

Chemical Analysis Report

SO-DIST-2019-10-29-01

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

Event Description: **2019 SMP : Sarasota Tidal**
Request ID: **RQ-2019-10-28-13**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901-3381
Attn: Nicole Reistad

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 26-NOV-2019 14:47



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: Curry(Tidal)@AlbeeFarm

Collection Date/Time: 10/28/2019 10:15

Field ID: G3SD0066

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132219	EPA 180.1 Rev. 2.0	Turbidity	2.3		NTU	P373362	
	EPA 300.0	Bromide	0.37		mg Br/L	P373776	
	SM 2320 B-97	Total Alkalinity	86		mg CaCO3/L	P373971	
	SM 2540 D-97	TSS	3	I	mg/L	P374012	
	SM 4500 F-C-97	Fluoride	0.20		mg F/L	P373678	
2132220	EPA 350.1 Rev. 2.0	Ammonia-N	0.061		mg N/L	P373543	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P373804	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P373438	
	EPA 365.1 Rev. 2.0	Total-P	0.24		mg P/L	P373419	
	SM 5310 B-00	Organic Carbon	19		mg C/L	P373545	
2132221	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.19		mg P/L	P373371	
2132241	EPA 200.7 Rev. 4.4	Iron	390		ug/L	P373527	
		Manganese	21.2		ug/L	P373527	
		Zinc	5.0	U	ug/L	P373527	
	EPA 200.8 Rev. 5.4	Aluminum	72		ug/L	P373527	
		Antimony	0.14	I	ug/L	P373527	
		Arsenic	2.18		ug/L	P373527	
		Cadmium	0.020	U	ug/L	P373527	
		Chromium	0.64	I	ug/L	P374364	
		Copper	1.16		ug/L	P373527	
		Lead	0.20	U	ug/L	P373527	
		Nickel	0.58	I	ug/L	P373527	
		Selenium	0.20	U	ug/L	P373527	
		Silver	0.010	U	ug/L	P373527	
		Thallium	0.10	U	ug/L	P373527	

Sample Location: Alligator @ Jacaranda

Collection Date/Time: 10/28/2019 11:15

Field ID: G2SD0026

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132222	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P373362	
	EPA 300.0 Rev. 2.1	Chloride	99		mg Cl/L	P373763	
		Sulfate	86		mg SO4/L	P373767	
	SM 2120 B	Color (true)	63		PCU	P373379	
	SM 2320 B-97	Total Alkalinity	156		mg CaCO3/L	P373971	
	SM 2540 C-97	TDS	442		mg/L	P374014	
	SM 2540 D-97	TSS	4	I	mg/L	P374010	
	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P373678	
2132223	EPA 350.1 Rev. 2.0	Ammonia-N	0.14		mg N/L	P373635	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P373804	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.078		mg N/L	P373438	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P373419	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P373545	
2132224	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.068		mg P/L	P373373	

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: WoodmereCreek@HeronRd

Collection Date/Time: 10/28/2019 11:55

Field ID: G2SD0027

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132237	EPA 8321B	2,4-D	0.0053	I	ug/L	P373332	
		Acesulfame K**	0.69		ug/L	P373428	
		AMPA**	1.1		ug/L	P373428	
		Sucralose**	0.54		ug/L	P373428	MS
		Acetaminophen**	0.0080	U	ug/L	P373332	
		Acetamiprid**	0.0020	U	ug/L	P373332	
		Endothall**	0.25	U	ug/L	P373428	
		Glufosinate**	0.10	U	ug/L	P373428	
		Glyphosate**	7.3		ug/L	P373428	
		Afidopyropen**	0.0020	UJ	ug/L	P373332	
		Bentazon	0.011		ug/L	P373332	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P373332	
		Carbamazepine**	0.021		ug/L	P373332	
		Clothianidin**	0.0063	I	ug/L	P373332	
		Dinotefuran**	0.0020	U	ug/L	P373332	
		Diuron	0.0030	I	ug/L	P373332	
		Fenuron	0.016	U	ug/L	P373332	
		Fluridone**	0.012		ug/L	P373332	
		Imazapyr**	0.29		ug/L	P373332	
		Hydrocodone**	0.0020	U	ug/L	P373332	
		Ibuprofen**	0.020	U	ug/L	P373332	
		Imidacloprid	0.019		ug/L	P373332	MS
		Linuron	0.0040	U	ug/L	P373332	
		Mandestrobin**	0.0020	UJ	ug/L	P373332	
		MCPP	0.0020	U	ug/L	P373332	
		Naproxen**	0.0080	U	ug/L	P373332	
		Primidone**	0.018		ug/L	P373332	
		Pyraclostrobin**	0.0020	U	ug/L	P373332	
		Thiamethoxam**	0.0020	U	ug/L	P373332	
		Tolfenpyrad**	0.0020	U	ug/L	P373332	
		Triclopyr**	0.0040	U	ug/L	P373332	

Ref. Method and Comment:

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

Sample Location: Gottfried@DeerCkMobile

Collection Date/Time: 10/28/2019 13:05

Field ID: G2SD0028_DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132238	EPA 8321B	2,4-D	0.0073	I	ug/L	P373332	
		Acesulfame K**	0.10	U	ug/L	P373428	
		AMPA**	1.0	U	ug/L	P373428	
		Sucralose**	0.030	IJ	ug/L	P373428	MS, SUR
		Acetaminophen**	0.0080	U	ug/L	P373332	
		Acetamiprid**	0.0020	U	ug/L	P373332	
		Endothall**	0.25	U	ug/L	P373428	
		Glufosinate**	1.0	U	ug/L	P373428	
		Glyphosate**	1.0	U	ug/L	P373428	
		Afidopyropen**	0.0020	U	ug/L	P373332	
		Bentazon	0.0011	I	ug/L	P373332	
		Benzovindiflupyr**	0.0020	U	ug/L	P373332	
		Carbamazepine**	8.0E-04	U	ug/L	P373332	
		Clothianidin**	0.0020	U	ug/L	P373332	
		Dinotefuran**	0.0020	U	ug/L	P373332	
		Diuron	0.0020	U	ug/L	P373332	
		Fenuron	0.016	U	ug/L	P373332	
		Fluridone**	0.0048		ug/L	P373332	
		Imazapyr**	0.15		ug/L	P373332	
		Hydrocodone**	0.0020	U	ug/L	P373332	
		Ibuprofen**	0.020	U	ug/L	P373332	
		Imidacloprid	0.0041	I	ug/L	P373332	MS
		Linuron	0.0040	U	ug/L	P373332	
		Mandestrobin**	0.0020	U	ug/L	P373332	
		MCPP	0.0020	U	ug/L	P373332	
		Naproxen**	0.0080	U	ug/L	P373332	
		Primidone**	0.0040	U	ug/L	P373332	
		Pyraclostrobin**	0.0020	U	ug/L	P373332	
		Thiamethoxam**	0.0020	U	ug/L	P373332	
		Tolfenpyrad**	0.0020	U	ug/L	P373332	
		Triclopyr**	0.0040	U	ug/L	P373332	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes 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.

EPA 8321B: Results confirmed in sample duplicate. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: WoodmereCreek@HeronRd

Collection Date/Time: 10/28/2019 12:00

Field ID: FB_10282019

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132240	EPA 8321B	2,4-D	0.0020	U	ug/L	P373393	
		Acesulfame K**	0.10	U	ug/L	P373428	
		AMPA**	0.10	U	ug/L	P373428	
		Sucralose**	0.010	U	ug/L	P373428	MS
		Acetaminophen**	0.0080	U	ug/L	P373393	
		Acetamiprid**	0.0020	U	ug/L	P373393	
		Endothall**	0.25	U	ug/L	P373428	
		Glufosinate**	0.10	U	ug/L	P373428	
		Glyphosate**	0.10	U	ug/L	P373428	
		Afidopyropen**	0.0020	UJ	ug/L	P373393	
		Bentazon	8.0E-04	U	ug/L	P373393	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P373393	
		Carbamazepine**	8.0E-04	U	ug/L	P373393	
		Clothianidin**	0.0020	U	ug/L	P373393	
		Dinotefuran**	0.0020	U	ug/L	P373393	
		Diuron	0.0020	U	ug/L	P373393	
		Fenuron	0.016	U	ug/L	P373393	
		Fluridone**	8.0E-04	U	ug/L	P373393	
		Imazapyr**	0.0040	U	ug/L	P373393	
		Hydrocodone**	0.0020	U	ug/L	P373393	
		Ibuprofen**	0.020	U	ug/L	P373393	
		Imidacloprid	0.0020	U	ug/L	P373393	MS
		Linuron	0.0040	U	ug/L	P373393	
		Mandestrobin**	0.0020	UJ	ug/L	P373393	
		MCPP	0.0020	U	ug/L	P373393	
		Naproxen**	0.0080	U	ug/L	P373393	
		Primidone**	0.0040	U	ug/L	P373393	
		Pyraclostrobin**	0.0020	U	ug/L	P373393	
		Thiamethoxam**	0.0020	U	ug/L	P373393	
		Tolfenpyrad**	0.0020	U	ug/L	P373393	
		Triclopyr**	0.0040	U	ug/L	P373393	

Ref. Method and Comment:

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

Sample Location: Gottfried@DeerCkMobile

Collection Date/Time: 10/28/2019 13:00

Field ID: G2SD0028

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2132239	EPA 8321B	2,4-D	0.0086		ug/L	P373393	
		Acesulfame K**	0.10	U	ug/L	P373428	
		AMPA**	1.0	U	ug/L	P373428	
		Sucralose**	0.031	IJ	ug/L	P373428	MS, SUR
		Acetaminophen**	0.0080	U	ug/L	P373393	
		Acetamiprid**	0.0020	U	ug/L	P373393	
		Endothall**	0.25	U	ug/L	P373428	
		Glufosinate**	1.0	U	ug/L	P373428	
		Glyphosate**	1.0	U	ug/L	P373428	
		Afidopyropen**	0.0020	U	ug/L	P373393	
		Bentazon	0.0011	I	ug/L	P373393	
		Benzovindiflupyr**	0.0020	U	ug/L	P373393	
		Carbamazepine**	8.0E-04	U	ug/L	P373393	
		Clothianidin**	0.0020	U	ug/L	P373393	
		Dinotefuran**	0.0020	U	ug/L	P373393	
		Diuron	0.0020	U	ug/L	P373393	
		Fenuron	0.016	U	ug/L	P373393	
		Fluridone**	0.0043		ug/L	P373393	
		Imazapyr**	0.15		ug/L	P373393	
		Hydrocodone**	0.0020	U	ug/L	P373393	
		Ibuprofen**	0.020	U	ug/L	P373393	
		Imidacloprid	0.0040	I	ug/L	P373393	MS
		Linuron	0.0040	U	ug/L	P373393	
		Mandestrobin**	0.0020	U	ug/L	P373393	
		MCPP	0.0020	U	ug/L	P373393	
		Naproxen**	0.0080	U	ug/L	P373393	
		Primidone**	0.0040	U	ug/L	P373393	
		Pyraclostrobin**	0.0020	U	ug/L	P373393	
		Thiamethoxam**	0.0020	U	ug/L	P373393	
		Tolfenpyrad**	0.0020	U	ug/L	P373393	
		Triclopyr**	0.0040	U	ug/L	P373393	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes 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.

