



Certificate of Analysis

Name of Client:	Hempworks
Sample Name:	250 mg (15 mL) Tincture
Date of Analysis	6/5/2019
Batch Number:	60519

Results		
	wt %	mg/g
Cannabidiolic acid - CBDA	ND	ND
Cannabigerol - CBG	0.05%	0.5
Cannabidiol - CBD	1.59%	15.9
Cannabinol - CBN	ND	ND
Delta-9-Tetrahydrocannabinol - d9-THC	0.15%	1.5
Tetrahydrocannabinolic acid - THCA	ND	ND

CBD and THC Equivalents		
	wt %	mg/g
CBD Equivalents	1.59%	15.9
THC Equivalents	0.15%	1.5

CBD:THC Ratio	11:1
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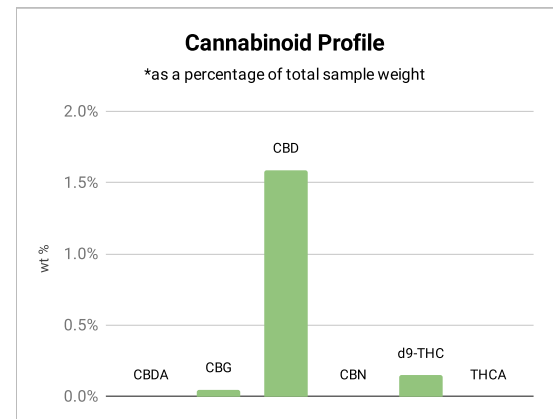
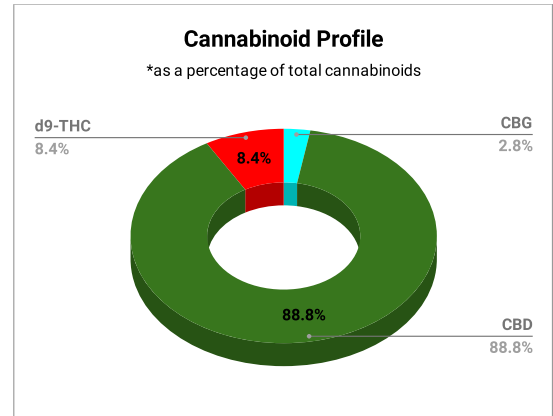
CBD and THC Equivalents Explained

CBD Equivalents = 0.877*CBDA + CBD
 THC Equivalents = 0.877*THCA + d9-THC

Upon heating CBDA and THCA transform into CBD and d9-THC, respectively. This process is called decarboxylation because a carboxyl group is lost in the process. It is standard to calculate the actual weight percent/concentration of both CBD and THC as the weight percent/concentration assuming all of the CBDA and THCA are decarboxylated.

Lab Personnel Signature: *Griffin Lynch*
 Date: 6/5/2019

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Details of Testing

High performance liquid chromatography (HPLC) was used to determine concentrations of CBD, CBG, CBDA, CBN, d9-THC, and THCA. Any result reported back as ND (not detected) is below our lower limit of detection. Our lower limit of detection is 0.005%. Results are reported on a dry weight basis.

Disclaimer

These results are solely for the purposes of research and development. This report is only for the sample listed above and may not be reproduced except in its entirety.