



This is an amended version of report# 25-000222/D001.R000.

Reason: Updated client information

Customer: Utokia Herb Co.
Product identity: Live D9 Huckleberry Gummy
Metrc ID: 3009NC_122024
Metrc Source ID:
Laboratory ID: 25-000222-0001

Summary

Potency:

Analyte per 8g	Result	Limits	Units	Status	
CBD per 8g	0.650		mg/8g		Delta-9-THC-Total per 18.3 mg/8g
CBD-A per 8g	2.59		mg/8g		
CBN per 8g	11.2		mg/8g		CBD-Total per Serving Size 2.92 mg/8g
Δ9-THC per 8g	18.3		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.



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



Report Number: 25-000222/D001.R001
Report Date: 01/17/2025
ORELAP#: OR100028
Purchase Order:
Received: 01/08/25 15:16

Customer: Utokia Herb Co.

Product identity: Live D9 Knockout Huckleberry Gummy
Metrc ID: 3009NC_122024
Metrc Source ID:
Material: Cannabinoid Edible
Sample Date:
Laboratory ID: 25-000222-0001
Evidence of Cooling: No
Temp: 18.1 °C
Lot #: 3009NC_122024
Serving Size #1: 8 g

Sample Results

Potency per 8g		Method: J AOAC 2015 V98-6 (mod) ^b		Units mg/se	Batch: 2500198	Analyze: 1/9/25 10:53:00 PM
Analyte	Result	Limits	Units	LOQ	Notes	
CBD per 8g	0.650		mg/8g	0.263		
CBD-A per 8g [⊥]	2.59		mg/8g	0.263		
CBD-Total per 8g [⊥]	2.92		mg/8g	0.494		
CBG per 8g	< LOQ		mg/8g	0.263		
CBG-A per 8g	< LOQ		mg/8g	0.263		
CBG-Total per 8g	< LOQ		mg/8g	0.491		
CBN per 8g	11.2		mg/8g	0.263		
Δ10-THC-9R per 8g	< LOQ		mg/8g	0.263		
Δ10-THC-9S per 8g	< LOQ		mg/8g	0.263		
Δ10-THC-Total per 8g	< LOQ		mg/8g	0.526		
Δ8-THC per 8g [⊥]	< LOQ		mg/8g	0.263		
Δ9-THC per 8g [⊥]	18.3		mg/8g	0.263		
Δ9-THC-Total per 8g	18.3		mg/8g	0.494		
THC-A per 8g [⊥]	< LOQ		mg/8g	0.263		



Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Aerobic Plate Count	< LOQ		cfu/g	10	2500154	01/11/25 AOAC 990.12 (Petrifilm)		
E.coli	< LOQ		cfu/g	10	2500152	01/11/25 AOAC 991.14 (Petrifilm)		
Total Coliforms	< LOQ		cfu/g	10	2500152	01/11/25 AOAC 991.14 (Petrifilm)		
Staphylococcus aureus	< LOQ		cfu/g	10	2500155	01/10/25 AOAC 2003.07		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2500153	01/12/25 AOAC 2014.05 (RAPID)		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2500153	01/12/25 AOAC 2014.05 (RAPID)		
Listeria spp.	Negative		/15g		2500158	01/10/25 AOAC 2019.10		
Salmonella spp. [⊥]	Negative		/15g		2500156	01/10/25 AOAC 2020.02 ^b		
EHEC including STEC [⊥]	Negative		/15g		2500157	01/10/25 AOAC RI 121806 ^b		

Solvents Method: Residual Solvents by HS-GC-MS^b Units µg/g Batch 2500215 Analyze 01/10/25 03:47 PM

