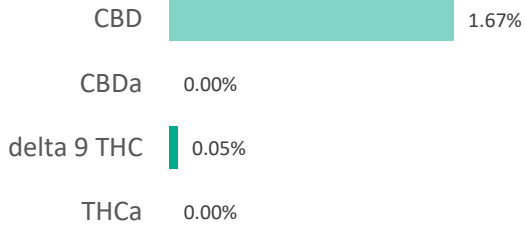
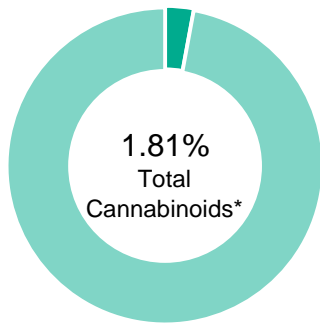


450mg Tincture Pet-Batch TAM4503157

Batch ID:	TAM4503157	Test ID:	5386259.0039
Reported:	10-Oct-2019	Method:	TM14
Type:	Concentrate		
Test:	Potency		

CANNABINOID PROFILE


Compound	LOQ (%)	Result (%)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.02	0.00	0.0
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.01	0.05	0.5
Cannabidiolic acid (CBDA)	0.03	0.00	0.0
Cannabidiol (CBD)	0.01	1.67	16.7
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.01	0.00	0.0
Cannabinolic Acid (CBNA)	0.02	0.00	0.0
Cannabinol (CBN)	0.01	0.00	0.0
Cannabigerolic acid (CBGA)	0.01	0.00	0.0
Cannabigerol (CBG)	0.01	0.02	0.2
Tetrahydrocannabivarinic Acid (THCVA)	0.01	0.00	0.0
Tetrahydrocannabivarin (THCV)	0.01	0.00	0.0
Cannabidivarinic Acid (CBDVA)	0.02	0.00	0.0
Cannabidivarin (CBDV)	0.01	0.00	0.0
Cannabichromenic Acid (CBCA)	0.01	0.00	0.0
Cannabichromene (CBC)	0.02	0.07	0.7
Total Cannabinoids		1.81	18.10
Total Potential THC**		0.05	0.50
Total Potential CBD**		1.67	16.70

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


Alex Smith
10-Oct-2019
3:04 PM

PREPARED BY / DATE



David Green
10-Oct-2019
3:09 PM

APPROVED BY / DATE

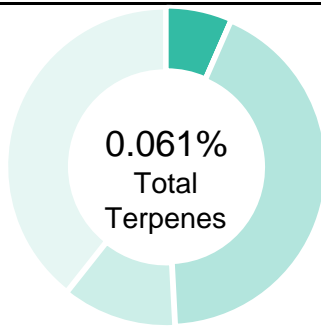
Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. 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



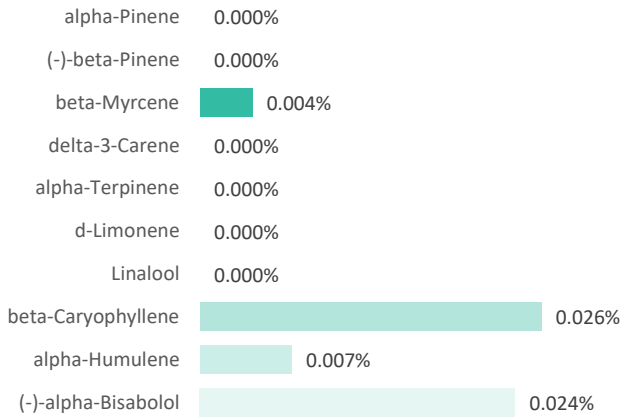
Certificate #4329.02

450mg Tincture Pet-Batch TAM4503157

Batch ID:	TAM4503157	Test ID:	2662061.0033
Reported:	9-Dec-2019	Method:	TM10
Type:	Concentrate		
Test:	Terpenes		

TERPENE PROFILE


Compound	%(w/w)	mg/g
(-)-alpha-Bisabolol	0.024	0.24
Camphene	0.000	0
delta-3-Carene	0.000	0
beta-Caryophyllene	0.026	0.26
(-)-Caryophyllene Oxide	0.000	0
p-Cymene	0.000	0
Eucalyptol	0.000	0
Geraniol	0.000	0
alpha-Humulene	0.007	0.07
(-)-Isopulegol	0.000	0
d-Limonene	0.000	0
Linalool	0.000	0
beta-Myrcene	0.004	0.04
cis-Nerolidol	0.000	0
trans-Nerolidol	0.000	0
Ocimene	0.000	0
beta-Ocimene	0.000	0
alpha-Pinene	0.000	0
(-)-beta-Pinene	0.000	0
alpha-Terpinene	0.000	0
gamma-Terpinene	0.000	0
Terpinolene	0.000	0
	0.061%	0.61

