

Chemical Analysis Report

CEN-DIST-2023-09-27-03

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

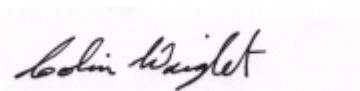
Event Description: **Run 23**
Request ID: **RQ-2023-09-25-19**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Matthew Bearden

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Certified by: Colin Wright, Program Administrator

Date Certified: 16-OCT-2023 08:21

A handwritten signature in black ink, appearing to read "Colin Wright", is shown on a light-colored background.

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: HICKS DITCH SE OF EAST RD

Collection Date/Time: 09/26/2023 11:42

Field ID: G1CE0126

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440677	EPA 8321B	2,4-D	0.62		ug/L	P435567	
		Acesulfame K	0.10	U	ug/L	P435496	
		2,4,5-T	0.0040	U	ug/L	P435567	
		AMPA	0.36	I	ug/L	P435496	
		Acetaminophen	0.0080	U	ug/L	P435567	
		Acetamiprid	0.0020	U	ug/L	P435567	
		Endothall	0.25	U	ug/L	P435496	MS
		Glufosinate	0.10	U	ug/L	P435496	
		Glyphosate	1.2		ug/L	P435496	
		Afidopyropen	0.0020	U	ug/L	P435567	
		Bentazon	8.0E-04	U	ug/L	P435567	
		Sucralose	0.013	I	ug/L	P435496	
		Benzovindiflupyr	0.0020	U	ug/L	P435567	
		Carbamazepine	8.0E-04	U	ug/L	P435567	
		Clothianidin	0.0020	U	ug/L	P435567	
		Dinotefuran	0.0020	U	ug/L	P435567	
		Diuron	0.0020	U	ug/L	P435567	
		Fenuron	0.032	U	ug/L	P435567	
		Fluridone	8.0E-04	U	ug/L	P435567	MS
		Imazapyr	0.011	I	ug/L	P435567	
		Hydrocodone	0.0020	U	ug/L	P435567	
		Ibuprofen	0.080	U	ug/L	P435567	
		Imidacloprid	0.0020	U	ug/L	P435567	
		Linuron	0.0040	U	ug/L	P435567	
		Mandestrobin	0.0020	U	ug/L	P435567	
		MCPP	0.0020	U	ug/L	P435567	
		Naproxen	0.0080	U	ug/L	P435567	
		Primidone	0.0040	U	ug/L	P435567	
		Pyraclostrobin	0.0020	U	ug/L	P435567	
		Silvex	0.0040	U	ug/L	P435567	
		Thiamethoxam	0.0020	U	ug/L	P435567	
		Tolfenpyrad	0.0020	U	ug/L	P435567	
		Triclopyr	0.0040	U	ug/L	P435567	
2440678	EPA 200.7 Rev. 4.4	Calcium	12.4		mg/L	P435682	
		Iron	4.91E+03		ug/L	P435682	
		Magnesium	3.43		mg/L	P435682	
		Potassium	5.1		mg/L	P435682	
		Sodium	10.1		mg/L	P435682	
		Strontium	48.6		ug/L	P435682	
		Tin	3.0	U	ug/L	P435682	
		Titanium	4.1		ug/L	P435682	
		Vanadium	5.3	I	ug/L	P435682	
		Zinc	9.6	I	ug/L	P435682	
	EPA 200.8 Rev. 5.4	Aluminum	861		ug/L	P435682	

Field ID: G1CE0126

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440678	EPA 200.8 Rev. 5.4	Antimony	0.094	I	ug/L	P435682	
		Arsenic	1.13		ug/L	P435682	
		Barium	59.4		ug/L	P435682	
		Beryllium	0.144		ug/L	P435682	
		Boron	36.8		ug/L	P435682	
		Cadmium	0.037	I	ug/L	P435682	
		Chromium	1.8		ug/L	P435682	
		Cobalt	0.914		ug/L	P435682	
		Copper	2.39		ug/L	P435682	
		Lead	2.92		ug/L	P435682	
		Manganese	62.6		ug/L	P435682	
		Molybdenum	0.43	I	ug/L	P435682	
		Nickel	1.7	I	ug/L	P435682	
		Selenium	0.23	I	ug/L	P435682	
		Silver	0.010	U	ug/L	P435682	
		Thallium	0.10	U	ug/L	P435682	
	SM 2340 B-2011	Hardness	45.0		mg/L	P435682	

