Columbia LABORATORIES
A Tentamus Company

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

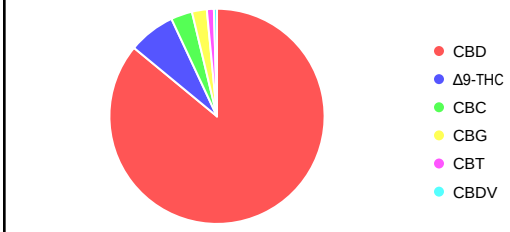
**Report Number:** 21-013080/D002.R000
**Report Date:** 11/11/2021
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 11/05/21 11:28

**Customer:** Hempsi
**Product identity:** Sour RNA Live Oil Tincture #10282101
**Client/Metrc ID:** .
**Laboratory ID:** 21-013080-0003

## Summary

### Potency:

| Analyte | Result (%) |
|---|---|
| CBD | 2.91 |
| Δ9-THC | 0.239 |
| CBC | 0.109 |
| CBG† | 0.0758 |
| CBT† | 0.0356 |
| CBDV† | 0.0157 |




CBD-Total 2.91%

THC-Total 0.239%

(Reported in percent of total sample)

### 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 |
|---|---|---|---|---|---|
| ß-Myrcene† | 0.154 | 34.07% | Terpinolene† | 0.117 | 25.88% |
| (R)-(+)-Limonene† | 0.0540 | 11.95% | ß-Caryophyllene† | 0.0389 | 8.61% |
| farnesene† | 0.0356 | 7.88% | (-)-Guaiol† | 0.0281 | 6.22% |
| trans-ß-Ocimene† | 0.0243 | 5.38% | **Total Terpenes†** | **0.452** | **100.00%** |

### Metals:

*Less than LOQ for all analytes.*


Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.
Testing in accordance with: OAR 333-007-0430

Columbia LABORATORIES
A Tentamus Company

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

**Report Number:** 21-013080/D002.R000
**Report Date:** 11/11/2021
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 11/05/21 11:28

**Customer:** Hempsi
3913 NE Hancock St Unit 500
Portland Oregon 97212
United States of America (USA)

**Product identity:** Sour RNA Live Oil Tincture #10282101
**Client/Metrc ID:** .
**Sample Date:**
**Laboratory ID:** 21-013080-0003
**Evidence of Cooling:** No
**Temp:** 20.1 °C
**Relinquished by:** UPS

## Sample Results

Potency **Method** J AOAC 2015 V98-6 (mod) **Units** % **Batch:** 2110138 **Analyze:** 11/8/21 8:14:00 PM

| Analyte | As Received | Dry weight | LOQ | Notes |
|---|---|---|---|---|
| CBC | 0.109 | | 0.0032 | |
| CBC-A† | < LOQ | | 0.0032 | |
| CBC-Total† | 0.109 | | 0.0060 | |
| CBD | 2.91 | | 0.0321 | |
| CBD-A | < LOQ | | 0.0032 | |
| CBD-Total | 2.91 | | 0.0350 | |
| CBDV† | 0.0157 | | 0.0032 | |
| CBDV-A† | < LOQ | | 0.0032 | |
| CBDV-Total† | 0.0157 | | 0.0060 | |
| CBE† | < LOQ | | 0.0032 | |
| CBG† | 0.0758 | | 0.0032 | |
| CBG-A† | < LOQ | | 0.0032 | |
| CBG-Total | 0.0758 | | 0.0060 | |
| CBL† | < LOQ | | 0.0032 | |
| CBL-A† | < LOQ | | 0.0032 | |
| CBL-Total† | < LOQ | | 0.0060 | |
| CBN | < LOQ | | 0.0032 | |
| CBT† | 0.0356 | | 0.0032 | |
| Δ8-THC† | < LOQ | | 0.0032 | |
| Δ8-THCV | < LOQ | | 0.0032 | |
| Δ9-THC | 0.239 | | 0.0032 | |
| THC-A | < LOQ | | 0.0032 | |
| THC-Total | 0.239 | | 0.0060 | |
| THCV† | < LOQ | | 0.0032 | |
| THCV-A† | < LOQ | | 0.0032 | |
| THCV-Total† | < LOQ | | 0.0060 | |
| **Total Cannabinoids**† | 3.39 | | | |

Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.
Testing in accordance with: OAR 333-007-0410 OAR 333-007-0430

Columbia LABORATORIES
A Tentamus Company

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

**Report Number:** 21-013080/D002.R000
**Report Date:** 11/11/2021
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 11/05/21 11:28

Solvents **Method** Residual Solvents by GC/MS **Units** µg/g **Batch** 2110148 **Analyze** 11/10/21 01:33 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 | |





Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.
Testing in accordance with: OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430

Columbia LABORATORIES
A Tentamus Company

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

**Report Number:** 21-013080/D002.R000
**Report Date:** 11/11/2021
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 11/05/21 11:28

Pesticides **Method** AOAC 2007.01 & EN 15662 (mod) **Units** mg/kg **Batch** 2110111 **Analyze** 11/09/21 03:09 PM

| Analyte | Result | Limits | LOQ | Status | Notes | Analyte | Result | Limits | LOQ | Status | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Abamectin | < LOQ | 0.50 | 0.250 | pass | | Acephate | < LOQ | 0.40 | 0.250 | 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 | 0.200 | 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 | 0.200 | 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 | | | | | | | |





Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.
Testing in accordance with: OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430

Columbia LABORATORIES
A Tentamus Company

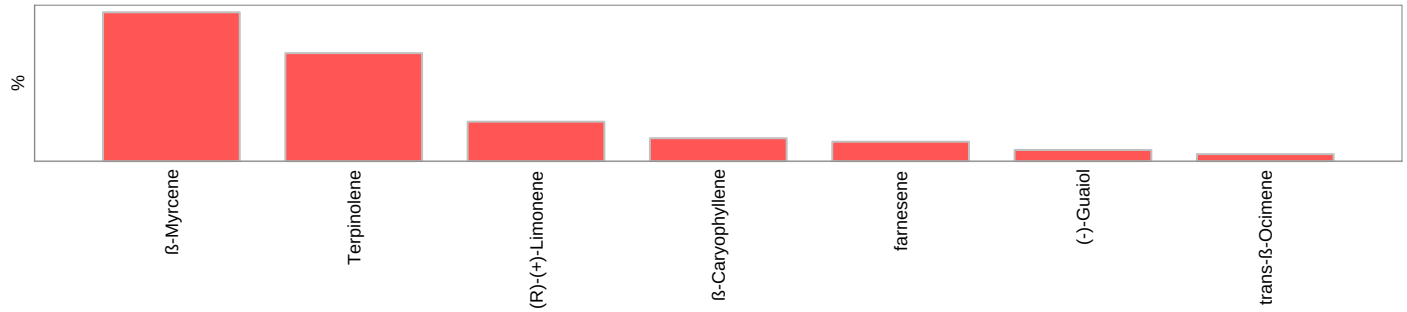
12423 NE Whitaker Way
Portland, OR 97230
503-254-1794

**Report Number:** 21-013080/D002.R000
**Report Date:** 11/11/2021
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 11/05/21 11:28

