

STRAIGHT HEMP

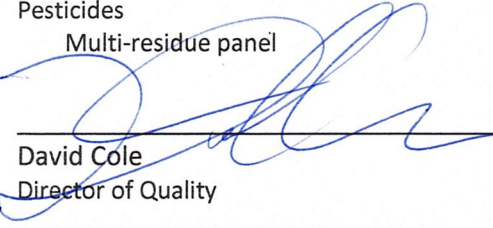
CERTIFICATE OF ANALYSIS

PRODUCT: Straight Hemp Vape Oil
BATCH/LOT: VA016

PRODUCTION DATE: 11/2020
BEST BY/EXP DATE: 11/2022

INGREDIENTS: Full Spectrum Hemp Extract, Terpene Blend (Hemp-derived)
ADDITIVES: none
EXCIPIENTS: none

TEST	METHOD	SPECIFICATION	RESULTS
Strength & Composition			
Total Cannabidiol (CBD) ⁱ	UPLC/UV	48 – 58%	48.60%
Total minor cannabinoids	UPLC/UV	n/e	11.12%
Total Tetrahydrocannabinol (THC) ⁱⁱ	UPLC/UV	NMT 0.3%	0.25%
Total Cannabinoids	UPLC/UV	n/e	59.97%
Terpene assay ⁱⁱⁱ	HS-GC/MS	n/e	16.61%
Microbiological^{iv}			
Total Plate Count	USP 42	NMT 1,000 cfu/g	PASS
Total Coliforms	USP 42	NMT 100 cfu/g	PASS
Total Yeast & Mold	USP 42	NMT 100 cfu/g	PASS
<i>E. coli</i>	USP 42	Absent	PASS
<i>Salmonella</i>	USP 42	Absent	PASS
Heavy Metals^v			
Arsenic (As)	ICP/MS	NMT 0.2 ppm	PASS
Cadmium (Cd)	ICP/MS	NMT 0.2 ppm	PASS
Lead (Pb)	ICP/MS	NMT 0.5 ppm	PASS
Mercury (Hg)	ICP/MS	NMT 0.1 ppm	PASS
Residual Solvents			
Multi-residue panel	GC-HS-MSD	Below CCR Limits ^{vi}	PASS
Pesticides			
Multi-residue panel	UPLC-MS/MS	Below MRL ^{vii}	PASS


David Cole
Director of Quality

12/3/20
Date

ⁱ Total CBD = CBD + (0.877*CBDA) to account for loss of acid group during decarboxylation

ⁱⁱ Total THC = THC + (0.877*THCA) to account for loss of acid group during decarboxylation

ⁱⁱⁱ Sum of terpene assay (n=22)

^{iv} Microbiological limits based on USP, WHO, and/or NSF/ANSI.

^v Limits for As and Pb set below CA Prop 65 *no significant risk level*; Cd and Hg set below USP permitted daily exposure for 110lb body weight. Complies with 1 CCR 212-3

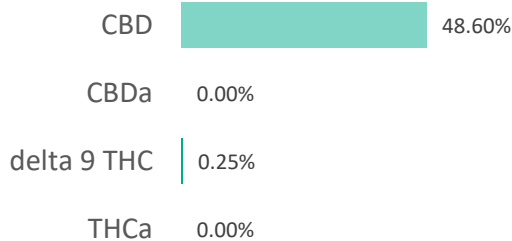
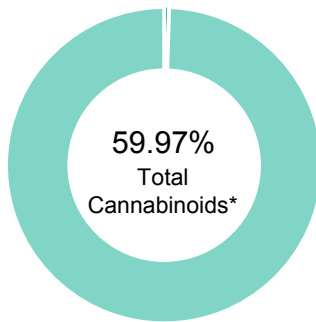
^{vi} 11 solvent panel: Propane, Butanes, Methanol, Pentane, Ethanol, Acetone, Isopropyl Alcohol, Hexane, Benzene, Heptanes, Toluene, Xylenes. Individual limits: 1 CCR 212-3