Ref. Method and Comment:

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

EPA 200.8 Rev. 5.4: The beryllium and lead result was confirmed in the undigested sample on 10/02/2023.

**Sample Location: DEAD RIVER AT 50M FROM S OF US 441
 (2817C)**

Collection Date/Time: 09/26/2023 10:34

Field ID: G1CE0100

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440671	DEP SOP: NU-094-1	Color (true)	13		PCU	P435606	
	EPA 180.1 Rev. 2.0	Turbidity	6.4		NTU	P435618	
	EPA 300.0 Rev. 2.1	Chloride	22		mg Cl/L	P436046	
		Sulfate	7.4		mg SO4/L	P436049	
	SM 2320 B-2011	Total Alkalinity	85		mg CaCO3/L	P435768	
	SM 2540 C-2015	TDS	157		mg/L	P436283	
	SM 2540 D-2015	TSS	10	I	mg/L	P436015	
	SM 4500-F- C-2011	Fluoride	0.11		mg F/L	P436092	
2440672	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P435751	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P435772	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P436261	
	EPA 365.1 Rev. 2.0	Total-P	0.028		mg P/L	P435710	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P435847	

Ref. Method and Comment:

SM 2540 D-2015: 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: P435606

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P435618

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P435682

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: P435682

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	0.12	I	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.012	I	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436046

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: P436049

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435751

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435772

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436261

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435710

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

Reference Method: EPA 8321B
Batch ID: P435496

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: P435567

Component	Result	Code	Units
2,4-D	0.020		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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P435567

Component	Result	Code	Units
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	0.0020	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: P435768

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

Reference Method: SM 2540 C-2015
Batch ID: P436283

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P436015

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P436092

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P435847

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: P435606

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.8		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P435618

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	105		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P435682

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115
Iron	103		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	101		P	85 - 115
Sodium	100		P	85 - 115
Strontium	99.6		P	85 - 115
Tin	106		P	85 - 115
Titanium	102		P	85 - 115
Vanadium	102		P	85 - 115
Zinc	104		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P435682

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.9		P	85 - 115
Antimony	94.0		P	85 - 115
Arsenic	98.7		P	85 - 115
Barium	98.3		P	85 - 115
Beryllium	95.3		P	85 - 115
Boron	102		P	85 - 115
Cadmium	96.3		P	85 - 115
Chromium	94.2		P	85 - 115
Cobalt	98.4		P	85 - 115
Copper	96.4		P	85 - 115
Lead	90.8		P	85 - 115
Manganese	94.1		P	85 - 115
Molybdenum	96.2		P	85 - 115
Nickel	97.9		P	85 - 115
Selenium	95.6		P	85 - 115
Silver	107		P	85 - 115
Thallium	99.0		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436046

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	105		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436049

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435751

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435772

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436261

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	97.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435710

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

Reference Method: EPA 8321B
Batch ID: P435496

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	95.9		P	40 - 150
AMPA	76.6		P	40 - 150
Endothall	99.7		P	40 - 150
Glufosinate	126		P	40 - 150
Glyphosate	72.5		P	40 - 150
Sucralose	99.3		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P435567

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	84.3		P	40 - 150
2,4,5-T	119		P	40 - 150
Acetaminophen	98.9		P	30 - 150
Acetamiprid	92.1		P	40 - 150
Afidopyropen	48.0		P	30 - 150
Bentazon	93.0		P	30 - 150
Benzovindiflupyr	91.2		P	40 - 150
Carbamazepine	95.8		P	40 - 150
Clothianidin	110		P	40 - 150
Dinotefuran	116		P	40 - 150
Diuron	90.0		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P435567

