Lazarus Naturals

CONSOLIDATED TEST RESULTS SUMMARY

Please see the following pages for full test results.

BULK SKU SG100.V2 **BATCH #** FE32

PRODUCT NAME 100 mg softgels (V2) **SERVING SIZE** 1 softgel (0.425g)

LABORATORY: Columbia Laboratories **OREGON ACCREDITATION:** OR100028

LOQ: Limit Of Quantitation
LOD: Limit Of Detection

1 g = 10^{-3} kg = 10^{3} mg = 10^{6} µg 1 mg/kg = 1 ppm = 1000 ppb

POTENCY	PER SERVING	PER GRAM	Percent
Cannabidiol (CBD)	**102.00 mg/serving**	240.00 mg/g	24.00 %
Total THC (d9-THC, THCA)	**0.85 mg/serving**	2.00 mg/g	0.20 %
Cannabigerol (CBG)	**0.91 mg/serving**	2.13 mg/g	0.21 %
Cannabinol (CBN)	**0.85 mg/serving**	2.00 mg/g	0.20 %
Cannabichromene (CBC)	**4.05 mg/serving**	9.54 mg/g	0.95 %
Tetrahydrocannabinolic Acid (THCA)	**<LOQ mg/serving**	<LOQ mg/g	<LOQ %
Delta-9-THC (d9-THC)	**1.04 mg/serving**	2.45 mg/g	0.25 %
Delta-8-THC (d8-THC)	**<LOQ mg/serving**	<LOQ mg/g	<LOQ %

HEAVY METALS	PER SERVING	PER GRAM	REGULATORY ACTION LEVEL
Arsenic	**<LOQ µg/serving**	<LOQ µg/g	10 µg/day [1]
Cadmium	**<LOQ µg/serving**	<LOQ µg/g	4.1 µg/day [1]
Lead	**<LOQ µg/serving**	<LOQ µg/g	6 µg/day [1]
Mercury	**<LOQ µg/serving**	<LOQ µg/g	2 µg/day [1]

PESTICIDES	REGULATORY ACTION LEVEL
None of the other 59 pesticides tested found above limit of detection in the sample.	10 ppb [1]

RESIDUAL SOLVENTS	Results	REGULATORY ACTION LEVEL
Ethanol	<LOQ µg/g	50,000 mg/day
Heptane	<LOQ µg/g	50,000 mg/day
None of the 34 residual solvents tested found above limit of quantitation in the sample.		

MICROBIAL	PASS/FAIL
Yeast & Mold	Pass
Coliform	Pass

TERPENES	% OF SAMPLE
Farnesene	<LOQ %
ß-Caryophyllene	9.97 %
a-Bisabolol	1.59 %
Guaiol	<LOQ %
Humulene	1.17 %
Caryophyllene Oxide	1.95 %

1. American Herbal Pharmacopoeia. (2014). Cannabis Inflorescence: Standards of Identity, Analysis, and Quality Control. Washington DC: AHP.

Columbia LABORATORIES
A Tentamus Company

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

Report Number: 23-006471/D012.R000
Report Date: 06/22/2023
ORELAP#: OR100028
Purchase Order:
Received: 05/31/23 16:23

Customer: Etz Hayim Holdings
Product identity: FORM-SG100.V2-FE32
Client/Metrc ID: .
Laboratory ID: 23-006471-0004

Summary

Potency:

Analyte per 1g	Result	Limits	Units	Status
CBC per 1g	9.54		mg/1g	
CBD per 1g	240		mg/1g	
CBDV per 1g	2.00		mg/1g	
CBE per 1g	21.6		mg/1g	
CBG per 1g	2.13		mg/1g	
CBL per 1g	1.58		mg/1g	
CBN per 1g	2.00		mg/1g	
CBT per 1g	11.1		mg/1g	
Δ9-THC per 1g	2.00		mg/1g	

CBD-Total per Serving Size 240 mg/1g

THC-Total per Serving Size 2.00 mg/1g

(Reported in milligrams per serving)

Residual Solvents:

All analytes passing and less than LOQ.

Pesticides:

All analytes passing and less than LOQ.

Terpenes:

Analyte	Percent by weight	Percent of Total	Analyte	Percent by weight	Percent of Total
(R)-(+)-Limonene	3.18	45.04%	a-pinene	2.76	39.09%
ß-Caryophyllene	0.704	9.97%	(-)-caryophyllene oxide	0.138	1.95%
a-Bisabolol	0.112	1.59%	Humulene	0.0827	1.17%
ß-Myrcene	0.0429	0.61%	Camphene	0.0395	0.56%
Total Terpenes	**7.06**	**100.00%**			

Metals:

Less than LOQ for all analytes.

Microbiology:

Less than LOQ for all analytes.

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Report Date: 06/22/2023
ORELAP#: OR100028
Purchase Order:
Received: 05/31/23 16:23

Customer: Etz Hayim Holdings
16427 NE Airport Way
PORTLAND 97230
United States of America (USA)

Product identity: FORM-SG100.V2-FE32
Client/Metrc ID: .
Sample Date:
Laboratory ID: 23-006471-0004
Evidence of Cooling: No
Temp: 22.2 °C
Relinquished by: Client
Serving Size #1: 1 g
Serving Size #1: 1 g

Sample Results

Potency per 1g **Method:** J AOAC 2015 V98-6 (mod)[þ] **Units** mg/se **Batch:** 2308195 **Analyze:** 6/14/23 4:00:00 AM

Analyte	Result	Limits	Units	LOQ	Notes
CBC per 1g	9.54		mg/1g	0.0329	
CBC-A per 1g	< LOQ		mg/1g	0.0329	
CBC-Total per 1g	9.54		mg/1g	0.0618	
CBD per 1g	240		mg/1g	3.29	
CBD-A per 1g	< LOQ		mg/1g	0.0329	
CBD-Total per 1g	240		mg/1g	3.32	
CBDV per 1g	2.00		mg/1g	0.0329	
CBDV-A per 1g	< LOQ		mg/1g	0.0329	
CBDV-Total per 1g	2.00		mg/1g	0.0615	
CBE per 1g	21.6		mg/1g	3.29	
CBG per 1g	2.13		mg/1g	0.0329	
CBG-A per 1g	< LOQ		mg/1g	0.0329	
CBG-Total per 1g	2.13		mg/1g	0.0615	
CBL per 1g	1.58		mg/1g	0.0329	
CBL-A per 1g	< LOQ		mg/1g	0.0329	
CBL-Total per 1g	1.58		mg/1g	0.0618	
CBN per 1g	2.00		mg/1g	0.0329	
CBT per 1g	11.1		mg/1g	3.29	
Δ8-THCV per 1g	< LOQ		mg/1g	0.0329	
Δ10-THC-9R per 1g	< LOQ		mg/1g	0.0329	
Δ10-THC-9S per 1g	< LOQ		mg/1g	0.0329	
Δ10-THC-Total per 1g	< LOQ		mg/1g	0.0659	
Δ8-THC per 1g	< LOQ		mg/1g	0.0329	
Δ9-THC per 1g	2.00		mg/1g	0.0329	
delta-9-THCP per 1g	< LOQ		mg/1g	0.0329	
exo-THC per 1g	< LOQ		mg/1g	0.0329	
THC-A per 1g	< LOQ		mg/1g	0.0329	
THC-Total per 1g	2.00		mg/1g	0.0618	
THCV per 1g	< LOQ		mg/1g	0.0329	

