

Chemical Analysis Report

NE-DIST-2021-08-04-01

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

Event Description: **LSJR East**
Request ID: **RQ-2021-08-02-26**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
Attn: Jeremy Parrish

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: Colin Wright, Program Administrator

Date Certified: 27-AUG-2021 14:02



NON-CONFORMANCE REPORT INCLUDED

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: Greenfield Creek @ Queens Harbour Blvd.

Collection Date/Time: 08/03/2021 09:35

Field ID: 20030809

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267069	EPA 180.1 Rev. 2.0	Turbidity	3.8		NTU	P401995	
	SM 2320 B-2011	Total Alkalinity	71		mg CaCO3/L	P402115	
	SM 2540 D-2011	TSS	7	IA	mg/L	P402194	
	SM 4500 F-C-2011	Fluoride	0.097	I	mg F/L	P402117	
2267070	EPA 350.1 Rev. 2.0	Ammonia-N	0.12		mg N/L	P402380	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.84		mg N/L	P402687	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.089		mg N/L	P402103	
	EPA 365.1 Rev. 2.0	Total-P	0.095		mg P/L	P402209	
	SM 5310 B-2011	Organic Carbon	17		mg C/L	P402489	
2267071	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.044		mg P/L	P401990	
2267101	EPA 200.7 Rev. 4.4	Calcium	31.0		mg/L	P402337	
		Iron	450		ug/L	P402337	
		Magnesium	18.5		mg/L	P402337	
		Manganese	16.3		ug/L	P402337	
		Zinc	5.0	U	ug/L	P402337	
	EPA 200.8 Rev. 5.4	Aluminum	230		ug/L	P402337	
		Antimony	0.15	I	ug/L	P402337	
		Arsenic	1.20		ug/L	P402337	
		Beryllium	0.028	I	ug/L	P402337	
		Cadmium	0.020	U	ug/L	P402337	
		Chromium	0.63	I	ug/L	P402337	
		Copper	5.81		ug/L	P402337	
		Lead	0.39	I	ug/L	P402337	
		Nickel	0.50	U	ug/L	P402337	
		Selenium	0.20	U	ug/L	P402337	
		Silver	0.010	U	ug/L	P402337	
		Thallium	0.10	U	ug/L	P402337	

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: Greenfield cr. at Hodges rd.

Collection Date/Time: 08/03/2021 09:55

Field ID: G2NE1145

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267072	EPA 180.1 Rev. 2.0	Turbidity	2.3		NTU	P401995	
	EPA 300.0 Rev. 2.1	Chloride	36		mg Cl/L	P402411	
		Sulfate	32		mg SO4/L	P402414	
		Color (true)	85		PCU	P402001	
	SM 2320 B-2011	Total Alkalinity	79		mg CaCO3/L	P402115	
	SM 2540 C-2011	TDS	232	A	mg/L	P402432	
	SM 2540 D-2011	TSS	3	IA	mg/L	P402190	
2267073	SM 4500 F-C-2011	Fluoride	0.084	I	mg F/L	P402117	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P402380	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.92		mg N/L	P402689	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.093		mg N/L	P402104	
	EPA 365.1 Rev. 2.0	Total-P	0.078		mg P/L	P402209	
2267074	SM 5310 B-2011	Organic Carbon	17		mg C/L	P402490	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.037		mg P/L	P401990	
2267102	EPA 200.7 Rev. 4.4	Barium	27.8		ug/L	P402337	
		Calcium	40.0		mg/L	P402337	
		Iron	340		ug/L	P402337	
		Magnesium	5.98		mg/L	P402337	
		Manganese	14.7		ug/L	P402337	
		Potassium	2.3		mg/L	P402337	
		Sodium	20.1		mg/L	P402337	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P402337	
		Aluminum	147		ug/L	P402337	
		Antimony	0.11	I	ug/L	P402337	
		Arsenic	0.84		ug/L	P402337	
		Beryllium	0.021	I	ug/L	P402337	
		Boron**	28.6		ug/L	P402337	
		Cadmium	0.020	U	ug/L	P402337	
		Chromium	0.50	I	ug/L	P402337	
		Copper	4.48		ug/L	P402337	
		Lead	0.20	U	ug/L	P402337	
		Nickel	0.50	U	ug/L	P402337	
		Selenium	0.20	U	ug/L	P402337	
		Silver	0.010	U	ug/L	P402337	
		Thallium	0.10	U	ug/L	P402337	
		Hardness	125		mg/L	P402337	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Red Bay Branch at Lone Star Blvd

Collection Date/Time: 08/03/2021 10:25

Field ID: 20030674

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267081	EPA 180.1 Rev. 2.0	Turbidity	2.3		NTU	P401995	
	EPA 300.0 Rev. 2.1	Chloride	32		mg Cl/L	P402411	
		Sulfate	35		mg SO4/L	P402414	
	SM 2120 B-2011	Color (true)	20		PCU	P402001	
	SM 2320 B-2011	Total Alkalinity	53		mg CaCO3/L	P402115	
	SM 2540 C-2011	TDS	179		mg/L	P402433	
	SM 2540 D-2011	TSS	3	I	mg/L	P402191	
	SM 4500 F-C-2011	Fluoride	0.038	I	mg F/L	P402117	
2267082	EPA 350.1 Rev. 2.0	Ammonia-N	0.072		mg N/L	P402380	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.54		mg N/L	P402689	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.7		mg N/L	P402104	
	EPA 365.1 Rev. 2.0	Total-P	0.061		mg P/L	P402209	
	SM 5310 B-2011	Organic Carbon	4.6		mg C/L	P402490	
2267083	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.038		mg P/L	P401990	
2267100	EPA 8321B	2,4-D	0.78		ug/L	P401979	
		Acesulfame K	0.74		ug/L	P401931	
		2,4,5-T	0.0040	U	ug/L	P401979	
		AMPA	0.50		ug/L	P401931	
		Acetaminophen	0.043		ug/L	P401979	
		Acetamiprid	0.0020	U	ug/L	P401979	
		Endothall	0.25	U	ug/L	P401931	
		Glufosinate	0.10	U	ug/L	P401931	
		Glyphosate	0.60		ug/L	P401931	
		Afidopyropen	0.0020	U	ug/L	P401979	
		Bentazon	0.077		ug/L	P401979	
		Sucralose	2.4		ug/L	P401931	
		Benzovindiflupyr	0.0020	U	ug/L	P401979	
		Carbamazepine	0.016		ug/L	P401979	
		Clothianidin	0.0020	U	ug/L	P401979	
		Dinotefuran	0.0048	I	ug/L	P401979	
		Diuron	0.0069	I	ug/L	P401979	
		Fenuron	0.016	U	ug/L	P401979	
		Fluridone	8.0E-04	U	ug/L	P401979	
		Imazapyr	0.15		ug/L	P401979	
		Hydrocodone	0.0020	U	ug/L	P401979	
		Ibuprofen	0.020	U	ug/L	P401979	
		Imidacloprid	0.021		ug/L	P401979	
		Linuron	0.0040	U	ug/L	P401979	
		Mandestrobin	0.0020	U	ug/L	P401979	
		MCP	0.0020	U	ug/L	P401979	
		Naproxen	0.0080	U	ug/L	P401979	
		Primidone	0.0092	I	ug/L	P401979	
		Pyraclostrobin	0.0020	U	ug/L	P401979	