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fenuron	98.1		P	40 - 150
Fluridone	79.7		P	40 - 150
Hydrocodone	97.7		P	40 - 150
Ibuprofen	74.8		P	40 - 150
Imazapyr	98.0		P	40 - 150
Imidacloprid	96.6		P	40 - 150
Linuron	71.1		P	40 - 150
Mandestrobin	90.9		P	40 - 150
MCPP	110		P	40 - 150
Naproxen	70.8		P	40 - 150
Primidone	97.3		P	40 - 150
Pyraclostrobin	88.9		P	40 - 150
Silvex	85.4		P	40 - 150
Thiamethoxam	108		P	40 - 150
Tolfenpyrad	59.2		P	30 - 150
Triclopyr	114		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P435768

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.4		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P436283

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	94.8		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P436015

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	94.6		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P436092

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

Reference Method: SM 5310 B-2011
Batch ID: P435847

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P435682

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440487	Calcium	98.8		P	80 - 120
2440487	Iron	102	101	P/P	80 - 120
2440487	Magnesium	104	102	P/P	80 - 120
2440487	Potassium	96.4	98.4	P/P	80 - 120
2440487	Sodium	99.9		P	80 - 120
2440487	Strontium	98.1	99.1	P/P	80 - 120
2440487	Tin	101	103	P/P	80 - 120
2440487	Titanium	92.9	95.4	P/P	80 - 120
2440487	Vanadium	98.6	101	P/P	80 - 120
2440487	Zinc	101	102	P/P	80 - 120
2441075	Calcium	102		P	80 - 120
2441075	Iron	99.7		P	80 - 120
2441075	Magnesium	104		P	80 - 120
2441075	Potassium	97.4		P	80 - 120
2441075	Sodium	99.5		P	80 - 120
2441075	Strontium	99.2		P	80 - 120
2441075	Tin	102		P	80 - 120
2441075	Titanium	101		P	80 - 120
2441075	Vanadium	103		P	80 - 120
2441075	Zinc	102		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P435682

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440487	Aluminum	101	98.7	P/P	80 - 120
2440487	Antimony	98.9	98.1	P/P	80 - 120
2440487	Arsenic	99.1	99.7	P/P	80 - 120
2440487	Barium	103	102	P/P	80 - 120
2440487	Beryllium	94.7	96.1	P/P	80 - 120
2440487	Boron	105	104	P/P	80 - 120
2440487	Cadmium	103	101	P/P	80 - 120
2440487	Chromium	95.1	94.9	P/P	80 - 120
2440487	Cobalt	96.9	96.6	P/P	80 - 120
2440487	Copper	93.9	94.5	P/P	80 - 120
2440487	Lead	93.2	93.0	P/P	80 - 120
2440487	Manganese	95.5	95.7	P/P	80 - 120
2440487	Molybdenum	101	100	P/P	80 - 120
2440487	Nickel	94.2	93.7	P/P	80 - 120
2440487	Selenium	97.1	97.7	P/P	80 - 120
2440487	Silver	109	109	P/P	80 - 120
2440487	Thallium	104	104	P/P	80 - 120
2441075	Aluminum	87.6		P	80 - 120
2441075	Antimony	93.3		P	80 - 120
2441075	Arsenic	95.2		P	80 - 120
2441075	Barium	97.3		P	80 - 120
2441075	Beryllium	88.9		P	80 - 120
2441075	Boron	97.6		P	80 - 120
2441075	Cadmium	97.5		P	80 - 120
2441075	Chromium	93.5		P	80 - 120
2441075	Cobalt	93.8		P	80 - 120
2441075	Copper	96.7		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P435682

