

Chemical Analysis Report

SW-DIST-2019-02-22-01

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

Event Description: **SMP - Alafia, Alafia, 30 Mile, and McDonalds**
Request ID: **RQ-2019-02-18-24**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 05-MAR-2019 16:39

A handwritten signature in black ink, appearing to read "Liang Lin", 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 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: ALAFIA RIVER @ CENTER AVE

Collection Date/Time: 02/21/2019 11:10

Field ID: G2SW0045

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2064793	EPA 8321B	2,4-D	0.0053	I	ug/L	P359229	
		Acesulfame K**	0.10	UJ	ug/L	P359489	CCV
		AMPA**	0.56		ug/L	P359489	
		Sucralose**	4.3		ug/L	P359489	
		Endothall**	0.25	U	ug/L	P359489	
		Acetaminophen**	0.0080	U	ug/L	P359229	
		Glufosinate**	0.10	U	ug/L	P359489	
		Glyphosate**	0.36	I	ug/L	P359489	
		Bentazon	0.026		ug/L	P359229	
		Carbamazepine**	0.0052		ug/L	P359229	
		Diuron	0.0020	U	ug/L	P359229	
		Fenuron	0.016	U	ug/L	P359229	
		Fluridone**	0.0064		ug/L	P359229	
		Imazapyr**	0.093		ug/L	P359229	
		Hydrocodone**	0.0020	U	ug/L	P359229	
		Ibuprofen**	0.020	U	ug/L	P359229	
		Imidacloprid	0.018		ug/L	P359229	MS
		Linuron	0.0040	U	ug/L	P359229	
		MCPP	0.0020	U	ug/L	P359229	
		Naproxen**	0.0080	U	ug/L	P359229	
		Primidone**	0.021		ug/L	P359229	
		Pyraclostrobin**	0.0020	U	ug/L	P359229	
		Triclopyr**	0.0040	U	ug/L	P359229	

Ref. Method and Comment:

EPA 8321B: Refer to the narrative for an explanation of QC Codes.

Sample Location: ALAFIA R @ BOAT RAMP DOCK

Collection Date/Time: 02/21/2019 11:45

Field ID: G2SW0091

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2064785	EPA 8321B	Acesulfame K**	0.10	U	ug/L	P359489	
		2,4-D	0.0059	I	ug/L	P359229	
		AMPA**	0.10	UJ	ug/L	P359489	SUR
		Sucralose**	2.5		ug/L	P359489	
		Endothall**	0.25	U	ug/L	P359489	
		Acetaminophen**	0.0080	U	ug/L	P359229	
		Glufosinate**	0.10	UJ	ug/L	P359489	SUR
		Bentazon	0.019		ug/L	P359229	
		Glyphosate**	0.10	UJ	ug/L	P359489	SUR
		Carbamazepine**	0.0041		ug/L	P359229	
		Diuron	0.0029	I	ug/L	P359229	
		Fenuron	0.016	U	ug/L	P359229	
		Fluridone**	0.0059		ug/L	P359229	
		Imazapyr**	0.058		ug/L	P359229	
		Hydrocodone**	0.0020	U	ug/L	P359229	
		Ibuprofen**	0.020	U	ug/L	P359229	
		Imidacloprid	0.012		ug/L	P359229	MS
		Linuron	0.0040	U	ug/L	P359229	
		MCPP	0.0020	U	ug/L	P359229	
		Naproxen**	0.0080	U	ug/L	P359229	
		Primidone**	0.015	I	ug/L	P359229	
		Pyraclostrobin**	0.0020	U	ug/L	P359229	
		Triclopyr**	0.0040	U	ug/L	P359229	

Ref. Method and Comment:

EPA 8321B: Refer to the narrative for an explanation of QC Codes. Results confirmed in re-extraction.

