



12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Report Number: 24-009899/D002.R000
Report Date: 09/12/2024
ORELAP#: OR100028
Purchase Order:
Received: 09/05/24 11:40

Customer: Utokia Herb Co
Product identity: Live Delta 9 Huckleberry .
Client/Metric ID:
Laboratory ID: 24-009899-0002

Summary

Potency:

Analyte per 8g	Result	Limits	Units	Status	
CBD-A per 8g	2.53		mg/8g		Delta-9-THC-Total per 19.3 mg/8g
CBG per 8g	0.767		mg/8g		
CBN per 8g	9.44		mg/8g		CBD-Total per Serving Size 2.22 mg/8g
Δ9-THC per 8g	19.3		mg/8g		(Reported in milligrams per serving)

Residual Solvents:

All analytes passing and less than LOQ.

Pesticides:

All analytes passing and less than LOQ.

Metals:

Less than LOQ for all analytes.

Microbiology:

Less than LOQ for all analytes.



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Received: 09/05/24 11:40

Product identity: Live Delta 9 Knockout Gummy - Huckleberry
Client/Metric ID: 24-009899-0002
Sample Date: No
Laboratory ID: 22.6 °C
Evidence of Cooling: Client
Temp: Relinquished
by: Lot #: 3009NC-090524
Serving Size #1: 8 g

Sample Results

Potency per 8g	Method: J AOAC 2015 V98-6 (mod) ^b	Units mg/se	Batch: 2406875	Analyze: 9/6/24 6:01:00 PM	
Analyte	Result	Limits	Units	LOQ	Notes
CBD per 8g	< LOQ		mg/8g	0.252	
CBD-A per 8g [±]	2.53		mg/8g	0.252	
CBD-Total per 8g [±]	2.22		mg/8g	0.473	
CBG per 8g	0.767		mg/8g	0.252	
CBG-A per 8g	< LOQ		mg/8g	0.252	
CBG-Total per 8g	0.767		mg/8g	0.471	
CBN per 8g	9.44		mg/8g	0.252	
Δ10-THC-9R per 8g	< LOQ		mg/8g	0.252	
Δ10-THC-9S per 8g	< LOQ		mg/8g	0.252	
Δ10-THC-Total per 8g	< LOQ		mg/8g	0.504	
Δ8-THC per 8g [±]	< LOQ		mg/8g	0.252	
Δ9-THC per 8g [±]	19.3		mg/8g	0.252	
Δ9-THC-Total per 8g	19.3		mg/8g	0.473	
THC-A per 8g [±]	< LOQ		mg/8g	0.252	

Microbiology							
Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status Notes
Aerobic Plate Count	< LOQ		cfu/g	10	2406829	09/08/24 AOAC 990.12 (Petrifilm)	
E.coli	< LOQ		cfu/g	10	2406827	09/08/24 AOAC 991.14 (Petrifilm)	
Total Coliforms	< LOQ		cfu/g	10	2406827	09/08/24 AOAC 991.14 (Petrifilm)	
Staphylococcus aureus	< LOQ		cfu/g	10	2406830	09/07/24 AOAC 2003.07	
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2406828	09/09/24 AOAC 2014.05 (RAPID)	
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2406828	09/09/24 AOAC 2014.05 (RAPID)	
Listeria spp.	Negative	/5g			2406833	09/07/24 AOAC 2019.10	
Salmonella spp. by PCR [±]	Negative	/5g			2406831	09/07/24 AOAC 2020.02 ^b	
EHEC including STEC [±]	Negative	/5g			2406832	09/07/24 AOAC RI 121806 ^b	



