

# CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** CBD Tincture - Natural  
**PRODUCT STRENGTH:** 1350 mg  
**FILL LOT:** 200710B  
**TINCTURE BATCH:** 200721B  
**BEST BY DATE:** 1/21/2022  
**HEMP EXTRACT LOT** B0313-001

\*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 - Olive and hemp	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 - Total CBD</b>	SOP-111	1350-1687.5 mg CBD LOQ**: 10 PPM† (0.001%)	<a href="#">1440mg</a>	PASS
<b>Potency - D9-THC</b>	SOP-111	None Detected LOQ: 10 PPM (0.001%)	<a href="#">ND</a>	PASS
<b>Compliant Pesticide Panel</b>	SOP-111	WIP-100008 : Product specification for Tinctures, Oregon Action limits apply	<a href="#">ND</a>	PASS
<b>Microbial - Stec E.Coli</b>	SOP-111	Complies with USP 61/62	<a href="#">Below LOD</a>	PASS
<b>Microbial - Salmonella</b>	SOP-111	Complies with USP 61/62	<a href="#">Below LOD</a>	PASS
<b>Microbial - Yeast and Mold</b>	SOP-111	Complies with USP 61/62	<a href="#">Below 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

Quality Certified Kei Horikawa 08/03/2020  
 Kei Horikawa Date  
 Manager of Quality Assurance



total cannabinoids	$\Delta^9$ -THC	THCa	total THC
<b>50 mg</b>	0.00 mg	0.00 mg	0.00 mg
per	CBD	CBDa	total CBD
<b>mL</b>	48.0 mg	0.12 mg	48.2 mg

Lot# 200710B

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



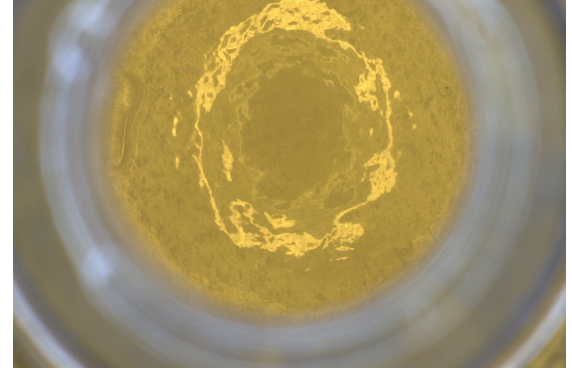
Stillwater Laboratories

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

Sample Handling

test ID	sample wt
type concentrate	order <b>7811</b>
lab ID <b>OGL78</b>	sample date 7/15/2020
unit mL	unit weight <b>0.9 g</b>

concentrate



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 mL	estimated error	Terpenes	%	estimated error	%	estimated error	%	estimated error
tetrahydrocannabinolic acid (THCa)	0%	0.00 mg	terpenes not tested / not required		$\pm$ 0.02 mg				
$\Delta^9$ -tetrahydrocannabinol ( $\Delta^9$ THC)	0%	0.00 mg		$\pm$ 0.02 mg					
$\Delta^8$ -tetrahydrocannabinol ( $\Delta^8$ THC)	0%	0.00 mg		$\pm$ 0.02 mg					
tetrahydrocannabivarin (THCv)	0%	0.00 mg		$\pm$ 0.02 mg					
cannabidiolic acid (CBDa)	.01%	0.12 mg		$\pm$ 0.02 mg					
cannabidiol (CBD)	5.25%	48.0 mg		$\pm$ 0.22 mg					
cannabidivarin (CBDv)	.01%	0.10 mg		$\pm$ 0.02 mg					
cannabigerolic acid (CBGa)	0%	0.00 mg		$\pm$ 0.02 mg					
cannabigerol (CBG)	.21%	1.92 mg		$\pm$ 0.05 mg					
cannabinol (CBN)	0%	0.00 mg		$\pm$ 0.02 mg					
cannabichromene (CBC)	0%	0.00 mg	$\pm$ 0.02 mg						

Pesticides (MT)

