
2215905	Triclopyr	98.3	110	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P391850

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215990	Acesulfame K	101	107	P/P	40 - 150
2215990	AMPA	59.4	62.8	P/P	40 - 150
2215990	Endothall	99.8	98.9	P/P	40 - 150
2215990	Glufosinate	90.8	97.8	P/P	40 - 150
2215990	Glyphosate	66.3	82.7	P/P	40 - 140
2215990	Sucralose	59.8	42.9	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P391894

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215931	Fluoride	93.0	91.5	F/F	94 - 107

Reference Method: SM 4500 F-C-2011
Batch ID: P391895

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P391895

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215894	Fluoride	95.8	95.8	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P391941

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215897	Organic Carbon	100		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P391942

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215895	Organic Carbon	95.6	96.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P391828

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215896	Turbidity	0.871	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P392005

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215906	Calcium	1.27	Spike	P	0 - 20
2215906	Chromium	0.929	Spike	P	0 - 20
2215906	Iron	0.546	Spike	P	0 - 20
2215906	Magnesium	3.79	Spike	P	0 - 20
2215906	Manganese	0.203	Spike	P	0 - 20
2215906	Zinc	1.83	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P392005

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215906	Aluminum	5.47	Spike	P	0 - 20
2215906	Antimony	3.28	Spike	P	0 - 20
2215906	Arsenic	2.74	Spike	P	0 - 20
2215906	Beryllium	3.42	Spike	P	0 - 20
2215906	Cadmium	6.89	Spike	P	0 - 20
2215906	Copper	6.38	Spike	P	0 - 20
2215906	Lead	4.22	Spike	P	0 - 20
2215906	Nickel	4.59	Spike	P	0 - 20
2215906	Selenium	3.36	Spike	P	0 - 20
2215906	Silver	4.34	Spike	P	0 - 20
2215906	Thallium	6.04	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P392043

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215468	Sulfate	0.448	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391886

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215883	Ammonia-N	0.375	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P392096

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2216495	Kjeldahl Nitrogen	0.598	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P391853

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215895	NO2NO3-N	0.499	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P391912

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215526	Total-P	0.779	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P391827

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215885	O-Phosphate-P	1.04	Spike	P	0 - 20

Reference Method: EPA 8321B

Batch ID: P391795

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215905	2,4-D	0.537	Spike	P	0 - 30
2215905	Acetaminophen	0.690	Spike	P	0 - 30
2215905	Acetamiprid	3.49	Spike	P	0 - 30
2215905	Afidopyropen	2.06	Spike	P	0 - 30
2215905	Bentazon	2.02	Spike	P	0 - 30
2215905	Benzovindiflupyr	5.90	Spike	P	0 - 30
2215905	Carbamazepine	0.225	Spike	P	0 - 30
2215905	Clothianidin	2.73	Spike	P	0 - 30
2215905	Dinotefuran	3.40	Spike	P	0 - 30
2215905	Diuron	0.951	Spike	P	0 - 30
2215905	Fenuron	14.4	Spike	P	0 - 30
2215905	Fluridone	13.7	Spike	P	0 - 30
2215905	Hydrocodone	7.45	Spike	P	0 - 30
2215905	Ibuprofen	0.654	Spike	P	0 - 30
2215905	Imazapyr	10.9	Spike	P	0 - 30
2215905	Imidacloprid	2.42	Spike	P	0 - 30
2215905	Linuron	0.00382	Spike	P	0 - 30
2215905	Mandestrobin	9.33	Spike	P	0 - 30
2215905	MCPP	0.460	Spike	P	0 - 30
2215905	Naproxen	8.82	Spike	P	0 - 30
2215905	Primidone	14.2	Spike	P	0 - 30
2215905	Pyraclostrobin	2.01	Spike	P	0 - 30
2215905	Thiamethoxam	0.740	Spike	P	0 - 30
2215905	Tolfenpyrad	2.14	Spike	P	0 - 30
2215905	Triclopyr	10.9	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P391850

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215990	Acesulfame K	5.01	Spike	P	0 - 30
2215990	AMPA	3.62	Spike	P	0 - 30
2215990	Endothall	0.975	Spike	P	0 - 30
2215990	Glufosinate	7.44	Spike	P	0 - 30
2215990	Glyphosate	7.88	Spike	P	0 - 30
2215990	Sucralose	29.6	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P391892