^{vii} 50 residue panel

NMT = Not More Than
MRL = Method Reporting Limit
n/e = not established

Vape Oil

Batch ID:	VA016	Test ID:	T000111094
Type:	Concentrate	Submitted:	11/19/2020 @ 09:04 AM
Test:	Potency	Started:	11/24/2020
Method:	TM14	Reported:	11/24/2020


CANNABINOID PROFILE


Compound	LOQ (%)	Result (%)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.24	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.12	0.25	2.5
Cannabidiolic acid (CBDA)	0.04	ND	ND
Cannabidiol (CBD)	0.09	48.60	486.0
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.13	ND	ND
Cannabinolic Acid (CBNA)	0.33	ND	ND
Cannabinol (CBN)	0.14	0.34	3.4
Cannabigerolic acid (CBGA)	0.21	ND	ND
Cannabigerol (CBG)	0.12	7.98	79.8
Tetrahydrocannabivarinic Acid (THCVA)	0.20	ND	ND
Tetrahydrocannabivarin (THCV)	0.10	ND	ND
Cannabidivarinic Acid (CBDVA)	0.04	ND	ND
Cannabidivarin (CBDV)	0.02	2.80	28.0
Cannabichromenic Acid (CBCA)	0.18	ND	ND
Cannabichromene (CBC)	0.21	ND	ND
Total Cannabinoids		59.97	599.7
Total Potential THC**		0.25	2.5
Total Potential CBD**		48.60	486.0

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

NOTES:
N/A

FINAL APPROVAL

 Sam Smith 24-Nov-2020 4:17 PM	 Ben Minton 24-Nov-2020 8:01 PM
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PREPARED BY / DATE

APPROVED BY / DATE

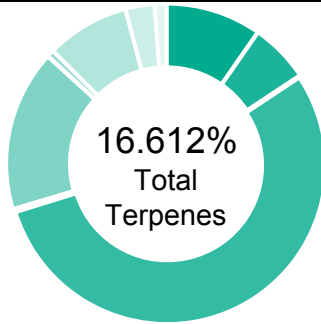
Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods.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



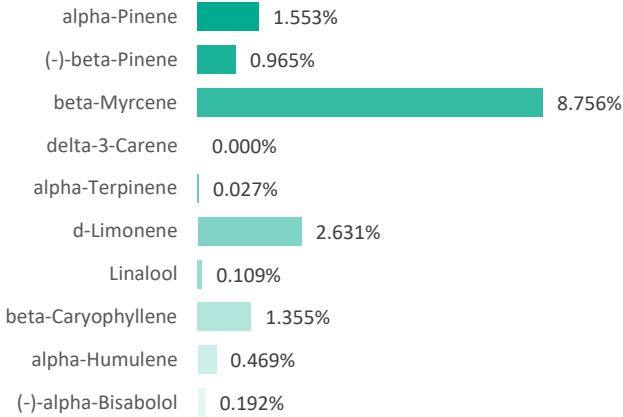
Certificate #4329.02

Vape Oil



Batch ID:	VA016	Test ID:	T000111096
Type:	Concentrate	Submitted:	11/19/2020 @ 09:04 AM
Test:	Terpenes	Started:	11/20/2020
Method:	TM10	Reported:	11/23/2020

