

Chemical Analysis Report

SE-DIST-2022-01-20-01

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

Event Description: **Basinger 4/5**
Request ID: **RQ-2022-01-17-32**
Customer: **SE-DIST**
Project ID: **SMP**

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Date Certified: 10-FEB-2022 10:39



Case Narrative

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

Results for the following analytical groups are included in this report: 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: Chandler Slough @ Southern US98 Culvert

Collection Date/Time: 01/19/2022 10:10

Field ID: G4SE0142

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2300864	DEP SOP: NU-094-1	Color (true)**	54	A	PCU	P408746	
	EPA 180.1 Rev. 2.0	Turbidity	0.30		NTU	P408770	
	EPA 300.0 Rev. 2.1	Chloride	300		mg Cl/L	P409267	
		Sulfate	120		mg SO4/L	P409270	
	SM 2320 B-2011	Total Alkalinity	78		mg CaCO3/L	P408901	
	SM 2540 C-2011	TDS	742		mg/L	P409306	
	SM 2540 D-2011	TSS	2	U	mg/L	P409309	
	SM 4500 F-C-2011	Fluoride	0.12		mg F/L	P408904	
2300868	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P409272	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.69		mg N/L	P408970	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P408983	
	EPA 365.1 Rev. 2.0	Total-P	0.083		mg P/L	P408852	MS
	SM 5310 B-2011	Organic Carbon	17		mg C/L	P409370	
2300872	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.072		mg P/L	P408741	

Ref. Method and Comment:

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

Sample Location: Chandler Slough @ Northern US98 Culvert

Collection Date/Time: 01/19/2022 10:40

Field ID: G4SE0141

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2300865	DEP SOP: NU-094-1	Color (true)**	85		PCU	P408746	
	EPA 180.1 Rev. 2.0	Turbidity	1.6	A	NTU	P408770	
	EPA 300.0 Rev. 2.1	Chloride	64		mg Cl/L	P409267	
		Sulfate	31		mg SO4/L	P409270	
	SM 2320 B-2011	Total Alkalinity	91		mg CaCO3/L	P408901	
	SM 2540 C-2011	TDS	294		mg/L	P409306	
	SM 2540 D-2011	TSS	2	I	mg/L	P409309	
	SM 4500 F-C-2011	Fluoride	0.11		mg F/L	P408904	
2300869	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P409272	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P408970	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.031		mg N/L	P408984	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P408855	MS
	SM 5310 B-2011	Organic Carbon	21		mg C/L	P409370	
2300873	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.091		mg P/L	P408741	

Ref. Method and Comment:

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

Sample Location: Oak Creek @ 68

Collection Date/Time: 01/19/2022 11:30

Field ID: G4SE0080

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2300876	DEP SOP: NU-094-1	Color (true)**	85		PCU	P408746	
	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P408770	
	EPA 300.0 Rev. 2.1	Chloride	25		mg Cl/L	P409267	
		Sulfate	8.8		mg SO4/L	P409270	
	SM 2320 B-2011	Total Alkalinity	43		mg CaCO3/L	P408901	
	SM 2540 C-2011	TDS	134		mg/L	P409306	
	SM 2540 D-2011	TSS	2	I	mg/L	P409309	
	SM 4500 F-C-2011	Fluoride	0.10		mg F/L	P408904	
2300877	EPA 350.1 Rev. 2.0	Ammonia-N	0.032		mg N/L	P409347	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.93		mg N/L	P409067	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.020		mg N/L	P408984	
	EPA 365.1 Rev. 2.0	Total-P	0.084		mg P/L	P408855	MS
	SM 5310 B-2011	Organic Carbon	18		mg C/L	P409520	
2300878	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.045		mg P/L	P408741	
2300893	EPA 8321B	2,4-D	0.0020	U	ug/L	P408736	
		Acesulfame K	0.10	U	ug/L	P408756	
		2,4,5-T	0.0040	U	ug/L	P408736	
		AMPA	0.10	U	ug/L	P408756	
		Acetaminophen	0.0080	U	ug/L	P408736	
		Acetamiprid	0.0020	U	ug/L	P408736	
		Endothall	0.25	U	ug/L	P408756	
		Glufosinate	0.10	U	ug/L	P408756	
		Glyphosate	0.10	U	ug/L	P408756	
		Afidopyropen	0.0020	U	ug/L	P408736	
		Bentazon	8.0E-04	U	ug/L	P408736	
		Sucralose	0.020	I	ug/L	P408756	
		Benzovindiflupyr	0.0020	U	ug/L	P408736	
		Carbamazepine	8.0E-04	U	ug/L	P408736	
		Clothianidin	0.0020	U	ug/L	P408736	
		Dinotefuran	0.0020	U	ug/L	P408736	
		Diuron	0.0020	U	ug/L	P408736	RPD
		Fenuron	0.016	U	ug/L	P408736	
		Fluridone	8.0E-04	U	ug/L	P408736	
		Imazapyr	0.040		ug/L	P408736	
		Hydrocodone	0.0020	U	ug/L	P408736	
		Ibuprofen	0.020	U	ug/L	P408736	
		Imidacloprid	0.0093		ug/L	P408736	
		Linuron	0.0040	U	ug/L	P408736	
		Mandestrobin	0.0020	U	ug/L	P408736	
		MCPP	0.0040	U	ug/L	P408736	
		Naproxen	0.0080	U	ug/L	P408736	
		Primidone	0.0040	U	ug/L	P408736	
		Pyraclostrobin	0.0020	U	ug/L	P408736	

