Rm3 LABS

Ambary notes shown in red

AMBARY GARDENS, LLC
License No. 403H-63890

Sample Received: 3/20/2019 Report Date: 3/21/2019

HEMP EXTRACT

Potency Test Report

METRC No. 1A4000071267E772000000576

Sample: **HE740H-C** (Concentrate)

Harvest/Production Batch: CTO44-250 **<<< 250 Full Spectrum**

Item Notes: Amended report sent 4/9/19 supercedes original report sent 3/21/19. Client requested data from higher aliquot be reported.

THC levels too low to detect

Extract

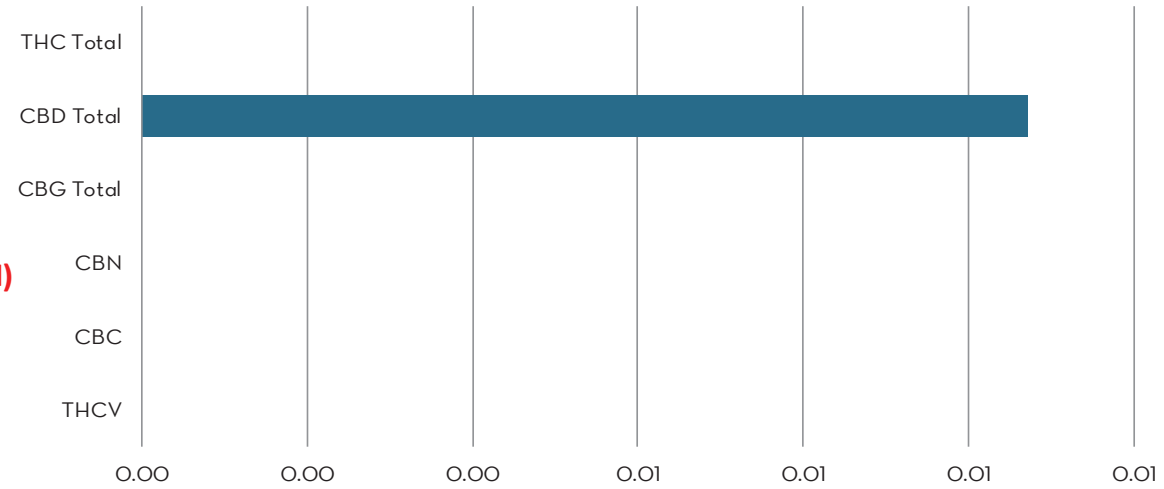
CANNABINOID LEVELS

	%	mg/unit
THC	< LLOQ	< LLOQ
THC-A	N/D	N/D
CBD	1.07%	10.72 <<<
CBD-A	N/D	N/D
CBN	N/D	N/D
CBG	N/D	N/D
CBG-A	N/D	N/D
CBC	N/D	N/D
THCV	N/D	N/D
Total	1.07%	10.72

CBD results are 10.72 mg/unit = PASS
Minimum is 8.3 mg/unit (mg/ml)

TOTAL THC*: < LLOQ
THC + THC-A, % by weight

TOTAL CBD*: 1.07%
CBD + CBD-A, % by weight



ADDITIONAL INFORMATION

Total Package Wt. (g)	0
CBD Conversion	100.0%

* Total CBD = CBD + (CBDA · 0.877). This formula is derived from the fact that the CBDA molecule loses mass (carbon dioxide) during conversion to CBD (known as decarboxylation). Similar conversion factors are used for other acidic cannabinoids such as THCA.

< LLOQ = Concentrations are below the Lower Limit of Quantitation (LLOQ) for this assay. LLOQ is defined as the lowest concentration at which the analyte can not only be reliably detected, but at which some predefined goals for bias and imprecision are met. The LLOQ for this assay is fixed at 2.5 ·g/mL (= 0.0025 mg/mL), although the percentage by weight this equates to in the product will vary according to the actual dilution factor used for the individual analysis.

N/D = Not Detected. The limit of detection (LOD) is usually defined as the lowest quantity or concentration of a component that can be reliably detected (but not necessarily quantified) with a given analytical method.

** Results are a combination of replicates run at different analytical ranges to quantitate cannabinoids at the lowest and highest ranges.