EPA 8321B: Results confirmed in sample duplicate. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P373362

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P373527

Component	Result	Code	Units
Iron	30	U	ug/L
Manganese	1.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P373527

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	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 200.8 Rev. 5.4
Batch ID: P374364

Component	Result	Code	Units
Chromium	0.40	U	ug/L

Reference Method: EPA 300.0
Batch ID: P373776

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373763

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373767

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373543

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373635

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373804

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P373438

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P373419

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373371

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373373

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

Reference Method: EPA 8321B
Batch ID: P373332

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P373332

Component	Result	Code	Units
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: P373393

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: P373428

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P373428

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

Reference Method: SM 2120 B
Batch ID: P373379

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P373971

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

Reference Method: SM 2540 C-97
Batch ID: P374014

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P374010

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P374012

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P373678

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P373545

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: P373527

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	101		P	85 - 115
Manganese	96.0		P	85 - 115
Zinc	96.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P373527

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	110		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	105		P	85 - 115
Cadmium	99.2		P	85 - 115
Copper	106		P	85 - 115
Lead	101		P	85 - 115
Nickel	106		P	85 - 115
Selenium	104		P	85 - 115
Silver	104		P	85 - 115
Thallium	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374364

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chromium	94.0		P	85 - 115

Reference Method: EPA 300.0
Batch ID: P373776

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373763

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373767

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373543

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373635

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373804

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P373438

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: P373419

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373371

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373373

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

Reference Method: EPA 8321B
Batch ID: P373332

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	94.2		P	40 - 160
Acetaminophen	85.3		P	30 - 160
Acetamiprid	99.4		P	40 - 160
Afidopyropen	87.8		P	40 - 160
Bentazon	77.6		P	30 - 160
Benzovindiflupyr	99.1		P	40 - 160
Carbamazepine	108		P	40 - 160
Clothianidin	87.3		P	40 - 160
Dinotefuran	85.8		P	40 - 160
Diuron	102		P	40 - 160
Fenuron	104		P	40 - 160
Fluridone	92.1		P	40 - 160
Hydrocodone	95.5		P	40 - 160
Ibuprofen	74.2		P	30 - 160
Imazapyr	57.1		P	40 - 160
Imidacloprid	108		P	40 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P373332

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Linuron	81.6		P	40 - 160
Mandestrobin	97.9		P	40 - 160
MCP	99.8		P	40 - 160
Naproxen	74.4		P	40 - 160
Primidone	91.9		P	40 - 160
Pyraclostrobin	86.6		P	30 - 160
Thiamethoxam	104		P	40 - 160
Tolfenpyrad	56.3		P	40 - 160
Triclopyr	82.4		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P373393

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	125		P	40 - 160
Acetaminophen	64.0		P	30 - 160
Acetamiprid	73.7		P	40 - 160
Afidopyropen	102		P	40 - 160
Bentazon	97.6		P	30 - 160
Benzovindiflupyr	91.5		P	40 - 160
Carbamazepine	93.5		P	40 - 160
Clothianidin	74.7		P	40 - 160
Dinotefuran	76.6		P	40 - 160
Diuron	88.5		P	40 - 160
Fenuron	88.6		P	40 - 160
Fluridone	92.6		P	40 - 160
Hydrocodone	68.4		P	40 - 160
Ibuprofen	94.2		P	30 - 160
Imazapyr	73.5		P	40 - 160
Imidacloprid	86.6		P	40 - 160
Linuron	80.0		P	40 - 160
Mandestrobin	91.9		P	40 - 160
MCP	134		P	40 - 160
Naproxen	76.7		P	40 - 160
Primidone	78.2		P	40 - 160
Pyraclostrobin	83.3		P	30 - 160
Thiamethoxam	91.2		P	40 - 160
Tolfenpyrad	59.8		P	40 - 160
Triclopyr	99.2		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P373428

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	108		P	40 - 150
AMPA	104		P	40 - 150
Endothall	79.5		P	40 - 150
Glufosinate	85.8		P	40 - 150
Glyphosate	88.9		P	40 - 140
Sucralose	111		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2120 B
Batch ID: P373379

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.8		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P373971

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P373678

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.2		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P373545

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	104		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P373527

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132211	Iron	102		P	80 - 120
2132211	Manganese	94.0		P	80 - 120
2132211	Zinc	96.7		P	80 - 120
2132282	Iron	103	104	P/P	80 - 120
2132282	Manganese	97.6	99.9	P/P	80 - 120
2132282	Zinc	99.4	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P373527

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132211	Aluminum	106		P	80 - 120
2132211	Antimony	107		P	80 - 120
2132211	Arsenic	106		P	80 - 120
2132211	Cadmium	105		P	80 - 120
2132211	Copper	102		P	80 - 120
2132211	Lead	103		P	80 - 120
2132211	Nickel	105		P	80 - 120
2132211	Selenium	103		P	80 - 120
2132211	Silver	107		P	80 - 120
2132211	Thallium	111		P	80 - 120
2132282	Aluminum	107	109	P/P	80 - 120
2132282	Antimony	107	108	P/P	80 - 120
2132282	Arsenic	106	106	P/P	80 - 120
2132282	Cadmium	103	102	P/P	80 - 120
2132282	Copper	103	102	P/P	80 - 120
2132282	Lead	102	103	P/P	80 - 120
2132282	Nickel	104	104	P/P	80 - 120
2132282	Selenium	104	105	P/P	80 - 120
2132282	Silver	107	106	P/P	80 - 120
2132282	Thallium	109	111	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374364

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2136241	Chromium	92.0		P	80 - 120
2136502	Chromium	97.0	95.5	P/P	80 - 120

Reference Method: EPA 300.0
Batch ID: P373776

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2131222	Bromide	97.8	98.1	P/P	90 - 110
2132117	Bromide	98.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373763

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132005	Chloride	99.7	100	P/P	90 - 110
2132184	Chloride	98.2		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373767

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132005	Sulfate	100	101	P/P	90 - 110
2132184	Sulfate	99.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373543

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132185	Ammonia-N	98.8	99.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373635

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132280	Ammonia-N	100	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373804

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132280	Kjeldahl Nitrogen	103	109	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P373438

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132185	NO2NO3-N	99.5	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P373419

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132185	Total-P	95.3	98.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373371

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132181	O-Phosphate-P	98.3	97.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373373

