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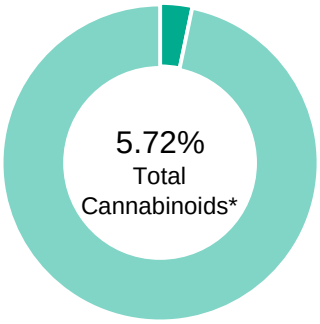
CERTIFICATE OF ANALYSIS

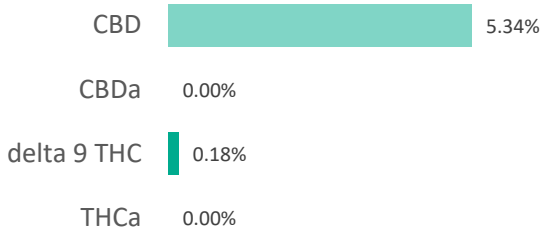
prepared for: RAD EXTRACTION
860 COMMERCIAL LANE
PALMER LAKE, CO 80133

Kingsley 3172 **Full Spectrum Analysis

Batch ID:	TGM15003172	**Test ID:**	6658064.0021
Reported:	18-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	0.18	1.8
Cannabidiolic acid (CBDA)	0.03	0.00	0.0
Cannabidiol (CBD)	0.02	5.34	53.4
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	0.11	1.1
Tetrahydrocannabivarinic Acid (THCVA)	0.01	0.00	0.0
Tetrahydrocannabivarin (THCV)	0.01	0.00	0.0
Cannabidivarinic Acid (CBDVA)	0.03	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	0.09	0.9
Total Cannabinoids		**5.72**	**57.20**
Total Potential THC**		0.18	1.80
Total Potential CBD**		5.34	53.40

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.

Total THC = THC + (THCa *(0.877)) and Total CBD = CBD + (CBDa *(0.877))

FINAL APPROVAL

Ryan Weems
18-Oct-2019
5:21 PM
PREPARED BY / DATE

Greg Zimpfer
18-Oct-2019
6:02 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

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Certificate #4329.02

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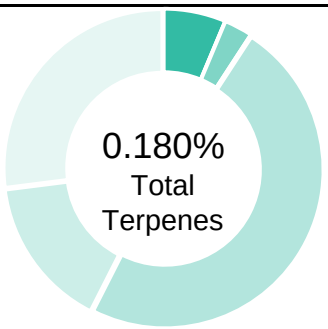
CERTIFICATE OF ANALYSIS

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

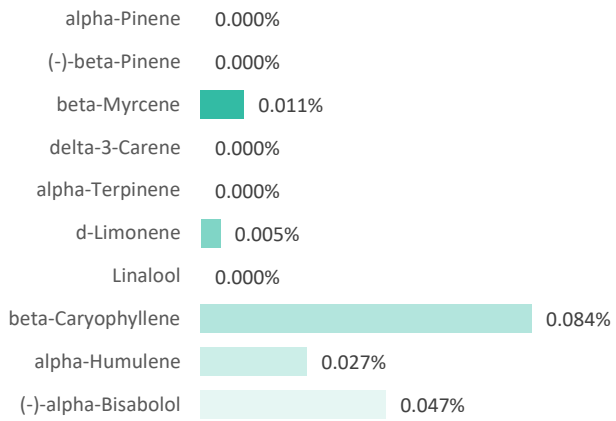
1500mg tincture

Batch ID:	TGM15003172	**Test ID:**	2662061.0038
Reported:	9-Dec-2019	**Method:**	TM10
Type:	Concentrate		
Test:	Terpenes		

TERPENE PROFILE



PREDOMINANT TERPENES



Compound	%(w/w)	mg/g
(-)-alpha-Bisabolol	0.047	0.47
Camphene	0.000	0
delta-3-Carene	0.000	0
beta-Caryophyllene	0.084	0.84
(-)-Caryophyllene Oxide	0.000	0
p-Cymene	0.000	0
Eucalyptol	0.006	0.06
Geraniol	0.000	0
alpha-Humulene	0.027	0.27
(-)-Isopulegol	0.000	0
d-Limonene	0.005	0.05
Linalool	0.000	0
beta-Myrcene	0.011	0.11
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
	0.180%	**1.80**

