

Chemical Analysis Report

WAS-SECT-2022-06-14-02

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

Event Description: **Merrit's Mill Pond BMAP**
Request ID: **RQ-2022-06-13-10**
Customer: **WAS-SECT**
Project ID: **BMAP**

Send Reports to:
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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 08-JUL-2022 10:50



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: SHANGRI LA SPRING Vent

Collection Date/Time: 06/14/2022 12:55

Field ID: G2WA0022

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2334457	DEP SOP: NU-094-1	Color (true)**	2.5	U	PCU	P415234	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P415258	
	EPA 300.0 Rev. 2.1	Chloride	5.4		mg Cl/L	P415545	
		Sulfate	1.6		mg SO4/L	P415548	
	SM 2320 B-2011	Total Alkalinity	134		mg CaCO3/L	P415749	
	SM 2540 C-2011	TDS	182		mg/L	P415657	
	SM 2540 D-2011	TSS	2	U	mg/L	P415649	
2334458	SM 4500-F- C-2011	Fluoride	0.036	I	mg F/L	P415753	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P415640	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P415918	
	EPA 353.2 Rev. 2.0	NO2NO3-N	4.0		mg N/L	P415999	
	EPA 365.1 Rev. 2.0	Total-P	0.025		mg P/L	P415571	
2334459	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P415407	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.026		mg P/L	P415276	
2334461	EPA 8321B	2,4-D	0.0020	U	ug/L	P415176	
		Acesulfame K	0.10	U	ug/L	P415164	
		2,4,5-T	0.0040	U	ug/L	P415176	
		AMPA	0.10	U	ug/L	P415164	
		Acetaminophen	0.0080	U	ug/L	P415176	
		Acetamiprid	0.0020	U	ug/L	P415176	
		Endothall	0.25	U	ug/L	P415164	
		Glufosinate	0.10	U	ug/L	P415164	
		Glyphosate	0.10	U	ug/L	P415164	
		Afidopyropen	0.0020	U	ug/L	P415176	
		Bentazon	0.0017	I	ug/L	P415176	
		Sucralose	0.013	I	ug/L	P415164	
		Benzovindiflupyr	0.0020	U	ug/L	P415176	
		Carbamazepine	8.0E-04	U	ug/L	P415176	
		Clothianidin	0.0028	I	ug/L	P415176	
		Dinotefuran	0.016		ug/L	P415176	
		Diuron	0.0020	U	ug/L	P415176	
		Fenuron	0.032	U	ug/L	P415176	
		Fluridone	8.0E-04	U	ug/L	P415176	
		Imazapyr	0.0040	U	ug/L	P415176	
		Hydrocodone	0.0020	U	ug/L	P415176	
		Ibuprofen	0.080	U	ug/L	P415176	
		Imidacloprid	0.0041	I	ug/L	P415176	
		Linuron	0.0040	U	ug/L	P415176	
		Mandestrobin	0.0020	U	ug/L	P415176	
		MCPD	0.0040	U	ug/L	P415176	
		Naproxen	0.0080	U	ug/L	P415176	
		Primidone	0.0040	U	ug/L	P415176	
		Pyraclostrobin	0.0020	U	ug/L	P415176	

Field ID: G2WA0022

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2334461	EPA 8321B	Silvex	0.0040	U	ug/L	P415176	
		Thiamethoxam	0.0020	U	ug/L	P415176	
		Tolfenpyrad	0.0020	U	ug/L	P415176	
		Triclopyr	0.0040	U	ug/L	P415176	
2334462	EPA 200.7 Rev. 4.4	Calcium	63.6		mg/L	P415516	
		Iron	30	U	ug/L	P415516	
		Magnesium	2.30		mg/L	P415516	
		Potassium	0.48	I	mg/L	P415516	
		Sodium	1.9	I	mg/L	P415516	
		Strontium	47.3		ug/L	P415516	
		Tin	3.0	U	ug/L	P415516	
		Titanium	0.75	U	ug/L	P415516	
		Vanadium	2.0	U	ug/L	P415516	
		Zinc	5.0	U	ug/L	P415516	
	EPA 200.8 Rev. 5.4	Aluminum	5.0	U	ug/L	P415516	
		Antimony	0.050	U	ug/L	P415516	
		Arsenic	0.21		ug/L	P415516	
		Barium	6.13		ug/L	P415516	
		Beryllium	0.011	I	ug/L	P415516	
		Boron**	9.2		ug/L	P415516	
		Cadmium	0.020	U	ug/L	P415516	
		Chromium	1.5	I	ug/L	P415516	
		Cobalt	0.020	U	ug/L	P415516	
		Copper	0.40	U	ug/L	P415516	
	SM 2340 B-2011	Lead	0.20	U	ug/L	P415516	
		Manganese	0.27	I	ug/L	P415516	
		Molybdenum	0.15	U	ug/L	P415516	
		Nickel	0.50	U	ug/L	P415516	
		Selenium	0.21	I	ug/L	P415516	
		Silver	0.010	U	ug/L	P415516	
		Thallium	0.10	U	ug/L	P415516	
		Hardness	168		mg/L	P415516	

