

Chemical Analysis Report

NE-DIST-2019-11-21-01

Florida Department of Environmental Protection
Central Laboratory
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DOH Accreditation E31780

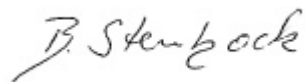
Event Description: **Bmap 2**
Request ID: **RQ-2019-11-18-19**
Customer: **NE-DIST**
Project ID: **SMP**

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

Date Certified: 11-DEC-2019 18:22



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: Trout River at Old King Rd

Collection Date/Time: 11/20/2019 09:50

Field ID: 20030753

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138190	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P374652	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P375347	
		Sulfate	13		mg SO4/L	P375351	
	SM 2120 B	Color (true)	330		PCU	P374635	
	SM 2320 B-97	Total Alkalinity	11		mg CaCO3/L	P374989	
	SM 2540 C-97	TDS	161		mg/L	P375144	
	SM 2540 D-97	TSS	2	I	mg/L	P375128	
	SM 4500 F-C-97	Fluoride	0.042	I	mg F/L	P374994	
2138191	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P374933	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P374964	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P374757	
	EPA 365.1 Rev. 2.0	Total-P	0.051		mg P/L	P375123	
	SM 5310 B-00	Organic Carbon	35		mg C/L	P374798	
2138192	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.024		mg P/L	P374598	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Trout R @ Dinsmore Boat Ramp Dock NR US 1 Collection Date/Time: 11/20/2019 10:10

Field ID: 20030123

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138187	EPA 180.1 Rev. 2.0	Turbidity	2.8	A	NTU	P374653	
	EPA 300.0	Bromide	0.13		mg Br/L	P374982	
	SM 2320 B-97	Total Alkalinity	15		mg CaCO3/L	P374989	
	SM 2540 D-97	TSS	2	IA	mg/L	P375131	
	SM 4500 F-C-97	Fluoride	0.051	I	mg F/L	P374994	
2138188	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P374933	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P374964	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.011		mg N/L	P374757	
	EPA 365.1 Rev. 2.0	Total-P	0.062		mg P/L	P375123	
	SM 5310 B-00	Organic Carbon	32		mg C/L	P374798	
2138189	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.032		mg P/L	P374598	
2138266	EPA 8321B	2,4-D	0.019		ug/L	P374613	
		Acesulfame K**	0.10	U	ug/L	P374626	
		AMPA**	0.13	I	ug/L	P374626	
		Sucralose**	0.010	UJ	ug/L	P374626	MS
		Acetaminophen**	0.0080	U	ug/L	P374613	
		Acetamiprid**	0.0020	U	ug/L	P374613	
		Endothall**	0.25	U	ug/L	P374626	
		Glufosinate**	0.10	U	ug/L	P374626	
		Glyphosate**	0.33	I	ug/L	P374626	
		Afidopyropen**	0.0020	UJ	ug/L	P374613	
		Bentazon	0.0020	I	ug/L	P374613	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P374613	
		Carbamazepine**	8.0E-04	U	ug/L	P374613	
		Clothianidin**	0.0020	U	ug/L	P374613	
		Dinotefuran**	0.0020	U	ug/L	P374613	
		Diuron	0.0020	U	ug/L	P374613	
		Fenuron	0.016	U	ug/L	P374613	
		Fluridone**	0.0011	I	ug/L	P374613	
		Imazapyr**	0.048		ug/L	P374613	
		Hydrocodone**	0.0020	U	ug/L	P374613	
		Ibuprofen**	0.020	U	ug/L	P374613	
		Imidacloprid	0.0020	U	ug/L	P374613	
		Linuron	0.0040	U	ug/L	P374613	
		Mandestrobin**	0.0020	UJ	ug/L	P374613	
		MCP	0.0051	I	ug/L	P374613	
		Naproxen**	0.0080	U	ug/L	P374613	
		Primidone**	0.0040	U	ug/L	P374613	
		Pyraclostrobin**	0.0020	U	ug/L	P374613	
		Thiamethoxam**	0.0020	U	ug/L	P374613	
		Tolfenpyrad**	0.0020	U	ug/L	P374613	
		Triclopyr**	0.0040	U	ug/L	P374613	

Field ID: 20030123

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:
SM 2540 D-97: 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: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Big Fishweir CR SF @ Hamilton St