MT limit	OGL78	LOQ	Pesticides (other)	OGL78	LOQ
abamectin	0.00 ppm	<10ppb	acephate	0.00 ppm	<10ppb
acequinocyl	0.00 ppm	<10ppb	acetamiprid	0.00 ppm	<10ppb
bifenazate	0.00 ppm	<10ppb	aldicarb	0.00 ppm	<10ppb
bifenthrin	0.00 ppm	<10ppb	azoxystrobin	0.00 ppm	<10ppb
chlormequat cl.	0.00 ppm	<10ppb	boscalid	0.00 ppm	<10ppb
cyfluthrin	0.00 ppm	<80ppb	carbaryl	0.00 ppm	<10ppb
diaminozide	0.00 ppm	<10ppb	carbofuran	0.00 ppm	<10ppb
etoxazole	0.00 ppm	<10ppb	chlorantraniliprole	0.00 ppm	<10ppb
fenoxycarb	0.00 ppm	<10ppb	chlorpyrifos	0.00 ppm	<10ppb
imazalil	0.00 ppm	<10ppb	clofentezine	0.00 ppm	<10ppb
imidacloprid	0.00 ppm	<10ppb	cypermethrin	0.00 ppm	<10ppb
myclobutanil	0.00 ppm	<10ppb	diazinon	0.00 ppm	<10ppb
paclobutrazol	0.00 ppm	<10ppb	dichlorvos	0.00 ppm	<10ppb
pyrethrins	0.00 ppm	<10ppb	dimethoate	0.00 ppm	<10ppb
spinosad	0.00 ppm	<10ppb	etofenprox	0.00 ppm	<10ppb
spiromesifen	0.00 ppm	<10ppb	fenpyroximate	0.00 ppm	<10ppb
spirotetramat	0.00 ppm	<10ppb	fenprophamid	0.00 ppm	<10ppb
trifloxystrobin	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 limit	OGL78	LOQ
arsenic	2 ppm	0.0 ppm
cadmium	4.1 ppm	0.0 ppm
lead	1.2 ppm	0.0 ppm
mercury	0.4 ppm	0.0 ppm

Microbial

MT limit	OGL78	LOQ
Aflatoxin B1,B2,G1,G2	20 ppb	0 ppb
Ochratoxin A	20 ppb	0 ppb

microbial not tested

Comments

Certified by:

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

All testing was completed onsite at 6073 US93N, Olney MT. Potency (cannabinoid concentration) is calculated from the equation: [cannabinoid] = [cannabinoid]<sub>HPLC</sub> x volume<sub>dilution</sub> / m<sub>dry</sub>. Terpene concentration is calculated from the equation: [terpene] = (terpene mass)<sub>GCMS</sub> / m<sub>dry</sub>. Decarboxylated cannabinoid concentration is calculated from the equation XXX<sub>total</sub> = 0.877 x 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>g</sub><sup>2</sup> = Σ (∂f/∂i)<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>CL90</sub> x s<sub>g</sub>. Sampling error is not

# Certificate of Analysis

## Sample Information

CTLA ID: 19585  
 Date Received: 7/22/2020  
 Sample Name: 1350N  
 Lot Number: 200721B  
 Customer:

Analysis	Method	MDL Specification	Result	Units
<b>Rapid Complete Micro</b>				
Total Plate Count	USP <2021>	100 Report	<100	cfu/g
Total Coliforms	BAM CH.4	10 Report	<10	cfu/g
<i>Escherichia coli</i>	USP <2022>	Report	Negative	
<i>Salmonella</i>	USP <2022>	Report	Negative	
<i>Staphylococcus aureus</i>	USP <2022>	Report	Negative	
Rapid Yeast and Mold	AOAC 997.02	10 Report	<10	cfu/g

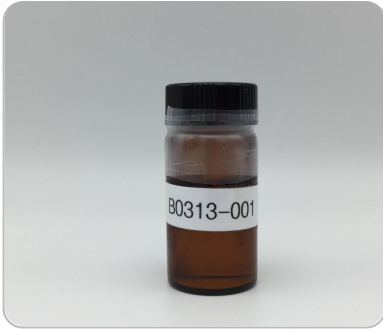
7/24/2020  
 DATE

  
 Quality Manager

Specifications provided by the Customer. Results with an asterisk (\*) denote Specifications should be reviewed by the Customer. This Certificate of Analysis represents data for the sample submitted and does not constitute a guarantee of quality for the entire product from which it was taken. These results are provided for the benefit of the Customer. MDL = Method Detection Limit.



Order #: 51103  
 Order Name: B0313-001  
 Batch #: B0313-001  
 Complete: 03/20/2020



N/D  
 D9-THC

88.92%  
 Total CBD

Delta-9-Tetrahydrocannabinol 0%
Tetrahydrocannabinolic Acid 0%
<b>Cannabidiol 89%</b>
Cannabidiolic Acid 0%
Cannabidivarin 0%
Cannabichromene 0%
Cannabinol 0%
<b>Cannabigerol 5%</b>
Cannabigerolic Acid 0%
Delta-8-Tetrahydrocannabinol 0%
Tetrahydrocannabivarin 0%

### Cannabinoids

	LOQ	weight(%)	mg/g
D9-THC	< 0.05%	N/D	N/D
THCA	< 0.05%	N/D	N/D
CBD	< 0.05%	< 88.92%	< 889.24
CBDA	< 0.01%	N/D	N/D
CBDV	< 0.01%	N/D	N/D
CBC	< 0.01%	N/D	N/D
CBN	< 0.01%	N/D	N/D
CBG	< 0.01%	< 4.51%	< 45.23
CBGA	< 0.01%	N/D	N/D
D8-THC	< 0.05%	N/D	N/D
THCV	< 0.05%	N/D	N/D
TOTAL D9-THC	N/A	< N/D	< N/D
TOTAL CBD*	N/A	< 88.92%	< 889.24
TOTAL CANNABINOIDS	N/A	< 93.44%	< 934.47