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: P415234

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P415258

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P415516

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: P415516

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415545

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415548

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415640

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415918

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P415999

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415571

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P415276

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

Reference Method: EPA 8321B
Batch ID: P415164

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: EPA 8321B
Batch ID: P415176

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B**Batch ID: P415176**

Component	Result	Code	Units
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	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	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

Reference Method: SM 2320 B-2011**Batch ID: P415749**

Component	Result	Code	Units
Total Alkalinity	1.0	U	mg CaCO3/L

Reference Method: SM 2540 C-2011**Batch ID: P415657**

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011**Batch ID: P415649**

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011**Batch ID: P415753**

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011**Batch ID: P415407**

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: P415234

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	95.4		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P415258

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.8		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P415516

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	107		P	85 - 115
Magnesium	110		P	85 - 115
Potassium	102		P	85 - 115
Sodium	99.1		P	85 - 115
Strontium	98.3		P	85 - 115
Tin	101		P	85 - 115
Titanium	103		P	85 - 115
Vanadium	95.8		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P415516

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	106		P	85 - 115
Antimony	108		P	85 - 115
Arsenic	99.9		P	85 - 115
Barium	109		P	85 - 115
Beryllium	101		P	85 - 115
Boron	106		P	85 - 115
Cadmium	106		P	85 - 115
Chromium	102		P	85 - 115
Cobalt	103		P	85 - 115
Copper	99.9		P	85 - 115
Lead	98.6		P	85 - 115
Manganese	107		P	85 - 115
Molybdenum	103		P	85 - 115
Nickel	102		P	85 - 115
Selenium	101		P	85 - 115
Silver	104		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P415545

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415548

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415640

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415918

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P415999

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: P415571

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P415276

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

Reference Method: EPA 8321B
Batch ID: P415164

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	93.0		P	40 - 150
AMPA	111		P	40 - 150
Endothall	96.4		P	40 - 150
Glufosinate	100		P	40 - 150
Glyphosate	106		P	40 - 150
Sucralose	97.1		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P415176

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	73.3		P	40 - 150
2,4,5-T	52.4		P	40 - 150
Acetaminophen	88.2		P	30 - 150
Acetamiprid	78.2		P	40 - 150
Afidopyropen	71.3		P	30 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B**Batch ID: P415176**

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bentazon	81.5		P	30 - 150
Benzovindiflupyr	83.8		P	40 - 150
Carbamazepine	95.2		P	40 - 150
Clothianidin	95.7		P	40 - 150
Dinotefuran	94.9		P	40 - 150
Diuron	81.7		P	40 - 150
Fenuron	89.8		P	40 - 150
Fluridone	81.4		P	40 - 150
Hydrocodone	90.9		P	40 - 150
Ibuprofen	89.3		P	40 - 150
Imazapyr	96.5		P	40 - 150
Imidacloprid	94.6		P	40 - 150
Linuron	70.8		P	40 - 150
Mandestrobin	83.4		P	40 - 150
MCPP	75.1		P	40 - 150
Naproxen	56.6		P	40 - 150
Primidone	93.5		P	40 - 150
Pyraclostrobin	74.0		P	40 - 150
Silvex	55.4		P	40 - 150
Thiamethoxam	87.8		P	40 - 150
Tolfenpyrad	49.1		P	30 - 150
Triclopyr	59.9		P	40 - 150