Collection Date/Time: 11/20/2019 10:50

Field ID: 20030801

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138181	EPA 180.1 Rev. 2.0	Turbidity	3.9		NTU	P374652	
	EPA 300.0 Rev. 2.1	Chloride	980		mg Cl/L	P375347	
		Sulfate	180		mg SO4/L	P375351	
	SM 2120 B	Color (true)	26		PCU	P374635	
	SM 2320 B-97	Total Alkalinity	185		mg CaCO3/L	P374789	
	SM 2540 C-97	TDS	1.60E+03		mg/L	P375144	
	SM 2540 D-97	TSS	2	I	mg/L	P375128	
	SM 4500 F-C-97	Fluoride	0.24		mg F/L	P374792	
2138182	EPA 350.1 Rev. 2.0	Ammonia-N	0.091		mg N/L	P374936	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52		mg N/L	P374962	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.31		mg N/L	P374868	
	EPA 365.1 Rev. 2.0	Total-P	0.054		mg P/L	P375122	
	SM 5310 B-00	Organic Carbon	7.9		mg C/L	P374888	
2138183	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.022		mg P/L	P374597	
2138265	EPA 8321B	2,4-D	0.0035	I	ug/L	P374613	
		Acesulfame K**	1.0	U	ug/L	P374626	
		AMPA**	0.10	U	ug/L	P374626	
		Sucralose**	0.42		ug/L	P374626	MS
		Acetaminophen**	0.011	I	ug/L	P374613	
		Acetamiprid**	0.0020	U	ug/L	P374613	
		Endothall**	2.5	U	ug/L	P374626	
		Glufosinate**	0.10	U	ug/L	P374626	
		Glyphosate**	0.10	U	ug/L	P374626	
		Afidopyrophen**	0.0020	UJ	ug/L	P374613	
		Bentazon	0.0075		ug/L	P374613	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P374613	
		Carbamazepine**	0.0014	I	ug/L	P374613	
		Clothianidin**	0.0020	U	ug/L	P374613	
		Dinotefuran**	0.0020	U	ug/L	P374613	
		Diuron	0.013		ug/L	P374613	
		Fenuron	0.016	U	ug/L	P374613	
		Fluridone**	8.0E-04	U	ug/L	P374613	
		Imazapyr**	0.16		ug/L	P374613	
		Hydrocodone**	0.0020	U	ug/L	P374613	
		Ibuprofen**	0.020	U	ug/L	P374613	
		Imidacloprid	0.050		ug/L	P374613	
		Linuron	0.0040	U	ug/L	P374613	
		Mandestrobin**	0.0020	UJ	ug/L	P374613	
		MCP	0.0055	I	ug/L	P374613	
		Naproxen**	0.0080	U	ug/L	P374613	
		Primidone**	0.0054	I	ug/L	P374613	
		Pyraclostrobin**	0.0020	U	ug/L	P374613	
		Thiamethoxam**	0.0020	U	ug/L	P374613	

Field ID: 20030801

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138265	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P374613	
		Triclopyr**	0.0040	U	ug/L	P374613	

Ref. Method and Comment:

SM 2540 C-97: The reported result is consistent with the laboratory conductivity, 3610 umhos/cm.

SM 2540 D-97: 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: MDL for some parameters elevated due to matrix interference.

Sample Location: Little Fishweir at Oak St.

Collection Date/Time: 11/20/2019 11:10

Field ID: 20030953

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138267	EPA 8321B	2,4-D	0.0029	I	ug/L	P374613	
		Acesulfame K**	0.10	U	ug/L	P374626	
		AMPA**	0.10	U	ug/L	P374626	
		Sucralose**	0.32		ug/L	P374626	MS
		Acetaminophen**	0.0080	U	ug/L	P374613	
		Acetamiprid**	0.0020	U	ug/L	P374613	
		Endothall**	0.25	U	ug/L	P374626	
		Glufosinate**	0.10	U	ug/L	P374626	
		Glyphosate**	0.10	U	ug/L	P374626	
		Afidopyropen**	0.0020	UJ	ug/L	P374613	
		Bentazon	0.018		ug/L	P374613	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P374613	
		Carbamazepine**	8.0E-04	U	ug/L	P374613	
		Clothianidin**	0.0020	U	ug/L	P374613	
		Dinotefuran**	0.0020	U	ug/L	P374613	
		Diuron	0.017		ug/L	P374613	
		Fenuron	0.016	U	ug/L	P374613	
		Fluridone**	8.0E-04	U	ug/L	P374613	
		Imazapyr**	0.29		ug/L	P374613	
		Hydrocodone**	0.0020	U	ug/L	P374613	
		Ibuprofen**	0.020	U	ug/L	P374613	
		Imidacloprid	0.014		ug/L	P374613	
		Linuron	0.0040	U	ug/L	P374613	
		Mandestrobin**	0.0020	UJ	ug/L	P374613	
		MCPP	0.0020	U	ug/L	P374613	
		Naproxen**	0.0080	U	ug/L	P374613	
		Primidone**	0.0040	U	ug/L	P374613	
		Pyraclostrobin**	0.0020	U	ug/L	P374613	
		Thiamethoxam**	0.0020	U	ug/L	P374613	
		Tolfenpyrad**	0.0020	U	ug/L	P374613	
		Triclopyr**	0.0040	U	ug/L	P374613	

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.

Sample Location: Moncrief CR at Moncrief Road

Collection Date/Time: 11/20/2019 12:55

Field ID: 20030726

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138184	EPA 180.1 Rev. 2.0	Turbidity	2.5		NTU	P374652	
	EPA 300.0 Rev. 2.1	Chloride	10		mg Cl/L	P375347	
		Sulfate	22		mg SO4/L	P375351	
		Color (true)	20		PCU	P374635	
	SM 2120 B	Total Alkalinity	99		mg CaCO3/L	P374989	
	SM 2540 C-97	TDS	140		mg/L	P375144	
	SM 2540 D-97	TSS	2	I	mg/L	P375128	
	SM 4500 F-C-97	Fluoride	0.10		mg F/L	P374994	
2138185	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P374933	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.43		mg N/L	P374964	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.19		mg N/L	P374757	
	EPA 365.1 Rev. 2.0	Total-P	0.050		mg P/L	P375123	
	SM 5310 B-00	Organic Carbon	4.5		mg C/L	P374798	
2138186	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.027		mg P/L	P374598	
2138268	EPA 200.7 Rev. 4.4	Barium	37.4		ug/L	P374877	
		Calcium	41.8		mg/L	P374877	
		Iron	490		ug/L	P374877	
		Magnesium	5.10		mg/L	P374877	
		Potassium	2.3		mg/L	P374877	
		Sodium	9.2		mg/L	P374877	
		Zinc	15	I	ug/L	P374877	
	EPA 200.8 Rev. 5.4	Aluminum	28		ug/L	P374877	
		Antimony	0.35		ug/L	P374877	
		Arsenic	0.81		ug/L	P374877	
		Boron**	45.6		ug/L	P374877	
		Cadmium	0.020	U	ug/L	P374877	
		Chromium	0.40	U	ug/L	P374877	
		Copper	2.87		ug/L	P374877	
		Lead	0.70		ug/L	P374877	
		Nickel	0.64	I	ug/L	P374877	
		Selenium	0.20	U	ug/L	P374877	
		Silver	0.010	U	ug/L	P374877	
		Thallium	0.10	U	ug/L	P374877	