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ORELAP#: OR100028
Purchase Order:
Received: 05/31/23 16:23

Potency per 1g

Method: J AOAC 2015 V98-6 (mod)þ **Units** mg/se **Batch:** 2308195 **Analyze:** 6/14/23 4:00:00 AM

Analyte	Result	Limits	Units	LOQ	Notes
THCV-A per 1g	< LOQ		mg/1g	0.0329	
THCV-Total per 1g	< LOQ		mg/1g	0.0619	
Total Cannabinoids per 1g	292		mg/1g		

Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed	Method	Status	Notes
Aerobic Plate Count	< LOQ		cfu/g	10	2308277	06/18/23	AOAC 990.12 (Petrifilm)þ		I
E.coli	< LOQ		cfu/g	10	2308275	06/18/23	AOAC 991.14 (Petrifilm)þ		I
Total Coliforms	< LOQ		cfu/g	10	2308275	06/18/23	AOAC 991.14 (Petrifilm)þ		I
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2308276	06/18/23	AOAC 2014.05 (RAPID)þ		I
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2308276	06/18/23	AOAC 2014.05 (RAPID)þ		I

Solvents

Method: Residual Solvents by GC/MSþ **Units** µg/g **Batch** 2308405 **Analyze** 06/21/23 09:20 AM

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		Ethanol	< LOQ		200		
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							

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ORELAP#: OR100028
Purchase Order:
Received: 05/31/23 16:23

Pesticides **Method:** AOAC 2007.01 & EN 15662 (mod)þ **Units** mg/kg **Batch** 2308371 **Analyze** 06/20/23 04:12 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¥	< LOQ	0.20	0.100	pass	
Clofentezine¥	< LOQ	0.20	0.100	pass		Cyfluthrin¥	< LOQ	1.0	0.500	pass	
Cypermethrin¥	< 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		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							

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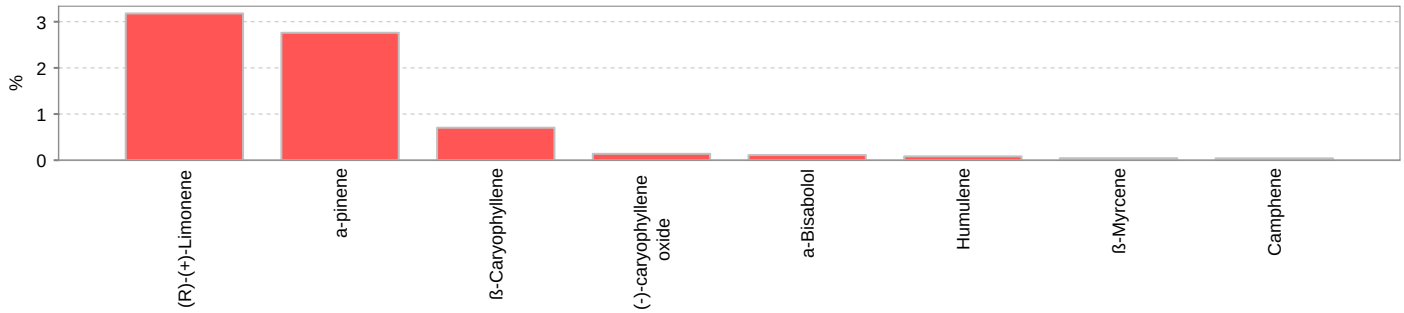
Report Date: 06/22/2023
ORELAP#: OR100028
Purchase Order:
Received: 05/31/23 16:23

Terpenes

Method: J AOAC 2015 V98-6 **Units** % **Batch** 2308421 **Analyze** 06/20/23 01:59 PM

Analyte	Result	LOQ	% of Total	Notes	Analyte	Result	LOQ	% of Total	Notes
(R)-(+)-Limonene	3.18	0.019	45.04%		a-pinene	2.76	0.019	39.09%	
ß-Caryophyllene	0.704	0.019	9.972%		(-)-caryophyllene oxide	0.138	0.019	1.955%	
a-Bisabolol	0.112	0.019	1.586%		Humulene	0.0827	0.019	1.1714%	
ß-Myrcene	0.0429	0.019	0.6076%		Camphene	0.0395	0.019	0.5595%	
(-)-ß-Pinene	< LOQ	0.019	0.00%		Linalool	< LOQ	0.019	0.00%	
(±)-trans-Nerolidol	< LOQ	0.019	0.00%		Geranyl acetate	< LOQ	0.019	0.00%	
(+)-Cedrol	< LOQ	0.019	0.00%		(-)-Guaiol	< LOQ	0.019	0.00%	
(+)-fenchol	< LOQ	0.019	0.00%		Sabinene	< LOQ	0.019	0.00%	
Geraniol	< LOQ	0.019	0.00%		(±)-Camphor	< LOQ	0.019	0.00%	
(+)-Borneol	< LOQ	0.019	0.00%		(±)-fenchone	< LOQ	0.019	0.00%	
valencene	< LOQ	0.019	0.00%		Isoborneol	< LOQ	0.019	0.00%	
(±)-cis-Nerolidol	< LOQ	0.019	0.00%		(+)-Pulegone	< LOQ	0.019	0.00%	
nerol	< LOQ	0.019	0.00%		(-)-Isopulegol	< LOQ	0.019	0.00%	
Menthol	< LOQ	0.019	0.00%		(-)-a-Terpineol	< LOQ	0.019	0.00%	
a-Terpinene	< LOQ	0.019	0.00%		a-cedrene	< LOQ	0.019	0.00%	
a-phellandrene	< LOQ	0.019	0.00%		cis-ß-Ocimene	< LOQ	0.006	0.00%	
d-3-Carene	< LOQ	0.019	0.00%		Eucalyptol	< LOQ	0.019	0.00%	
farnesene	< LOQ	0.019	0.00%		gamma-Terpinene	< LOQ	0.019	0.00%	
p-Cymene	< LOQ	0.019	0.00%		Sabinene hydrate	< LOQ	0.019	0.00%	
Terpinolene	< LOQ	0.019	0.00%		trans-ß-Ocimene	< LOQ	0.012	0.00%	
Total Terpenes	**7.06**								



