Chemical Analysis Report

NE-DIST-2021-04-08-01

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

Event Description: **Little Fishweir and Butcher pen Source**
Request ID: **RQ-2021-04-05-69**
Customer: **NE-DIST**
Project ID: **BMAP**

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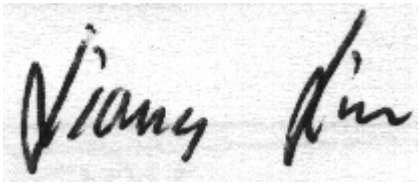
Date Certified: 20-APR-2021 17:37



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 group are included in this report: 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: End of Azalea @ Camp **Collection Date/Time: 04/07/2021 10:33**

Field ID: LFW1 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2237810	EPA 8321B	2,4-D	0.0034	I	ug/L	P396177	
		Acesulfame K	0.22	I	ug/L	P396370	
		2,4,5-T	0.0040	U	ug/L	P396177	
		AMPA	0.12	I	ug/L	P396370	
		Sucralose	0.33		ug/L	P396370	
		Acetaminophen	0.0092	I	ug/L	P396177	
		Acetamiprid	0.0020	U	ug/L	P396177	
		Endothall	0.25	U	ug/L	P396370	
		Glufosinate	0.10	U	ug/L	P396370	
		Glyphosate	0.10	U	ug/L	P396370	
		Afidopyropen	0.0020	U	ug/L	P396177	
		Bentazon	0.031		ug/L	P396177	
		Benzovindiflupyr	0.0020	U	ug/L	P396177	
		Carbamazepine	8.0E-04	U	ug/L	P396177	
		Clothianidin	0.0020	U	ug/L	P396177	
		Dinotefuran	0.0020	U	ug/L	P396177	
		Diuron	0.0020	U	ug/L	P396177	
		Fenuron	0.016	U	ug/L	P396177	
		Fluridone	8.0E-04	U	ug/L	P396177	
		Imazapyr	0.067		ug/L	P396177	
		Hydrocodone	0.0020	U	ug/L	P396177	
		Ibuprofen	0.020	U	ug/L	P396177	
		Imidacloprid	0.013		ug/L	P396177	
		Linuron	0.0040	U	ug/L	P396177	
		Mandestrobin	0.0020	U	ug/L	P396177	
		MCPP	0.0040	I	ug/L	P396177	
		Naproxen	0.0080	U	ug/L	P396177	
		Primidone	0.0040	U	ug/L	P396177	
		Pyraclostrobin	0.0020	U	ug/L	P396177	
		Thiamethoxam	0.0020	U	ug/L	P396177	
		Tolfenpyrad	0.0020	U	ug/L	P396177	
		Triclopyr	0.0040	U	ug/L	P396177	

Sample Location: Little Fishweir @ MacArthur **Collection Date/Time: 04/07/2021 11:16**

Field ID: LFW2 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2237811	EPA 8321B	2,4-D	0.0036	I	ug/L	P396177	
		Acesulfame K	0.23	I	ug/L	P396370	
		2,4,5-T	0.0040	U	ug/L	P396177	
		AMPA	0.11	I	ug/L	P396370	
		Sucralose	0.36		ug/L	P396370	
		Acetaminophen	0.0080	U	ug/L	P396177	
		Acetamiprid	0.0020	U	ug/L	P396177	
		Endothall	0.25	U	ug/L	P396370	
		Glufosinate	0.10	U	ug/L	P396370	
		Glyphosate	0.21	I	ug/L	P396370	
		Afidopyropen	0.0020	U	ug/L	P396177	
		Bentazon	0.037		ug/L	P396177	
		Benzovindiflupyr	0.0020	U	ug/L	P396177	
		Carbamazepine	8.0E-04	U	ug/L	P396177	
		Clothianidin	0.0020	U	ug/L	P396177	
		Dinotefuran	0.0020	U	ug/L	P396177	
		Diuron	0.0020	U	ug/L	P396177	
		Fenuron	0.016	U	ug/L	P396177	
		Fluridone	8.0E-04	U	ug/L	P396177	
		Imazapyr	0.068		ug/L	P396177	
		Hydrocodone	0.0020	U	ug/L	P396177	
		Ibuprofen	0.020	U	ug/L	P396177	
		Imidacloprid	0.014		ug/L	P396177	
		Linuron	0.0040	U	ug/L	P396177	
		Mandestrobin	0.0020	U	ug/L	P396177	
		MCPP	0.012		ug/L	P396177	
		Naproxen	0.0080	U	ug/L	P396177	
		Primidone	0.0040	U	ug/L	P396177	
		Pyraclostrobin	0.0020	U	ug/L	P396177	
		Thiamethoxam	0.0020	U	ug/L	P396177	
		Tolfenpyrad	0.0020	U	ug/L	P396177	
		Triclopyr	0.0040	U	ug/L	P396177	