Reference Method: SM 2320 B-2011**Batch ID: P415749**

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	94 - 106

Reference Method: SM 4500-F- C-2011**Batch ID: P415753**

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.9		P	96 - 104

Reference Method: SM 5310 B-2011**Batch ID: P415407**

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.4		P	85 - 115

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P415516

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334462	Calcium	96.4		P	80 - 120
2334462	Iron	109		P	80 - 120
2334462	Magnesium	109		P	80 - 120
2334462	Potassium	101		P	80 - 120
2334462	Sodium	103		P	80 - 120
2334462	Strontium	101		P	80 - 120
2334462	Tin	103		P	80 - 120
2334462	Titanium	106		P	80 - 120
2334462	Vanadium	102		P	80 - 120
2334462	Zinc	103		P	80 - 120
2336029	Calcium	98.6		P	80 - 120
2336029	Iron	104	107	P/P	80 - 120
2336029	Magnesium	104	108	P/P	80 - 120
2336029	Potassium	100	101	P/P	80 - 120
2336029	Sodium	95.5	97.6	P/P	80 - 120
2336029	Strontium	97.7	99.2	P/P	80 - 120
2336029	Tin	97.8	99.7	P/P	80 - 120
2336029	Titanium	102	103	P/P	80 - 120
2336029	Vanadium	94.9	95.8	P/P	80 - 120
2336029	Zinc	100	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P415516

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334462	Aluminum	105		P	80 - 120
2334462	Antimony	109		P	80 - 120
2334462	Arsenic	101		P	80 - 120
2334462	Barium	109		P	80 - 120
2334462	Beryllium	101		P	80 - 120
2334462	Boron	108		P	80 - 120
2334462	Cadmium	108		P	80 - 120
2334462	Chromium	104		P	80 - 120
2334462	Cobalt	103		P	80 - 120
2334462	Copper	97.8		P	80 - 120
2334462	Lead	98.8		P	80 - 120
2334462	Manganese	107		P	80 - 120
2334462	Molybdenum	106		P	80 - 120
2334462	Nickel	99.9		P	80 - 120
2334462	Selenium	99.9		P	80 - 120
2334462	Silver	104		P	80 - 120
2334462	Thallium	105		P	80 - 120
2336029	Aluminum	108	108	P/P	80 - 120
2336029	Antimony	105	109	P/P	80 - 120
2336029	Arsenic	102	103	P/P	80 - 120
2336029	Barium	109	110	P/P	80 - 120
2336029	Beryllium	102	104	P/P	80 - 120
2336029	Boron	108	106	P/P	80 - 120
2336029	Cadmium	103	104	P/P	80 - 120
2336029	Chromium	102	104	P/P	80 - 120
2336029	Cobalt	103	105	P/P	80 - 120
2336029	Copper	102	104	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P415516

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2336029	Lead	99.4	99.7	P/P	80 - 120
2336029	Manganese	105	107	P/P	80 - 120
2336029	Molybdenum	104	106	P/P	80 - 120
2336029	Nickel	99.6	102	P/P	80 - 120
2336029	Selenium	103	103	P/P	80 - 120
2336029	Silver	103	104	P/P	80 - 120
2336029	Thallium	105	105	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415545

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334359	Chloride	97.6		P	90 - 110
2334556	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415548

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334359	Sulfate	97.1		P	90 - 110
2334556	Sulfate	97.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415640

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334394	Ammonia-N	93.4	94.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415918

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334470	Kjeldahl Nitrogen	101	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P415999

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334425	NO2NO3-N	96.5	96.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415571

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334559	Total-P	103	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P415276

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334451	O-Phosphate-P	99.8	99.7	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P415164

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334210	Acesulfame K	89.0	90.7	P/P	40 - 150
2334210	AMPA	89.8	85.9	P/P	40 - 150
2334210	Endothall	99.8	98.0	P/P	40 - 150
2334210	Glufosinate	88.3	86.8	P/P	40 - 150
2334210	Glyphosate	95.9	93.1	P/P	40 - 150
2334210	Sucralose	95.6	97.5	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P415176