Field ID: 20030674

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267100	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P401979	
		Tolfenpyrad	0.0020	U	ug/L	P401979	
		Triclopyr	0.0040	U	ug/L	P401979	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Little Pottsburg Creek at Emerson

Collection Date/Time: 08/03/2021 10:50

Field ID: 20030070

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267075	EPA 180.1 Rev. 2.0	Turbidity	4.8		NTU	P401995	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P402411	
		Sulfate	20		mg SO4/L	P402414	
	SM 2120 B-2011	Color (true)	96		PCU	P402001	
	SM 2320 B-2011	Total Alkalinity	106		mg CaCO3/L	P402115	
	SM 2540 C-2011	TDS	206	A	mg/L	P402433	
	SM 2540 D-2011	TSS	8	IA	mg/L	P402191	
2267076	SM 4500 F-C-2011	Fluoride	0.12		mg F/L	P402117	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P402380	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.96		mg N/L	P402689	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.20		mg N/L	P402104	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P402209	
2267077	SM 5310 B-2011	Organic Carbon	15		mg C/L	P402490	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.10		mg P/L	P401990	
2267098	EPA 8321B	2,4-D	0.21		ug/L	P401979	
		Acesulfame K	0.29	I	ug/L	P401931	
		2,4,5-T	0.0040	U	ug/L	P401979	
		AMPA	0.49		ug/L	P401931	
		Acetaminophen	0.12		ug/L	P401979	
		Acetamiprid	0.0020	U	ug/L	P401979	
		Endothall	0.25	U	ug/L	P401931	
		Glufosinate	0.10	U	ug/L	P401931	
		Glyphosate	1.3		ug/L	P401931	
		Afidopyropen	0.0020	U	ug/L	P401979	
		Bentazon	0.042		ug/L	P401979	
		Sucralose	0.58		ug/L	P401931	
		Benzovindiflupyr	0.0020	U	ug/L	P401979	
		Carbamazepine	0.0011	I	ug/L	P401979	
		Clothianidin	0.021		ug/L	P401979	
		Dinotefuran	0.0060	I	ug/L	P401979	
		Diuron	0.015		ug/L	P401979	
		Fenuron	0.016	U	ug/L	P401979	
		Fluridone	0.043		ug/L	P401979	
		Imazapyr	0.22		ug/L	P401979	
		Hydrocodone	0.0020	U	ug/L	P401979	
		Ibuprofen	0.020	U	ug/L	P401979	
		Imidacloprid	0.17		ug/L	P401979	
		Linuron	0.0040	U	ug/L	P401979	
		Mandestrobin	0.0020	U	ug/L	P401979	
		MCP	0.019		ug/L	P401979	
		Naproxen	0.0080	U	ug/L	P401979	
		Primidone	0.0040	U	ug/L	P401979	
		Pyraclostrobin	0.0020	U	ug/L	P401979	

Field ID: 20030070

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267098	EPA 8321B	Thiamethoxam	0.061		ug/L	P401979	
		Tolfenpyrad	0.0020	U	ug/L	P401979	
		Triclopyr	0.0040	U	ug/L	P401979	
2267103	EPA 200.7 Rev. 4.4	Barium	24.5		ug/L	P402337	
		Calcium	39.9		mg/L	P402337	
		Iron	930		ug/L	P402337	
		Magnesium	4.62		mg/L	P402337	
		Manganese	25.8		ug/L	P402337	
		Potassium	1.8		mg/L	P402337	
		Sodium	11.8		mg/L	P402337	
		Zinc	15	I	ug/L	P402337	
	EPA 200.8 Rev. 5.4	Aluminum	158		ug/L	P402337	
		Antimony	0.34		ug/L	P402337	
		Arsenic	2.82		ug/L	P402337	
		Beryllium	0.017	I	ug/L	P402337	
		Boron**	45.4		ug/L	P402337	
		Cadmium	0.026	I	ug/L	P402337	
		Chromium	0.83	I	ug/L	P402337	
		Copper	9.36		ug/L	P402337	
		Lead	1.38		ug/L	P402337	
		Nickel	1.1	I	ug/L	P402337	
		Selenium	0.23	I	ug/L	P402337	
		Silver	0.010	U	ug/L	P402337	
		Thallium	0.10	U	ug/L	P402337	
	SM 2340B	Hardness	119		mg/L	P402337	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Drainage Ditch Parental Home Rd