Ref. Method and Comment:

SM 2540 D-97: 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: P374652

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P374653

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P374877

Component	Result	Code	Units
Barium	1.0	U	ug/L
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374877

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	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
Batch ID: P374982

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375347

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375351

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374933

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374936

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P374962

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P374964

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374757

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374868

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P375122

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P375123

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374597

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374598

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

Reference Method: EPA 8321B
Batch ID: P374613

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: P374626

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B
Batch ID: P374635

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P374789

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

Reference Method: SM 2320 B-97
Batch ID: P374989

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

Reference Method: SM 2540 C-97
Batch ID: P375144

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P375128

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P375131

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P374792

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P374994

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P374798

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

Quality Assurance Report Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P374888

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: P374877

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	99.0		P	85 - 115
Calcium	107		P	85 - 115
Iron	111		P	85 - 115
Magnesium	107		P	85 - 115
Potassium	108		P	85 - 115
Sodium	106		P	85 - 115
Zinc	99.1		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374877

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.8		P	85 - 115
Antimony	98.6		P	85 - 115
Arsenic	96.5		P	85 - 115
Boron	104		P	85 - 115
Cadmium	93.7		P	85 - 115
Chromium	96.7		P	85 - 115
Copper	96.1		P	85 - 115
Lead	99.1		P	85 - 115
Nickel	96.7		P	85 - 115
Selenium	93.4		P	85 - 115
Silver	102		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 300.0
Batch ID: P374982

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	99.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375347

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375351

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374933

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374936

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P374962

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P374964

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374757

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374868

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: P375122

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P375123

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374597

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374598

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	96.1		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P374613

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	152		P	40 - 160
Acetaminophen	80.7		P	30 - 160
Acetamiprid	103		P	40 - 160
Afidopyropen	112		P	40 - 160
Bentazon	83.4		P	30 - 160
Benzovindiflupyr	75.8		P	40 - 160
Carbamazepine	99.4		P	40 - 160
Clothianidin	90.1		P	40 - 160
Dinotefuran	96.3		P	40 - 160
Diuron	82.8		P	40 - 160
Fenuron	105		P	40 - 160
Fluridone	91.1		P	40 - 160
Hydrocodone	94.0		P	40 - 160
Ibuprofen	81.0		P	30 - 160
Imazapyr	102		P	40 - 160
Imidacloprid	111		P	40 - 160
Linuron	83.3		P	40 - 160
Mandestrobin	85.0		P	40 - 160
MCPP	146		P	40 - 160
Naproxen	97.4		P	40 - 160
Primidone	84.7		P	40 - 160
Pyraclostrobin	83.2		P	30 - 160
Thiamethoxam	99.2		P	40 - 160
Tolfenpyrad	57.8		P	40 - 160
Triclopyr	91.4		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P374626

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	92.4		P	40 - 150
AMPA	116		P	40 - 150
Endothall	98.2		P	40 - 150
Glufosinate	109		P	40 - 150
Glyphosate	133		P	40 - 140
Sucralose	111		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P374635

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

Reference Method: SM 2320 B-97
Batch ID: P374789

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P374989

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P374792

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.5		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P374994

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.2		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P374798

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

Reference Method: SM 5310 B-00
Batch ID: P374888

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	106		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P374877

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138268	Barium	95.4		P	80 - 120
2138268	Calcium	104		P	80 - 120
2138268	Iron	106		P	80 - 120
2138268	Magnesium	104		P	80 - 120
2138268	Potassium	101		P	80 - 120
2138268	Sodium	104		P	80 - 120
2138268	Zinc	94.9		P	80 - 120
2138420	Barium	98.3	99.6	P/P	80 - 120
2138420	Calcium	103		P	80 - 120
2138420	Iron	106	108	P/P	80 - 120
2138420	Magnesium	101		P	80 - 120
2138420	Potassium	99.3	105	P/P	80 - 120
2138420	Sodium	102		P	80 - 120
2138420	Zinc	98.4	99.2	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374877

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138268	Aluminum	95.3		P	80 - 120
2138268	Antimony	100		P	80 - 120
2138268	Arsenic	96.7		P	80 - 120
2138268	Boron	100		P	80 - 120
2138268	Cadmium	95.9		P	80 - 120
2138268	Chromium	98.6		P	80 - 120
2138268	Copper	92.7		P	80 - 120
2138268	Lead	99.0		P	80 - 120
2138268	Nickel	93.5		P	80 - 120
2138268	Selenium	92.2		P	80 - 120
2138268	Silver	102		P	80 - 120
2138268	Thallium	104		P	80 - 120
2138420	Aluminum	99.3	95.2	P/P	80 - 120
2138420	Antimony	99.7	97.1	P/P	80 - 120
2138420	Arsenic	98.7	97.9	P/P	80 - 120
2138420	Boron	105	99.9	P/P	80 - 120
2138420	Cadmium	95.2	93.0	P/P	80 - 120
2138420	Chromium	100	97.5	P/P	80 - 120
2138420	Copper	96.6	94.9	P/P	80 - 120
2138420	Lead	101	98.4	P/P	80 - 120
2138420	Nickel	98.6	97.5	P/P	80 - 120
2138420	Selenium	91.9	90.3	P/P	80 - 120
2138420	Silver	103	100	P/P	80 - 120
2138420	Thallium	106	103	P/P	80 - 120