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2441075	Lead	95.5		P	80 - 120
2441075	Manganese	92.7		P	80 - 120
2441075	Molybdenum	94.7		P	80 - 120
2441075	Nickel	94.0		P	80 - 120
2441075	Selenium	93.1		P	80 - 120
2441075	Silver	104		P	80 - 120
2441075	Thallium	99.2		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436046

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440524	Chloride	105		P	90 - 110
2440730	Chloride	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436049

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440524	Sulfate	103		P	90 - 110
2440730	Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435751

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440588	Ammonia-N	99.0	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435772

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440435	Kjeldahl Nitrogen	97.5	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436261

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438460	NO2NO3-N	98.5	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435710

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440540	Total-P	102	104	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P435496

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440366	Acesulfame K	88.0	87.9	P/P	40 - 150
2440366	AMPA	64.6	64.3	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P435496

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440366	Endothall	155	156	F/F	40 - 150
2440366	Glufosinate	119	108	P/P	40 - 150
2440366	Glyphosate	115	96.5	P/P	40 - 150
2440366	Sucralose	96.9	108	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P435567

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440342	2,4,5-T	93.3	86.5	P/P	40 - 150
2440342	Acetaminophen	116	111	P/P	30 - 150
2440342	Acetamiprid	65.1	66.9	P/P	40 - 150
2440342	Afidopyropen	51.3	57.3	P/P	30 - 150
2440342	Bentazon	37.7	37.6	P/P	30 - 150
2440342	Benzovindiflupyr	83.3	80.2	P/P	40 - 150
2440342	Carbamazepine	67.4	65.1	P/P	40 - 150
2440342	Clothianidin	83.2	79.4	P/P	40 - 150
2440342	Dinotefuran	95.6	87.5	P/P	40 - 150
2440342	Diuron	56.3	56.0	P/P	40 - 150
2440342	Fenuron	57.0	55.5	P/P	40 - 150
2440342	Fluridone	44.9	39.9	P/F	40 - 150
2440342	Hydrocodone	59.4	55.5	P/P	40 - 150
2440342	Ibuprofen	50.8	60.8	P/P	40 - 150
2440342	Imidacloprid	116	108	P/P	40 - 150
2440342	Linuron	50.8	46.9	P/P	40 - 150
2440342	Mandestrobin	69.7	66.7	P/P	40 - 150
2440342	MCPP	91.5	85.3	P/P	40 - 150
2440342	Naproxen	55.5	60.3	P/P	40 - 150
2440342	Primidone	75.1	68.6	P/P	40 - 150
2440342	Pyraclostrobin	81.2	77.0	P/P	40 - 150
2440342	Silvex	83.1	72.3	P/P	40 - 150
2440342	Thiamethoxam	82.7	78.2	P/P	40 - 150
2440342	Tolfenpyrad	60.0	61.2	P/P	30 - 150
2440342	Triclopyr	99.1	93.7	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P436092

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2442786	Fluoride	100	99.6	P/P	94 - 106

Reference Method: SM 5310 B-2011

Batch ID: P435847

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440525	Organic Carbon	97.2	97.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P435606

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440539	Color (true)	0.617	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P435618

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440586	Turbidity	3.77	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P435682

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440487	Calcium	0.768	Spike	P	0 - 20
2440487	Iron	1.39	Spike	P	0 - 20
2440487	Magnesium	1.24	Spike	P	0 - 20
2440487	Potassium	1.62	Spike	P	0 - 20
2440487	Sodium	1.56	Spike	P	0 - 20
2440487	Strontium	1.03	Spike	P	0 - 20
2440487	Tin	1.82	Spike	P	0 - 20
2440487	Titanium	2.02	Spike	P	0 - 20
2440487	Vanadium	1.97	Spike	P	0 - 20
2440487	Zinc	1.47	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P435682