Metals

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed	Method	Status	Notes
Arsenic¥	< LOQ	0.200	mg/kg	0.0920	2308392	06/20/23	AOAC 2013.06 (mod.)þ	pass	
Cadmium¥	< LOQ	0.200	mg/kg	0.0920	2308392	06/20/23	AOAC 2013.06 (mod.)þ	pass	
Lead¥	< LOQ	0.500	mg/kg	0.0920	2308392	06/20/23	AOAC 2013.06 (mod.)þ	pass	
Mercury¥	< LOQ	0.100	mg/kg	0.0460	2308392	06/20/23	AOAC 2013.06 (mod.)þ	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.

þ = ISO/IEC 17025:2017 accredited method.
¥ = TNI accredited analyte.

Units of Measure

cfu/g = Colony forming units per gram
g = g
µg/g = Microgram per gram
mg/kg = Milligram per kilogram = parts per million (ppm)
mg/1g = Milligram per 1g
% = Percentage of sample
% wt = µg/g divided by 10,000

Glossary of Qualifiers

I: Insufficient sample received to meet method requirements.

Approved Signatory

Derrick Tanner
General Manager

Testing in accordance with: OAR 333-007-0430

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Purchase Order:
Received: 05/31/23 16:23

Revision: 1 Document ID: 7148
Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

JAOAC2015 V986 Batch ID: 2307856

Laboratory Control Sample

Analyte	LCS	Result	Spike	Units	% Rec	Limits	Evaluation	Notes
CBDVA	2	0.0283	0.0283	%	99.8	80.0 - 120	Acceptable	
CBDV	2	0.0282	0.0291	%	96.8	80.0 - 120	Acceptable	
CBE	2	0.0313	0.0344	%	91.2	80.0 - 120	Acceptable	
CBDA	1	0.0289	0.0311	%	92.9	90.0 - 110	Acceptable	
CBGA	1	0.0305	0.0311	%	98.1	80.0 - 120	Acceptable	
CBG	1	0.0308	0.0322	%	95.7	80.0 - 120	Acceptable	
CBD	1	0.0326	0.0323	%	101	90.0 - 110	Acceptable	
THCV	2	0.0193	0.0201	%	95.8	80.0 - 120	Acceptable	
d8THCV	2	0.0254	0.0268	%	94.4	80.0 - 120	Acceptable	
THCVA	2	0.0295	0.0299	%	98.8	80.0 - 120	Acceptable	
CBN	1	0.0329	0.0329	%	99.9	80.0 - 120	Acceptable	
exo-THC	2	0.0286	0.0292	%	97.8	80.0 - 120	Acceptable	
d9THC	1	0.0311	0.0341	%	91.0	90.0 - 110	Acceptable	
d8THC	1	0.0399	0.0420	%	94.9	90.0 - 110	Acceptable	
9Sd10THC	1	0.0246	0.0240	%	102	80.0 - 120	Acceptable	
CBL	2	0.0318	0.0315	%	101	80.0 - 120	Acceptable	
9Rd10THC	1	0.0313	0.0310	%	101	80.0 - 120	Acceptable	
CBC	2	0.0315	0.0309	%	102	80.0 - 120	Acceptable	
THCA	1	0.0315	0.0314	%	100	90.0 - 110	Acceptable	
CBCA	2	0.0336	0.0326	%	103	80.0 - 120	Acceptable	
CBLA	2	0.0334	0.0331	%	101	80.0 - 120	Acceptable	
d9THCP	2	0.0327	0.0321	%	102	80.0 - 120	Acceptable	
CBT	2	0.0332	0.0327	%	102	80.0 - 120	Acceptable	

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.00323	%	< 0.00323	Acceptable	
CBDV	<LOQ	0.00323	%	< 0.00323	Acceptable	
CBE	<LOQ	0.00323	%	< 0.00323	Acceptable	
CBDA	<LOQ	0.00323	%	< 0.00323	Acceptable	
CBGA	<LOQ	0.00323	%	< 0.00323	Acceptable	
CBG	<LOQ	0.00323	%	< 0.00323	Acceptable	
CBD	<LOQ	0.00323	%	< 0.00323	Acceptable	
THCV	<LOQ	0.00323	%	< 0.00323	Acceptable	
d8THCV	<LOQ	0.00323	%	< 0.00323	Acceptable	
THCVA	<LOQ	0.00323	%	< 0.00323	Acceptable	
CBN	<LOQ	0.00323	%	< 0.00323	Acceptable	
exo-THC	<LOQ	0.00323	%	< 0.00323	Acceptable	
d9THC	<LOQ	0.00323	%	< 0.00323	Acceptable	
d8THC	<LOQ	0.00323	%	< 0.00323	Acceptable	
9Sd10THC	<LOQ	0.00323	%	< 0.00323	Acceptable	
CBL	<LOQ	0.00323	%	< 0.00323	Acceptable	
9Rd10THC	<LOQ	0.00323	%	< 0.00323	Acceptable	
CBC	<LOQ	0.00323	%	< 0.00323	Acceptable	
THCA	<LOQ	0.00323	%	< 0.00323	Acceptable	
CBCA	<LOQ	0.00323	%	< 0.00323	Acceptable	
CBLA	<LOQ	0.00323	%	< 0.00323	Acceptable	
d9THCP	<LOQ	0.00323	%	< 0.00323	Acceptable	
CBT	<LOQ	0.00323	%	< 0.00323	Acceptable	

Abbreviations

ND - None Detected at or above MRL
RPD - Relative Percent Difference
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Units of Measure:

% - Percent

Columbia LABORATORIES
A Tentamus Company

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

Report Number: 23-006471/D012.R000
Report Date: 06/22/2023
ORELAP#: OR100028
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Received: 05/31/23 16:23

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Laboratory Quality Control Results