Reference Method: EPA 300.0
Batch ID: P374982

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2137966	Bromide	97.1	98.8	P/P	90 - 110
2138124	Bromide	98.5		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375347

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138054	Chloride	99.2		P	90 - 110
2138446	Chloride	99.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375351

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138054	Sulfate	97.6		P	90 - 110
2138446	Sulfate	96.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374933

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138056	Ammonia-N	99.4	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374936

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138286	Ammonia-N	105	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P374962

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138165	Kjeldahl Nitrogen	99.1	97.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P374964

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138185	Kjeldahl Nitrogen	97.1	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374757

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138185	NO2NO3-N	99.0	99.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374868

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138098	NO2NO3-N	102	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P375122

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138122	Total-P	99.1	96.0	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P375123

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138185	Total-P	103	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P374597

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2137997	O-Phosphate-P	95.5	95.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P374598

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138031	O-Phosphate-P	101	96.7	P/P	90 - 110

Reference Method: EPA 8321B
 Batch ID: P374613

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2137732	2,4-D	136	128	P/P	40 - 160
2137732	Acetaminophen	86.1	83.2	P/P	30 - 160
2137732	Acetamiprid	106	100	P/P	40 - 160
2137732	Afidopyropen	118	105	P/P	40 - 160
2137732	Benzovindiflupyr	80.3	80.1	P/P	40 - 160
2137732	Carbamazepine	83.6	83.5	P/P	40 - 160
2137732	Clothianidin	101	100	P/P	40 - 160
2137732	Dinotefuran	124	123	P/P	40 - 160
2137732	Diuron	66.9	62.8	P/P	40 - 160
2137732	Fenuron	99.5	95.8	P/P	40 - 160
2137732	Fluridone	81.2	72.8	P/P	40 - 160
2137732	Hydrocodone	101	98.1	P/P	40 - 160
2137732	Ibuprofen	72.5	74.8	P/P	30 - 160
2137732	Imidacloprid	158	158	P/P	40 - 160
2137732	Linuron	70.4	72.1	P/P	40 - 160
2137732	Mandestrobin	83.9	79.9	P/P	40 - 160
2137732	MCPP	137	127	P/P	40 - 160
2137732	Naproxen	103	85.4	P/P	40 - 160
2137732	Primidone	94.8	93.4	P/P	40 - 160
2137732	Pyraclostrobin	86.1	85.6	P/P	30 - 160
2137732	Thiamethoxam	138	134	P/P	40 - 160
2137732	Tolfenpyrad	58.9	59.3	P/P	40 - 160
2137732	Triclopyr	110	101	P/P	30 - 160

Reference Method: EPA 8321B
 Batch ID: P374626

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138266	Acesulfame K	114	114	P/P	40 - 150
2138266	AMPA	119	132	P/P	40 - 150
2138266	Endothall	138	132	P/P	40 - 150
2138266	Glufosinate	97.5	94.1	P/P	40 - 150
2138266	Glyphosate	84.4	94.1	P/P	40 - 140
2138266	Sucralose	36.4	39.7	F/F	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P374792

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2137687	Fluoride	96.4	98.1	P/P	89 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P374994

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138154	Fluoride	97.9	96.6	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P374798

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138185	Organic Carbon	95.0	95.3	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P374888

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2137969	Organic Carbon	106	105	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P374652

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138091	Turbidity	0.930	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P374653

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138187	Turbidity	0.712	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P374877

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138420	Barium	1.37	Spike	P	0 - 20
2138420	Calcium	1.92	Spike	P	0 - 20
2138420	Iron	1.93	Spike	P	0 - 20
2138420	Magnesium	3.20	Spike	P	0 - 20
2138420	Potassium	3.59	Spike	P	0 - 20
2138420	Sodium	2.27	Spike	P	0 - 20
2138420	Zinc	0.823	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374877

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138420	Aluminum	3.58	Spike	P	0 - 20
2138420	Antimony	2.67	Spike	P	0 - 20
2138420	Arsenic	0.877	Spike	P	0 - 20
2138420	Boron	4.11	Spike	P	0 - 20
2138420	Cadmium	2.25	Spike	P	0 - 20
2138420	Chromium	2.82	Spike	P	0 - 20
2138420	Copper	1.79	Spike	P	0 - 20
2138420	Lead	2.99	Spike	P	0 - 20
2138420	Nickel	1.10	Spike	P	0 - 20
2138420	Selenium	1.79	Spike	P	0 - 20
2138420	Silver	2.95	Spike	P	0 - 20
2138420	Thallium	2.34	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P374982

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2137966	Bromide	1.62	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375347

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138446	Chloride	0.439	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375351

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138446	Sulfate	0.674	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374933

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138056	Ammonia-N	1.21	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P374936

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138286	Ammonia-N	1.08	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P374962

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138165	Kjeldahl Nitrogen	1.01	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P374964

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138185	Kjeldahl Nitrogen	5.00	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374757

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138185	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374868

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138098	NO2NO3-N	0.473	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P375122

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138122	Total-P	3.10	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P375123

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138185	Total-P	1.05	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374597

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2137997	O-Phosphate-P	0.418	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374598

