

# Certificate of Analysis

## PRODUCT INFORMATION

**Product:** Hemp Derived Whole Plant Concentrate  
**Description:** 1500 MG CBD in 1 FL OZ of Organic MCT  
**Mfg Date:** 12-Oct-19  
**Biomass Source:** Serious Dirt Botanics, Inc  
**Cultivar:** Midwest  
**Batch Code:** W1930095J1N01  
**Production Run Code:** VE1934501  
**Product Code:** W50MN-30

*Product of Vermont*



## PRODUCT DATA

Parameter	Test Procedure	Specification	Units	Result
Appearance (20 - 25°C)	ASTM E1627 - 11	Amber viscous liquid.		PASS
Odor (20 - 25°C)	ASTM E1627 - 11	Floral, earthy	-	PASS
Total CBD (Potency)	C5210-LCUV (Internal)	1500 - 1580	mg/mL	1506 PASS
CBDA	C5210-LCUV (Internal)	≤ 10	%w/w	< 0.05 PASS
Delta 9-THC	C5210-LCUV (Internal)	≤ 0.34	%w/w	0.22 PASS
THCA-A	C5210-LCUV (Internal)	≤ 0.05	%w/w	< 0.05 PASS
Minor Cannabinoids	C6198 LCMSMS (Internal)	≥ 0.01	%w/w	0.29 PASS
Terpenes	C5933-GCMS (Internal)	≥ 100	PPM	216 PASS
Water Activity	D8196-18	≤ 0.600	Aw	0.501 PASS
Residual Solvent	C5923-GCMS (Internal)	USP 467	%w/w	- PASS
Pesticides*	C5838 LCMSMS/AOAC 2007.01	ORS OAR 333-007-0400	ppb	PASS
Mycotoxins*	C5838 LCMSMS/AOAC 2007.01	MDH Exhibit 6	ppb	PASS
Heavy Metals	ICPMS (External Partner)	MDH Exhibit 4	ppb	- PASS

\*Residual solvents are evaluated against USP 467 MRLs for Methanol, Pentane, Ethanol, Aceton, Isopropanol, Acetonitrile, Hexanes, Tetrahydrofuran, Chloroform, Heptane, Toluene, Xylene.

\*Pesticides are evaluated against Oregon Health Authority (OAR) MRLs for Bifenazate, Bifenthrin, Cyfluthrin, Etoxale, Imazalil, Imidacloprid, Myclobutinal, Spiremesifen, Trifloxstrobil.

\*Mycotoxins are evaluated against Massachusetts Department of Health (MDH) Exhibit 6 for Aflatoxin B1, Aflatoxin B2, Alfatoxin G1, Aflatoxin G2, Ochratoxin A.

\*Heavy Metals are evaluated against Massachusetts Department of Health (MDH) Exhibit 4) for lead, cadmium, mercury, arsenic.

\*Data collected on flower and concentrate source material.

## PRODUCT STABILITY

**Recommended Storage:** 20-25 ° C (68-77° F), Refrigerate for long term storage (> 3 months).  
**Retest Date:** 1-Dec-21 Avoid exposure to extreme hot or cold and protect from exposure to light.

**IMPORTANT:** Some data for this product are collected using NEP internal analytical testing procedures undergoing validation. Testing results will vary within reasonable procedure performance limits. Results demonstrating regulatory compliance are provided by NEP are for directional purposes in support of manufacturing processes and are not a substitute for 3rd party lab testing of this material. External testing denoted by "(External)" in procedure field is performed by BiaDiagnostics (Colchester, VT).

**Approved by:**



**Date:** 17-Dec-19  
**Name:** Keith Griswold, M.S.  
**Title:** Director of Analytics & Formulations

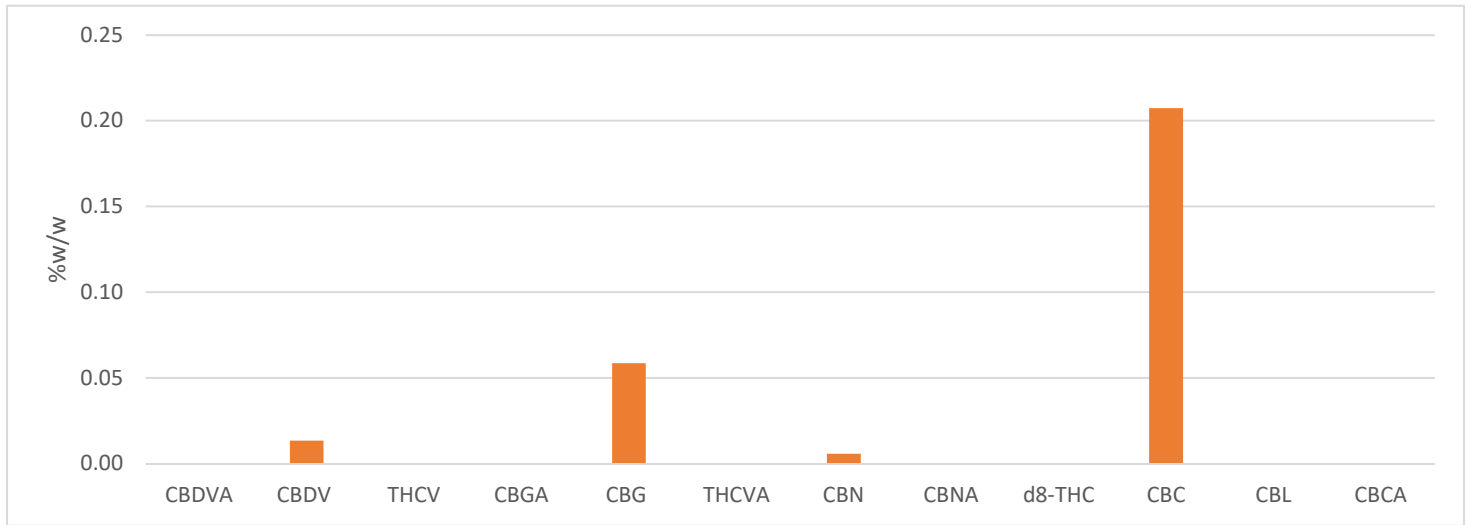
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## Minor Cannabinoids