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334060	2,4-D	96.5	89.1	P/P	40 - 150
2334060	2,4,5-T	57.6	56.6	P/P	40 - 150
2334060	Acetaminophen	102	99.5	P/P	30 - 150
2334060	Acetamiprid	78.9	83.7	P/P	40 - 150
2334060	Afidopyropen	73.1	76.6	P/P	30 - 150
2334060	Bentazon	81.7	79.2	P/P	30 - 150
2334060	Benzovindiflupyr	83.0	80.7	P/P	40 - 150
2334060	Carbamazepine	96.8	94.8	P/P	40 - 150
2334060	Clothianidin	98.0	107	P/P	40 - 150
2334060	Dinotefuran	101	101	P/P	40 - 150
2334060	Diuron	79.6	90.1	P/P	40 - 150
2334060	Fenuron	88.0	89.5	P/P	40 - 150
2334060	Fluridone	86.8	87.2	P/P	40 - 150
2334060	Hydrocodone	94.0	91.4	P/P	40 - 150
2334060	Ibuprofen	89.6	76.4	P/P	40 - 150
2334060	Imazapyr	93.4	98.0	P/P	40 - 150
2334060	Imidacloprid	101	88.4	P/P	40 - 150
2334060	Linuron	72.5	84.2	P/P	40 - 150
2334060	Mandestrobin	81.6	83.5	P/P	40 - 150
2334060	MCPP	80.9	84.0	P/P	40 - 150
2334060	Naproxen	103	89.8	P/P	40 - 150
2334060	Primidone	85.4	98.3	P/P	40 - 150
2334060	Pyraclostrobin	79.3	80.5	P/P	40 - 150
2334060	Silvex	61.9	61.7	P/P	40 - 150
2334060	Thiamethoxam	94.5	94.6	P/P	40 - 150
2334060	Tolfenpyrad	54.3	54.2	P/P	30 - 150
2334060	Triclopyr	65.1	68.7	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P415753

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334356	Fluoride	102	102	P/P	94 - 104

Reference Method: SM 5310 B-2011

Batch ID: P415407

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334207	Organic Carbon	97.2	97.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P415234

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334465	Color (true)	4.29	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P415258

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334583	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P415516

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336029	Calcium	1.02	Spike	P	0 - 20
2336029	Iron	3.02	Spike	P	0 - 20
2336029	Magnesium	2.62	Spike	P	0 - 20
2336029	Potassium	1.17	Spike	P	0 - 20
2336029	Sodium	1.35	Spike	P	0 - 20
2336029	Strontium	1.56	Spike	P	0 - 20
2336029	Tin	1.97	Spike	P	0 - 20
2336029	Titanium	0.697	Spike	P	0 - 20
2336029	Vanadium	0.898	Spike	P	0 - 20
2336029	Zinc	1.02	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P415516

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336029	Aluminum	0.0885	Spike	P	0 - 20
2336029	Antimony	3.15	Spike	P	0 - 20
2336029	Arsenic	0.482	Spike	P	0 - 20
2336029	Barium	1.24	Spike	P	0 - 20
2336029	Beryllium	2.03	Spike	P	0 - 20
2336029	Boron	1.65	Spike	P	0 - 20
2336029	Cadmium	0.997	Spike	P	0 - 20
2336029	Chromium	2.58	Spike	P	0 - 20
2336029	Cobalt	1.63	Spike	P	0 - 20
2336029	Copper	1.81	Spike	P	0 - 20
2336029	Lead	0.232	Spike	P	0 - 20
2336029	Manganese	1.39	Spike	P	0 - 20
2336029	Molybdenum	1.49	Spike	P	0 - 20
2336029	Nickel	1.95	Spike	P	0 - 20
2336029	Selenium	0.426	Spike	P	0 - 20
2336029	Silver	1.10	Spike	P	0 - 20
2336029	Thallium	0.883	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415545

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334359	Chloride	0.347	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415548

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334359	Sulfate	0.640	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415640

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334394	Ammonia-N	0.922	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415918

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334470	Kjeldahl Nitrogen	2.46	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P415999

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334425	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415571

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334559	Total-P	1.04	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P415276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334451	O-Phosphate-P	0.100	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P415164

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334210	Acesulfame K	1.86	Spike	P	0 - 30
2334210	AMPA	4.52	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8321B

Batch ID: P415164

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334210	Endothall	1.89	Spike	P	0 - 30
2334210	Glufosinate	1.72	Spike	P	0 - 30
2334210	Glyphosate	2.91	Spike	P	0 - 30
2334210	Sucralose	1.27	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P415176