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138031	O-Phosphate-P	4.45	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P374613

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2137732	2,4-D	4.48	Spike	P	0 - 30
2137732	Acetaminophen	3.41	Spike	P	0 - 30
2137732	Acetamiprid	5.31	Spike	P	0 - 30
2137732	Afidopyropen	11.2	Spike	P	0 - 30
2137732	Bentazon	3.15	Spike	P	0 - 30
2137732	Benzovindiflupyr	0.191	Spike	P	0 - 30
2137732	Carbamazepine	0.121	Spike	P	0 - 30
2137732	Clothianidin	0.802	Spike	P	0 - 30
2137732	Dinotefuran	0.273	Spike	P	0 - 30
2137732	Diuron	3.78	Spike	P	0 - 30
2137732	Fenuron	3.81	Spike	P	0 - 30
2137732	Fluridone	5.82	Spike	P	0 - 30
2137732	Hydrocodone	3.00	Spike	P	0 - 30
2137732	Ibuprofen	3.07	Spike	P	0 - 30
2137732	Imazapyr	4.08	Spike	P	0 - 30
2137732	Imidacloprid	0.135	Spike	P	0 - 30
2137732	Linuron	2.34	Spike	P	0 - 30
2137732	Mandestrobin	4.87	Spike	P	0 - 30
2137732	MCPP	7.46	Spike	P	0 - 30
2137732	Naproxen	19.0	Spike	P	0 - 30
2137732	Primidone	1.52	Spike	P	0 - 30
2137732	Pyraclostrobin	0.541	Spike	P	0 - 30
2137732	Thiamethoxam	3.11	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P374613

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2137732	Tolfenpyrad	0.634	Spike	P	0 - 30
2137732	Triclopyr	7.65	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P374626

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138266	Acesulfame K	0.411	Spike	P	0 - 30
2138266	AMPA	8.94	Spike	P	0 - 30
2138266	Endothall	4.62	Spike	P	0 - 30
2138266	Glufosinate	3.54	Spike	P	0 - 30
2138266	Glyphosate	7.89	Spike	P	0 - 30
2138266	Sucralose	8.77	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P374635

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138154	Color (true)	1.21	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P374789

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2137687	Total Alkalinity	0.471	Sample	P	0 - 2.8

Reference Method: SM 2320 B-97
Batch ID: P374989

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138154	Total Alkalinity	0.125	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P375144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138053	TDS	3.88	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P374792

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2137687	Fluoride	1.01	Spike	P	0 - 2.5

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P374994

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138154	Fluoride	0.960	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P374798

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138185	Organic Carbon	0.212	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P374888

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2137969	Organic Carbon	0.632	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2138265
Field Sample ID: 20030801

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	151	P	30 - 160
EPA 8321B	Acetaminophen-d4	93.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	89.6	P	30 - 160
EPA 8321B	Diuron-d6	76.5	P	30 - 160
EPA 8321B	Endothall-d6	150	P	30 - 160
EPA 8321B	Endothall-d6	150	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	36.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	36.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	94.7	P	30 - 160
EPA 8321B	Primidone-d5	98.9	P	30 - 160
EPA 8321B	Sucralose-d6	127	P	30 - 160
EPA 8321B	Sucralose-d6	127	P	30 - 160

Lab Sample ID: 2138266
Field Sample ID: 20030123

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	115	P	30 - 160
EPA 8321B	Acetaminophen-d4	89.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	73.3	P	30 - 160
EPA 8321B	Diuron-d6	68.6	P	30 - 160
EPA 8321B	Endothall-d6	100	P	30 - 160
EPA 8321B	Endothall-d6	100	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	106	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	106	P	30 - 160
EPA 8321B	Ibuprofen-d3	83.1	P	30 - 160
EPA 8321B	Primidone-d5	71.6	P	30 - 160
EPA 8321B	Sucralose-d6	41.2	P	30 - 160
EPA 8321B	Sucralose-d6	41.2	P	30 - 160

Lab Sample ID: 2138267
Field Sample ID: 20030953

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	114	P	30 - 160
EPA 8321B	Acetaminophen-d4	93.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	94.4	P	30 - 160
EPA 8321B	Diuron-d6	92.0	P	30 - 160
EPA 8321B	Endothall-d6	122	P	30 - 160
EPA 8321B	Endothall-d6	122	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	76.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	76.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	79.8	P	30 - 160
EPA 8321B	Primidone-d5	95.1	P	30 - 160
EPA 8321B	Sucralose-d6	147	P	30 - 160
EPA 8321B	Sucralose-d6	147	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A95880

Included Lab Sample IDs: 2138183, 2138186, 2138189, 2138192

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

Reference Method: SM 2120 B

Run ID: A95896

Included Lab Sample IDs: 2138181, 2138184, 2138190

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	90 - 115
Color (true)	102	102	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A95900

Included Lab Sample IDs: 2138181, 2138184, 2138187, 2138190

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A95937

Included Lab Sample IDs: 2138185, 2138188, 2138191

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

Reference Method: EPA 8321B

Run ID: A95944

Included Lab Sample IDs: 2138265, 2138266, 2138267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	98.7	118	P/P	60 - 160
Glufosinate	63.1	102	P/P	60 - 160
Glyphosate	84.5	113	P/P	60 - 160

Reference Method: SM 2320 B-97

Run ID: A95947

Included Lab Sample IDs: 2138181

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	98.3	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A95947

Included Lab Sample IDs: 2138181

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

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A95950

Included Lab Sample IDs: 2138185, 2138188, 2138191

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.8	94.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A95960