Field ID: G4SE0080

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2300893	EPA 8321B	Silvex	0.0040	U	ug/L	P408736	
		Thiamethoxam	0.0020	U	ug/L	P408736	
		Tolfenpyrad	0.0020	U	ug/L	P408736	MS
		Triclopyr	0.0040	U	ug/L	P408736	
2300896	EPA 200.7 Rev. 4.4	Calcium	19.8		mg/L	P408765	
		Iron	460		ug/L	P408765	
		Magnesium	3.21		mg/L	P408765	
		Potassium	2.7		mg/L	P408765	
		Sodium	14.1		mg/L	P408765	
		Strontium	174		ug/L	P408765	
		Tin	3.0	U	ug/L	P408765	
		Titanium	1.1	I	ug/L	P408765	
		Vanadium	2.0	U	ug/L	P408765	
		Zinc	5.0	U	ug/L	P408765	
	EPA 200.8 Rev. 5.4	Aluminum	90		ug/L	P408765	
		Antimony	0.050	U	ug/L	P408765	
		Arsenic	0.75		ug/L	P408765	
		Barium	17.4		ug/L	P408765	
		Beryllium	0.015	I	ug/L	P408765	
		Boron**	26.2		ug/L	P408765	
		Cadmium	0.020	U	ug/L	P408765	
		Chromium	0.98	I	ug/L	P408765	
		Cobalt	0.082		ug/L	P408765	
		Copper	0.40	U	ug/L	P408765	
	SM 2340B	Lead	0.20	U	ug/L	P408765	
		Manganese	4.63		ug/L	P408765	
		Molybdenum	0.25	I	ug/L	P408765	
		Nickel	0.50	U	ug/L	P408765	
		Selenium	0.20	U	ug/L	P408765	
		Silver	0.010	U	ug/L	P408765	
		Thallium	0.10	U	ug/L	P408765	
		Hardness	62.7		mg/L	P408765	

Ref. Method and Comment:

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

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Gore Branch @ 724

Collection Date/Time: 01/19/2022 12:40

Field ID: G4SE0130

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2300894	EPA 8321B	2,4-D	0.0020	U	ug/L	P408736	
		Acesulfame K	0.10	U	ug/L	P408756	
		2,4,5-T	0.0040	U	ug/L	P408736	
		AMPA	0.18	I	ug/L	P408756	
		Acetaminophen	0.0080	U	ug/L	P408736	
		Acetamiprid	0.0020	U	ug/L	P408736	
		Endothall	0.25	U	ug/L	P408756	
		Glufosinate	0.10	U	ug/L	P408756	
		Glyphosate	0.10	U	ug/L	P408756	
		Afidopyropen	0.0020	U	ug/L	P408736	
		Bentazon	8.0E-04	U	ug/L	P408736	
		Sucralose	0.076		ug/L	P408756	
		Benzovindiflupyr	0.0020	U	ug/L	P408736	
		Carbamazepine	8.0E-04	U	ug/L	P408736	
		Clothianidin	0.0020	U	ug/L	P408736	
		Dinotefuran	0.0020	U	ug/L	P408736	
		Diuron	0.0020	U	ug/L	P408736	RPD
		Fenuron	0.016	U	ug/L	P408736	
		Fluridone	0.027		ug/L	P408736	
		Imazapyr	0.082		ug/L	P408736	
		Hydrocodone	0.0020	U	ug/L	P408736	
		Ibuprofen	0.020	U	ug/L	P408736	
		Imidacloprid	0.0020	U	ug/L	P408736	
		Linuron	0.0040	U	ug/L	P408736	
		Mandestrobin	0.0020	U	ug/L	P408736	
		MCPP	0.0040	U	ug/L	P408736	
		Naproxen	0.0080	U	ug/L	P408736	
		Primidone	0.0051	I	ug/L	P408736	
		Pyraclostrobin	0.0020	U	ug/L	P408736	
		Silvex	0.0040	U	ug/L	P408736	
		Thiamethoxam	0.0020	U	ug/L	P408736	
		Tolfenpyrad	0.0020	U	ug/L	P408736	MS
		Triclopyr	0.0040	U	ug/L	P408736	

Ref. Method and Comment:

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Chandler Slough @ NW 190th

Collection Date/Time: 01/19/2022 12:50

Field ID: G4SE0136

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2300895	EPA 8321B	2,4-D	0.0020	U	ug/L	P408736	
		Acesulfame K	0.10	U	ug/L	P408756	
		2,4,5-T	0.0040	U	ug/L	P408736	
		AMPA	0.11	I	ug/L	P408756	
		Acetaminophen	0.0080	U	ug/L	P408736	
		Acetamiprid	0.0020	U	ug/L	P408736	
		Endothall	0.25	U	ug/L	P408756	
		Glufosinate	0.10	U	ug/L	P408756	
		Glyphosate	0.10	U	ug/L	P408756	
		Afidopyropen	0.0020	U	ug/L	P408736	
		Bentazon	8.0E-04	U	ug/L	P408736	
		Sucralose	0.010	U	ug/L	P408756	
		Benzovindiflupyr	0.0020	U	ug/L	P408736	
		Carbamazepine	8.0E-04	U	ug/L	P408736	
		Clothianidin	0.0020	U	ug/L	P408736	
		Dinotefuran	0.0020	U	ug/L	P408736	
		Diuron	0.0020	U	ug/L	P408736	RPD
		Fenuron	0.016	U	ug/L	P408736	
		Fluridone	8.0E-04	U	ug/L	P408736	
		Imazapyr	0.66		ug/L	P408736	
		Hydrocodone	0.0020	U	ug/L	P408736	
		Ibuprofen	0.020	U	ug/L	P408736	
		Imidacloprid	0.091		ug/L	P408736	
		Linuron	0.0040	U	ug/L	P408736	
		Mandestrobin	0.0020	U	ug/L	P408736	
		MCPP	0.0040	U	ug/L	P408736	
		Naproxen	0.0080	U	ug/L	P408736	
		Primidone	0.0040	U	ug/L	P408736	
		Pyraclostrobin	0.0020	U	ug/L	P408736	
		Silvex	0.0040	U	ug/L	P408736	
		Thiamethoxam	0.020		ug/L	P408736	
		Tolfenpyrad	0.0020	U	ug/L	P408736	MS
		Triclopyr	0.0040	U	ug/L	P408736	

Ref. Method and Comment:

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Gore Branch / Chandler Slough @ NW 240th St. Collection Date/Time: 01/19/2022 13:15

