

# CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** CBD Tincture - Lemon  
**PRODUCT STRENGTH:** 1350 mg  
**LOT NUMBER:** 20LL108K12  
**BEST BY DATE:** 10/17/2021  
**HEMP EXTRACT LOT** [11919](#)

[\\*Click on the links to view third-party reports\\*](#)

## Physical Attributes

Test	Method	Specification	Results
Color	SOP-100	Golden to Amber	PASS
Odor	SOP-100	Characteristic - coconut and hemp, lemon	PASS
Appearance	SOP-100	Golden to Amber oil in brown glass bottle with dropper	PASS
Primary Package Eval.	SOP-132	Container clean and free of filth. Container caps tight and shrink bands intact	PASS
Secondary Package Eval.	SOP-132	Labeling Compliance Checked, Cartons sturdy and clean. Sufficient cushion material exists. Box taped and secure.	PASS

## Review of Third-Party Analysis

Panel	Method	Specification	Results	Pass/Fail
<b>Potency</b> - Total CBD	SOP-111	1282.5-1687.5 mg CBD LOQ**: 10 PPM† (0.001%)	<a href="#">1496mg</a>	PASS
<b>Potency</b> - D9-THC	SOP-111	None Detected LOQ: 10 PPM (0.001%)	<a href="#">ND</a>	PASS
<b>Compliant Pesticide Panel</b>	SOP-111	Oregon Action Limits for Pesticides	<a href="#">ND</a>	PASS
<b>Microbial</b> - Stec E.Coli	SOP-111	Complies with USP 61/62	<a href="#">&gt;LOD</a>	PASS
<b>Microbial</b> - Salmonella	SOP-111	Complies with USP 61/62	<a href="#">&gt;LOD</a>	PASS
<b>Microbial</b> - Aspergillus	SOP-111	Complies with USP 61/62	<a href="#">&gt;LOD</a>	PASS
<b>CA Compliant Heavy Metal Panel</b>	SOP-111	Arsenic (As): ≤1.5 PPM Cadmium (Cd): ≤0.5 PPM Mercury (Hg): ≤1.0 PPM Lead (Pb): ≤0.5 PPM	<a href="#">ND</a>	PASS

\* Level of Quantitation, † Parts Per Million

*Darcie Moran*

04.02.2020

Quality Certified by:

Darcie Moran

Date

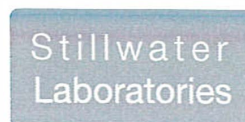
Director of Quality Assurance

Lemon 1350mg 20LL108K12

Certificate of Analysis



total cannabinoids	Δ9-THC	THCa	total THC
<b>1496 mg</b>	0 mg	0 mg	0 mg
per	CBD	CBDa	total CBD
<b>30mL</b>	1428 mg	3 mg	1431 mg



https://portal.a2la.org/scopepdf/4961-01.pdf

Sample Handling

test ID	sample wt
type	order 7161
lab ID 0DY77	sample date
unit 30mL	unit weight 28.2 g

Methods

method	equipment
weights MSP-7.3.1.3	AUX120.1
potency MSP-7.5.1.5	LC-2030
terpenes MSP-7.5.1.7	QP2020/HS20
pesticides MSP-7.5.1.8	LC-8060
mycotoxins MSP-7.5.1.8	LC-8060
microbial MSP-7.5.1.9	Hardy Diag
solvents MSP-7.5.1.6	QP2020/HS20
metals MSP-7.5.1.1	ICPMS2030



Potency

per 30mL	estimated error
tetrahydrocannabinolic acid (THCa) 0%	0 mg ± 0.46 mg
Δ <sup>9</sup> -tetrahydrocannabinol (Δ <sup>9</sup> THC) 0%	0 mg ± 0.46 mg
Δ <sup>8</sup> -tetrahydrocannabinol (Δ <sup>8</sup> THC) 0%	0 mg ± 0.46 mg
tetrahydrocannabivarin (THCv) 0%	0 mg ± 0.46 mg
cannabidiolic acid (CBDa) .01%	3 mg ± 1.07 mg
cannabidiol (CBD) 5.06%	1428 mg ± 20.12 mg
cannabidivarin (CBDv) .02%	5 mg ± 1.30 mg
cannabigerolic acid (CBGa) 0%	0 mg ± 0.46 mg
cannabigerol (CBG) .21%	59 mg ± 4.10 mg
cannabinol (CBN) 0%	0 mg ± 0.46 mg
cannabichromene (CBC) 0%	1 mg ± 0.61 mg

