


STRAIGHT HEMP

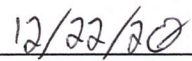
CERTIFICATE OF ANALYSIS

PRODUCT: Full Spectrum Hemp Oil
BATCH/LOT: ND201204
INGREDIENTS: Organic Hemp Seed Oil, Full Spectrum Hemp Extract
ADDITIVES: none
EXCIPIENTS: none

PRODUCTION DATE: 12/2020
EXPIRATION DATE: 12/2022

TEST	METHOD	SPECIFICATION	RESULTS
Strength & Composition			
Identity	Organoleptic	Conforming	PASS
Identity	UPLC/UV	Chemical Fingerprint	PASS
Total Cannabidiol (CBD) ⁱ	UPLC/UV	36.7 – 42.3 mg/g	40.9 mg/g ⁱⁱ
Total Tetrahydrocannabinol (THC) ⁱⁱⁱ	UPLC/UV	NMT 0.30%	0.13%
Terpene assay ^{iv}	HS-GC/MS	n/e	5,310 ppm
Microbiological ^v			
Total Plate Count	USP 42	NMT 1,000 cfu/ml	PASS
Total Yeast & Mold	USP 42	NMT 100 cfu/ml	PASS
<i>E. coli</i>	USP 42	Absent	PASS
<i>Salmonella</i>	USP 42	Absent	PASS
Heavy Metals ^{vi}			
Arsenic (As)	ICP/MS	NMT 1.0 ppm	PASS
Cadmium (Cd)	ICP/MS	NMT 0.5 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 MRL ^{vii}	PASS
Pesticides			
Multi-residue panel	UPLC-MS/MS	Below MRL	PASS


David Cole
Director of Quality


Date

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

ⁱⁱ Corresponds to **37.8mg/ml**

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

^{iv} Sum of terpene assay (n=22)

^v Microbiological limits based on USP, WHO, and/or NSF/ANSI

^{vi} 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

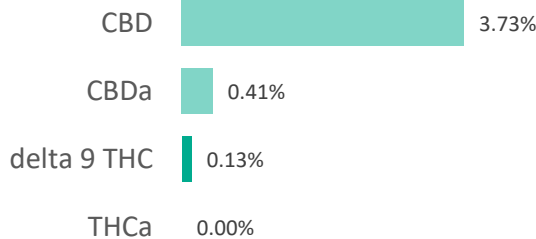
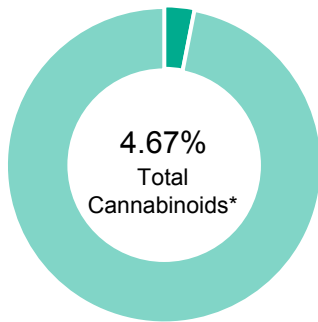
^{vii} 11 solvent panel: Propane, Butane, Pentane, Ethanol, Acetone, Isopropyl Alcohol, Hexane, Benzene, Heptanes, Toluene, Xylenes

NMT = Not More Than

MRL = Method Reporting Limit
n/e = not established

Full Spectrum Hemp Oil

Batch ID:	ND201204	Test ID:	T000113908
Type:	Concentrate	Submitted:	12/07/2020 @ 10:30 AM
Test:	MeOH	Started:	12/7/2020
Method:	TM14	Reported:	12/7/2020

CANNABINOID PROFILE




Compound	LOQ (%)	Result (%)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.04	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.05	0.13	1.3
Cannabidiolic acid (CBDA)	0.05	0.41	4.1
Cannabidiol (CBD)	0.05	3.73	37.3
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.05	ND	ND
Cannabinolic Acid (CBNA)	0.03	ND	ND
Cannabinol (CBN)	0.01	ND	ND
Cannabigerolic acid (CBGA)	0.04	ND	ND
Cannabigerol (CBG)	0.01	0.10	1.0
Tetrahydrocannabivarinic Acid (THCVA)	0.04	ND	ND
Tetrahydrocannabivarin (THCV)	0.01	ND	ND
Cannabidivarinic Acid (CBDVA)	0.02	ND	ND
Cannabidivarin (CBDV)	0.01	0.03	0.3
Cannabichromenic Acid (CBCA)	0.02	0.02	0.2
Cannabichromene (CBC)	0.02	0.25	2.5
Total Cannabinoids		4.67	46.7
Total Potential THC**		0.13	1.3
Total Potential CBD**		4.09	40.9