Collection Date/Time: 08/03/2021 11:10

Field ID: 20030071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267078	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P401995	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P402411	
		Sulfate	12		mg SO4/L	P402414	
	SM 2120 B-2011	Color (true)	87		PCU	P402001	
	SM 2320 B-2011	Total Alkalinity	79		mg CaCO3/L	P402115	
	SM 2540 C-2011	TDS	157		mg/L	P402433	
	SM 2540 D-2011	TSS	2	U	mg/L	P402191	
	SM 4500 F-C-2011	Fluoride	0.095	I	mg F/L	P402117	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.040	Y	mg N/L	P402380	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.76	Y	mg N/L	P402689	
2267079	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12	Y	mg N/L	P402104	
	EPA 365.1 Rev. 2.0	Total-P	0.12	Y	mg P/L	P402209	
	SM 5310 B-2011	Organic Carbon	12	Y	mg C/L	P402490	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.070		mg P/L	P401990	
	dissolved						
2267099	EPA 8321B	2,4-D	0.036		ug/L	P401979	
		Acesulfame K	0.11	I	ug/L	P401931	
		2,4,5-T	0.0040	U	ug/L	P401979	
		AMPA	0.78		ug/L	P401931	
		Acetaminophen	0.045		ug/L	P401979	
		Acetamiprid	0.0020	U	ug/L	P401979	
		Endothall	0.25	U	ug/L	P401931	
		Glufosinate	0.10	U	ug/L	P401931	
		Glyphosate	1.6		ug/L	P401931	
		Afidopyrophen	0.0020	U	ug/L	P401979	
		Bentazon	0.0097		ug/L	P401979	
		Sucralose	0.095		ug/L	P401931	
		Benzovindiflupyr	0.0020	U	ug/L	P401979	
		Carbamazepine	8.0E-04	U	ug/L	P401979	
		Clothianidin	0.024		ug/L	P401979	
		Dinotefuran	0.0098		ug/L	P401979	
		Diuron	0.032		ug/L	P401979	
		Fenuron	0.016	U	ug/L	P401979	
		Fluridone	8.0E-04	U	ug/L	P401979	
		Imazapyr	0.12		ug/L	P401979	
		Hydrocodone	0.0020	U	ug/L	P401979	
		Ibuprofen	0.020	U	ug/L	P401979	
		Imidacloprid	0.12		ug/L	P401979	
		Linuron	0.0040	U	ug/L	P401979	
		Mandestrobin	0.0020	U	ug/L	P401979	
		MCP	0.0068	I	ug/L	P401979	
		Naproxen	0.0080	U	ug/L	P401979	
		Primidone	0.0040	U	ug/L	P401979	
		Pyraclostrobin	0.0020	U	ug/L	P401979	

Field ID: 20030071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267099	EPA 8321B	Thiamethoxam	0.041		ug/L	P401979	
		Tolfenpyrad	0.0020	U	ug/L	P401979	
		Triclopyr	0.0040	U	ug/L	P401979	

Ref. Method and Comment:

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

EPA 350.1 Rev. 2.0: Sample was stored at room temperature overnight, should be stored below 6 degC.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample. Sample was stored at room temperature overnight, should be stored below 6 degC.

EPA 353.2 Rev. 2.0: Sample was stored at room temperature overnight, should be stored below 6 degC.

EPA 365.1 Rev. 2.0: Total-P: Sample was stored at room temperature overnight, should be stored below 6 degC.

SM 5310 B-2011: Sample was stored at room temperature overnight, should be stored below 6 degC.

Sample Location: Big Pottsburg Cr Bowden Rd.

Collection Date/Time: 08/03/2021 11:35

Field ID: 20030068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267097	EPA 8276	Chlordane	5.1	U	ng/L	P401933	
		Toxaphene	31	U	ng/L	P401933	

Non-Conformance Report

NCR ID: 8978

Event(s)

NE-DIST-2021-08-04-01

Job(s)

TLH-2021-08-04-48

Sample(s)

2267079

Test(s)

NCR Type: CUSTODY

NCR Category: General

Observation: Sample stored at room temperature for more than 24 hours upon arrival.

Resolution: Sample moved to refrigerator on 8/5/2021.
The Customer and appropriate supervisor were notified.
Sample will be qualified as appropriate

Authorized by/Date: Joshua Ayres 8/13/2021

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry	Colin Wright	(850) 245-8085
Biology	Cheryl Swanson	(850) 245-8177

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P401995

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P402337

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P402337

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402411

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402414

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402380

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402687

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402689

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402103

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402104

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P402209

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401990

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

Reference Method: EPA 8276
Batch ID: P401933

Component	Result	Code	Units
Chlordane	5.0	U	ng/L
Chlordane	5.0	U	ng/L
Toxaphene	30	U	ng/L
Toxaphene	30	U	ng/L

Reference Method: EPA 8321B
Batch ID: P401931

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P401979

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	0.0020	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: SM 2120 B-2011

Batch ID: P402001

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011

Batch ID: P402115

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

Reference Method: SM 2540 C-2011

Batch ID: P402432

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011

Batch ID: P402433

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P402190

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P402191

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P402194

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P402117

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P402489

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

Reference Method: SM 5310 B-2011
Batch ID: P402490

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: P402337

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	90.0		P	85 - 115
Calcium	95.9		P	85 - 115
Iron	98.8		P	85 - 115
Magnesium	100		P	85 - 115
Manganese	90.8		P	85 - 115
Potassium	88.8		P	85 - 115
Sodium	95.9		P	85 - 115
Zinc	88.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P402337

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	101		P	85 - 115
Beryllium	101		P	85 - 115
Boron	101		P	85 - 115
Cadmium	99.7		P	85 - 115
Chromium	102		P	85 - 115
Copper	101		P	85 - 115
Lead	101		P	85 - 115
Nickel	102		P	85 - 115
Selenium	99.8		P	85 - 115
Silver	102		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402411

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402414

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402380

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402687

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402689

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402103

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402104

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: P402209

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401990

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

Reference Method: EPA 8276
Batch ID: P401933

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	69.2	82.4	P/P	56 - 117
Toxaphene	72.9	71.9	P/P	45 - 116

Reference Method: EPA 8321B
Batch ID: P401931

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	109		P	40 - 150
AMPA	103		P	40 - 150
Endothall	76.4		P	40 - 150
Glufosinate	99.1		P	40 - 150
Glyphosate	101		P	40 - 150
Sucralose	98.2		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P401979

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	129		P	40 - 150
2,4,5-T	130		P	40 - 150
Acetaminophen	105		P	30 - 150
Acetamiprid	106		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P401979

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Afidopyropen	93.0		P	40 - 150
Bentazon	137		P	30 - 150
Benzovindiflupyr	115		P	40 - 150
Carbamazepine	107		P	40 - 150
Clothianidin	85.5		P	40 - 150
Dinotefuran	111		P	40 - 150
Diuron	106		P	40 - 150
Fenuron	107		P	40 - 150
Fluridone	125		P	40 - 150
Hydrocodone	105		P	40 - 150
Ibuprofen	92.0		P	40 - 150
Imazapyr	130		P	40 - 150
Imidacloprid	108		P	40 - 150
Linuron	95.9		P	40 - 150
Mandestrobin	125		P	40 - 150
MCPP	131		P	40 - 150
Naproxen	103		P	40 - 150
Primidone	97.1		P	40 - 150
Pyraclostrobin	107		P	40 - 150
Thiamethoxam	108		P	40 - 150
Tolfenpyrad	57.2		P	30 - 150
Triclopyr	124		P	40 - 150

