

SUMMARY OF ANALYSIS (SAMPLE ID: SA28677)

Testing Location: OKC 3680 E. I-240 Service Rd. Oklahoma City, OK 73135 License: LAAA-4Y4X-Z72Z	Customer ID: 37 Can-Tek Labs 8107 S I-35 Service Rd Oklahoma City, OK 73149 License: Not Entered or N/A	Order ID: OR8948 Lot Number: Not Entered Batch Number: 1862	Sample Type: Primary Matrix: Oil/Tincture Mass: 30g Date Collected: 07/08/2020 Date Received: 07/08/2020 Date Completed: 07/16/2020
Cultivar (Strain) or Sample Description: CBD Ops Heroes Choice			

*This page is simply a summary of the analysis performed. For analytical details, please consult the individual Certificate(s) of Analysis for each of the specific test(s) performed.

*For Oklahoma, with the new OMMA rules to be effective April 1, 2020, limits on moisture are proposed at 15% and water activity at 0.65aw.

Moisture Content (%) Not Tested	PASS/FAIL N/A	Water Activity (aw) Not Tested	PASS/FAIL N/A
---	-------------------------	--	-------------------------

Cannabinoids (Top 3)	(%)	mg/g
CBD	2.91	29
CBG	0.0915	0.915
CBDv	0.0134	0.134
TOTAL CBD	2.91	29
TOTAL THC	-	-
TOTAL CANNABINOIDS	3.01	30

Terpenes (Top 5)	(%)	µg/g
β-Caryophyllene	0.002	21
α-Humulene	0.002	17
α-Pinene	0.001	9
Linalool	0.001	9
Geraniol	0.001	6
TOTAL TERPENES	0.008	80

Contaminants	PASS/FAIL
Heavy Metals:	PASS
Microbiology:	PASS
Residual Solvents:	PASS
Visual Inspection:	PASS



Scan the QR code to verify results.

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 of Oklahoma City, LLC

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



CERTIFICATE OF ANALYSIS (SAMPLE ID: SA28677)

Testing Location: OKC 3680 E. I-240 Service Rd. Oklahoma City, OK 73135 License: LAAA-4Y4X-Z72Z	Customer ID: 37 Can-Tek Labs 8107 S I-35 Service Rd Oklahoma City, OK 73149 License: Not Entered or N/A	Order ID: OR8948 Lot Number: Not Entered Batch Number: 1862	Sample Type: Primary Matrix: Oil/Tincture Mass: 30g Date Collected: 07/08/2020 Date Received: 07/08/2020
Cultivar (Strain) or Sample Description: CBD Ops Heroes Choice			Date Completed: 07/16/2020

CANNABINOID (POTENCY) PROFILE

Analysis Date/Time: 06/09/2020 1617
Analyst: KF

Method: HPLC/DAD
Instrument: Agilent 1100

Moisture Content (%): -
Water Activity (aw): -

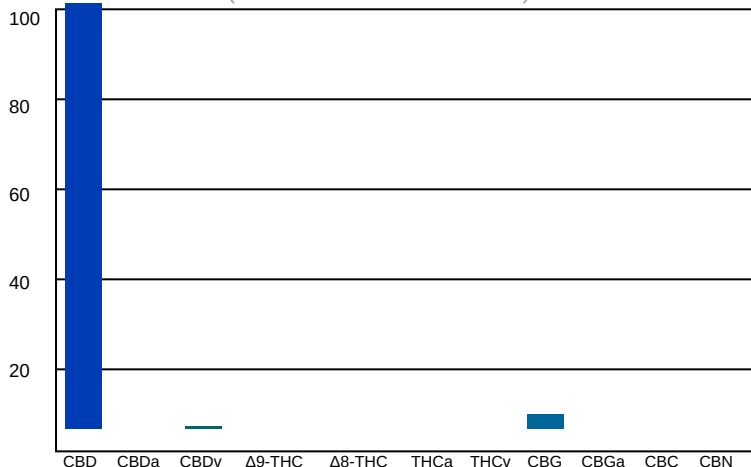
<u>Cannabinoid</u>	<u>Result (%)</u>	<u>Result (mg/g)</u>	<u>Reporting Limit (mg/g)</u>	<u>Result (mg/mL)</u>	<u>Per Unit (mg)</u>
CBD	2.91	29.1	0.00311	27.9	872
CBDa	-	-	0.00311	-	-
CBDv	0.0134	0.134	0.00311	0.128	4
Δ9-THC	-	-	0.00311	-	-
Δ8-THC	-	-	0.00311	-	-
THCa	-	-	0.00311	-	-
THCv	-	-	0.00311	-	-
CBC	-	-	0.00311	-	-
CBG	0.0915	0.915	0.00311	0.879	27
CBGa	-	-	0.00311	-	-
CBN	-	-	0.00311	-	-
TOTAL	3.01	30		28.9	904
TOTAL THC	-	-		-	-
TOTAL CBD	2.91	29		27.9	872



UNIT MASS (g): 30

"-" Not detected above RL.