NOTES:
0

FINAL APPROVAL

Daniel Weidensaul
9-Dec-2019
1:47 PM

PREPARED BY / DATE

David Green
9-Dec-2019
2:13 PM

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC. 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

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CERTIFICATE OF ANALYSIS

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

1500mg tincture

Batch ID:	TGM15003172	**Test ID:**	1892194.0021
Reported:	4-Dec-2019	**Method:**	TM17
Type:	Concentrate		
Test:	Pesticides		

PESTICIDE RESIDUE

Compound	Dynamic Range (ppb)	Result (ppb)
Acephate	48 - 2238	ND*
Acetamiprid	48 - 2238	ND*
Avermectin	290 - 2238	ND*
Azoxystrobin	48 - 2238	ND*
Bifenazate	48 - 2238	ND*
Boscalid	290 - 2238	ND*
Carbaryl	48 - 2238	ND*
Carbofuran	48 - 2238	ND*
Chlorantraniliprole	48 - 2238	ND*
Chlorpyrifos	290 - 2238	ND*
Clofentezine	48 - 2238	ND*
Diazinon	48 - 2238	ND*
Dichlorvos	290 - 2238	ND*
Dimethoate	48 - 2238	ND*
E-Fenpyroximate	290 - 2238	ND*
Etofenprox	290 - 2238	ND*
Etoxazole	290 - 2238	ND*
Fenoxycarb	48 - 2238	ND*
Fipronil	290 - 2238	ND*
Flonicamid	48 - 2238	ND*
Fludioxonil	290 - 2238	ND*
Hexythiazox	290 - 2238	ND*
Imazalil	290 - 2238	ND*
Imidacloprid	48 - 2238	ND*
Kresoxim-methyl	48 - 2238	ND*

Compound	Dynamic Range (ppb)	Result (ppb)
Malathion	48 - 2238	ND*
Metalaxyl	290 - 2238	ND*
Methiocarb	48 - 2238	ND*
Methomyl	48 - 2238	ND*
MGK 264 1	48 - 2238	ND*
MGK 264 2	290 - 2238	ND*
Myclobutanil	290 - 2238	ND*
Naled	290 - 2238	ND*
Oxamyl	48 - 2238	ND*
Paclobutrazol	48 - 2238	ND*
Permethrin	290 - 2238	ND*
Phosmet	48 - 2238	ND*
Prophos	290 - 2238	ND*
Propoxur	290 - 2238	ND*
Pyridaben	290 - 2238	ND*
Spinosad A	48 - 2238	ND*
Spinosad D	290 - 2238	ND*
Spiromesifen	48 - 2238	ND*
Spirotetramat	290 - 2238	ND*
Spiroxamine 1	48 - 2238	ND*
Spiroxamine 2	48 - 2238	ND*
Tebuconazole	48 - 2238	ND*
Thiacloprid	48 - 2238	ND*
Thiamethoxam	48 - 2238	ND*
Trifloxystrobin	290 - 2238	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

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.

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CERTIFICATE OF ANALYSIS

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

1500mg tincture

Batch ID:	TGM15003172	**Test ID:**	8825391.022
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
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
Coliforms: None Detected

FINAL APPROVAL

Robert Belfon
30-Nov-2019
6:10 PM

PREPARED BY / DATE

Mike Branvold
30-Nov-2019
8:23 PM

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Services, LLC, in the condition it was received. Botanacor Services, 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 Services, LLC.

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CERTIFICATE OF ANALYSIS

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

1500mg tincture

Batch ID:	TGM15003172	**Test ID:**	1776426.002
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	115
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
PREPARED BY / DATE

Greg Zimpfer
5-Dec-2019
3:53 PM
APPROVED BY / DATE

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CERTIFICATE OF ANALYSIS

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

1500mg tincture

Batch ID:	TGM15003172	**Test ID:**	T000039314
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

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.