Solvents											Method: Residual Solvents by HS-GC-MS ^b					Units µg/g		Batch 2406927		Analyze 09/10/24 11:16 AM				
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes							
1,4-Dioxane [⊥]	< LOQ	380	100	pass		2-Butanol [⊥]	< LOQ	5000	200	pass		2-Butanol [⊥]	< LOQ	5000	200	pass								
2-Ethoxyethanol [⊥]	< LOQ	160	30.0	pass		2-Methylbutane (Isopentane) [⊥]	< LOQ		200			2-Methylbutane (Isopentane) [⊥]	< LOQ		200									
2-Methylpentane [⊥]	< LOQ		30.0			2-Propanol (IPA) [⊥]	< LOQ	5000	200	pass		2-Propanol (IPA) [⊥]	< LOQ	5000	200	pass								
2,2-Dimethylbutane [⊥]	< LOQ		30.0			2,2-Dimethylpropane (neo-pentane) [⊥]	< LOQ		200			2,2-Dimethylpropane (neo-pentane) [⊥]	< LOQ		200									
2,3-Dimethylbutane [⊥]	< LOQ		30.0			3-Methylpentane [⊥]	< LOQ		30.0			3-Methylpentane [⊥]	< LOQ		30.0									
Acetone [⊥]	< LOQ	5000	200	pass		Acetonitrile [⊥]	< LOQ	410	100	pass		Acetonitrile [⊥]	< LOQ	410	100	pass								
Benzene [⊥]	< LOQ	2.00	1.00	pass		Butanes (sum) [⊥]	< LOQ	5000	400	pass		Butanes (sum) [⊥]	< LOQ	5000	400	pass								
Cyclohexane [⊥]	< LOQ	3880	200	pass		Ethyl acetate [⊥]	< LOQ	5000	200	pass		Ethyl acetate [⊥]	< LOQ	5000	200	pass								
Ethyl benzene	< LOQ		200			Ethyl ether [⊥]	< LOQ	5000	200	pass		Ethyl ether [⊥]	< LOQ	5000	200	pass								
Ethylene glycol [⊥]	< LOQ	620	200	pass		Ethylene oxide [⊥]	< LOQ	50.0	20.0	pass		Ethylene oxide [⊥]	< LOQ	50.0	20.0	pass								
Hexanes (sum) [⊥]	< LOQ	290	150	pass		Isopropyl acetate [⊥]	< LOQ	5000	200	pass		Isopropyl acetate [⊥]	< LOQ	5000	200	pass								
Isopropylbenzene (Cumene) [⊥]	< LOQ	70.0	30.0	pass		m,p-Xylene [⊥]	< LOQ		200			m,p-Xylene [⊥]	< LOQ		200									
Methanol [⊥]	< LOQ	3000	200	pass		Methylene chloride [⊥]	< LOQ	600	60.0	pass		Methylene chloride [⊥]	< LOQ	600	60.0	pass								
Methylpropane (Isobutane) [⊥]	< LOQ		200			n-Butane [⊥]	< LOQ		200			n-Butane [⊥]	< LOQ		200									
n-Heptane [⊥]	< LOQ	5000	200	pass		n-Hexane [⊥]	< LOQ		30.0			n-Hexane [⊥]	< LOQ		30.0									
n-Pentane [⊥]	< LOQ		200			o-Xylene [⊥]	< LOQ		200			o-Xylene [⊥]	< LOQ		200									
Pentanes (sum)	< LOQ	5000	600	pass		Propane	< LOQ	5000	200	pass		Propane	< LOQ	5000	200	pass								
Tetrahydrofuran [⊥]	< LOQ	720	100	pass		Toluene [⊥]	< LOQ	890	100	pass		Toluene [⊥]	< LOQ	890	100	pass								
Total Xylenes [⊥]	< LOQ		400			Total Xylenes and Ethyl benzene	< LOQ	2170	600	pass		Total Xylenes and Ethyl benzene	< LOQ	2170	600	pass								



Pesticides											
Method: AOAC 2007.01 & EN 15662 (mod)					Units mg/kg		Batch 2406946		Analyze 09/10/24 03:42 PM		
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
Abamectin [±]	< LOQ	0.50	0.250	pass		Acephate	< LOQ	0.40	0.200	pass	
Acequinocyl [±]	< LOQ	2.0	1.00	pass		Acetamiprid	< LOQ	0.20	0.100	pass	
Aldicarb [±]	< LOQ	0.40	0.200	pass		Azoxystrobin [±]	< LOQ	0.20	0.100	pass	
Bifentazate [±]	< LOQ	0.20	0.100	pass		Bifenthrin [±]	< LOQ	0.20	0.100	pass	
Boscalid [±]	< LOQ	0.40	0.200	pass		Carbaryl [±]	< LOQ	0.20	0.100	pass	
Carbofuran [±]	< LOQ	0.20	0.100	pass		Chlorantraniliprole [±]	< LOQ	0.20	0.100	pass	
Chlorfenapyr [±]	< LOQ	1.0	0.500	pass		Chlorpyrifos-ethyl [±]	< LOQ	0.20	0.100	pass	
Clofentezine [±]	< LOQ	0.20	0.100	pass		Cyfluthrin (sum) [±]	< LOQ	1.0	0.500	pass	
Cypermethrin and	< LOQ	1.0	0.500	pass		Daminozide [±]	< LOQ	1.0	0.500	pass	
Diazinon [±]	< LOQ	0.20	0.100	pass		Dichlorvos [±]	< LOQ	1.0	0.500	pass	
Dimethoate [±]	< LOQ	0.20	0.100	pass		Ethoprophos [±]	< LOQ	0.20	0.100	pass	
Etofenprox [±]	< LOQ	0.40	0.200	pass		Etoxazole [±]	< LOQ	0.20	0.100	pass	
Fenoxycarb [±]	< LOQ	0.20	0.100	pass		Fenpyroximate [±]	< LOQ	0.40	0.200	pass	
Fipronil [±]	< LOQ	0.40	0.200	pass		Flonicamid [±]	< LOQ	1.0	0.400	pass	
Fludioxonil [±]	< LOQ	0.40	0.200	pass		Hexythiazox [±]	< LOQ	1.0	0.400	pass	
Imazalil [±]	< LOQ	0.20	0.100	pass		Imidacloprid [±]	< LOQ	0.40	0.200	pass	
Kresoxim-methyl [±]	< LOQ	0.40	0.200	pass		Malathion [±]	< LOQ	0.20	0.100	pass	
Metalaxyl [±]	< LOQ	0.20	0.100	pass		Methiocarb [±]	< LOQ	0.20	0.100	pass	
Methomyl [±]	< LOQ	0.40	0.200	pass		MGK-264 [±]	< LOQ	0.20	0.100	pass	
Myclobutanil [±]	< LOQ	0.20	0.100	pass		Naled [±]	< LOQ	0.50	0.250	pass	
Oxamyl [±]	< LOQ	1.0	0.500	pass		Paclobotrazole [±]	< LOQ	0.40	0.200	pass	
Parathion-methyl [±]	< LOQ	0.20	0.100	pass		Permethrin [±]	< LOQ	0.20	0.100	pass	
Phosmet [±]	< LOQ	0.20	0.100	pass		Piperonyl butoxide [±]	< LOQ	2.0	1.00	pass	
Prallethrin [±]	< LOQ	0.20	0.100	pass		Propiconazole [±]	< LOQ	0.40	0.200	pass	
Propoxur [±]	< LOQ	0.20	0.100	pass		Pyrethrin I (total) [±]	< LOQ	1.0	0.500	pass	
Pyridaben [±]	< LOQ	0.20	0.100	pass		Spinosad [±]	< LOQ	0.20	0.100	pass	
Spiromesifen [±]	< LOQ	0.20	0.100	pass		Spirotetramat [±]	< LOQ	0.20	0.100	pass	
Spiroxamine [±]	< LOQ	0.40	0.200	pass		Tebuconazole [±]	< LOQ	0.40	0.200	pass	
Thiacloprid [±]	< LOQ	0.20	0.100	pass		Thiamethoxam [±]	< LOQ	0.20	0.100	pass	
Trifloxystrobin [±]	< LOQ	0.20	0.100	pass							