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215931	Total Alkalinity	2.78	Sample	P	0 - 8.1

Reference Method: SM 2320 B-2011

Batch ID: P391893

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215894	Total Alkalinity	1.88	Sample	P	0 - 8.1

Reference Method: SM 4500 F-C-2011

Batch ID: P391894

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215931	Fluoride	1.45	Spike	P	0 - 2.8

Reference Method: SM 4500 F-C-2011

Batch ID: P391895

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215894	Fluoride	0.0	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011

Batch ID: P391941

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215897	Organic Carbon	0.883	Spike	P	0 - 20

Reference Method: SM 5310 B-2011

Batch ID: P391942

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215895	Organic Carbon	0.424	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2215905

Field Sample ID: G5NE0592

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	118	P	30 - 160
EPA 8321B	Acetaminophen-d4	64.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	50.6	P	30 - 160
EPA 8321B	Diuron-d6	57.1	P	30 - 160
EPA 8321B	Endothall-d6	465	F	40 - 160
EPA 8321B	Endothall-d6	465	F	40 - 160
EPA 8321B	Glyphosate 13C 15N	0.0	F	40 - 160
EPA 8321B	Glyphosate 13C 15N	0.0	F	40 - 160
EPA 8321B	Ibuprofen-d3	77.2	P	30 - 160
EPA 8321B	Primidone-d5	74.4	P	30 - 160
EPA 8321B	Sucralose-d6	43.6	P	30 - 160
EPA 8321B	Sucralose-d6	43.6	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A102817

Included Lab Sample IDs: 2215898, 2215909

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.8	98.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A102818

Included Lab Sample IDs: 2215894, 2215896

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A102830

Included Lab Sample IDs: 2215895, 2215897

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A102851

Included Lab Sample IDs: 2215895, 2215897

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

Reference Method: SM 2320 B-2011

Run ID: A102854

Included Lab Sample IDs: 2215894, 2215896

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	93.3	97.4	P/P	90 - 110
Total Alkalinity	97.4	94.7	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A102854

Included Lab Sample IDs: 2215894, 2215896

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	95.8	96.3	P/P	90 - 110
Fluoride	96.3	96.7	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A102858

Included Lab Sample IDs: 2215905

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	120	102	P/P	60 - 160
AMPA	64.9	63.8	P/P	60 - 160
Endothall	93.7	93.4	P/P	60 - 160
Glufosinate	98.4	98.8	P/P	60 - 160
Glyphosate	104	101	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A102859
Included Lab Sample IDs: 2215905

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	93.6	98.7	P/P	60 - 160

Reference Method: SM 5310 B-2011
Run ID: A102874
Included Lab Sample IDs: 2215895, 2215897

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.3	96.0	P/P	90 - 110
Organic Carbon	95.6	95.6	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A102875
Included Lab Sample IDs: 2215894

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

Reference Method: EPA 8321B
Run ID: A102879
Included Lab Sample IDs: 2215905

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	133	107	P/P	60 - 160
Acetamiprid	95.3	114	P/P	50 - 150
Afidopyropen	100	96.4	P/P	50 - 150
Benzovindiflupyr	128	121	P/P	50 - 160
Carbamazepine	146	148	P/P	60 - 150
Clothianidin	118	117	P/P	60 - 150
Dinotefuran	112	104	P/P	50 - 150
Diuron	138	130	P/P	60 - 160
Fenuron	137	131	P/P	60 - 150
Fluridone	139	129	P/P	60 - 160
Hydrocodone	118	117	P/P	60 - 150
Imidacloprid	119	116	P/P	60 - 150
Linuron	119	126	P/P	60 - 150
Mandestrobin	134	135	P/P	50 - 150
Primidone	101	117	P/P	60 - 150
Pyraclostrobin	124	120	P/P	60 - 150
Thiamethoxam	120	121	P/P	50 - 150
Tolfenpyrad	115	111	P/P	60 - 150

Reference Method: EPA 8321B
Run ID: A102896
Included Lab Sample IDs: 2215905

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	101	93.0	P/P	50 - 150
Bentazon	115	97.8	P/P	50 - 160
Ibuprofen	112	91.6	P/P	50 - 160
Imazapyr	97.8	96.0	P/P	50 - 160
MCPP	106	91.6	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A102896
Included Lab Sample IDs: 2215905

