PROVERDE LABORATORIES

Test Certificate

Certificate ID: **83402** Received: **7/9/20**

Client Sample ID: **Phytocannabinoid Rich CBD Hemp Oil (CO2)**

Lot Number: **PCRHE36**

Matrix: **Concentrates/Extracts - CO2**

Scan QR Code for authenticity

The Healing Rose Company
23 Hale St, Unit H

Newburyport, MA 01950
Attn: Laura Beohner

Authorization:	Signature:	Date:
Chris Hudalla, Chief Science Officer	Christopher Hudalla	7/23/2020

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: JFD* *Test Date: 7/17/2020*

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.

83402-CN

ID	Weight %	Concentration (mg/g)
D9-THC	0.175	1.75
THCV	ND	ND
CBD	53.6	536
CBDV	0.452	4.52
CBG	ND	ND
CBC	0.246	2.46
CBN	ND	ND
THCA	ND	ND
CBDA	ND	ND
CBGA	ND	ND
D8-THC	ND	ND
exo-THC	ND	ND
Total	54.5	545
Max THC	0.175	1.75
Max CBD	53.6	536

Limit of Quantitation (LOQ) = 0.0513 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 one third of LOQ.

EA: Elemental Analysis [WI-10-13] *Analyst: CJS* *Test Date: 7/16/2020*

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.

83402-EA

Symbol	Metal	Conc.[1] (µg/kg)	RL (µg/kg)	Limits[2] (µg/kg)	Status
Al	Aluminum	520	50	-	
As	Arsenic	ND	50	200	PASS
Cd	Cadmium	ND	50	200	PASS
Ca	Calcium	ND	500	-	
Cr	Chromium	ND	50	300	PASS
Co	Cobalt	ND	50	300	PASS
Cu	Copper	54.0	50	3,000	PASS
Fe	Iron	ND	50	-	
Pb	Lead	ND	50	500	PASS
Mg	Magnesium	278	50	-	
Mn	Manganese	ND	50	-	
Hg	Mercury	ND	50	100	PASS
Mo	Molybdenum	ND	50	1,000	PASS
Ni	Nickel	ND	50	500	PASS
P	Phosphorus	8,900	500	-	
K	Potassium	ND	500	-	
Se	Selenium	ND	50	-	
Ag	Silver	ND	50	700	PASS
S	Sulfur	2,280	500	-	
Sn	Tin	ND	500	6,000	PASS
Zn	Zinc	135	50	-	

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: MM* *Test Date: 7/10/2020*

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.

83402-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

Recommended limits established by the American Herbal Pharmacopoeia (AHP) monograph for Cannabis Inflorescence [2013], for consumable botanical products, including processed and unprocessed cannabis materials, and solvent-based extracts. Note: All recorded Microbiological tests are within the established limits.

PST: Pesticide Analysis [WI-10-11] *Analyst: CJR* *Test Date: 7/17/2020*

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).

83402-PST

Analyte	CAS	Result	Units	LLD	Limits (ppb)	Status
Abamectin	71751-41-2	ND	ppb	0.20	300	PASS
Spinosad	168316-95-8	ND	ppb	0.10	3000	PASS
Pyrethrin	8003-34-7	ND	ppb	0.10	1000	PASS
Trifloxystrobin	141517-21-7	ND	ppb	0.10	30000	PASS
Spirotetramat	203313-25-1	ND	ppb	0.10	13000	PASS
Spiromesifen	283594-90-1	ND	ppb	0.10	12000	PASS
Piperonyl butoxide	51-03-6	ND	ppb	0.10	8000	PASS
Paclobutrazol	76738-62-0	ND	ppb	0.10	10	PASS
Myclobutanil	88671-89-0	ND	ppb	0.10	9000	PASS
Imidacloprid	138261-41-3	ND	ppb	0.10	3000	PASS
Imazalil	35554-44-0	ND	ppb	0.10	10	PASS
Fenoxycarb	72490-01-8	ND	ppb	0.10	10	PASS
Etoxazole	153233-91-1	ND	ppb	0.10	1500	PASS
Dichlorvos	62-73-7	ND	ppb	3.00	10	PASS
Cyfluthrin	68359-37-5	ND	ppb	0.50	1000	PASS
Bifenthrin	82657-04-3	ND	ppb	0.20	500	PASS
Bifenazate	149877-41-8	ND	ppb	0.10	5000	PASS
Azoxystrobin	131860-33-8	ND	ppb	0.10	40000	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 pre-spiked matrix sample.