JAOAC2015 V986 — Batch ID: 2307856
Sample Duplicate — Sample ID: 23-006038000101

Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.00313	%	NA	< 20	Acceptable	
CBDV	0.0139	0.0142	0.00313	%	2.49	< 20	Acceptable	
CBE	<LOQ	<LOQ	0.00313	%	NA	< 20	Acceptable	
CBDA	<LOQ	<LOQ	0.00313	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.00313	%	NA	< 20	Acceptable	
CBG	0.00782	0.00810	0.00313	%	3.59	< 20	Acceptable	
CBD	2.71	2.84	0.00313	%	4.64	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.00313	%	NA	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.00313	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.00313	%	NA	< 20	Acceptable	
CBN	<LOQ	<LOQ	0.00313	%	NA	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.00313	%	NA	< 20	Acceptable	
d9THC	0.132	0.137	0.00313	%	3.98	< 20	Acceptable	
d8THC	0.0199	0.0206	0.00313	%	3.44	< 20	Acceptable	
9Sd10THC	<LOQ	<LOQ	0.00313	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.00313	%	NA	< 20	Acceptable	
9Rd10THC	<LOQ	<LOQ	0.00313	%	NA	< 20	Acceptable	
CBC	0.0103	0.0108	0.00313	%	4.45	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.00313	%	NA	< 20	Acceptable	
CBCA	<LOQ	<LOQ	0.00313	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.00313	%	NA	< 20	Acceptable	
d9THCP	<LOQ	<LOQ	0.00313	%	NA	< 20	Acceptable	
CBT	0.0216	0.0224	0.00313	%	3.46	< 20	Acceptable	

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Laboratory Quality Control Results

JAOAC2015 V986 — Batch ID: 2308195

Laboratory Control Sample

Analyte	LCS	Result	Spike	Units	%Rec	Limits	Evaluation	Notes
CBDVA	2	0.0290	0.0283	%	102	80.0 - 120	Acceptable	
CBDV	2	0.0301	0.0291	%	103	80.0 - 120	Acceptable	
CBE	2	0.0350	0.0344	%	102	80.0 - 120	Acceptable	
CBDA	1	0.0318	0.0324	%	98.0	90.0 - 110	Acceptable	
CBGA	1	0.0316	0.0328	%	96.3	80.0 - 120	Acceptable	
CBG	1	0.0329	0.0340	%	96.7	80.0 - 120	Acceptable	
CBD	1	0.0329	0.0343	%	95.9	90.0 - 110	Acceptable	
THCV	2	0.0210	0.0201	%	104	80.0 - 120	Acceptable	
d8THCV	2	0.0267	0.0268	%	99.5	80.0 - 120	Acceptable	
THCVA	2	0.0309	0.0299	%	103	80.0 - 120	Acceptable	
CBN	1	0.0337	0.0347	%	96.9	80.0 - 120	Acceptable	
exo-THC	2	0.0293	0.0292	%	100	80.0 - 120	Acceptable	
d9THC	1	0.0346	0.0351	%	98.5	90.0 - 110	Acceptable	
d8THC	1	0.0434	0.0428	%	101	90.0 - 110	Acceptable	
9Sd10THC	1	0.0245	0.0246	%	99.7	80.0 - 120	Acceptable	
CBL	2	0.0324	0.0315	%	103	80.0 - 120	Acceptable	
9Rd10THC	1	0.0314	0.0330	%	95.2	80.0 - 120	Acceptable	
CBC	2	0.0315	0.0309	%	102	80.0 - 120	Acceptable	
THCA	1	0.0316	0.0332	%	95.3	90.0 - 110	Acceptable	
CBCA	2	0.0334	0.0326	%	102	80.0 - 120	Acceptable	
CBLA	2	0.0337	0.0331	%	102	80.0 - 120	Acceptable	
d9THCP	2	0.0326	0.0321	%	102	80.0 - 120	Acceptable	
CBT	2	0.0330	0.0327	%	101	80.0 - 120	Acceptable	

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBDV	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBE	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBDA	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBGA	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBG	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBD	<LOQ	0.00327	%	< 0.00327	Acceptable	
THCV	<LOQ	0.00327	%	< 0.00327	Acceptable	
d8THCV	<LOQ	0.00327	%	< 0.00327	Acceptable	
THCVA	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBN	<LOQ	0.00327	%	< 0.00327	Acceptable	
exo-THC	<LOQ	0.00327	%	< 0.00327	Acceptable	
d9THC	<LOQ	0.00327	%	< 0.00327	Acceptable	
d8THC	<LOQ	0.00327	%	< 0.00327	Acceptable	
9Sd10THC	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBL	<LOQ	0.00327	%	< 0.00327	Acceptable	
9Rd10THC	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBC	<LOQ	0.00327	%	< 0.00327	Acceptable	
THCA	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBCA	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBLA	<LOQ	0.00327	%	< 0.00327	Acceptable	
d9THCP	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBT	<LOQ	0.00327	%	< 0.00327	Acceptable	

Abbreviations

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Columbia LABORATORIES
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Laboratory Quality Control Results

JAOAC2015 V98-6 Batch ID: 2308195
Sample Duplicate Sample ID: 23-006471-0003-02

Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBDV	0.0896	0.0897	0.00311	%	0.112	< 20	Acceptable	
CBE	1.09	1.10	0.00311	%	0.467	< 20	Acceptable	
CBDA	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBG	0.0772	0.0749	0.00311	%	3.03	< 20	Acceptable	
CBD	11.7	11.8	0.00311	%	0.471	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBN	0.0935	0.0938	0.00311	%	0.254	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
d9THC	0.126	0.128	0.00311	%	1.75	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
9Sd10THC	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBL	0.0601	0.0635	0.00311	%	5.45	< 20	Acceptable	
9Rd10THC	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBC	0.494	0.493	0.00311	%	0.219	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBCA	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
d9THCP	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBT	0.379	0.379	0.00311	%	0.0001	< 20	Acceptable	

Abbreviations

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Report Number: 23-006471/D012.R000
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Laboratory Pesticide Quality Control Results