Cannabinoid Distribution (% of Total Cannabinoids)



Deviations from standard operating procedure: None

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 of Oklahoma City, LLC

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



SUMMARY OF ANALYSIS (SAMPLE ID: SA28677)

Testing Location: OKC 3680 E. I-240 Service Rd. Oklahoma City, OK 73135 License: LAAA-4Y4X-Z72Z	Customer ID: 37 Can-Tek Labs 8107 S I-35 Service Rd Oklahoma City, OK 73149 License: Not Entered or N/A	Order ID: OR8948 Lot Number: Not Entered Batch Number: 1862	Sample Type: Primary Matrix: Oil/Tincture Mass: 30g Date Collected: 07/08/2020 Date Received: 07/08/2020
Cultivar (Strain) or Sample Description: CBD Ops Heroes Choice			Date Completed: 07/16/2020

TERPENOID PROFILE

Analysis Date/Time: 06/09/2020 1617 **Method:** HS/GC/FID (Internal Method-002) **Deviations from SOP:**
Analyst: KF **Instrument:** Agilent 6890 None

<u>Terpene</u>	<u>Result (µg/g)</u>	<u>Result (%)</u>
α-Bisabolol	-	-
Camphene	3	0.000334
δ-3-Carene	-	-
β-Caryophyllene	21	0.00206
Caryophyllene oxide	-	-
p-Cymene	-	-
Eucalyptol	2	0.000225
Geraniol	6	0.000599
Guaiol	-	-
α-Humulene	17	0.00171
Isopulegol	-	-
d-Limonene	-	-
Linalool	9	0.000881
β-Myrcene	-	-
cis-Nerolidol	-	-
trans-Nerolidol	-	-
α-Ocimene	3	0.000302
β-Ocimene	5	0.000506
α-Pinene	9	0.000935
β-Pinene	5	0.000451
α-Terpinene	-	-
γ-Terpinene	-	-
Terpinolene	-	-
TOTAL	80	0.008



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 RL.

Reporting Limit (µg/g): -

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Felling Analytical Services and Technology of Oklahoma City, LLC

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

www.FASTLaboratories.com



SUMMARY OF ANALYSIS (SAMPLE ID: SA28677)

Testing Location: OKC 3680 E. I-240 Service Rd. Oklahoma City, OK 73135 License: LAAA-4Y4X-Z72Z	Customer ID: 37 Can-Tek Labs 8107 S I-35 Service Rd Oklahoma City, OK 73149 License: Not Entered or N/A	Order ID: OR8948 Lot Number: Not Entered Batch Number: 1862	Sample Type: Primary Matrix: Oil/Tincture Mass: 30g Date Collected: 07/08/2020 Date Received: 07/08/2020
--	--	--	---

Cultivar (Strain) or Sample Description: CBD Ops Heroes Choice **Date Completed:** 07/16/2020

RESIDUAL SOLVENT PROFILE

Analysis Date/Time: 06/09/2020 1617

Method: USP <467>

Deviations from SOP:

Analyst: KF

Instrument: Agilent 6890

None

Solvent	Result (µg/g)	Action Level (µg/g)
Acetone (67-64-1)	-	1000
Benzene (71-43-2)	-	2
n-Butane (106-97-2)	-	1000
2,2-Dimethylbutane (75-83-2)	-	60
2,3-Dimethylbutane (79-29-8)	-	60
Ethyl benzene (100-41-4)	-	430
n-Heptane (142-82-5)	-	1000
n-Hexane (110-54-3)	-	60
Isobutane (75-28-5)	-	1000
Isopropanol (67-63-0)	-	1000
2-Methylbutane (78-78-4)	-	1000
2-Methylpentane (107-83-5)	-	60
3-Methylpentane (96-10-0)	-	60
n-Pentane (109-66-0)	-	1000
n-Propane (74-98-6)	-	1000
Toluene (108-88-3)	-	180
o-Xylene (95-47-6)	-	430
m,p-Xylene (108-38-3 or 106-42-3)	-	430
Xylenes* (1330-20-7)	-	430