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440487	Aluminum	1.14	Spike	P	0 - 20
2440487	Antimony	0.837	Spike	P	0 - 20
2440487	Arsenic	0.593	Spike	P	0 - 20
2440487	Barium	0.694	Spike	P	0 - 20
2440487	Beryllium	1.41	Spike	P	0 - 20
2440487	Boron	0.927	Spike	P	0 - 20
2440487	Cadmium	1.27	Spike	P	0 - 20
2440487	Chromium	0.169	Spike	P	0 - 20
2440487	Cobalt	0.341	Spike	P	0 - 20
2440487	Copper	0.540	Spike	P	0 - 20
2440487	Lead	0.281	Spike	P	0 - 20
2440487	Manganese	0.273	Spike	P	0 - 20
2440487	Molybdenum	0.601	Spike	P	0 - 20
2440487	Nickel	0.429	Spike	P	0 - 20
2440487	Selenium	0.606	Spike	P	0 - 20
2440487	Silver	0.0570	Spike	P	0 - 20
2440487	Thallium	0.278	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436046

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440524	Chloride	0.376	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436049

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440524	Sulfate	0.189	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435751

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440588	Ammonia-N	1.40	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435772

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440435	Kjeldahl Nitrogen	1.44	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436261

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438460	NO2NO3-N	1.51	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435710

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440540	Total-P	2.28	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P435496

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440366	Acesulfame K	0.157	Spike	P	0 - 30
2440366	AMPA	0.354	Spike	P	0 - 30
2440366	Endothall	0.668	Spike	P	0 - 30
2440366	Glufosinate	9.58	Spike	P	0 - 30
2440366	Glyphosate	17.4	Spike	P	0 - 30
2440366	Sucralose	10.5	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8321B

Batch ID: P435567

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440342	2,4-D	3.83	Spike	P	0 - 30
2440342	2,4,5-T	7.48	Spike	P	0 - 30
2440342	Acetaminophen	5.12	Spike	P	0 - 30
2440342	Acetamiprid	2.84	Spike	P	0 - 30
2440342	Afidopyropen	11.1	Spike	P	0 - 30
2440342	Bentazon	0.151	Spike	P	0 - 30
2440342	Benzovindiflupyr	3.79	Spike	P	0 - 30
2440342	Carbamazepine	3.44	Spike	P	0 - 30
2440342	Clothianidin	4.66	Spike	P	0 - 30
2440342	Dinotefuran	8.80	Spike	P	0 - 30
2440342	Diuron	0.585	Spike	P	0 - 30
2440342	Fenuron	2.57	Spike	P	0 - 30
2440342	Fluridone	11.8	Spike	P	0 - 30
2440342	Hydrocodone	6.74	Spike	P	0 - 30
2440342	Ibuprofen	17.9	Spike	P	0 - 30
2440342	Imazapyr	0.792	Spike	P	0 - 30
2440342	Imidacloprid	6.34	Spike	P	0 - 30
2440342	Linuron	8.07	Spike	P	0 - 30
2440342	Mandestrobin	4.45	Spike	P	0 - 30
2440342	MCP	7.06	Spike	P	0 - 30
2440342	Naproxen	8.29	Spike	P	0 - 30
2440342	Primidone	8.95	Spike	P	0 - 30
2440342	Pyraclostrobin	5.32	Spike	P	0 - 30
2440342	Silvex	13.8	Spike	P	0 - 30
2440342	Thiamethoxam	5.57	Spike	P	0 - 30
2440342	Tolfenpyrad	2.01	Spike	P	0 - 30
2440342	Triclopyr	5.61	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P435768

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441080	Total Alkalinity	0.815	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015

Batch ID: P436283

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440475	TDS	1.94	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011

Batch ID: P436092

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2442786	Fluoride	0.525	Spike	P	0 - 1.9

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P435847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440525	Organic Carbon	0.311	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2440677
Field Sample ID: G1CE0126

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	58.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	40.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	43.2	P	30 - 160
EPA 8321B	Diuron-d6	36.5	P	30 - 160
EPA 8321B	Endothall-d6	136	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	71.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	46.7	P	30 - 160
EPA 8321B	Primidone-d5	40.5	P	30 - 160
EPA 8321B	Sucralose-d6	112	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A121765
Included Lab Sample IDs: 2440677