Included Lab Sample IDs: 2138265, 2138266, 2138267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	108	82.2	P/P	60 - 160
Acesulfame K	88.2	88.7	P/P	60 - 160
Endothall	82.2	99.5	P/P	60 - 160
Endothall	92.8	94.7	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A95966

Included Lab Sample IDs: 2138182

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

Reference Method: SM 5310 B-00

Run ID: A95973

Included Lab Sample IDs: 2138182

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A95997

Included Lab Sample IDs: 2138182, 2138185, 2138188, 2138191

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

Reference Method: EPA 300.0

Run ID: A96019

Included Lab Sample IDs: 2138187

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A96024

Included Lab Sample IDs: 2138268

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	101	99.1	P/P	90 - 110
Calcium	103	102	P/P	90 - 110
Iron	102	103	P/P	90 - 110
Magnesium	102	102	P/P	90 - 110
Potassium	101	103	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A96024

Included Lab Sample IDs: 2138268

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sodium	102	102	P/P	90 - 110
Zinc	103	100	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A96025

Included Lab Sample IDs: 2138184, 2138187, 2138190

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A96025

Included Lab Sample IDs: 2138184, 2138187, 2138190

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A96049

Included Lab Sample IDs: 2138182

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	108	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A96052

Included Lab Sample IDs: 2138185, 2138188, 2138191

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	98.4	P/P	90 - 110
Kjeldahl Nitrogen	98.4	99.3	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A96086

Included Lab Sample IDs: 2138265, 2138266, 2138267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	97.5	102	P/P	50 - 150
2,4-D	98.8	97.5	P/P	50 - 150
Acetaminophen	104	107	P/P	60 - 160
Acetaminophen	107	107	P/P	60 - 160
Acetamiprid	109	110	P/P	50 - 150
Acetamiprid	109	109	P/P	50 - 150
Afidopyropen	105	104	P/P	50 - 150
Afidopyropen	110	105	P/P	50 - 150
Bentazon	92.1	95.1	P/P	50 - 160
Bentazon	92.2	92.1	P/P	50 - 160
Benzovindiflupyr	103	105	P/P	50 - 150
Benzovindiflupyr	105	103	P/P	50 - 150
Carbamazepine	105	99.1	P/P	60 - 150
Carbamazepine	99.7	105	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A96086

Included Lab Sample IDs: 2138265, 2138266, 2138267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Clothianidin	106	111	P/P	60 - 150
Clothianidin	109	106	P/P	60 - 150
Dinotefuran	102	112	P/P	50 - 150
Dinotefuran	106	102	P/P	50 - 150
Diuron	93.4	93.4	P/P	60 - 150
Diuron	93.4	91.4	P/P	60 - 150
Fenuron	118	118	P/P	60 - 150
Fenuron	118	116	P/P	60 - 150
Fluridone	104	103	P/P	60 - 160
Fluridone	108	104	P/P	60 - 160
Hydrocodone	101	97.5	P/P	60 - 150
Hydrocodone	102	101	P/P	60 - 150
Ibuprofen	74.1	100	P/P	50 - 160
Ibuprofen	90.7	74.1	P/P	50 - 160
Imazapyr	104	106	P/P	50 - 150
Imazapyr	106	91.1	P/P	50 - 150
Imidacloprid	101	103	P/P	60 - 150
Imidacloprid	103	101	P/P	60 - 150
Linuron	101	89.2	P/P	60 - 150
Linuron	102	101	P/P	60 - 150
Mandestrobin	115	115	P/P	50 - 150
Mandestrobin	115	119	P/P	50 - 150
MCPP	116	111	P/P	50 - 150
MCPP	95.0	116	P/P	50 - 150
Naproxen	112	75.6	P/P	50 - 160
Naproxen	86.8	112	P/P	50 - 160
Primidone	98.9	99.2	P/P	60 - 150
Primidone	99.2	97.6	P/P	60 - 150
Pyraclostrobin	104	105	P/P	60 - 150
Pyraclostrobin	106	104	P/P	60 - 150
Thiamethoxam	104	107	P/P	50 - 150
Thiamethoxam	107	109	P/P	50 - 150
Tolfenpyrad	111	115	P/P	60 - 150
Tolfenpyrad	115	114	P/P	60 - 150
Triclopyr	87.8	96.5	P/P	50 - 150
Triclopyr	96.5	97.9	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A96087

Included Lab Sample IDs: 2138181, 2138184, 2138190

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A96108

Included Lab Sample IDs: 2138188, 2138191

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A96127

Included Lab Sample IDs: 2138265, 2138266, 2138267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	121	117	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A96141

Included Lab Sample IDs: 2138268

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	96.1	94.8	P/P	90 - 110
Antimony	95.9	96.2	P/P	90 - 110
Arsenic	95.9	96.8	P/P	90 - 110
Boron	101	103	P/P	90 - 110
Cadmium	95.3	95.4	P/P	90 - 110
Chromium	98.8	101	P/P	90 - 110
Copper	96.8	98.0	P/P	90 - 110
Lead	97.3	97.1	P/P	90 - 110
Nickel	96.9	98.0	P/P	90 - 110
Selenium	96.2	97.4	P/P	90 - 110
Silver	103	102	P/P	90 - 110
Thallium	93.8	94.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A96146

Included Lab Sample IDs: 2138182, 2138185

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	98.8	P/P	90 - 110
Total-P	99.8	100	P/P	90 - 110