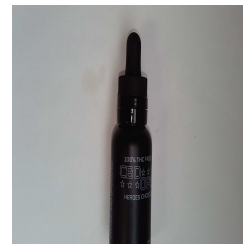
Color Key

RESULT < 1/2 AL
1/2 AL < RESULT < AL
RESULT > AL

Reporting Limit (µg/g)
1/2 of AL

"-" not detected above reporting limit

"*" - o,m,p-Xylene and Ethylbenzene



Solvent	Synonym(s)	Solvent	Synonym(s)	Solvent	Synonym(s)
Acetonitrile	Methyl Cyanide, ACN	2-Ethoxyethanol	Cellosolve, Ethyl glycol	Methanol	Methyl alcohol
1-Butanol	n-Butanol, Butyl Alcohol	Ethyl ether	Diethyl ether, Ether	2-Methylbutane	Isopentane
2-Butanol	sec-Butyl alcohol	Ethyl acetate	EtOAc	Methylene chloride	Dichloromethane
2-Butanone	Methyl ethyl ketone, MEK	Ethyl benzene	Phenylethane	2-Methylpentane	Isohexane
1,2-Dimethoxyethane	Monoglyme	Ethylene glycol	1,2-Ethanediol	1-Pentanol	n-Amyl alcohol
2,3-Dimethylbutane	Neohexane	Ethylene oxide	Oxirane	1-Propanol	Propyl alcohol
2,3-Dimethylbutane	Diisopropyl	Isobutane	2-Methylpropane	Tetrahydrofuran	THF
N,N-Dimethylformamide	DMF	Isopropanol	2-Propanol, IPA	Tetramethylene sulfone	Sulfolane
Dimethylsulfoxide	DMSO	Isopropyl Acetate	Acetic acid isopropyl ester	Xylene	Dimethylbenzene

Abbreviations: HS-Headspace, GC-Gas Chromatography, MS-Mass Spectrometry, RL-Reporting Limit, AL-Action Level
CAS-Chemical Abstract Services

Disclaimer: 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 of Oklahoma City, LLC

www.FASTLaboratories.com



SUMMARY OF ANALYSIS (SAMPLE ID: SA28677)

Testing Location: OKC 3680 E. I-240 Service Rd. Oklahoma City, OK 73135 License: LAAA-4Y4X-Z72Z	Customer ID: 37 Can-Tek Labs 8107 S I-35 Service Rd Oklahoma City, OK 73149 License: Not Entered or N/A	Order ID: OR8948 Lot Number: Not Entered Batch Number: 1862	Sample Type: Primary Matrix: Oil/Tincture Mass: 30g Date Collected: 07/08/2020 Date Received: 07/08/2020
Cultivar (Strain) or Sample Description: CBD Ops Heroes Choice			Date Completed: 07/16/2020

HEAVY METAL PROFILE

Analysis Date/Time: 06/09/2020 1617
Analyst: HL

Method: ICP/MS
Instrument: PerkinElmer Elan 9000

Deviations from SOP:
None

<u>Heavy Metal</u>	<u>Result (µg/kg)</u>	<u>Action Level (µg/kg)</u>
Arsenic (As)	-	400
Cadmium (Cd)	-	440
Lead (Pb)	-	1000
Mercury (Hg)	-	200



Abbreviations: ICP - Inductively-Coupled Plasma, OES - Optical Emission Spectroscopy, MS - Mass Spectroscopy, RL - Reporting Limit, AL - Action Level

Color Key

RESULT < 1/2 AL
1/2 AL < RESULT < AL
RESULT > AL

Reporting Limit (µg/kg)
50

"-" not detected above reporting limit

Disclaimer: 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 of Oklahoma City, LLC

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



SUMMARY OF ANALYSIS (SAMPLE ID: SA28677)

Testing Location: OKC 3680 E. I-240 Service Rd. Oklahoma City, OK 73135 License: LAAA-4Y4X-Z72Z	Customer ID: 37 Can-Tek Labs 8107 S I-35 Service Rd Oklahoma City, OK 73149 License: Not Entered or N/A	Order ID: OR8948 Lot Number: Not Entered Batch Number: 1862	Sample Type: Primary Matrix: Oil/Tincture Mass: 30g Date Collected: 07/08/2020 Date Received: 07/08/2020
Cultivar (Strain) or Sample Description: CBD Ops Heroes Choice			Date Completed: 07/16/2020

MICROBIOLOGICAL PROFILE

Analysis Date/Time: 06/09/2020 1617 **Method:** Hardy Diagnostics CompactDry **Deviations from SOP:**
Analyst: EF **Instrument:** Thermo Incubator None

<u>Bacteria/Microbe</u>	<u>Result (CFU/g)</u>	<u>Action Level (CFU/g)</u>
Escherichia Coli (E. Coli)	Absent	1
Mold/Yeast	Absent	10000
Salmonella spp.	Absent	1
Staphylococcus Aureus	Absent	1



Abbreviations: EC - Escherichia Coli, CFU - Colony-Forming Unit, RL - Reporting Limit, AL - Action Level, TNTC - Too Numerous To Count, NT - Not Tested
Absent - Not Detected Above RL, Present - Detected Above RL

Color Key

RESULT < 1/2 AL
1/2 AL < RESULT < AL
RESULT > AL

Reporting Limit (CFU/g)

1

"-" not detected above reporting limit

Disclaimer: 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 of Oklahoma City, LLC

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