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-Ethoxyethanol [⊥]	< LOQ	160	30.0	pass		2-Methylbutane (Isopentane) [⊥]	< LOQ		200		
2-Methylpentane [⊥]	< LOQ		30.0			2-Propanol (IPA) [⊥]	< LOQ	5000	200	pass	
2,2-Dimethylbutane [⊥]	< LOQ		30.0			2,2-Dimethylpropane (neo-pentane) [⊥]	< LOQ		200		
2,3-Dimethylbutane [⊥]	< LOQ		30.0			3-Methylpentane [⊥]	< LOQ		30.0		
Acetone [⊥]	< LOQ	5000	200	pass		Acetonitrile [⊥]	< LOQ	410	100	pass	
Benzene [⊥]	< LOQ	2.00	1.00	pass		Butanes (sum) [⊥]	< LOQ	5000	400	pass	
Cyclohexane [⊥]	< LOQ	3880	200	pass		Ethyl acetate [⊥]	< LOQ	5000	200	pass	
Ethyl benzene	< LOQ		200			Ethyl ether [⊥]	< LOQ	5000	200	pass	
Ethylene glycol [⊥]	< LOQ	620	200	pass		Ethylene oxide [⊥]	< LOQ	50.0	20.0	pass	
Hexanes (sum) [⊥]	< LOQ	290	150	pass		Isopropyl acetate [⊥]	< LOQ	5000	200	pass	
Isopropylbenzene (Cumene) [⊥]	< LOQ	70.0	30.0	pass		m,p-Xylene [⊥]	< LOQ		200		
Methanol [⊥]	< LOQ	3000	200	pass		Methylene chloride [⊥]	< LOQ	600	60.0	pass	
Methylpropane (Isobutane) [⊥]	< LOQ		200			n-Butane [⊥]	< LOQ		200		
n-Heptane [⊥]	< LOQ	5000	200	pass		n-Hexane [⊥]	< LOQ		30.0		
n-Pentane [⊥]	< LOQ		200			o-Xylene [⊥]	< LOQ		200		
Pentanes (sum)	< LOQ	5000	600	pass		Propane	< LOQ	5000	200	pass	
Tetrahydrofuran [⊥]	< LOQ	720	100	pass		Toluene [⊥]	< LOQ	890	100	pass	
Total Xylenes [⊥]	< LOQ		400			Total Xylenes and Ethyl benzene	< LOQ	2170	600	pass	



Pesticides					Method: AOAC 2007.01 & EN 15662 (mod)	Units mg/kg	Batch 2500241	Analyze 01/13/25 02:03 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	
Bifenazate [±]	< 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		Etiozazole [±]	< 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		Paclobutrazole [±]	< 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	0.0164	2500239	01/13/25	AOAC 2013.06 (mod.) ^b	pass		
Cadmium [±]	< LOQ	0.200	mg/kg	0.0164	2500239	01/13/25	AOAC 2013.06 (mod.) ^b	pass		
Lead [±]	< LOQ	0.500	mg/kg	0.0164	2500239	01/13/25	AOAC 2013.06 (mod.) ^b	pass		
Mercury [±]	< LOQ	0.100	mg/kg	0.00818	2500239	01/13/25	AOAC 2013.06 (mod.) ^b	pass		

Notes:

See attached Mycotoxin results

**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.

Ⓓ = ISO/IEC 17025:2017 accredited method.

⊥ = TNI accredited analyte.

Units of Measure

/15g = Per 15g

cfu/g = Colony forming units per gram

g = Gram

µg/g = Microgram per gram

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

mg/8g = Milligram per 8g

% = Percentage of sample

% wt = µg/g divided by 10,000



Certificate of Analysis

Provided for quality control or research and development purposes.

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Columbia Labs

12423 NE Whitaker Way
Portland, OR 97230
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(503) 254-1794
Lic. #010-1003224D558

Sample: 2501CH0166.0963

Strain: NA
Batch#: ; Batch Size: g
Sample Received: 01/09/2025; Report Created: 01/10/2025
Harvest/Production Date:
Sampling: Random; Environment: Room Temp

000224-02

Ingestible, Soft Chew, Other
Harvest Process Lot: ; METRC Batch: ; METRC Sample:



Mycotoxins

1366 LCQQQ4 20250108-5

Pass

Analyte	LOQ	Limit	Result	Status
	PPB	PPB	PPB	
B1	10.00		<LOQ	Tested
B2	10.00		<LOQ	Tested
G1	10.00		<LOQ	Tested
G2	10.00		<LOQ	Tested
Ochratoxin A	10.00	20.00	<LOQ	Pass
Total Aflatoxins	10.00	20.00	<LOQ	Pass

Method: Modified AOAC 2007.01, Triple Quad analysis; LOQ = Limit of Quantification; PPB = Parts Per Billion; ND = Not Detected; NR = Not Reported; ORELAP ID 4057. ChemHistory estimates its internal laboratory uncertainty acceptance limits to be 7% for sample pesticide results.