Sample Location: Little Fishweir Upstream of Welsh Footbridge **Collection Date/Time: 04/07/2021 12:25**

Field ID: LFW3 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2237812	EPA 8321B	2,4-D	0.0084		ug/L	P396177	
		Acesulfame K	0.16	I	ug/L	P396370	
		2,4,5-T	0.0040	U	ug/L	P396177	
		AMPA	0.15	I	ug/L	P396370	
		Sucralose	0.29		ug/L	P396370	
		Acetaminophen	0.015	I	ug/L	P396177	
		Acetamiprid	0.0020	U	ug/L	P396177	
		Endothall	0.25	U	ug/L	P396370	
		Glufosinate	0.10	U	ug/L	P396370	
		Glyphosate	0.35	I	ug/L	P396370	
		Afidopyropen	0.0020	U	ug/L	P396177	
		Bentazon	0.031		ug/L	P396177	
		Benzovindiflupyr	0.0020	U	ug/L	P396177	
		Carbamazepine	8.0E-04	U	ug/L	P396177	
		Clothianidin	0.0020	U	ug/L	P396177	
		Dinotefuran	0.0020	U	ug/L	P396177	
		Diuron	0.0020	U	ug/L	P396177	
		Fenuron	0.016	U	ug/L	P396177	
		Fluridone	8.0E-04	U	ug/L	P396177	
		Imazapyr	0.048		ug/L	P396177	
		Hydrocodone	0.0020	U	ug/L	P396177	
		Ibuprofen	0.020	U	ug/L	P396177	
		Imidacloprid	0.011		ug/L	P396177	
		Linuron	0.0040	U	ug/L	P396177	
		Mandestrobin	0.0020	U	ug/L	P396177	
		MCPP	0.0023	I	ug/L	P396177	
		Naproxen	0.0080	U	ug/L	P396177	
		Primidone	0.0040	U	ug/L	P396177	
		Pyraclostrobin	0.0020	U	ug/L	P396177	
		Thiamethoxam	0.0020	U	ug/L	P396177	
		Tolfenpyrad	0.0020	U	ug/L	P396177	
		Triclopyr	0.0040	U	ug/L	P396177	

Sample Location: Little Fishweir Downstream of Confluence **Collection Date/Time: 04/07/2021 12:58**

Field ID: LFW4 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2237813	EPA 8321B	2,4-D	0.012		ug/L	P396177	
		Acesulfame K	0.14	I	ug/L	P396370	
		2,4,5-T	0.0040	U	ug/L	P396177	
		AMPA	0.12	I	ug/L	P396370	
		Sucralose	0.23		ug/L	P396370	
		Acetaminophen	0.0080	U	ug/L	P396177	
		Acetamiprid	0.0020	U	ug/L	P396177	
		Endothall	0.25	U	ug/L	P396370	
		Glufosinate	0.10	U	ug/L	P396370	
		Glyphosate	0.22	I	ug/L	P396370	
		Afidopyropen	0.0020	U	ug/L	P396177	
		Bentazon	0.042		ug/L	P396177	
		Benzovindiflupyr	0.0020	U	ug/L	P396177	
		Carbamazepine	8.0E-04	U	ug/L	P396177	
		Clothianidin	0.0020	U	ug/L	P396177	
		Dinotefuran	0.0020	U	ug/L	P396177	
		Diuron	0.0020	U	ug/L	P396177	
		Fenuron	0.016	U	ug/L	P396177	
		Fluridone	8.0E-04	U	ug/L	P396177	
		Imazapyr	0.056		ug/L	P396177	
		Hydrocodone	0.0020	U	ug/L	P396177	
		Ibuprofen	0.020	U	ug/L	P396177	
		Imidacloprid	0.013		ug/L	P396177	
		Linuron	0.0040	U	ug/L	P396177	
		Mandestrobin	0.0020	U	ug/L	P396177	
		MCPP	0.0020	U	ug/L	P396177	
		Naproxen	0.0080	U	ug/L	P396177	
		Primidone	0.0040	U	ug/L	P396177	
		Pyraclostrobin	0.0020	U	ug/L	P396177	
		Thiamethoxam	0.0020	U	ug/L	P396177	
		Tolfenpyrad	0.0020	U	ug/L	P396177	
		Triclopyr	0.0040	U	ug/L	P396177	

