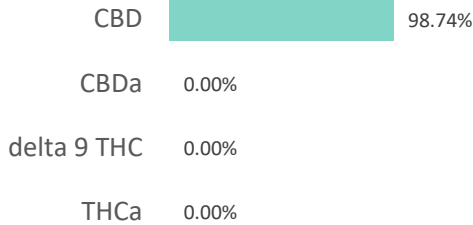
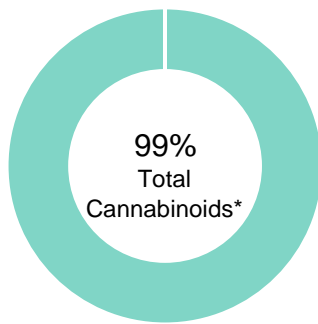


CBD ISOLATE

Batch ID:		Test ID:	4502134.0070
Reported:	21-Nov-2019	Method:	TM14
Type:	Concentrate		
Test:	Potency		

CANNABINOID PROFILE


Compound	LOQ (%)	Result (%)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.31	0.00	0.0
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.16	0.00	0.0
Cannabidiolic acid (CBDA)	0.28	0.00	0.0
Cannabidiol (CBD)	0.15	98.74	987.4
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.17	0.00	0.0
Cannabinolic Acid (CBNA)	0.43	0.00	0.0
Cannabinol (CBN)	0.19	0.00	0.0
Cannabigerolic acid (CBGA)	0.27	0.00	0.0
Cannabigerol (CBG)	0.15	0.00	0.0
Tetrahydrocannabivarinic Acid (THCVA)	0.27	0.00	0.0
Tetrahydrocannabivarin (THCV)	0.14	0.00	0.0
Cannabidivarinic Acid (CBDVA)	0.26	0.00	0.0
Cannabidivarin (CBDV)	0.14	0.26	2.6
Cannabichromenic Acid (CBCA)	0.23	0.00	0.0
Cannabichromene (CBC)	0.28	0.00	0.0
Total Cannabinoids		99.00	990.00
Total Potential THC**		0.00	0.00
Total Potential CBD**		98.74	987.40

NOTES:

N/A

% = % (w/w) = Percent (Weight of Analyte / Weight of Product)


* Total Cannabinoids result reflects the absolute sum of all cannabinoids detected.

** Total Potential THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step.

$$\text{Total THC} = \text{THC} + (\text{THCa} * (0.877)) \text{ and Total CBD} = \text{CBD} + (\text{CBDa} * (0.877))$$
FINAL APPROVAL


Daniel Weidensaul
 21-Nov-2019
 7:40 PM

PREPARED BY / DATE



Greg Zimpfer
 21-Nov-2019
 8:53 PM

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2005 Accredited A2LA Certificate Number 4329.02



Certificate #4329.02

CBD ISOLATE

Batch ID:	N/A	Test ID:	5589231.066
Reported:	21-Nov-2019	Method:	MIP - Test Methods: TM05, TM06
Type:	MIP		
Test:	Microbial Contaminants		

MICROBIAL CONTAMINANTS

Contaminant	Result (CFU/g)*
Total Aerobic Count**	None Detected
Total Coliforms**	None Detected
Total Yeast and Molds**	None Detected
E. coli	None Detected
Salmonella	None Detected

* CFU/g = Colony Forming Unit per Gram


** Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form.

Examples: $10^2 = 100$ CFU
 $10^3 = 1,000$ CFU
 $10^4 = 10,000$ CFU
 $10^5 = 100,000$ CFU

NOTES:

Free from visual mold, mildew, and foreign matter
TYM: None Detected
Total Aerobic: None Detected

FINAL APPROVAL


Mara Miller
21-Nov-2019
3:12 PM
David Green
21-Nov-2019
3:17 PM

PREPARED BY / DATE

APPROVED BY / DATE

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CBD ISOLATE

Batch ID:	N/A	Test ID:	T000035939
Reported:	5-Dec-2019	Method:	Arsenic = Arsenic EPA 6020A (mod), Cadmium = Cadmium EPA 6020A (mod), Lead = Lead EPA 6020A (mod), Mercury = Mercury EPA 6020A (mod)
Type:	Other		
Test:	Metals		


HEAVY METALS

Compound	Reporting Limit (ppm)	Result (ppm)
Arsenic	0.05	<0.05
Cadmium	0.05	<0.05
Lead	0.05	<0.05
Mercury	0.05	<0.05