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Naproxen	98.9	105	P/P	50 - 160
Triclopyr	101	93.3	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A102901
Included Lab Sample IDs: 2215895, 2215897

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.5	99.2	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A102939
Included Lab Sample IDs: 2215906

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	98.6	96.7	P/P	90 - 110
Chromium	99.7	98.8	P/P	90 - 110
Iron	96.8	94.7	P/P	90 - 110
Magnesium	95.8	96.3	P/P	90 - 110
Manganese	99.1	99.3	P/P	90 - 110
Zinc	104	101	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A102942
Included Lab Sample IDs: 2215906

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	105	110	P/P	90 - 110
Antimony	94.7	95.0	P/P	90 - 110
Arsenic	101	103	P/P	90 - 110
Cadmium	99.1	98.3	P/P	90 - 110
Copper	97.0	105	P/P	90 - 110
Lead	105	104	P/P	90 - 110
Nickel	96.3	102	P/P	90 - 110
Selenium	101	103	P/P	90 - 110
Silver	103	102	P/P	90 - 110
Thallium	99.0	97.9	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A102949
Included Lab Sample IDs: 2215894, 2215896

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	94.4	97.1	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A102967
Included Lab Sample IDs: 2215906

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beryllium	102	97.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A102975

Included Lab Sample IDs: 2215895, 2215897

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	101	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 SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					0.871	
EPA 200.7 Rev. 4.4	Calcium	99.8					1.27
	Chromium	103	95.6	96.6			0.929
	Iron	103	96.5	97.0			0.546
	Magnesium	98.2					3.79
	Manganese	103	97.2	97.0			0.203
	Zinc	103	96.4	94.6			1.83
EPA 200.8 Rev. 5.4	Aluminum	101	137	145			5.47
	Antimony	94.3	101	104			3.28
	Arsenic	98.2	108	111			2.74
	Beryllium	94.7	81.1	78.4			3.42
	Cadmium	93.7	88.5	94.9			6.89
	Copper	93.9	113	120			6.38
	Lead	100	114	118			4.22
	Nickel	93.0	107	112			4.59
	Selenium	97.3	94.2	97.4			3.36
	Silver	104	93.4	97.5			4.34
	Thallium	95.5	109	116			6.04
EPA 300.0 Rev. 2.1	Bromide	97.2					
	Sulfate	99.0	97.0	99.8		0.448	
EPA 350.1 Rev. 2.0	Ammonia-N	97.8	97.6	98.2			0.375
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	79.1	78.5			0.598
EPA 353.2 Rev. 2.0	NO2NO3-N	102	100	100			0.499
EPA 365.1 Rev. 2.0	Total-P	103	96.5	97.3			0.779
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.2	96.9	95.9			1.04
EPA 8321B	2,4-D	136	124	123			0.537
	Acesulfame K	114	101	107			5.01
	Acetaminophen	94.9	79.1	79.7			0.690
	Acetamiprid	104	83.7	86.6			3.49
	Afidopyropen	69.0	64.4	63.1			2.06
	AMPA	68.4	59.4	62.8			3.62
	Bentazon	107					2.02
	Benzovindiflupyr	80.8	78.3	83.1			5.90
	Carbamazepine	88.3	69.1	68.9			0.225
	Clothianidin	89.9	79.9	82.1			2.73
	Dinotefuran	103	98.8	102			3.40
	Diuron	68.4	54.4	54.9			0.951
	Endothall	93.6	99.8	98.9			0.975
	Fenuron	95.7	69.5	80.3			14.4
	Fluridone	88.2	84.4	96.8			13.7
	Glufosinate	99.6	90.8	97.8			7.44
	Glyphosate	94.8	66.3	82.7			7.88
	Hydrocodone	103	94.7	102			7.45
	Ibuprofen	72.1	75.0	75.5			0.654
	Imazapyr	98.5	94.3	113			10.9
	Imidacloprid	127	133	130			2.42
	Linuron	69.6	68.1	68.1			0.0038
	Mandestrobin	105	91.6	101			9.33
	MCPP	119	101	100			0.460
	Naproxen	70.7	65.0	71.0			8.82
	Primidone	94.8	72.3	83.4			14.2
	Pyraclostrobin	78.0	71.9	73.3			2.01
	Sucralose	107	59.8	42.9			29.6
	Thiamethoxam	91.3	96.9	97.6			0.740