AOAC 2007.1 &EN 15662			Units: mg/Kg				Batch ID: 2308371			
Method Blank				Laboratory Control Sample						
Analyte	Blank Result	Blank Limits	Notes	LCS Result	LCS Spike	LCS % Re	Limits		Notes
Abamectin	0.000	< 0.250		0.942	1.000	94.2	50.0	150	
Acephate	0.035	< 0.200		0.666	0.800	83.3	60.0	120	
Acequinocyl	0.000	< 1.000		3.599	4.000	90.0	40.0	160	
Acetamiprid	0.002	< 0.100		0.371	0.400	92.7	60.0	120	
Aldicarb	0.000	< 0.200		0.751	0.800	93.8	60.0	120	
Azoxystrobin	0.001	< 0.100		0.367	0.400	91.7	60.0	120	
Bifenazate	0.000	< 0.100		0.367	0.400	91.7	60.0	120	
Bifenthrin	0.000	< 0.100		0.369	0.400	92.2	50.0	150	
Boscalid	0.000	< 0.200		0.769	0.800	96.1	60.0	120	
Carbaryl	0.000	< 0.100		0.361	0.400	90.2	60.0	120	
Carbofuran	0.000	< 0.100		0.369	0.400	92.3	60.0	120	
Chlorantraniliprole	0.000	< 0.100		0.374	0.400	93.4	60.0	120	
Chlorfenapyr	0.000	< 0.500		1.787	2.000	89.4	60.0	120	
Chlorpyrifos	0.003	< 0.100		0.357	0.400	89.4	60.0	120	
Clofentezine	0.000	< 0.100		0.370	0.400	92.6	60.0	120	
Cyfluthrin	0.000	< 0.500		1.794	2.000	89.7	50.0	150	
Cypermethrin	0.000	< 0.500		1.831	2.000	91.5	50.0	150	
Daminozide	0.018	< 0.500		0.640	2.000	32.0	60.0	120	Q6
Diazinon	0.000	< 0.100		0.383	0.400	95.6	60.0	120	
Dichlorvos	0.000	< 0.500		1.798	2.000	89.9	60.0	120	
Dimethoate	0.000	< 0.100		0.389	0.400	97.3	60.0	120	
Ethoprophos	0.001	< 0.100		0.370	0.400	92.4	60.0	120	
Etofenprox	0.000	< 0.200		0.743	0.800	92.9	50.0	150	
Etoxazole	0.005	< 0.100		0.382	0.400	95.4	60.0	120	
Fenoxycarb	0.000	< 0.100		0.375	0.400	93.8	60.0	120	
Fenpyroximate	0.000	< 0.200		0.748	0.800	93.5	60.0	120	
Fipronil	0.000	< 0.200		0.747	0.800	93.4	60.0	120	
Flonicamid	0.000	< 0.250		0.982	1.000	98.2	60.0	120	
Fludioxonil	0.000	< 0.200		0.746	0.800	93.3	50.0	150	
Hexythiazox	0.000	< 0.250		0.912	1.000	91.2	60.0	120	
Imazalil	0.004	< 0.100		0.370	0.400	92.5	60.0	120	
Imidacloprid	0.000	< 0.200		0.701	0.800	87.6	60.0	120	
Kresoxim-methyl	0.000	< 0.200		0.712	0.800	89.0	60.0	120	
Malathion	0.001	< 0.100		0.368	0.400	92.0	60.0	120	
Metalaxyl	0.000	< 0.100		0.371	0.400	92.6	60.0	120	
Methiocarb	0.002	< 0.100		0.367	0.400	91.7	60.0	120	
Methomyl	0.000	< 0.200		0.789	0.800	98.6	60.0	120	
MGK-264	0.000	< 0.100		0.363	0.400	90.8	50.0	150	
Myclobutanil	0.000	< 0.100		0.359	0.400	89.7	60.0	120	
Naled	0.000	< 0.250		0.919	1.000	91.9	50.0	150	
Oxamyl	0.000	< 0.500		1.866	2.000	93.3	60.0	120	
Paclobutrazole	0.002	< 0.200		0.728	0.800	91.0	60.0	120	
Parathion-Methyl	0.000	< 0.100		0.330	0.400	82.5	50.0	150	
Permethrin	0.000	< 0.100		0.362	0.400	90.4	50.0	150	
Phosmet	0.000	< 0.100		0.369	0.400	92.4	50.0	150	
Piperonyl butoxide	0.000	< 0.500		1.874	2.000	93.7	60.0	120	
Prallethrin	0.000	< 0.100		0.372	0.400	93.1	60.0	120	
Propiconazole	0.000	< 0.200		0.740	0.800	92.4	60.0	120	
Propoxur	0.004	< 0.100		0.373	0.400	93.3	60.0	120	
Pyrethrin (Summe)	0.000	< 0.100		0.453	0.488	92.8	60.0	120	
Pyridaben	0.005	< 0.100		0.377	0.400	94.4	50.0	150	
Spinosad	0.000	< 0.100		0.347	0.388	89.6	50.0	150	
Spiromesifen	0.000	< 0.100		0.371	0.400	92.7	60.0	120	
Spirotetramat	0.000	< 0.100		0.373	0.400	93.3	60.0	120	
Spiroxamine	0.008	< 0.200		0.755	0.800	94.4	60.0	120	
Tebuconazole	0.000	< 0.200		0.728	0.800	91.1	60.0	120	
Thiadoprid	0.000	< 0.100		0.373	0.400	93.3	60.0	120	
Thiamethoxam	0.000	< 0.100		0.391	0.400	97.7	60.0	120	
Trifloxystrobin	0.002	< 0.100		0.369	0.400	92.2	60.0	120	

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Laboratory Pesticide Quality Control Results