## Terpenes

**Method** J AOAC 2015 V98-6 **Units** % **Batch** 2110153 **Analyze** 11/09/21 10:26 AM

| Analyte | Result | LOQ | % of Total | Notes | Analyte | Result | LOQ | % of Total | Notes |
|---|---|---|---|---|---|---|---|---|---|
| ß-Myrcene† | 0.154 | 0.019 | 34.071% | | Terpinolene† | 0.117 | 0.019 | 25.885% | |
| (R)-(+)-Limonene† | 0.0540 | 0.019 | 11.9469% | | ß-Caryophyllene† | 0.0389 | 0.019 | 8.6062% | |
| farnesene† | 0.0356 | 0.019 | 7.8761% | | (-)-Guaiol† | 0.0281 | 0.019 | 6.2168% | |
| trans-ß-Ocimene† | 0.0243 | 0.012 | 5.3761% | | Humulene† | < LOQ | 0.019 | 0.00% | |
| Geraniol† | < LOQ | 0.019 | 0.00% | | a-pinene† | < LOQ | 0.019 | 0.00% | |
| a-Terpinene† | < LOQ | 0.019 | 0.00% | | gamma-Terpinene† | < LOQ | 0.019 | 0.00% | |
| Linalool† | < LOQ | 0.019 | 0.00% | | (-)-a-Terpineol† | < LOQ | 0.019 | 0.00% | |
| (+)-fenchol† | < LOQ | 0.019 | 0.00% | | a-phellandrene† | < LOQ | 0.019 | 0.00% | |
| nerol† | < LOQ | 0.019 | 0.00% | | Sabinene† | < LOQ | 0.019 | 0.00% | |
| Sabinene hydrate† | < LOQ | 0.019 | 0.00% | | (±)-trans-Nerolidol† | < LOQ | 0.019 | 0.00% | |
| (+)-Borneol† | < LOQ | 0.019 | 0.00% | | Geranyl acetate† | < LOQ | 0.019 | 0.00% | |
| (+)-Pulegone† | < LOQ | 0.019 | 0.00% | | a-Bisabolol† | < LOQ | 0.019 | 0.00% | |
| (±)-Camphor† | < LOQ | 0.019 | 0.00% | | (-)-caryophyllene oxide† | < LOQ | 0.019 | 0.00% | |
| (-)-Isopulegol† | < LOQ | 0.019 | 0.00% | | (-)-ß-Pinene† | < LOQ | 0.019 | 0.00% | |
| (+)-Cedrol† | < LOQ | 0.019 | 0.00% | | (±)-cis-Nerolidol† | < LOQ | 0.019 | 0.00% | |
| (±)-fenchone† | < LOQ | 0.019 | 0.00% | | a-cedrene† | < LOQ | 0.019 | 0.00% | |
| Camphene† | < 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% | |
| Isoborneol† | < LOQ | 0.019 | 0.00% | | Menthol† | < LOQ | 0.019 | 0.00% | |
| p-Cymene† | < LOQ | 0.019 | 0.00% | | valencene† | < LOQ | 0.019 | 0.00% | |
| **Total Terpenes** | **0.452** | | | | | | | | |




## Metals

| Analyte | Result | Limits | Units | LOQ | Batch | Analyze | Method | Status | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | < LOQ | 0.200 | mg/kg | 0.0460 | 2110108 | 11/09/21 | AOAC 2013.06 (mod.) | pass | X |
| Cadmium | < LOQ | 0.200 | mg/kg | 0.0460 | 2110108 | 11/09/21 | AOAC 2013.06 (mod.) | pass | X |
| Lead | < LOQ | 0.500 | mg/kg | 0.0460 | 2110108 | 11/09/21 | AOAC 2013.06 (mod.) | pass | X |
| Mercury | < LOQ | 0.100 | mg/kg | 0.0230 | 2110108 | 11/09/21 | AOAC 2013.06 (mod.) | pass | X |


Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.
Testing in accordance with: OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430

Columbia LABORATORIES
A Tentamus Company

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

**Report Number:** 21-013080/D002.R000
**Report Date:** 11/11/2021
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 11/05/21 11:28

## Mycotoxins

| Analyte | Result | Limits | Units | LOQ | Batch | Analyze | Method | Status | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Aflatoxin B2† | < LOQ | | µg/kg | 5.00 | 2110094 | 11/09/21 | AOAC 2007.01 & EN 15 | | |
| Aflatoxin B1† | < LOQ | | µg/kg | 5.00 | 2110094 | 11/09/21 | AOAC 2007.01 & EN 15 | | |
| Aflatoxin G1† | < LOQ | | µg/kg | 5.00 | 2110094 | 11/09/21 | AOAC 2007.01 & EN 15 | | |
| Aflatoxin G2† | < LOQ | | µg/kg | 5.00 | 2110094 | 11/09/21 | AOAC 2007.01 & EN 15 | | |
| Deoxynivalenol† | < LOQ | | µg/kg | 200 | 2110094 | 11/09/21 | AOAC 2007.01 & EN 15 | | |
| Fumonisin B1† | < LOQ | | µg/kg | 200 | 2110094 | 11/09/21 | AOAC 2007.01 & EN 15 | | |
| Fumonisin B2† | < LOQ | | µg/kg | 200 | 2110094 | 11/09/21 | AOAC 2007.01 & EN 15 | | |
| HT2-Toxin† | < LOQ | | µg/kg | 40.0 | 2110094 | 11/09/21 | AOAC 2007.01 & EN 15 | | |
| Nivalenol† | < LOQ | | µg/kg | 400 | 2110094 | 11/09/21 | AOAC 2007.01 & EN 15 | | |
| Ochratoxin A† | < LOQ | | µg/kg | 5.00 | 2110094 | 11/09/21 | AOAC 2007.01 & EN 15 | | |
| Ochratoxin B† | < LOQ | | µg/kg | 2.00 | 2110094 | 11/09/21 | AOAC 2007.01 & EN 15 | | |
| T2-Toxin† | < LOQ | | µg/kg | 20.0 | 2110094 | 11/09/21 | AOAC 2007.01 & EN 15 | | |
| Zearalenone† | < LOQ | | µg/kg | 200 | 2110094 | 11/09/21 | AOAC 2007.01 & EN 15 | | |


Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.
Testing in accordance with: OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430

Columbia LABORATORIES
A Tentamus Company

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

| | |
|---|---|
| **Report Number:** | 21-013080/D002.R000 |
| **Report Date:** | 11/11/2021 |
| **ORELAP#:** | OR100028 |
| **Purchase Order:** | |
| **Received:** | 11/05/21 11:28 |

These test results are representative of the individual sample selected and submitted by the client.

***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.

† = Analyte not NELAP accredited.

***Units of Measure***

µg/g = Microgram per gram
µg/kg = Micrograms per kilogram = parts per billion (ppb)
mg/kg = Milligram per kilogram = parts per million (ppm)
% = Percentage of sample
% wt = µg/g divided by 10,000

***Glossary of Qualifiers***

X: Not ORELAP accredited.