FINAL APPROVAL

 Sam Smith
5-Dec-2019
8:45 AM

PREPARED BY / DATE

 Greg Zimpfer
5-Dec-2019
8:58 AM

APPROVED BY / DATE

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CBD ISOLATE


Batch ID:		Test ID:	2559202.0037
Reported:	23-Nov-2019	Method:	TM17
Type:	Concentrate		
Test:	Pesticides		

PESTICIDE RESIDUE

Compound	Dynamic Range (ppb)	Result (ppb)	Compound	Dynamic Range (ppb)	Result (ppb)
Acephate	46 - 2127	ND*	Malathion	46 - 2127	ND*
Acetamiprid	46 - 2127	ND*	Metalaxyl	276 - 2127	ND*
Avermectin	276 - 2127	ND*	Methiocarb	46 - 2127	ND*
Azoxystrobin	46 - 2127	ND*	Methomyl	46 - 2127	ND*
Bifenazate	46 - 2127	ND*	MGK 264 1	46 - 2127	ND*
Boscalid	276 - 2127	ND*	MGK 264 2	276 - 2127	ND*
Carbaryl	46 - 2127	ND*	Myclobutanil	276 - 2127	ND*
Carbofuran	46 - 2127	ND*	Naled	276 - 2127	ND*
Chlorantraniliprole	46 - 2127	ND*	Oxamyl	46 - 2127	ND*
Chlorpyrifos	276 - 2127	ND*	Paclobutrazol	46 - 2127	ND*
Clofentezine	46 - 2127	ND*	Permethrin	276 - 2127	ND*
Diazinon	46 - 2127	ND*	Phosmet	46 - 2127	ND*
Dichlorvos	276 - 2127	ND*	Prophos	276 - 2127	ND*
Dimethoate	46 - 2127	ND*	Propoxur	276 - 2127	ND*
E-Fenpyroximate	276 - 2127	ND*	Pyridaben	276 - 2127	ND*
Etofenprox	276 - 2127	ND*	Spinosad A	46 - 2127	ND*
Etoxazole	276 - 2127	ND*	Spinosad D	276 - 2127	ND*
Fenoxycarb	46 - 2127	ND*	Spiromesifen	46 - 2127	ND*
Fipronil	276 - 2127	ND*	Spirotetramat	276 - 2127	ND*
Flonicamid	46 - 2127	ND*	Spiroxamine 1	46 - 2127	ND*
Fludioxonil	276 - 2127	ND*	Spiroxamine 2	46 - 2127	ND*
Hexythiazox	276 - 2127	ND*	Tebuconazole	46 - 2127	ND*
Imazalil	276 - 2127	ND*	Thiacloprid	46 - 2127	ND*
Imidacloprid	46 - 2127	ND*	Thiamethoxam	46 - 2127	ND*
Kresoxim-methyl	46 - 2127	ND*	Trifloxystrobin	276 - 2127	ND*


* ND = None Detected (Defined by Dynamic Range of the method)

N/A

FINAL APPROVAL


Chris Jungling
 23-Nov-2019
 8:03 AM

PREPARED BY / DATE



Mike Branvold
 23-Nov-2019
 4:59 PM

APPROVED BY / DATE

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CBD ISOLATE

Batch ID:	N/A	Test ID:	9636320.015
Reported:	21-Nov-2019	Method:	TM04
Type:	Concentrate		
Test:	Residual Solvents		

RESIDUAL SOLVENTS

Solvent	Reportable Range (ppm)	Result (ppm)
Propane	100 - 2000	0
Butanes (Isobutane, n-Butane)	100 - 2000	0
Pentane	100 - 2000	0
Ethanol	100 - 2000	0
Acetone	100 - 2000	0
Isopropyl Alcohol	100 - 2000	0
Hexane	6 - 120	38
Benzene	0.2 - 4	0.0
Heptanes	100 - 2000	145
Toluene	18 - 360	43
Xylenes (m,p,o-Xylenes)	43 - 860	0

NOTES:

Free from visual mold, mildew, and foreign matter.

FINAL APPROVAL

Karen Winternheimer
21-Nov-2019
2:54 PMDavid Green
21-Nov-2019
3:02 PM

PREPARED BY / DATE

APPROVED BY / DATE

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Certificate #4329.02