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334060	2,4-D	8.01	Spike	P	0 - 30
2334060	2,4,5-T	1.81	Spike	P	0 - 30
2334060	Acetaminophen	2.62	Spike	P	0 - 30
2334060	Acetamiprid	5.98	Spike	P	0 - 30
2334060	Afidopyropen	4.67	Spike	P	0 - 30
2334060	Bentazon	2.69	Spike	P	0 - 30
2334060	Benzovindiflupyr	2.80	Spike	P	0 - 30
2334060	Carbamazepine	2.12	Spike	P	0 - 30
2334060	Clothianidin	8.92	Spike	P	0 - 30
2334060	Dinotefuran	0.271	Spike	P	0 - 30
2334060	Diuron	12.3	Spike	P	0 - 30
2334060	Fenuron	1.73	Spike	P	0 - 30
2334060	Fluridone	0.374	Spike	P	0 - 30
2334060	Hydrocodone	2.75	Spike	P	0 - 30
2334060	Ibuprofen	15.8	Spike	P	0 - 30
2334060	Imazapyr	4.47	Spike	P	0 - 30
2334060	Imidacloprid	13.1	Spike	P	0 - 30
2334060	Linuron	14.9	Spike	P	0 - 30
2334060	Mandestrobin	2.28	Spike	P	0 - 30
2334060	MCP	3.78	Spike	P	0 - 30
2334060	Naproxen	13.3	Spike	P	0 - 30
2334060	Primidone	14.0	Spike	P	0 - 30
2334060	Pyraclostrobin	1.57	Spike	P	0 - 30
2334060	Silvex	0.324	Spike	P	0 - 30
2334060	Thiamethoxam	0.0599	Spike	P	0 - 30
2334060	Tolfenpyrad	0.142	Spike	P	0 - 30
2334060	Triclopyr	5.46	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P415749

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334356	Total Alkalinity	1.37	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011

Batch ID: P415657

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334359	TDS	2.90	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500-F- C-2011
Batch ID: P415753

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334356	Fluoride	0.0	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P415407

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334207	Organic Carbon	0.0	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2334461

Field Sample ID: G2WA0022

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	83.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	94.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	98.2	P	30 - 160
EPA 8321B	Diuron-d6	98.9	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	78.9	P	30 - 160
EPA 8321B	Primidone-d5	104	P	30 - 160
EPA 8321B	Sucralose-d6	98.5	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A112837

Included Lab Sample IDs: 2334457

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	96.0	98.4	P/P	85 - 115

Reference Method: EPA 8321B

Run ID: A112848

Included Lab Sample IDs: 2334461

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	110	113	P/P	60 - 160
Endothall	104	106	P/P	60 - 160
Glufosinate	102	105	P/P	60 - 160
Glyphosate	106	101	P/P	60 - 160

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A112850

Included Lab Sample IDs: 2334457

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A112857

Included Lab Sample IDs: 2334459

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.9	102	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A112858

Included Lab Sample IDs: 2334461

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	91.6	111	P/P	60 - 160
Sucralose	98.0	99.4	P/P	60 - 160

Reference Method: SM 5310 B-2011

Run ID: A112926

Included Lab Sample IDs: 2334458

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.0	98.2	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A112949

Included Lab Sample IDs: 2334461

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	114	92.8	P/P	50 - 150
2,4,5-T	102	107	P/P	50 - 150
Acetaminophen	89.3	106	P/P	60 - 160
Acetamiprid	90.6	95.4	P/P	50 - 150
Afidopyropen	95.1	98.2	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A112949
Included Lab Sample IDs: 2334461

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bentazon	96.1	109	P/P	50 - 160
Benzovindiflupyr	101	97.7	P/P	50 - 150
Carbamazepine	102	105	P/P	60 - 150
Clothianidin	103	108	P/P	60 - 150
Dinotefuran	98.9	104	P/P	50 - 150
Diuron	85.4	125	P/P	60 - 160
Fenuron	96.6	95.3	P/P	60 - 150
Fluridone	94.1	96.9	P/P	60 - 160
Hydrocodone	102	105	P/P	60 - 150
Ibuprofen	90.6	98.1	P/P	50 - 160
Imazapyr	90.0	89.4	P/P	50 - 150
Imidacloprid	94.7	91.1	P/P	60 - 150
Linuron	94.4	97.6	P/P	60 - 150
Mandestrobin	95.6	97.6	P/P	50 - 150
MCPP	104	102	P/P	50 - 150
Naproxen	86.8	93.9	P/P	50 - 160
Primidone	97.5	102	P/P	60 - 150
Pyraclostrobin	98.2	99.7	P/P	60 - 150
Silvex	108	105	P/P	50 - 150
Thiamethoxam	95.7	96.8	P/P	50 - 150
Tolfenpyrad	97.9	98.6	P/P	60 - 150
Triclopyr	103	103	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A112976
Included Lab Sample IDs: 2334457

