



510 N Sheridan Road Suite D | Tulsa, OK 74115 | (918) 520-3441 | OMMA #: LAAA-0095-HXSF

Report of Analysis

Report Status: Final

Client Name: Heart and Soil, LLC
Address: 1004 Hwy 54
Guymon, OK 73942
Phone: 806-782-9938
OMMA #: GAAA-RC4Q-LIMD
08/30/2023
Collected:
Harvest/
Production: 12/04/2023
Special Notes:

Lab ID: -8481
Strain: Twizzlers
Matrix: Flower - Cured
Sample Batch #: 1A40E01000147C1000004051
Sample Weight: 10
Received: 12/05/2023



Summary of Results

Potency Profile	
Cannabinoid	Weight %
CBDV	ND
CBDA	ND
CBN	ND
CBD	ND
CBGA	1.83
CBG	0.208
THCV	ND
Δ9-THC	1.53
Δ8-THC	ND
THCA	26.0
CBC	ND
Total THC Delta-9(%)	24.4
Total THC Delta-9(mg/g)	244
Total Cannabinoids (%)	29.6
Total Cannabinoids (mg/g)	296

Microbiological Profile	
All Results	Pass

Heavy Metals Screening	
All Results	Pass

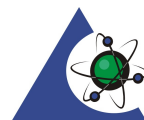
Moisture Content		
All Results	13.06 %	Pass

Terpene Profile	
Terpene	Result %
α-Pinene	0.249
Camphene	< LOQ
Myrcene	1.41
a-Terpinene	< LOQ
β-pinene	0.0946
3-Carene	< LOQ
Ocimene	0.174
Delta-limonene	0.121
p-Cymene	0.0432
Eucalyptol	< LOQ
γ-Terpinene	< LOQ
Terpinolene	< LOQ
Linalool	0.0779
Isopulegol	0.0484
Geraniol	0.0468
β-Caryophyllene	0.585
Humulene	0.236
cis-Nerolidol	0.0682
trans-Nerolidol	0.344
Nerolidol	0.412
Guaiol	0.136
Caryophyllene oxide	0.0555
α-Bisabolol	0.169
Total Terpene %	3.99

Pesticide Screening	
All Results	Pass

Filt and Foreign Materials Screening	
All Results	Pass

NOTES: mg/L = ppm, µg/L = ppb. "<" denotes "less than". ND is non-detectable quantity. This report of analysis may not be modified in any way, or reproduced except in full, without written approval from Transparent Testing. Results as reported relate only to samples as submitted, unless specifically noted otherwise. Measurement uncertainty is available upon request. **The Limit of Detection (LOD)** is the lowest limit at which the method can detect an analyte's presence as greater than zero. **The Limit of Quantitation (LOQ)** is the lowest limit at which the method is accurately able to quantify an analyte. The Threshold is the limit at which the Oklahoma Medical Marijuana Authority (OMMA) deems medical marijuana and marijuana-infused products as safe for use.



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Potency

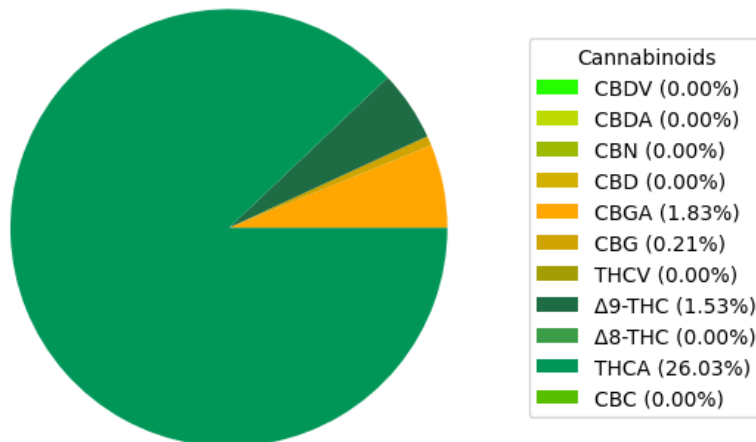
Date Completed: 12/08/2023

Instrument: Agilent 1100 (HPLC) - Agilent (DAD)

Lab Tech: Andrea Burrows

Analyte	Weight (%)	Result (mg/g)	LOQ (mg/g)
CBDV	ND	ND	0.650
CBDA	ND	ND	0.650
CBN	ND	ND	0.650
CBD	ND	ND	0.650
CBGA	1.83	18.3	0.650
CBG	0.208	2.08	0.650
THCV	ND	ND	0.650
Δ9-THC	1.53	15.3	0.650
Δ8-THC	ND	ND	0.650
THCA	26.0	260	0.650
CBC	ND	ND	0.650
Total CBD	ND	ND	
Total THC	24.4	244	

Cannabinoid Distribution (%)



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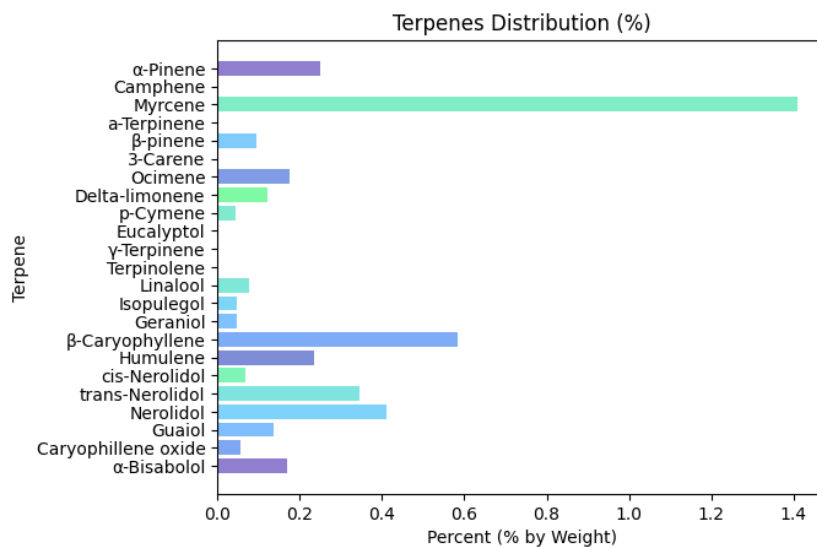
Terpenoid

