

Certificate ID: 45007

Received: 12/14/18

Client Sample ID: Co2 CBD Hemp Extract

Lot Number: PCR 25

Matrix: -



The Healing Rose Co.
3 Dundee Park
Andover, MA 01810
Attn: Laura Beohner

Authorization:

Rebecca Stevens, Chemist II

Signature:

Robell Stery

Date:

1/14/2019







80585

The data contained within this report was collected in accordance with the requirements of ISO/IEC17025:2005. 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: 12/28/2018

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.

45007-CN

ID	Weight %	Conc.			
D9-THC	0.21 wt %	2.06 mg/g			
THCV	ND	ND			
CBD	51.55 wt %	515.51 mg/g			
CBDV	0.40 wt %	3.97 mg/g			
CBG	ND	ND			
CBC	0.08 wt %	0.81 mg/g			
CBN	ND	ND			
THCA	0.07 wt %	0.68 mg/g			
CBDA	4.57 wt %	45.66 mg/g			
CBGA	ND	ND			
exo-THC	0.12 wt %	1.25 mg/g			
Total	56.99 wt%	569.92 mg/g	0%	Cannabinoids (wt%)	51.6%
Max THC	0.39 wt%	3.89 mg/g			
Max CBD	55.56 wt%	555.55 mg/g			

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: $Max THC = (0.877 \times THCA) + THC$. ND = None detected above the limits of detection (LLD)

EA: Elemental Analysis [WI-10-13]

Analyst: JFD

Test Date: 1/7/2019

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.

45007-EA

Symbol	Metal	Conc. 1	MDL	Limits ²	Status
Al	Aluminum	15,744 ug/kg	5 ug/kg	- 1	
As	Arsenic	ND	4 ug/kg	150 ug/kg	PASS
Cd	Cadmium	ND	1 ug/kg	150 ug/kg	PASS
Ca	Calcium	1,089 ug/kg	500 ug/kg		
Cr	Chromium	12 ug/kg	5 ug/kg	2500 ug/kg	PASS
Co	Cobalt	ND	10 ug/kg		
Cu	Copper	ND	500 ug/kg	10000 ug/kg	PASS
Fe	Iron	867 ug/kg	5 ug/kg	-	
Pb	Lead	26 ug/kg	2 ug/kg	500 ug/kg	PASS
Mg	Magnesium	817 ug/kg	500 ug/kg		
Mn	Manganese	ND	500 ug/kg	-	
Hg	Mercury	ND	2 ug/kg	150 ug/kg	PASS
Mo	Molybdenum	ND	5000 ug/kg	1000 ug/kg	PASS
Ni	Nickel	ND	500 ug/kg	150 ug/kg	PASS
P	Phosphorus	1,618 ug/kg	500 ug/kg	-	
K	Potassium	920 ug/kg	5 ug/kg	-	
Se	Selenium	ND	10 ug/kg	-	
Ag	Silver	ND	10 ug/kg	-	
S	Sulfur	31,059 ug/kg	5 ug/kg	-	
Sn	Tin	ND	5000 ug/kg		
Zn	Zinc	883 ug/kg	5 ug/kg	- 1	

¹⁾ ND = None detected to the Method Detection Limit (MDL)

²⁾ USP recommended maximum daily limits for inhalational drug product.

MB1: Microbiological Contaminants [WI-10-09]

Analyst: Madeeha

Test Date: 12/17/2018

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45007-MB1

Symbol	Analysis	Results	Units	Limits*	Status
AC	Total Aerobic Bacterial Count	<100	CFU/g	10,000 CFU/g	PASS
CC	Total Coliform Bacterial Count	<100	CFU/g	100 CFU/g	PASS
EB	Total Bile Tolerant Gram Negative Count	<100	CFU/g	100 CFU/g	PASS
YM	Total Yeast & Mold	<100	CFU/g	1,000 CFU/g	PASS

Note: All recorded Microbiological tests are within the established limits.

PST: Pesticide Analysis [WI-10-11]

Analyst: CJH

Test Date: 1/11/2019

The client sample was anlayzed for pesticides using Liquid Chromatography with Mass Spectrometric detection (LC/MS/MS). The method used for sample prep was based on the European method for pesticide analysis (EN 15662).