Field ID: G4SE0145

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2300866	DEP SOP: NU-094-1	Color (true)**	66		PCU	P408746	
	EPA 180.1 Rev. 2.0	Turbidity	3.5	A	NTU	P408771	
	EPA 300.0 Rev. 2.1	Chloride	240		mg Cl/L	P409267	
		Sulfate	120		mg SO4/L	P409270	
	SM 2320 B-2011	Total Alkalinity	103		mg CaCO3/L	P408901	
	SM 2540 C-2011	TDS	648		mg/L	P409306	
	SM 2540 D-2011	TSS	2	I	mg/L	P409309	
	SM 4500 F-C-2011	Fluoride	0.17		mg F/L	P408904	
2300870	EPA 350.1 Rev. 2.0	Ammonia-N	0.061		mg N/L	P409346	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.81		mg N/L	P409070	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.23		mg N/L	P408984	
	EPA 365.1 Rev. 2.0	Total-P	0.058		mg P/L	P408855	MS
	SM 5310 B-2011	Organic Carbon	16		mg C/L	P409370	
2300874	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.030		mg P/L	P408741	

Ref. Method and Comment:

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

Sample Location: Chandler Slough @ NW 160th Dr.

Collection Date/Time: 01/19/2022 11:00

Field ID: G4SE0143

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2300867	DEP SOP: NU-094-1	Color (true)**	64		PCU	P408746	
	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P408770	
	EPA 300.0 Rev. 2.1	Chloride	110		mg Cl/L	P409267	
		Sulfate	100		mg SO4/L	P409270	
	SM 2320 B-2011	Total Alkalinity	35		mg CaCO3/L	P408901	
	SM 2540 C-2011	TDS	397		mg/L	P409306	
	SM 2540 D-2011	TSS	2	I	mg/L	P409309	
	SM 4500 F-C-2011	Fluoride	0.15		mg F/L	P408904	
2300871	EPA 350.1 Rev. 2.0	Ammonia-N	0.042		mg N/L	P409346	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.77		mg N/L	P409067	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.038		mg N/L	P408984	
	EPA 365.1 Rev. 2.0	Total-P	0.25		mg P/L	P408855	MS
	SM 5310 B-2011	Organic Carbon	16		mg C/L	P409520	
2300875	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.20		mg P/L	P408741	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P408746

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P408770

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P408771

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P408765

Component	Result	Code	Units
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
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P408765

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409267

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409270

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409272

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409346

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409347

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P408970

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409067

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409070

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P408983

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P408984

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408852

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408855

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P408741

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

Reference Method: EPA 8321B
Batch ID: P408736

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P408756

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

Reference Method: SM 2320 B-2011
Batch ID: P408901

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

Reference Method: SM 2540 C-2011
Batch ID: P409306

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P409309

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P408904

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P409370

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

Reference Method: SM 5310 B-2011
Batch ID: P409520

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P408746

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	102		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P408765

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	107		P	85 - 115
Iron	111		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	104		P	85 - 115
Sodium	106		P	85 - 115
Strontium	104		P	85 - 115
Tin	109		P	85 - 115
Titanium	107		P	85 - 115
Vanadium	106		P	85 - 115
Zinc	110		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P408765

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	95.2		P	85 - 115
Antimony	97.1		P	85 - 115
Arsenic	97.5		P	85 - 115
Barium	101		P	85 - 115
Beryllium	97.9		P	85 - 115
Boron	104		P	85 - 115
Cadmium	95.8		P	85 - 115
Chromium	96.2		P	85 - 115
Cobalt	95.4		P	85 - 115
Copper	97.0		P	85 - 115
Lead	95.6		P	85 - 115
Manganese	96.3		P	85 - 115
Molybdenum	97.6		P	85 - 115
Nickel	98.2		P	85 - 115
Selenium	97.1		P	85 - 115
Silver	95.2		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409267

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409270

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409272

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409346

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409347

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P408970

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409067

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409070

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P408983

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: P408984

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408852

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P408855

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	108		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P408741

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

Reference Method: EPA 8321B

Batch ID: P408736

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	113		P	40 - 150
2,4,5-T	77.3		P	40 - 150
Acetaminophen	92.5		P	30 - 150
Acetamiprid	95.8		P	40 - 150
Afidopyropen	89.7		P	40 - 150
Bentazon	112		P	30 - 150
Benzovindiflupyr	119		P	40 - 150
Carbamazepine	111		P	40 - 150
Clothianidin	115		P	40 - 150
Dinotefuran	100		P	40 - 150
Diuron	126		P	40 - 150
Fenuron	97.2		P	40 - 150
Fluridone	103		P	40 - 150
Hydrocodone	97.1		P	40 - 150
Ibuprofen	102		P	40 - 150
Imazapyr	113		P	40 - 150
Imidacloprid	91.5		P	40 - 150
Linuron	103		P	40 - 150
Mandestrobin	103		P	40 - 150
MCPP	112		P	40 - 150
Naproxen	71.7		P	40 - 150
Primidone	90.3		P	40 - 150
Pyraclostrobin	75.0		P	40 - 150
Silvex	88.2		P	40 - 150
Thiamethoxam	99.4		P	40 - 150
Tolfenpyrad	49.0		P	30 - 150
Triclopyr	97.4		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P408756

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	112		P	40 - 150
AMPA	91.4		P	40 - 150
Endothall	115		P	40 - 150
Glufosinate	95.7		P	40 - 150
Glyphosate	90.3		P	40 - 150
Sucralose	86.1		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P408901

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.3		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P408904

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.0		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P409370

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	93.3		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P409520