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
EPA 180.1 Rev. 2.0	Turbidity					0.930	
	Turbidity					0.712	
EPA 200.7 Rev. 4.4	Barium	99.0	95.4	98.3	99.6		1.37
	Calcium	107	104	103			1.92
	Iron	111	106	106	108		1.93
	Magnesium	107	104	101			3.20
	Potassium	108	101	99.3	105		3.59
	Sodium	106	104	102			2.27
	Zinc	99.1	94.9	98.4	99.2		0.823
EPA 200.8 Rev. 5.4	Aluminum	97.8	95.3	99.3	95.2		3.58
	Antimony	98.6	100	99.7	97.1		2.67
	Arsenic	96.5	96.7	98.7	97.9		0.877
	Boron	104	100	105	99.9		4.11
	Cadmium	93.7	95.9	95.2	93.0		2.25
	Chromium	96.7	98.6	100	97.5		2.82
	Copper	96.1	92.7	96.6	94.9		1.79
	Lead	99.1	99.0	101	98.4		2.99
	Nickel	96.7	93.5	98.6	97.5		1.10
	Selenium	93.4	92.2	91.9	90.3		1.79
	Silver	102	102	103	100		2.95
	Thallium	101	104	106	103		2.34
EPA 300.0	Bromide	99.4	97.1	98.8	98.5		1.62
EPA 300.0 Rev. 2.1	Chloride	101	99.4	99.2		0.439	
	Sulfate	100	96.2	97.6		0.674	
EPA 350.1 Rev. 2.0	Ammonia-N	102	99.4	101			1.21
	Ammonia-N	101	105	106			1.08
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	99.1	97.9			1.01
	Kjeldahl Nitrogen	98.8	97.1	104			5.00
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100	99.0	99.0			0.0
	NO ₂ NO ₃ -N	100	102	101			0.473
EPA 365.1 Rev. 2.0	Total-P	107	99.1	96.0			3.10
	Total-P	106	103	102			1.05
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.5	95.5	95.9			0.418
	O-Phosphate-P	96.1	101	96.7			4.45
EPA 8321B	2,4-D	152	136	128			4.48
	Acesulfame K	92.4	114	114			0.411
	Acetaminophen	80.7	86.1	83.2			3.41
	Acetamiprid	103	106	100			5.31
	Afidopyropen	112	118	105			11.2
	AMPA	116	119	132			8.94
	Bentazon	83.4					3.15
	Benzovindiflupyr	75.8	80.3	80.1			0.191
	Carbamazepine	99.4	83.6	83.5			0.121
	Clothianidin	90.1	101	100			0.802
	Dinotefuran	96.3	124	123			0.273
	Diuron	82.8	66.9	62.8			3.78
	Endothall	98.2	138	132			4.62
	Fenuron	105	99.5	95.8			3.81
	Fluridone	91.1	81.2	72.8			5.82
	Glufosinate	109	97.5	94.1			3.54
	Glyphosate	133	84.4	94.1			7.89
	Hydrocodone	94.0	101	98.1			3.00
	Ibuprofen	81.0	72.5	74.8			3.07
	Imazapyr	102					4.08

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Imidacloprid	111	158	158		0.135
	Linuron	83.3	70.4	72.1		2.34
	Mandestrobin	85.0	83.9	79.9		4.87
	MCPD	146	137	127		7.46
	Naproxen	97.4	103	85.4		19.0
	Primidone	84.7	94.8	93.4		1.52
	Pyraclostrobin	83.2	86.1	85.6		0.541
	Sucralose	111	36.4	39.7		8.77
	Thiamethoxam	99.2	138	134		3.11
	Tolfenpyrad	57.8	58.9	59.3		0.634
	Triclopyr	91.4	110	101		7.65
SM 2120 B	Color (true)	100			1.21	
SM 2320 B-97	Total Alkalinity	101			0.471	
	Total Alkalinity	103			0.125	
SM 2540 C-97	TDS				3.88	
SM 4500 F-C-97	Fluoride	96.5	96.4	98.1		1.01
	Fluoride	97.2	97.9	96.6		0.960
SM 5310 B-00	Organic Carbon	101	95.0	95.3		0.212
	Organic Carbon	106	106	105		0.632

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2138181, 2138184, 2138187, 2138190
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2138268
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2138268
EPA 300.0 / E31780	Bromide in aqueous matrices	2138187
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2138181, 2138184, 2138190
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2138181, 2138184, 2138190
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2138182, 2138185, 2138188, 2138191
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2138182, 2138185, 2138188, 2138191
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2138182, 2138185, 2138188, 2138191
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2138182, 2138185, 2138188, 2138191
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2138183, 2138186, 2138189, 2138192
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2138265, 2138266, 2138267
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2138265, 2138266, 2138267
SM 2120 B / E31780	True Color measured at 450 nm	2138181, 2138184, 2138190
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2138181, 2138184, 2138187, 2138190
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2138181, 2138184, 2138190
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2138181, 2138184, 2138187, 2138190
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2138181, 2138184, 2138187, 2138190
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2138182, 2138185, 2138188, 2138191