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132224	O-Phosphate-P	99.4	97.8	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P373332

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132079	2,4-D	91.0	72.9	P/P	40 - 160
2132079	Acetaminophen	81.9	72.0	P/P	30 - 160
2132079	Acetamidiprid	104	91.2	P/P	40 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P373332

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132079	Afidopyropen	96.2	80.9	P/P	40 - 160
2132079	Benzovindiflupyr	103	90.1	P/P	40 - 160
2132079	Carbamazepine	91.9	83.4	P/P	40 - 160
2132079	Clothianidin	89.1	75.8	P/P	40 - 160
2132079	Dinotefuran	102	98.1	P/P	40 - 160
2132079	Diuron	87.4	76.8	P/P	40 - 160
2132079	Fenuron	84.1	74.5	P/P	40 - 160
2132079	Hydrocodone	93.1	78.6	P/P	40 - 160
2132079	Ibuprofen	72.0	59.1	P/P	30 - 160
2132079	Imidacloprid	165	148	F/P	40 - 160
2132079	Linuron	72.0	63.3	P/P	40 - 160
2132079	Mandestrobin	101	85.2	P/P	40 - 160
2132079	MCP	101	84.1	P/P	40 - 160
2132079	Naproxen	71.8	67.9	P/P	40 - 160
2132079	Primidone	104	94.4	P/P	40 - 160
2132079	Pyraclostrobin	90.4	76.4	P/P	30 - 160
2132079	Thiamethoxam	139	126	P/P	40 - 160
2132079	Tolfenpyrad	59.7	51.3	P/P	40 - 160
2132079	Triclopyr	96.8	74.9	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P373393

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132432	2,4-D	115	115	P/P	40 - 160
2132432	Acetaminophen	66.6	66.1	P/P	30 - 160
2132432	Acetamiprid	98.8	89.8	P/P	40 - 160
2132432	Afidopyropen	117	117	P/P	40 - 160
2132432	Benzovindiflupyr	93.6	90.1	P/P	40 - 160
2132432	Carbamazepine	82.2	81.7	P/P	40 - 160
2132432	Clothianidin	95.1	93.5	P/P	40 - 160
2132432	Dinotefuran	109	110	P/P	40 - 160
2132432	Diuron	80.4	66.4	P/P	40 - 160
2132432	Fenuron	86.0	85.4	P/P	40 - 160
2132432	Hydrocodone	71.6	74.0	P/P	40 - 160
2132432	Ibuprofen	90.0	87.1	P/P	30 - 160
2132432	Imidacloprid	161	170	F/F	40 - 160
2132432	Linuron	66.7	59.1	P/P	40 - 160
2132432	Mandestrobin	89.7	88.5	P/P	40 - 160
2132432	MCP	126	123	P/P	40 - 160
2132432	Naproxen	64.6	71.1	P/P	40 - 160
2132432	Primidone	90.0	86.8	P/P	40 - 160
2132432	Pyraclostrobin	90.1	83.2	P/P	30 - 160
2132432	Thiamethoxam	120	123	P/P	40 - 160
2132432	Tolfenpyrad	66.6	59.1	P/P	40 - 160
2132432	Triclopyr	105	105	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P373428

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132076	Acesulfame K	47.8	49.1	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P373428

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132076	AMPA	74.2	70.7	P/P	40 - 150
2132076	Endothall	89.8	100	P/P	40 - 150
2132076	Glufosinate	90.5	78.0	P/P	40 - 150
2132076	Glyphosate	89.6	103	P/P	40 - 140
2132076	Sucralose	50.3	37.3	P/F	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P373678

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132397	Fluoride	102	101	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P373545

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2132180	Organic Carbon	99.4	101	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P373362

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132090	Turbidity	5.38	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P373527

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132282	Iron	0.328	Spike	P	0 - 20
2132282	Manganese	2.30	Spike	P	0 - 20
2132282	Zinc	1.66	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P373527

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132282	Aluminum	1.86	Spike	P	0 - 20
2132282	Antimony	0.607	Spike	P	0 - 20
2132282	Arsenic	0.312	Spike	P	0 - 20
2132282	Cadmium	0.874	Spike	P	0 - 20
2132282	Copper	0.632	Spike	P	0 - 20
2132282	Lead	0.768	Spike	P	0 - 20
2132282	Nickel	0.219	Spike	P	0 - 20
2132282	Selenium	0.916	Spike	P	0 - 20
2132282	Silver	0.324	Spike	P	0 - 20
2132282	Thallium	1.36	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374364

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2136502	Chromium	1.57	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P373776

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2131222	Bromide	0.247	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373763

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132005	Chloride	0.391	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373767

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132005	Sulfate	1.02	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373543

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132185	Ammonia-N	0.242	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373635

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132280	Ammonia-N	0.596	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373804

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132280	Kjeldahl Nitrogen	4.88	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P373438

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132185	NO2NO3-N	1.50	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P373419

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132185	Total-P	2.87	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373371

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132181	O-Phosphate-P	0.510	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373373

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132224	O-Phosphate-P	0.963	Spike	P	0 - 20