Approved Signatory

Derrick Tanner
General Manager





Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.
Testing in accordance with: OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430

Columbia LABORATORIES
A Tentamus Company

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

| | |
|---|---|
| **Report Number:** | 21-013080/D002.R000 |
| **Report Date:** | 11/11/2021 |
| **ORELAP#:** | OR100028 |
| **Purchase Order:** | |
| **Received:** | 11/05/21 11:28 |

Columbia LABORATORIES
A Tentamus Company

## Hemp / Cannabis Usable / Extract / Finished Products
## Chain of Custody Record

Document Control ID: 2732 Revision: 1
Effective: 05/04/2021
ORELAP ID: OR100028

Company: Hempsi
Contact: Andrew Barton
Street: 815 Grand Blvd
City: Vancouver State: WA Zip: 98661
☑ Email Results: a.barton@hempsi.com
Ph: (___)_____ ☐ Fx Results: (___)_____
Billing (if different):_____

PO Number: _____
Project Number: _____
Project Name: _____
Custom Reporting: _____
Report to State - ☐ METRC or ☐ Other: _____
Turnaround time: ☑ 5 Business Day Standard Turnaround
☐ 3 Business Day Rush Turnaround*
☐ 2 Business Day Rush Turnaround*
*Check for availability*
Sampled by: _____

| Lab ID | Client Sample Identification | Date | Time | Pesticides – OR 59 compounds | Pesticide Multi-Residue – 379 compounds | Potency | Residual Solvents | Moisture & Water Activity | Terpenes | Micro: Yeast and Mold | Micro: *E.Coli* and Total Coliform | Heavy Metals | Mycotoxins | Other: | Sample Type † | Weight (Units) | Comments/Metrc ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Hawaiian Haze Live Resin | 11/4/21 | 9:30am | X | | X | X | | X | | | X | X | | C | ~10g | |
| | H.H. Live Oil Tincture #11042101 | 11/4/21 | 9:30am | X | | X | X | | X | | | X | X | | T | ~30g | |
| | Sour RNA Live Oil Tincture #10282101 | 11/4/21 | 9:30am | X | | X | X | | X | | | X | X | | T | ~30g | |

| Relinquished By: | Date | Time | Received By: | Date | Time |
|---|---|---|---|---|---|
| Andrew Barton | 11/4/21 | 9:30am | JMW | 11-5-21 | 11:28 |

Lab Use Only:
☐ Shipped Via: UPS or ☐ Client drop
Evidence of cooling: ☐ Yes ☐ No - Temp (°C): 20.1
Sample in good condition: ☑ Yes ☐ No
☐ Cash | ☐ Check | ☐ CC | ☐ Net: _____
Prelog storage: _____

† - Sample Type Codes: Vegetation (V) ; Isolates (S) ; Extract/Concentrate (C) ; Tincture/Topical (T) ; Edible (E) ; Beverage (B)

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

12423 NE Whitaker Way
Portland, OR 97230
P: (503) 254-1794 ! Fax: (503) 254-1452
info@columbialaboratories.com

Page _____ of _____
www.columbialaboratories.com



www.columbialaboratories.com
Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.
Testing in accordance with: OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430

Columbia LABORATORIES
A Tentamus Company

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

**Report Number:** 21-013080/D002.R000
**Report Date:** 11/11/2021
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 11/05/21 11:28

Columbia LABORATORIES
A Tentamus Company

Document ID: 3177 Revision: 2
Effective: 06/25/2021
Page 1 of 1

Job Number: _____ Search Name: _____

Package/Cooler opened on (if different than received date/time) Date: 11-5-21 Time: 11.28

Received By (Initials): JV Logged in by (Initials): _____ Date: _____ Time: _____

1) Were custody seals on outside of the package/cooler? YES NO (NA)
If YES, how many and where? _____

Does date match collection date on COC? ---------- YES NO (NA)

2) Was Chain of Custody (COC) included in the package/cooler? (YES) NO NA

3) Was COC signed when relinquished and received? (time, date)? (YES) NO NA

4) How was the package/cooler delivered?

(UPS) FEDEX USPS CLIENT COURIER OTHER: _____

Tracking Number (written in or copy of shipping label): 1Z 937 A57 13 2305 5247

5) Was packing material used? (YES) NO NA

Peanuts (Bubble Wrap) Foam Paper Other:

6) Was temperature upon receipt 4°C+- 2°C (if appropriate)? JV 11-5-21 (YES) NO NA
If not, client contacted: _____
Proceed? YES (NO)

7) Was there evidence of cooling? YES (NO) NA

What kind? Blue Ice Ice Cooler Packs Dry Ice

8) Were all sample containers sealed in separate plastic bags? (YES) NO NA

9) Did all sample containers arrive in good condition? (YES) NO NA

10) Were all sample container labels complete? (YES) NO NA

11) Did all sample container labels and tags agree with the COC? (YES) NO NA

12) Were correct sample containers used for the tests indicated? (YES) NO NA

13) Were VOA vials checked for absence of air bubbles (note if found)? YES NO (NA)

14) Was a sufficient amount of sample sent in each sample container? (YES) NO NA

16) Sample location prior to login: R99 R39 R44 F44 Ambient Shelf (Cannabis Table) Other: _____

Explain any discrepancies: _____





Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.
Testing in accordance with: OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430

Columbia LABORATORIES
A Tentamus Company

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

**Report Number:** 21-013080/D002.R000
**Report Date:** 11/11/2021
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 11/05/21 11:28

Revision: 2 Document ID: 3120
Legacy ID: CFL-C21Effective:

## Laboratory Pesticide Quality Control Results

AOAC 2007.1 & EN 15662 | Units: mg/Kg | Batch ID: 2110111

| Method Blank | | | | Laboratory Control Sample | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | Blank Result | Blank Limits | Notes | LCS Result | LCS Spike | LCS % Rec | Limits | Notes |
| Acephate | 0.020 | < 0.250 | | 1.230 | 1.000 | 123.0 | 71.6 - 133 | |
| Acequinocyl | 0.000 | < 1.000 | | 4.924 | 4.000 | 123.1 | 70.8 - 132 | |
| Acetamiprid | 0.000 | < 0.100 | | 0.486 | 0.400 | 121.4 | 71.4 - 133 | |
| Aldicarb | 0.000 | < 0.200 | | 0.956 | 0.800 | 119.5 | 74.1 - 138 | |
| Abamectin | 0.000 | < 0.250 | | 1.304 | 1.000 | 130.4 | 74.6 - 139 | |
| Azoxystrobin | 0.000 | < 0.100 | | 0.482 | 0.400 | 120.4 | 70.8 - 132 | |
| Bifenazate | 0.000 | < 0.100 | | 0.757 | 0.400 | ***189.3*** | 75.9 - 141 | Q1 |
| Bifenthrin | 0.000 | < 0.100 | | 0.519 | 0.400 | 129.7 | 70.2 - 130 | |
| Boscalid | 0.000 | < 0.200 | | 1.046 | 0.800 | 130.7 | 71.1 - 132 | |
| Carbaryl | 0.002 | < 0.100 | | 0.501 | 0.400 | 125.3 | 71.4 - 133 | |
| Carbofuran | 0.022 | < 0.100 | | 0.468 | 0.400 | 117.0 | 72.8 - 135 | |
| Chlorantraniliprol | 0.000 | < 0.100 | | 0.375 | 0.400 | 93.7 | 67.8 - 126 | |
| Chlorfenapyr | 0.000 | < 0.500 | | 2.381 | 2.000 | 119.0 | 72.1 - 134 | |
| Chlorpyrifos | 0.000 | < 0.100 | | 0.478 | 0.400 | 119.6 | 69.3 - 129 | |
| Clofentezine | 0.000 | < 0.100 | | 0.508 | 0.400 | 126.9 | 70.6 - 131 | |
| Cyfluthrin | 0.000 | < 0.500 | | 2.604 | 2.000 | 130.2 | 73.4 - 136 | |
| Cypermethrin | 0.000 | < 0.500 | | 2.517 | 2.000 | 125.9 | 72.4 - 134 | |
| Daminozide | 0.000 | < 0.500 | | 2.222 | 2.000 | 111.1 | 71.5 - 133 | |
| Diazinon | 0.000 | < 0.100 | | 0.513 | 0.400 | 128.2 | 71.5 - 133 | |
| Dichlorvos | 0.000 | < 0.500 | | 2.198 | 2.000 | 109.9 | 69.9 - 130 | |
| Dimethoat | 0.000 | < 0.100 | | 0.488 | 0.400 | 121.9 | 71.3 - 132 | |
| Ethoprophos | 0.000 | < 0.100 | | 0.510 | 0.400 | 127.5 | 70.2 - 130 | |
| Etofenprox | 0.000 | < 0.200 | | 1.069 | 0.800 | 133.6 | 72.8 - 135 | |
| Etoxazol | 0.000 | < 0.100 | | 0.528 | 0.400 | 131.9 | 71.9 - 134 | |
| Fenoxycarb | 0.000 | < 0.100 | | 0.506 | 0.400 | 126.6 | 70.9 - 132 | |
| Fenpyroximat | 0.000 | < 0.200 | | 0.979 | 0.800 | 122.4 | 71.9 - 133 | |
| Fipronil | 0.000 | < 0.200 | | 1.084 | 0.800 | 135.5 | 73.1 - 136 | |
| Flonicamid | 0.000 | < 0.250 | | 1.076 | 1.000 | 107.6 | 71.5 - 133 | |
| Fludioxonil | 0.000 | < 0.200 | | 1.016 | 0.800 | 127.0 | 74.7 - 139 | |
| Hexythiazox | 0.000 | < 0.250 | | 1.278 | 1.000 | 127.8 | 69.7 - 129 | |
| Imazalil | 0.000 | < 0.100 | | 0.506 | 0.400 | 126.4 | 73.3 - 136 | |
| Imidacloprid | 0.000 | < 0.200 | | 0.977 | 0.800 | 122.2 | 71.0 - 132 | |
| Kresoxim-Methyl | 0.000 | < 0.200 | | 1.018 | 0.800 | 127.3 | 71.1 - 132 | |
| Malathion | 0.000 | < 0.100 | | 0.518 | 0.400 | 129.6 | 70.8 - 132 | |
| Metalaxyl | 0.000 | < 0.100 | | 0.513 | 0.400 | 128.3 | 71.7 - 133 | |
| Methiocarb | 0.000 | < 0.100 | | 0.497 | 0.400 | 124.2 | 70.8 - 132 | |
| Methomyl | 0.000 | < 0.200 | | 0.885 | 0.800 | 110.6 | 70.7 - 131 | |
| MGK 264 | 0.000 | < 0.100 | | 0.510 | 0.400 | 127.5 | 70.8 - 132 | |
| Myclobutanil | 0.000 | < 0.100 | | 0.518 | 0.400 | 129.5 | 71.4 - 133 | |
| Naled | 0.000 | < 0.250 | | 1.189 | 1.000 | 118.9 | 72.8 - 135 | |
| Oxamyl | 0.000 | < 0.500 | | 2.079 | 2.000 | 104.0 | 71.6 - 133 | |
| Paclobutrazol | 0.000 | < 0.200 | | 1.033 | 0.800 | 129.2 | 71.7 - 133 | |
| Parathion Methyl | 0.000 | < 0.200 | | 1.006 | 0.800 | 125.8 | 73.9 - 137 | |
| Permethrin | 0.000 | < 0.100 | | 0.518 | 0.400 | 129.5 | 71.4 - 133 | |
| Phosmet | 0.000 | < 0.100 | | 0.521 | 0.400 | 130.1 | 71.0 - 132 | |
| Piperonyl butoxide | 0.000 | < 0.500 | | 2.624 | 2.000 | 131.2 | 73.9 - 137 | |
| Prallethrin | 0.000 | < 0.100 | | 0.501 | 0.400 | 125.3 | 71.6 - 133 | |
| Propiconazole | 0.018 | < 0.200 | | 1.033 | 0.800 | 129.1 | 71.2 - 132 | |
| Propoxur | 0.004 | < 0.100 | | 0.490 | 0.400 | 122.5 | 70.7 - 131 | |
| Pyrethrins | 0.000 | < 0.100 | | 0.397 | 0.413 | 96.2 | 68.3 - 127 | |
| Pyridaben | 0.000 | < 0.100 | | 0.512 | 0.400 | 128.1 | 70.9 - 132 | |
| Spinosad | 0.000 | < 0.100 | | 0.518 | 0.388 | 133.6 | 73.5 - 137 | |
| Spiromesifen | 0.000 | < 0.100 | | 0.523 | 0.400 | 130.8 | 72.4 - 134 | |
| Spirotetramat | 0.000 | < 0.100 | | 0.507 | 0.400 | 126.8 | 71.4 - 133 | |
| Spiroxamine | 0.000 | < 0.200 | | 0.871 | 0.800 | 108.9 | 69.4 - 129 | |
| Tebuconazol | 0.000 | < 0.200 | | 1.033 | 0.800 | 129.1 | 71.0 - 132 | |
| Thiacloprid | 0.000 | < 0.100 | | 0.499 | 0.400 | 124.7 | 70.6 - 131 | |
| Thiamethoxam | 0.000 | < 0.100 | | 0.420 | 0.400 | 105.1 | 70.6 - 131 | |
| Trifloxystrobin | 0.000 | < 0.100 | | 0.494 | 0.400 | 123.4 | 71.1 - 132 | |





Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.
Testing in accordance with: OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430

Columbia LABORATORIES
A Tentamus Company

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

**Report Number:** 21-013080/D002.R000
**Report Date:** 11/11/2021
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 11/05/21 11:28

Revision: 2 Document ID: 3120
Legacy ID: CFL-C21Effective:

## Laboratory Pesticide Quality Control Results

| AOAC 2007.1 & EN 15662 | | | | Units: mg/Kg | | | | | Batch ID: 2110111 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Matrix Spike/Matrix Spike Duplicate Recoveries | | | | | | | Sample ID: 21-012818-0003 | | | | |
| Analyte | Result | MS Res | MSD Res | Spike | RPD% | Limit | MS % Rec | MSD % Rec | Limits | | Notes |
| Acephate | 0.030 | 1.191 | 1.256 | 1.000 | 5.4% | < 30 | 116.2% | 122.6% | 50 | 150 | |
| Acequinocyl | 0.000 | 4.797 | 5.125 | 4.000 | 6.6% | < 30 | 119.9% | 128.1% | 50 | 150 | |
| Acetamiprid | 0.000 | 0.512 | 0.515 | 0.400 | 0.7% | < 30 | 128.0% | 128.8% | 50 | 150 | |
| Aldicarb | 0.000 | 0.914 | 0.989 | 0.800 | 7.9% | < 30 | 114.2% | 123.6% | 50 | 150 | |
| Abamectin | 0.000 | 1.499 | 1.616 | 1.000 | 7.5% | < 30 | 149.9% | 161.6% | 50 | 150 | Q1 |
| Azoxystrobin | 0.000 | 0.471 | 0.493 | 0.400 | 4.5% | < 30 | 117.8% | 123.2% | 50 | 150 | |
| Bifenazate | 0.000 | 0.785 | 0.842 | 0.400 | 7.0% | < 30 | 196.3% | 210.5% | 50 | 150 | Q1 |
| Bifenthrin | 0.000 | 0.483 | 0.532 | 0.400 | 9.7% | < 30 | 120.8% | 133.1% | 50 | 150 | |
| Boscalid | 0.000 | 1.035 | 1.137 | 0.800 | 9.4% | < 30 | 129.3% | 142.1% | 50 | 150 | |
| Carbaryl | 0.000 | 0.478 | 0.502 | 0.400 | 4.8% | < 30 | 119.6% | 125.4% | 50 | 150 | |
| Carbofuran | 0.000 | 0.462 | 0.481 | 0.400 | 4.1% | < 30 | 115.5% | 120.3% | 50 | 150 | |
| Chlorantraniliprol | 0.000 | 0.398 | 0.414 | 0.400 | 3.8% | < 30 | 99.5% | 103.4% | 50 | 150 | |
| Chlorfenapyr | 0.000 | 2.813 | 2.826 | 2.000 | 0.5% | < 30 | 140.7% | 141.3% | 50 | 150 | |
| Chlorpyrifos | 0.000 | 0.474 | 0.502 | 0.400 | 5.7% | < 30 | 118.5% | 125.4% | 50 | 150 | |
| Clofentezine | 0.000 | 0.510 | 0.529 | 0.400 | 3.7% | < 30 | 127.6% | 132.4% | 50 | 150 | |
| Cyfluthrin | 0.000 | 1.636 | 1.799 | 2.000 | 9.5% | < 30 | 81.8% | 90.0% | 30 | 150 | |
| Cypermethrin | 0.000 | 1.623 | 1.681 | 2.000 | 3.5% | < 30 | 81.1% | 84.0% | 50 | 150 | |
| Daminozide | 0.000 | 2.660 | 2.739 | 2.000 | 2.9% | < 30 | 133.0% | 136.9% | 30 | 150 | |
| Diazinon | 0.000 | 0.488 | 0.505 | 0.400 | 3.5% | < 30 | 122.0% | 126.3% | 50 | 150 | |
| Dichlorvos | 0.000 | 2.154 | 2.270 | 2.000 | 5.3% | < 30 | 107.7% | 113.5% | 50 | 150 | |
| Dimethoat | 0.000 | 0.485 | 0.508 | 0.400 | 4.7% | < 30 | 121.3% | 127.1% | 50 | 150 | |
| Ethoprophos | 0.000 | 0.495 | 0.530 | 0.400 | 6.7% | < 30 | 123.9% | 132.4% | 50 | 150 | |
| Etofenprox | 0.000 | 1.026 | 1.110 | 0.800 | 7.8% | < 30 | 128.3% | 138.7% | 50 | 150 | |
| Etoxazol | 0.000 | 0.528 | 0.556 | 0.400 | 5.2% | < 30 | 131.9% | 138.9% | 50 | 150 | |
| Fenoxycarb | 0.000 | 0.517 | 0.543 | 0.400 | 5.0% | < 30 | 129.2% | 135.8% | 50 | 150 | |
| Fenpyroximat | 0.000 | 0.818 | 0.864 | 0.800 | 5.4% | < 30 | 102.2% | 107.9% | 50 | 150 | |
| Fipronil | 0.000 | 1.044 | 1.182 | 0.800 | 12.4% | < 30 | 130.5% | 147.7% | 50 | 150 | |
| Flonicamid | 0.000 | 1.058 | 1.199 | 1.000 | 12.4% | < 30 | 105.8% | 119.9% | 50 | 150 | |
| Fludioxonil | 0.000 | 1.084 | 1.119 | 0.800 | 3.1% | < 30 | 135.6% | 139.9% | 50 | 150 | |
| Hexythiazox | 0.000 | 1.335 | 1.359 | 1.000 | 1.8% | < 30 | 133.5% | 135.9% | 50 | 150 | |
| Imazalil | 0.000 | 0.509 | 0.531 | 0.400 | 4.1% | < 30 | 127.3% | 132.7% | 50 | 150 | |
| Imidacloprid | 0.000 | 0.969 | 1.028 | 0.800 | 5.9% | < 30 | 121.1% | 128.4% | 50 | 150 | |
| Kresoxim-Methyl | 0.000 | 1.023 | 1.082 | 0.800 | 5.6% | < 30 | 127.8% | 135.2% | 50 | 150 | |
| Malathion | 0.000 | 0.508 | 0.531 | 0.400 | 4.5% | < 30 | 126.9% | 132.7% | 50 | 150 | |
| Metalaxyl | 0.000 | 0.511 | 0.539 | 0.400 | 5.3% | < 30 | 127.8% | 134.7% | 50 | 150 | |
| Methiocarb | 0.000 | 0.478 | 0.559 | 0.400 | 15.6% | < 30 | 119.5% | 139.7% | 50 | 150 | |
| Methomyl | 0.000 | 0.796 | 1.016 | 0.800 | 24.2% | < 30 | 99.5% | 127.0% | 50 | 150 | |
| MGK 264 | 0.000 | 0.520 | 0.542 | 0.400 | 4.0% | < 30 | 130.1% | 135.4% | 50 | 150 | |
| Myclobutanil | 0.000 | 0.492 | 0.497 | 0.400 | 1.1% | < 30 | 123.0% | 124.4% | 50 | 150 | |
| Naled | 0.000 | 1.235 | 1.261 | 1.000 | 2.1% | < 30 | 123.5% | 126.1% | 50 | 150 | |
| Oxamyl | 0.000 | 2.065 | 2.419 | 2.000 | 15.8% | < 30 | 103.3% | 120.9% | 50 | 150 | |
| Paclobutrazol | 0.000 | 1.028 | 1.094 | 0.800 | 6.3% | < 30 | 128.5% | 136.7% | 50 | 150 | |
| Parathion Methyl | 0.000 | 1.085 | 1.096 | 0.800 | 1.1% | < 30 | 135.6% | 137.1% | 30 | 150 | |
| Permethrin | 0.000 | 0.494 | 0.522 | 0.400 | 5.6% | < 30 | 123.4% | 130.5% | 50 | 150 | |
| Phosmet | 0.000 | 0.524 | 0.569 | 0.400 | 8.4% | < 30 | 130.9% | 142.3% | 50 | 150 | |
| Piperonyl butoxide | 0.000 | 2.839 | 2.973 | 2.000 | 4.6% | < 30 | 142.0% | 148.7% | 50 | 150 | |
| Prallethrin | 0.016 | 0.551 | 0.560 | 0.400 | 1.7% | < 30 | 133.8% | 136.1% | 50 | 150 | |
| Propiconazole | 0.015 | 1.053 | 1.064 | 0.800 | 1.0% | < 30 | 129.7% | 131.0% | 50 | 150 | |
| Propoxur | 0.000 | 0.471 | 0.488 | 0.400 | 3.5% | < 30 | 117.8% | 122.0% | 50 | 150 | |
| Pyrethrins | 0.000 | 0.388 | 0.418 | 0.413 | 7.4% | < 30 | 93.9% | 101.1% | 50 | 150 | |
| Pyridaben | 0.000 | 0.549 | 0.554 | 0.400 | 0.8% | < 30 | 137.2% | 138.4% | 50 | 150 | |
| Spinosad | 0.000 | 0.514 | 0.546 | 0.388 | 6.0% | < 30 | 132.6% | 140.7% | 50 | 150 | |
| Spiromesifen | 0.000 | 0.536 | 0.545 | 0.400 | 1.6% | < 30 | 134.0% | 136.2% | 50 | 150 | |
| Spirotetramat | 0.000 | 0.528 | 0.550 | 0.400 | 4.0% | < 30 | 132.0% | 137.4% | 50 | 150 | |
| Spiroxamine | 0.000 | 0.818 | 0.975 | 0.800 | 17.5% | < 30 | 102.3% | 121.8% | 50 | 150 | |
| Tebuconazol | 0.000 | 1.050 | 1.105 | 0.800 | 5.0% | < 30 | 131.3% | 138.1% | 50 | 150 | |
| Thiacloprid | 0.000 | 0.505 | 0.511 | 0.400 | 1.2% | < 30 | 126.3% | 127.8% | 50 | 150 | |
| Thiamethoxam | 0.000 | 0.410 | 0.426 | 0.400 | 3.8% | < 30 | 102.5% | 106.5% | 50 | 150 | |
| Trifloxystrobin | 0.000 | 0.570 | 0.534 | 0.400 | 6.4% | < 30 | 142.5% | 133.6% | 50 | 150 | |





Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.
Testing in accordance with: OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430

Columbia LABORATORIES
A Tentamus Company

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

**Report Number:** 21-013080/D002.R000
**Report Date:** 11/11/2021
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 11/05/21 11:28

Revision #: 0.00 Control : CFL-D06
Revision Date: 05/31/2019 Effective Date: 05/31/2019

Laboratory Quality Control Results

JAOAC2015 V98-6 Batch ID: 2110138

Laboratory Control Sample

| Analyte | Result | Spike | Units | %Rec | Limits | Evaluation | Notes |
|---|---|---|---|---|---|---|---|
| CBDVA | 0.00954 | 0.01 | % | 95.4 | 85.0 - 115 | Acceptable | |
| CBDV | 0.00993 | 0.01 | % | 99.3 | 85.0 - 115 | Acceptable | |
| CBE | 0.00982 | 0.01 | % | 98.2 | 85.0 - 115 | Acceptable | |
| CBDA | 0.00976 | 0.01 | % | 97.6 | 85.0 - 115 | Acceptable | |
| CBGA | 0.00956 | 0.01 | % | 95.6 | 85.0 - 115 | Acceptable | |
| CBG | 0.00989 | 0.01 | % | 98.9 | 85.0 - 115 | Acceptable | |
| CBD | 0.0102 | 0.01 | % | 102 | 85.0 - 115 | Acceptable | |
| THCV | 0.00943 | 0.01 | % | 94.3 | 85.0 - 115 | Acceptable | |
| d8THCV | 0.00964 | 0.01 | % | 96.4 | 85.0 - 115 | Acceptable | |
| THCVA | 0.00925 | 0.01 | % | 92.5 | 85.0 - 115 | Acceptable | |
| CBN | 0.0103 | 0.01 | % | 103 | 85.0 - 115 | Acceptable | |
| exo-THC | 0.00956 | 0.01 | % | 95.6 | 85.0 - 115 | Acceptable | |
| d9THC | 0.00987 | 0.01 | % | 98.7 | 85.0 - 115 | Acceptable | |
| d8THC | 0.00987 | 0.01 | % | 98.7 | 85.0 - 115 | Acceptable | |
| CBL | 0.00952 | 0.01 | % | 95.2 | 85.0 - 115 | Acceptable | |
| CBC | 0.0100 | 0.01 | % | 100 | 85.0 - 115 | Acceptable | |
| THCA | 0.00994 | 0.01 | % | 99.4 | 85.0 - 115 | Acceptable | |
| CBCA | 0.00951 | 0.01 | % | 95.1 | 85.0 - 115 | Acceptable | |
| CBLA | 0.00999 | 0.01 | % | 99.9 | 85.0 - 115 | Acceptable | |
| CBT | 0.0103 | 0.01 | % | 103 | 85.0 - 115 | Acceptable | |

Method Blank

| Analyte | Result | LOQ | Units | Limits | Evaluation | Notes |
|---|---|---|---|---|---|---|
| CBDVA | <LOQ | 0.003 | % | < 0.003 | Acceptable | |
| CBDV | <LOQ | 0.003 | % | < 0.003 | Acceptable | |
| CBE | <LOQ | 0.003 | % | < 0.003 | Acceptable | |
| CBDA | <LOQ | 0.003 | % | < 0.003 | Acceptable | |
| CBGA | <LOQ | 0.003 | % | < 0.003 | Acceptable | |
| CBG | <LOQ | 0.003 | % | < 0.003 | Acceptable | |
| CBD | <LOQ | 0.003 | % | < 0.003 | Acceptable | |
| THCV | <LOQ | 0.003 | % | < 0.003 | Acceptable | |
| d8THCV | <LOQ | 0.003 | % | < 0.003 | Acceptable | |
| THCVA | <LOQ | 0.003 | % | < 0.003 | Acceptable | |
| CBN | <LOQ | 0.003 | % | < 0.003 | Acceptable | |
| exo-THC | <LOQ | 0.003 | % | < 0.003 | Acceptable | |
| d9THC | <LOQ | 0.003 | % | < 0.003 | Acceptable | |
| d8THC | <LOQ | 0.003 | % | < 0.003 | Acceptable | |
| CBL | <LOQ | 0.003 | % | < 0.003 | Acceptable | |
| CBC | <LOQ | 0.003 | % | < 0.003 | Acceptable | |
| THCA | <LOQ | 0.003 | % | < 0.003 | Acceptable | |
| CBCA | <LOQ | 0.003 | % | < 0.003 | Acceptable | |
| CBLA | <LOQ | 0.003 | % | < 0.003 | Acceptable | |
| CBT | <LOQ | 0.003 | % | < 0.003 | Acceptable | |

***Abbreviations***

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

***Units of Measure:***

% - Percent





Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.
Testing in accordance with: OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430

Columbia LABORATORIES
A Tentamus Company

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

**Report Number:** 21-013080/D002.R000
**Report Date:** 11/11/2021
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 11/05/21 11:28

Revision #: 0.00 Control : CFL-D06
Revision Date: 05/31/2019 Effective Date: 05/31/2019

Laboratory Quality Control Results

JAOAC2015 V98-6 Batch ID: 2110138

Sample Duplicate Sample ID: 21-005060-0003

| Analyte | Result | Org. Result | LOQ | Units | RPD | Limits | Evaluation | Notes |
|---|---|---|---|---|---|---|---|---|
| CBDVA | 0 | 0 | 0.003 | % | 10 | < 20 | Acceptable | |
| CBDV | 0.0452 | 0.0476 | 0.003 | % | 5.14 | < 20 | Acceptable | |
| CBE | 0.0157 | 0.0161 | 0.003 | % | 2.29 | < 20 | Acceptable | |
| CBDA | 0.484 | 0.496 | 0.003 | % | 2.51 | < 20 | Acceptable | |
| CBGA | 0.00843 | 0.00869 | 0.003 | % | 3.02 | < 20 | Acceptable | |
| CBG | 0.0192 | 0.0196 | 0.003 | % | 1.94 | < 20 | Acceptable | |
| CBD | 2.86 | 2.87 | 0.003 | % | 0.282 | < 20 | Acceptable | |
| THCV | <LOQ | <LOQ | 0.003 | % | NA | < 20 | Acceptable | |
| d8THCV | <LOQ | <LOQ | 0.003 | % | NA | < 20 | Acceptable | |
| THCVA | <LOQ | <LOQ | 0.003 | % | NA | < 20 | Acceptable | |
| CBN | <LOQ | <LOQ | 0.003 | % | NA | < 20 | Acceptable | |
| exo-THC | <LOQ | <LOQ | 0.003 | % | NA | < 20 | Acceptable | |
| d9THC | 0.0404 | 0.0416 | 0.003 | % | 2.88 | < 20 | Acceptable | |
| d8THC | <LOQ | <LOQ | 0.003 | % | NA | < 20 | Acceptable | |
| CBL | <LOQ | <LOQ | 0.003 | % | NA | < 20 | Acceptable | |
| CBC | 0.150 | 0.153 | 0.003 | % | 2.43 | < 20 | Acceptable | |
| THCA | <LOQ | <LOQ | 0.003 | % | NA | < 20 | Acceptable | |
| CBCA | 0.0417 | 0.0396 | 0.003 | % | 5.19 | < 20 | Acceptable | |
| CBLA | <LOQ | <LOQ | 0.003 | % | NA | < 20 | Acceptable | |
| CBT | 0.0270 | 0.0270 | 0.003 | % | 0.00921 | < 20 | Acceptable | |