PREDOMINANT TERPENES

 NOTES:
 0

FINAL APPROVAL

 Daniel Weidensaul 9-Dec-2019 1:47 PM	 David Green 9-Dec-2019 2:13 PM
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PREPARED BY / DATE

APPROVED BY / DATE

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450mg Tincture Pet-Batch TAM4503157

Batch ID:	TAM4503157	Test ID:	1892194.0023
Reported:	4-Dec-2019	Method:	TM17
Type:	Concentrate		
Test:	Pesticides		


PESTICIDE RESIDUE


Compound	Dynamic Range (ppb)	Result (ppb)	Compound	Dynamic Range (ppb)	Result (ppb)
Acephate	50 - 2331	ND*	Malathion	50 - 2331	ND*
Acetamiprid	50 - 2331	ND*	Metalaxyl	302 - 2331	ND*
Avermectin	302 - 2331	ND*	Methiocarb	50 - 2331	ND*
Azoxystrobin	50 - 2331	ND*	Methomyl	50 - 2331	ND*
Bifenazate	50 - 2331	ND*	MGK 264 1	50 - 2331	ND*
Boscalid	302 - 2331	ND*	MGK 264 2	302 - 2331	ND*
Carbaryl	50 - 2331	ND*	Myclobutanil	302 - 2331	ND*
Carbofuran	50 - 2331	ND*	Naled	302 - 2331	ND*
Chlorantraniliprole	50 - 2331	ND*	Oxamyl	50 - 2331	ND*
Chlorpyrifos	302 - 2331	ND*	Paclobutrazol	50 - 2331	ND*
Clofentezine	50 - 2331	ND*	Permethrin	302 - 2331	ND*
Diazinon	50 - 2331	ND*	Phosmet	50 - 2331	ND*
Dichlorvos	302 - 2331	ND*	Prophos	302 - 2331	ND*
Dimethoate	50 - 2331	ND*	Propoxur	302 - 2331	ND*
E-Fenpyroximate	302 - 2331	ND*	Pyridaben	302 - 2331	ND*
Etofenprox	302 - 2331	ND*	Spinosad A	50 - 2331	ND*
Etoxazole	302 - 2331	ND*	Spinosad D	302 - 2331	ND*
Fenoxycarb	50 - 2331	ND*	Spiromesifen	50 - 2331	ND*
Fipronil	302 - 2331	ND*	Spirotetramat	302 - 2331	ND*
Flonicamid	50 - 2331	ND*	Spiroxamine 1	50 - 2331	ND*
Fludioxonil	302 - 2331	ND*	Spiroxamine 2	50 - 2331	ND*
Hexythiazox	302 - 2331	ND*	Tebuconazole	50 - 2331	ND*
Imazalil	302 - 2331	ND*	Thiacloprid	50 - 2331	ND*
Imidacloprid	50 - 2331	ND*	Thiamethoxam	50 - 2331	ND*
Kresoxim-methyl	50 - 2331	ND*	Trifloxystrobin	302 - 2331	ND*

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

N/A

FINAL APPROVAL


 Sam Smith
 4-Dec-2019
 6:32 AM
 PREPARED BY / DATE


 David Green
 4-Dec-2019
 8:47 AM
 APPROVED BY / DATE

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450mg Tincture Pet-Batch TAM4503157

Batch ID:	TAM4503157	Test ID:	8825391.023
Reported:	30-Nov-2019	Method:	Edible - Test Methods: TM05, TM06
Type:	Edible		
Test:	Microbial Contaminants		

MICROBIAL CONTAMINANTS

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

Coliforms: None Detected

FINAL APPROVAL


Robert Belfon
30-Nov-2019
6:10 PM
Mike Branvold
30-Nov-2019
8:23 PM

PREPARED BY / DATE

APPROVED BY / DATE

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prepared for: RAD EXTRACTION
860 COMMERCIAL LANE
PALMER LAKE, CO 80133

450mg Tincture Pet-Batch TAM4503157

Batch ID:	TAM4503157	Test ID:	1776426.004
Reported:	5-Dec-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	0
Benzene	0.2 - 4	0.0
Heptanes	100 - 2000	0
Toluene	18 - 360	0
Xylenes (m,p,o-Xylenes)	43 - 860	0

NOTES:

Free from visual mold, mildew, and foreign matter.

FINAL APPROVAL

	Karen Winternheimer 5-Dec-2019 2:54 PM		Greg Zimpfer 5-Dec-2019 3:53 PM
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PREPARED BY / DATE

APPROVED BY / DATE

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Certificate #4329.02


450mg Tincture Pet-Batch TAM4503157

Batch ID:	TAM4503157	Test ID:	T000039319
Reported:	12-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

 Alex Smith
12-Dec-2019
7:11 AM

PREPARED BY / DATE

 Greg Zimpfer
12-Dec-2019
8:24 AM

APPROVED BY / DATE

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