

CERTIFICATE OF ANALYSIS

Project: CBD **Customer ID:** 54755766 **Harvest/Extract Lot:** 2500TROFS021819
Order ID: 2019000418 **Customer Name:** CBD Plus USA

Cultivar (Strain): FS Tropical (2500) **Lab ID:** 2019001610 **Sample Matrix:** Oil/Tincture
Sample Date: 02/19/2019 **Date Received:** 02/19/2019 **Date Completed:** 02/21/2019

Remarks:

Analysis Date/Time: 02-20-2019 0906 **Method:** HPLC/UV **Moisture Content (%):** -
Analyst: KWF **Instrument:** Agilent 1100 **Water Activity (aw):** - at - °C

<u>Cannabinoid</u>	<u>Result (%)</u>	<u>Result (mg/mL)</u>	<u>Reporting Limit (mg/mL)</u>	<u>Per Unit (mg)</u>
CBD	8.40	84.0	0.05	2520
CBDa	<RL	<RL	0.05	-
CBDv	0.0655	0.655	0.05	19.6
Δ9-THC	0.0533	0.533	0.05	16.0
Δ8-THC	<RL	<RL	0.05	-
THCa	<RL	<RL	0.05	-
CBC	0.335	3.35	0.05	100
CBG	<RL	<RL	0.05	-
CBGa	<RL	<RL	0.05	-
CBN	0.130	1.30	0.05	39.1
TOTAL	18.1	89.8		2695



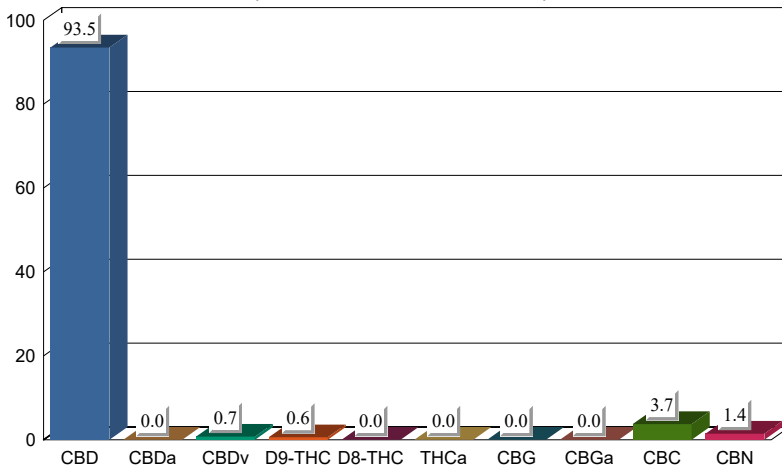
UNIT VOLUME (mL): 30.0

TOTAL THC 0.0533 0.533 16.0
TOTAL CBD 8.40 84.0 2520

Deviations from standard operating procedure: None

Cannabinoid Distribution

(% of Total Cannabinoids)



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

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

This report shall not be reproduced, except in full, without the written consent of
Felling Analytical Services and Technology (F.A.S.T.), LLC

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

CERTIFICATE OF ANALYSIS

Project: CBD	Customer ID: 54755766	Harvest/Extract Lot: 2500TROFS021819
Order ID: 2019000418	Customer Name: CBD Plus USA	
Cultivar (Strain): FS Tropical (2500)	Lab ID: 2019001610	Sample Matrix: Oil/Tincture
Sample Date: 02/19/2019	Date Received: 02/19/2019	Date Completed: 02/21/2019

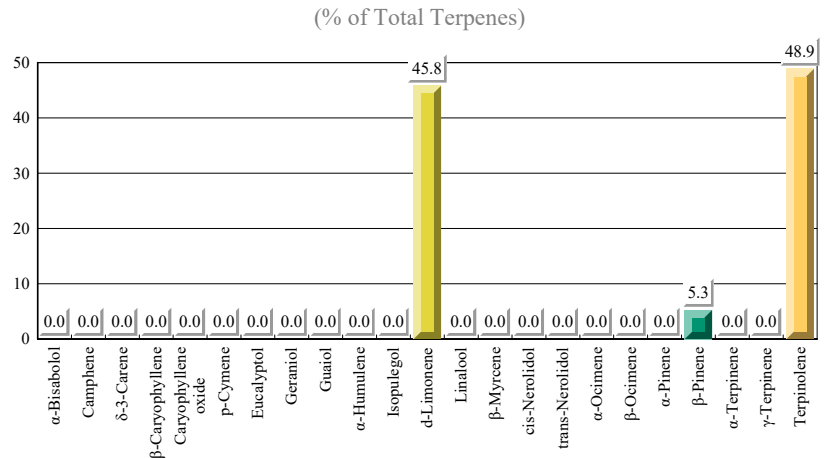
TERPENOID PROFILE

Analysis Date/Time: 02-20-2019 2036 **Method:** HS/GC/MS (Internal Method-002) **Deviations from SOP:** None
Analyst: KWF **Instrument:** Agilent 7890/5975

<u>Terpene</u>	<u>Result</u> ($\mu\text{g/g}$)	<u>Result</u> (%, total terpenes)
α -Bisabolol	-	-
Camphene	-	-
δ -3-Carene	-	-
β -Caryophyllene	-	-
Caryophyllene oxide	-	-
p-Cymene	-	-
Eucalyptol	-	-
Geraniol	-	-
Guaiol	-	-
α -Humulene	-	-
Isopulegol	-	-
d-Limonene	195	45.8
Linalool	-	-
β -Myrcene	-	-
cis-Nerolidol	-	-
trans-Nerolidol	-	-
α -Ocimene	-	-
β -Ocimene	-	-
α -Pinene	-	-
β -Pinene	22.5	5.28
α -Terpinene	-	-
γ -Terpinene	-	-
Terpinolene	208	48.9
TOTAL	426	100



Terpenoid Distribution



Reporting Limit ($\mu\text{g/g}$) 15

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

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.

"-" not detected above reporting limit

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

REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full, without the written consent of Felling Analytical Services and Technology (F.A.S.T.), LLC