Date Completed: 12/08/2023

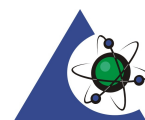
Instrument: HP 6890 (GC) - Agilent (FID)

Lab Tech: Andrea Burrows

Analyte	Result (mg/g)	Result (%)	LOD (µg/mL)	LOQ (µg/mL)
α-Pinene	2.49	0.249	6.25	12.5
Camphene	< LOQ	< LOQ	6.25	12.5
Myrcene	14.1	1.41	6.25	12.5
a-Terpinene	< LOQ	< LOQ	6.25	12.5
β-pinene	0.946	0.0946	6.25	12.5
3-Carene	< LOQ	< LOQ	6.25	12.5
Ocimene	1.74	0.174	6.25	12.5
Delta-limonene	1.21	0.121	6.25	12.5
p-Cymene	0.432	0.0432	6.25	12.5
Eucalyptol	< LOQ	< LOQ	6.25	12.5
γ-Terpinene	< LOQ	< LOQ	6.25	12.5
Terpinolene	< LOQ	< LOQ	6.25	12.5
Linalool	0.779	0.0779	6.25	12.5
Isopulegol	0.484	0.0484	6.25	12.5
Geraniol	0.468	0.0468	6.25	12.5
β-Caryophyllene	5.85	0.585	6.25	12.5
Humulene	2.36	0.236	6.25	12.5
cis-Nerolidol	0.682	0.0682	6.25	12.5
trans-Nerolidol	3.44	0.344	6.25	12.5
Nerolidol	4.12	0.412	6.25	12.5
Guaiol	1.36	0.136	6.25	12.5
Caryophyllene oxide	0.555	0.0555	6.25	12.5
α-Bisabolol	1.69	0.169	6.25	12.5
Total Terpenes:	39.9	3.99		



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Heavy Metals

PASS

Date Completed:

Instrument: Perkin Elmer Elan DRC II (ICP-MS)

Lab Tech: Lab Technician

Analyte	Result (ppm)	Threshold (ppm)	LOD (ppm)	LOQ (ppm)	Pass/Fail
Cadmium	ND *	0.200	0.0500	0.100	Pass
Lead	ND *	0.500	0.125	0.250	Pass
Arsenic	ND *	0.200	0.0500	0.100	Pass
Mercury	ND *	0.100	0.0250	0.0500	Pass

*This test was performed by an outside third-party analytical laboratory. All third party laboratories used by Transparent Testing, LLC have ISO 17025 accreditation and OMMA laboratory license #LAAA-MOXZ-FQ1G.

Microbial Analysis

PASS

Date Completed:

Instrument: Agilent AriaMx (qPCR)

Lab Tech: Ryan Bales

Analyte	Result (CFU/g)	Threshold (CFU/g)	Pass/Fail
Escherichia Coli (E. Coli)	ND	1.00	Pass
Yeast/Mold	ND	10,000	Pass
Salmonella spp	ND	1.00	Pass
Aspergillus Niger	ND	1.00	Pass
Aspergillus Fumigatus	ND	1.00	Pass
Aspergillus Terreus	ND	1.00	Pass
Aspergillus Flavus	ND	1.00	Pass

Pesticide Profile

PASS

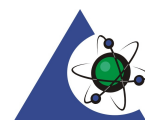
Date Completed: 12/11/2023

Instrument: Agilent 1200 (HPLC) - Agilent 6460 (QQQ)

Lab Tech: Andrea Burrows

Analyte	Result (ppm)	LOQ (ppm)	Threshold (ppm)	Pass/Fail
Abamectin	ND	0.251	0.500	Pass
Azoxystrobin	ND	0.100	0.200	Pass
Bifenazate	ND	0.100	0.200	Pass
Etoxazole	ND	0.100	0.200	Pass
Imazalil	ND	0.100	0.200	Pass
Imidacloprid	ND	0.200	0.400	Pass
Malathion	ND	0.100	0.200	Pass
Myclobutanil	ND	0.100	0.200	Pass
Permethrin	ND	0.100	0.200	Pass
Spinosad	ND	0.100	0.200	Pass
Spiromesifen	ND	0.100	0.200	Pass
Spirotetramat	ND	0.100	0.200	Pass
Tebuconazole	ND	0.200	0.400	Pass

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Foreign Materials

PASS

Date Completed:

Instrument: NA

Lab Tech: Lab Technician

Analyte	Pass/Fail	Comments
Foreign Materials	Pass	N/A

Water Activity

PASS

Date Completed:

Instrument: Rotronic HygroLab6 HC2-AW

Lab Tech: Marchel Crawford

Analyte	Finding	Threshold	Pass/Fail
Water Activity	0.320	0.65	Pass

Moisture Content

PASS

Date Completed:

Instrument: NA

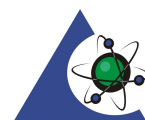
Lab Tech: Marchel Crawford

Analyte	Result (%)	Pass/Fail
Moisture Content	13.1	Pass



Approved By: Lab Director
Transparent Testing, LLC
12/13/2023

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