STRAIGHT HEMP

CERTIFICATE OF ANALYSIS

PRODUCT:	CBD Balm	PRODUCTION DATE:	10/21/2019
BATCH/LOT:	41	BEST BY/EXP DATE:	10/2021

TEST	METHOD	SPECIFICATION	RESULTS
Strength & Composition			
Identity	Organoleptic	Conforming	PASS
Identity	UPLC/UV	Chemical Fingerprint	PASS
Total Cannabidiol (CBD)[i]	UPLC/UV	17.0 – 21.2 mg/g	17.2 mg/g
Total Tetrahydrocannabinol (THC)[ii]	UPLC/UV	NMT 0.30%	0.19%
Terpene assay[iii]	HS-GC/MS	n/e	27 mg/g
Microbiological[iv]			
Total Plate Count	USP 42	NMT 1,000 cfu/ml	PASS
Total Yeast & Mold	USP 42	NMT 100 cfu/ml	PASS
E. coli	USP 42	Absent	PASS
Salmonella	USP 42	Absent	PASS
Staph. aureus	USP 42	Absent	PASS
Pseudo. aeruginosa	USP 42	Absent	PASS
Heavy Metals[v]			
Arsenic (As)	ICP/MS	NMT 5 ppm	PASS
Cadmium (Cd)	ICP/MS	NMT 2 ppm	PASS
Lead (Pb)	ICP/MS	NMT 2 ppm	PASS
Mercury (Hg)	ICP/MS	NMT 1 ppm	PASS

David Cole
Director of Quality

12/6/19
Date

[i] Total CBD = CBD + (0.877*CBDa) to account for loss of acid group during decarboxylation
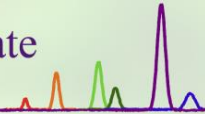
[ii] Total THC = THC + (0.877*THCa) to account for loss of acid group during decarboxylation

[iii] Sum of terpene assay (n=27)

[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

NMT = Not More Than

HHS 41 191206

ProVerde LABORATORIES ®

Certificate ID: **69514**

Received: **10/30/19**

Scan QR Code for authenticity

Natural Dynamics dba Straight Hemp
5135 W 58th Ave, Ste 5
Arvada, CO 80002
Attn: Dale Cole

Client Sample ID: **HHS - Healing Hemp Salve**

Lot Number: **41**

Matrix: **Topicals - Salve**

Authorization:	Signature:	Date:
Elizabeth R. Wagoner, Lab Director		11/11/2019

PJLA Testing
Accreditation
80585

The data contained within this report was collected in accordance with the requirements of ISO/IEC17025:2017. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

CN: Cannabinoid Profile & Potency [WI-10-17 & WI-10-17-01]

Analyst: JSG

Test Date: 11/2/2019

The client sample was analyzed for plant-based cannabinoids by Liquid Chromatography (LC). The collected data was compared to data collected for certified reference standards at known concentrations.

69514-CN

ID	Weight %	Concentration (mg/g)
D9-THC	0.19	1.92
THCV	ND	ND
CBD	1.72	17.17
CBDV	ND	ND
CBG	0.08	0.79
CBC	0.11	1.05
CBN	ND	ND
THCA	ND	ND
CBDA	ND	ND
CBGA	ND	ND
D8-THC	ND	ND
exo-THC	ND	ND
Total	2.09	20.93
Max THC	0.19	1.92
Max CBD	1.72	17.17

Cannabinoids (wt%)   0% — 1.7%

Ratio of Total CBD to THC   9.0:1

Limit of Quantitation (LOQ) = 0.01 wt%

Max THC (and Max CBD) are calculated values for total cannabinoids after heating, assuming complete decarboxylation of the acid to the neutral form. It is calculated based on the weight loss of the acid group during decarboxylation: Max THC = (0.877 x THCA) + THC. This calculation does not include other cannabinoid isomers (eg. D8-THC and exo-THC). ND = None detected above the limits of detection (LOD), which is half of LOQ.