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	107	108	P/P	60 - 160
Endothall	99.0	112	P/P	60 - 160
Glufosinate	111	127	P/P	60 - 160
Glyphosate	99.2	91.0	P/P	60 - 160

Reference Method: DEP SOP: NU-094-1
Run ID: A121796
Included Lab Sample IDs: 2440671

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.0	99.3	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A121800
Included Lab Sample IDs: 2440671

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	100	P/P	95 - 105

Reference Method: EPA 8321B
Run ID: A121824
Included Lab Sample IDs: 2440677

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	97.7	95.6	P/P	60 - 160
Sucralose	101	97.0	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A121852
Included Lab Sample IDs: 2440672

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

Reference Method: SM 2320 B-2011
Run ID: A121863
Included Lab Sample IDs: 2440671

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.1	95.5	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A121868
Included Lab Sample IDs: 2440678

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	102	P/P	90 - 110
Iron	100	100	P/P	90 - 110
Magnesium	101	100	P/P	90 - 110
Potassium	98.9	99.4	P/P	90 - 110
Sodium	99.6	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A121868

Included Lab Sample IDs: 2440678

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Strontium	99.1	97.0	P/P	90 - 110
Tin	99.5	101	P/P	90 - 110
Titanium	98.3	99.1	P/P	90 - 110
Vanadium	97.9	98.7	P/P	90 - 110
Zinc	99.2	99.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A121869

Included Lab Sample IDs: 2440678

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.9	93.6	P/P	90 - 110
Antimony	94.6	92.3	P/P	90 - 110
Arsenic	98.4	95.3	P/P	90 - 110
Barium	98.4	94.9	P/P	90 - 110
Beryllium	97.7	93.5	P/P	90 - 110
Boron	100	95.0	P/P	90 - 110
Cadmium	100	97.1	P/P	90 - 110
Chromium	98.6	95.9	P/P	90 - 110
Cobalt	97.8	94.4	P/P	90 - 110
Copper	96.0	92.3	P/P	90 - 110
Manganese	97.9	95.5	P/P	90 - 110
Molybdenum	97.6	94.8	P/P	90 - 110
Nickel	96.9	93.2	P/P	90 - 110
Selenium	98.0	95.6	P/P	90 - 110
Silver	99.4	95.9	P/P	90 - 110
Thallium	98.9	95.2	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A121884

Included Lab Sample IDs: 2440678

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	95.5	94.9	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A121893

Included Lab Sample IDs: 2440677

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	70.5	79.0	P/P	50 - 150
2,4,5-T	76.4	83.6	P/P	50 - 150
Acetaminophen	111	110	P/P	60 - 160
Acetamiprid	114	112	P/P	50 - 150
Bentazon	121	123	P/P	50 - 160
Benzovindiflupyr	77.6	75.9	P/P	50 - 150
Carbamazepine	76.3	74.9	P/P	60 - 150
Clothianidin	118	120	P/P	60 - 150
Dinotefuran	117	116	P/P	50 - 150
Diuron	67.7	63.0	P/P	60 - 160
Fenuron	105	105	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A121893
Included Lab Sample IDs: 2440677

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluridone	76.3	73.4	P/P	60 - 160
Hydrocodone	117	116	P/P	60 - 150
Ibuprofen	96.1	67.7	P/P	50 - 160
Imazapyr	107	98.8	P/P	50 - 150
Imidacloprid	111	107	P/P	60 - 150
Linuron	79.1	76.1	P/P	60 - 150
Mandestrobin	77.5	82.8	P/P	50 - 150
MCPP	74.0	81.3	P/P	50 - 150
Naproxen	115	80.2	P/P	50 - 160
Primidone	106	102	P/P	60 - 150
Pyraclostrobin	82.3	86.3	P/P	60 - 150
Silvex	67.9	70.1	P/P	50 - 150
Thiamethoxam	119	115	P/P	50 - 150
Tolfenpyrad	68.6	68.2	P/P	60 - 150
Triclopyr	88.7	80.6	P/P	50 - 150