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

FINAL APPROVAL

 Ryan Weems 7-Dec-2020 6:10 PM	 Greg Zimpfer 7-Dec-2020 8:54 PM
PREPARED BY / DATE	APPROVED BY / DATE

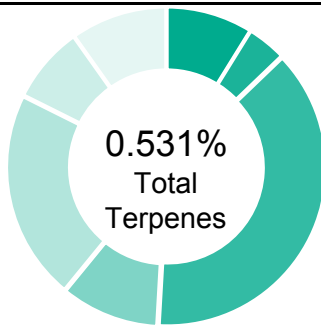
Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods.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



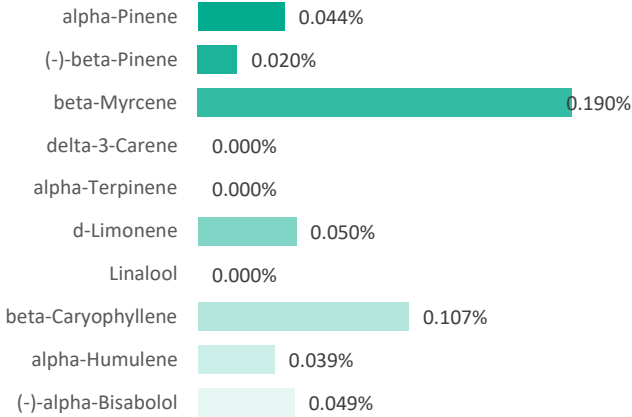
Certificate #4329.02

Full Spectrum Hemp Oil



Batch ID:	ND201204	Test ID:	T000113910
Type:	Concentrate	Submitted:	12/07/2020 @ 10:30 AM
Test:	Terpenes	Started:	12/8/2020
Method:	TM22	Reported:	12/9/2020

TERPENE PROFILE


Compound	%(w/w)	mg/g
(-)-alpha-Bisabolol	0.049	0.49
Camphene	0.000	0
delta-3-Carene	0.000	0
beta-Caryophyllene	0.107	1.07
(-)-Caryophyllene Oxide	0.016	0.16
p-Cymene	0.000	0
Eucalyptol	0.005	0.05
Geraniol	0.000	0
alpha-Humulene	0.039	0.39
(-)-Isopulegol	0.000	0
d-Limonene	0.050	0.5
Linalool	0.000	0
beta-Myrcene	0.190	1.9
cis-Nerolidol	0.000	0
trans-Nerolidol	0.005	0.05
Ocimene	0.000	0
beta-Ocimene	0.000	0
alpha-Pinene	0.044	0.44
(-)-beta-Pinene	0.020	0.2
alpha-Terpinene	0.000	0
gamma-Terpinene	0.001	0.01
Terpinolene	0.005	0.05
	0.531%	5.31

PREDOMINANT TERPENES

 NOTES:
 0

FINAL APPROVAL

 Ryan Weems 9-Dec-2020 4:29 PM	 Greg Zimpfer 9-Dec-2020 5:39 PM
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APPROVED BY / DATE

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Certificate #4329.02

Full Spectrum Hemp Oil


Batch ID:	ND201204	Test ID:	T000113912
Type:	Other	Submitted:	12/07/2020 @ 10:30 AM
Test:	Metals	Started:	12/8/2020
Method:	TM19	Reported:	12/9/2020

HEAVY METALS


Analyte	Dynamic Range (ppm)	Result (ppm)
Arsenic	0.066 - 6.62	ND
Cadmium	0.061 - 6.15	ND
Mercury	0.063 - 6.29	ND
Lead	0.062 - 6.22	ND

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

FINAL APPROVAL


Daniel Weidensaul
9-Dec-2020
11:20 AM

PREPARED BY / DATE


Ben Minton
9-Dec-2020
12:09 PM

APPROVED BY / DATE

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Full Spectrum Hemp Oil

Batch ID:	ND201204	Test ID:	T000113909
Type:	Concentrate	Submitted:	12/07/2020 @ 10:30 AM
Test:	Residual Solvents	Started:	12/9/2020
Method:	TM04	Reported:	12/9/2020