Metals										
Analyte	Result	Limits	Units	LOQ	Batch	Analyzed	Method	Status	Notes	
Arsenic [±]	< LOQ	0.200	mg/kg	0.0152	2406902	09/09/24	AOAC 2013.06 (mod.) ^p	pass		
Cadmium [±]	< LOQ	0.200	mg/kg	0.0152	2406902	09/09/24	AOAC 2013.06 (mod.) ^p	pass		
Lead [±]	< LOQ	0.500	mg/kg	0.0152	2406902	09/09/24	AOAC 2013.06 (mod.) ^p	pass		
Mercury [±]	< LOQ	0.100	mg/kg	0.00760	2406902	09/09/24	AOAC 2013.06 (mod.) ^p	pass		



Mycotoxins

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Aflatoxin B1 [±]	< LOQ		µg/kg	5.00	2406954	09/11/24 AOAC 2007.01 & EN 15662 (mod)		
Aflatoxin B2 [±]	< LOQ		µg/kg	5.00	2406954	09/11/24 AOAC 2007.01 & EN 15662 (mod)		
Aflatoxin G1 [±]	< LOQ		µg/kg	5.00	2406954	09/11/24 AOAC 2007.01 & EN 15662 (mod)		
Aflatoxin G2 [±]	< LOQ		µg/kg	5.00	2406954	09/11/24 AOAC 2007.01 & EN 15662 (mod)		
Ochratoxin A [±]	< LOQ	20.0	µg/kg	5.00	2406954	09/11/24 AOAC 2007.01 & EN 15662 (mod)	pass	
Total Aflatoxins	< LOQ	20.0	µg/kg	20.0		09/12/24 AOAC 2007.01 & EN 15662 (mod) ^p	pass	



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Abbreviations

Limits: Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220, CCR title 16-division 42. BCC-section 5723

Limit(s) of Quantitation (LOQ): The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

^p = ISO/IEC 17025:2017 accredited method.

[⊥] = TNI accredited analyte.

Units of Measure

cfu/g = Colony forming units per gram

g = Gram

µg/g = Microgram per gram

µg/kg = Micrograms per kilogram = parts per billion (ppb)

mg/kg = Milligram per kilogram = parts per million (ppm)

mg/8g = Milligram per 8g

/5g = Per 5 grams

% = Percentage of sample

% wt = µg/g divided by 10,000

Approved Signatory

Derrick Tanner
General Manager



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**Hemp & Cannabis
 Chain of Custody**

							Testing					
							H0013 - Cannabis Heavy Metals Profile OR	H0008 - Residual Solvents (Cannabis - Oregon)	H0042 - Aflatoxins+Ochratoxin OLCC	H0014 - Potency Cannabis (Basic)	M9000 - Micro Profile X	P2120 - Pesticides (OR - Cannabis)
Project Details Turnaround Time: <u>5 Business Days Reg. For Micro Testing Standard</u> Relinquishment Sampling, Courier & Shipping Options: <u>By Shipping Service (USPS, UPS, FedEx)</u> Receipt Information Prelog Storage: Canna Shelves Sample Condition: Satisfactory												
#	Sample Name	Lot Additional Sample ID	Material	Amount Provided	Reporting Unit	Serving Size						
1	Live Delta 9 Anytime Gummy - Sour Apple	3008NC-090624	Cannabinoid Edible	32 g	mg/serving	8 g	✓	✓	✓	✓	✓	✓
2	Live Delta 9 Knockout Gummy - Huckleberry	3008NC-090624	Cannabinoid Edible	32 g	mg/serving	8 g	✓	✓	✓	✓	✓	✓

Relinquished By	Date	Time	Received By	Date	Time	Received Temp., °C	Evidence of Cooling?
<i>Eve Parker</i>	<i>09/03/2024</i>	<i>11:04</i>	<i>jenk</i>	<i>09/05/2024</i>	<i>11:40</i>	<i>22.60</i>	<i>No</i>

Samples submitted to Columbia Laboratories with testing requirements constitute an agreement for services in accordance with the [current terms of services](#) associated with this COC. By signing "Relinquished by" you are agreeing to these terms.