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Patrick Trujillo
Laboratory Director

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Certificate of Analysis

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 2 of 2

Columbia Labs

 12423 NE Whitaker Way
 Portland, OR 97230
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 (503) 254-1794
 Lic. #010-1003224D558

Sample: 2501CH0166.0963

 Strain: NA
 Batch#: ; Batch Size: g
 Sample Received: 01/09/2025; Report Created: 01/10/2025
 Harvest/Production Date:
 Sampling: Random; Environment: Room Temp

000224-02

 Ingestible, Soft Chew, Other
 Harvest Process Lot: ; METRC Batch: ; METRC Sample:


Quality Control Data

Analytical Batch ID	QC Sample ID	Assay Name	QC Category Name
1366 LCQQQ4 20250108-5	MRMB010925101CN	Mycotoxins	Sample Duplicate

QC Notes
 None

Aflatoxins	ICV amount	Blank amount	LCS amount	CCV amount	LCS Expected	LCS % Recovery	Units	LCS Acceptance Limits
B1	998.79	0	225.1	1024.85	200	1.1255	ppb	60-120%
B2	916.42	0	233.94	1041.54	200	1.1697	ppb	60-120%
G1	955.74	0	239	992.82	200	1.195	ppb	60-120%
G2	829.98	0	248.83	991.07	200	1.24415	ppb	60-120%
Ochratoxin A	1033.52	0	265.08	1167.27	200	1.3254	ppb	60-120%


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Laboratory Quality Control Results
J AOAC 2015 V98-6 **Batch ID: 2500198**
Laboratory Control Sample

Analyte	LCS	Result	Spike	Units	% Rec	Limits	Evaluation	Notes
CBDVA	2	0.0325	0.0318	%	102	80.0 - 120	Acceptable	
CBDV	2	0.0352	0.0338	%	104	80.0 - 120	Acceptable	
CBE	2	0.0350	0.0341	%	103	80.0 - 120	Acceptable	
CBDA	1	0.0367	0.0354	%	104	90.0 - 110	Acceptable	
CBGA	1	0.0357	0.0346	%	103	80.0 - 120	Acceptable	
CBG	1	0.0354	0.0338	%	105	80.0 - 120	Acceptable	
CBD	1	0.0338	0.0333	%	102	90.0 - 110	Acceptable	
THCV	2	0.0344	0.0339	%	101	80.0 - 120	Acceptable	
d8THCV	2	0.0357	0.0346	%	103	80.0 - 120	Acceptable	
THCVA	2	0.0322	0.0310	%	104	80.0 - 120	Acceptable	
CBN	1	0.0336	0.0325	%	103	80.0 - 120	Acceptable	
exo-THC	2	0.0317	0.0316	%	100	80.0 - 120	Acceptable	
d9THC	1	0.0344	0.0333	%	103	90.0 - 110	Acceptable	
d8THC	1	0.0338	0.0341	%	99.2	90.0 - 110	Acceptable	
9S-d10THC	1	0.0353	0.0352	%	100	80.0 - 120	Acceptable	
CBL	2	0.0313	0.0320	%	97.7	80.0 - 120	Acceptable	
9R-d10THC	1	0.0364	0.0365	%	99.8	80.0 - 120	Acceptable	
CBC	2	0.0328	0.0337	%	97.2	80.0 - 120	Acceptable	
THCA	1	0.0378	0.0355	%	107	90.0 - 110	Acceptable	
CBCA	2	0.0312	0.0327	%	95.5	80.0 - 120	Acceptable	
CBLA	2	0.0337	0.0332	%	102	80.0 - 120	Acceptable	
d9THCP	2	0.0300	0.0324	%	92.6	80.0 - 120	Acceptable	
CBT	2	0.0308	0.0340	%	90.5	80.0 - 120	Acceptable	