Quality Assurance Report

Precision

Reference Method: EPA 8321B
Batch ID: P373332

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132079	2,4-D	14.2	Spike	P	0 - 30
2132079	Acetaminophen	12.9	Spike	P	0 - 30
2132079	Acetamiprid	13.3	Spike	P	0 - 30
2132079	Afidopyropen	17.3	Spike	P	0 - 30
2132079	Bentazon	11.5	Spike	P	0 - 30
2132079	Benzovindiflupyr	13.7	Spike	P	0 - 30
2132079	Carbamazepine	9.65	Spike	P	0 - 30
2132079	Clothianidin	14.8	Spike	P	0 - 30
2132079	Dinotefuran	3.10	Spike	P	0 - 30
2132079	Diuron	11.5	Spike	P	0 - 30
2132079	Fenuron	12.1	Spike	P	0 - 30
2132079	Fluridone	12.9	Spike	P	0 - 30
2132079	Hydrocodone	16.8	Spike	P	0 - 30
2132079	Ibuprofen	19.6	Spike	P	0 - 30
2132079	Imazapyr	5.55	Spike	P	0 - 30
2132079	Imidacloprid	7.21	Spike	P	0 - 30
2132079	Linuron	12.9	Spike	P	0 - 30
2132079	Mandestrobin	16.4	Spike	P	0 - 30
2132079	MCP	18.2	Spike	P	0 - 30
2132079	Naproxen	5.59	Spike	P	0 - 30
2132079	Primidone	10.2	Spike	P	0 - 30
2132079	Pyraclostrobin	16.7	Spike	P	0 - 30
2132079	Thiamethoxam	9.47	Spike	P	0 - 30
2132079	Tolfenpyrad	15.1	Spike	P	0 - 30
2132079	Triclopyr	25.5	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P373393

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132432	2,4-D	0.211	Spike	P	0 - 30
2132432	Acetaminophen	0.667	Spike	P	0 - 30
2132432	Acetamiprid	9.60	Spike	P	0 - 30
2132432	Afidopyropen	0.235	Spike	P	0 - 30
2132432	Bentazon	11.7	Spike	P	0 - 30
2132432	Benzovindiflupyr	3.80	Spike	P	0 - 30
2132432	Carbamazepine	0.562	Spike	P	0 - 30
2132432	Clothianidin	1.64	Spike	P	0 - 30
2132432	Dinotefuran	0.667	Spike	P	0 - 30
2132432	Diuron	13.3	Spike	P	0 - 30
2132432	Fenuron	0.679	Spike	P	0 - 30
2132432	Fluridone	2.88	Spike	P	0 - 30
2132432	Hydrocodone	3.22	Spike	P	0 - 30
2132432	Ibuprofen	3.18	Spike	P	0 - 30
2132432	Imazapyr	6.38	Spike	P	0 - 30
2132432	Imidacloprid	4.15	Spike	P	0 - 30
2132432	Linuron	12.0	Spike	P	0 - 30
2132432	Mandestrobin	1.36	Spike	P	0 - 30
2132432	MCP	2.30	Spike	P	0 - 30
2132432	Naproxen	9.60	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P373393

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132432	Primidone	3.64	Spike	P	0 - 30
2132432	Pyraclostrobin	8.00	Spike	P	0 - 30
2132432	Thiamethoxam	2.10	Spike	P	0 - 30
2132432	Tolfenpyrad	11.8	Spike	P	0 - 30
2132432	Triclopyr	0.747	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P373428

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132076	Acesulfame K	2.66	Spike	P	0 - 30
2132076	AMPA	0.927	Spike	P	0 - 30
2132076	Endothall	10.8	Spike	P	0 - 30
2132076	Glufosinate	14.8	Spike	P	0 - 30
2132076	Glyphosate	3.11	Spike	P	0 - 30
2132076	Sucralose	26.4	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P373379

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132189	Color (true)	3.25	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P373971

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132775	Total Alkalinity	0.249	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P374014

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132190	TDS	3.47	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P374012

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132550	TSS	2.67	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P373678

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P373678

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132397	Fluoride	1.49	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P373545

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2132180	Organic Carbon	0.983	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2132237
Field Sample ID: G2SD0027

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	96.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	81.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	86.6	P	30 - 160
EPA 8321B	Diuron-d6	68.8	P	30 - 160
EPA 8321B	Endothall-d6	108	P	30 - 160
EPA 8321B	Endothall-d6	108	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	96.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	96.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	80.8	P	30 - 160
EPA 8321B	Primidone-d5	96.5	P	30 - 160
EPA 8321B	Sucralose-d6	31.1	P	30 - 160
EPA 8321B	Sucralose-d6	31.1	P	30 - 160

Lab Sample ID: 2132238
Field Sample ID: G2SD0028_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	136	P	30 - 160
EPA 8321B	Acetaminophen-d4	98.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	98.0	P	30 - 160
EPA 8321B	Diuron-d6	78.3	P	30 - 160
EPA 8321B	Endothall-d6	79.7	P	30 - 160
EPA 8321B	Endothall-d6	79.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	65.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	65.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	95.5	P	30 - 160
EPA 8321B	Primidone-d5	103	P	30 - 160
EPA 8321B	Sucralose-d6	23.4	F	30 - 160
EPA 8321B	Sucralose-d6	23.4	F	30 - 160

Lab Sample ID: 2132239
Field Sample ID: G2SD0028

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	129	P	30 - 160
EPA 8321B	Acetaminophen-d4	99.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	92.6	P	30 - 160
EPA 8321B	Diuron-d6	77.5	P	30 - 160
EPA 8321B	Endothall-d6	82.5	P	30 - 160
EPA 8321B	Endothall-d6	82.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	68.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	68.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	91.6	P	30 - 160
EPA 8321B	Primidone-d5	94.0	P	30 - 160
EPA 8321B	Sucralose-d6	20.0	F	30 - 160
EPA 8321B	Sucralose-d6	20.0	F	30 - 160

Lab Sample ID: 2132240
Field Sample ID: FB_10282019

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	112	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2132240

Field Sample ID: FB_10282019

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	66.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	79.1	P	30 - 160
EPA 8321B	Diuron-d6	87.7	P	30 - 160
EPA 8321B	Endothall-d6	88.2	P	30 - 160
EPA 8321B	Endothall-d6	88.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	97.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	97.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	93.3	P	30 - 160
EPA 8321B	Primidone-d5	69.3	P	30 - 160
EPA 8321B	Sucralose-d6	95.2	P	30 - 160
EPA 8321B	Sucralose-d6	95.2	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A95314

Included Lab Sample IDs: 2132219, 2132222

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A95318

Included Lab Sample IDs: 2132221, 2132224

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.8	99.9	P/P	90 - 110
O-Phosphate-P	99.9	99.9	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A95320