Reference Method: SM 2120 B-2011

Batch ID: P402001

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.3		P	85 - 115

Reference Method: SM 2320 B-2011

Batch ID: P402115

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	94 - 106

Reference Method: SM 4500 F-C-2011

Batch ID: P402117

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.5		P	93 - 104

Reference Method: SM 5310 B-2011

Batch ID: P402489

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.3		P	85 - 115

Reference Method: SM 5310 B-2011

Batch ID: P402490

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P402337

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267102	Barium	94.4		P	80 - 120
2267102	Calcium	80.1		P	80 - 120
2267102	Iron	103		P	80 - 120
2267102	Magnesium	84.8		P	80 - 120
2267102	Manganese	96.2		P	80 - 120
2267102	Potassium	90.7		P	80 - 120
2267102	Sodium	82.8		P	80 - 120
2267102	Zinc	97.4		P	80 - 120
2267664	Barium	99.2	100	P/P	80 - 120
2267664	Calcium	97.2	103	P/P	80 - 120
2267664	Iron	102	104	P/P	80 - 120
2267664	Magnesium	104	105	P/P	80 - 120
2267664	Manganese	99.4	101	P/P	80 - 120
2267664	Potassium	98.2	99.0	P/P	80 - 120
2267664	Sodium	96.4	101	P/P	80 - 120
2267664	Zinc	99.3	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P402337

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267102	Aluminum	99.9		P	80 - 120
2267102	Antimony	106		P	80 - 120
2267102	Arsenic	102		P	80 - 120
2267102	Beryllium	100		P	80 - 120
2267102	Boron	98.0		P	80 - 120
2267102	Cadmium	101		P	80 - 120
2267102	Chromium	105		P	80 - 120
2267102	Copper	100		P	80 - 120
2267102	Lead	103		P	80 - 120
2267102	Nickel	101		P	80 - 120
2267102	Selenium	96.9		P	80 - 120
2267102	Silver	99.5		P	80 - 120
2267102	Thallium	106		P	80 - 120
2267664	Aluminum	98.6	98.6	P/P	80 - 120
2267664	Antimony	102	103	P/P	80 - 120
2267664	Arsenic	98.7	99.3	P/P	80 - 120
2267664	Beryllium	99.9	100	P/P	80 - 120
2267664	Boron	97.5	98.0	P/P	80 - 120
2267664	Cadmium	98.4	98.2	P/P	80 - 120
2267664	Chromium	101	103	P/P	80 - 120
2267664	Copper	101	102	P/P	80 - 120
2267664	Lead	99.6	101	P/P	80 - 120
2267664	Nickel	99.6	101	P/P	80 - 120
2267664	Selenium	97.3	98.2	P/P	80 - 120
2267664	Silver	98.6	111	P/P	80 - 120
2267664	Thallium	102	103	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P402411

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
---------------	-----------	---------	---------	-----------	----------------

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402411

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266208	Chloride	95.5		P	90 - 110
2266490	Chloride	97.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402414

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266208	Sulfate	95.3		P	90 - 110
2266490	Sulfate	97.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402380

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267044	Ammonia-N	99.2	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402687

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266807	Kjeldahl Nitrogen	103	98.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402103

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266807	NO2NO3-N	99.6	99.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402104

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267073	NO2NO3-N	98.7	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P402209

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267082	Total-P	108	109	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401990

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267074	O-Phosphate-P	97.1	98.1	P/P	90 - 110

Reference Method: EPA 8276
Batch ID: P401933

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267196	Chlordane	79.9	83.4	P/P	47 - 128
2267196	Toxaphene	75.2	72.3	P/P	11 - 163

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P401931

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267098	Acesulfame K	94.7	104	P/P	40 - 150
2267098	AMPA	91.7	92.4	P/P	40 - 150
2267098	Endothall	105	106	P/P	40 - 150
2267098	Glufosinate	124	132	P/P	40 - 150
2267098	Glyphosate	82.4	87.0	P/P	40 - 150
2267098	Sucralose	106	103	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P401979

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267099	2,4-D	112	122	P/P	40 - 150
2267099	2,4,5-T	117	122	P/P	40 - 150
2267099	Acetaminophen	132	104	P/P	30 - 150
2267099	Acetamiprid	93.8	95.3	P/P	40 - 150
2267099	Afidopyropen	84.1	78.2	P/P	40 - 150
2267099	Bentazon	89.2	95.3	P/P	30 - 150
2267099	Benzovindiflupyr	94.9	95.0	P/P	40 - 150
2267099	Carbamazepine	98.2	104	P/P	40 - 150
2267099	Clothianidin	71.0	88.7	P/P	40 - 150
2267099	Dinotefuran	123	121	P/P	40 - 150
2267099	Diuron	84.1	86.2	P/P	40 - 150
2267099	Fenuron	82.3	88.7	P/P	40 - 150
2267099	Fluridone	103	103	P/P	40 - 150
2267099	Hydrocodone	94.7	102	P/P	40 - 150
2267099	Ibuprofen	78.7	78.5	P/P	40 - 150
2267099	Imazapyr	124	99.2	P/P	40 - 150
2267099	Imidacloprid	110	106	P/P	40 - 150
2267099	Linuron	78.9	81.3	P/P	40 - 150
2267099	Mandestrobin	102	105	P/P	40 - 150
2267099	MCPP	126	131	P/P	40 - 150
2267099	Naproxen	94.4	93.2	P/P	40 - 150
2267099	Primidone	89.7	88.9	P/P	40 - 150
2267099	Pyraclostrobin	90.1	95.4	P/P	40 - 150
2267099	Thiamethoxam	111	126	P/P	40 - 150
2267099	Tolfenpyrad	51.1	56.4	P/P	30 - 150
2267099	Triclopyr	113	121	P/P	40 - 150

Reference Method: SM 4500 F-C-2011

Batch ID: P402117

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267182	Fluoride	99.6	99.6	P/P	92 - 107

Reference Method: SM 5310 B-2011

Batch ID: P402489

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266484	Organic Carbon	97.0	96.7	P/P	85 - 115

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P402490

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267073	Organic Carbon	97.1	96.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P401995

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266796	Turbidity	3.31	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P402337

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267664	Barium	1.01	Spike	P	0 - 20
2267664	Calcium	3.47	Spike	P	0 - 20
2267664	Iron	1.40	Spike	P	0 - 20
2267664	Magnesium	0.982	Spike	P	0 - 20
2267664	Manganese	1.48	Spike	P	0 - 20
2267664	Potassium	0.903	Spike	P	0 - 20
2267664	Sodium	3.17	Spike	P	0 - 20
2267664	Zinc	1.59	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P402337