RESIDUAL SOLVENTS

Solvent	Dynamic Range (ppm)	Result (ppm)
Propane	99 - 1980	*ND
Butanes (Isobutane, n-Butane)	187 - 3737	*ND
Methanol	61 - 1212	*ND
Pentane	94 - 1876	*ND
Ethanol	100 - 2003	*ND
Acetone	99 - 1980	*ND
Isopropyl Alcohol	102 - 2041	*ND
Hexane	5 - 108	*ND
Ethyl Acetate	76 - 1512	*ND
Benzene	0.2 - 3.5	*ND
Heptanes	101 - 2015	*ND
Toluene	18 - 367	*ND
Xylenes (m,p,o-Xylenes)	132 - 2634	*ND

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

NOTES:
N/A

FINAL APPROVAL


Ryan Weems
9-Dec-2020
3:33 PM
PREPARED BY / DATE
Greg Zimpfer
9-Dec-2020
6:22 PM
APPROVED BY / DATE

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Certificate #4329.02

Full Spectrum Hemp Oil

Batch ID:	ND201204	Test ID:	T000113911
Type:	Concentrate	Submitted:	12/07/2020 @ 10:30 AM
Test:	Pesticides	Started:	12/9/2020
Method:	TM17	Reported:	12/10/2020


PESTICIDE RESIDUE


Compound	Dynamic Range (ppb)	Result (ppb)	Compound	Dynamic Range (ppb)	Result (ppb)
Acephate	39 - 2297	ND*	Malathion	277 - 2297	ND*
Acetamiprid	42 - 2297	ND*	Metalaxyl	39 - 2297	ND*
Abamectin	>304	ND*	Methiocarb	37 - 2297	ND*
Azoxystrobin	46 - 2297	ND*	Methomyl	45 - 2297	ND*
Bifenazate	34 - 2297	ND*	MGK 264 1	155 - 2297	ND*
Boscalid	36 - 2297	ND*	MGK 264 2	101 - 2297	ND*
Carbaryl	41 - 2297	ND*	Myclobutanil	20 - 2297	ND*
Carbofuran	39 - 2297	ND*	Naled	44 - 2297	ND*
Chlorantraniliprole	46 - 2297	ND*	Oxamyl	41 - 2297	ND*
Chlorpyrifos	34 - 2297	ND*	Paclobutrazol	39 - 2297	ND*
Clofentezine	262 - 2297	ND*	Permethrin	280 - 2297	ND*
Diazinon	275 - 2297	ND*	Phosmet	40 - 2297	ND*
Dichlorvos	>269	ND*	Prophos	256 - 2297	ND*
Dimethoate	43 - 2297	ND*	Propoxur	37 - 2297	ND*
E-Fenpyroximate	256 - 2297	ND*	Pyridaben	255 - 2297	ND*
Etofenprox	41 - 2297	ND*	Spinosad A	26 - 2297	ND*
Etoxazole	276 - 2297	ND*	Spinosad D	74 - 2297	ND*
Fenoxycarb	>41	ND*	Spiromesifen	>264	ND*
Fipronil	50 - 2297	ND*	Spirotetramat	>288	ND*
Flonicamid	71 - 2297	ND*	Spiroxamine 1	17 - 2297	ND*
Fludioxonil	>253	ND*	Spiroxamine 2	21 - 2297	ND*
Hexythiazox	43 - 2297	ND*	Tebuconazole	283 - 2297	ND*
Imazalil	278 - 2297	ND*	Thiacloprid	43 - 2297	ND*
Imidacloprid	44 - 2297	ND*	Thiamethoxam	41 - 2297	ND*
Kresoxim-methyl	42 - 2297	ND*	Trifloxystrobin	40 - 2297	ND*