TERPENE PROFILE


Compound	%(w/w)	mg/g
(-)-alpha-Bisabolol	0.192	1.92
Camphene	0.063	0.63
delta-3-Carene	0.000	0
beta-Caryophyllene	1.355	13.55
(-)-Caryophyllene Oxide	0.000	0
p-Cymene	0.000	0
Eucalyptol	0.095	0.95
Geraniol	0.000	0
alpha-Humulene	0.469	4.69
(-)-Isopulegol	0.000	0
d-Limonene	2.631	26.31
Linalool	0.109	1.09
beta-Myrcene	8.756	87.56
cis-Nerolidol	0.000	0
trans-Nerolidol	0.000	0
Ocimene	0.010	0.1
beta-Ocimene	0.061	0.61
alpha-Pinene	1.553	15.53
(-)-beta-Pinene	0.965	9.65
alpha-Terpinene	0.027	0.27
gamma-Terpinene	0.026	0.26
Terpinolene	0.300	3
	16.612%	166.12

PREDOMINANT TERPENES

 NOTES:
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FINAL APPROVAL

	Ryan Weems 23-Nov-2020 6:10 PM		Greg Zimpfer 23-Nov-2020 6:49 PM
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PREPARED BY / DATE

APPROVED BY / DATE

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Certificate #4329.02

Vape Oil

Batch ID:	VA016	Test ID:	T000111098
Type:	Other	Submitted:	11/19/2020 @ 09:04 AM
Test:	Metals	Started:	11/19/2020
Method:	TM19	Reported:	11/20/2020

HEAVY METALS


Analyte	Dynamic Range (ppm)	Result (ppm)
Arsenic	0.081 - 8.06	ND
Cadmium	0.081 - 8.06	ND
Mercury	0.084 - 8.37	ND
Lead	0.086 - 8.64	ND

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

FINAL APPROVAL


Daniel Weidensaul
20-Nov-2020
11:58 AM

PREPARED BY / DATE


Ben Minton
20-Nov-2020
5:49 PM

APPROVED BY / DATE

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Vape Oil

Batch ID:	VA016	Test ID:	T000111095
Type:	Concentrate	Submitted:	11/19/2020 @ 09:04 AM
Test:	Residual Solvents	Started:	11/24/2020
Method:	TM04	Reported:	11/24/2020

RESIDUAL SOLVENTS

Solvent	Dynamic Range (ppm)	Result (ppm)
Propane	102 - 2038	*ND
Butanes (Isobutane, n-Butane)	191 - 3825	*ND
Methanol	60 - 1207	*ND
Pentane	95 - 1910	*ND
Ethanol	98 - 1956	*ND
Acetone	97 - 1935	*ND
Isopropyl Alcohol	101 - 2026	*ND
Hexane	6 - 117	12
Ethyl Acetate	98 - 1952	*ND
Benzene	0.2 - 3.8	*ND
Heptanes	95 - 1892	*ND
Toluene	17 - 347	*ND
Xylenes (m,p,o-Xylenes)	125 - 2491	*ND

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

NOTES:
N/A

FINAL APPROVAL

Sam Smith
24-Nov-2020
4:22 PM

PREPARED BY / DATE

Ben Minton
24-Nov-2020
8:10 PM

APPROVED BY / DATE

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Certificate #4329.02

Vape Oil

Batch ID:	VA016	Test ID:	T000111097
Type:	Concentrate	Submitted:	11/19/2020 @ 09:04 AM
Test:	Pesticides	Started:	11/20/2020
Method:	TM17	Reported:	11/23/2020


