

CERTIFICATE OF ANALYSIS

Project: Industrial Hemp
Order ID: 2019000019

Customer ID: 65928260
Customer Name: Hempyre Genetics

Harvest/Extract Lot:
Harvest/Extract Date:

Cultivar (Strain): Purple Honey
 Creeper
Sample Date: 01/02/2019

Lab ID: 2019000067
Date Received: 01/02/2019

Sample Matrix: Hemp
Date Completed: 01/07/2019

Remarks:

Analysis Date/Time: 01-03-2019 2309
Analyst: KWF

Method: HPLC/UV
Instrument: Agilent 1100

Moisture Content (%): -
Water Activity (aw): - at - °C

<u>Cannabinoid</u>	<u>Result</u> (%)	<u>Result</u> (mg/g)	<u>Reporting Limit</u> (mg/g)	<u>Per Unit</u> (mg)
CBD	0.504	5.04	0.050	5.04
CBDa	14.8	148	0.050	148
CBDv	<RL	<RL	0.050	-
Δ9-THC	0.0649	0.649	0.050	0.650
Δ8-THC	<RL	<RL	0.050	-
THCa	0.644	6.44	0.050	6.44
CBC	0.0521	0.521	0.050	0.520
CBG	0.0514	0.514	0.050	0.510
CBGa	0.180	1.80	0.050	1.80
CBN	<RL	<RL	0.050	-
TOTAL	16.3	163		163
TOTAL THC	0.630	6.30		6.30
TOTAL CBD	13.5	135		135



UNIT MASS (g): 1.00

Deviations from standard operating procedure: None

Recoveries for all analyte standards: 90-110%
 Replicate Uncertainties: <5% RSD, <20% RPD
 Sample/Reagent Blanks: <RL for all analytes

Values for plant matter are adjusted for moisture content.

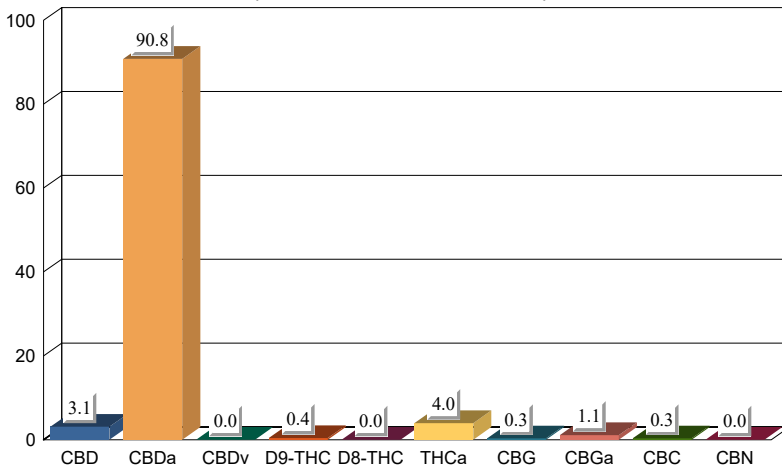
Total THC = (THCa x 0.877) + Δ9-THC
 Total CBD = (CBDa x 0.877) + CBD

Percentage results are reported by mass.
 mg/g results are reported as mass component per mass material.

Abbreviations: UV - Ultraviolet, HPLC - High Pressure Liquid Chromatography, RL - Reporting Limit, RPD - Relative Percent Difference, RSD - Relative Standard Deviation

Cannabinoid Distribution

(% of Total Cannabinoids)



This information is provided as a service and makes no claims of efficacy and/or safety of this product. Results are applicable only for the sample(s) analyzed and for the specific analysis conducted. This report is for informational purposes only and should not be used to diagnose, treat, or prevent any medical-related symptoms. The statements and results herein have not been approved and/or endorsed by the FDA.

REPORT OF LABORATORY ANALYSIS

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Kyle W. Felling
 Kyle W. Felling, Ph.D.
 Laboratory Director

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TERPENOID PROFILE

Analysis Date/Time: 01-05-2019 1158
Analyst: KWF

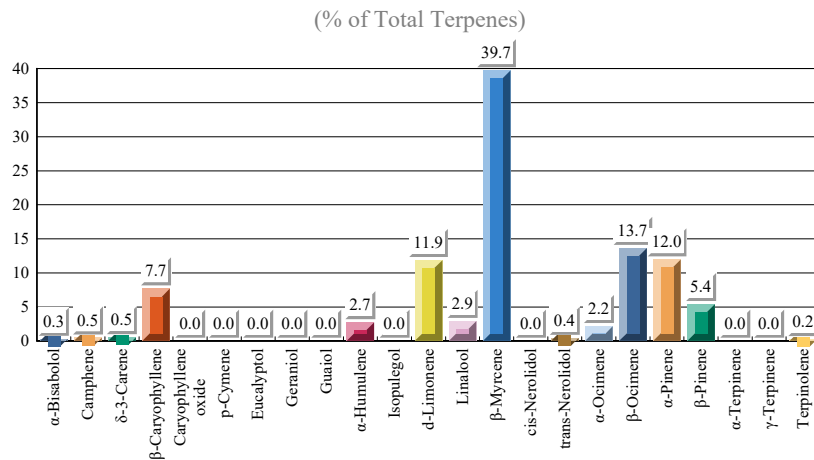
Method: HS/GC/MS (Internal Method-002)
Instrument: Agilent 7890/5975

Deviations from SOP:
 None

<u>Terpene</u>	<u>Result</u> ($\mu\text{g/g}$)	<u>Result</u> (%, total terpenes)
α -Bisabolol	64.1	0.309
Camphene	95.0	0.458
δ -3-Carene	105	0.507
β -Caryophyllene	1592	7.68
Caryophyllene oxide	-	-
p-Cymene	-	-
Eucalyptol	-	-
Geraniol	-	-
Guaiol	-	-
α -Humulene	565	2.72
Isopulegol	-	-
d-Limonene	2460	11.9
Linalool	603	2.91
β -Myrcene	8243	39.7
cis-Nerolidol	-	-
trans-Nerolidol	87.6	0.422
α -Ocimene	446	2.15
β -Ocimene	2831	13.7
α -Pinene	2479	12.0
β -Pinene	1121	5.41
α -Terpinene	-	-
γ -Terpinene	-	-
Terpinolene	48.9	0.236
TOTAL	20742	100



Terpenoid Distribution



Reporting Limit ($\mu\text{g/g}$)

8

Abbreviations: HS - Headspace, GC - Gas Chromatography, MS - Mass Spectrometry, RL - Reporting Limit

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"-" not detected above reporting limit

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