Columbia Laboratories
 12423 NE Whitaker Way
 Portland, OR 97230

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Revision: 4 Document ID: 7148
 Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

J AOAC 2015 V98-6 Batch ID: 2406875

Laboratory Control Sample

Analyte	LCS	Result	Spike	Units	% Rec	Limits	Evaluation	Notes
CBDVA	2	0.0323	0.0312	%	104	80.0 - 120	Acceptable	
CBDV	2	0.0344	0.0338	%	102	80.0 - 120	Acceptable	
CBE	2	0.0314	0.0322	%	97.3	80.0 - 120	Acceptable	
CBDA	1	0.0306	0.0298	%	103	90.0 - 110	Acceptable	
CBGA	1	0.0302	0.0297	%	102	80.0 - 120	Acceptable	
CBG	1	0.0342	0.0341	%	100	80.0 - 120	Acceptable	
CBD	1	0.0347	0.0350	%	99.1	90.0 - 110	Acceptable	
THCV	2	0.0363	0.0347	%	105	80.0 - 120	Acceptable	
d8THCV	2	0.0337	0.0341	%	98.8	80.0 - 120	Acceptable	
THCVA	2	0.0319	0.0310	%	103	80.0 - 120	Acceptable	
CBN	1	0.0333	0.0332	%	100	80.0 - 120	Acceptable	
exo-THC	2	0.0294	0.0292	%	101	80.0 - 120	Acceptable	
d9THC	1	0.0359	0.0354	%	101	90.0 - 110	Acceptable	
d8THC	1	0.0234	0.0242	%	96.7	90.0 - 110	Acceptable	
9S-d10THC	1	0.0310	0.0312	%	99.5	80.0 - 120	Acceptable	
CBL	2	0.0365	0.0337	%	108	80.0 - 120	Acceptable	
9R-d10THC	1	0.0298	0.0306	%	97.6	80.0 - 120	Acceptable	
CBC	2	0.0297	0.0312	%	95.2	80.0 - 120	Acceptable	
THCA	1	0.0312	0.0304	%	103	90.0 - 110	Acceptable	
CBCA	2	0.0322	0.0316	%	102	80.0 - 120	Acceptable	
CBLA	2	0.0305	0.0308	%	99.2	80.0 - 120	Acceptable	
d9THCP	2	0.0305	0.0318	%	95.9	80.0 - 120	Acceptable	
CBT	2	0.0307	0.0337	%	90.9	80.0 - 120	Acceptable	

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.00319	%	< 0.00319	Acceptable	
CBDV	<LOQ	0.00319	%	< 0.00319	Acceptable	
CBE	<LOQ	0.00319	%	< 0.00319	Acceptable	
CBDA	<LOQ	0.00319	%	< 0.00319	Acceptable	
CBGA	<LOQ	0.00319	%	< 0.00319	Acceptable	
CBG	<LOQ	0.00319	%	< 0.00319	Acceptable	
CBD	<LOQ	0.00319	%	< 0.00319	Acceptable	
THCV	<LOQ	0.00319	%	< 0.00319	Acceptable	
d8THCV	<LOQ	0.00319	%	< 0.00319	Acceptable	
THCVA	<LOQ	0.00319	%	< 0.00319	Acceptable	
CBN	<LOQ	0.00319	%	< 0.00319	Acceptable	
exo-THC	<LOQ	0.00319	%	< 0.00319	Acceptable	
d9THC	<LOQ	0.00319	%	< 0.00319	Acceptable	
d8THC	<LOQ	0.00319	%	< 0.00319	Acceptable	
9S-d10THC	<LOQ	0.00319	%	< 0.00319	Acceptable	
CBL	<LOQ	0.00319	%	< 0.00319	Acceptable	
9R-d10THC	<LOQ	0.00319	%	< 0.00319	Acceptable	
CBC	<LOQ	0.00319	%	< 0.00319	Acceptable	
THCA	<LOQ	0.00319	%	< 0.00319	Acceptable	
CBCA	<LOQ	0.00319	%	< 0.00319	Acceptable	
CBLA	<LOQ	0.00319	%	< 0.00319	Acceptable	
d9THCP	<LOQ	0.00319	%	< 0.00319	Acceptable	
CBT	<LOQ	0.00319	%	< 0.00319	Acceptable	

Abbreviations

ND - None Detected at or above MRL
 RPD - Relative Percent Difference
 LOQ - Limit of Quantitation

Units of Measure:

% - Percent



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Revision: 4 Document ID: 7148
 Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

AOAC 2015 V98-6		Batch ID: 2406875						
Sample Duplicate		Sample ID: 24-009871-0001						
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.00309	%	NA	< 20	Acceptable	
CBDV	<LOQ	<LOQ	0.00309	%	NA	< 20	Acceptable	
CBE	<LOQ	<LOQ	0.00309	%	NA	< 20	Acceptable	
CBDA	<LOQ	<LOQ	0.00309	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.00309	%	NA	< 20	Acceptable	
CBG	0.261	0.260	0.00309	%	0.145	< 20	Acceptable	
CBD	<LOQ	<LOQ	0.00309	%	NA	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.00309	%	NA	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.00309	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.00309	%	NA	< 20	Acceptable	
CBN	0.00310	0.00314	0.00309	%	0.999	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.00309	%	NA	< 20	Acceptable	
d9THC	0.261	0.260	0.00309	%	0.147	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.00309	%	NA	< 20	Acceptable	
9S-d10THC	<LOQ	<LOQ	0.00309	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.00309	%	NA	< 20	Acceptable	
9R-d10THC	<LOQ	<LOQ	0.00309	%	NA	< 20	Acceptable	
CBC	0.258	0.258	0.00309	%	0.127	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.00309	%	NA	< 20	Acceptable	
CBCA	<LOQ	<LOQ	0.00309	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.00309	%	NA	< 20	Acceptable	
d9THCP	<LOQ	<LOQ	0.00309	%	NA	< 20	Acceptable	
CBT	<LOQ	<LOQ	0.00309	%	NA	< 20	Acceptable	