Terpenes

%	estimated error	%	estimated error	%	estimated error
β-myrcene 0.018%	± 0.0032%	camphene 0.000%	± 0.0017%	guaiol 0.001%	± 0.0017%
β-caryophyllene 0.000%	± 0.0016%	Δ3-carene 0.000%	± 0.0016%	β-bisabolol 0.000%	± 0.0016%
alpha-pinene 0.042%	± 0.0045%	a-terpinene 0.000%	± 0.0016%	eucalyptol 0.000%	± 0.0016%
β-pinene 0.137%	± 0.0078%	para-cymene 0.001%	± 0.0018%		
D-limonene 1.163%	± 0.0221%	g-terpinene 0.072%	± 0.0057%		
linalool 0.001%	± 0.0018%	(-)-isopulegol 0.000%	± 0.0016%		
ocimene 0.012%	± 0.0044%	geraniol 0.003%	± 0.0020%		
terpinolene 0.002%	± 0.0018%	cis-nerolidol 0.000%	± 0.0016%		
alpha-humulene 0.000%	± 0.0016%	trans-nerolidol 0.000%	± 0.0016%		
				total terpenes	1.45%

Solvents

MT li mit	0DY77	LOQ
propane 5,000	2 ppm	<10ppm
butanes 5,000	0 ppm	<10ppm
pentanes 5,000	0 ppm	<10ppm
hexanes 290	0 ppm	<10ppm
cyclohexane 3,880	0 ppm	<10ppm
heptanes 5,000	0 ppm	<10ppm
methanol 3,000	7 ppm	<10ppm
isopropanol 5,000	0 ppm	<10ppm
acetone 5,000	0 ppm	<10ppm
ethyl acetate 5,000	0 ppm	<10ppm
benzene 2	0 ppm	<0.2ppm
toluene 890	0 ppm	<10ppm
xylenes 2,170	0 ppm	<10ppm
chloroform 2	0 ppm	<0.2ppm
dichloromethane 600	0 ppm	<10ppm

Pesticides (MT)

MT limit	0DY77	LOQ
abamectin	0.00 ppm	<10ppb
acequinocyl	0.00 ppm	<10ppb
bifenazate	0.00 ppm	<10ppb
bifenthrin	0.00 ppm	<10ppb
chlormequat cl.	0.00 ppm	<10ppb
cyfluthrin	0.00 ppm	<80ppb
diaminazide	0.00 ppm	<10ppb
etoxazole	0.00 ppm	<10ppb
fenoxycarb	0.00 ppm	<10ppb
imazalil	0.00 ppm	<10ppb
imidacloprid	0.00 ppm	<10ppb
myclobutanil	0.00 ppm	<10ppb
paclobutrazol	0.00 ppm	<10ppb
pyrethrins	0.00 ppm	<10ppb
spinosad	0.00 ppm	<10ppb
spiromesifen	0.00 ppm	<10ppb
spirotetramat	0.00 ppm	<10ppb
trifloxystrobin	0.00 ppm	<10ppb

Pesticides (other)

0DY77	LOQ
acephate	0.00 ppm <10ppb
acetamiprid	0.00 ppm <10ppb
aldicarb	0.00 ppm <10ppb
azoxystrobin	0.00 ppm <10ppb
boscalid	0.00 ppm <10ppb
carbaryl	0.00 ppm <10ppb
carbofuran	0.00 ppm <10ppb
chlorantraniliprole	0.00 ppm <10ppb
chlorpyrifos	0.00 ppm <10ppb
clofentazine	0.00 ppm <10ppb
cypermethrin	0.00 ppm <10ppb
diazinon	0.00 ppm <10ppb
dichlorvos	0.00 ppm <10ppb
dimethoate	0.00 ppm <10ppb
etofenprox	0.00 ppm <10ppb
fenpyroximate	0.00 ppm <10ppb
fipronil	0.00 ppm <10ppb
flonicamid	0.00 ppm <10ppb
fludioxonil	0.00 ppm <10ppb
hexythiazox	0.00 ppm <10ppb
kresoxym-methyl	0.00 ppm <10ppb
malathion	0.00 ppm <10ppb
metalaxyl	0.00 ppm <10ppb
methiocarb	0.00 ppm <10ppb
methomyl	0.00 ppm <10ppb
oxamyl	0.00 ppm <10ppb
permethrins	0.00 ppm <10ppb
phosmet	0.00 ppm <10ppb
piperonyl butoxide	0.00 ppm <10ppb
prallethrin	0.00 ppm <10ppb
propiconazole	0.00 ppm <10ppb
pyridaben	0.00 ppm <10ppb
spiroxamine	0.00 ppm <10ppb
tebuconazole	0.00 ppm <10ppb
thiacloprid	0.00 ppm <10ppb
thiamethoxam	0.00 ppm <10ppb