AOAC 2007.1 &EN 15662			Units: mg/Kg						Batch ID: 2308371			
Matrix Spike/Matrix Spike Duplicate Recoveries							Sample ID: 23-0070360004					
Analyte	Result	MS Res	MSD Res	Spike	RPD%	Limit	MS % Rec	MSD % Rec	Limits			Notes
Abamectin	0.000	0.987	0.987	1.000	0.0%	< 30	98.7%	98.7%	50	-	150	
Acephate	0.031	0.707	0.708	0.800	0.3%	< 30	84.5%	84.7%	50	-	150	
Acequinocyl	0.096	3.769	3.766	4.000	0.1%	< 30	91.8%	91.7%	50	-	150	
Acetamiprid	0.002	0.385	0.380	0.400	1.4%	< 30	95.7%	94.3%	50	-	150	
Aldicarb	0.000	0.778	0.772	0.800	0.8%	< 30	97.3%	96.5%	50	-	150	
Azoxystrobin	0.001	0.377	0.378	0.400	0.4%	< 30	94.0%	94.4%	50	-	150	
Bifenazate	0.000	0.385	0.379	0.400	1.4%	< 30	96.2%	94.8%	50	-	150	
Bifenthrin	0.000	0.383	0.386	0.400	0.8%	< 30	95.7%	96.4%	50	-	150	
Boscalid	0.000	0.757	0.745	0.800	1.6%	< 30	94.6%	93.1%	50	-	150	
Carbaryl	0.000	0.383	0.380	0.400	0.8%	< 30	95.7%	94.9%	50	-	150	
Carbofuran	0.000	0.383	0.382	0.400	0.2%	< 30	95.8%	95.6%	50	-	150	
Chlorantraniliprole	0.000	0.402	0.382	0.400	4.9%	< 30	100.4%	95.6%	50	-	150	
Chlorfenapyr	0.000	1.824	1.871	2.000	2.6%	< 30	91.2%	93.6%	50	-	150	
Chlorpyrifos	0.003	0.378	0.374	0.400	1.3%	< 30	93.9%	92.7%	50	-	150	
Clofentezine	0.000	0.352	0.344	0.400	2.4%	< 30	88.1%	86.0%	50	-	150	
Cyfluthrin	0.000	1.886	1.808	2.000	4.2%	< 30	94.3%	90.4%	30	-	150	
Cypermethrin	0.000	1.963	1.941	2.000	1.1%	< 30	98.1%	97.1%	50	-	150	
Daminozide	0.005	0.648	0.660	2.000	1.8%	< 30	32.2%	32.8%	30	-	150	
Diazinon	0.000	0.405	0.399	0.400	1.5%	< 30	101.2%	99.7%	50	-	150	
Dichlorvos	0.022	1.978	1.977	2.000	0.1%	< 30	97.8%	97.8%	50	-	150	
Dimethoate	0.000	0.389	0.393	0.400	1.2%	< 30	97.2%	98.4%	50	-	150	
Ethoprophos	0.001	0.383	0.377	0.400	1.4%	< 30	95.5%	94.1%	50	-	150	
Etofenprox	0.000	0.771	0.759	0.800	1.5%	< 30	96.4%	94.9%	50	-	150	
Etoxazole	0.004	0.411	0.410	0.400	0.1%	< 30	101.6%	101.4%	50	-	150	
Fenoxycarb	0.000	0.384	0.387	0.400	0.7%	< 30	96.0%	96.6%	50	-	150	
Fenpyroximate	0.000	0.804	0.794	0.800	1.3%	< 30	100.5%	99.3%	50	-	150	
Fipronil	0.000	0.778	0.778	0.800	0.0%	< 30	97.3%	97.3%	50	-	150	
Flonicamid	0.000	1.005	0.949	1.000	5.8%	< 30	100.5%	94.9%	50	-	150	
Fludioxonil	0.000	0.751	0.762	0.800	1.4%	< 30	93.9%	95.2%	50	-	150	
Hexythiazox	0.010	0.943	0.930	1.000	1.4%	< 30	93.3%	92.0%	50	-	150	
Imazalil	0.004	0.390	0.376	0.400	3.6%	< 30	96.5%	93.1%	50	-	150	
Imidacloprid	0.000	0.732	0.724	0.800	1.1%	< 30	91.5%	90.5%	50	-	150	
Kresoxim-methyl	0.000	0.776	0.741	0.800	4.6%	< 30	97.1%	92.7%	50	-	150	
Malathion	0.001	0.384	0.378	0.400	1.4%	< 30	95.8%	94.4%	50	-	150	
Metalaxyl	0.000	0.389	0.388	0.400	0.2%	< 30	97.3%	97.1%	50	-	150	
Methiocarb	0.002	0.387	0.381	0.400	1.6%	< 30	96.3%	94.8%	50	-	150	
Methomyl	0.000	0.786	0.795	0.800	1.1%	< 30	98.3%	99.3%	50	-	150	
MGK-264	0.000	0.375	0.383	0.400	2.0%	< 30	93.9%	95.8%	50	-	150	
Myclobutanil	0.000	0.392	0.388	0.400	1.2%	< 30	98.1%	96.9%	50	-	150	
Naled	0.000	0.970	0.950	1.000	2.1%	< 30	97.0%	95.0%	50	-	150	
Oxamyl	0.000	1.939	1.767	2.000	9.3%	< 30	97.0%	88.3%	50	-	150	
Paclobutrazole	0.000	0.790	0.762	0.800	3.6%	< 30	98.8%	95.2%	50	-	150	
Parathion-Methyl	0.000	0.400	0.364	0.400	9.3%	< 30	100.0%	91.1%	30	-	150	
Permethrin	0.000	0.386	0.367	0.400	4.8%	< 30	96.4%	91.9%	50	-	150	
Phosmet	0.000	0.388	0.373	0.400	3.8%	< 30	96.9%	93.3%	50	-	150	
Piperonyl butoxide	0.000	1.929	1.918	2.000	0.6%	< 30	96.5%	95.9%	50	-	150	
Prallethrin	0.000	0.380	0.387	0.400	1.8%	< 30	95.0%	96.7%	50	-	150	
Propiconazole	0.000	0.776	0.765	0.800	1.5%	< 30	97.0%	95.6%	50	-	150	
Propoxur	0.004	0.388	0.385	0.400	0.8%	< 30	96.0%	95.3%	50	-	150	
Pyrethrin (Summe)	0.009	0.376	0.369	0.488	2.1%	< 30	75.2%	73.6%	50	-	150	
Pyridaben	0.005	0.372	0.373	0.400	0.1%	< 30	91.9%	92.0%	50	-	150	
Spinosad	0.000	0.359	0.362	0.388	0.8%	< 30	92.6%	93.4%	50	-	150	
Spiromesifen	0.000	0.390	0.384	0.400	1.6%	< 30	97.6%	96.0%	50	-	150	
Spirotetramat	0.000	0.382	0.378	0.400	1.1%	< 30	95.6%	94.6%	50	-	150	
Spiroxamine	0.000	0.791	0.781	0.800	1.3%	< 30	98.8%	97.6%	50	-	150	
Tebuconazole	0.000	0.779	0.769	0.800	1.2%	< 30	97.4%	96.2%	50	-	150	
Thiadoprid	0.000	0.392	0.383	0.400	2.1%	< 30	97.9%	95.8%	50	-	150	
Thiamethoxam	0.000	0.392	0.373	0.400	4.9%	< 30	98.0%	93.3%	50	-	150	
Trifloxystrobin	0.002	0.387	0.387	0.400	0.2%	< 30	96.4%	96.2%	50	-	150	

Columbia LABORATORIES
A Tentamus Company

12423 NE Whitaker Way
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503-254-1794

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Laboratory Quality Control Results