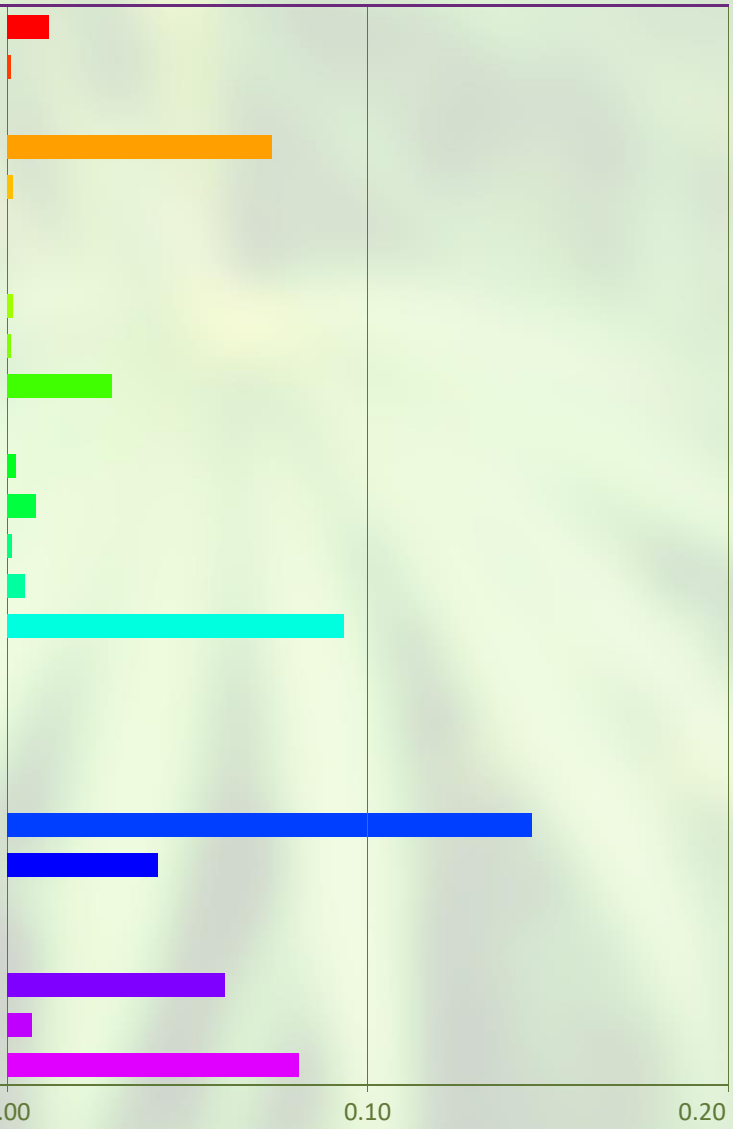
TP: Terpenes Profile [WI-10-27] *Analyst: CA* *Test Date: 7/15/2020*

Client sample analysis was performed using full evaporative technique (FET) headspace sample delivery and gas chromatographic (GC) compound separation. A combination of flame ionization detection (FID) and/or mass spectrometric (MS) detection with mass spectral confirmation against the National Institute of Standards and Technology (NIST) Mass Spectral Database, Revision 2017 were used. Chromatographic and/or mass spectral data were processed by quantitatively comparing the analytical peak areas against calibration curves prepared from certified reference standards.

83402-TP

Compound	CAS	Conc. (wt%)	Conc. (ppm)
alpha-pinene	80-56-8	0.0114	114
camphene	79-92-5	0.0009	8.56
sabinene*	3387-41-5	ND	ND
beta-myrcene	123-35-3	0.0733	733
beta-pinene	127-91-3	0.0016	16.1
alpha-phellandrene	99-83-2	ND	ND
delta-3-carene	13466-78-9	ND	ND
alpha-terpinene	99-86-5	0.0015	14.8
alpha-ocimene	502-99-8	0.0009	9.32
D-limonene	138-86-3	0.0289	289
p-cymene	99-87-6	ND	ND
cis-beta-ocimene	3338-55-4	0.0022	22.2
eucalyptol	470-82-6	0.0079	79.0
gamma-terpinene	99-85-4	0.0014	13.7
terpinolene	586-62-9	0.0050	49.8
linalool	78-70-6	0.0932	932
L-fenchone*	7787-20-4	ND	ND
isopulegol	89-79-2	ND	ND
menthol*	89-78-1	ND	ND
geraniol	106-24-1	ND	ND
beta-caryophyllene	87-44-5	0.146	1,460
alpha-humulene	6753-98-6	0.0419	419
cis-nerolidol	3790-78-1	ND	ND
trans-nerolidol	40716-66-3	ND	ND
guaiol	489-86-1	0.0604	604
caryophyllene oxide	1139-30-6	0.0068	67.9
alpha-bisabolol	23089-26-1	0.0808	808

Qualitative Profile



Total Terpene: 0.6 wt%

* Certified reference standard not available for this compound. Concentration is estimated using the response factor from alpha-pinene. ND = None Detected. RL = Reporting Limit of 5 ppm.

VC: Analysis of Volatile Organic Compounds [WI-10-28] *Analyst: CA* *Test Date: 7/14/2020*

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.

83402-VC

Compound	CAS	Amount [1]	Limit [2]	RL	Status
Propane	74-98-6	ND	1,000 ppm	100	PASS
Isobutane	75-28-5	ND	1,000 ppm	100	PASS
Butane	106-97-8	ND	1,000 ppm	100	PASS
Methanol	67-56-1	ND	3,000 ppm	100	PASS
Pentane	109-66-0	ND	5,000 ppm	100	PASS
Ethanol	64-17-5	ND	5,000 ppm	100	PASS
Acetone	67-64-1	ND	5,000 ppm	100	PASS
Isopropanol	67-63-0	ND	5,000 ppm	100	PASS
Acetonitrile	75-05-8	ND	410 ppm	100	PASS
Hexane	110-54-3	ND	290 ppm	100	PASS
Heptane	142-82-5	ND	5,000 ppm	100	PASS

1) ND = Not detected at a level greater than the Reporting Limit (RL).
2) In ppm, based on USP recommended limits for residual solvents, adopted by the Massachusetts Department of Public Health for cannabis concentrates and extracts on 3/31/16. Butane/Propane limits are based on limits established for state of Colorado.
(*) For ethanol, as many formulations contain flavorings based on ethanol extracts of natural products, no status has been assigned.

END OF REPORT