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267664	Aluminum	0.0371	Spike	P	0 - 20
2267664	Antimony	1.29	Spike	P	0 - 20
2267664	Arsenic	0.615	Spike	P	0 - 20
2267664	Beryllium	0.335	Spike	P	0 - 20
2267664	Boron	0.480	Spike	P	0 - 20
2267664	Cadmium	0.208	Spike	P	0 - 20
2267664	Chromium	2.09	Spike	P	0 - 20
2267664	Copper	0.870	Spike	P	0 - 20
2267664	Lead	1.23	Spike	P	0 - 20
2267664	Nickel	1.33	Spike	P	0 - 20
2267664	Selenium	0.902	Spike	P	0 - 20
2267664	Silver	11.5	Spike	P	0 - 20
2267664	Thallium	1.48	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P402411

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266208	Chloride	1.19	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P402414

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266208	Sulfate	1.63	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402380

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267044	Ammonia-N	1.07	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402687

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266807	Kjeldahl Nitrogen	3.18	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402689

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267143	Kjeldahl Nitrogen	0.0492	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402103

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266807	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402104

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267073	NO2NO3-N	1.03	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P402209

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267082	Total-P	0.690	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267074	O-Phosphate-P	0.744	Spike	P	0 - 20

Reference Method: EPA 8276
Batch ID: P401933

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267196	Chlordane	4.28	Spike	P	0 - 30
2267196	Toxaphene	3.89	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276

Batch ID: P401933

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Chlordane	17.4	LCS	P	0 - 30
LFB	Toxaphene	1.44	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P401931

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267098	Acesulfame K	8.44	Spike	P	0 - 30
2267098	AMPA	0.626	Spike	P	0 - 30
2267098	Endothall	0.228	Spike	P	0 - 30
2267098	Glufosinate	6.32	Spike	P	0 - 30
2267098	Glyphosate	3.37	Spike	P	0 - 30
2267098	Sucralose	2.78	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P401979

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267099	2,4-D	6.04	Spike	P	0 - 30
2267099	2,4,5-T	4.43	Spike	P	0 - 30
2267099	Acetaminophen	16.3	Spike	P	0 - 30
2267099	Acetamiprid	1.55	Spike	P	0 - 30
2267099	Afidopyropen	7.21	Spike	P	0 - 30
2267099	Bentazon	2.85	Spike	P	0 - 30
2267099	Benzovindiflupyr	0.146	Spike	P	0 - 30
2267099	Carbamazepine	5.31	Spike	P	0 - 30
2267099	Clothianidin	16.2	Spike	P	0 - 30
2267099	Dinotefuran	1.54	Spike	P	0 - 30
2267099	Diuron	1.68	Spike	P	0 - 30
2267099	Fenuron	7.48	Spike	P	0 - 30
2267099	Fluridone	0.141	Spike	P	0 - 30
2267099	Hydrocodone	7.01	Spike	P	0 - 30
2267099	Ibuprofen	0.212	Spike	P	0 - 30
2267099	Imazapyr	9.78	Spike	P	0 - 30
2267099	Imidacloprid	1.66	Spike	P	0 - 30
2267099	Linuron	3.02	Spike	P	0 - 30
2267099	Mandestrobin	2.01	Spike	P	0 - 30
2267099	MCPP	3.27	Spike	P	0 - 30
2267099	Naproxen	1.24	Spike	P	0 - 30
2267099	Primidone	0.895	Spike	P	0 - 30
2267099	Pyraclostrobin	5.69	Spike	P	0 - 30
2267099	Thiamethoxam	8.84	Spike	P	0 - 30
2267099	Tolfenpyrad	9.89	Spike	P	0 - 30
2267099	Triclopyr	6.61	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2120 B-2011
Batch ID: P402001

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266806	Color (true)	3.13	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P402115

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267182	Total Alkalinity	0.584	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P402432

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267072	TDS	6.48	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
Batch ID: P402433

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267075	TDS	4.36	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P402117

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267182	Fluoride	0.0	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P402489

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266484	Organic Carbon	0.212	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P402490

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267073	Organic Carbon	0.501	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2267097
Field Sample ID: 20030068

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8276	Decachlorobiphenyl	73.5	P	29 - 92.0
EPA 8276	PCNB	76.7	P	43 - 134

Lab Sample ID: 2267098
Field Sample ID: 20030070

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	143	P	30 - 160
EPA 8321B	Acetaminophen-d4	75.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	116	P	30 - 160
EPA 8321B	Diuron-d6	90.1	P	30 - 160
EPA 8321B	Endothall-d6	122	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	94.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	84.6	P	30 - 160
EPA 8321B	Primidone-d5	89.4	P	30 - 160
EPA 8321B	Sucralose-d6	115	P	30 - 160

Lab Sample ID: 2267099
Field Sample ID: 20030071

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	141	P	30 - 160
EPA 8321B	Acetaminophen-d4	67.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	111	P	30 - 160
EPA 8321B	Diuron-d6	80.9	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	92.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	79.5	P	30 - 160
EPA 8321B	Primidone-d5	84.4	P	30 - 160
EPA 8321B	Sucralose-d6	112	P	30 - 160

Lab Sample ID: 2267100
Field Sample ID: 20030674

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	144	P	30 - 160
EPA 8321B	Acetaminophen-d4	76.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	117	P	30 - 160
EPA 8321B	Diuron-d6	93.2	P	30 - 160
EPA 8321B	Endothall-d6	89.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	85.7	P	30 - 160
EPA 8321B	Primidone-d5	94.8	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A107045

Included Lab Sample IDs: 2267071, 2267074, 2267077, 2267080, 2267083

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.3	97.7	P/P	90 - 110
O-Phosphate-P	98.9	98.3	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A107046

Included Lab Sample IDs: 2267069, 2267072, 2267075, 2267078, 2267081

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

Reference Method: SM 2120 B-2011

Run ID: A107047

Included Lab Sample IDs: 2267072, 2267075, 2267078, 2267081

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.2	98.5	P/P	90 - 115

Reference Method: EPA 8321B

Run ID: A107069

Included Lab Sample IDs: 2267098, 2267099, 2267100

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	96.0	65.0	P/P	60 - 160
Endothall	74.2	72.4	P/P	60 - 160
Sucralose	107	90.4	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A107073