Reference Method: SM 5310 B-2011
Run ID: A121902
Included Lab Sample IDs: 2440672

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.4	93.7	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A121918
Included Lab Sample IDs: 2440677

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Afidopyropen	80.5	67.8	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A121940
Included Lab Sample IDs: 2440672

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.1	95.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A121943
Included Lab Sample IDs: 2440672

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A121948
Included Lab Sample IDs: 2440671

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	103	P/P	90 - 110
Sulfate	103	105	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500-F- C-2011

Run ID: A121987

Included Lab Sample IDs: 2440671

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122043

Included Lab Sample IDs: 2440672

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.5	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)	98.8				0.617	
EPA 180.1 Rev. 2.0	Turbidity	105				3.77	
EPA 200.7 Rev. 4.4	Calcium	102	98.8	102			0.768
	Iron	103	102	101	99.7		1.39
	Magnesium	105	104	102	104		1.24
	Potassium	101	96.4	98.4	97.4		1.62
	Sodium	100	99.9	99.5			1.56
	Strontium	99.6	98.1	99.1	99.2		1.03
	Tin	106	101	103	102		1.82
	Titanium	102	92.9	95.4	101		2.02
	Vanadium	102	98.6	101	103		1.97
	Zinc	104	101	102	102		1.47
EPA 200.8 Rev. 5.4	Aluminum	97.9	101	98.7	87.6		1.14
	Antimony	94.0	98.9	98.1	93.3		0.837
	Arsenic	98.7	99.1	99.7	95.2		0.593
	Barium	98.3	103	102	97.3		0.694
	Beryllium	95.3	94.7	96.1	88.9		1.41
	Boron	102	105	104	97.6		0.927
	Cadmium	96.3	103	101	97.5		1.27
	Chromium	94.2	95.1	94.9	93.5		0.169
	Cobalt	98.4	96.9	96.6	93.8		0.341
	Copper	96.4	93.9	94.5	96.7		0.540
	Lead	90.8	95.5	93.2	93.0		0.281
	Manganese	94.1	95.5	95.7	92.7		0.273
	Molybdenum	96.2	101	100	94.7		0.601
	Nickel	97.9	94.2	93.7	94.0		0.429
	Selenium	95.6	97.1	97.7	93.1		0.606
	Silver	107	109	109	104		0.0570
	Thallium	99.0	104	104	99.2		0.278
EPA 300.0 Rev. 2.1	Chloride	105	105	104		0.376	
	Sulfate	107	103	103		0.189	
EPA 350.1 Rev. 2.0	Ammonia-N	102	99.0	101			1.40
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	97.5	100			1.44
EPA 353.2 Rev. 2.0	NO2NO3-N	97.5	98.5	100			1.51
EPA 365.1 Rev. 2.0	Total-P	101	102	104			2.28
EPA 8321B	2,4-D	84.3					3.83
	2,4,5-T	119	93.3	86.5			7.48
	Acesulfame K	95.9	88.0	87.9			0.157
	Acetaminophen	98.9	116	111			5.12
	Acetamiprid	92.1	65.1	66.9			2.84
	Afidopyropen	48.0	51.3	57.3			11.1
	AMPA	76.6	64.6	64.3			0.354
	Bentazon	93.0	37.7	37.6			0.151
	Benzovindiflupyr	91.2	83.3	80.2			3.79
	Carbamazepine	95.8	67.4	65.1			3.44
	Clothianidin	110	83.2	79.4			4.66
	Dinotefuran	116	95.6	87.5			8.80
	Diuron	90.0	56.3	56.0			0.585
	Endothall	99.7	155	156			0.668
	Fenuron	98.1	57.0	55.5			2.57
	Fluridone	79.7	44.9	39.9			11.8
	Glufosinate	126	119	108			9.58
	Glyphosate	72.5	115	96.5			17.4
	Hydrocodone	97.7	59.4	55.5			6.74