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P408765

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300543	Calcium	105		P	80 - 120
2300543	Iron	109		P	80 - 120
2300543	Magnesium	102		P	80 - 120
2300543	Potassium	103		P	80 - 120
2300543	Sodium	101		P	80 - 120
2300543	Strontium	102		P	80 - 120
2300543	Tin	107		P	80 - 120
2300543	Titanium	103		P	80 - 120
2300543	Vanadium	104		P	80 - 120
2300543	Zinc	102		P	80 - 120
2300852	Calcium	104		P	80 - 120
2300852	Iron	105	108	P/P	80 - 120
2300852	Magnesium	102		P	80 - 120
2300852	Potassium	99.8	103	P/P	80 - 120
2300852	Sodium	102	102	P/P	80 - 120
2300852	Strontium	101	101	P/P	80 - 120
2300852	Tin	108	106	P/P	80 - 120
2300852	Titanium	105	105	P/P	80 - 120
2300852	Vanadium	104	104	P/P	80 - 120
2300852	Zinc	104	103	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P408765

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300543	Aluminum	95.7		P	80 - 120
2300543	Antimony	98.1		P	80 - 120
2300543	Arsenic	95.6		P	80 - 120
2300543	Barium	101		P	80 - 120
2300543	Beryllium	98.5		P	80 - 120
2300543	Boron	90.5		P	80 - 120
2300543	Cadmium	96.7		P	80 - 120
2300543	Chromium	97.6		P	80 - 120
2300543	Cobalt	92.3		P	80 - 120
2300543	Copper	92.5		P	80 - 120
2300543	Lead	96.0		P	80 - 120
2300543	Manganese	96.9		P	80 - 120
2300543	Molybdenum	98.1		P	80 - 120
2300543	Nickel	94.8		P	80 - 120
2300543	Selenium	94.9		P	80 - 120
2300543	Silver	94.3		P	80 - 120
2300543	Thallium	100		P	80 - 120
2300852	Aluminum	94.5	96.5	P/P	80 - 120
2300852	Antimony	97.1	98.9	P/P	80 - 120
2300852	Arsenic	95.0	95.8	P/P	80 - 120
2300852	Barium	99.4	102	P/P	80 - 120
2300852	Beryllium	94.3	98.3	P/P	80 - 120
2300852	Boron	102	105	P/P	80 - 120
2300852	Cadmium	94.4	96.8	P/P	80 - 120
2300852	Chromium	95.5	99.0	P/P	80 - 120
2300852	Cobalt	91.5	93.4	P/P	80 - 120
2300852	Copper	92.4	94.7	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P408765

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300852	Lead	94.4	96.6	P/P	80 - 120
2300852	Manganese	94.9	97.8	P/P	80 - 120
2300852	Molybdenum	96.7	98.4	P/P	80 - 120
2300852	Nickel	93.9	95.6	P/P	80 - 120
2300852	Selenium	94.7	94.6	P/P	80 - 120
2300852	Silver	93.4	94.9	P/P	80 - 120
2300852	Thallium	99.4	102	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P409267

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300843	Chloride	101		P	90 - 110
2300924	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P409270

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300843	Sulfate	100		P	90 - 110
2300924	Sulfate	99.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P409272

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300663	Ammonia-N	95.0	97.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P409346

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300718	Ammonia-N	98.4	99.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P409347

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300905	Ammonia-N	98.8	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P408970

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300844	Kjeldahl Nitrogen	101	107	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P409067

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300871	Kjeldahl Nitrogen	106	106	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409070

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300847	Kjeldahl Nitrogen	106	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P408983

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300868	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P408984

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300869	NO2NO3-N	98.8	99.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408852

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300809	Total-P	110	109	F/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408855

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300928	Total-P	113	114	F/F	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P408741

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300906	O-Phosphate-P	98.2	101	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P408736

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300481	2,4,5-T	88.7	88.4	P/P	40 - 150
2300481	Acetaminophen	125	111	P/P	30 - 150
2300481	Acetamiprid	122	125	P/P	40 - 150
2300481	Afidopyropen	64.7	83.0	P/P	40 - 150
2300481	Bentazon	56.7	62.1	P/P	30 - 150
2300481	Benzovindiflupyr	115	130	P/P	40 - 150
2300481	Carbamazepine	116	118	P/P	40 - 150
2300481	Dinotefuran	136	144	P/P	40 - 150
2300481	Fenuron	90.6	99.8	P/P	40 - 150
2300481	Fluridone	88.2	97.5	P/P	40 - 150
2300481	Hydrocodone	90.3	102	P/P	40 - 150
2300481	Ibuprofen	101	91.4	P/P	40 - 150
2300481	Imazapyr	99.6	121	P/P	40 - 150
2300481	Linuron	88.1	118	P/P	40 - 150
2300481	Mandestrobin	108	108	P/P	40 - 150
2300481	MCP	111	119	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P408736

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300481	Naproxen	103	119	P/P	40 - 150
2300481	Primidone	81.0	109	P/P	40 - 150
2300481	Pyraclostrobin	85.8	84.9	P/P	40 - 150
2300481	Silvex	109	96.9	P/P	40 - 150
2300481	Tolfenpyrad	38.7	29.5	P/F	30 - 150
2300481	Triclopyr	111	130	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P408756

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300832	Acesulfame K	130	141	P/P	40 - 150
2300832	AMPA	71.5	72.6	P/P	40 - 150
2300832	Endothall	96.5	101	P/P	40 - 150
2300832	Glufosinate	76.8	76.8	P/P	40 - 150
2300832	Glyphosate	73.5	73.5	P/P	40 - 150
2300832	Sucralose	84.2	88.7	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P408904

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300716	Fluoride	101	98.4	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P409370

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300869	Organic Carbon	101		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P409520

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300871	Organic Carbon	97.2	99.9	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P408746

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300864	Color (true)	0.692	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P408770

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300865	Turbidity	3.73	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P408771

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300866	Turbidity	1.14	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P408765

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300852	Calcium	0.307	Spike	P	0 - 20
2300852	Iron	2.76	Spike	P	0 - 20
2300852	Magnesium	1.60	Spike	P	0 - 20
2300852	Potassium	2.40	Spike	P	0 - 20
2300852	Sodium	0.0487	Spike	P	0 - 20
2300852	Strontium	0.0347	Spike	P	0 - 20
2300852	Tin	2.23	Spike	P	0 - 20
2300852	Titanium	0.460	Spike	P	0 - 20
2300852	Vanadium	0.550	Spike	P	0 - 20
2300852	Zinc	1.42	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P408765

