Laboratory Analysis Advice

GMP Certified Organic Hemp CO2 Extract

Date Analysis Completed: 25-07-2019

Batch #1487 – Sample Mass 1g

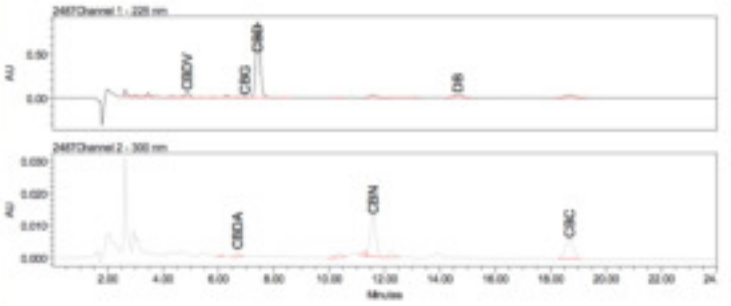
The results contained in this advice are provided as guidance only for the purpose of indicating the profile and presence of cannabinoids, terpenoids, microbials and heavy metals within Batch #1487. Nutritional facts are also enclosed.

CBD 16.31%
Cannabinoid Profile:

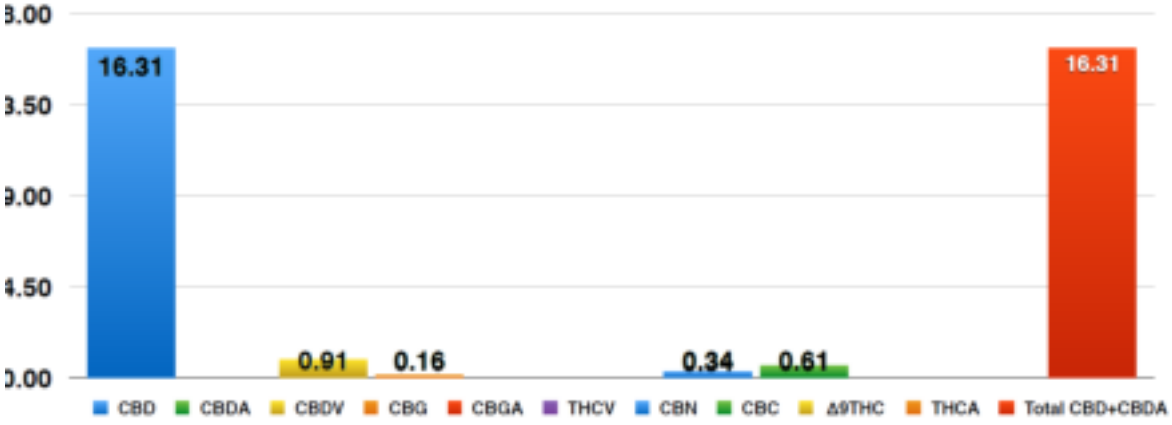
Component	Mass (%)	Amount (mg/g)
CBD	16.31	163.10
CBDA	<0.05	<0.50
CBDV	0.91	9.10
CBG	0.16	1.60
CBGA	<0.05	<0.50
THCV	<0.05	<0.50
CBN	0.34	3.40
CBC	0.61	6.10
Δ9THC	<0.20	<2.00
THCA	ND	ND
Total CBD	16.31	163.10