HM: Heavy Metal Analysis [WI-10-13]   *Analyst: CJS*   *Test Date: 11/8/2019*

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

69514-HM

Symbol	Metal	Conc. [1] (µg/kg)	RL	Use Limits [2] (µg/kg) All	Ingestion	Status
As	Arsenic	ND	50	200	1500	PASS
Cd	Cadmium	ND	50	200	500	PASS
Hg	Mercury	ND	50	100	1500	PASS
Pb	Lead	ND	50	500	1000	PASS

1) ND = None detected to Lowest Limits of Detection (LLD)
2) MA Dept. of Public Health: Protocol for MMJ and MIPS, Exhibit 4(a) for all products.
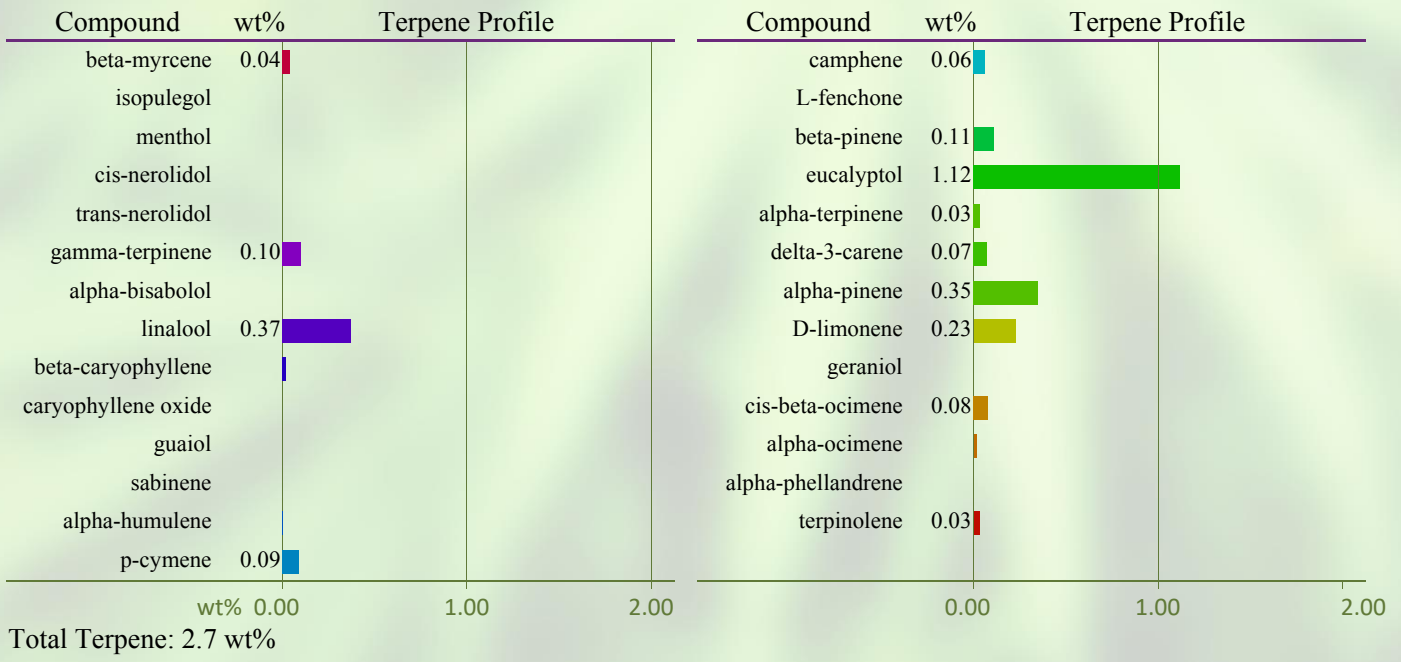3) USP exposure limits based on daily oral dosing of 1g of concentrate for a 110 lb person.

TP: Terpenes Profile [WI-10-27]   *Analyst: JR*   *Test Date: 11/6/2019*

The client sample was analyzed by Head-Space Gas Chromatography (HS-GC). The collected data was compared to data collected for certified reference standards at known concentrations. All values are semiquantitative estimates based on recorded peak areas relative to terpene calibration data.

69514-TP

Compound	wt%	Terpene Profile	Compound	wt%	Terpene Profile
beta-myrcene	0.04		camphene	0.06	
isopulegol			L-fenchone		
menthol			beta-pinene	0.11	
cis-nerolidol			eucalyptol	1.12	
trans-nerolidol			alpha-terpinene	0.03	
gamma-terpinene	0.10		delta-3-carene	0.07	
alpha-bisabolol			alpha-pinene	0.35	
linalool	0.37		D-limonene	0.23	
beta-caryophyllene			geraniol		
caryophyllene oxide			cis-beta-ocimene	0.08	
guaiol			alpha-ocimene		
sabinene			alpha-phellandrene		
alpha-humulene			terpinolene	0.03	
p-cymene	0.09				

wt%   0.00   1.00   2.00   0.00   1.00   2.00

Total Terpene: 2.7 wt%

END OF REPORT

KML Laboratories, Inc.

