

Chemical Analysis Report

SW-DIST-2018-11-02-01

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

Event Description: **Rattlesnake, Braden, Cedar**
Request ID: **RQ-2018-11-26-11**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
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13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 14-NOV-2018 12:19

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first few letters of the first name.

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 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: Braden R @ Linker Lodge

Collection Date/Time: 11/01/2018 10:30

Field ID: G2SW0016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2038771	EPA 8321B	2,4-D	0.0020	U	ug/L	P354119	
		Sucralose**	1.2		ug/L	P354052	
		Bentazon	0.042		ug/L	P354119	
		MCP	0.0020	U	ug/L	P354119	MS
		Triclopyr**	0.0040	U	ug/L	P354119	
		Imidacloprid	0.032		ug/L	P354119	MS
		Diuron	0.030		ug/L	P354119	
		Pyraclostrobin**	0.0020	U	ug/L	P354119	
		Primidone**	0.0072	I	ug/L	P354119	
		Linuron	0.0040	U	ug/L	P354119	
		Acetaminophen**	0.0080	U	ug/L	P354119	
		Fenuron	0.016	U	ug/L	P354119	
		Imazapyr**	0.32		ug/L	P354119	
		Carbamazepine**	0.0020	I	ug/L	P354119	
		Fluridone**	0.036		ug/L	P354119	
		Hydrocodone**	8.0E-04	U	ug/L	P354119	
		Naproxen**	0.0080	U	ug/L	P354119	
		Ibuprofen**	0.020	U	ug/L	P354119	
		Acesulfame K**	0.15	I	ug/L	P354052	

Sample Location: Rattlesnake Slough @ Linden

Collection Date/Time: 11/01/2018 12:20

Field ID: G2SW0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2038773	EPA 8321B	2,4-D	0.012		ug/L	P354119	
		Sucralose**	0.38		ug/L	P354118	
		Bentazon	0.0051		ug/L	P354119	
		MCP	0.0020	U	ug/L	P354119	MS
		Triclopyr**	0.0040	U	ug/L	P354119	
		Imidacloprid	0.015		ug/L	P354119	MS
		Diuron	0.0020	U	ug/L	P354119	
		Pyraclostrobin**	0.0020	U	ug/L	P354119	
		Primidone**	0.0040	U	ug/L	P354119	
		Linuron	0.0040	U	ug/L	P354119	
		Acetaminophen**	0.0080	U	ug/L	P354119	
		Fenuron	0.016	U	ug/L	P354119	
		Imazapyr**	1.4		ug/L	P354119	
		Carbamazepine**	8.0E-04	U	ug/L	P354119	
		Fluridone**	0.13		ug/L	P354119	
		Hydrocodone**	8.0E-04	U	ug/L	P354119	
		Naproxen**	0.0080	U	ug/L	P354119	
		Ibuprofen**	0.020	U	ug/L	P354119	
		Acesulfame K**	0.20	I	ug/L	P354118	

Sample Location: Cedar Creek @ Saddlehorn

Collection Date/Time: 11/01/2018 11:50

Field ID: G2SW0018

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2038774	EPA 8321B	2,4-D	0.0067	I	ug/L	P354119	
		Sucralose**	0.018	I	ug/L	P354118	
		Bentazon	0.024		ug/L	P354119	
		MCP	0.0020	U	ug/L	P354119	MS
		Triclopyr**	0.0040	U	ug/L	P354119	
		Imidacloprid	0.034		ug/L	P354119	MS
		Diuron	0.0022	I	ug/L	P354119	
		Pyraclostrobin**	0.0020	U	ug/L	P354119	
		Primidone**	0.0040	U	ug/L	P354119	
		Linuron	0.0040	U	ug/L	P354119	
		Acetaminophen**	0.0080	U	ug/L	P354119	
		Fenuron	0.017	I	ug/L	P354119	
		Imazapyr**	1.8		ug/L	P354119	
		Carbamazepine**	8.0E-04	U	ug/L	P354119	
		Fluridone**	0.96		ug/L	P354119	
		Hydrocodone**	8.0E-04	U	ug/L	P354119	
		Naproxen**	0.0080	U	ug/L	P354119	
		Ibuprofen**	0.020	U	ug/L	P354119	
		Acesulfame K**	0.10	U	ug/L	P354118	