ND - Not Detected

Method: HPLC-UV



Cannabinoids as Percent of Total Mass

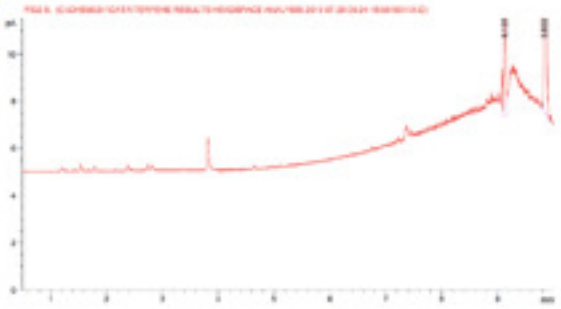


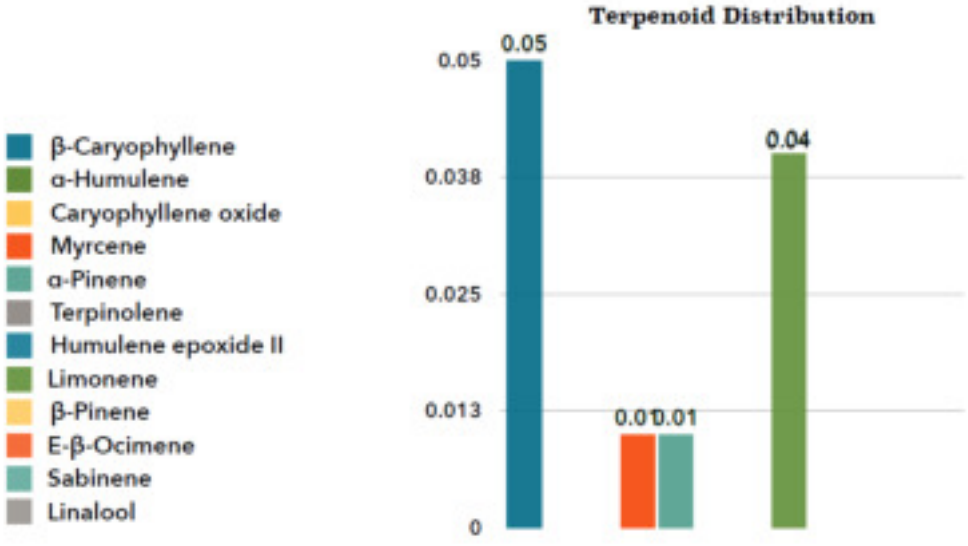
Terpenoid Profile:

Method: HS-GC-FID

Component	Amount %
β-Caryophyllene	0.05
α-Humulene	ND
Caryophyllene oxide	ND
Myrcene	0.01
α-Pinene	0.01
Terpinolene	ND
Humulene epoxide II	ND
Limonene	0.04
β-Pinene	ND
E-β-Ocimene	ND
Sabinene	ND
Linalool	ND

ND - Not Detected

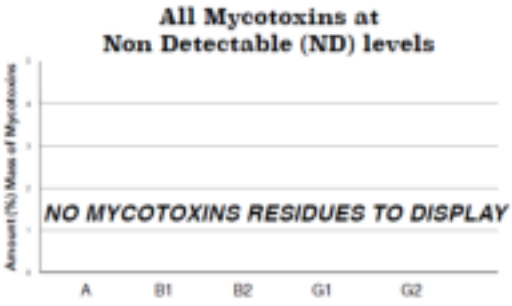




Microbial Profile:

Component	CFU	Results
Listeria m.	1 g	ND*
Escherichia c.	1 g	ND*
Salmonella	25 g	ND*
Yeast	1 g	ND*
Mould	1 g	ND*

*ND - Not detected



Nutrition Facts

Component	%
Moisture and volatile matter content	0.59
Protein content	0.30
Total fat content	98.89
Carbohydrates content	ND*
Total Fiber content	ND*
Total sugars content	ND*
Total ash content	ND*

*ND - Not detected

Heavy Metals Profile:

Component	Mass (%)	Amount (ppm)	Limit** (ppm)
Arsenic (As_2O_3)	ND*	< 0.1	< 0.1
Cadmium (Cd)	ND*	< 0.1	< 0.1
Lead (Pb)	ND*	< 0.1	< 0.1
Mercury (Hg)	ND*	< 0.1	< 0.1
Chromium (Cr)	ND*	< 1	< 1
Tin (Sn)	ND*	< 10	< 10

*ND - Not detected, **Codex STAN 193-1995, GB 2762, EC No. 1881/2006, FDA

Conclusions:
No heavy metal residues detected.
No flammable residues detected.
No chemical residues detected.

Pesticide analysis:

Tests looked for residue of nearly 300 known pesticides finding no evidence of any over detectable limits.

Microbial analysis:

The microbiology analysis is standardized after the following protocols:
ISO 6579:2003
ISO 11290-1:2003
ISO 16649-2:2002
ISO 21527-2:2008

Note on Cannabinoid Testing:
All cannabinoids in their acid forms (ending in "-A") are convertible to their non-acid forms via a decarboxylation process (heating). The components lose mass through this process. To find the total theoretical active cannabinoids, one multiplies the acid forms by 87.7%. For example, CBD-A can be converted to active CBD using the formula: CBD-A x 0.877 = CBD. In this case, the Max CBD for the sample is: Max CBD (%) = (%CBD-A x 0.877) + %CBD. The same calculation assay is valid for THC-A. This method has been validated according to the principles of the International Conference on Harmonisation.