***Abbreviations***

ND - None Detected at or above MRL
RPD - Relative Percent Difference
LOQ - Limit of Quantitation
NA - Calculation Not Applicable given non-numerical results

***Units of Measure:***

% - Percent





Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.
Testing in accordance with: OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430

Columbia LABORATORIES
A Tentamus Company

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

**Report Number:** 21-013080/D002.R000
**Report Date:** 11/11/2021
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 11/05/21 11:28

Revision: Document ID:
Legacy ID: Effective:

**Laboratory Quality Control Results**

**Residual Solvents** **Batch ID:** 2110148

| Method Blank | | | | | Laboratory Control Sample | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analyte** | **Result** | | **LOQ** | **Notes** | **Result** | **Spike** | **Units** | **% Rec** | **Limits** | | | **Notes** |
| Propane | ND | < | 200 | | 929 | 948 | µg/g | 98.0 | 70 | - | 130 | |
| Isobutane | ND | < | 200 | | 1080 | 1260 | µg/g | 85.7 | 70 | - | 130 | |
| Butane | ND | < | 200 | | 1070 | 1260 | µg/g | 84.9 | 70 | - | 130 | |
| 2,2-Dimethylpropane | ND | < | 200 | | 1650 | 1600 | µg/g | 103.1 | 70 | - | 130 | |
| Methanol | ND | < | 200 | | 1830 | 1610 | µg/g | 113.7 | 70 | - | 130 | |
| Ethylene Oxide | ND | < | 30 | | 94.9 | 95.7 | µg/g | 99.2 | 70 | - | 130 | |
| 2-Methylbutane | ND | < | 200 | | 1610 | 1610 | µg/g | 100.0 | 70 | - | 130 | |
| Pentane | ND | < | 200 | | 1580 | 1610 | µg/g | 98.1 | 70 | - | 130 | |
| Ethanol | ND | < | 200 | | 1790 | 1610 | µg/g | 111.2 | 70 | - | 130 | |
| Ethyl Ether | ND | < | 200 | | 1640 | 1610 | µg/g | 101.9 | 70 | - | 130 | |
| 2,2-Dimethylbutane | ND | < | 30 | | 139 | 164 | µg/g | 84.8 | 70 | - | 130 | |
| Acetone | ND | < | 200 | | 1600 | 1610 | µg/g | 99.4 | 70 | - | 130 | |
| 2-Propanol | ND | < | 200 | | 1570 | 1610 | µg/g | 97.5 | 70 | - | 130 | |
| Acetonitrile | ND | < | 100 | | 405 | 484 | µg/g | 83.7 | 70 | - | 130 | |
| 2,3-Dimethylbutane | ND | < | 30 | | 161 | 167 | µg/g | 96.4 | 70 | - | 130 | |
| Dichloromethane | ND | < | 60 | | 469 | 491 | µg/g | 95.5 | 70 | - | 130 | |
| 2-Methylpentane | ND | < | 30 | | 145 | 165 | µg/g | 87.9 | 70 | - | 130 | |
| 3-Methylpentane | ND | < | 30 | | 177 | 172 | µg/g | 102.9 | 70 | - | 130 | |
| Hexane | ND | < | 30 | | 175 | 167 | µg/g | 104.8 | 70 | - | 130 | |
| Ethyl acetate | ND | < | 200 | | 1660 | 1610 | µg/g | 103.1 | 70 | - | 130 | |
| 2-Butanol | ND | < | 200 | | 1610 | 1610 | µg/g | 100.0 | 70 | - | 130 | |
| Tetrahydrofuran | ND | < | 100 | | 471 | 483 | µg/g | 97.5 | 70 | - | 130 | |
| Cyclohexane | ND | < | 200 | | 1520 | 1610 | µg/g | 94.4 | 70 | - | 130 | |
| Benzene | ND | < | 1 | | 4.73 | 5.36 | µg/g | 88.2 | 70 | - | 130 | |
| Isopropyl Acetate | ND | < | 200 | | 1600 | 1620 | µg/g | 98.8 | 70 | - | 130 | |
| Heptane | ND | < | 200 | | 1530 | 1610 | µg/g | 95.0 | 70 | - | 130 | |
| 1,4-Dioxane | ND | < | 100 | | 460 | 489 | µg/g | 94.1 | 70 | - | 130 | |
| 2-Ethoxyethanol | ND | < | 30 | | 169 | 167 | µg/g | 101.2 | 70 | - | 130 | |
| Ethylene Glycol | ND | < | 200 | | 510 | 504 | µg/g | 101.2 | 70 | - | 130 | |
| Toluene | ND | < | 200 | | 443 | 484 | µg/g | 91.5 | 70 | - | 130 | |
| Ethylbenzene | ND | < | 200 | | 855 | 968 | µg/g | 88.3 | 70 | - | 130 | |
| m,p-Xylene | ND | < | 200 | | 867 | 977 | µg/g | 88.7 | 70 | - | 130 | |
| o-Xylene | ND | < | 200 | | 859 | 982 | µg/g | 87.5 | 70 | - | 130 | |
| Cumene | ND | < | 30 | | 145 | 169 | µg/g | 85.8 | 70 | - | 130 | |





Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.
Testing in accordance with: OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430

Columbia LABORATORIES
A Tentamus Company

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

**Report Number:** 21-013080/D002.R000
**Report Date:** 11/11/2021
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 11/05/21 11:28

Revision: Document ID:
Legacy ID: Effective:

**QC - Sample Duplicate** **Sample ID: 21-013000-0001**

| 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 | |
| Acetonitrile | ND | ND | 100 | 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 | |
| 3-Methylpentane | ND | ND | 30 | µg/g | 0.0 | < 20 | Acceptable | |
| Hexane | ND | ND | 30 | 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 | |
| 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 | |
| 1,4-Dioxane | ND | ND | 100 | µg/g | 0.0 | < 20 | Acceptable | |
| 2-Ethoxyethanol | ND | ND | 30 | µg/g | 0.0 | < 20 | Acceptable | |
| Ethylene Glycol | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Toluene | ND | ND | 200 | 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 | |

***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





Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.
Testing in accordance with: OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430

Columbia LABORATORIES
A Tentamus Company

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

**Report Number:** 21-013080/D002.R000
**Report Date:** 11/11/2021
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 11/05/21 11:28

Revision: Document ID:
Legacy ID: Effective:

## Terpenes Quality Control Results

**Method Reference: EPA 5035** **Batch ID:** 2110153

| Method Blank | | | | | Laboratory Control Sample | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Analyte** | **Result** | **LOQ** | | **Notes** | **Result** | **LCS** | **Units** | **LCS % Rec** | **Limits** | **Notes** |
| a-pinene | <LOQ | < | 200 | | 447 | 500 | µg/g | ***89%*** | 70 - 130 | |
| Camphene | <LOQ | < | 200 | | 465 | 500 | µg/g | ***93%*** | 70 - 130 | |
| Sabinene | <LOQ | < | 200 | | 438 | 500 | µg/g | ***88%*** | 70 - 130 | |
| b-Pinene | <LOQ | < | 200 | | 570 | 500 | µg/g | ***114%*** | 70 - 130 | |
| b-Myrcene | <LOQ | < | 200 | | 428 | 500 | µg/g | ***86%*** | 70 - 130 | |
| a-phelllandrene | <LOQ | < | 200 | | 369 | 500 | µg/g | ***74%*** | 70 - 130 | |
| d-3-Carene | <LOQ | < | 200 | | 463 | 500 | µg/g | ***93%*** | 70 - 130 | |
| a-Terpinene | <LOQ | < | 200 | | 458 | 500 | µg/g | ***92%*** | 70 - 130 | |
| p-Cymene | <LOQ | < | 200 | | 441 | 500 | µg/g | ***88%*** | 70 - 130 | |
| D-Limonene | <LOQ | < | 200 | | 435 | 500 | µg/g | ***87%*** | 70 - 130 | |
| Eucalyptol | <LOQ | < | 200 | | 454 | 500 | µg/g | ***91%*** | 70 - 130 | |
| b-cis-Ocimene | <LOQ | < | 67 | | 138 | 167 | µg/g | ***83%*** | 70 - 130 | |
| b-trans-Ocimene | <LOQ | < | 133 | | 297 | 333 | µg/g | ***89%*** | 70 - 130 | |
| g-Terpinene | <LOQ | < | 200 | | 419 | 500 | µg/g | ***84%*** | 70 - 130 | |
| Sabinene_Hydrate | <LOQ | < | 200 | | 458 | 500 | µg/g | ***92%*** | 70 - 130 | |
| Terpinolene | <LOQ | < | 200 | | 448 | 500 | µg/g | ***90%*** | 70 - 130 | |
| D-Fenchone | <LOQ | < | 200 | | 449 | 500 | µg/g | ***90%*** | 70 - 130 | |
| Linalool | <LOQ | < | 200 | | 534 | 500 | µg/g | ***107%*** | 70 - 130 | |
| Fenchol | <LOQ | < | 200 | | 456 | 500 | µg/g | ***91%*** | 70 - 130 | |
| Camphor | <LOQ | < | 200 | | 449 | 500 | µg/g | ***90%*** | 70 - 130 | |
| Isopulego | <LOQ | < | 200 | | 394 | 500 | µg/g | ***79%*** | 70 - 130 | |
| Isoborneol | <LOQ | < | 200 | | 475 | 500 | µg/g | ***95%*** | 70 - 130 | |
| Borneol | <LOQ | < | 200 | | 487 | 500 | µg/g | ***97%*** | 70 - 130 | |
| DL-Menthol | <LOQ | < | 200 | | 453 | 500 | µg/g | ***91%*** | 70 - 130 | |
| Terpineol | <LOQ | < | 200 | | 429 | 500 | µg/g | ***86%*** | 70 - 130 | |
| Nerol | <LOQ | < | 200 | | 392 | 500 | µg/g | ***78%*** | 70 - 130 | |
| Pulegone | <LOQ | < | 200 | | 508 | 500 | µg/g | ***102%*** | 70 - 130 | |
| Gereniol | <LOQ | < | 200 | | 498 | 500 | µg/g | ***100%*** | 70 - 130 | |
| Geranyl_Acetate | <LOQ | < | 200 | | 438 | 500 | µg/g | ***88%*** | 70 - 130 | |
| a-Cedrene | <LOQ | < | 200 | | 457 | 500 | µg/g | ***91%*** | 70 - 130 | |
| b-Caryophyllene | <LOQ | < | 200 | | 469 | 500 | µg/g | ***94%*** | 70 - 130 | |
| a-Humulene | <LOQ | < | 200 | | 479 | 500 | µg/g | ***96%*** | 70 - 130 | |
| Valenene | <LOQ | < | 200 | | 362 | 500 | µg/g | ***72%*** | 70 - 130 | |
| cis-Nerolidol | <LOQ | < | 200 | | 433 | 500 | µg/g | ***87%*** | 70 - 130 | |
| a-Farnesene | <LOQ | < | 200 | | 482 | 500 | µg/g | ***96%*** | 70 - 130 | |
| trans-Nerolidol | <LOQ | < | 200 | | 473 | 500 | µg/g | ***95%*** | 70 - 130 | |
| Caryophyllene_Oxide | <LOQ | < | 200 | | 424 | 500 | µg/g | ***85%*** | 70 - 130 | |
| Guaiol | <LOQ | < | 200 | | 508 | 500 | µg/g | ***102%*** | 70 - 130 | |
| Cedrol | <LOQ | < | 200 | | 473 | 500 | µg/g | ***95%*** | 70 - 130 | |
| a-Bisabolol | <LOQ | < | 200 | | 456 | 500 | µg/g | ***91%*** | 70 - 130 | |

Definitions

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





Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.
Testing in accordance with: OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430

Columbia LABORATORIES
A Tentamus Company

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

**Report Number:** 21-013080/D002.R000
**Report Date:** 11/11/2021
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 11/05/21 11:28

Revision: Document ID:
Legacy ID: Effective:

## Terpenes Quality Control Results

**Method Reference: EPA 5035** **Batch ID:** 2110153

**Sample/Sample Duplicate** **Sample ID: 21-013102-0001**

| Analyte | Result | Org. Result | LOQ | Units | % RPD | LIMIT | Notes |
|---|---|---|---|---|---|---|---|
| a-pinene | 1230 | 1230 | 197 | µg/g | 0% | < 20 | |
| Camphene | 289 | 256 | 197 | µg/g | 12% | < 20 | |
| Sabinene | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| b-Pinene | 1600 | 1610 | 197 | µg/g | 1% | < 20 | |
| b-Myrcene | 2050 | 2000 | 197 | µg/g | 2% | < 20 | |
| a-phelllandrene | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| d-3-Carene | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| a-Terpinene | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| p-Cymene | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| D-Limonene | 8600 | 8470 | 197 | µg/g | 2% | < 20 | |
| Eucalyptol | 241 | 235 | 197 | µg/g | 3% | < 20 | |
| b-cis-Ocimene | <LOQ | <LOQ | 65.6 | µg/g | 0% | < 20 | |
| b-trans-Ocimene | <LOQ | <LOQ | 131 | µg/g | 0% | < 20 | |
| g-Terpinene | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| Sabinene_Hydrate | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| Terpinolene | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| D-Fenchone | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| Linalool | 3620 | 3550 | 197 | µg/g | 2% | < 20 | |
| Fenchol | 1380 | 1390 | 197 | µg/g | 1% | < 20 | |
| Camphor | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| Isopulego | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| Isoborneol | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| Borneol | 338 | 331 | 197 | µg/g | 2% | < 20 | |
| DL-Menthol | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| Terpineol | 1510 | 1480 | 197 | µg/g | 2% | < 20 | |
| Nerol | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| Pulegone | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| Gereniol | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| Geranyl_Acetate | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| a-Cedrene | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| b-Caryophyllene | 11400 | 11100 | 197 | µg/g | 3% | < 20 | |
| a-Humulene | 5360 | 5230 | 197 | µg/g | 2% | < 20 | |
| Valenene | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| cis-Nerolidol | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| a-Farnesene | 1270 | 1250 | 197 | µg/g | 2% | < 20 | |
| trans-Nerolidol | 1310 | 1280 | 197 | µg/g | 2% | < 20 | |
| Caryophyllene_Oxide | 638 | 647 | 197 | µg/g | 1% | < 20 | |
| Guaiol | 8510 | 8350 | 197 | µg/g | 2% | < 20 | |
| Cedrol | <LOQ | <LOQ | 197 | µg/g | 0% | < 20 | |
| a-Bisabolol | 536 | 501 | 197 | µg/g | 7% | < 20 | |

Definitions

RPD Relative Percent Difference





Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.
Testing in accordance with: OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430

Columbia LABORATORIES
A Tentamus Company

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

**Report Number:** 21-013080/D002.R000
**Report Date:** 11/11/2021
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 11/05/21 11:28

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. |


Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.
Testing in accordance with: OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430