Sample Location: Cedar Creek near end of WBID

Collection Date/Time: 11/01/2018 11:20

Field ID: G2SW0042

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2038775	EPA 8321B	2,4-D	0.011		ug/L	P354119	
		Sucralose**	0.070		ug/L	P354118	
		Bentazon	0.027		ug/L	P354119	
		MCP	0.0020	U	ug/L	P354119	MS
		Triclopyr**	0.0040	U	ug/L	P354119	
		Imidacloprid	0.026		ug/L	P354119	MS
		Diuron	0.011		ug/L	P354119	
		Pyraclostrobin**	0.0020	U	ug/L	P354119	
		Primidone**	0.0040	U	ug/L	P354119	
		Linuron	0.0040	U	ug/L	P354119	
		Acetaminophen**	0.0080	U	ug/L	P354119	
		Fenuron	0.016	U	ug/L	P354119	
		Imazapyr**	0.71		ug/L	P354119	
		Carbamazepine**	8.0E-04	U	ug/L	P354119	
		Fluridone**	0.26		ug/L	P354119	
		Hydrocodone**	8.0E-04	U	ug/L	P354119	
		Naproxen**	0.0080	U	ug/L	P354119	
		Ibuprofen**	0.020	U	ug/L	P354119	
		Acesulfame K**	0.10	U	ug/L	P354118	

Sample Location: Rattlesnake Slough @ Lockwood Ridge Rd

Collection Date/Time: 11/01/2018 12:05

Field ID: G2SW0043

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2038776	EPA 8321B	2,4-D	0.0020	U	ug/L	P354119	
		Sucralose**	0.29		ug/L	P354118	
		Bentazon	0.0051		ug/L	P354119	
		MCP	0.0020	U	ug/L	P354119	MS
		Triclopyr**	0.0040	U	ug/L	P354119	
		Imidacloprid	0.022		ug/L	P354119	MS
		Diuron	0.0020	U	ug/L	P354119	
		Pyraclostrobin**	0.0020	U	ug/L	P354119	
		Primidone**	0.0040	U	ug/L	P354119	
		Linuron	0.0040	U	ug/L	P354119	
		Acetaminophen**	0.0080	U	ug/L	P354119	
		Fenuron	0.016	U	ug/L	P354119	
		Imazapyr**	2.5		ug/L	P354119	
		Carbamazepine**	8.0E-04	U	ug/L	P354119	
		Fluridone**	0.10		ug/L	P354119	
		Hydrocodone**	8.0E-04	U	ug/L	P354119	
		Naproxen**	0.0080	U	ug/L	P354119	
		Ibuprofen**	0.020	U	ug/L	P354119	
		Acesulfame K**	0.19	I	ug/L	P354118	

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P354052

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P354118

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P354119

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	4.0E-04	U	ug/L
Hydrocodone	8.0E-04	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
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P354052

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	83.2		P	40 - 150
Sucralose	88.1		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P354118

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	83.7		P	40 - 150
Sucralose	85.2		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P354119

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	94.5		P	40 - 150
Acetaminophen	94.2		P	30 - 150
Bentazon	71.6		P	30 - 150
Carbamazepine	85.4		P	40 - 150
Diuron	74.5		P	40 - 150
Fenuron	120		P	40 - 150
Fluridone	115		P	40 - 150
Hydrocodone	101		P	40 - 150
Ibuprofen	89.6		P	40 - 150
Imazapyr	91.8		P	40 - 150
Imidacloprid	111		P	40 - 160
Linuron	87.3		P	40 - 150
MCPP	108		P	40 - 150
Naproxen	91.3		P	40 - 150
Primidone	100		P	40 - 150
Pyraclostrobin	62.4		P	40 - 150
Triclopyr	105		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P354052

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038088	Acesulfame K	106	108	P/P	40 - 150
2038088	Sucralose	81.4	103	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P354118

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038773	Acesulfame K	120	115	P/P	40 - 150
2038773	Sucralose	94.8	84.4	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P354119