**Sample Location: THIRTYMILE CREEK @ TRAIN TRACKS
MOSAIC**

Collection Date/Time: 02/21/2019 09:30

Field ID: G2SW0047

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2064786	EPA 8321B	2,4-D	0.0020	U	ug/L	P359229	
		Acesulfame K**	0.10	UJ	ug/L	P359489	CCV
		AMPA**	0.22	I	ug/L	P359489	
		Sucralose**	0.063		ug/L	P359489	
		Endothall**	0.25	U	ug/L	P359489	
		Acetaminophen**	0.0080	U	ug/L	P359229	
		Glufosinate**	0.10	U	ug/L	P359489	
		Glyphosate**	0.11	I	ug/L	P359489	
		Bentazon	8.0E-04	U	ug/L	P359229	
		Carbamazepine**	8.0E-04	U	ug/L	P359229	
		Diuron	0.0020	U	ug/L	P359229	
		Fenuron	0.016	U	ug/L	P359229	
		Fluridone**	8.0E-04	U	ug/L	P359229	
		Imazapyr**	0.072		ug/L	P359229	
		Hydrocodone**	0.0020	U	ug/L	P359229	
		Ibuprofen**	0.020	U	ug/L	P359229	
		Imidacloprid	0.0020	U	ug/L	P359229	MS
		Linuron	0.0040	U	ug/L	P359229	
		MCPP	0.0020	U	ug/L	P359229	
		Naproxen**	0.0080	U	ug/L	P359229	
		Primidone**	0.0040	U	ug/L	P359229	
		Pyraclostrobin**	0.0020	U	ug/L	P359229	
		Triclopyr**	0.0040	U	ug/L	P359229	

Ref. Method and Comment:

EPA 8321B: Refer to the narrative for an explanation of QC Codes.

Sample Location: THIRTYMILE CREEK @ NICHOLS RD

Collection Date/Time: 02/21/2019 10:00

Field ID: G2SW0046

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2064787	EPA 8321B	2,4-D	0.0020	U	ug/L	P359229	
		Acesulfame K**	0.10	UJ	ug/L	P359489	CCV
		AMPA**	0.24	I	ug/L	P359489	
		Sucralose**	0.15		ug/L	P359489	
		Endothall**	0.25	U	ug/L	P359489	
		Acetaminophen**	0.0080	U	ug/L	P359229	
		Glufosinate**	0.10	U	ug/L	P359489	
		Glyphosate**	0.12	I	ug/L	P359489	
		Bentazon	8.0E-04	U	ug/L	P359229	
		Carbamazepine**	8.0E-04	U	ug/L	P359229	
		Diuron	0.0020	U	ug/L	P359229	
		Fenuron	0.016	U	ug/L	P359229	
		Fluridone**	8.0E-04	U	ug/L	P359229	
		Imazapyr**	0.075		ug/L	P359229	
		Hydrocodone**	0.0020	U	ug/L	P359229	
		Ibuprofen**	0.020	U	ug/L	P359229	
		Imidacloprid	0.0020	U	ug/L	P359229	MS
		Linuron	0.0040	U	ug/L	P359229	
		MCPP	0.0020	U	ug/L	P359229	
		Naproxen**	0.0080	U	ug/L	P359229	
		Primidone**	0.0040	U	ug/L	P359229	
		Pyraclostrobin**	0.0020	U	ug/L	P359229	
		Triclopyr**	0.0040	U	ug/L	P359229	

Ref. Method and Comment:

EPA 8321B: Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P359229

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	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
MCP	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

Reference Method: EPA 8321B

Batch ID: P359489

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: P359229

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	84.2		P	40 - 150
Acetaminophen	94.8		P	30 - 150
Bentazon	112		P	30 - 150
Carbamazepine	89.6		P	40 - 150
Diuron	83.6		P	40 - 150
Fenuron	129		P	40 - 150
Fluridone	114		P	40 - 150
Hydrocodone	115		P	40 - 150
Ibuprofen	78.0		P	40 - 150
Imazapyr	102		P	40 - 150
Imidacloprid	104		P	40 - 150
Linuron	82.6		P	40 - 150
MCPP	97.3		P	40 - 150
Naproxen	75.3		P	40 - 150
Primidone	103		P	40 - 150
Pyraclostrobin	69.3		P	40 - 150
Triclopyr	56.7		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P359489