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300852	Aluminum	2.13	Spike	P	0 - 20
2300852	Antimony	1.83	Spike	P	0 - 20
2300852	Arsenic	0.824	Spike	P	0 - 20
2300852	Barium	2.05	Spike	P	0 - 20
2300852	Beryllium	4.16	Spike	P	0 - 20
2300852	Boron	2.14	Spike	P	0 - 20
2300852	Cadmium	2.50	Spike	P	0 - 20
2300852	Chromium	3.55	Spike	P	0 - 20
2300852	Cobalt	2.07	Spike	P	0 - 20
2300852	Copper	2.45	Spike	P	0 - 20
2300852	Lead	2.23	Spike	P	0 - 20
2300852	Manganese	2.43	Spike	P	0 - 20
2300852	Molybdenum	1.47	Spike	P	0 - 20
2300852	Nickel	1.84	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P408765

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300852	Selenium	0.0864	Spike	P	0 - 20
2300852	Silver	1.61	Spike	P	0 - 20
2300852	Thallium	2.15	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409267

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300843	Chloride	1.26	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409270

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300843	Sulfate	0.449	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409272

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300663	Ammonia-N	1.57	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409346

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300718	Ammonia-N	0.541	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409347

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300905	Ammonia-N	2.20	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P408970

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300844	Kjeldahl Nitrogen	5.07	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409067

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409067

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300871	Kjeldahl Nitrogen	0.186	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409070

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300847	Kjeldahl Nitrogen	0.352	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P408983

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300868	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P408984

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300869	NO2NO3-N	0.870	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300809	Total-P	1.50	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408855

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300928	Total-P	0.443	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P408741

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300906	O-Phosphate-P	2.10	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P408736

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300481	2,4-D	17.3	Spike	P	0 - 30
2300481	2,4,5-T	0.317	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P408736

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300481	Acetaminophen	11.8	Spike	P	0 - 30
2300481	Acetamiprid	2.47	Spike	P	0 - 30
2300481	Afidopyropen	24.8	Spike	P	0 - 30
2300481	Bentazon	6.97	Spike	P	0 - 30
2300481	Benzovindiflupyr	12.9	Spike	P	0 - 30
2300481	Carbamazepine	1.31	Spike	P	0 - 30
2300481	Clothianidin	12.4	Spike	P	0 - 30
2300481	Dinotefuran	5.25	Spike	P	0 - 30
2300481	Diuron	46.6	Spike	F	0 - 30
2300481	Fenuron	5.05	Spike	P	0 - 30
2300481	Fluridone	10.1	Spike	P	0 - 30
2300481	Hydrocodone	12.1	Spike	P	0 - 30
2300481	Ibuprofen	10.2	Spike	P	0 - 30
2300481	Imazapyr	12.0	Spike	P	0 - 30
2300481	Imidacloprid	8.25	Spike	P	0 - 30
2300481	Linuron	29.2	Spike	P	0 - 30
2300481	Mandestrobin	0.142	Spike	P	0 - 30
2300481	MCPP	6.39	Spike	P	0 - 30
2300481	Naproxen	14.7	Spike	P	0 - 30
2300481	Primidone	26.1	Spike	P	0 - 30
2300481	Pyraclostrobin	1.07	Spike	P	0 - 30
2300481	Silvex	11.3	Spike	P	0 - 30
2300481	Thiamethoxam	2.92	Spike	P	0 - 30
2300481	Tolfenpyrad	27.0	Spike	P	0 - 30
2300481	Triclopyr	15.7	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P408756

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300832	Acesulfame K	8.14	Spike	P	0 - 30
2300832	AMPA	1.10	Spike	P	0 - 30
2300832	Endothall	4.55	Spike	P	0 - 30
2300832	Glufosinate	0.0479	Spike	P	0 - 30
2300832	Glyphosate	0.0447	Spike	P	0 - 30
2300832	Sucralose	4.88	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P408901

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300716	Total Alkalinity	0.0427	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P409306

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300843	TDS	6.74	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-2011
Batch ID: P408904

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300716	Fluoride	2.03	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P409370

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300869	Organic Carbon	0.775	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P409520

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300871	Organic Carbon	1.54	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2300893

Field Sample ID: G4SE0080

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	101	P	30 - 160
EPA 8321B	Acetaminophen-d4	95.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	105	P	30 - 160
EPA 8321B	Diuron-d6	71.1	P	30 - 160
EPA 8321B	Endothall-d6	88.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	86.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	57.9	P	30 - 160
EPA 8321B	Primidone-d5	70.6	P	30 - 160
EPA 8321B	Sucralose-d6	79.6	P	30 - 160

Lab Sample ID: 2300894

Field Sample ID: G4SE0130

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	115	P	30 - 160
EPA 8321B	Acetaminophen-d4	99.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	105	P	30 - 160
EPA 8321B	Diuron-d6	65.8	P	30 - 160
EPA 8321B	Endothall-d6	110	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	97.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	74.0	P	30 - 160
EPA 8321B	Primidone-d5	77.0	P	30 - 160
EPA 8321B	Sucralose-d6	67.1	P	30 - 160

Lab Sample ID: 2300895

Field Sample ID: G4SE0136

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	138	P	30 - 160
EPA 8321B	Acetaminophen-d4	108	P	30 - 160
EPA 8321B	Carbamazepine-d10	121	P	30 - 160
EPA 8321B	Diuron-d6	117	P	30 - 160
EPA 8321B	Endothall-d6	84.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	70.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	80.0	P	30 - 160
EPA 8321B	Primidone-d5	111	P	30 - 160
EPA 8321B	Sucralose-d6	78.4	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A109920