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038797	2,4-D	124	118	P/P	40 - 150
2038797	Acetaminophen	109	103	P/P	30 - 150
2038797	Bentazon	44.6	43.8	P/P	30 - 150
2038797	Carbamazepine	77.5	82.0	P/P	40 - 150
2038797	Diuron	59.4	63.8	P/P	40 - 150
2038797	Fenuron	108	126	P/P	40 - 150
2038797	Fluridone	117	123	P/P	40 - 150
2038797	Hydrocodone	125	134	P/P	40 - 150
2038797	Ibuprofen	71.6	68.7	P/P	40 - 150
2038797	Imazapyr	130	143	P/P	40 - 150
2038797	Imidacloprid	175	200	F/F	40 - 160
2038797	Linuron	80.2	81.4	P/P	40 - 150
2038797	MCP	152	129	F/P	40 - 150
2038797	Naproxen	90.3	104	P/P	40 - 150
2038797	Primidone	105	106	P/P	40 - 150
2038797	Pyraclostrobin	64.8	67.2	P/P	40 - 150
2038797	Triclopyr	136	133	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P354052

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038088	Acesulfame K	0.918	Spike	P	0 - 30
2038088	Sucralose	16.7	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P354118

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038773	Acesulfame K	3.85	Spike	P	0 - 30
2038773	Sucralose	9.90	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P354119

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038797	2,4-D	4.98	Spike	P	0 - 30
2038797	Acetaminophen	5.37	Spike	P	0 - 30
2038797	Bentazon	1.82	Spike	P	0 - 30
2038797	Carbamazepine	5.63	Spike	P	0 - 30
2038797	Diuron	7.05	Spike	P	0 - 30
2038797	Fenuron	15.7	Spike	P	0 - 30
2038797	Fluridone	4.74	Spike	P	0 - 30
2038797	Hydrocodone	6.83	Spike	P	0 - 30
2038797	Ibuprofen	4.11	Spike	P	0 - 30
2038797	Imazapyr	9.15	Spike	P	0 - 30
2038797	Imidacloprid	13.4	Spike	P	0 - 30
2038797	Linuron	1.53	Spike	P	0 - 30
2038797	MCP	16.4	Spike	P	0 - 30
2038797	Naproxen	13.9	Spike	P	0 - 30
2038797	Primidone	1.06	Spike	P	0 - 30
2038797	Pyraclostrobin	3.70	Spike	P	0 - 30
2038797	Triclopyr	2.46	Spike	P	0 - 30

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Lab Sample ID: 2038771
Field Sample ID: G2SW0016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	89.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	128	P	30 - 160
EPA 8321B	Carbamazepine-d10	75.2	P	30 - 160
EPA 8321B	Diuron-d6	81.7	P	30 - 160
EPA 8321B	Endothall-d6	132	P	40 - 160
EPA 8321B	Endothall-d6	132	P	40 - 160
EPA 8321B	Ibuprofen-d3	82.2	P	30 - 160
EPA 8321B	Primidone-d5	99.1	P	30 - 160
EPA 8321B	Sucralose-d6	123	P	40 - 160
EPA 8321B	Sucralose-d6	123	P	40 - 160

Lab Sample ID: 2038773
Field Sample ID: G2SW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	105	P	30 - 160
EPA 8321B	Acetaminophen-d4	128	P	30 - 160
EPA 8321B	Carbamazepine-d10	70.6	P	30 - 160
EPA 8321B	Diuron-d6	75.1	P	30 - 160
EPA 8321B	Endothall-d6	101	P	40 - 160
EPA 8321B	Endothall-d6	101	P	40 - 160
EPA 8321B	Ibuprofen-d3	87.7	P	30 - 160
EPA 8321B	Primidone-d5	89.9	P	30 - 160
EPA 8321B	Sucralose-d6	94.8	P	40 - 160
EPA 8321B	Sucralose-d6	94.8	P	40 - 160

Lab Sample ID: 2038774
Field Sample ID: G2SW0018

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	106	P	30 - 160
EPA 8321B	Acetaminophen-d4	114	P	30 - 160
EPA 8321B	Carbamazepine-d10	67.9	P	30 - 160
EPA 8321B	Diuron-d6	72.7	P	30 - 160
EPA 8321B	Endothall-d6	105	P	40 - 160
EPA 8321B	Endothall-d6	105	P	40 - 160
EPA 8321B	Ibuprofen-d3	87.5	P	30 - 160
EPA 8321B	Primidone-d5	100	P	30 - 160
EPA 8321B	Sucralose-d6	96.3	P	40 - 160
EPA 8321B	Sucralose-d6	96.3	P	40 - 160