Abbreviations

ND - None Detected at or above MRL
 RPD - Relative Percent Difference
 LOQ - Limit of Quantitation

Units of Measure:

% - Percent


Laboratory Quality Control Results

Residual Solvents				Batch ID: 2406927					
Method Blank				Laboratory Control Sample					
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes
Propane	ND	< 200		685	585	µg/g	117.1	60 - 120	
Isobutane	ND	< 200		844	770	µg/g	109.6	60 - 120	
Butane	ND	< 200		873	769	µg/g	113.5	60 - 120	
2,2-Dimethylpropane	ND	< 200		1110	956	µg/g	116.1	60 - 120	
Methanol	ND	< 200		1950	1630	µg/g	119.6	60 - 120	
Ethylene Oxide	ND	< 30		63.7	57.7	µg/g	110.4	60 - 120	
2-Methylbutane	ND	< 200		1830	1620	µg/g	113.0	60 - 120	
Pentane	ND	< 200		1800	1620	µg/g	111.1	60 - 120	
Ethanol	ND	< 200		1940	1620	µg/g	119.8	70 - 130	
Ethyl Ether	ND	< 200		1830	1620	µg/g	113.0	60 - 120	
2,2-Dimethylbutane	ND	< 30		213	179	µg/g	119.0	60 - 120	
Acetone	ND	< 200		1920	1620	µg/g	118.5	60 - 120	
2-Propanol	ND	< 200		1910	1620	µg/g	117.9	60 - 120	
Ethyl Formate	ND	< 500		1860	1610	µg/g	115.5	70 - 130	
Acetonitrile	ND	< 100		592	502	µg/g	117.9	60 - 120	
Methyl Acetate	ND	< 500		2090	1610	µg/g	129.8	70 - 130	
2,3-Dimethylbutane	ND	< 30		202	180	µg/g	112.2	60 - 120	
Dichloromethane	ND	< 60		600	533	µg/g	112.6	60 - 120	
2-Methylpentane	ND	< 30		218	181	µg/g	120.4	60 - 120	
MTBE	ND	< 500		2100	1600	µg/g	131.3	70 - 130	
3-Methylpentane	ND	< 30		201	177	µg/g	113.6	60 - 120	
Hexane	ND	< 30		205	182	µg/g	112.6	60 - 120	
1-Propanol	ND	< 500		2230	1610	µg/g	138.5	70 - 130	Q1
Methylethylketone	ND	< 500		2110	1600	µg/g	131.9	70 - 130	Q1
Ethyl acetate	ND	< 200		1910	1620	µg/g	117.9	60 - 120	
2-Butanol	ND	< 200		1940	1630	µg/g	119.0	60 - 120	
Tetrahydrofuran	ND	< 100		560	499	µg/g	112.2	60 - 120	
Cyclohexane	ND	< 200		1760	1610	µg/g	109.3	60 - 120	
2-methyl-1-propanol	ND	< 500		2040	1600	µg/g	127.5	70 - 130	
Benzene	ND	< 1		5.74	5.01	µg/g	114.6	60 - 120	
Isopropyl Acetate	ND	< 200		1890	1620	µg/g	116.7	60 - 120	
Heptane	ND	< 200		1780	1610	µg/g	110.6	60 - 120	
1-Butanol	ND	< 500		1990	1600	µg/g	124.4	70 - 130	
Propyl Acetate	ND	< 500		1960	1600	µg/g	122.5	70 - 130	
1,4-Dioxane	ND	< 100		559	493	µg/g	113.4	60 - 120	
2-Ethoxyethanol	ND	< 30		212	182	µg/g	116.5	60 - 120	
Methylisobutylketone	ND	< 500		1910	1610	µg/g	118.6	70 - 130	
3-Methyl-1-butanol	ND	< 500		1940	1600	µg/g	121.3	70 - 130	
Ethylene Glycol	ND	< 200		565	501	µg/g	112.8	60 - 120	
Toluene	ND	< 100		570	501	µg/g	113.8	60 - 120	
Isobutyl Acetate	ND	< 500		2060	1600	µg/g	128.8	70 - 130	
1-Pentanol	ND	< 500		2200	1600	µg/g	137.5	70 - 130	Q1
Butyl Acetate	ND	< 500		2090	1600	µg/g	130.6	70 - 130	Q1
Ethylbenzene	ND	< 200		1180	981	µg/g	120.3	60 - 120	Q1
m,p-Xylene	ND	< 200		1170	1000	µg/g	117.0	60 - 120	
o-Xylene	ND	< 200		1130	981	µg/g	115.2	60 - 120	
Cumene	ND	< 30		197	177	µg/g	111.3	60 - 120	
Anisole	ND	< 500		1720	1610	µg/g	106.8	70 - 130	
DMSO	ND	< 500		1810	1600	µg/g	113.1	70 - 130	
1,2-dimethoxyethane	ND	< 50		212	161	µg/g	131.7	70 - 130	Q1
Triethylamine	ND	< 500		1920	1600	µg/g	120.0	70 - 130	
N,N-dimethylformamide	ND	< 150		677	484	µg/g	139.9	70 - 130	Q1
N,N-dimethylacetamide	ND	< 150		520	497	µg/g	104.6	70 - 130	
Pyridine	ND	< 50		279	162	µg/g	172.2	70 - 130	Q1
Sulfolane	ND	< 50		156	166	µg/g	94.0	70 - 130	
1,2-Dichloroethane	ND	< 1		1.14	1	µg/g	114.0	70 - 130	
Chloroform	ND	< 1		1.16	1	µg/g	116.0	70 - 130	
Trichloroethylene	ND	< 1		1.14	1	µg/g	114.0	70 - 130	
1,1-Dichloroethane	ND	< 1		1.14	1	µg/g	114.0	70 - 130	