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

N/A

FINAL APPROVAL

 Tyler Wiese
 10-Dec-2020
 4:02 PM

 Greg Zimpfer
 10-Dec-2020
 5:28 PM

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APPROVED BY / DATE

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Certificate of Analysis

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

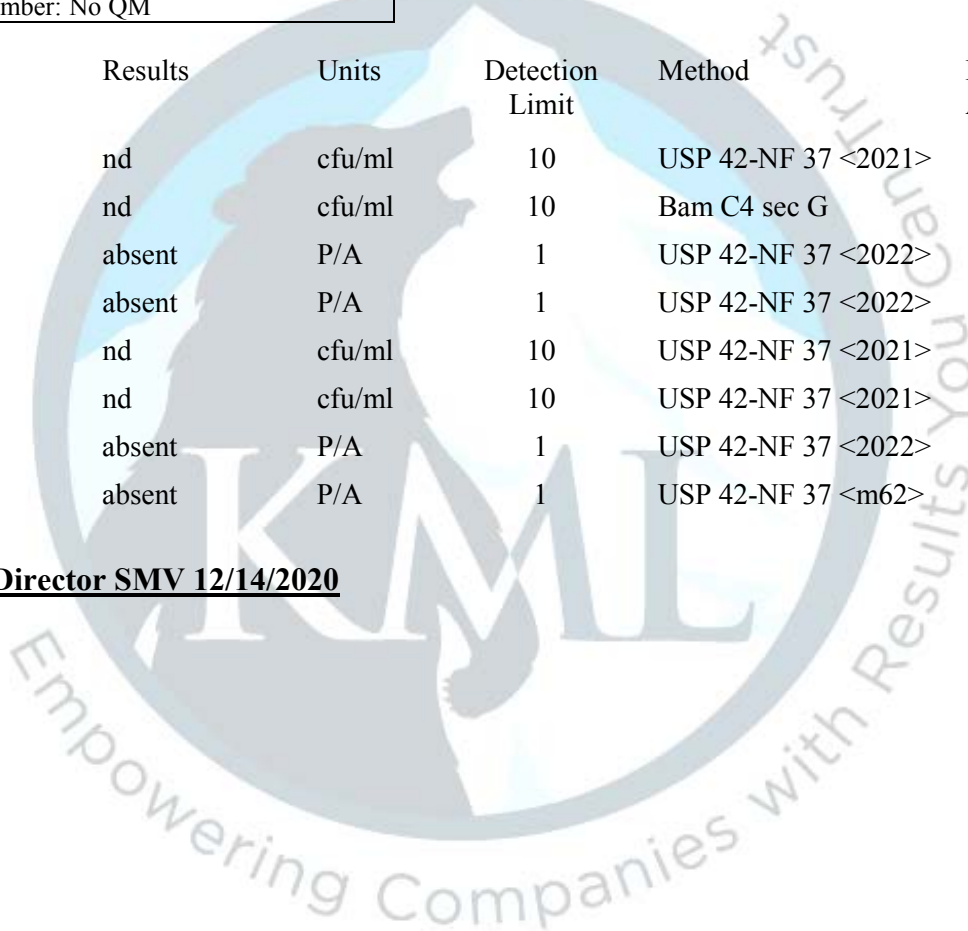
Invoice Number: 20.1831
 PO Number:
 Received Date: 12/07/2020
 Number of Samples: 01
 Project Name: Routine Testing

Microbiology Report:

Lab #: 20-11747	Sample Lot: ND201204	Sample Date:
Sample Name: Full Spectrum Hemp Oil	Additional ID:	Plated Date: 12/07/2020
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>	12/10/2020
Coliforms	nd	cfu/ml	10	Bam C4 sec G	12/08/2020
<i>E. coli</i>	absent	P/A	1	USP 42-NF 37 <2022>	12/10/2020
<i>Staph aureus</i>	absent	P/A	1	USP 42-NF 37 <2022>	12/10/2020
Yeast	nd	cfu/ml	10	USP 42-NF 37 <2021>	12/12/2020
Mold	nd	cfu/ml	10	USP 42-NF 37 <2021>	12/12/2020
Salmonella	absent	P/A	1	USP 42-NF 37 <2022>	12/11/2020
<i>Pseudo. aeruginosa</i>	absent	P/A	1	USP 42-NF 37 <m62>	12/10/2020