261 Great Northern Road
Bonners Ferry, Idaho 83805
Phone: 208-267-0818
Fax: 208-267-0878
Email: Info@kmlmicro.com

Certificate of Analysis

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

Invoice Number: 19.1712
PO Number:
Received Date: 10/30/2019
Number of Samples: 01
Project Name: Routine Testing

Microbiology Report:

Lab #: 19-10831	Sample Lot: 41	Sample Date:
Sample Name: HHS	Additional ID:	Plated Date: 10/30/19
Qualifying Material Number: No QM		

Test Performed	Results	Units	Detection Limit	Method	Date Analyzed
Aerobic Plate Count	nd	cfu/g	10	USP 42-NF 37 <61>	11/02/19
E. *coli*	absent	P/A	1	USP 42-NF 37 <62>	11/02/19
Staph *aureus*	absent	P/A	1	USP 42-NF 37 <62>	11/02/19
Yeast	nd	cfu/g	10	USP 42-NF 37 <61>	11/04/19
Mold	nd	cfu/g	10	USP 42-NF 37 <61>	11/04/19
Salmonella	absent	P/A	1	USP 42-NF 37 <62>	11/03/19
Pseudo. *aeruginosa*	absent	P/A	1	USP 42-NF 37 <62>	11/02/19
Enterobacteriaceae Count	nd	cfu/g	10	02-209-01	10/31/19
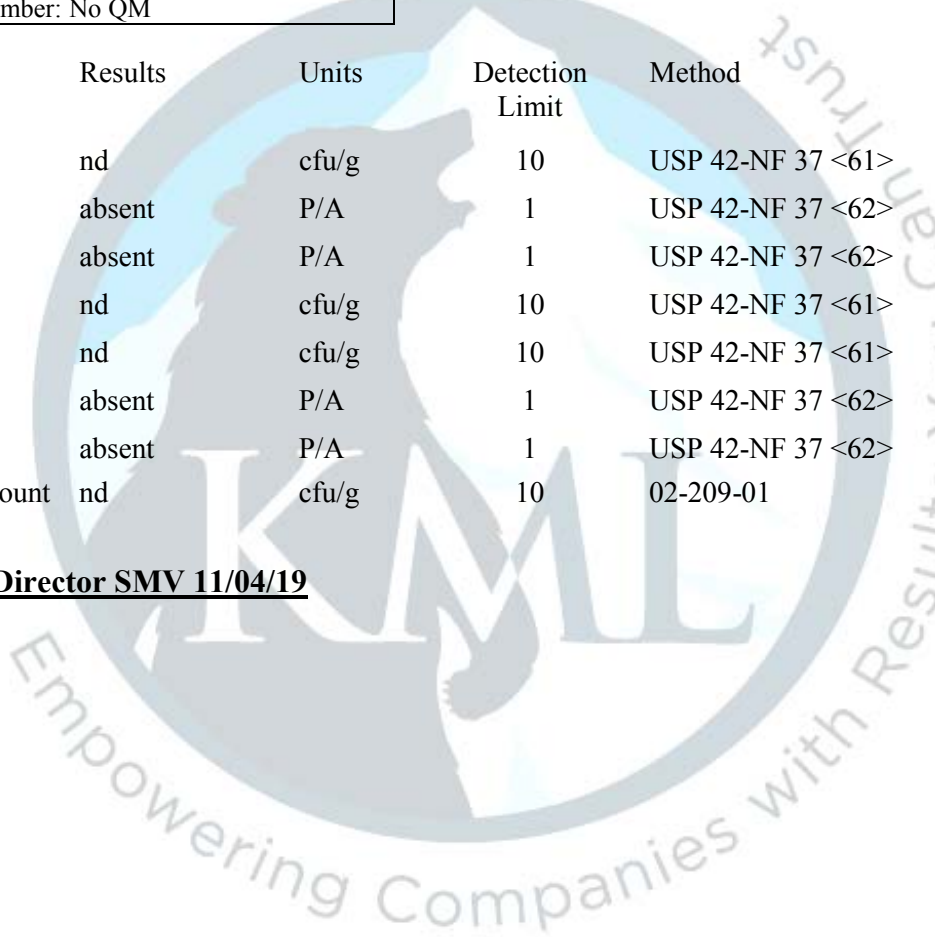
Approved By: QA Director SMV 11/04/19

Note: On this date, this material met the specifications designated above, and is **not** **known if statistically representative of the lot evaluated on a routine basis**. This information is not intended to relieve the purchaser from its responsibility to determine the suitability of this material for purchaser's purposes, to comply with all laws and regulations regarding the safe use of this material. nd = none detected above the listed detection limit

AT-1805

F10-0817 G Ref SOP 01-023

KML Laboratories, Inc.