Included Lab Sample IDs: 2300893, 2300894, 2300895

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	108	117	P/P	50 - 150
2,4,5-T	119	108	P/P	50 - 150
Acetaminophen	62.4	68.5	P/P	60 - 160
Acetamiprid	103	109	P/P	50 - 150
Afidopyropen	110	96.8	P/P	50 - 150
Bentazon	110	115	P/P	50 - 160
Benzovindiflupyr	67.5	104	P/P	50 - 150
Carbamazepine	95.9	88.7	P/P	60 - 150
Clothianidin	113	92.4	P/P	60 - 150
Dinotefuran	95.7	91.3	P/P	50 - 150
Diuron	99.7	134	P/P	60 - 160
Fenuron	97.2	102	P/P	60 - 150
Fluridone	97.9	92.0	P/P	60 - 160
Hydrocodone	83.8	99.1	P/P	60 - 150
Ibuprofen	139	67.6	P/P	50 - 160
Imazapyr	121	101	P/P	50 - 150
Imidacloprid	111	72.1	P/P	60 - 150
Linuron	130	118	P/P	60 - 150
Mandestrobin	109	112	P/P	50 - 150
MCPP	95.8	107	P/P	50 - 150
Naproxen	102	76.6	P/P	50 - 160
Primidone	64.2	87.4	P/P	60 - 150
Pyraclostrobin	101	115	P/P	60 - 150
Silvex	99.9	96.9	P/P	50 - 150
Thiamethoxam	91.5	102	P/P	50 - 150
Tolfenpyrad	71.9	91.2	P/P	60 - 150
Triclopyr	95.2	138	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A109950

Included Lab Sample IDs: 2300872, 2300873, 2300874, 2300875, 2300878

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

Reference Method: DEP SOP: NU-094-1

Run ID: A109951

Included Lab Sample IDs: 2300864, 2300865, 2300866, 2300867, 2300876

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	103	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A109963

Included Lab Sample IDs: 2300864, 2300865, 2300866, 2300867, 2300876

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	99.0	P/P	95 - 105
Turbidity	99.0	99.0	P/P	95 - 105

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A109990

Included Lab Sample IDs: 2300896

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	95.3	97.4	P/P	90 - 110
Antimony	98.5	99.0	P/P	90 - 110
Arsenic	95.6	97.5	P/P	90 - 110
Barium	98.8	98.6	P/P	90 - 110
Beryllium	95.8	97.4	P/P	90 - 110
Boron	90.9	91.5	P/P	90 - 110
Cadmium	96.5	96.6	P/P	90 - 110
Chromium	96.7	96.8	P/P	90 - 110
Cobalt	91.5	92.3	P/P	90 - 110
Copper	94.0	94.8	P/P	90 - 110
Manganese	98.1	98.0	P/P	90 - 110
Molybdenum	96.4	96.0	P/P	90 - 110
Nickel	94.5	95.4	P/P	90 - 110
Selenium	96.4	97.6	P/P	90 - 110
Silver	95.7	95.3	P/P	90 - 110
Thallium	99.6	98.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A109991

Included Lab Sample IDs: 2300893, 2300894, 2300895

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	76.7	81.5	P/P	60 - 160
Endothall	74.4	66.6	P/P	60 - 160
Sucralose	95.2	96.6	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A110014

Included Lab Sample IDs: 2300896

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	93.9	91.0	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A110020

Included Lab Sample IDs: 2300896

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	104	102	P/P	90 - 110
Iron	103	101	P/P	90 - 110
Magnesium	102	101	P/P	90 - 110
Potassium	97.6	97.5	P/P	90 - 110
Sodium	99.0	98.7	P/P	90 - 110
Strontium	102	101	P/P	90 - 110
Tin	104	103	P/P	90 - 110
Titanium	102	101	P/P	90 - 110
Vanadium	102	101	P/P	90 - 110
Zinc	106	105	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A110022

Included Lab Sample IDs: 2300864, 2300865, 2300866, 2300867, 2300876

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.5	97.3	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A110022

Included Lab Sample IDs: 2300864, 2300865, 2300866, 2300867, 2300876

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

Reference Method: EPA 8321B

Run ID: A110023

Included Lab Sample IDs: 2300893, 2300894, 2300895

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	106	100	P/P	60 - 160
Glufosinate	98.3	96.1	P/P	60 - 160
Glyphosate	93.2	94.8	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A110046

Included Lab Sample IDs: 2300868, 2300869, 2300870, 2300871, 2300877

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A110051

Included Lab Sample IDs: 2300868, 2300869, 2300870, 2300871, 2300877

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	108	110	P/P	90 - 110
Total-P	109	108	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A110103

Included Lab Sample IDs: 2300868, 2300869

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: A110152

Included Lab Sample IDs: 2300870, 2300871, 2300877

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.9	96.2	P/P	90 - 110
Kjeldahl Nitrogen	96.9	94.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A110154

Included Lab Sample IDs: 2300864, 2300865, 2300866, 2300867, 2300876

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A110182

Included Lab Sample IDs: 2300870, 2300871, 2300877

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.8	P/P	90 - 110
Ammonia-N	99.8	99.4	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A110189

Included Lab Sample IDs: 2300868, 2300869, 2300870

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	99.6	P/P	90 - 110
Organic Carbon	94.1	104	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A110267