Approved By: QA Director SMV 12/14/2020



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Page 1 of 2

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Certificate of Analysis

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

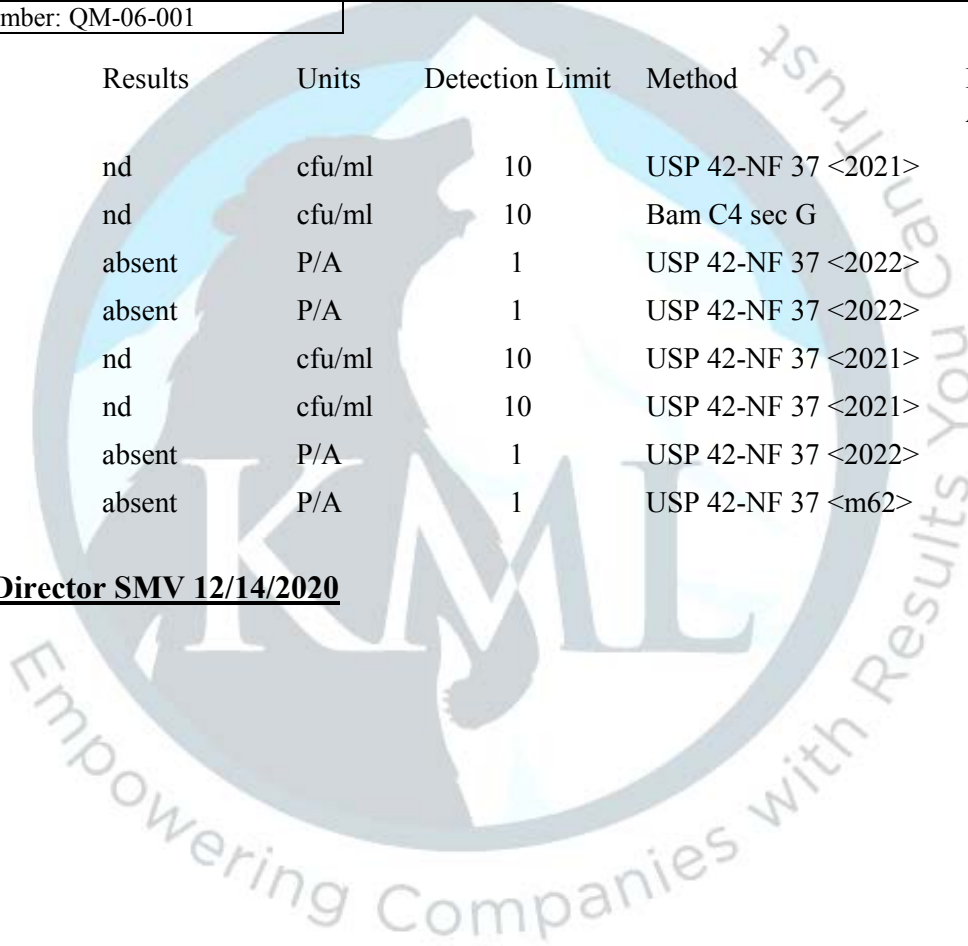
Invoice Number: 20.1831
 PO Number:
 Received Date: 12/07/2020
 Number of Samples: 01
 Project Name: Routine Testing

Microbiology Report:

Lab #: Control 12072020	Additional ID: Negative Control Purposes	Plated Date: 12/07/2020
Sample Name: Control 12072020		
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>	12/10/2020
Coliforms	nd	cfu/ml	10	Bam C4 sec G	12/08/2020
<i>E. coli</i>	absent	P/A	1	USP 42-NF 37 <2022>	12/10/2020
<i>Staph aureus</i>	absent	P/A	1	USP 42-NF 37 <2022>	12/10/2020
Yeast	nd	cfu/ml	10	USP 42-NF 37 <2021>	12/12/2020
Mold	nd	cfu/ml	10	USP 42-NF 37 <2021>	12/12/2020
Salmonella	absent	P/A	1	USP 42-NF 37 <2022>	12/11/2020
<i>Pseudo. aeruginosa</i>	absent	P/A	1	USP 42-NF 37 <m62>	12/10/2020

Approved By: QA Director SMV 12/14/2020



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