Sample Location: Little Fishweir Cr at Oak St **Collection Date/Time: 04/07/2021 14:45**

Field ID: 20030953 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2237814	EPA 8321B	2,4-D	0.022		ug/L	P396177	
		Acesulfame K	0.11	I	ug/L	P396370	
		2,4,5-T	0.0040	U	ug/L	P396177	
		AMPA	0.12	I	ug/L	P396370	
		Sucralose	0.18		ug/L	P396370	
		Acetaminophen	0.0080	U	ug/L	P396177	
		Acetamiprid	0.0020	U	ug/L	P396177	
		Endothall	0.25	U	ug/L	P396370	
		Glufosinate	0.10	U	ug/L	P396370	
		Glyphosate	0.13	I	ug/L	P396370	
		Afidopyropen	0.0020	U	ug/L	P396177	
		Bentazon	0.046		ug/L	P396177	
		Benzovindiflupyr	0.0020	U	ug/L	P396177	
		Carbamazepine	8.0E-04	U	ug/L	P396177	
		Clothianidin	0.0020	U	ug/L	P396177	
		Dinotefuran	0.0020	U	ug/L	P396177	
		Diuron	0.0020	U	ug/L	P396177	
		Fenuron	0.016	U	ug/L	P396177	
		Fluridone	8.0E-04	U	ug/L	P396177	
		Imazapyr	0.031		ug/L	P396177	
		Hydrocodone	0.0020	U	ug/L	P396177	
		Ibuprofen	0.020	U	ug/L	P396177	
		Imidacloprid	0.019		ug/L	P396177	
		Linuron	0.0040	U	ug/L	P396177	
		Mandestrobin	0.0020	U	ug/L	P396177	
		MCPP	0.0020	U	ug/L	P396177	
		Naproxen	0.0080	U	ug/L	P396177	
		Primidone	0.0040	U	ug/L	P396177	
		Pyraclostrobin	0.0020	U	ug/L	P396177	
		Thiamethoxam	0.0020	U	ug/L	P396177	
		Tolfenpyrad	0.0020	U	ug/L	P396177	
		Triclopyr	0.0040	U	ug/L	P396177	

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P396177

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: EPA 8321B
Batch ID: P396370

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
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P396177

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	127		P	30 - 160
2,4,5-T	118		P	30 - 160
Acetaminophen	90.5		P	30 - 160
Acetamiprid	107		P	30 - 160
Afidopyropen	73.7		P	30 - 160
Bentazon	113		P	30 - 160
Benzovindiflupyr	82.6		P	30 - 160
Carbamazepine	105		P	30 - 160
Clothianidin	104		P	30 - 160
Dinotefuran	95.9		P	30 - 160
Diuron	71.6		P	30 - 160
Fenuron	90.6		P	30 - 160
Fluridone	104		P	30 - 160
Hydrocodone	115		P	30 - 160
Ibuprofen	89.3		P	30 - 160
Imazapyr	86.3		P	30 - 160
Imidacloprid	105		P	30 - 160
Linuron	82.9		P	30 - 160
Mandestrobin	90.7		P	30 - 160
MCPP	134		P	30 - 160
Naproxen	71.6		P	30 - 160
Primidone	98.4		P	30 - 160
Pyraclostrobin	73.3		P	30 - 160
Thiamethoxam	85.6		P	30 - 160
Tolfenpyrad	52.9		P	30 - 160
Triclopyr	114		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P396370

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	140		P	40 - 150
AMPA	130		P	40 - 150
Endothall	108		P	40 - 150
Glufosinate	127		P	40 - 150
Glyphosate	137		P	40 - 140
Sucralose	91.7		P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P396177