Sample HE740H-C_20

Authorized by: Roy Turton, Interim Lab Director

ISO/IEC-17025
LABORATORY TESTING ACCREDITED | CERTIFICATE #4690-01

The Biochemistry of Cannabis

The major active components of cannabis are a family of compounds known as cannabinoids. There are over 60 different identified cannabinoids, though only a handful have been closely studied; as a family, they have remarkable medical properties. Cannabinoids have been shown to have widely varied effects, including psychoactivity, pain relief, nausea relief, anti-inflammatory, anti-bacterial and anti-cancer effects.

Cannabinoids are effective because they mimic natural neurotransmitters – the chemical messengers between cells – that act in the human brain and throughout the body. Different cannabinoids interact with the body in complex ways. Some compounds enhance or inhibit the effects of others, or help alleviate the side effects that one compound alone might cause. The mix of different cannabinoids in a particular strain of cannabis are largely governed by the plant's genetics and maturity at harvest, while the total levels of cannabinoids are dictated both by genetics and the overall quality of the growing conditions.

THC, or delta-9 tetrahydrocannabinol, is the primary psychoactive component of cannabis. It is responsible for the high of cannabis, and is likely the direct or indirect cause of unwanted side effects such as anxiety, detachment and paranoia. When cannabis is harvested, THC is primarily present in its "inactive", acidic form, known as THC-A, which has little psychoactive effect. As cannabis cures, the THC-A partially converts to THC; the conversion is accelerated as cannabis is heated during cooking or smoking.

CBD, or cannabidiol, is the second most prominent and studied cannabinoid, and is the major cannabinoid in "hemp-type" cannabis. CBD has many effects in itself, and it also appears to alleviate many of the side effects of THC, including sleepiness and loss of memory.

CBN, or cannabinol, is the breakdown product of THC; high levels indicate that the cannabis may be relatively old or has been stored at high temperatures.

Research has demonstrated these properties, among others, of the different cannabinoids:

THC	CBD	CBN	Other Cannabinoids*
Psychoactivity	Relieves anxiety	Induces sleep	Psychoactivity
Relieves pain	Relieves pain	Antibacterial	Reduce Inflammation
Induces sleep	Reduces inflammation		Relieve pain
Reduces inflammation	Anti-oxidant		Antibacterial
Anti-oxidant	Antipsychotic		Antifungal
Reduces nausea	Reduces heart rate		
Reduces intraocular pressure in glaucoma	Reduces blood pressure		* Includes cannabichromene (CBC), cannabigerol (CBG) and tetrahydrocannabivarin (THCV).
Protects nervous system	Reduces muscle spasms		
	Reduces THC side effects		

Other medicinal components of cannabis: In addition to the cannabinoids, there are a number of other compounds in cannabis that are believed to have psychoactive or medicinal properties. These include many of the 100 or more terpene compounds that give cannabis its characteristic smell.

For more information about the components and medicinal effects of cannabis, or links to research articles on these subjects, please visit our web site, www.rm3.us.

Rm3's Testing Methods

At Rm3 Labs we use a testing methodology known as High-Performance Liquid Chromatography, or HPLC. This method is widely used in the herbal, nutritional supplement and pharmaceutical industries to ensure the purity and strength of products. For each test, the client provides us a small sample of the product. We extract the cannabinoids from the sample, and then separate the individual components. Analysis of the separated components is done by computer.

In analyzing samples, we screen out seeds and large stems, as including them in the sample may produce large variations in results. Cannabinoids are measured as a percentage of dry weight, to eliminate the effect of particularly moist storage conditions on the sample. End users should inspect the product they receive for excessive seeds, stems or moisture levels.

The Limitations of our Test Methods

We do not test an entire "batch" of product; we only test the sample provided by the client. When testing cannabis, we ask for as representative a sample as possible; however, it is possible that the product received by a patient may be materially different from the sample we've tested.

There are currently no established protocols for cannabis testing in the U.S. As a result, each lab uses its own procedures, and results from different labs may not be directly comparable.

Results of our tests, and this report, may be used or displayed only by the client and only in connection with the batch of product from which the test sample was taken. By submitting a sample for analysis, the client has represented that product from which the sample has been taken is being held by the client in full compliance with Colorado state and local cannabis laws, and such product or any product made therefrom will only be offered for sale in compliance with such laws.