Certificate of Analysis

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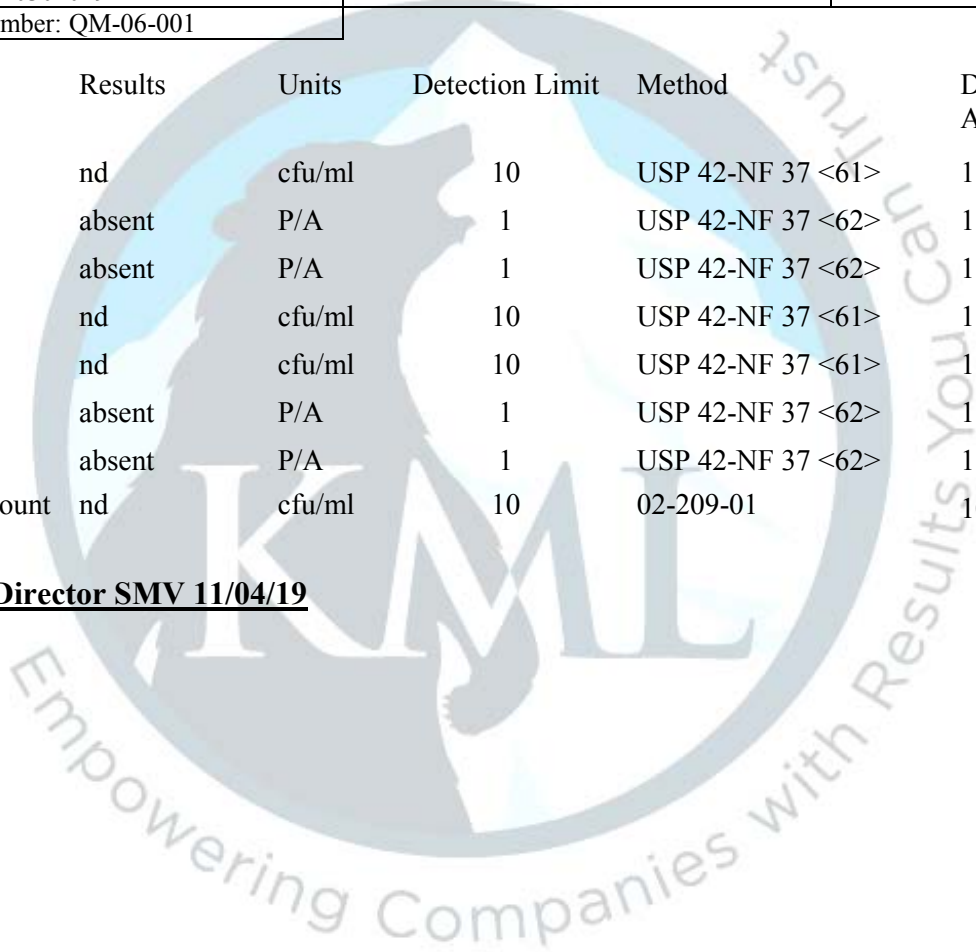Phone: 970-214-7814

Invoice Number: 19.1712
PO Number:
Received Date: 10/30/2019
Number of Samples: 01
Project Name: Routine Testing

Microbiology Report:

Lab #: Control 10302019	Additional ID: Negative Control Purposes	Plated Date: 10/30/19
Sample Name: Control 10302019		
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 <61>	11/02/19
E. *coli*	absent	P/A	1	USP 42-NF 37 <62>	11/02/19
Staph *aureus*	absent	P/A	1	USP 42-NF 37 <62>	11/02/19
Yeast	nd	cfu/ml	10	USP 42-NF 37 <61>	11/04/19
Mold	nd	cfu/ml	10	USP 42-NF 37 <61>	11/04/19
Salmonella	absent	P/A	1	USP 42-NF 37 <62>	11/03/19
Pseudo. *aeruginosa*	absent	P/A	1	USP 42-NF 37 <62>	11/02/19
Enterobacteriaceae Count	nd	cfu/ml	10	02-209-01	10/31/19

Approved By: QA Director SMV 11/04/19

F10-0817 G Ref SOP 01-023