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBDV	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBE	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBDA	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBGA	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBG	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBD	<LOQ	0.00329	%	< 0.00329	Acceptable	
THCV	<LOQ	0.00329	%	< 0.00329	Acceptable	
d8THCV	<LOQ	0.00329	%	< 0.00329	Acceptable	
THCVA	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBN	<LOQ	0.00329	%	< 0.00329	Acceptable	
exo-THC	<LOQ	0.00329	%	< 0.00329	Acceptable	
d9THC	<LOQ	0.00329	%	< 0.00329	Acceptable	
d8THC	<LOQ	0.00329	%	< 0.00329	Acceptable	
9S-d10THC	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBL	<LOQ	0.00329	%	< 0.00329	Acceptable	
9R-d10THC	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBC	<LOQ	0.00329	%	< 0.00329	Acceptable	
THCA	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBCA	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBLA	<LOQ	0.00329	%	< 0.00329	Acceptable	
d9THCP	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBT	<LOQ	0.00329	%	< 0.00329	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

J AOAC 2015 V98-6			Batch ID: 2500198					
Sample Duplicate			Sample ID: 25-000169-0001					
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
CBDV	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
CBE	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
CBDA	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
CBG	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
CBD	0.256	0.254	0.00304	%	0.533	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
CBN	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
d9THC	0.127	0.126	0.00304	%	0.680	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
9S-d10THC	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
9R-d10THC	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
CBC	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
CBCA	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
d9THCP	<LOQ	<LOQ	0.00304	%	NA	< 20	Acceptable	
CBT	<LOQ	<LOQ	0.00304	%	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: 2500215				
Method Blank					Laboratory Control Sample				
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes
Propane	ND	< 200		519	585	µg/g	88.7	60 - 120	
Isobutane	ND	< 200		653	770	µg/g	84.8	60 - 120	
Butane	ND	< 200		643	769	µg/g	83.6	60 - 120	
2,2-Dimethylpropane	ND	< 200		800	956	µg/g	83.7	60 - 120	
Methanol	ND	< 200		1340	1620	µg/g	82.7	60 - 120	
Ethylene Oxide	ND	< 30		44.5	57.7	µg/g	77.1	60 - 120	
2-Methylbutane	ND	< 200		1390	1640	µg/g	84.8	60 - 120	
Pentane	ND	< 200		1350	1640	µg/g	82.3	60 - 120	