Revision: 2 Document ID: 7087

Legacy ID: CFL-E33Effective:

QC - Sample Duplicate
Sample ID: 24-009618-0001

Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Accept/Fail	Notes
Propane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Isobutane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Butane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2,2-Dimethylpropane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Methanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethylene Oxide	ND	ND	30	µg/g	0.0	< 20	Acceptable	
2-Methylbutane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Pentane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethyl Ether	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2,2-Dimethylbutane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Acetone	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-Propanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethyl Formate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Acetonitrile	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Methyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
2,3-Dimethylbutane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Dichloromethane	ND	ND	60	µg/g	0.0	< 20	Acceptable	
2-Methylpentane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
MTBE	ND	ND	500	µg/g	0.0	< 20	Acceptable	
3-Methylpentane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Hexane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
1-Propanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Methylethylketone	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Ethyl acetate	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-Butanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Tetrahydrofuran	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Cyclohexane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-methyl-1-propanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Benzene	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Isopropyl Acetate	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Heptane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
1-Butanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Propyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1,4-Dioxane	ND	ND	100	µg/g	0.0	< 20	Acceptable	
2-Ethoxyethanol	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Methylisobutylketone	ND	ND	500	µg/g	0.0	< 20	Acceptable	
3-Methyl-1-butanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Ethylene Glycol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Toluene	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Isobutyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1-Pentanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Butyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Ethylbenzene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
m,p-Xylene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
o-Xylene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Cumene	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Anisole	ND	ND	500	µg/g	0.0	< 20	Acceptable	
DMSO	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1,2-dimethoxyethane	ND	ND	50	µg/g	0.0	< 20	Acceptable	
Triethylamine	ND	ND	500	µg/g	0.0	< 20	Acceptable	
N,N-dimethylformamide	ND	ND	150	µg/g	0.0	< 20	Acceptable	
N,N-dimethylacetamide	ND	ND	150	µg/g	0.0	< 20	Acceptable	
Pyridine	ND	ND	50	µg/g	0.0	< 20	Acceptable	
Sulfolane	ND	ND	50	µg/g	0.0	< 20	Acceptable	
1,2-Dichloroethane	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Chloroform	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Trichloroethylene	ND	ND	1	µg/g	0.0	< 20	Acceptable	
1,1-Dichloroethane	ND	ND	1	µg/g	0.0	< 20	Acceptable	

Abbreviations

 ND - None Detected at or above MRL
 RPD - Relative Percent Difference
 LOQ - Limit of Quantitation

Units of Measure:

µg/g- Microgram per gram or ppm


Laboratory Pesticide Quality Control Results

AOAC 2007.1 & EN 15662		Units: mg/Kg			Batch ID: 2406946			
Method Blank		Laboratory Control Sample						
Analyte	Blank Result	Blank Limits	Notes	LCS Result	LCS Spike	LCS % Rec	Limits	Notes
Abamectin	0.041	< 0.250		0.929	1.000	92.9	50.0	150
Acephate	0.007	< 0.200		0.722	0.800	90.2	60.0	120
Acequinocyl	0.042	< 1.000		2.496	4.000	62.4	40.0	160
Acetamiprid	0.006	< 0.100		0.369	0.400	92.2	60.0	120
Aldicarb	0.000	< 0.200		0.875	0.800	109.3	60.0	120
Azoxystrobin	0.006	< 0.100		0.374	0.400	93.5	60.0	120
Bifenazate	0.000	< 0.100		0.404	0.400	101.0	60.0	120
Bifenthrin	0.000	< 0.100		0.364	0.400	91.1	50.0	150
Boscalid	0.021	< 0.200		0.748	0.800	93.5	60.0	120
Carbaryl	0.003	< 0.100		0.356	0.400	89.0	60.0	120
Carbofuran	0.003	< 0.100		0.367	0.400	91.8	60.0	120
Chlorantraniliprole	0.000	< 0.100		0.361	0.400	90.2	60.0	120
Chlorfenapyr	0.000	< 0.500		1.985	2.000	99.3	60.0	120
Chlorpyrifos	0.004	< 0.100		0.364	0.400	90.9	60.0	120
Clofentezine	0.001	< 0.100		0.335	0.400	83.7	60.0	120
Cyfluthrin	0.082	< 0.500		1.862	2.000	93.1	50.0	150
Cypermethrin	0.028	< 0.500		1.783	2.000	89.1	50.0	150
Daminozide	0.000	< 0.500		0.813	2.000	40.6	60.0	120
Diazinon	0.005	< 0.100		0.390	0.400	97.6	60.0	120
Dichlorvos	0.039	< 0.500		1.828	2.000	91.4	60.0	120
Dimethoate	0.007	< 0.100		0.361	0.400	90.2	60.0	120
Ethoprophos	0.007	< 0.100		0.362	0.400	90.5	60.0	120
Etofenprox	0.000	< 0.200		0.785	0.800	98.1	50.0	150
Etoazole	0.002	< 0.100		0.417	0.400	104.3	60.0	120
Fenoxycarb	0.004	< 0.100		0.360	0.400	90.0	60.0	120
Fenpyroximate	0.007	< 0.200		0.764	0.800	95.5	60.0	120
Fipronil	0.013	< 0.200		0.723	0.800	90.4	60.0	120
Fonicamid	0.011	< 0.250		0.888	1.000	88.8	60.0	120
Fludioxonil	0.007	< 0.200		0.752	0.800	94.0	50.0	150
Hexythiazox	0.010	< 0.250		0.934	1.000	93.4	60.0	120
Imazalil	0.007	< 0.100		0.381	0.400	95.2	60.0	120
Imidacloprid	0.069	< 0.200		0.735	0.800	91.9	60.0	120
Kresoxim-methyl	0.000	< 0.200		0.753	0.800	94.1	60.0	120
Malathion	0.006	< 0.100		0.377	0.400	94.2	60.0	120
Metalaxyl	0.000	< 0.100		0.364	0.400	91.1	60.0	120
Methiocarb	0.000	< 0.100		0.374	0.400	93.6	60.0	120
Methomyl	0.000	< 0.200		0.734	0.800	91.8	60.0	120
MGK-264	0.000	< 0.100		0.383	0.400	95.6	50.0	150
Myclobutanil	0.014	< 0.100		0.363	0.400	90.7	60.0	120
Naled	0.000	< 0.250		0.899	1.000	89.9	50.0	150
Oxamyl	0.000	< 0.500		1.865	2.000	93.3	60.0	120
Paclobutrazole	0.022	< 0.200		0.746	0.800	93.2	60.0	120
Parathion-Methyl	0.001	< 0.100		0.363	0.400	90.7	50.0	150
Permethrin	0.001	< 0.100		0.367	0.400	91.6	50.0	150
Phosmet	0.000	< 0.100		0.352	0.400	88.0	50.0	150
Piperonyl butoxide	0.000	< 0.500		2.313	2.000	115.6	60.0	120
Prallethrin	0.003	< 0.100		0.371	0.400	92.8	60.0	120
Propiconazole	0.002	< 0.200		0.810	0.800	101.2	60.0	120
Propoxur	0.006	< 0.100		0.367	0.400	91.8	60.0	120
Pyrethrin (Summe)	0.001	< 0.100		0.281	0.488	57.6	60.0	120
Pyridaben	0.000	< 0.100		0.375	0.400	93.8	50.0	150
Spinosad	0.000	< 0.100		0.372	0.388	96.0	50.0	150
Spiromesifen	0.000	< 0.100		0.382	0.400	95.6	60.0	120
Spirotetramat	0.000	< 0.100		0.381	0.400	95.1	60.0	120
Spiroxamine	0.026	< 0.200		0.717	0.800	89.6	60.0	120