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	11/21/2019			11/21/2019 17:41	Samantha Davila	2138181, 2138184, 2138187, 2138190
EPA 200.7 Rev. 4.4	11/21/2019	11/26/2019 15:05	Elliott D. Healy	11/27/2019 13:32	Betina Topolski	2138268
EPA 200.8 Rev. 5.4	11/21/2019	11/26/2019 15:05	Elliott D. Healy	12/05/2019 21:42	Alexander Thompson	2138268
EPA 300.0	11/21/2019			11/26/2019 03:02	Julia Storbeck	2138187
EPA 300.0 Rev. 2.1	11/21/2019			12/04/2019 21:38	Lipi Saha	2138181
	11/21/2019			12/04/2019 21:50	Lipi Saha	2138184
	11/21/2019			12/04/2019 22:02	Lipi Saha	2138190
EPA 350.1 Rev. 2.0	11/21/2019			11/26/2019 10:52	Ping Hua	2138185
	11/21/2019			11/26/2019 10:53	Ping Hua	2138188
	11/21/2019			11/26/2019 10:55	Ping Hua	2138191
	11/21/2019			11/26/2019 12:10	Ping Hua	2138182
EPA 351.2 Rev. 2.0	11/21/2019	11/27/2019 11:30	Sima Feizi	12/02/2019 13:44	Jhamieka S. Greenwood	2138182
	11/21/2019	11/27/2019 11:45	Sima Feizi	12/02/2019 18:04	Jhamieka S. Greenwood	2138185
	11/21/2019	11/27/2019 11:45	Sima Feizi	12/02/2019 18:15	Jhamieka S. Greenwood	2138188
	11/21/2019	11/27/2019 11:45	Sima Feizi	12/02/2019 18:16	Jhamieka S. Greenwood	2138191
EPA 353.2 Rev. 2.0	11/21/2019			11/25/2019 10:33	Beverly Y. Sanders	2138185
	11/21/2019			11/25/2019 10:39	Beverly Y. Sanders	2138188
	11/21/2019			11/25/2019 10:40	Beverly Y. Sanders	2138191
	11/21/2019			11/26/2019 11:13	Beverly Y. Sanders	2138182
EPA 365.1 Rev. 2.0	11/21/2019	12/03/2019 13:30	Lipi Saha	12/04/2019 12:53	Benjamin T. Nordmann	2138188
	11/21/2019	12/03/2019 13:30	Lipi Saha	12/04/2019 12:54	Benjamin T. Nordmann	2138191
	11/21/2019	12/03/2019 13:30	Lipi Saha	12/05/2019 21:35	Julia Storbeck	2138182
	11/21/2019	12/03/2019 13:30	Lipi Saha	12/05/2019 21:44	Julia Storbeck	2138185
EPA 365.1 Rev. 2.0 dissolved	11/21/2019			11/21/2019 13:28	Lipi Saha	2138183
	11/21/2019			11/21/2019 13:29	Lipi Saha	2138186
	11/21/2019			11/21/2019 13:30	Lipi Saha	2138189, 2138192
EPA 8321B	11/21/2019	11/22/2019 10:15	Rebecca Ware	11/22/2019 11:29	Rebecca Ware	2138266
	11/21/2019	11/22/2019 10:15	Rebecca Ware	11/22/2019 11:56	Rebecca Ware	2138267
	11/21/2019	11/22/2019 10:15	Rebecca Ware	11/22/2019 16:19	Rebecca Ware	2138265
	11/21/2019	11/22/2019 10:15	Rebecca Ware	11/23/2019 13:07	Rebecca Ware	2138266
	11/21/2019	11/22/2019 10:15	Rebecca Ware	11/23/2019 13:17	Rebecca Ware	2138265
	11/21/2019	11/22/2019 10:15	Rebecca Ware	11/23/2019 13:28	Rebecca Ware	2138267
	11/21/2019	11/22/2019 10:15	Rebecca Ware	12/03/2019 21:52	Rebecca Ware	2138266
	11/21/2019	11/22/2019 10:15	Rebecca Ware	12/03/2019 22:04	Rebecca Ware	2138265
	11/21/2019	11/22/2019 10:15	Rebecca Ware	12/03/2019 22:15	Rebecca Ware	2138267
	11/21/2019	11/25/2019 09:00	Hoor Shaik	11/26/2019 06:39	Juyoung Kim	2138265
	11/21/2019	11/25/2019 09:00	Hoor Shaik	11/26/2019 07:13	Juyoung Kim	2138266
	11/21/2019	11/25/2019 09:00	Hoor Shaik	11/26/2019 14:45	Juyoung Kim	2138267
SM 2120 B	11/21/2019			11/21/2019 16:35	Blanca Fach	2138181
	11/21/2019			11/21/2019 16:36	Blanca Fach	2138184

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2120 B	11/21/2019			11/21/2019 16:59	Blanca Fach	2138190
SM 2320 B-97	11/21/2019			11/24/2019 22:57	Dale L. Simmons	2138181
	11/21/2019			11/27/2019 12:20	Dale L. Simmons	2138184
	11/21/2019			11/27/2019 12:31	Dale L. Simmons	2138187
	11/21/2019			11/27/2019 12:43	Dale L. Simmons	2138190
	11/21/2019			11/25/2019 15:56	Yijie Li	2138181, 2138184, 2138190
SM 2540 C-97	11/21/2019			11/25/2019 15:56	Yijie Li	2138181, 2138184, 2138187, 2138190
SM 2540 D-97	11/21/2019			11/24/2019 22:57	Dale L. Simmons	2138181
SM 4500 F-C-97	11/21/2019			11/27/2019 12:20	Dale L. Simmons	2138184
	11/21/2019			11/27/2019 12:31	Dale L. Simmons	2138187
	11/21/2019			11/27/2019 12:43	Dale L. Simmons	2138190
	11/21/2019			11/25/2019 02:18	Lauren Lees	2138185
	11/21/2019			11/25/2019 03:47	Lauren Lees	2138188
SM 5310 B-00	11/21/2019			11/25/2019 04:01	Lauren Lees	2138191
	11/21/2019			11/26/2019 08:06	Lauren Lees	2138182