Ethanol	ND	< 200		1220	1620	µg/g	75.3	70 - 130	
Ethyl Ether	ND	< 200		1330	1630	µg/g	81.6	60 - 120	
2,2-Dimethylbutane	ND	< 30		167	212	µg/g	78.8	60 - 120	
Acetone	ND	< 200		1320	1630	µg/g	81.0	60 - 120	
2-Propanol	ND	< 200		1290	1620	µg/g	79.6	60 - 120	
Ethyl Formate	ND	< 500		1130	1600	µg/g	70.6	70 - 130	
Acetonitrile	ND	< 100		381	504	µg/g	75.6	60 - 120	
Methyl Acetate	ND	< 500		1400	1600	µg/g	87.5	70 - 130	
2,3-Dimethylbutane	ND	< 30		157	189	µg/g	83.1	60 - 120	
Dichloromethane	ND	< 60		422	538	µg/g	78.4	60 - 120	
2-Methylpentane	ND	< 30		154	182	µg/g	84.6	60 - 120	
MTBE	ND	< 500		1460	1600	µg/g	91.3	70 - 130	
3-Methylpentane	ND	< 30		152	179	µg/g	84.9	60 - 120	
Hexane	ND	< 30		154	178	µg/g	86.5	60 - 120	
1-Propanol	ND	< 500		1410	1600	µg/g	88.1	70 - 130	
Methylethylketone	ND	< 500		1450	1600	µg/g	90.6	70 - 130	
Ethyl acetate	ND	< 200		1400	1620	µg/g	86.4	60 - 120	
2-Butanol	ND	< 200		1370	1620	µg/g	84.6	60 - 120	
Tetrahydrofuran	ND	< 100		450	511	µg/g	88.1	60 - 120	
Cyclohexane	ND	< 200		1460	1620	µg/g	90.1	60 - 120	
2-methyl-1-propanol	ND	< 500		1500	1600	µg/g	93.8	70 - 130	
Benzene	ND	< 1		4.82	6.03	µg/g	79.9	60 - 120	
Isopropyl Acetate	ND	< 200		1300	1620	µg/g	80.2	60 - 120	
Heptane	ND	< 200		1330	1620	µg/g	82.1	60 - 120	
1-Butanol	ND	< 500		1550	1600	µg/g	96.9	70 - 130	
Propyl Acetate	ND	< 500		1570	1610	µg/g	97.5	70 - 130	
1,4-Dioxane	ND	< 100		442	503	µg/g	87.9	60 - 120	
2-Ethoxyethanol	ND	< 30		136	176	µg/g	77.3	60 - 120	
Methylisobutylketone	ND	< 500		1610	1610	µg/g	100.0	70 - 130	
3-Methyl-1-butanol	ND	< 500		1630	1600	µg/g	101.9	70 - 130	
Ethylene Glycol	ND	< 200		371	501	µg/g	74.1	60 - 120	
Toluene	ND	< 100		500	543	µg/g	92.1	60 - 120	
Isobutyl Acetate	ND	< 500		1640	1600	µg/g	102.5	70 - 130	
1-Pentanol	ND	< 500		1690	1600	µg/g	105.6	70 - 130	
Butyl Acetate	ND	< 500		1640	1600	µg/g	102.5	70 - 130	
Ethylbenzene	ND	< 200		905	983	µg/g	92.1	60 - 120	
m,p-Xylene	ND	< 200		909	1030	µg/g	88.3	60 - 120	
o-Xylene	ND	< 200		924	979	µg/g	94.4	60 - 120	
Cumene	ND	< 30		181	183	µg/g	98.9	60 - 120	
Anisole	ND	< 500		1790	1610	µg/g	111.2	70 - 130	
DMSO	ND	< 500		1660	1600	µg/g	103.8	70 - 130	
1,2-dimethoxyethane	ND	< 50		138	164	µg/g	84.1	70 - 130	
Triethylamine	ND	< 500		1490	1600	µg/g	93.1	70 - 130	
N,N-dimethylformamide	ND	< 150		465	481	µg/g	96.7	70 - 130	
N,N-dimethylacetamide	ND	< 150		562	486	µg/g	115.6	70 - 130	
Pyridine	ND	< 50		172	168	µg/g	102.4	70 - 130	
Sulfolane	ND	< 50		187	165	µg/g	113.3	70 - 130	
1,2-Dichloroethane	ND	< 1		0.976	1	µg/g	97.6	70 - 130	
Chloroform	ND	< 1		1.03	1	µg/g	103.0	70 - 130	
Trichloroethylene	ND	< 1		1.06	1	µg/g	106.0	70 - 130	
1,1-Dichloroethane	ND	< 1		0.959	1	µg/g	95.9	70 - 130	


 Revision: 2 Document ID: 7087
 Legacy ID: CFL-E33Effective:

QC - Sample Duplicate
Sample ID: 25-000134-0001

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: 2500241		
Method Blank				Laboratory Control Sample				
Analyte	Blank Result	Blank Limits	Notes	LCS Result	LCS Spike	LCS % Rec	Limits	Notes
Abamectin	0.000	< 0.250		0.811	1.000	81.1	50.0 150	
Acephate	0.000	< 0.200		0.650	0.800	81.2	60.0 120	
Acequinocyl	0.086	< 1.000		2.958	4.000	74.0	40.0 160	
Acetamiprid	0.000	< 0.100		0.332	0.400	82.9	60.0 120	
Aldicarb	0.000	< 0.200		0.636	0.800	79.6	60.0 120	
Azoxystrobin	0.000	< 0.100		0.324	0.400	80.9	60.0 120	
Bifenazate	0.000	< 0.100		0.371	0.400	92.7	60.0 120	
Bifenthrin	0.000	< 0.100		0.325	0.400	81.2	50.0 150	
Boscalid	0.000	< 0.200		0.684	0.800	85.5	60.0 120	
Carbaryl	0.000	< 0.100		0.324	0.400	80.9	60.0 120	
Carbofuran	0.000	< 0.100		0.329	0.400	82.2	60.0 120	
Chlorantraniliprole	0.000	< 0.100		0.334	0.400	83.6	60.0 120	
Chlorfenapyr	0.000	< 0.500		1.647	2.000	82.3	60.0 120	
Chlorpyrifos	0.000	< 0.100		0.321	0.400	80.1	60.0 120	
Clofentezine	0.000	< 0.100		0.268	0.400	67.1	60.0 120	
Cyfluthrin	0.000	< 0.500		1.651	2.000	82.5	50.0 150	
Cypermethrin	0.000	< 0.500		1.581	2.000	79.0	50.0 150	
Daminozide	0.000	< 0.500		0.523	2.000	26.2	60.0 120	Q7
Diazinon	0.000	< 0.100		0.349	0.400	87.3	60.0 120	
Dichlorvos	0.000	< 0.500		1.590	2.000	79.5	60.0 120	
Dimethoate	0.000	< 0.100		0.336	0.400	84.1	60.0 120	
Ethoprophos	0.000	< 0.100		0.325	0.400	81.3	60.0 120	
Etofenprox	0.000	< 0.200		0.635	0.800	79.4	50.0 150	
Etoxazole	0.000	< 0.100		0.331	0.400	82.7	60.0 120	
Fenoxycarb	0.000	< 0.100		0.335	0.400	83.8	60.0 120	
Fenpyroximate	0.000	< 0.200		0.630	0.800	78.7	60.0 120	
Fipronil	0.000	< 0.200		0.653	0.800	81.7	60.0 120	
Flonicamid	0.000	< 0.250		0.840	1.000	84.0	60.0 120	
Fludioxonil	0.000	< 0.200		0.611	0.800	76.3	50.0 150	
Hexythiazox	0.000	< 0.250		0.830	1.000	83.0	60.0 120	
Imazalil	0.000	< 0.100		0.362	0.400	90.5	60.0 120	
Imidacloprid	0.000	< 0.200		0.665	0.800	83.1	60.0 120	
Kresoxim-methyl	0.000	< 0.200		0.695	0.800	86.9	60.0 120	
Malathion	0.000	< 0.100		0.349	0.400	87.2	60.0 120	
Metalaxyl	0.000	< 0.100		0.354	0.400	88.5	60.0 120	
Methiocarb	0.000	< 0.100		0.321	0.400	80.2	60.0 120	
Methomyl	0.000	< 0.200		0.673	0.800	84.1	60.0 120	
MGK-264	0.000	< 0.100		0.323	0.400	80.6	50.0 150	
Myclobutanil	0.000	< 0.100		0.326	0.400	81.4	60.0 120	
Naled	0.000	< 0.250		0.772	1.000	77.2	50.0 150	
Oxamyl	0.000	< 0.500		1.749	2.000	87.4	60.0 120	
Paclobutrazole	0.000	< 0.200		0.684	0.800	85.5	60.0 120	
Parathion-Methyl	0.000	< 0.100		0.358	0.400	89.5	50.0 150	
Permethrin	0.000	< 0.100		0.336	0.400	84.1	50.0 150	
Phosmet	0.000	< 0.100		0.342	0.400	85.5	50.0 150	
Piperonyl butoxide	0.000	< 0.500		1.668	2.000	83.4	60.0 120	
Prallethrin	0.000	< 0.100		0.341	0.400	85.2	60.0 120	
Propiconazole	0.000	< 0.200		0.680	0.800	85.0	60.0 120	
Propoxur	0.000	< 0.100		0.321	0.400	80.3	60.0 120	
Pyrethrin (Summe)	0.000	< 0.100		0.376	0.488	77.1	60.0 120	
Pyridaben	0.000	< 0.100		0.315	0.400	78.7	50.0 150	
Spinosad	0.000	< 0.100		0.320	0.388	82.5	50.0 150	
Spiromesifen	0.000	< 0.100		0.339	0.400	84.8	60.0 120	
Spirotetramat	0.000	< 0.100		0.335	0.400	83.8	60.0 120	
Spiroxamine	0.000	< 0.200		0.699	0.800	87.3	60.0 120	