Q7

103.30%


Laboratory Pesticide Quality Control Results

AOAC 2007.1 & EN 15662		Units: mg/Kg					Batch ID: 2406946			
Matrix Spike/Matrix Spike Duplicate Recoveries							Sample ID: 24-009899-0001			
Analyte	Result	MS Res	MSD Res	Spike	RPD%	Limit	MS % Rec	MSD % Rec	Limits	Notes
Abamectin	0.000	0.934	0.927	1.000	0.8%	< 30	93.4%	92.7%	50 - 150	
Acephate	0.003	0.693	0.694	0.800	0.1%	< 30	86.4%	86.5%	50 - 150	
Acequinocyl	0.032	2.374	2.830	4.000	17.7%	< 30	58.6%	70.0%	50 - 150	
Acetamiprid	0.000	0.366	0.363	0.400	0.9%	< 30	91.5%	90.7%	50 - 150	
Aldicarb	0.000	0.846	0.828	0.800	2.1%	< 30	105.7%	103.5%	50 - 150	
Azoxystrobin	0.005	0.362	0.361	0.400	0.2%	< 30	89.1%	89.0%	50 - 150	
Bifenazate	0.008	0.397	0.394	0.400	0.6%	< 30	97.2%	96.7%	50 - 150	
Bifenthrin	0.000	0.343	0.358	0.400	4.3%	< 30	85.6%	89.4%	50 - 150	
Boscalid	0.021	0.718	0.740	0.800	3.1%	< 30	87.1%	89.9%	50 - 150	
Carbaryl	0.000	0.340	0.362	0.400	6.5%	< 30	84.9%	90.6%	50 - 150	
Carbofuran	0.003	0.357	0.363	0.400	1.8%	< 30	88.4%	90.0%	50 - 150	
Chlorantraniliprole	0.000	0.351	0.335	0.400	4.8%	< 30	87.8%	83.6%	50 - 150	
Chlorfenapyr	0.000	1.955	1.850	2.000	5.5%	< 30	97.8%	92.5%	50 - 150	
Chlorpyrifos	0.003	0.346	0.353	0.400	2.0%	< 30	85.9%	87.6%	50 - 150	
Clofentezine	0.001	0.265	0.251	0.400	5.5%	< 30	65.9%	62.4%	50 - 150	
Cyfluthrin	0.067	1.776	1.751	2.000	1.5%	< 30	85.5%	84.2%	30 - 150	
Cypermethrin	0.023	1.719	1.738	2.000	1.1%	< 30	84.8%	85.8%	50 - 150	
Daminozide	0.000	0.843	0.791	2.000	6.4%	< 30	42.2%	39.6%	30 - 150	
Diazinon	0.005	0.364	0.376	0.400	3.1%	< 30	89.9%	92.8%	50 - 150	
Dichlorvos	0.037	1.750	1.788	2.000	2.2%	< 30	85.7%	87.5%	50 - 150	
Dimethoate	0.007	0.343	0.348	0.400	1.6%	< 30	84.1%	85.4%	50 - 150	
Ethoprophos	0.006	0.356	0.354	0.400	0.7%	< 30	87.4%	86.9%	50 - 150	
Etofenprox	0.000	0.729	0.745	0.800	2.2%	< 30	91.1%	93.1%	50 - 150	
Etoxazole	0.002	0.372	0.384	0.400	3.1%	< 30	92.5%	95.4%	50 - 150	
Fenoxycarb	0.004	0.355	0.358	0.400	0.8%	< 30	87.8%	88.5%	50 - 150	
Fenpyroximate	0.006	0.729	0.729	0.800	0.0%	< 30	90.3%	90.3%	50 - 150	
Fipronil	0.014	0.719	0.732	0.800	1.8%	< 30	88.2%	89.8%	50 - 150	
Fonicamid	0.000	0.906	0.913	1.000	0.7%	< 30	90.6%	91.3%	50 - 150	
Fludioxonil	0.000	0.734	0.736	0.800	0.2%	< 30	91.8%	91.9%	50 - 150	
Hexythiazox	0.010	1.002	1.010	1.000	0.8%	< 30	99.2%	100.0%	50 - 150	
Imazalil	0.000	0.368	0.371	0.400	0.8%	< 30	92.0%	92.7%	50 - 150	
Imidacloprid	0.070	0.716	0.730	0.800	2.1%	< 30	80.8%	82.5%	50 - 150	
Kresoxim-methyl	0.000	0.687	0.704	0.800	2.4%	< 30	85.9%	88.0%	50 - 150	
Malathion	0.006	0.365	0.361	0.400	1.2%	< 30	89.9%	88.8%	50 - 150	
Metalaxyl	0.000	0.342	0.341	0.400	0.5%	< 30	85.6%	85.1%	50 - 150	
Methiocarb	0.000	0.360	0.358	0.400	0.5%	< 30	89.9%	89.5%	50 - 150	
Methomyl	0.005	0.728	0.717	0.800	1.5%	< 30	90.3%	89.0%	50 - 150	
MGK-264	0.000	0.352	0.377	0.400	6.9%	< 30	88.0%	94.3%	50 - 150	
Myclobutanil	0.017	0.335	0.344	0.400	2.7%	< 30	79.6%	81.8%	50 - 150	
Naled	0.000	0.856	0.855	1.000	0.1%	< 30	85.6%	85.5%	50 - 150	
Oxamyl	0.000	1.806	1.825	2.000	1.0%	< 30	90.3%	91.2%	50 - 150	
Paclobutrazole	0.022	0.711	0.710	0.800	0.1%	< 30	86.1%	86.1%	50 - 150	
Parathion-Methyl	0.000	0.347	0.359	0.400	3.2%	< 30	86.9%	89.7%	30 - 150	
Permethrin	0.000	0.333	0.349	0.400	4.7%	< 30	83.3%	87.3%	50 - 150	
Phosmet	0.000	0.338	0.349	0.400	3.1%	< 30	84.5%	87.2%	50 - 150	
Piperonyl butoxide	0.000	2.168	2.123	2.000	2.1%	< 30	108.4%	106.2%	50 - 150	
Prallethrin	0.004	0.353	0.369	0.400	4.7%	< 30	87.2%	91.4%	50 - 150	
Propiconazole	0.003	0.768	0.762	0.800	0.8%	< 30	95.7%	94.9%	50 - 150	
Propoxur	0.006	0.354	0.352	0.400	0.4%	< 30	86.9%	86.6%	50 - 150	
Pyrethrin (Summe)	0.000	0.245	0.258	0.488	5.2%	< 30	90.1%	94.9%	50 - 150	
Pyridaben	0.000	0.424	0.405	0.400	4.6%	< 30	106.0%	101.3%	50 - 150	
Spinosad	0.000	0.364	0.350	0.388	4.1%	< 30	93.9%	90.1%	50 - 150	
Spiromesifen	0.000	0.262	0.260	0.400	0.7%	< 30	65.5%	65.0%	50 - 150	
Spirotetramat	0.000	0.371	0.365	0.400	1.6%	< 30	92.8%	91.3%	50 - 150	
Spiroxamine	0.000	0.685	0.689	0.800	0.6%	< 30	85.6%	86.1%	50 - 150	



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Explanation of QC Flag Comments:

Code	Explanation
Q	Matrix interferences affecting spike or surrogate recoveries.
Q1	Quality control result biased high. Only non-detect samples reported.
Q2	Quality control outside QC limits. Data considered estimate.
Q3	Sample concentration greater than four times the amount spiked.
Q4	Non-homogenous sample matrix, affecting RPD result and/or % recoveries.
Q5	Spike results above calibration curve.
Q6	Quality control outside QC limits. Data acceptable based on remaining QC.
R	Relative percent difference (RPD) outside control limit.
R1	RPD non-calculable, as sample or duplicate results are less than five times the LOQ.
R2	Sample replicates RPD non-calculable, as only one replicate is within the analytical range.
LOQ1	Quantitation level raised due to low sample volume and/or dilution.
LOQ2	Quantitation level raised due to matrix interference.
B	Analyte detected in method blank, but not in associated samples.
B1	The sample concentration is greater than 5 times the blank concentration.
B2	The sample concentration is less than 5 times the blank concentration.