Residual Solvents — Batch ID: 2308405

Method Blank					Laboratory Control Sample							
Analyte	Result		LOQ	Notes	Result	Spike	Units	%Rec	Limits			Notes
Propane	ND	<	200		538	584	µg/g	92.1	60	-	120	
Isobutane	ND	<	200		656	767	µg/g	85.5	60	-	120	
Butane	ND	<	200		677	782	µg/g	86.6	60	-	120	
2,2-Dimethylpropane	ND	<	200		807	939	µg/g	85.9	60	-	120	
Methanol	ND	<	200		1390	1640	µg/g	84.8	60	-	120	
Ethylene Oxide	ND	<	30		51.8	57.1	µg/g	90.7	60	-	120	
2-Methylbutane	ND	<	200		1360	1600	µg/g	85.0	60	-	120	
Pentane	ND	<	200		1400	1620	µg/g	86.4	60	-	120	
Ethanol	ND	<	200		1410	1610	µg/g	87.6	70	-	130	
Ethyl Ether	ND	<	200		1440	1610	µg/g	89.4	60	-	120	
2,2-Dimethylbutane	ND	<	30		144	168	µg/g	85.7	60	-	120	
Acetone	ND	<	200		1410	1620	µg/g	87.0	60	-	120	
2-Propanol	ND	<	200		1420	1600	µg/g	88.8	60	-	120	
Ethyl Formate	ND	<	500		1200	1600	µg/g	75.0	70	-	130	
Acetonitrile	ND	<	100		414	484	µg/g	85.5	60	-	120	
Methyl Acetate	ND	<	500		1440	1610	µg/g	89.4	70	-	130	
2,3-Dimethylbutane	ND	<	30		150	162	µg/g	92.6	60	-	120	
Dichloromethane	ND	<	60		449	483	µg/g	93.0	60	-	120	
2-Methylpentane	ND	<	30		136	174	µg/g	78.2	60	-	120	
MTBE	ND	<	500		1490	1610	µg/g	92.5	70	-	130	
3-Methylpentane	ND	<	30		151	168	µg/g	89.9	60	-	120	
Hexane	ND	<	30		146	168	µg/g	86.9	60	-	120	
1-Propanol	ND	<	500		1410	1600	µg/g	88.1	70	-	130	
Methylethylketone	ND	<	500		1480	1620	µg/g	91.4	70	-	130	
Ethyl acetate	ND	<	200		1430	1600	µg/g	89.4	60	-	120	
2-Butanol	ND	<	200		1400	1600	µg/g	87.5	60	-	120	
Tetrahydrofuran	ND	<	100		453	514	µg/g	88.1	60	-	120	
Cyclohexane	ND	<	200		1460	1600	µg/g	91.3	60	-	120	
2-methyl-1-propanol	ND	<	500		1460	1610	µg/g	90.7	70	-	130	
Benzene	ND	<	1		3.85	5.12	µg/g	75.2	60	-	120	
Isopropyl Acetate	ND	<	200		1440	1620	µg/g	88.9	60	-	120	
Heptane	ND	<	200		1450	1610	µg/g	90.1	60	-	120	
1-Butanol	ND	<	500		1390	1600	µg/g	86.9	70	-	130	
Propyl Acetate	ND	<	500		1200	1600	µg/g	75.0	70	-	130	
1,4-Dioxane	ND	<	100		400	493	µg/g	81.1	60	-	120	
2-Ethoxyethanol	ND	<	30		137	163	µg/g	84.0	60	-	120	
Methylisobutylketone	ND	<	500		1450	1600	µg/g	90.6	70	-	130	
3-Methyl-1-butanol	ND	<	500		1490	1610	µg/g	92.5	70	-	130	
Ethylene Glycol	ND	<	200		527	483	µg/g	109.1	60	-	120	
Toluene	ND	<	100		431	493	µg/g	87.4	60	-	120	
Isobutyl Acetate	ND	<	500		1400	1600	µg/g	87.5	70	-	130	
1-Pentanol	ND	<	500		1380	1600	µg/g	86.3	70	-	130	
Butyl Acetate	ND	<	500		1360	1600	µg/g	85.0	70	-	130	
Ethylbenzene	ND	<	200		803	969	µg/g	82.9	60	-	120	
m,p-Xylene	ND	<	200		748	968	µg/g	77.3	60	-	120	
o-Xylene	ND	<	200		815	976	µg/g	83.5	60	-	120	
Cumene	ND	<	30		129	162	µg/g	79.6	60	-	120	
Anisole	ND	<	500		1340	1610	µg/g	83.2	70	-	130	
DMSO	ND	<	500		1270	1610	µg/g	78.9	70	-	130	
1,2-dimethoxyethane	ND	<	50		144	164	µg/g	87.8	70	-	130	
Triethylamine	ND	<	500		1480	1600	µg/g	92.5	70	-	130	
N,N-dimethylformamide	ND	<	150		430	484	µg/g	88.8	70	-	130	
N,N-dimethylacetamide	ND	<	150		459	489	µg/g	93.9	70	-	130	
Pyridine	ND	<	50		143	172	µg/g	83.1	70	-	130	
Sulfolane	ND	<	50		75.2	163	µg/g	46.1	70	-	130	Q6
1,2-Dichloroethane	ND	<	1		0.883	1	µg/g	88.3	70	-	130	
Chloroform	ND	<	1		0.916	1	µg/g	91.6	70	-	130	
Trichloroethylene	ND	<	1		0.893	1	µg/g	89.3	70	-	130	
1,1-Dichloroethane	ND	<	1		0.933	1	µg/g	93.3	70	-	130	

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QC- Sample Duplicate — Sample ID: 23-006471-0004

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
Q6 - Quality control outside QC limits. Data acceptable based on remaining QC.

Units of Measure:

µg/g- Microgram per gram or ppm

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Terpenes Quality Control Results