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	115		P	40 - 150
AMPA	93.3		P	40 - 150
Endothall	89.1		P	40 - 150
Glufosinate	121		P	40 - 150
Glyphosate	104		P	40 - 140
Sucralose	94.4		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
 Batch ID: P359229

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2065167	2,4-D	107	100	P/P	40 - 150
2065167	Acetaminophen	103	103	P/P	30 - 150
2065167	Bentazon	90.7	73.0	P/P	30 - 150
2065167	Carbamazepine	79.7	79.0	P/P	40 - 150
2065167	Diuron	74.6	72.4	P/P	40 - 150
2065167	Fenuron	111	105	P/P	40 - 150
2065167	Fluridone	117	111	P/P	40 - 150
2065167	Hydrocodone	124	123	P/P	40 - 150
2065167	Ibuprofen	83.8	77.5	P/P	40 - 150
2065167	Imazapyr	111	99.2	P/P	40 - 150
2065167	Imidacloprid	194	192	F/F	40 - 150
2065167	Linuron	78.0	71.2	P/P	40 - 150
2065167	MCP	123	113	P/P	40 - 150
2065167	Naproxen	71.6	67.4	P/P	40 - 150
2065167	Primidone	119	116	P/P	40 - 150
2065167	Pyraclostrobin	86.3	81.4	P/P	40 - 150
2065167	Triclopyr	67.3	59.4	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P359489

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2064785	Acesulfame K	140	135	P/P	40 - 150
2064785	Endothall	91.8	93.3	P/P	40 - 150
2064785	Sucralose	113	126	P/P	40 - 150
2064793	AMPA	68.0	67.8	P/P	40 - 150
2064793	Glufosinate	77.2	84.3	P/P	40 - 150
2064793	Glyphosate	94.7	103	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P359229

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2065167	2,4-D	6.48	Spike	P	0 - 30
2065167	Acetaminophen	0.828	Spike	P	0 - 30
2065167	Bentazon	6.36	Spike	P	0 - 30
2065167	Carbamazepine	0.809	Spike	P	0 - 30
2065167	Diuron	3.06	Spike	P	0 - 30
2065167	Fenuron	5.16	Spike	P	0 - 30
2065167	Fluridone	4.45	Spike	P	0 - 30
2065167	Hydrocodone	0.752	Spike	P	0 - 30
2065167	Ibuprofen	7.83	Spike	P	0 - 30
2065167	Imazapyr	4.88	Spike	P	0 - 30
2065167	Imidacloprid	0.779	Spike	P	0 - 30
2065167	Linuron	9.10	Spike	P	0 - 30
2065167	MCPP	8.15	Spike	P	0 - 30
2065167	Naproxen	6.05	Spike	P	0 - 30
2065167	Primidone	2.81	Spike	P	0 - 30
2065167	Pyraclostrobin	5.86	Spike	P	0 - 30
2065167	Triclopyr	12.4	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P359489

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2064785	Acesulfame K	3.78	Spike	P	0 - 30
2064785	Endothall	1.58	Spike	P	0 - 30
2064785	Sucralose	5.78	Spike	P	0 - 30
2064793	AMPA	0.147	Spike	P	0 - 30
2064793	Glufosinate	8.84	Spike	P	0 - 30
2064793	Glyphosate	5.97	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: 2064785
Field Sample ID: G2SW0091

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	117	P	30 - 160
EPA 8321B	Acetaminophen-d4	119	P	30 - 160
EPA 8321B	Carbamazepine-d10	80.9	P	30 - 160
EPA 8321B	Diuron-d6	79.2	P	30 - 160
EPA 8321B	Endothall-d6	118	P	40 - 160
EPA 8321B	Endothall-d6	118	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	4.16	F	40 - 160
EPA 8321B	Glyphosate 13C 15N	4.16	F	40 - 160
EPA 8321B	Ibuprofen-d3	98.0	P	30 - 160
EPA 8321B	Primidone-d5	113	P	30 - 160
EPA 8321B	Sucralose-d6	95.6	P	40 - 160
EPA 8321B	Sucralose-d6	95.6	P	40 - 160