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2237202	2,4-D	137	143	P/P	30 - 160
2237202	2,4,5-T	114	115	P/P	30 - 160
2237202	Acetaminophen	106	107	P/P	30 - 160
2237202	Acetamiprid	108	115	P/P	30 - 160
2237202	Afidopyropen	93.4	99.7	P/P	30 - 160
2237202	Bentazon	95.4	105	P/P	30 - 160
2237202	Benzovindiflupyr	82.3	89.4	P/P	30 - 160
2237202	Carbamazepine	107	113	P/P	30 - 160
2237202	Clothianidin	118	109	P/P	30 - 160
2237202	Dinotefuran	115	114	P/P	30 - 160
2237202	Diuron	69.9	73.3	P/P	30 - 160
2237202	Fenuron	82.7	76.0	P/P	30 - 160
2237202	Fluridone	111	114	P/P	30 - 160
2237202	Hydrocodone	124	131	P/P	30 - 160
2237202	Ibuprofen	81.6	93.2	P/P	30 - 160
2237202	Imazapyr	79.6	86.2	P/P	30 - 160
2237202	Imidacloprid	119	127	P/P	30 - 160
2237202	Linuron	73.7	80.9	P/P	30 - 160
2237202	Mandestrobin	92.0	96.5	P/P	30 - 160
2237202	MCPP	132	139	P/P	30 - 160
2237202	Naproxen	74.4	93.3	P/P	30 - 160
2237202	Primidone	103	105	P/P	30 - 160
2237202	Pyraclostrobin	74.7	82.5	P/P	30 - 160
2237202	Thiamethoxam	124	126	P/P	30 - 160
2237202	Tolfenpyrad	50.4	53.3	P/P	30 - 160
2237202	Triclopyr	110	119	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P396370

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2237810	Acesulfame K	105	105	P/P	40 - 150
2237810	AMPA	129	119	P/P	40 - 150
2237810	Endothall	68.2	63.3	P/P	40 - 150
2237810	Glufosinate	100	94.1	P/P	40 - 150
2237810	Glyphosate	95.6	89.0	P/P	40 - 140
2237810	Sucralose	108	108	P/P	40 - 150

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P396177

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2237202	2,4-D	4.22	Spike	P	0 - 30
2237202	2,4,5-T	1.23	Spike	P	0 - 30
2237202	Acetaminophen	1.07	Spike	P	0 - 30
2237202	Acetamiprid	6.02	Spike	P	0 - 30
2237202	Afidopyropen	6.54	Spike	P	0 - 30
2237202	Bentazon	8.36	Spike	P	0 - 30
2237202	Benzovindiflupyr	8.24	Spike	P	0 - 30
2237202	Carbamazepine	5.35	Spike	P	0 - 30
2237202	Clothianidin	7.33	Spike	P	0 - 30
2237202	Dinotefuran	1.26	Spike	P	0 - 30
2237202	Diuron	4.77	Spike	P	0 - 30
2237202	Fenuron	8.42	Spike	P	0 - 30
2237202	Fluridone	2.48	Spike	P	0 - 30
2237202	Hydrocodone	5.20	Spike	P	0 - 30
2237202	Ibuprofen	13.3	Spike	P	0 - 30
2237202	Imazapyr	7.21	Spike	P	0 - 30
2237202	Imidacloprid	7.21	Spike	P	0 - 30
2237202	Linuron	9.41	Spike	P	0 - 30
2237202	Mandestrobin	4.78	Spike	P	0 - 30
2237202	MCPP	4.98	Spike	P	0 - 30
2237202	Naproxen	22.6	Spike	P	0 - 30
2237202	Primidone	1.98	Spike	P	0 - 30
2237202	Pyraclostrobin	9.89	Spike	P	0 - 30
2237202	Thiamethoxam	2.15	Spike	P	0 - 30
2237202	Tolfenpyrad	5.66	Spike	P	0 - 30
2237202	Triclopyr	7.69	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P396370

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2237810	Acesulfame K	0.292	Spike	P	0 - 30
2237810	AMPA	7.94	Spike	P	0 - 30
2237810	Endothall	7.49	Spike	P	0 - 30
2237810	Glufosinate	6.18	Spike	P	0 - 30
2237810	Glyphosate	7.19	Spike	P	0 - 30
2237810	Sucralose	0.336	Spike	P	0 - 30

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2237810
Field Sample ID: LFW1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	131	P	30 - 160
EPA 8321B	Acetaminophen-d4	111	P	30 - 160
EPA 8321B	Carbamazepine-d10	99.4	P	30 - 160
EPA 8321B	Diuron-d6	69.0	P	30 - 160
EPA 8321B	Endothall-d6	110	P	40 - 160
EPA 8321B	Endothall-d6	110	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	79.5	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	79.5	P	40 - 160
EPA 8321B	Ibuprofen-d3	86.4	P	30 - 160
EPA 8321B	Primidone-d5	110	P	30 - 160
EPA 8321B	Sucralose-d6	108	P	30 - 160
EPA 8321B	Sucralose-d6	108	P	30 - 160