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	99.6	P/P	90 - 110
Sulfate	101	99.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A113007
Included Lab Sample IDs: 2334458

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.8	97.2	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A113025
Included Lab Sample IDs: 2334462

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	102	P/P	90 - 110
Iron	102	103	P/P	90 - 110
Magnesium	103	104	P/P	90 - 110
Potassium	99.6	100	P/P	90 - 110
Sodium	99.2	99.5	P/P	90 - 110
Strontium	99.7	100	P/P	90 - 110
Tin	100	102	P/P	90 - 110
Titanium	101	103	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A113025

Included Lab Sample IDs: 2334462

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A113053

Included Lab Sample IDs: 2334458

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.8	97.5	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A113064

Included Lab Sample IDs: 2334457

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.6	99.7	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A113064

Included Lab Sample IDs: 2334457

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	98.4	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A113085

Included Lab Sample IDs: 2334462

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	105	104	P/P	90 - 110
Antimony	104	104	P/P	90 - 110
Arsenic	101	99.4	P/P	90 - 110
Barium	105	103	P/P	90 - 110
Beryllium	102	98.3	P/P	90 - 110
Boron	101	103	P/P	90 - 110
Cadmium	103	103	P/P	90 - 110
Chromium	103	100	P/P	90 - 110
Cobalt	102	99.5	P/P	90 - 110
Copper	101	97.9	P/P	90 - 110
Lead	97.1	96.4	P/P	90 - 110
Manganese	105	104	P/P	90 - 110
Molybdenum	101	99.2	P/P	90 - 110
Nickel	101	98.0	P/P	90 - 110
Selenium	103	101	P/P	90 - 110
Silver	103	101	P/P	90 - 110
Thallium	101	99.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A113121

Included Lab Sample IDs: 2334458

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A113172

Included Lab Sample IDs: 2334458

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	96.0	98.0	P/P	90 - 110

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	95.4				4.29	
EPA 180.1 Rev. 2.0	Turbidity	96.8				0.0	
EPA 200.7 Rev. 4.4	Calcium	104	96.4	98.6			1.02
	Iron	107	109	104	107		3.02
	Magnesium	110	109	104	108		2.62
	Potassium	102	101	100	101		1.17
	Sodium	99.1	103	95.5	97.6		1.35
	Strontium	98.3	101	97.7	99.2		1.56
	Tin	101	103	97.8	99.7		1.97
	Titanium	103	106	102	103		0.697
	Vanadium	95.8	102	94.9	95.8		0.898
	Zinc	101	103	100	101		1.02
EPA 200.8 Rev. 5.4	Aluminum	106	108	108	105		0.0885
	Antimony	108	105	109	109		3.15
	Arsenic	99.9	102	103	101		0.482
	Barium	109	109	110	109		1.24
	Beryllium	101	102	104	101		2.03
	Boron	106	108	106	108		1.65
	Cadmium	106	104	108	103		0.997
	Chromium	102	102	104	104		2.58
	Cobalt	103	103	105	103		1.63
	Copper	99.9	102	104	97.8		1.81
	Lead	98.6	99.4	99.7	98.8		0.232
	Manganese	107	105	107	107		1.39
	Molybdenum	103	104	106	106		1.49
	Nickel	102	99.6	102	99.9		1.95
	Selenium	101	103	103	99.9		0.426
	Silver	104	103	104	104		1.10
	Thallium	103	105	105	105		0.883
EPA 300.0 Rev. 2.1	Chloride	99.2	97.6	100		0.347	
	Sulfate	99.1	97.1	97.6		0.640	
EPA 350.1 Rev. 2.0	Ammonia-N	96.2	93.4	94.4			0.922
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	101	104			2.46
EPA 353.2 Rev. 2.0	NO2NO3-N	100	96.5	96.5			0.0
EPA 365.1 Rev. 2.0	Total-P	102	103	104			1.04
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.0	99.8	99.7			0.100
EPA 8321B	2,4-D	73.3	96.5	89.1			8.01
	2,4,5-T	52.4	57.6	56.6			1.81
	Acesulfame K	93.0	89.0	90.7			1.86
	Acetaminophen	88.2	99.5	102			2.62
	Acetamiprid	78.2	83.7	78.9			5.98
	Afidopyropen	71.3	76.6	73.1			4.67
	AMPA	111	89.8	85.9			4.52
	Bentazon	81.5	81.7	79.2			2.69
	Benzovindiflupyr	83.8	80.7	83.0			2.80
	Carbamazepine	95.2	94.8	96.8			2.12
	Clothianidin	95.7	107	98.0			8.92
	Dinotefuran	94.9	101	101			0.271
	Diuron	81.7	90.1	79.6			12.3
	Endothall	96.4	99.8	98.0			1.89
	Fenuron	89.8	89.5	88.0			1.73
	Fluridone	81.4	87.2	86.8			0.374
	Glufosinate	100	88.3	86.8			1.72
	Glyphosate	106	95.9	93.1			2.91

