

## Chemical Content Analysis

Date: 21-10-2019

Client: Vitality

Product: 600mg Oral Spray Lemon

Volume: 30 mL

Batch No: SH010619ML

Lab ID: CBD0302

### Visual Inspection:

Pale pink liquid, translucent.

### Method Summary:

Approximately 0.2g of sample was measured in a pipette and extracted in IPA to provide a sample at approximately 16mg/ml. This was diluted further in Methanol. CBD content was analysed on an Agilent HPLC fitted with a DAD detector. Content on HPLC was analysed against a standard calibration of CBD, CBN and THC, supplied by Restek, as well as CBDA and THCA supplied by Sigma-Aldrich. The results are presented in Table 1 and Figure 1 below.

Compound	CAS Number	Concentration (mg/ml)	LoQ (µg/ml)
Cannabidiol	13956-291	19.66	0.1
Cannabinol	521-35-7	BQL	0.1
Delta-9- Tetrahydrocannabinol	1972-08-3	BQL	0.1
Cannabidiolic Acid	1244-58-2	BQL	0.1
Delta-9-Tetrahydrocannabinolic Acid	23978-85-0	BQL	0.2

BQL, Below Quantitation Limit.

### % Content of Sample

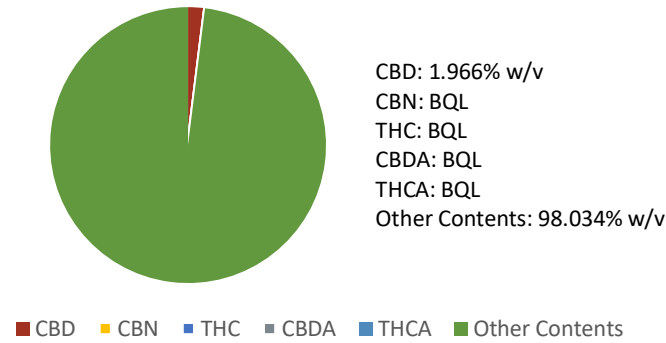


Figure 1. Pie chart of the analysis result.

### Comments:

600mg of CBD in 30ml is equivalent to 20mg/ml

CBD- Cannabidiol  
 CBDA- Cannabidiolic Acid  
 CBN- Cannabinol. The legal limit for this compound is 1mg per container.  
 THC- delta-9-Tetrahydrocannabinol.  
 THCA- delta-9-Tetrahydrocannabinolic Acid. The legal limit for both THC and THCA in this mixture is 1mg per container  
 The sample passes all legal limits for CBN, THC and THCA.

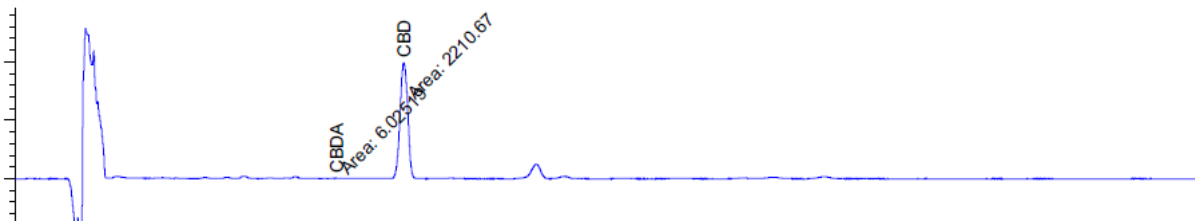


Figure 2. Chromatogram of the analysis

**Analysis By:**  
 Lawrence Theobald

### Approved By:

Mark Portsmouth, Analytical Chemistry Consultant

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