PESTICIDE RESIDUE


Compound	Dynamic Range (ppb)	Result (ppb)	Compound	Dynamic Range (ppb)	Result (ppb)
Acephate	55 - 2478	ND*	Malathion	275 - 2478	ND*
Acetamiprid	46 - 2478	ND*	Metalaxyl	35 - 2478	ND*
Abamectin	>361	ND*	Methiocarb	44 - 2478	ND*
Azoxystrobin	37 - 2478	ND*	Methomyl	54 - 2478	ND*
Bifenazate	33 - 2478	ND*	MGK 264 1	181 - 2478	ND*
Boscalid	54 - 2478	ND*	MGK 264 2	137 - 2478	ND*
Carbaryl	40 - 2478	ND*	Myclobutanil	46 - 2478	ND*
Carbofuran	39 - 2478	ND*	Naled	54 - 2478	ND*
Chlorantraniliprole	51 - 2478	ND*	Oxamyl	51 - 2478	ND*
Chlorpyrifos	29 - 2478	ND*	Paclobutrazol	37 - 2478	ND*
Clofentezine	289 - 2478	ND*	Permethrin	289 - 2478	ND*
Diazinon	249 - 2478	ND*	Phosmet	34 - 2478	ND*
Dichlorvos	>320	ND*	Prophos	340 - 2478	ND*
Dimethoate	43 - 2478	ND*	Propoxur	39 - 2478	ND*
E-Fenpyroximate	245 - 2478	ND*	Pyridaben	276 - 2478	ND*
Etofenprox	39 - 2478	ND*	Spinosad A	32 - 2478	ND*
Etoazole	283 - 2478	ND*	Spinosad D	84 - 2478	ND*
Fenoxycarb	>34	ND*	Spiromesifen	>246	ND*
Fipronil	15 - 2478	ND*	Spirotetramat	>267	ND*
Flonicamid	67 - 2478	ND*	Spiroxamine 1	19 - 2478	ND*
Fludioxonil	>310	ND*	Spiroxamine 2	24 - 2478	ND*
Hexythiazox	46 - 2478	ND*	Tebuconazole	264 - 2478	ND*
Imazalil	252 - 2478	ND*	Thiacloprid	43 - 2478	ND*
Imidacloprid	51 - 2478	ND*	Thiamethoxam	46 - 2478	ND*
Kresoxim-methyl	41 - 2478	ND*	Trifloxystrobin	43 - 2478	ND*

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

N/A

FINAL APPROVAL

 Tyler Wiese
 23-Nov-2020
 1:40 PM

 Ben Minton
 23-Nov-2020
 4:38 PM

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Certificate of Analysis

Straight Hemp
5135 W. 58th Ave, Ste 5
Arvada, CO 80002
Phone: 970-214-7814

Invoice Number: 20.1744
PO Number:
Received Date: 11/19/2020
Number of Samples: 01
Project Name: Routine Testing

Microbiology Report:

Lab #: 20-11203	Sample Lot: VA016	Sample Date:
Sample Name: Vape Oil	Additional ID:	Plated Date: 11/19/2020
Qualifying Material Number: No QM		

Test Performed	Results	Units	Detection Limit	Method	Date Analyzed
Aerobic Plate Count	nd	cfu/ml	10	USP 42-NF 37 <2021>	11/22/2020
Coliforms	nd	cfu/ml	10	Bam C4 sec G	11/20/2020
<i>E. coli</i>	absent	P/A	1	USP 42-NF 37 <2022>	11/22/2020
<i>Staph aureus</i>	absent	P/A	1	USP 42-NF 37 <2022>	11/22/2020
Yeast	nd	cfu/ml	10	USP 42-NF 37 <2021>	11/24/2020
Mold	nd	cfu/ml	10	USP 42-NF 37 <2021>	11/24/2020
Salmonella	absent	P/A	1	USP 42-NF 37 <2022>	11/23/2020
<i>Pseudo. aeruginosa</i>	absent	P/A	1	USP 42-NF 37 <m62>	11/22/2020