Lab Sample ID: 2038775
Field Sample ID: G2SW0042

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	111	P	30 - 160
EPA 8321B	Acetaminophen-d4	113	P	30 - 160
EPA 8321B	Carbamazepine-d10	65.1	P	30 - 160
EPA 8321B	Diuron-d6	70.5	P	30 - 160
EPA 8321B	Endothall-d6	104	P	40 - 160
EPA 8321B	Endothall-d6	104	P	40 - 160
EPA 8321B	Ibuprofen-d3	96.1	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2038775
Field Sample ID: G2SW0042

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Primidone-d5	81.8	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	40 - 160
EPA 8321B	Sucralose-d6	106	P	40 - 160

Lab Sample ID: 2038776
Field Sample ID: G2SW0043

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	97.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	105	P	30 - 160
EPA 8321B	Carbamazepine-d10	63.1	P	30 - 160
EPA 8321B	Diuron-d6	68.5	P	30 - 160
EPA 8321B	Endothall-d6	111	P	40 - 160
EPA 8321B	Endothall-d6	111	P	40 - 160
EPA 8321B	Ibuprofen-d3	94.9	P	30 - 160
EPA 8321B	Primidone-d5	79.7	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	40 - 160
EPA 8321B	Sucralose-d6	104	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A87510
Included Lab Sample IDs: 2038771

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	79.9	80.5	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A87535
Included Lab Sample IDs: 2038771

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	80.8	84.2	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A87605
Included Lab Sample IDs: 2038773, 2038774, 2038775, 2038776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	85.8	82.0	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A87626
Included Lab Sample IDs: 2038771, 2038773, 2038774, 2038775, 2038776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	83.0	100	P/P	50 - 150
2,4-D	94.0	83.0	P/P	50 - 150
Bentazon	104	106	P/P	50 - 160
Bentazon	112	104	P/P	50 - 160
Ibuprofen	104	98.4	P/P	50 - 160
Ibuprofen	72.0	104	P/P	50 - 160
MCP	103	104	P/P	50 - 150
MCP	98.9	103	P/P	50 - 150
Naproxen	110	104	P/P	50 - 160
Naproxen	87.7	110	P/P	50 - 160
Triclopyr	103	95.7	P/P	50 - 160
Triclopyr	95.7	97.1	P/P	50 - 160

Reference Method: EPA 8321B
Run ID: A87650
Included Lab Sample IDs: 2038773, 2038774, 2038775, 2038776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	72.7	84.6	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A87708
Included Lab Sample IDs: 2038771, 2038773, 2038774, 2038775, 2038776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	101	102	P/P	60 - 160
Acetaminophen	110	101	P/P	60 - 160
Carbamazepine	106	104	P/P	60 - 160
Carbamazepine	110	106	P/P	60 - 160
Diuron	108	110	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A87708

Included Lab Sample IDs: 2038771, 2038773, 2038774, 2038775, 2038776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Diuron	110	115	P/P	60 - 150
Fenuron	121	122	P/P	60 - 150
Fenuron	122	119	P/P	60 - 150
Fluridone	124	120	P/P	60 - 160
Fluridone	124	127	P/P	60 - 160
Fluridone	127	122	P/P	60 - 160
Hydrocodone	100	109	P/P	60 - 150
Hydrocodone	109	122	P/P	60 - 150
Imazapyr	82.3	98.7	P/P	50 - 150
Imazapyr	86.1	94.5	P/P	50 - 150
Imazapyr	98.7	97.5	P/P	50 - 150
Imidacloprid	105	97.1	P/P	60 - 160
Imidacloprid	111	105	P/P	60 - 160
Linuron	121	125	P/P	60 - 150
Linuron	125	125	P/P	60 - 150
Primidone	111	118	P/P	60 - 160
Primidone	99.2	111	P/P	60 - 160
Pyraclostrobin	94.8	98.4	P/P	60 - 150
Pyraclostrobin	99.2	94.8	P/P	60 - 150