Included Lab Sample IDs: 2267098, 2267099, 2267100

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	103	105	P/P	60 - 160
Glufosinate	97.5	106	P/P	60 - 160
Glyphosate	97.7	110	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A107091

Included Lab Sample IDs: 2267070, 2267073, 2267076, 2267079, 2267082

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

Reference Method: SM 2320 B-2011

Run ID: A107093

Included Lab Sample IDs: 2267069, 2267072, 2267075, 2267078, 2267081

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.4	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-2011

Run ID: A107093

Included Lab Sample IDs: 2267069, 2267072, 2267075, 2267078, 2267081

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

Reference Method: EPA 8321B

Run ID: A107122

Included Lab Sample IDs: 2267098, 2267099, 2267100

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	93.8	97.0	P/P	50 - 150
2,4-D	98.7	95.6	P/P	50 - 150
2,4,5-T	101	100	P/P	50 - 150
2,4,5-T	104	94.7	P/P	50 - 150
Acetaminophen	107	107	P/P	60 - 160
Acetaminophen	113	104	P/P	60 - 160
Acetamiprid	106	108	P/P	50 - 150
Acetamiprid	108	108	P/P	50 - 150
Afidopyropen	105	106	P/P	50 - 150
Afidopyropen	113	109	P/P	50 - 150
Bentazon	119	122	P/P	50 - 160
Bentazon	128	123	P/P	50 - 160
Benzovindiflupyr	115	116	P/P	50 - 150
Benzovindiflupyr	119	117	P/P	50 - 150
Carbamazepine	109	107	P/P	60 - 150
Carbamazepine	110	106	P/P	60 - 150
Clothianidin	91.0	88.3	P/P	60 - 150
Clothianidin	95.4	90.1	P/P	60 - 150
Dinotefuran	111	110	P/P	50 - 150
Dinotefuran	112	112	P/P	50 - 150
Diuron	114	116	P/P	60 - 160
Diuron	117	113	P/P	60 - 160
Fenuron	107	104	P/P	60 - 150
Fenuron	109	107	P/P	60 - 150
Fluridone	120	120	P/P	60 - 160
Fluridone	126	120	P/P	60 - 160
Hydrocodone	109	108	P/P	60 - 150
Hydrocodone	112	109	P/P	60 - 150
Ibuprofen	109	110	P/P	50 - 160
Ibuprofen	112	105	P/P	50 - 160
Imazapyr	121	124	P/P	50 - 150
Imazapyr	122	119	P/P	50 - 150
Imidacloprid	99.6	98.8	P/P	60 - 150
Imidacloprid	99.6	98.3	P/P	60 - 150
Linuron	111	100	P/P	60 - 150
Linuron	93.5	104	P/P	60 - 150
Mandestrobin	119	122	P/P	50 - 150
Mandestrobin	125	122	P/P	50 - 150
MCPP	90.3	90.6	P/P	50 - 150
MCPP	91.6	90.2	P/P	50 - 150
Naproxen	92.7	93.6	P/P	50 - 160
Naproxen	95.5	87.4	P/P	50 - 160
Primidone	90.7	90.6	P/P	60 - 150
Primidone	92.9	92.5	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A107122

Included Lab Sample IDs: 2267098, 2267099, 2267100

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	116	116	P/P	60 - 150
Pyraclostrobin	121	117	P/P	60 - 150
Thiamethoxam	112	109	P/P	50 - 150
Thiamethoxam	112	111	P/P	50 - 150
Tolfenpyrad	102	103	P/P	60 - 150
Tolfenpyrad	105	103	P/P	60 - 150
Triclopyr	95.2	97.1	P/P	50 - 150
Triclopyr	99.3	94.7	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A107166

Included Lab Sample IDs: 2267072, 2267075, 2267078, 2267081

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.8	99.1	P/P	90 - 110
Sulfate	98.3	98.7	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A107168

Included Lab Sample IDs: 2267097

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	95.5		P	80 - 120
Toxaphene	104		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A107172

Included Lab Sample IDs: 2267070, 2267073, 2267076, 2267079, 2267082

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	108	107	P/P	85 - 115
Total-P	109	108	P/P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A107212

Included Lab Sample IDs: 2267070, 2267073, 2267076, 2267079, 2267082

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.7	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A107219

Included Lab Sample IDs: 2267101, 2267102, 2267103

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	94.6	91.4	P/P	90 - 110
Barium	99.0	94.6	P/P	90 - 110
Calcium	104	99.2	P/P	90 - 110
Calcium	99.2	99.5	P/P	90 - 110
Iron	103	99.3	P/P	90 - 110
Iron	99.3	99.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A107219

Included Lab Sample IDs: 2267101, 2267102, 2267103

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Magnesium	103	99.9	P/P	90 - 110
Magnesium	99.9	100	P/P	90 - 110
Manganese	104	99.2	P/P	90 - 110
Manganese	99.2	95.6	P/P	90 - 110
Potassium	95.5	96.9	P/P	90 - 110
Potassium	99.8	95.5	P/P	90 - 110
Sodium	102	97.2	P/P	90 - 110
Sodium	97.2	99.2	P/P	90 - 110
Zinc	104	99.1	P/P	90 - 110
Zinc	99.1	94.2	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A107222

Included Lab Sample IDs: 2267101, 2267102, 2267103

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	100	99.0	P/P	90 - 110
Aluminum	99.0	98.0	P/P	90 - 110
Antimony	101	100	P/P	90 - 110
Antimony	101	101	P/P	90 - 110
Arsenic	98.2	97.3	P/P	90 - 110
Arsenic	99.3	98.2	P/P	90 - 110
Beryllium	98.9	98.1	P/P	90 - 110
Beryllium	99.9	98.9	P/P	90 - 110
Boron	95.8	97.1	P/P	90 - 110
Boron	96.9	95.8	P/P	90 - 110
Cadmium	98.0	98.9	P/P	90 - 110
Cadmium	98.9	98.3	P/P	90 - 110
Chromium	101	98.9	P/P	90 - 110
Chromium	98.9	98.1	P/P	90 - 110
Copper	96.2	94.8	P/P	90 - 110
Copper	98.4	96.2	P/P	90 - 110
Lead	97.0	96.3	P/P	90 - 110
Lead	97.1	97.0	P/P	90 - 110
Nickel	96.3	95.4	P/P	90 - 110
Nickel	99.1	96.3	P/P	90 - 110
Selenium	96.4	96.8	P/P	90 - 110
Selenium	97.4	96.4	P/P	90 - 110
Silver	94.1	94.2	P/P	90 - 110
Silver	94.2	93.8	P/P	90 - 110
Thallium	99.4	98.0	P/P	90 - 110
Thallium	100	99.4	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A107256