**Product:** Hemp Derived Whole Plant Concentrate  
**Procedure ID:** C6198 LCMSMS (Internal)

**Product Batch ID:** W1930095J1N01

**Total Minor Cannabinoids:** **0.29** %w/w



Analyte	Reporting Limit	%W/W	MG/G
Cannabidivarinic Acid (CBDVA)	0.01% w/w	< 0.01	-
Cannabidivarin (CBDV)	0.01% w/w	0.01	0.13
Tetrahydrocannabivarin (THCV)	0.01% w/w	< 0.01	-
Cannabigerolic Acid (CBGA)	0.01% w/w	< 0.01	-
Cannabigerol (CBG)	0.01% w/w	0.06	0.59
Tetrahydrocannabivarinic Acid (THCVA)	0.01% w/w	< 0.01	-
Cannabinol (CBN)	0.01% w/w	0.01	0.06
Cannabinolic Acid (CBNA)	0.01% w/w	< 0.01	-
Delta 8-THC	0.01% w/w	< 0.01	-
Cannabichromene (CBC)	0.01% w/w	0.21	2.07
Cannabicyclol (CBL)	0.01% w/w	< 0.01	-
Cannabichromic Acid (CBCA)	0.01% w/w	< 0.01	-

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## Terpene Profile

**Product:** Hemp Derived Whole Plant Concentrate  
**Procedure ID:** C5933-GCMS (Internal)

**Product Batch ID:** W1930095J1N01

**Total Terpenes:** **216** ppm

Analyte	Units	Reporting Limit	Results
α-Pinene	PPM	2	< 2
Camphene	PPM	2	< 2
Sabinene-	PPM	2	< 2
β-Pinene	PPM	2	< 2
β-Myrcene	PPM	2	6
.α-Phellandrene	PPM	2	< 2
Carene	PPM	2	< 2
α-Terpinene	PPM	2	< 2
D-Limonene	PPM	2	< 2
o-Cymene	PPM	2	< 2
Eucalyptol	PPM	2	< 2
β-Ocimene	PPM	2	< 2
γTerpinene	PPM	2	< 2
Terpinolene	PPM	2	< 2
Sabinene Hydrate	PPM	2	< 2
Fenchone	PPM	2	< 2
Linalool	PPM	2	17
Fenchol	PPM	2	< 2
Isopulegol	PPM	2	< 2
Camphor	PPM	2	< 2
Isoborneol	PPM	2	< 2
Menthol	PPM	2	< 2
endo-Borneol	PPM	2	< 2
α-Terpineol	PPM	2	4
γ Terpineol	PPM	2	< 2
Nerol	PPM	2	< 2
Pulegone	PPM	2	< 2
Geraniol	PPM	2	< 2
Geranyl acetate	PPM	2	< 2
α-Cedrene	PPM	2	< 2
(E)-β-Famesene	PPM	2	< 2
Caryophyllene	PPM	2	91
α-Humulene	PPM	2	42
trans-Neradiol	PPM	2	< 2
cis-Neradiol	PPM	2	< 2
Valencene	PPM	2	< 2
Guaiol	PPM	2	< 2
Caryophyllene Oxide	PPM	2	37
Cedrol	PPM	2	< 2
α-Bisabolol	PPM	2	19

\*BQL - Below quantitation limit



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21 O'Bryan Drive  
Brattleboro VT 05301  
Northeastprocessing.com

## Residual Solvents

**Product:** Hemp Derived Whole Plant Concentrate  
**Procedure ID:** ICPMS (External Partner)

**Product Batch ID:** W1930095J1N01

Analyte	Units	Reporting Limit	MRL (USP 467)		Result
Methanol	%w/w	0.05	0.30	< 0.05	PASS
Pentane	%w/w	0.003	0.50	< 0.003	PASS
Ethanol	%w/w	0.05	0.50	0.05	PASS
Acetone	%w/w	0.05	0.50	< 0.05	PASS
Isopropanol	%w/w	0.05	0.50	<0.05	PASS
Acetonitrile	%w/w	0.003	0.04	<0.003	PASS
n-Hexane	%w/w	0.003	0.03	<0.003	PASS
Tetrahydrofuran	%w/w	0.003	0.07	<0.003	PASS
Chloroform	%w/w	0.003	0.01	<0.003	PASS
n-Heptane	%w/w	0.02	0.50	<0.02	PASS
Toluene	%w/w	0.003	0.09	<0.003	PASS
m & p Xylene	%w/w	0.003	0.22	<0.003	PASS