Included Lab Sample IDs: 2300871, 2300877

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.2	103	P/P	90 - 110
Organic Carbon	99.4	99.2	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
DEP SOP: NU-094-1	Color (true)	102					0.692	
EPA 180.1 Rev. 2.0	Turbidity						3.73	
	Turbidity						1.14	
EPA 200.7 Rev. 4.4	Calcium	107	105	104				0.307
	Iron	111	109	105	108			2.76
	Magnesium	105	102	102				1.60
	Potassium	104	103	99.8	103			2.40
	Sodium	106	101	102	102			0.0487
	Strontium	104	102	101	101			0.0347
	Tin	109	107	108	106			2.23
	Titanium	107	103	105	105			0.460
	Vanadium	106	104	104	104			0.550
	Zinc	110	102	104	103			1.42
EPA 200.8 Rev. 5.4	Aluminum	95.2	94.5	96.5	95.7			2.13
	Antimony	97.1	97.1	98.9	98.1			1.83
	Arsenic	97.5	95.0	95.8	95.6			0.824
	Barium	101	99.4	102	101			2.05
	Beryllium	97.9	94.3	98.3	98.5			4.16
	Boron	104	102	105	90.5			2.14
	Cadmium	95.8	94.4	96.8	96.7			2.50
	Chromium	96.2	95.5	99.0	97.6			3.55
	Cobalt	95.4	91.5	93.4	92.3			2.07
	Copper	97.0	92.4	94.7	92.5			2.45
	Lead	95.6	94.4	96.6	96.0			2.23
	Manganese	96.3	94.9	97.8	96.9			2.43
	Molybdenum	97.6	96.7	98.4	98.1			1.47
	Nickel	98.2	93.9	95.6	94.8			1.84
	Selenium	97.1	94.7	94.6	94.9			0.0864
	Silver	95.2	93.4	94.9	94.3			1.61
	Thallium	101	99.4	102	100			2.15
EPA 300.0 Rev. 2.1	Chloride	101	101	101			1.26	
	Sulfate	100	100	99.3			0.449	
EPA 350.1 Rev. 2.0	Ammonia-N	96.0	95.0	97.0				1.57
	Ammonia-N	99.6	98.4	99.0				0.541
	Ammonia-N	99.0	98.8	101				2.20
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	101	107				5.07
	Kjeldahl Nitrogen	97.6	106	106				0.186
	Kjeldahl Nitrogen	100	106	107				0.352
EPA 353.2 Rev. 2.0	NO2NO3-N	100	100	100				0.0
	NO2NO3-N	102	98.8	99.8				0.870
EPA 365.1 Rev. 2.0	Total-P	110	110	109				1.50
	Total-P	108	113	114				0.443
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.8	98.2	101				2.10
EPA 8321B	2,4-D	113						17.3
	2,4,5-T	77.3	88.7	88.4				0.317
	Acesulfame K	112	130	141				8.14
	Acetaminophen	92.5	125	111				11.8
	Acetamiprid	95.8	122	125				2.47
	Afidopyropen	89.7	64.7	83.0				24.8
	AMPA	91.4	71.5	72.6				1.10
	Bentazon	112	56.7	62.1				6.97
	Benzovindiflupyr	119	115	130				12.9
	Carbamazepine	111	116	118				1.31
	Clothianidin	115						12.4

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Dinotefuran	100	136	144			5.25
	Diuron	126					46.6
	Endothall	115	96.5	101			4.55
	Fenuron	97.2	90.6	99.8			5.05
	Fluridone	103	88.2	97.5			10.1
	Glufosinate	95.7	76.8	76.8			0.0479
	Glyphosate	90.3	73.5	73.5			0.0447
	Hydrocodone	97.1	90.3	102			12.1
	Ibuprofen	102	101	91.4			10.2
	Imazapyr	113	99.6	121			12.0
	Imidacloprid	91.5					8.25
	Linuron	103	88.1	118			29.2
	Mandestrobin	103	108	108			0.142
	MCPP	112	111	119			6.39
	Naproxen	71.7	103	119			14.7
	Primidone	90.3	81.0	109			26.1
	Pyraclostrobin	75.0	85.8	84.9			1.07
	Silvex	88.2	109	96.9			11.3
	Sucralose	86.1	84.2	88.7			4.88
	Thiamethoxam	99.4					2.92
	Tolfenpyrad	49.0	38.7	29.5			27.0
	Triclopyr	97.4	111	130			15.7
SM 2320 B-2011	Total Alkalinity	99.3				0.0427	
SM 2540 C-2011	TDS					6.74	
SM 4500 F-C-2011	Fluoride	99.0	101	98.4			2.03
SM 5310 B-2011	Organic Carbon	93.3	101				0.775
	Organic Carbon	96.4	97.2	99.9			1.54

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2300864, 2300865, 2300866, 2300867, 2300876
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2300864, 2300865, 2300866, 2300867, 2300876
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2300896
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2300896
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2300864, 2300865, 2300866, 2300867, 2300876
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2300864, 2300865, 2300866, 2300867, 2300876
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2300868, 2300869, 2300870, 2300871, 2300877
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2300868, 2300869, 2300870, 2300871, 2300877
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2300868, 2300869, 2300870, 2300871, 2300877
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2300868, 2300869, 2300870, 2300871, 2300877
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2300872, 2300873, 2300874, 2300875, 2300878
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2300893, 2300894, 2300895

Reference Method Descriptions

Method	Description	Associated Samples
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2300864, 2300865, 2300866, 2300867, 2300876
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2300896
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2300864, 2300865, 2300866, 2300867, 2300876
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2300864, 2300865, 2300866, 2300867, 2300876
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2300864, 2300865, 2300866, 2300867, 2300876
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2300868, 2300869, 2300870, 2300871, 2300877