Included Lab Sample IDs: 2267070, 2267073, 2267076, 2267079, 2267082

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.0	97.6	P/P	90 - 110
Organic Carbon	98.7	98.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A107363

Included Lab Sample IDs: 2267073, 2267076, 2267079, 2267082

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	107	P/P	90 - 110
Kjeldahl Nitrogen	105	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A107374

Included Lab Sample IDs: 2267070

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.0	95.5	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	MS
								SMP	
EPA 180.1 Rev. 2.0	Turbidity							3.31	
EPA 200.7 Rev. 4.4	Barium	90.0		94.4	99.2	100			1.01
	Calcium	95.9		80.1	97.2	103			3.47
	Iron	98.8		103	102	104			1.40
	Magnesium	100		84.8	104	105			0.982
	Manganese	90.8		96.2	99.4	101			1.48
	Potassium	88.8		90.7	98.2	99.0			0.903
	Sodium	95.9		82.8	96.4	101			3.17
	Zinc	88.8		97.4	99.3	101			1.59
EPA 200.8 Rev. 5.4	Aluminum	101		98.6	98.6	99.9			0.0371
	Antimony	103		102	103	106			1.29
	Arsenic	101		98.7	99.3	102			0.615
	Beryllium	101		99.9	100	100			0.335
	Boron	101		97.5	98.0	98.0			0.480
	Cadmium	99.7		98.4	98.2	101			0.208
	Chromium	102		101	103	105			2.09
	Copper	101		101	102	100			0.870
	Lead	101		99.6	101	103			1.23
	Nickel	102		99.6	101	101			1.33
	Selenium	99.8		97.3	98.2	96.9			0.902
	Silver	102		98.6	111	99.5			11.5
	Thallium	103		102	103	106			1.48
EPA 300.0 Rev. 2.1	Chloride	97.7		95.5	97.5			1.19	
	Sulfate	97.0		95.3	97.3			1.63	
EPA 350.1 Rev. 2.0	Ammonia-N	99.6		99.2	100				1.07
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.1		103	98.9				3.18
	Kjeldahl Nitrogen	106							0.0492
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.5		99.6	99.6				0.0
	NO ₂ NO ₃ -N	100		98.7	100				1.03
EPA 365.1 Rev. 2.0	Total-P	106		108	109				0.690
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100		97.1	98.1				0.744
EPA 8276	Chlordane	69.2	82.4	79.9	83.4	17.4			4.28
	Toxaphene	72.9	71.9	75.2	72.3	1.44			3.89
EPA 8321B	2,4-D	129		112	122				6.04
	2,4,5-T	130		117	122				4.43
	Acesulfame K	109		94.7	104				8.44
	Acetaminophen	105		132	104				16.3
	Acetamiprid	106		93.8	95.3				1.55
	Afidopyropen	93.0		84.1	78.2				7.21
	AMPA	103		91.7	92.4				0.626
	Bentazon	137		89.2	95.3				2.85
	Benzovindiflupyr	115		94.9	95.0				0.146
	Carbamazepine	107		98.2	104				5.31
	Clothianidin	85.5		71.0	88.7				16.2
	Dinotefuran	111		123	121				1.54
	Diuron	106		84.1	86.2				1.68
	Endothall	76.4		105	106				0.228
	Fenuron	107		82.3	88.7				7.48
	Fluridone	125		103	103				0.141
	Glufosinate	99.1		124	132				6.32
	Glyphosate	101		82.4	87.0				3.37
	Hydrocodone	105		94.7	102				7.01
	Ibuprofen	92.0		78.7	78.5				0.212
	Imazapyr	130		124	99.2				9.78

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Imidacloprid	108	110	106		1.66
	Linuron	95.9	78.9	81.3		3.02
	Mandestrobin	125	102	105		2.01
	MCP	131	126	131		3.27
	Naproxen	103	94.4	93.2		1.24
	Primidone	97.1	89.7	88.9		0.895
	Pyraclostrobin	107	90.1	95.4		5.69
	Sucralose	98.2	106	103		2.78
	Thiamethoxam	108	111	126		8.84
	Tolfenpyrad	57.2	51.1	56.4		9.89
	Triclopyr	124	113	121		6.61
SM 2120 B-2011	Color (true)	98.3			3.13	
SM 2320 B-2011	Total Alkalinity	100			0.584	
SM 2540 C-2011	TDS				6.48	
	TDS				4.36	
SM 4500 F-C-2011	Fluoride	99.5	99.6	99.6		0.0
SM 5310 B-2011	Organic Carbon	98.3	97.0	96.7		0.212
	Organic Carbon	97.0	97.1	96.2		0.501

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2267069, 2267072, 2267075, 2267078, 2267081
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2267101, 2267102, 2267103
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2267101, 2267102, 2267103
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2267072, 2267075, 2267078, 2267081
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2267072, 2267075, 2267078, 2267081
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2267070, 2267073, 2267076, 2267079, 2267082
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2267070, 2267073, 2267076, 2267079, 2267082
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2267070, 2267073, 2267076, 2267079, 2267082
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2267070, 2267073, 2267076, 2267079, 2267082
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2267071, 2267074, 2267077, 2267080, 2267083
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2267097
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2267098, 2267099, 2267100
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2267072, 2267075, 2267078, 2267081
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2267069, 2267072, 2267075, 2267078, 2267081
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2267102, 2267103
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2267072, 2267075, 2267078, 2267081
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2267069, 2267072, 2267075, 2267078, 2267081
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2267069, 2267072, 2267075, 2267078, 2267081
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2267070, 2267073, 2267076, 2267079, 2267082