Lab Sample ID: 2237811
Field Sample ID: LFW2

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	135	P	30 - 160
EPA 8321B	Acetaminophen-d4	108	P	30 - 160
EPA 8321B	Carbamazepine-d10	99.3	P	30 - 160
EPA 8321B	Diuron-d6	65.3	P	30 - 160
EPA 8321B	Endothall-d6	83.6	P	40 - 160
EPA 8321B	Endothall-d6	83.6	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	88.3	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	88.3	P	40 - 160
EPA 8321B	Ibuprofen-d3	87.4	P	30 - 160
EPA 8321B	Primidone-d5	121	P	30 - 160
EPA 8321B	Sucralose-d6	107	P	30 - 160
EPA 8321B	Sucralose-d6	107	P	30 - 160

Lab Sample ID: 2237812
Field Sample ID: LFW3

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	131	P	30 - 160
EPA 8321B	Acetaminophen-d4	116	P	30 - 160
EPA 8321B	Carbamazepine-d10	99.5	P	30 - 160
EPA 8321B	Diuron-d6	75.3	P	30 - 160
EPA 8321B	Endothall-d6	111	P	40 - 160
EPA 8321B	Endothall-d6	111	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	80.6	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	80.6	P	40 - 160
EPA 8321B	Ibuprofen-d3	84.5	P	30 - 160
EPA 8321B	Primidone-d5	106	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160

Lab Sample ID: 2237813
Field Sample ID: LFW4

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	137	P	30 - 160

Quality Assurance Report
Surrogates

Lab Sample ID: 2237813
Field Sample ID: LFW4

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	122	P	30 - 160
EPA 8321B	Carbamazepine-d10	101	P	30 - 160
EPA 8321B	Diuron-d6	71.7	P	30 - 160
EPA 8321B	Endothall-d6	117	P	40 - 160
EPA 8321B	Endothall-d6	117	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	96.6	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	96.6	P	40 - 160
EPA 8321B	Ibuprofen-d3	91.6	P	30 - 160
EPA 8321B	Primidone-d5	110	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160

Lab Sample ID: 2237814
Field Sample ID: 20030953

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	129	P	30 - 160
EPA 8321B	Acetaminophen-d4	119	P	30 - 160
EPA 8321B	Carbamazepine-d10	99.2	P	30 - 160
EPA 8321B	Diuron-d6	68.0	P	30 - 160
EPA 8321B	Endothall-d6	100	P	40 - 160
EPA 8321B	Endothall-d6	100	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	83.8	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	83.8	P	40 - 160
EPA 8321B	Ibuprofen-d3	82.3	P	30 - 160
EPA 8321B	Primidone-d5	94.0	P	30 - 160
EPA 8321B	Sucralose-d6	107	P	30 - 160
EPA 8321B	Sucralose-d6	107	P	30 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A104605
Included Lab Sample IDs: 2237810, 2237811, 2237812, 2237813, 2237814

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	97.1	105	P/P	50 - 150
2,4,5-T	101	103	P/P	50 - 150
Acetaminophen	89.0	100	P/P	60 - 160
Acetamiprid	135	129	P/P	50 - 150
Afidopyropen	117	117	P/P	50 - 150
Bentazon	139	125	P/P	50 - 160
Benzovindiflupyr	108	108	P/P	50 - 160
Carbamazepine	127	142	P/P	60 - 150
Clothianidin	124	144	P/P	60 - 150
Dinotefuran	98.5	127	P/P	50 - 150
Diuron	121	130	P/P	60 - 160
Fenuron	107	117	P/P	60 - 150
Fluridone	131	133	P/P	60 - 160
Hydrocodone	123	113	P/P	60 - 150
Ibuprofen	96.3	96.4	P/P	50 - 160
Imazapyr	110	110	P/P	50 - 160
Imidacloprid	101	116	P/P	60 - 150
Linuron	113	117	P/P	60 - 150
Mandestrobin	119	117	P/P	50 - 150
MCPP	96.4	100	P/P	50 - 150
Naproxen	94.3	104	P/P	50 - 160
Primidone	115	117	P/P	60 - 150
Pyraclostrobin	107	114	P/P	60 - 150
Thiamethoxam	116	133	P/P	50 - 150
Tolfenpyrad	115	113	P/P	60 - 150
Triclopyr	98.3	108	P/P	50 - 150