45007-PST

Analyte	CAS	Result	Units	LLD	Limits (ppb)	Status
Abamectin	71751-41-2	ND	ppb	0.20	300	*
Abamectin B1b	65195-56-4	ND	ppb	0.20	300	*
Azoxystrobin	131860-33-8	ND	ppb	0.10	40000	PASS
Bifenazate	149877-41-8	ND	ppb	0.10	5000	PASS
Bifenthrin	82657-04-3	ND	ppb	0.20	500	PASS
Cyfluthrin	68359-37-5	ND	ppb	0.50	1000	PASS
Daminozide	1596-84-5	ND	ppb	10.00	10	*
Etoxazole	153233-91-1	ND	ppb	0.10	1500	PASS
Fenoxycarb	72490-01-8	ND	ppb	0.10	10	PASS
Imazalil	35554-44-0	ND	ppb	0.10	10	PASS
Imidacloprid	138261-41-3	ND	ppb	0.10	3000	PASS
Myclobutanil	88671-89-0	ND	ppb	0.10	9000	PASS
Paclobutrazol	76738-62-0	ND	ppb	0.10	10	PASS
Piperonyl butoxide	51-03-6	ND	ppb	0.10	8000	PASS
Spiromesifen	283594-90-1	ND	ppb	0.10	12000	*
Spirotetramat	203313-25-1	ND	ppb	0.10	13000	PASS
Trifloxystrobin	141517-21-7	ND	ppb	0.10	30000	PASS

^{*} Testing limits for ingestion established by the State of California: CCR, Title 16, Division 42, Chapter 5, Section 5313. ND indicates "none detected" above the lower limit of detection (LLD). Analytes marked with (*) indicate analytes for which no recovery was observed for a prespiked matrix sample.

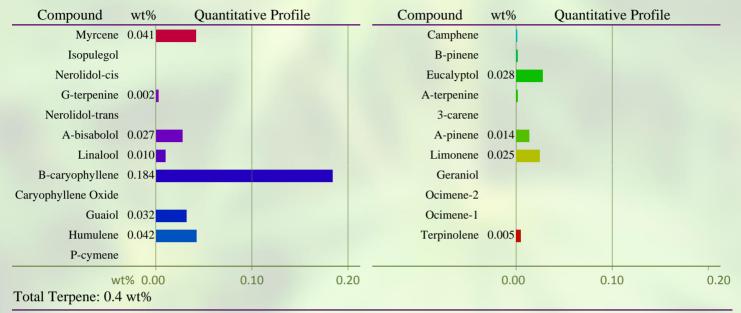
TP: Terpenes Profile [WI-10-08]

Analyst: CMA

Test Date: 12/17/2018

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.

45007-TP



^{*} Indicates qualitative calculation based on recorded peak areas.

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.

45007-VC

Compound	CAS	Amount ¹	Limit ²	Status
Benzene-d6		ND	N/A	-
Tert-butanol-d9		ND	N/A	
1-Pentanol	71-41-0	ND	5,000 ppm	PASS
Propane	74-98-6	ND	1,000 ppm	PASS
Isobutane	75-28-5	ND	1,000 ppm	PASS
Butane	106-97-8	ND	1,000 ppm	PASS
Methanol	67-56-1	ND	3,000 ppm	PASS
Ethanol	64-17-5	1,180 ppm	5,000 ppm	PASS
Acetone	67-64-1	18 ppm	1,000 ppm	PASS
Isopropanol	67-63-0	30 ppm	5,000 ppm	PASS
Acetonitrile	75-05-8	15 ppm	410 ppm	PASS
2,3-Dimethylbutane	79-29-8	ND	290 ppm	PASS
3-Methylpentane	96-14-0	ND	290 ppm	PASS
Hexane	110-54-3	ND	290 ppm	PASS
Ethyl Acetate	141-78-6	111 ppm	5,000 ppm	PASS
Cyclohexane	110-82-7	ND	3,880 ppm	PASS
Benzene	71-43-2	ND	2 ppm	PASS
Heptane	142-82-5	ND	5,000 ppm	PASS
1-Butanol	71-36-3	ND	5,000 ppm	PASS
m,p-Xylenes	179601-23-1	ND	N/A	-

¹⁾ ND = None detected above 5 ppm.

END OF REPORT

²⁾ In ppm, based on USP recommended limits for residual solvents, adopted by the Massachusetts Department of Public Health on 3/31/16. Butane/Propane limits are based on limits established for state of Colorado.