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	08/04/2021			08/04/2021 15:23	Sarah A Nixon	2267069, 2267072, 2267075, 2267078, 2267081
EPA 200.7 Rev. 4.4	08/04/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 13:58	Betina Topolski	2267101
	08/04/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 14:04	Betina Topolski	2267102
	08/04/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 14:41	Betina Topolski	2267103
EPA 200.8 Rev. 5.4	08/04/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 17:23	Alexander Thompson	2267102
	08/04/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 18:30	Alexander Thompson	2267101
	08/04/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 18:40	Alexander Thompson	2267103
EPA 300.0 Rev. 2.1	08/04/2021			08/11/2021 16:50	Lipi Saha	2267072
	08/04/2021			08/11/2021 17:02	Lipi Saha	2267075
	08/04/2021			08/11/2021 17:15	Lipi Saha	2267078
	08/04/2021			08/11/2021 17:27	Lipi Saha	2267081
EPA 350.1 Rev. 2.0	08/04/2021			08/12/2021 12:00	Ping Hua	2267070
	08/04/2021			08/12/2021 12:02	Ping Hua	2267073
	08/04/2021			08/12/2021 12:03	Ping Hua	2267076
	08/04/2021			08/12/2021 12:04	Ping Hua	2267079
	08/04/2021			08/12/2021 12:06	Ping Hua	2267082
EPA 351.2 Rev. 2.0	08/04/2021	08/19/2021 13:47	Benjamin T. Nordmann	08/20/2021 15:31	Virginia P. Brown	2267070
	08/04/2021	08/19/2021 13:51	Benjamin T. Nordmann	08/20/2021 12:02	Virginia P. Brown	2267073
	08/04/2021	08/19/2021 13:51	Benjamin T. Nordmann	08/20/2021 12:03	Virginia P. Brown	2267076
	08/04/2021	08/19/2021 13:51	Benjamin T. Nordmann	08/20/2021 12:08	Virginia P. Brown	2267079
	08/04/2021	08/19/2021 13:51	Benjamin T. Nordmann	08/20/2021 12:10	Virginia P. Brown	2267082
EPA 353.2 Rev. 2.0	08/04/2021			08/06/2021 09:45	Beverly Y. Sanders	2267070
	08/04/2021			08/06/2021 09:52	Beverly Y. Sanders	2267073
	08/04/2021			08/06/2021 09:58	Beverly Y. Sanders	2267076
	08/04/2021			08/06/2021 09:59	Beverly Y. Sanders	2267079
	08/04/2021			08/06/2021 11:30	Beverly Y. Sanders	2267082
EPA 365.1 Rev. 2.0	08/04/2021	08/10/2021 13:06	Simonne.V. Calhoun	08/11/2021 09:53	Shengyu Ding	2267070
	08/04/2021	08/10/2021 13:06	Simonne.V. Calhoun	08/11/2021 09:54	Shengyu Ding	2267073
	08/04/2021	08/10/2021 13:06	Simonne.V. Calhoun	08/11/2021 09:57	Shengyu Ding	2267076
	08/04/2021	08/10/2021 13:06	Simonne.V. Calhoun	08/11/2021 09:58	Shengyu Ding	2267079
	08/04/2021	08/10/2021 13:06	Simonne.V. Calhoun	08/11/2021 09:59	Shengyu Ding	2267082
EPA 365.1 Rev. 2.0 dissolved	08/04/2021			08/04/2021 15:00	Patrick M. Roche	2267074
	08/04/2021			08/04/2021 15:06	Patrick M. Roche	2267071
	08/04/2021			08/04/2021 15:12	Patrick M. Roche	2267077, 2267080
	08/04/2021			08/04/2021 15:13	Patrick M. Roche	2267083
EPA 8276	08/04/2021	08/06/2021 08:00	Fe-Val Siddell	08/10/2021 02:39	Michael Poppell	2267097
EPA 8321B	08/04/2021	08/05/2021 10:30	Juyoung Kim	08/05/2021 12:16	Juyoung Kim	2267098
	08/04/2021	08/05/2021 10:30	Juyoung Kim	08/05/2021 12:30	Juyoung Kim	2267099
	08/04/2021	08/05/2021 10:30	Juyoung Kim	08/05/2021 12:44	Juyoung Kim	2267100

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	08/04/2021	08/05/2021 10:30	Juyoung Kim	08/05/2021 19:28	Juyoung Kim	2267098
	08/04/2021	08/05/2021 10:30	Juyoung Kim	08/05/2021 19:39	Juyoung Kim	2267099
	08/04/2021	08/05/2021 10:30	Juyoung Kim	08/05/2021 19:50	Juyoung Kim	2267100
	08/04/2021	08/06/2021 09:00	Hoor Shaik	08/07/2021 10:28	Juyoung Kim	2267099
	08/04/2021	08/06/2021 09:00	Hoor Shaik	08/07/2021 20:51	Juyoung Kim	2267098
	08/04/2021	08/06/2021 09:00	Hoor Shaik	08/07/2021 21:26	Juyoung Kim	2267100
SM 2120 B-2011	08/04/2021			08/04/2021 15:51	Sarah A Nixon	2267072
	08/04/2021			08/04/2021 15:52	Sarah A Nixon	2267075
	08/04/2021			08/04/2021 15:53	Sarah A Nixon	2267078
	08/04/2021			08/04/2021 15:54	Sarah A Nixon	2267081
SM 2320 B-2011	08/04/2021			08/05/2021 16:06	Dale L. Simmons	2267069
	08/04/2021			08/05/2021 16:21	Dale L. Simmons	2267072
	08/04/2021			08/05/2021 16:37	Dale L. Simmons	2267075
	08/04/2021			08/05/2021 16:52	Dale L. Simmons	2267078
SM 2340B	08/04/2021			08/05/2021 17:06	Dale L. Simmons	2267081
	08/04/2021			08/12/2021 14:04	Betina Topolski	2267102
	08/04/2021			08/12/2021 14:41	Betina Topolski	2267103
SM 2540 C-2011	08/04/2021			08/06/2021 15:32	Yijie Li	2267072, 2267075, 2267078, 2267081
SM 2540 D-2011	08/04/2021			08/06/2021 15:32	Yijie Li	2267069, 2267072, 2267075, 2267078, 2267081
SM 4500 F-C-2011	08/04/2021			08/05/2021 16:06	Dale L. Simmons	2267069
	08/04/2021			08/05/2021 16:21	Dale L. Simmons	2267072
	08/04/2021			08/05/2021 16:37	Dale L. Simmons	2267075
	08/04/2021			08/05/2021 16:52	Dale L. Simmons	2267078
	08/04/2021			08/05/2021 17:06	Dale L. Simmons	2267081
SM 5310 B-2011	08/04/2021			08/14/2021 02:48	Touraj Touran	2267070
	08/04/2021			08/14/2021 03:56	Touraj Touran	2267073
	08/04/2021			08/14/2021 05:17	Touraj Touran	2267076
	08/04/2021			08/14/2021 05:30	Touraj Touran	2267079
	08/04/2021			08/14/2021 05:43	Touraj Touran	2267082