Laboratory Pesticide Quality Control Results

AOAC 2007.1 & EN 15662				Units: mg/Kg				Batch ID: 2500241			
Matrix Spike/Matrix Spike Duplicate Recoveries						Sample ID: 25-000222-0001					
Analyte	Result	MS Res	MSD Res	Spike	RPD%	Limit	MS % Rec	MSD % Rec	Limits	Notes	
Abamectin	0.000	0.826	0.818	1.000	1.0%	< 30	82.6%	81.8%	50 - 150		
Acephate	0.000	0.646	0.637	0.800	1.3%	< 30	80.7%	79.7%	50 - 150		
Acequinocyl	0.094	2.725	3.467	4.000	24.7%	< 30	65.8%	84.3%	50 - 150		
Acetamiprid	0.000	0.326	0.335	0.400	2.5%	< 30	81.6%	83.7%	50 - 150		
Aldicarb	0.000	0.637	0.633	0.800	0.6%	< 30	79.6%	79.2%	50 - 150		
Azoxystrobin	0.000	0.310	0.314	0.400	1.5%	< 30	77.4%	78.6%	50 - 150		
Bifenazate	0.000	0.365	0.369	0.400	1.0%	< 30	91.2%	92.2%	50 - 150		
Bifenthrin	0.000	0.317	0.334	0.400	5.2%	< 30	79.3%	83.5%	50 - 150		
Boscalid	0.000	0.656	0.675	0.800	2.8%	< 30	82.0%	84.4%	50 - 150		
Carbaryl	0.000	0.307	0.321	0.400	4.2%	< 30	76.9%	80.2%	50 - 150		
Carbofuran	0.000	0.331	0.328	0.400	1.1%	< 30	82.8%	81.9%	50 - 150		
Chlorantraniliprole	0.000	0.322	0.329	0.400	2.1%	< 30	80.4%	82.2%	50 - 150		
Chlorfenapyr	0.000	1.833	1.403	2.000	26.6%	< 30	91.7%	70.2%	50 - 150		
Chlorpyrifos	0.000	0.311	0.313	0.400	0.9%	< 30	77.6%	78.3%	50 - 150		
Clofentezine	0.000	0.234	0.271	0.400	14.6%	< 30	58.5%	67.7%	50 - 150		
Cyfluthrin	0.000	1.397	1.453	2.000	3.9%	< 30	69.8%	72.7%	30 - 150		
Cypermethrin	0.000	1.649	1.645	2.000	0.3%	< 30	82.5%	82.3%	50 - 150		
Daminozide	0.000	0.513	0.520	2.000	1.5%	< 30	25.6%	26.0%	30 - 150	Q	
Diazinon	0.000	0.329	0.345	0.400	4.7%	< 30	82.3%	86.3%	50 - 150		
Dichlorvos	0.000	1.565	1.645	2.000	5.0%	< 30	78.2%	82.2%	50 - 150		
Dimethoate	0.000	0.334	0.351	0.400	5.0%	< 30	83.5%	87.8%	50 - 150		
Ethoprophos	0.000	0.304	0.324	0.400	6.3%	< 30	76.0%	80.9%	50 - 150		
Etofenprox	0.000	0.611	0.624	0.800	2.2%	< 30	76.3%	78.0%	50 - 150		
Etoazole	0.000	0.295	0.302	0.400	2.5%	< 30	73.7%	75.6%	50 - 150		
Fenoxycarb	0.000	0.329	0.346	0.400	5.1%	< 30	82.1%	86.4%	50 - 150		
Fenpyroximate	0.000	0.616	0.617	0.800	0.2%	< 30	77.0%	77.1%	50 - 150		
Fipronil	0.000	0.595	0.621	0.800	4.3%	< 30	74.4%	77.6%	50 - 150		