Toxic Metals

MT li mit	0DY77	LOQ
arsenic 2 ppm	0.0 ppm	<10ppb
cadmium 4.1 ppm	0.0 ppm	<10ppb
lead 1.2 ppm	0.0 ppm	<10ppb
mercury 0.4 ppm	0.0 ppm	<10ppb

Comments

Extraction using MSP-7.5.1.2b.concentrate  
Assumed density 0.94

Microbial

MT li mit	0DY77	LOQ
E. coli	10 CFU	0 CFU <10 CFU/g
Salmonella sp.	10 CFU	0 CFU <10 CFU/g
molds	10000 CFU	0 CFU <10k CFU/g
Aflatoxin B1,B2,G1,G2	20 ppb	0 ppb <20 ppb
Ochratoxin A	20 ppb	0 ppb <20 ppb

Certified by:

*Ron Brost*

Ron Brost, PhD PEng (Chem)

Director  
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406-861-2019 rdb@stlslabs.com

All testing was completed onsite at 6073 US93N, Olney MT. Potency (cannabinoid concentration) is calculated from the equation: [cannabinoid] = [cannabinoid]<sub>HP-LC</sub> × volume<sub>dilution</sub> / m<sub>dry</sub>. Terpene concentration is calculated from the equation: [terpene] = (terpene mass)<sub>GC-MS</sub> / m<sub>dry</sub>. Decarboxyated cannabinoid concentration is calculated from the equation XXX<sub>total</sub> = 0.877 × XXX<sub>a</sub> + XXX. Standards are used to calibrate the resulting data and estimate error using a standard estimate of error method; this is combined with error from weighing and dilution using the propagation of error formula s<sub>p</sub><sup>2</sup> = ∑(d/di)<sup>2</sup>s<sub>i</sub><sup>2</sup> where i is the contributor to error. The 95% confidence range is calculated from the equation: (concentration) ± t<sub>CL95</sub> × s<sub>p</sub>. Sampling error is not



total cannabinoids 88.5% CBD decarb total 84.61% Δ9-THC ND

This Product Has Been Tested and Complies with 7USC1639o(1) Definition of Hemp



Stillwater Laboratories

https://portal.a2la.org/scopepdf/4961-01.pdf

Sample Handling

test ID sample date 12/4/19 2:46 PM order 6070 labID 9MD44 weight 5.4 g source

Table with 3 columns: Methods, method, equipment. Lists various testing methods like weights, potency, terpenes, pesticides, etc.



concentrate

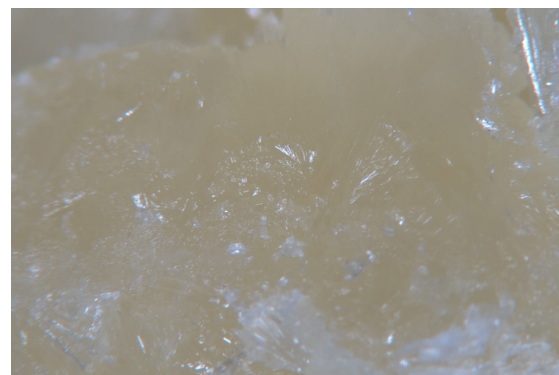


Table with 6 columns: Potency, Terpenes, and total terpenes. Lists compounds like tetrahydrocannabinolic acid, beta-myrcene, camphene, etc., with their respective percentages and estimated errors.

Table with 10 columns: Solvents, Pesticides (MT), Pesticides (other), and Toxic Metals. Lists various substances and their test results (PASS, FAIL, etc.) against MT limits and LOQs.

Table with 4 columns: Microbial, MT limit, 9MD44, LOQ. Lists E. coli, Salmonella sp., molds, Aflatoxin, and Ochratoxin with their test results.

All testing was completed onsite at 6073 US93N, Olney MT. Potency (cannabinoid concentration) is calculated from the equation: [cannabinoid] = [cannabinoid]HPLC x volume\_dilution / m\_dry. Terpene concentration is calculated from the equation: [terpene] = (terpene mass)GCMS / m\_dry. Decarboxyted cannabinoid concentration is calculated from the equation XXX\_total = 0.877 x XXXa + XXX. Standards are used to calibrate the resulting data and estimate error using a standard estimate of error method; this is combined with error from weighing and dilution using the propagation of error formula s\_g^2 = sum((delta/delta)^2 \* s\_i^2) where i is the contributor to error. The 95% confidence range is calculated from the equation: (concentration) +/- t\_CL90 x S\_g. Sampling error is not

Certified by: Kyle Larson, MSc (Biology) Deputy Director 6073 US93N, Olney MT 59927 406-881-2019 rdb@stwlabs.com