Method Reference: EPA 5035 — Batch ID: 2308421

	Method Blank				Laboratory Control Sample					
Analyte	Result		LOQ	Notes	Result	LCS	Units	LCS % Rec	Limits	Notes
a-pinene	<LOQ	<	200		407	500	µg/g	81%	70 - 130	
Camphene	<LOQ	<	200		416	500	µg/g	83%	70 - 130	
Sabinene	<LOQ	<	200		404	500	µg/g	81%	70 - 130	
b-Pinene	<LOQ	<	200		403	500	µg/g	81%	70 - 130	
b-Myrcene	<LOQ	<	200		398	500	µg/g	80%	70 - 130	
a-phelllandrene	<LOQ	<	200		419	500	µg/g	84%	70 - 130	
d-3-Carene	<LOQ	<	200		407	500	µg/g	81%	70 - 130	
a-Terpinene	<LOQ	<	200		412	500	µg/g	82%	70 - 130	
p-Cymene	<LOQ	<	200		401	500	µg/g	80%	70 - 130	
D-Limonene	<LOQ	<	200		409	500	µg/g	82%	70 - 130	
Eucalyptol	<LOQ	<	200		409	500	µg/g	82%	70 - 130	
b-cis-Ocimene	<LOQ	<	67		132	167	µg/g	79%	70 - 130	
b-trans-Ocimene	<LOQ	<	133		270	333	µg/g	81%	70 - 130	
g-Terpinene	<LOQ	<	200		409	500	µg/g	82%	70 - 130	
Sabinene_Hydrate	<LOQ	<	200		415	500	µg/g	83%	70 - 130	
Terpinolene	<LOQ	<	200		402	500	µg/g	80%	70 - 130	
D-Fenchone	<LOQ	<	200		409	500	µg/g	82%	70 - 130	
Linalool	<LOQ	<	200		412	500	µg/g	82%	70 - 130	
Fenchol	<LOQ	<	200		409	500	µg/g	82%	70 - 130	
Camphor	<LOQ	<	200		406	500	µg/g	81%	70 - 130	
Isopulego	<LOQ	<	200		416	500	µg/g	83%	70 - 130	
Isoborneol	<LOQ	<	200		420	500	µg/g	84%	70 - 130	
Borneol	<LOQ	<	200		423	500	µg/g	85%	70 - 130	
DL-Menthol	<LOQ	<	200		393	500	µg/g	79%	70 - 130	
Terpineol	<LOQ	<	200		402	500	µg/g	80%	70 - 130	
Nerol	<LOQ	<	200		350	500	µg/g	70%	70 - 130	
Pulegone	<LOQ	<	200		384	500	µg/g	77%	70 - 130	
Geraniol	<LOQ	<	200		384	500	µg/g	77%	70 - 130	
Geranyl_Acetate	<LOQ	<	200		365	500	µg/g	73%	70 - 130	
a-Cedrene	<LOQ	<	200		402	500	µg/g	80%	70 - 130	
b-Caryophyllene	<LOQ	<	200		415	500	µg/g	83%	70 - 130	
a-Humulene	<LOQ	<	200		419	500	µg/g	84%	70 - 130	
Valencene	<LOQ	<	200		399	500	µg/g	80%	70 - 130	
cis-Nerolidol	<LOQ	<	200		405	500	µg/g	81%	70 - 130	
a-Farnesene	<LOQ	<	200		419	500	µg/g	84%	70 - 130	
trans-Nerolidol	<LOQ	<	200		426	500	µg/g	85%	70 - 130	
Caryophyllene_Oxide	<LOQ	<	200		423	500	µg/g	85%	70 - 130	
Guaiol	<LOQ	<	200		419	500	µg/g	84%	70 - 130	
Cedrol	<LOQ	<	200		415	500	µg/g	83%	70 - 130	
a-Bisabolol	<LOQ	<	200		406	500	µg/g	81%	70 - 130	

Definitions

LOQ	Limit of Quantitation
LCS	Laboratory Control Sample
% REC	Percent Recovery

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Terpenes Quality Control Results

Method Reference: EPA 5035 — Batch ID: 2308421

Sample/ Sample Duplicate — Sample ID: 23-006471-0004

Analyte	Result	Org. Result	LOQ	Units	% RPD	LIMIT	Notes
a-pinene	27800	27600	193	µg/g	1%	< 20	
Camphene	397	395	193	µg/g	1%	< 20	
Sabinene	<LOQ	<LOQ	193	µg/g	0%	< 20	
b-Pinene	<LOQ	<LOQ	193	µg/g	0%	< 20	
b-Myrcene	431	429	193	µg/g	0%	< 20	
a-phelllandrene	<LOQ	<LOQ	193	µg/g	0%	< 20	
d-3-Carene	<LOQ	<LOQ	193	µg/g	0%	< 20	
a-Terpinene	<LOQ	<LOQ	193	µg/g	0%	< 20	
p-Cymene	<LOQ	<LOQ	193	µg/g	0%	< 20	
D-Limonene	32000	31800	193	µg/g	1%	< 20	
Eucalyptol	<LOQ	<LOQ	193	µg/g	0%	< 20	
b-cis-Ocimene	<LOQ	<LOQ	64.2	µg/g	0%	< 20	
b-trans-Ocimene	<LOQ	<LOQ	128	µg/g	0%	< 20	
g-Terpinene	<LOQ	<LOQ	193	µg/g	0%	< 20	
Sabinene_Hydrate	<LOQ	<LOQ	193	µg/g	0%	< 20	
Terpinolene	<LOQ	<LOQ	193	µg/g	0%	< 20	
D-Fenchone	<LOQ	<LOQ	193	µg/g	0%	< 20	
Linalool	<LOQ	<LOQ	193	µg/g	0%	< 20	
Fenchol	<LOQ	<LOQ	193	µg/g	0%	< 20	
Camphor	<LOQ	<LOQ	193	µg/g	0%	< 20	
Isopulego	<LOQ	<LOQ	193	µg/g	0%	< 20	
Isoborneol	<LOQ	<LOQ	193	µg/g	0%	< 20	
Borneol	<LOQ	<LOQ	193	µg/g	0%	< 20	
DL-Menthol	<LOQ	<LOQ	193	µg/g	0%	< 20	
Terpineol	<LOQ	<LOQ	193	µg/g	0%	< 20	
Nerol	<LOQ	<LOQ	193	µg/g	0%	< 20	
Pulegone	<LOQ	<LOQ	193	µg/g	0%	< 20	
Gereniol	<LOQ	<LOQ	193	µg/g	0%	< 20	
Geranyl_Acetate	<LOQ	<LOQ	193	µg/g	0%	< 20	
a-Cedrene	<LOQ	<LOQ	193	µg/g	0%	< 20	
b-Caryophyllene	7090	7040	193	µg/g	1%	< 20	
a-Humulene	829	827	193	µg/g	0%	< 20	
Valencne	<LOQ	<LOQ	193	µg/g	0%	< 20	
cis-Nerolidol	<LOQ	<LOQ	193	µg/g	0%	< 20	
a-Farnesene	<LOQ	<LOQ	193	µg/g	0%	< 20	
trans-Nerolidol	<LOQ	<LOQ	193	µg/g	0%	< 20	
Caryophyllene_Oxide	1390	1380	193	µg/g	1%	< 20	
Guaiol	<LOQ	<LOQ	193	µg/g	0%	< 20	
Cedrol	<LOQ	<LOQ	193	µg/g	0%	< 20	
a-Bisabolol	1170	1120	193	µg/g	4%	< 20	

Definitions

RPD — Relative Percent Difference

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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	Quantitaion 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.