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Tolfenpyrad	51.4	51.0	49.9		2.14
	Triclopyr	111	98.3	110		10.9
SM 2320 B-2011	Total Alkalinity	97.1			2.78	
	Total Alkalinity	96.9			1.88	
SM 4500 F-C-2011	Fluoride	95.7	93.0	91.5		1.45
	Fluoride	93.9	95.8	95.8		0.0
SM 5310 B-2011	Organic Carbon	95.3	100			0.883
	Organic Carbon	97.1	95.6	96.1		0.424

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2215894, 2215896
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2215906
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2215906
EPA 300.0 Rev. 2.1	Bromide in aqueous matrices	2215894, 2215896
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2215894
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2215895, 2215897
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2215895, 2215897
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2215895, 2215897
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2215895, 2215897
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2215898, 2215909
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2215905
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2215905
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2215894, 2215896
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2215894, 2215896
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2215894, 2215896
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2215895, 2215897

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	12/29/2020			12/29/2020 14:07	Yen Ta	2215894, 2215896
EPA 200.7 Rev. 4.4	12/29/2020	01/06/2021 13:45	Elliott D. Healy	01/07/2021 16:01	Betina Topolski	2215906
	12/29/2020	01/06/2021 13:45	Elliott D. Healy	01/07/2021 17:01	Betina Topolski	2215906
EPA 200.8 Rev. 5.4	12/29/2020	01/06/2021 13:45	Elliott D. Healy	01/07/2021 21:27	Alexander Thompson	2215906
	12/29/2020	01/06/2021 13:45	Elliott D. Healy	01/08/2021 14:19	Alexander Thompson	2215906
EPA 300.0 Rev. 2.1	12/29/2020			01/07/2021 01:39	Lipi Saha	2215894
	12/29/2020			01/07/2021 17:01	Lipi Saha	2215894
	12/29/2020			01/07/2021 17:19	Lipi Saha	2215896
EPA 350.1 Rev. 2.0	12/29/2020			01/03/2021 15:56	Ping Hua	2215895
	12/29/2020			01/03/2021 15:57	Ping Hua	2215897
EPA 351.2 Rev. 2.0	12/29/2020	01/07/2021 13:41	Yen Ta	01/08/2021 13:57	Virginia P. Brown	2215895
	12/29/2020	01/07/2021 13:41	Yen Ta	01/08/2021 13:59	Virginia P. Brown	2215897
EPA 353.2 Rev. 2.0	12/29/2020			12/30/2020 08:40	Beverly Y. Sanders	2215895
	12/29/2020			12/30/2020 08:49	Beverly Y. Sanders	2215897
EPA 365.1 Rev. 2.0	12/29/2020	01/04/2021 13:12	Yen Ta	01/06/2021 11:14	Shengyu Wang	2215895
	12/29/2020	01/04/2021 13:12	Yen Ta	01/06/2021 11:15	Shengyu Wang	2215897
EPA 365.1 Rev. 2.0 dissolved	12/29/2020			12/29/2020 15:15	Blanca Fach	2215898
	12/29/2020			12/29/2020 15:16	Blanca Fach	2215909
EPA 8321B	12/29/2020	01/04/2021 09:00	Hoor Shaik	01/04/2021 23:42	Juyoung Kim	2215905
	12/29/2020	01/04/2021 09:00	Hoor Shaik	01/05/2021 11:59	Juyoung Kim	2215905
	12/29/2020	12/30/2020 10:30	Rebecca Ware	12/30/2020 12:41	Rebecca Ware	2215905
	12/29/2020	12/30/2020 10:30	Rebecca Ware	12/30/2020 16:44	Rebecca Ware	2215905
SM 2320 B-2011	12/29/2020			12/30/2020 19:39	Dale L. Simmons	2215896
	12/29/2020			12/30/2020 21:42	Dale L. Simmons	2215894
SM 2540 D-2011	12/29/2020			01/02/2021 13:21	Yijie Li	2215894, 2215896
SM 4500 F-C-2011	12/29/2020			12/30/2020 19:39	Dale L. Simmons	2215896
	12/29/2020			12/30/2020 21:12	Dale L. Simmons	2215894
SM 5310 B-2011	12/29/2020			01/04/2021 06:25	Touraj Touran	2215897
	12/29/2020			01/05/2021 01:09	Touraj Touran	2215895