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Hydrocodone	90.9	91.4	94.0		2.75
	Ibuprofen	89.3	89.6	76.4		15.8
	Imazapyr	96.5	93.4	98.0		4.47
	Imidacloprid	94.6	88.4	101		13.1
	Linuron	70.8	84.2	72.5		14.9
	Mandestrobin	83.4	83.5	81.6		2.28
	MCCP	75.1	80.9	84.0		3.78
	Naproxen	56.6	103	89.8		13.3
	Primidone	93.5	98.3	85.4		14.0
	Pyraclostrobin	74.0	80.5	79.3		1.57
	Silvex	55.4	61.9	61.7		0.324
	Sucralose	97.1	95.6	97.5		1.27
	Thiamethoxam	87.8	94.6	94.5		0.0599
	Tolfenpyrad	49.1	54.2	54.3		0.142
	Triclopyr	59.9	65.1	68.7		5.46
SM 2320 B-2011	Total Alkalinity	101			1.37	
SM 2540 C-2011	TDS				2.90	
SM 4500-F- C-2011	Fluoride	96.9	102	102		0.0
SM 5310 B-2011	Organic Carbon	95.4	97.2	97.2		0.0

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2334457
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2334457
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2334462
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2334462
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2334457
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2334457
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2334458
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2334458
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2334458
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2334458
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2334459
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2334461
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2334457
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2334462
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2334457
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2334457
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2334457
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2334458

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	06/14/2022			06/15/2022 11:26	Samantha L Bates	2334457
EPA 180.1 Rev. 2.0	06/14/2022			06/15/2022 14:54	Khloe J Berg	2334457
EPA 200.7 Rev. 4.4	06/14/2022	06/22/2022 09:56	Megan Whitefoot	06/23/2022 17:32	McKinley C Carter	2334462
EPA 200.8 Rev. 5.4	06/14/2022	06/22/2022 09:56	Megan Whitefoot	06/24/2022 19:35	Emily M Philpot	2334462
EPA 300.0 Rev. 2.1	06/14/2022			06/22/2022 00:47	Anna M. Plaviak	2334457
EPA 350.1 Rev. 2.0	06/14/2022			06/23/2022 10:52	Ping Hua	2334458
EPA 351.2 Rev. 2.0	06/14/2022	06/24/2022 10:30	Samantha L Bates	06/27/2022 13:42	Alexandra J Mattheus	2334458
EPA 353.2 Rev. 2.0	06/14/2022			06/28/2022 17:49	Touraj Touran	2334458
EPA 365.1 Rev. 2.0	06/14/2022	06/23/2022 14:45	Simonne.V. Calhoun	06/24/2022 14:24	James L Waggeberby	2334458
EPA 365.1 Rev. 2.0 dissolved	06/14/2022			06/15/2022 16:28	Blanca Fach	2334459
EPA 8321B	06/14/2022	06/15/2022 10:00	Umesh Chiluwal	06/15/2022 12:56	Umesh Chiluwal	2334461
	06/14/2022	06/15/2022 10:00	Umesh Chiluwal	06/15/2022 17:57	Umesh Chiluwal	2334461
	06/14/2022	06/16/2022 08:00	June Rhew	06/20/2022 22:45	Juyoung Kim	2334461
SM 2320 B-2011	06/14/2022			06/23/2022 07:52	Dale L. Simmons	2334457
SM 2340 B-2011	06/14/2022			06/23/2022 17:32	McKinley C Carter	2334462
SM 2540 C-2011	06/14/2022			06/17/2022 14:36	Yijie Li	2334457
SM 2540 D-2011	06/14/2022			06/17/2022 14:36	Yijie Li	2334457
SM 4500-F- C-2011	06/14/2022			06/23/2022 07:52	Dale L. Simmons	2334457
SM 5310 B-2011	06/14/2022			06/18/2022 02:22	Khloe J Berg	2334458