Lab Sample ID: 2064786
Field Sample ID: G2SW0047

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	83.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	104	P	30 - 160
EPA 8321B	Carbamazepine-d10	64.5	P	30 - 160
EPA 8321B	Diuron-d6	62.2	P	30 - 160
EPA 8321B	Endothall-d6	110	P	40 - 160
EPA 8321B	Endothall-d6	110	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	109	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	109	P	40 - 160
EPA 8321B	Ibuprofen-d3	78.1	P	30 - 160
EPA 8321B	Primidone-d5	93.6	P	30 - 160
EPA 8321B	Sucralose-d6	99.2	P	40 - 160
EPA 8321B	Sucralose-d6	99.2	P	40 - 160

Lab Sample ID: 2064787
Field Sample ID: G2SW0046

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	90.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	105	P	30 - 160
EPA 8321B	Carbamazepine-d10	64.6	P	30 - 160
EPA 8321B	Diuron-d6	61.6	P	30 - 160
EPA 8321B	Endothall-d6	110	P	40 - 160
EPA 8321B	Endothall-d6	110	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	118	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	118	P	40 - 160
EPA 8321B	Ibuprofen-d3	78.9	P	30 - 160
EPA 8321B	Primidone-d5	91.7	P	30 - 160
EPA 8321B	Sucralose-d6	119	P	40 - 160
EPA 8321B	Sucralose-d6	119	P	40 - 160

Lab Sample ID: 2064793
Field Sample ID: G2SW0045

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	87.8	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2064793
Field Sample ID: G2SW0045

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	120	P	30 - 160
EPA 8321B	Carbamazepine-d10	79.9	P	30 - 160
EPA 8321B	Diuron-d6	77.4	P	30 - 160
EPA 8321B	Endothall-d6	120	P	40 - 160
EPA 8321B	Endothall-d6	120	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	81.8	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	81.8	P	40 - 160
EPA 8321B	Ibuprofen-d3	92.9	P	30 - 160
EPA 8321B	Primidone-d5	109	P	30 - 160
EPA 8321B	Sucralose-d6	124	P	40 - 160
EPA 8321B	Sucralose-d6	124	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A89650

Included Lab Sample IDs: 2064785, 2064786, 2064787, 2064793

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	85.8	92.0	P/P	60 - 160
AMPA	85.8	85.8	P/P	60 - 160
Glufosinate	115	98.7	P/P	60 - 160
Glufosinate	98.7	98.9	P/P	60 - 160
Glyphosate	101	99.8	P/P	60 - 160
Glyphosate	105	101	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A89665

Included Lab Sample IDs: 2064785, 2064786, 2064787, 2064793

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	115	134	P/P	60 - 160
Acesulfame K	134	165*	P/F	60 - 160
Endothall	91.6	135	P/P	60 - 160
Endothall	97.7	91.6	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A89717

Included Lab Sample IDs: 2064785, 2064786, 2064787, 2064793

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	107	122	P/P	50 - 150
Acetaminophen	112	115	P/P	60 - 160
Bentazon	118	116	P/P	50 - 160
Carbamazepine	106	104	P/P	60 - 150
Diuron	111	113	P/P	60 - 150
Fenuron	109	111	P/P	60 - 150
Fluridone	109	111	P/P	60 - 160
Hydrocodone	110	111	P/P	60 - 150
Ibuprofen	106	87.8	P/P	50 - 160
Imazapyr	101	98.8	P/P	50 - 150
Imidacloprid	100	103	P/P	60 - 150
Linuron	110	105	P/P	60 - 150
MCPP	87.3	88.8	P/P	50 - 150
Naproxen	107	96.9	P/P	50 - 160
Primidone	104	104	P/P	60 - 150
Pyraclostrobin	101	102	P/P	60 - 150
Triclopyr	86.8	93.9	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A89762