Reference Method: EPA 8321B
Run ID: A104755
Included Lab Sample IDs: 2237810, 2237811, 2237812, 2237813, 2237814

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	72.3	109	P/P	40 - 160
AMPA	100	153	P/P	40 - 160
Endothall	81.7	138	P/P	40 - 160
Glufosinate	117	144	P/P	40 - 160
Glyphosate	120	152	P/P	40 - 160

Reference Method: EPA 8321B
Run ID: A104794
Included Lab Sample IDs: 2237810, 2237811, 2237812, 2237813, 2237814

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	92.8	93.5	P/P	60 - 160
Sucralose	93.5	96.9	P/P	60 - 160

* 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		
					LCS	SMP	MS
EPA 8321B	2,4-D	127	137	143			4.22
	2,4,5-T	118	114	115			1.23
	Acesulfame K	140	105	105			0.292
	Acetaminophen	90.5	106	107			1.07
	Acetamiprid	107	108	115			6.02
	Afidopyropen	73.7	93.4	99.7			6.54
	AMPA	130	129	119			7.94
	Bentazon	113	95.4	105			8.36
	Benzovindiflupyr	82.6	82.3	89.4			8.24
	Carbamazepine	105	107	113			5.35
	Clothianidin	104	118	109			7.33
	Dinotefuran	95.9	115	114			1.26
	Diuron	71.6	69.9	73.3			4.77
	Endothall	108	68.2	63.3			7.49
	Fenuron	90.6	82.7	76.0			8.42
	Fluridone	104	111	114			2.48
	Glufosinate	127	100	94.1			6.18
	Glyphosate	137	95.6	89.0			7.19
	Hydrocodone	115	124	131			5.20
	Ibuprofen	89.3	81.6	93.2			13.3
	Imazapyr	86.3	79.6	86.2			7.21
	Imidacloprid	105	119	127			7.21
	Linuron	82.9	73.7	80.9			9.41
	Mandestrobin	90.7	92.0	96.5			4.78
	MCPP	134	132	139			4.98
	Naproxen	71.6	74.4	93.3			22.6
	Primidone	98.4	103	105			1.98
	Pyraclostrobin	73.3	74.7	82.5			9.89
	Sucralose	91.7	108	108			0.336
	Thiamethoxam	85.6	124	126			2.15
	Tolfenpyrad	52.9	50.4	53.3			5.66
	Triclopyr	114	110	119			7.69

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2237810, 2237811, 2237812, 2237813, 2237814
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2237810, 2237811, 2237812, 2237813, 2237814

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	04/08/2021	04/09/2021 09:00	Hoor Shaik	04/10/2021 14:13	Juyoung Kim	2237810
	04/08/2021	04/09/2021 09:00	Hoor Shaik	04/10/2021 14:48	Juyoung Kim	2237811
	04/08/2021	04/09/2021 09:00	Hoor Shaik	04/10/2021 15:23	Juyoung Kim	2237812
	04/08/2021	04/09/2021 09:00	Hoor Shaik	04/10/2021 15:57	Juyoung Kim	2237813
	04/08/2021	04/09/2021 09:00	Hoor Shaik	04/10/2021 16:32	Juyoung Kim	2237814
	04/08/2021	04/12/2021 15:00	Rebecca Ware	04/13/2021 11:28	Rebecca Ware	2237810
	04/08/2021	04/12/2021 15:00	Rebecca Ware	04/13/2021 11:41	Rebecca Ware	2237811
	04/08/2021	04/12/2021 15:00	Rebecca Ware	04/13/2021 11:55	Rebecca Ware	2237812
	04/08/2021	04/12/2021 15:00	Rebecca Ware	04/13/2021 12:09	Rebecca Ware	2237813
	04/08/2021	04/12/2021 15:00	Rebecca Ware	04/13/2021 12:23	Rebecca Ware	2237814
	04/08/2021	04/12/2021 15:00	Rebecca Ware	04/16/2021 19:23	Mohammad Ghaffari	2237810
	04/08/2021	04/12/2021 15:00	Rebecca Ware	04/16/2021 19:35	Mohammad Ghaffari	2237811
	04/08/2021	04/12/2021 15:00	Rebecca Ware	04/16/2021 19:47	Mohammad Ghaffari	2237812
	04/08/2021	04/12/2021 15:00	Rebecca Ware	04/16/2021 19:59	Mohammad Ghaffari	2237813
	04/08/2021	04/12/2021 15:00	Rebecca Ware	04/16/2021 20:22	Mohammad Ghaffari	2237814