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	01/20/2022			01/20/2022 15:39	Blanca Fach	2300864
	01/20/2022			01/20/2022 15:40	Blanca Fach	2300865
	01/20/2022			01/20/2022 15:41	Blanca Fach	2300866
	01/20/2022			01/20/2022 15:42	Blanca Fach	2300867
	01/20/2022			01/20/2022 15:43	Blanca Fach	2300876
EPA 180.1 Rev. 2.0	01/20/2022			01/20/2022 17:34	Sarah A Nixon	2300864, 2300865, 2300866, 2300867, 2300876
EPA 200.7 Rev. 4.4	01/20/2022	01/21/2022 10:53	Emily M Philpot	01/25/2022 00:53	Josef B Mick	2300896
EPA 200.8 Rev. 5.4	01/20/2022	01/21/2022 10:53	Emily M Philpot	01/22/2022 02:42	Alexander Thompson	2300896
	01/20/2022	01/21/2022 10:53	Emily M Philpot	01/24/2022 19:12	Alexander Thompson	2300896
EPA 300.0 Rev. 2.1	01/20/2022			02/01/2022 09:27	James L Waggeberby	2300864
	01/20/2022			02/01/2022 09:39	James L Waggeberby	2300865
	01/20/2022			02/01/2022 09:51	James L Waggeberby	2300866
	01/20/2022			02/01/2022 10:03	James L Waggeberby	2300867
	01/20/2022			02/01/2022 10:16	James L Waggeberby	2300876
EPA 350.1 Rev. 2.0	01/20/2022			02/01/2022 16:08	Roberta Tatti	2300868
	01/20/2022			02/01/2022 16:09	Roberta Tatti	2300869
	01/20/2022			02/02/2022 12:34	Ping Hua	2300870
	01/20/2022			02/02/2022 12:36	Ping Hua	2300871
	01/20/2022			02/02/2022 12:53	Ping Hua	2300877
EPA 351.2 Rev. 2.0	01/20/2022	01/27/2022 10:16	Alexandra J Mattheus	01/28/2022 12:59	Alexandra J Mattheus	2300868
	01/20/2022	01/27/2022 10:16	Alexandra J Mattheus	01/28/2022 13:00	Alexandra J Mattheus	2300869
	01/20/2022	01/28/2022 11:05	Samantha L Bates	02/01/2022 13:22	Virginia P. Brown	2300871
	01/20/2022	01/28/2022 11:05	Samantha L Bates	02/01/2022 13:27	Virginia P. Brown	2300877
	01/20/2022	01/28/2022 12:21	Samantha L Bates	02/01/2022 14:42	Virginia P. Brown	2300870
EPA 353.2 Rev. 2.0	01/20/2022			01/25/2022 14:16	Nathaniel J Jones	2300868
	01/20/2022			01/25/2022 14:38	Nathaniel J Jones	2300869
	01/20/2022			01/25/2022 14:44	Nathaniel J Jones	2300870
	01/20/2022			01/25/2022 14:45	Nathaniel J Jones	2300871
	01/20/2022			01/25/2022 14:47	Nathaniel J Jones	2300877
EPA 365.1 Rev. 2.0	01/20/2022	01/25/2022 18:55	Simonne.V. Calhoun	01/26/2022 11:15	Shengyu Ding	2300868
	01/20/2022	01/25/2022 18:55	Simonne.V. Calhoun	01/26/2022 11:21	Shengyu Ding	2300869
	01/20/2022	01/25/2022 18:55	Simonne.V. Calhoun	01/26/2022 11:25	Shengyu Ding	2300870
	01/20/2022	01/25/2022 18:55	Simonne.V. Calhoun	01/26/2022 11:26	Shengyu Ding	2300871
	01/20/2022	01/25/2022 18:55	Simonne.V. Calhoun	01/26/2022 11:27	Shengyu Ding	2300877
EPA 365.1 Rev. 2.0 dissolved	01/20/2022			01/20/2022 15:18	James L Waggeberby	2300872
	01/20/2022			01/20/2022 15:19	James L Waggeberby	2300873
	01/20/2022			01/20/2022 15:20	James L Waggeberby	2300874
	01/20/2022			01/20/2022 15:21	James L Waggeberby	2300875
	01/20/2022			01/20/2022 15:23	James L Waggeberby	2300878

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	01/20/2022	01/21/2022 09:00	Hoor Shaik	01/22/2022 12:01	Juyoung Kim	2300893
	01/20/2022	01/21/2022 09:00	Hoor Shaik	01/22/2022 12:35	Juyoung Kim	2300894
	01/20/2022	01/21/2022 09:00	Hoor Shaik	01/22/2022 13:10	Juyoung Kim	2300895
	01/20/2022	01/21/2022 09:00	Manjita Shrestha	01/21/2022 15:56	Manjita Shrestha	2300893
	01/20/2022	01/21/2022 09:00	Manjita Shrestha	01/21/2022 16:06	Manjita Shrestha	2300894
	01/20/2022	01/21/2022 09:00	Manjita Shrestha	01/21/2022 16:17	Manjita Shrestha	2300895
	01/20/2022	01/21/2022 09:00	Manjita Shrestha	01/21/2022 19:25	Manjita Shrestha	2300893
	01/20/2022	01/21/2022 09:00	Manjita Shrestha	01/21/2022 19:40	Manjita Shrestha	2300894
	01/20/2022	01/21/2022 09:00	Manjita Shrestha	01/21/2022 19:55	Manjita Shrestha	2300895
	01/20/2022			01/22/2022 01:44	Dale L. Simmons	2300865
SM 2320 B-2011	01/20/2022			01/22/2022 01:56	Dale L. Simmons	2300867
	01/20/2022			01/22/2022 02:08	Dale L. Simmons	2300876
	01/20/2022			01/22/2022 02:42	Dale L. Simmons	2300866
	01/20/2022			01/22/2022 02:53	Dale L. Simmons	2300864
	01/20/2022			01/25/2022 00:53	Josef B Mick	2300896
SM 2340B	01/20/2022			01/25/2022 16:02	Yijie Li	2300864, 2300865, 2300866, 2300867, 2300876
SM 2540 C-2011	01/20/2022			01/25/2022 16:02	Yijie Li	2300864, 2300865, 2300866, 2300867, 2300876
SM 2540 D-2011	01/20/2022			01/25/2022 16:02	Yijie Li	2300864, 2300865, 2300866, 2300867, 2300876
SM 4500 F-C-2011	01/20/2022			01/22/2022 01:44	Dale L. Simmons	2300865
	01/20/2022			01/22/2022 01:56	Dale L. Simmons	2300867
	01/20/2022			01/22/2022 02:08	Dale L. Simmons	2300876
	01/20/2022			01/22/2022 02:42	Dale L. Simmons	2300866
	01/20/2022			01/22/2022 02:53	Dale L. Simmons	2300864
SM 5310 B-2011	01/20/2022			02/01/2022 14:04	Khloe J Berg	2300869
	01/20/2022			02/01/2022 20:43	Khloe J Berg	2300868
	01/20/2022			02/01/2022 20:56	Khloe J Berg	2300870
	01/20/2022			02/05/2022 04:32	Nathaniel J Jones	2300871
	01/20/2022			02/05/2022 05:55	Nathaniel J Jones	2300877