Included Lab Sample IDs: 2132222

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A95355

Included Lab Sample IDs: 2132220, 2132223

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A95377

Included Lab Sample IDs: 2132220, 2132223

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A95386

Included Lab Sample IDs: 2132220

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

Reference Method: SM 5310 B-00

Run ID: A95387

Included Lab Sample IDs: 2132220, 2132223

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	104	103	P/P	90 - 110
Organic Carbon	108	104	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A95438

Included Lab Sample IDs: 2132223

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A95438

Included Lab Sample IDs: 2132223

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A95460

Included Lab Sample IDs: 2132241

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	101	99.5	P/P	90 - 110
Manganese	101	102	P/P	90 - 110
Zinc	98.4	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A95466

Included Lab Sample IDs: 2132219, 2132222

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

Reference Method: EPA 8321B

Run ID: A95470

Included Lab Sample IDs: 2132237, 2132238, 2132239, 2132240

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	83.6	89.8	P/P	60 - 160
AMPA	89.8	82.3	P/P	60 - 160
AMPA	91.3	83.6	P/P	60 - 160
Glufosinate	104	92.5	P/P	60 - 160
Glufosinate	92.5	88.3	P/P	60 - 160
Glufosinate	94.0	104	P/P	60 - 160
Glyphosate	107	115	P/P	60 - 160
Glyphosate	111	107	P/P	60 - 160
Glyphosate	115	111	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A95474

Included Lab Sample IDs: 2132237, 2132238, 2132239, 2132240

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	105	73.3	P/P	60 - 160
Acesulfame K	73.3	103	P/P	60 - 160
Endothall	94.9	96.3	P/P	60 - 160
Endothall	96.3	113	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A95511

Included Lab Sample IDs: 2132222

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0
Run ID: A95513
Included Lab Sample IDs: 2132219

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

Reference Method: EPA 8321B
Run ID: A95576
Included Lab Sample IDs: 2132237

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	79.1	78.3	P/P	50 - 150
Acetaminophen	104	103	P/P	60 - 160
Acetamiprid	109	109	P/P	50 - 150
Afidopyropen	83.1	86.3	P/P	50 - 150
Bentazon	69.4	71.8	P/P	50 - 160
Benzovindiflupyr	115	116	P/P	50 - 150
Carbamazepine	111	111	P/P	60 - 150
Clothianidin	103	93.1	P/P	60 - 150
Dinotefuran	91.7	87.9	P/P	50 - 150
Diuron	114	114	P/P	60 - 150
Fenuron	110	112	P/P	60 - 150
Fluridone	108	104	P/P	60 - 160
Hydrocodone	103	103	P/P	60 - 150
Ibuprofen	86.6	81.5	P/P	50 - 160
Imazapyr	83.1	80.7	P/P	50 - 150
Imidacloprid	102	97.7	P/P	60 - 150
Linuron	102	99.5	P/P	60 - 150
Mandestrobin	110	109	P/P	50 - 150
MCPP	77.6	78.2	P/P	50 - 150
Naproxen	62.6	80.9	P/P	50 - 160
Primidone	101	108	P/P	60 - 150
Pyraclostrobin	102	101	P/P	60 - 150
Thiamethoxam	104	105	P/P	50 - 150
Tolfenpyrad	101	101	P/P	60 - 150
Triclopyr	74.3	72.9	P/P	50 - 150

Reference Method: SM 2320 B-97
Run ID: A95613
Included Lab Sample IDs: 2132219, 2132222

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.5	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A95627
Included Lab Sample IDs: 2132220, 2132223

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	92.3	93.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A95629
Included Lab Sample IDs: 2132240

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	101	94.6	P/P	50 - 150
Acetaminophen	75.7	62.1	P/P	60 - 160
Acetamiprid	87.8	92.6	P/P	50 - 150
Afidopyropen	110	99.1	P/P	50 - 150
Bentazon	106	107	P/P	50 - 160
Benzovindiflupyr	112	103	P/P	50 - 150
Carbamazepine	100	91.0	P/P	60 - 150
Clothianidin	80.2	69.7	P/P	60 - 150
Dinotefuran	66.2	79.3	P/P	50 - 150
Diuron	93.7	93.2	P/P	60 - 150
Fenuron	83.7	85.0	P/P	60 - 150
Fluridone	113	109	P/P	60 - 160
Hydrocodone	67.7	67.4	P/P	60 - 150
Ibuprofen	113	95.6	P/P	50 - 160
Imazapyr	70.2	79.3	P/P	50 - 150
Imidacloprid	75.9	74.5	P/P	60 - 150
Linuron	107	84.9	P/P	60 - 150
Mandestrobin	107	108	P/P	50 - 150
MCPP	114	120	P/P	50 - 150
Naproxen	76.2	115	P/P	50 - 160
Primidone	71.4	78.0	P/P	60 - 150
Pyraclostrobin	100	101	P/P	60 - 150
Thiamethoxam	75.5	66.5	P/P	50 - 150
Tolfenpyrad	104	104	P/P	60 - 150
Triclopyr	97.2	98.0	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A95730
Included Lab Sample IDs: 2132241

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	107	106	P/P	90 - 110
Antimony	101	101	P/P	90 - 110
Arsenic	105	105	P/P	90 - 110
Cadmium	103	104	P/P	90 - 110
Copper	105	105	P/P	90 - 110
Lead	99.9	101	P/P	90 - 110
Nickel	105	105	P/P	90 - 110
Selenium	103	103	P/P	90 - 110
Silver	103	104	P/P	90 - 110
Thallium	99.0	99.8	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A95766
Included Lab Sample IDs: 2132237, 2132238, 2132239, 2132240

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	105	117	P/P	60 - 160
Sucralose	111	117	P/P	60 - 160
Sucralose	96.8	111	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A95779