### Metal

	Action Level	Result
ARSENIC (AS)	200	B/LOQ
CADMIUM (CD)	200	B/LOQ
MERCURY (HG)	100	B/LOQ
LEAD (PB)	500	B/LOQ

Limit of Quantitation (LOQ) is 85 ppb

### Residual Solvents

Solvent Name	Action Level	Results	LOQ
ACETONE	5,000	N/D	280
ACETONITRILE	410	N/D	50
BENZENE	1	N/D	1
BUTANE	5,000	N/D	100
CHLOROFORM	1	N/D	1
DICHLOROETHANE	1	N/D	1
DICHLOROMETHANE	1	N/D	1
ETHANOL	5,000	N/D	280
ETHYL ACETATE	5,000	N/D	280
ETHYL ETHER	5,000	N/D	280

Solvent Name	Action Level	Results	LOQ
ISOPROPYL ALCOHOL	5,000	N/D	280
METHANOL	3,000	B/LOQ	200
N-HEPTANE	5,000	N/D	280
N-HEXANE	290	B/LOQ	36
PENTANE	5,000	N/D	280
PROPANE	5,000	N/D	40
TOLUENE	890	N/D	106
TRICHLOROETHENE	1	N/D	0
XYLENES	2,170	N/D	260

### Pesticide

Pesticide Name	Action Level	Results	LOQ
ABAMECTIN B1A	0.100	N/D	0.02
ACEPHATE	0.100	N/D	0.004
ACEQUINOCYL	0.100	N/D	0.004
ACETAMIPRID	0.100	N/D	0.02
ALDICARB	0.100	N/D	0.02
AZOXYSTROBIN	0.100	N/D	0.004
BIFENAZATE	0.100	N/D	0.02
BIFENTHRIN	3.000	N/D	0.02
BOSCALID	0.100	N/D	0.02
CARBARYL	0.500	N/D	0.012
CARBOFURAN	0.100	N/D	0.004
CHLORANTRANILIPROLE	10.000	N/D	0.02
CHLORPYRIFOS	0.100	N/D	0.004
CLOFENTEZINE	0.100	N/D	0.004
DAMINOZIDE	0.100	N/D	0.02
DIAZANON	0.100	N/D	0.004
DICHLORVOS	0.100	N/D	0.02
DIMETHOATE	0.100	N/D	0.004
DIMETHOMORPH	2.000	N/D	0.02

Pesticide Name	Action Level	Results	LOQ
ETHOPROPHOS	0.100	N/D	0.004
ETOFENPROX	0.100	N/D	0.004
ETOXAZOLE	0.100	N/D	0.04
FENHEXAMID	0.100	N/D	0.02
FENYOXCARB	0.100	N/D	0.02
FENPYROXIMATE	0.100	N/D	0.004
FIPRONIL	0.100	N/D	0.012
FLONICAMID	0.100	N/D	0.05
FLUDIOXONIL	0.100	N/D	0.012
HEXYTHIAZOX	0.100	N/D	0.02
IMAZALIL	0.100	N/D	0.02
IMIDACLOPRID	5.000	N/D	0.02
KRESOXIM-METHYL	0.100	N/D	0.04
MALATHION	0.500	N/D	0.02
METALAXYL	2.000	N/D	0.004
METHIOCARB	0.100	N/D	0.02
METHOMYL	1.000	N/D	0.004
MEVINPHOS	0.100	N/D	0.004
MYCLOBUTANIL	0.100	N/D	0.02

Pesticide Name	Action Level	Results	LOQ
NALED	0.100	N/D	0.02
OXAMYL	0.500	N/D	0.004
PACLOBUTRAZOL	0.100	N/D	0.02
PERMETHRINS	0.500	N/D	0.02
PHOSMET	0.100	N/D	0.02
PRALLETHRIN	0.100	N/D	0.02
PROPICONAZOLE	0.100	N/D	0.04
PROPOXUR	0.100	N/D	0.004
PYRETHRINS (PYRETHRIN I)	0.500	N/D	0.02
PYRIDABEN	0.100	N/D	0.02
SPINETORAM	0.100	N/D	0.004
SPINOSAD	0.100	N/D	0.004
SPIROMESIFEN	0.100	N/D	0.02
SPIROTETRAMAT	0.100	N/D	0.004
SPIROXAMINE	0.100	N/D	0.004
TEBUCONAZOLE	0.100	N/D	0.02
THIACLOPRID	0.100	N/D	0.004
THIAMETHOXAM	5.000	N/D	0.004
TRIFLOXYSTROBIN	0.100	N/D	0.004

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