Included Lab Sample IDs: 2064785, 2064786, 2064787, 2064793

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	126	93.9	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 SMP	MS
			LCS			
EPA 8321B	2,4-D	84.2	107	100		6.48
	Acesulfame K	115	140	135		3.78
	Acetaminophen	94.8	103	103		0.828
	AMPA	93.3	68.0	67.8		0.147
	Bentazon	112	90.7	73.0		6.36
	Carbamazepine	89.6	79.7	79.0		0.809
	Diuron	83.6	74.6	72.4		3.06
	Endothall	89.1	91.8	93.3		1.58
	Fenuron	129	111	105		5.16
	Fluridone	114	117	111		4.45
	Glufosinate	121	77.2	84.3		8.84
	Glyphosate	104	94.7	103		5.97
	Hydrocodone	115	124	123		0.752
	Ibuprofen	78.0	83.8	77.5		7.83
	Imazapyr	102	111	99.2		4.88
	Imidacloprid	104	194	192		0.779
	Linuron	82.6	78.0	71.2		9.10
	MCPP	97.3	123	113		8.15
	Naproxen	75.3	71.6	67.4		6.05
	Primidone	103	119	116		2.81
	Pyraclostrobin	69.3	86.3	81.4		5.86
	Sucralose	94.4	113	126		5.78
	Triclopyr	56.7	67.3	59.4		12.4

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2064785, 2064786, 2064787, 2064793
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2064785, 2064786, 2064787, 2064793

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	02/22/2019	02/26/2019 09:30	Mohammad Ghaffari	02/26/2019 10:11	Mohammad Ghaffari	2064785
	02/22/2019	02/26/2019 09:30	Mohammad Ghaffari	02/26/2019 10:21	Mohammad Ghaffari	2064786
	02/22/2019	02/26/2019 09:30	Mohammad Ghaffari	02/26/2019 11:04	Mohammad Ghaffari	2064787
	02/22/2019	02/26/2019 09:30	Mohammad Ghaffari	02/26/2019 11:15	Mohammad Ghaffari	2064793
	02/22/2019	02/26/2019 09:30	Mohammad Ghaffari	02/26/2019 15:44	Mohammad Ghaffari	2064785
	02/22/2019	02/26/2019 09:30	Mohammad Ghaffari	02/26/2019 16:09	Mohammad Ghaffari	2064786
	02/22/2019	02/26/2019 09:30	Mohammad Ghaffari	02/26/2019 16:22	Mohammad Ghaffari	2064787
	02/22/2019	02/26/2019 09:30	Mohammad Ghaffari	02/26/2019 16:35	Mohammad Ghaffari	2064793
	02/22/2019	02/26/2019 09:30	Mohammad Ghaffari	03/02/2019 18:10	Mohammad Ghaffari	2064785
	02/22/2019	02/26/2019 09:30	Mohammad Ghaffari	03/02/2019 18:23	Mohammad Ghaffari	2064786
	02/22/2019	02/26/2019 09:30	Mohammad Ghaffari	03/02/2019 18:36	Mohammad Ghaffari	2064787
	02/22/2019	02/26/2019 09:30	Mohammad Ghaffari	03/02/2019 18:49	Mohammad Ghaffari	2064793
	02/22/2019	02/27/2019 09:30	Hoor Shaik	02/28/2019 02:07	Juyoung Kim	2064785
	02/22/2019	02/27/2019 09:30	Hoor Shaik	02/28/2019 02:42	Juyoung Kim	2064786
	02/22/2019	02/27/2019 09:30	Hoor Shaik	02/28/2019 03:16	Juyoung Kim	2064787
	02/22/2019	02/27/2019 09:30	Hoor Shaik	02/28/2019 03:51	Juyoung Kim	2064793