Flonicamid	0.000	0.824	0.865	1.000	4.8%	< 30	82.4%	86.5%	50 - 150		
Fludioxonil	0.000	0.602	0.629	0.800	4.3%	< 30	75.3%	78.6%	50 - 150		
Hexythiazox	0.000	1.018	1.052	1.000	3.2%	< 30	101.8%	105.2%	50 - 150		
Imazalil	0.000	0.350	0.353	0.400	0.8%	< 30	87.4%	88.1%	50 - 150		
Imidacloprid	0.000	0.614	0.632	0.800	3.0%	< 30	76.7%	79.1%	50 - 150		
Kresoxim-methyl	0.000	0.657	0.696	0.800	5.8%	< 30	82.1%	87.0%	50 - 150		
Malathion	0.000	0.339	0.357	0.400	5.2%	< 30	84.7%	89.3%	50 - 150		
Metalaxyl	0.000	0.332	0.334	0.400	0.5%	< 30	82.9%	83.4%	50 - 150		
Methiocarb	0.000	0.306	0.315	0.400	3.0%	< 30	76.4%	78.7%	50 - 150		
Methomyl	0.000	0.662	0.669	0.800	1.1%	< 30	82.7%	83.6%	50 - 150		
MGK-264	0.000	0.320	0.335	0.400	4.5%	< 30	80.1%	83.7%	50 - 150		
Myclobutanil	0.000	0.333	0.346	0.400	3.7%	< 30	83.3%	86.4%	50 - 150		
Naled	0.000	0.738	0.771	1.000	4.3%	< 30	73.8%	77.1%	50 - 150		
Oxamyl	0.000	1.736	1.724	2.000	0.7%	< 30	86.8%	86.2%	50 - 150		
Paclobutrazole	0.000	0.667	0.676	0.800	1.4%	< 30	83.4%	84.5%	50 - 150		
Parathion-Methyl	0.000	0.323	0.332	0.400	2.8%	< 30	80.8%	83.1%	30 - 150		
Permethrin	0.000	0.338	0.348	0.400	2.7%	< 30	84.6%	86.9%	50 - 150		
Phosmet	0.000	0.316	0.337	0.400	6.5%	< 30	78.9%	84.2%	50 - 150		
Piperonyl butoxide	0.000	1.638	1.749	2.000	6.6%	< 30	81.9%	87.5%	50 - 150		
Prallethrin	0.000	0.323	0.333	0.400	2.9%	< 30	80.8%	83.2%	50 - 150		
Propiconazole	0.000	0.658	0.684	0.800	3.8%	< 30	82.3%	85.5%	50 - 150		
Propoxur	0.000	0.322	0.325	0.400	1.0%	< 30	80.4%	81.2%	50 - 150		
Pyrethrin (Summe)	0.000	0.391	0.392	0.488	0.3%	< 30	80.1%	80.3%	50 - 150		
Pyridaben	0.000	0.358	0.364	0.400	1.7%	< 30	89.6%	91.1%	50 - 150		
Spinosad	0.000	0.296	0.289	0.388	2.4%	< 30	76.3%	74.5%	50 - 150		
Spiromesifen	0.000	0.225	0.232	0.400	3.0%	< 30	56.3%	58.0%	50 - 150		
Spirotetramat	0.000	0.325	0.343	0.400	5.2%	< 30	81.3%	85.7%	50 - 150		
Spiroxamine	0.000	0.654	0.686	0.800	4.8%	< 30	81.7%	85.7%	50 - 150		



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



Report Number: 25-000222/D001.R001
Report Date: 01/17/2025
ORELAP#: OR100028
Purchase Order:
Received: 01/08/25 15:16





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.