Included Lab Sample IDs: 2132238, 2132239

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	94.8	101	P/P	50 - 150
Acetaminophen	91.6	108	P/P	60 - 160
Acetamiprid	108	105	P/P	50 - 150
Afidopyropen	107	112	P/P	50 - 150
Bentazon	106	106	P/P	50 - 160
Benzovindiflupyr	109	115	P/P	50 - 150
Carbamazepine	116	116	P/P	60 - 150
Clothianidin	104	85.4	P/P	60 - 150
Dinotefuran	92.0	94.7	P/P	50 - 150
Diuron	107	108	P/P	60 - 150
Fenuron	113	116	P/P	60 - 150
Fluridone	108	112	P/P	60 - 160
Hydrocodone	105	109	P/P	60 - 150
Ibuprofen	96.1	89.4	P/P	50 - 160
Imazapyr	99.8	105	P/P	50 - 150
Imidacloprid	101	106	P/P	60 - 150
Linuron	109	114	P/P	60 - 150
Mandestrobin	107	114	P/P	50 - 150
MCP	102	103	P/P	50 - 150
Naproxen	102	109	P/P	50 - 160
Primidone	96.5	102	P/P	60 - 150
Pyraclostrobin	96.1	88.9	P/P	60 - 150
Thiamethoxam	96.7	99.6	P/P	50 - 150
Tolfenpyrad	95.3	89.3	P/P	60 - 150
Triclopyr	98.4	94.3	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A95926

Included Lab Sample IDs: 2132241

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	96.9	98.7	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						5.38	
EPA 200.7 Rev. 4.4	Iron	101	102	103	104			0.328
	Manganese	96.0	94.0	97.6	99.9			2.30
	Zinc	96.4	96.7	99.4	101			1.66
EPA 200.8 Rev. 5.4	Aluminum	110	106	107	109			1.86
	Antimony	102	107	107	108			0.607
	Arsenic	105	106	106	106			0.312
	Cadmium	99.2	105	103	102			0.874
	Chromium	94.0	97.0	95.5	92.0			1.57
	Copper	106	102	103	102			0.632
	Lead	101	103	102	103			0.768
	Nickel	106	105	104	104			0.219
	Selenium	104	103	104	105			0.916
	Silver	104	107	107	106			0.324
	Thallium	102	111	109	111			1.36
EPA 300.0	Bromide	98.5	97.8	98.1	98.2			0.247
EPA 300.0 Rev. 2.1	Chloride	102	99.7	100	98.2			0.391
	Sulfate	101	100	101	99.3			1.02
EPA 350.1 Rev. 2.0	Ammonia-N	98.8	98.8	99.1				0.242
	Ammonia-N	99.4	100	101				0.596
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	103	109				4.88
EPA 353.2 Rev. 2.0	NO2NO3-N	100	99.5	101				1.50
EPA 365.1 Rev. 2.0	Total-P	98.3	95.3	98.2				2.87
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	104	98.3	97.8				0.510
	O-Phosphate-P	104	99.4	97.8				0.963
EPA 8321B	2,4-D	94.2	91.0	72.9				14.2
	2,4-D	125	115	115				0.211
	Acesulfame K	108	47.8	49.1				2.66
	Acetaminophen	85.3	81.9	72.0				12.9
	Acetaminophen	64.0	66.6	66.1				0.667
	Acetamiprid	99.4	104	91.2				13.3
	Acetamiprid	73.7	98.8	89.8				9.60
	Afidopyropen	87.8	96.2	80.9				17.3
	Afidopyropen	102	117	117				0.235
	AMPA	104	74.2	70.7				0.927
	Bentazon	77.6						11.5
	Bentazon	97.6						11.7
	Benzovindiflupyr	99.1	103	90.1				13.7
	Benzovindiflupyr	91.5	93.6	90.1				3.80
	Carbamazepine	108	91.9	83.4				9.65
	Carbamazepine	93.5	82.2	81.7				0.562
	Clothianidin	87.3	89.1	75.8				14.8
	Clothianidin	74.7	95.1	93.5				1.64
	Dinotefuran	85.8	102	98.1				3.10
	Dinotefuran	76.6	109	110				0.667
	Diuron	102	87.4	76.8				11.5
	Diuron	88.5	80.4	66.4				13.3
	Endothall	79.5	89.8	100				10.8
	Fenuron	104	84.1	74.5				12.1
	Fenuron	88.6	86.0	85.4				0.679
	Fluridone	92.1						12.9
	Fluridone	92.6						2.88
	Glufosinate	85.8	90.5	78.0				14.8
	Glyphosate	88.9	89.6	103				3.11

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Hydrocodone	95.5	93.1	78.6			16.8
	Hydrocodone	68.4	71.6	74.0			3.22
	Ibuprofen	74.2	72.0	59.1			19.6
	Ibuprofen	94.2	90.0	87.1			3.18
	Imazapyr	57.1					5.55
	Imazapyr	73.5					6.38
	Imidacloprid	108	165	148			7.21
	Imidacloprid	86.6	161	170			4.15
	Linuron	81.6	72.0	63.3			12.9
	Linuron	80.0	66.7	59.1			12.0
	Mandestrobin	97.9	101	85.2			16.4
	Mandestrobin	91.9	89.7	88.5			1.36
	MCPPP	99.8	101	84.1			18.2
	MCPPP	134	126	123			2.30
	Naproxen	74.4	71.8	67.9			5.59
	Naproxen	76.7	64.6	71.1			9.60
	Primidone	91.9	104	94.4			10.2
	Primidone	78.2	90.0	86.8			3.64
	Pyraclostrobin	86.6	90.4	76.4			16.7
	Pyraclostrobin	83.3	90.1	83.2			8.00
	Sucralose	111	50.3	37.3			26.4
	Thiamethoxam	104	139	126			9.47
	Thiamethoxam	91.2	120	123			2.10
	Tolfenpyrad	56.3	59.7	51.3			15.1
	Tolfenpyrad	59.8	66.6	59.1			11.8
	Triclopyr	82.4	96.8	74.9			25.5
	Triclopyr	99.2	105	105			0.747
SM 2120 B	Color (true)	99.8				3.25	
SM 2320 B-97	Total Alkalinity	100				0.249	
SM 2540 C-97	TDS					3.47	
SM 2540 D-97	TSS					2.67	
SM 4500 F-C-97	Fluoride	98.2	102	101			1.49
SM 5310 B-00	Organic Carbon	104	99.4	101			0.983