Approved By: QA Director SMV 11/24/2020

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Certificate of Analysis

Straight Hemp
 5135 W. 58th Ave, Ste 5
 Arvada, CO 80002
 Phone: 970-214-7814

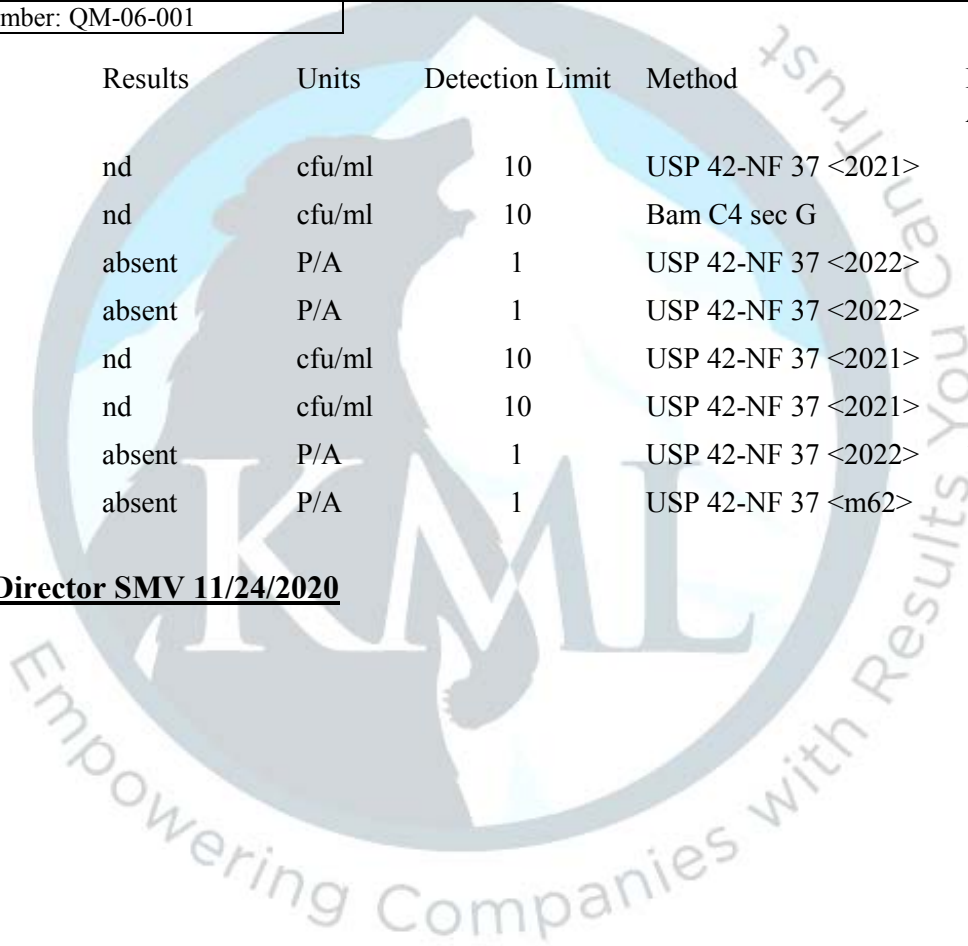
Invoice Number: 20.1744
 PO Number:
 Received Date: 11/19/2020
 Number of Samples: 01
 Project Name: Routine Testing

Microbiology Report:

Lab #: Control 11192020	Additional ID: Negative Control Purposes	Plated Date: 11/19/2020
Sample Name: Control 11192020		
Qualifying Material Number: QM-06-001		

Test Performed	Results	Units	Detection Limit	Method	Date Analyzed
Aerobic Plate Count	nd	cfu/ml	10	USP 42-NF 37 <2021>	11/22/2020
Coliforms	nd	cfu/ml	10	Bam C4 sec G	11/20/2020
<i>E. coli</i>	absent	P/A	1	USP 42-NF 37 <2022>	11/22/2020
<i>Staph aureus</i>	absent	P/A	1	USP 42-NF 37 <2022>	11/22/2020
Yeast	nd	cfu/ml	10	USP 42-NF 37 <2021>	11/24/2020
Mold	nd	cfu/ml	10	USP 42-NF 37 <2021>	11/24/2020
Salmonella	absent	P/A	1	USP 42-NF 37 <2022>	11/23/2020
<i>Pseudo. aeruginosa</i>	absent	P/A	1	USP 42-NF 37 <m62>	11/22/2020

Approved By: QA Director SMV 11/24/2020



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