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Ibuprofen	74.8	50.8	60.8			17.9
	Imazapyr	98.0					0.792
	Imidacloprid	96.6	116	108			6.34
	Linuron	71.1	50.8	46.9			8.07
	Mandestrobin	90.9	69.7	66.7			4.45
	MCPP	110	91.5	85.3			7.06
	Naproxen	70.8	55.5	60.3			8.29
	Primidone	97.3	75.1	68.6			8.95
	Pyraclostrobin	88.9	81.2	77.0			5.32
	Silvex	85.4	83.1	72.3			13.8
	Sucralose	99.3	96.9	108			10.5
	Thiamethoxam	108	82.7	78.2			5.57
	Tolfenpyrad	59.2	60.0	61.2			2.01
	Triclopyr	114	99.1	93.7			5.61
SM 2320 B-2011	Total Alkalinity	96.4				0.815	
SM 2540 C-2015	TDS	94.8				1.94	
SM 2540 D-2015	TSS	94.6					
SM 4500-F- C-2011	Fluoride	100	100	99.6			0.525
SM 5310 B-2011	Organic Carbon	96.0	97.2	97.7			0.311

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2440671
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2440671
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2440678
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2440678
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2440671
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2440671
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2440672
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2440672
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2440672
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2440672
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2440677
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2440671
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2440678
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2440671
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2440671
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2440671
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2440672

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	09/27/2023			09/27/2023 15:31	Alexis Price	2440671
EPA 180.1 Rev. 2.0	09/27/2023			09/27/2023 13:55	Alexis Price	2440671
EPA 200.7 Rev. 4.4	09/27/2023	09/28/2023 13:30	George D Taylor	09/29/2023 15:20	McKinley C Carter	2440678
EPA 200.8 Rev. 5.4	09/27/2023	09/28/2023 13:30	George D Taylor	09/29/2023 18:03	Conrad Hartmann	2440678
	09/27/2023	09/28/2023 13:30	George D Taylor	10/02/2023 14:42	Conrad Hartmann	2440678
EPA 300.0 Rev. 2.1	09/27/2023			10/05/2023 02:18	James L Waggeberby	2440671
EPA 350.1 Rev. 2.0	09/27/2023			09/29/2023 12:13	Khloe J Berg	2440672
EPA 351.2 Rev. 2.0	09/27/2023	10/03/2023 09:32	Samantha L Bates	10/04/2023 09:49	Samantha L Bates	2440672
EPA 353.2 Rev. 2.0	09/27/2023			10/09/2023 14:27	Anna M. Plaviak	2440672
EPA 365.1 Rev. 2.0	09/27/2023	09/29/2023 10:00	Simonne.V. Calhoun	10/04/2023 10:50	Chandler E Cox	2440672
EPA 8321B	09/27/2023	09/27/2023 12:00	Hana Lee	09/27/2023 18:13	Tae K Lee	2440677
	09/27/2023	09/27/2023 12:00	Hana Lee	09/28/2023 02:52	Tae K Lee	2440677
	09/27/2023	09/29/2023 09:00	Hoor Shaik	09/30/2023 00:06	Juyoung Kim	2440677
	09/27/2023	09/29/2023 09:00	Hoor Shaik	10/03/2023 02:48	Juyoung Kim	2440677
SM 2320 B-2011	09/27/2023			09/29/2023 23:19	Adam P Silver	2440671
SM 2340 B-2011	09/27/2023			09/29/2023 15:20	McKinley C Carter	2440678
SM 2540 C-2015	09/27/2023			10/02/2023 15:37	Yijie Li	2440671
SM 2540 D-2015	09/27/2023			10/02/2023 15:27	Yijie Li	2440671
SM 4500-F- C-2011	09/27/2023			10/06/2023 04:07	Adam P Silver	2440671
SM 5310 B-2011	09/27/2023			10/02/2023 23:15	Elise M. Gillis	2440672