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2132219, 2132222
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2132241
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2132241
EPA 300.0 / E31780	Bromide in aqueous matrices	2132219
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2132222
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2132222
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2132220, 2132223
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2132220, 2132223
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2132220, 2132223

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2132220, 2132223
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2132221, 2132224
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2132237, 2132238, 2132239, 2132240
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2132237, 2132238, 2132239, 2132240
SM 2120 B / E31780	True Color measured at 450 nm	2132222
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2132219, 2132222
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2132222
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2132219, 2132222
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2132219, 2132222
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2132220, 2132223

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	10/29/2019			10/29/2019 15:54	Rosalyn Ballman	2132219, 2132222
EPA 200.7 Rev. 4.4	10/29/2019	10/31/2019 16:40	Elliott D. Healy	11/04/2019 14:01	Betina Topolski	2132241
EPA 200.8 Rev. 5.4	10/29/2019	10/31/2019 16:40	Elliott D. Healy	11/14/2019 09:45	Justin Cutchin	2132241
	10/29/2019	11/18/2019 14:25	Elliott D. Healy	11/22/2019 16:09	Justin Cutchin	2132241
EPA 300.0	10/29/2019			11/05/2019 06:09	Jhamieka S. Greenwood	2132219
EPA 300.0 Rev. 2.1	10/29/2019			11/05/2019 12:50	Jhamieka S. Greenwood	2132222
EPA 350.1 Rev. 2.0	10/29/2019			10/31/2019 13:59	Ping Hua	2132220
	10/29/2019			11/01/2019 11:55	Ping Hua	2132223
EPA 351.2 Rev. 2.0	10/29/2019	11/06/2019 12:31	Sima Feizi	11/08/2019 14:44	Virginia P. Brown	2132220
	10/29/2019	11/06/2019 12:31	Sima Feizi	11/08/2019 14:46	Virginia P. Brown	2132223
EPA 353.2 Rev. 2.0	10/29/2019			10/30/2019 12:17	Beverly Y. Sanders	2132220
	10/29/2019			10/30/2019 12:18	Beverly Y. Sanders	2132223
EPA 365.1 Rev. 2.0	10/29/2019	10/30/2019 11:09	Vijayalakshmi Reddy	10/31/2019 12:23	Julia Storbeck	2132220
	10/29/2019	10/30/2019 11:09	Vijayalakshmi Reddy	10/31/2019 12:24	Julia Storbeck	2132223
EPA 365.1 Rev. 2.0 dissolved	10/29/2019			10/29/2019 15:33	Virginia P. Brown	2132224
	10/29/2019			10/29/2019 15:59	Virginia P. Brown	2132221
EPA 8321B	10/29/2019	10/31/2019 09:00	Hoor Shaik	11/08/2019 06:06	Juyoung Kim	2132237
	10/29/2019	10/31/2019 09:00	Hoor Shaik	11/14/2019 21:10	Juyoung Kim	2132238
	10/29/2019	10/31/2019 11:30	Rebecca Ware	10/31/2019 18:04	Rebecca Ware	2132237
	10/29/2019	10/31/2019 11:30	Rebecca Ware	10/31/2019 18:18	Rebecca Ware	2132238
	10/29/2019	10/31/2019 11:30	Rebecca Ware	10/31/2019 18:46	Rebecca Ware	2132239
	10/29/2019	10/31/2019 11:30	Rebecca Ware	10/31/2019 19:00	Rebecca Ware	2132240
	10/29/2019	10/31/2019 11:30	Rebecca Ware	11/01/2019 20:40	Rebecca Ware	2132237
	10/29/2019	10/31/2019 11:30	Rebecca Ware	11/01/2019 21:23	Rebecca Ware	2132240
	10/29/2019	10/31/2019 11:30	Rebecca Ware	11/01/2019 22:49	Rebecca Ware	2132239
	10/29/2019	10/31/2019 11:30	Rebecca Ware	11/02/2019 11:40	Rebecca Ware	2132238
	10/29/2019	10/31/2019 11:30	Rebecca Ware	11/13/2019 15:23	Rebecca Ware	2132238
	10/29/2019	10/31/2019 11:30	Rebecca Ware	11/13/2019 16:57	Rebecca Ware	2132239
	10/29/2019	10/31/2019 11:30	Rebecca Ware	11/13/2019 17:09	Rebecca Ware	2132240
	10/29/2019	10/31/2019 11:30	Rebecca Ware	11/14/2019 09:18	Rebecca Ware	2132237
	10/29/2019	11/01/2019 10:30	Hoor Shaik	11/11/2019 14:44	Juyoung Kim	2132240
	10/29/2019	11/01/2019 10:30	Hoor Shaik	11/14/2019 21:44	Juyoung Kim	2132239
SM 2120 B	10/29/2019			10/29/2019 17:47	Madeline Funaro	2132222
SM 2320 B-97	10/29/2019			11/08/2019 10:04	Dale L. Simmons	2132219
	10/29/2019			11/08/2019 10:15	Dale L. Simmons	2132222
SM 2540 C-97	10/29/2019			11/01/2019 14:21	Yijie Li	2132222
SM 2540 D-97	10/29/2019			11/01/2019 14:21	Yijie Li	2132219, 2132222
SM 4500 F-C-97	10/29/2019			11/01/2019 07:10	Dale L. Simmons	2132219
	10/29/2019			11/01/2019 07:39	Dale L. Simmons	2132222
SM 5310 B-00	10/29/2019			10/31/2019 15:32	Lauren Lees	2132223

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-00	10/29/2019			10/31/2019 17:50	Lauren Lees	2132220