* 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	MS
EPA 8321B	2,4-D	94.5	124	118		4.98
	Acesulfame K	83.2	106	108		0.918
	Acesulfame K	83.7	120	115		3.85
	Acetaminophen	94.2	109	103		5.37
	Bentazon	71.6	44.6	43.8		1.82
	Carbamazepine	85.4	77.5	82.0		5.63
	Diuron	74.5	59.4	63.8		7.05
	Fenuron	120	108	126		15.7
	Fluridone	115	117	123		4.74
	Hydrocodone	101	125	134		6.83
	Ibuprofen	89.6	71.6	68.7		4.11
	Imazapyr	91.8	130	143		9.15
	Imidacloprid	111	175	200		13.4
	Linuron	87.3	80.2	81.4		1.53
	MCPP	108	152	129		16.4
	Naproxen	91.3	90.3	104		13.9
	Primidone	100	105	106		1.06
	Pyraclostrobin	62.4	64.8	67.2		3.70
	Sucralose	88.1	81.4	103		16.7
	Sucralose	85.2	94.8	84.4		9.90
	Triclopyr	105	136	133		2.46

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2038771, 2038773, 2038774, 2038775, 2038776
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2038771, 2038773, 2038774, 2038775, 2038776

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	11/02/2018	11/02/2018 12:30	Rebecca Ware	11/02/2018 17:43	Rebecca Ware	2038771
	11/02/2018	11/02/2018 12:30	Rebecca Ware	11/05/2018 17:31	Mohammad Ghaffari	2038771
	11/02/2018	11/07/2018 08:30	Mohammad Ghaffari	11/07/2018 10:23	Mohammad Ghaffari	2038773
	11/02/2018	11/07/2018 08:30	Mohammad Ghaffari	11/07/2018 11:12	Mohammad Ghaffari	2038774
	11/02/2018	11/07/2018 08:30	Mohammad Ghaffari	11/07/2018 11:27	Mohammad Ghaffari	2038775
	11/02/2018	11/07/2018 08:30	Mohammad Ghaffari	11/07/2018 11:41	Mohammad Ghaffari	2038776
	11/02/2018	11/07/2018 08:30	Mohammad Ghaffari	11/08/2018 15:09	Mohammad Ghaffari	2038773
	11/02/2018	11/07/2018 08:30	Mohammad Ghaffari	11/08/2018 15:23	Mohammad Ghaffari	2038774
	11/02/2018	11/07/2018 08:30	Mohammad Ghaffari	11/08/2018 15:37	Mohammad Ghaffari	2038775
	11/02/2018	11/07/2018 08:30	Mohammad Ghaffari	11/08/2018 15:51	Mohammad Ghaffari	2038776
	11/02/2018	11/07/2018 10:00	Hoor Shaik	11/09/2018 00:14	Juyoung Kim	2038771
	11/02/2018	11/07/2018 10:00	Hoor Shaik	11/09/2018 00:49	Juyoung Kim	2038773
	11/02/2018	11/07/2018 10:00	Hoor Shaik	11/09/2018 01:23	Juyoung Kim	2038774
	11/02/2018	11/07/2018 10:00	Hoor Shaik	11/09/2018 02:33	Juyoung Kim	2038775
	11/02/2018	11/07/2018 10:00	Hoor Shaik	11/09/2018 03:07	Juyoung Kim	2038776
	11/02/2018	11/07/2018 10:00	Hoor Shaik	11/10/2018 08:07	Juyoung Kim	2038771
	11/02/2018	11/07/2018 10:00	Hoor Shaik	11/10/2018 08:42	Juyoung Kim	2038773
	11/02/2018	11/07/2018 10:00	Hoor Shaik	11/10/2018 09:16	Juyoung Kim	2038774
	11/02/2018	11/07/2018 10:00	Hoor Shaik	11/10/2018 10:26	Juyoung Kim	2038775
	11/02/2018	11/07/2018 10:00	Hoor Shaik	11/10/2018 11:00	Juyoung Kim	2038776
	11/02/2018	11/07/2018 10:00	Hoor Shaik	11/13/2018 10:25	Juyoung Kim	2038773
	11/02/2018	11/07/2018 10:00	Hoor Shaik	11/13/2018 11:00	Juyoung Kim	2038774
	11/02/2018	11/07/2018 10:00	Hoor Shaik	11/13/2018 11:34	Juyoung Kim	2038776