

SUMMARY OF ANALYSIS (SAMPLE ID: SA2020-22918)

Testing Location:	Customer ID: 1648	Order ID: OR2020-7229	Sample Type: Primary
OKC	Red Dirt Sungrown	Lot Number:	Matrix: Flower
3680 E. I-240 Service Rd.	P.O. Box 1399	MW021403	Mass: 5g
Oklahoma City, OK 73135	Guthrie, OK 73044	Batch Number:	Date Collected: 02/20/2020
License: LAAA-4Y4X-Z72Z	License: GAAA-41RN-M7KD	Not Entered	Date Received: 02/20/2020
Cultivar (Strain) or Sample Description: Maui Wowie			Date Completed: 02/25/2020

*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 (%)	PASS/FAIL	Water Activity (aw)	PASS/FAIL
10.9	PASS	0.26 @ 21.8°C	PASS

<u>Cannabinoids (Top 3)</u>	<u>(%)</u>	<u>mg/g</u>
THCa	20.8	208
CBGa	0.688	7
Δ9-THC	0.285	3
TOTAL CBD	0.0531	0.531
TOTAL THC	18.5	185
TOTAL CANNABINOIDS	21.9	219

<u>Terpenes (Top 5)</u>	<u>(%)</u>	<u>μg/g</u>
β-Myrcene	0.330	3295
d-Limonene	0.295	2951
Terpinolene	0.175	1747
β-Caryophyllene	0.173	1734
β-Pinene	0.104	1043
TOTAL TERPENES	1.25	12464

<u>Contaminants</u>	<u>PASS/FAIL</u>
Heavy Metals:	PASS
Microbiology:	PASS
Mycotoxins:	PASS
Pesticides:	PASS
Visual Inspection:	PASS

Sample Picture Upon Receipt



Scan the QR code to verify results.

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

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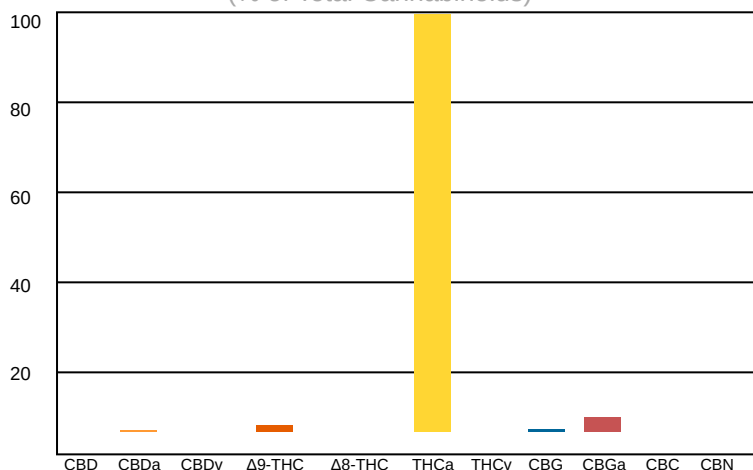
CANNABINOID (POTENCY) PROFILE

Analysis Date/Time: 02/21/2020 1120 **Method:** HPLC/DAD **Moisture Content (%):** 10.9
Analyst: JI **Instrument:** Agilent 1100 **Water Activity (aw):** 0.2601 @ 21.83Å°C

<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	-	-	0.0504	-	-
CBDa	0.0606	0.606	0.0504	-	0.606
CBDv	-	-	0.0504	-	-
Δ9-THC	0.285	2.85	0.0504	-	3
Δ8-THC	-	-	0.0504	-	-
THCa	20.8	208	0.0504	-	208
THCv	-	-	0.0504	-	-
CBC	-	-	0.0504	-	-
CBG	0.108	1.08	0.0504	-	1.08
CBGa	0.688	6.88	0.0504	-	7
CBN	-	-	0.0504	-	-
TOTAL	21.9	219	-	-	219
TOTAL THC	18.5	185	-	-	185
TOTAL CBD	0.0531	0.531	-	-	0.531



Cannabinoid Distribution (% of Total Cannabinoids)



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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

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TERPENOID PROFILE

Analysis Date/Time: 02/21/2020 1120 **Method:** HS/GC/FID (Internal Method-002) **Deviations from SOP:**

Analyst: JS **Instrument:** Agilent 6890 **None**

<u>Terpene</u>	<u>Result</u> (µg/g)	<u>Result</u> (%)	
α-Bisabolol	212	0.0212	
Camphene	88	0.00883	
δ-3-Carene	103	0.0103	
β-Caryophyllene	1734	0.173	
Caryophyllene oxide	126	0.0126	
p-Cymene	-	-	
Eucalyptol	35	0.00347	
Geraniol	33	0.00331	
Guaiol	368	0.0368	
α-Humulene	-	-	
Isopulegol	-	-	
d-Limonene	2951	0.295	
Linalool	38	0.00383	
β-Myrcene	3295	0.33	
cis-Nerolidol	-	-	
trans-Nerolidol	-	-	
α-Ocimene	-	-	
β-Ocimene	-	-	
α-Pinene	597	0.0597	
β-Pinene	1043	0.104	
α-Terpinene	58	0.00581	
γ-Terpinene	35	0.00355	
Terpinolene	1747	0.175	
TOTAL	12464	1.25	



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

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"-" Not detected above RL.

Reporting Limit (µg/g): 2.02

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PESTICIDES PROFILE

Analysis Date/Time: 02/21/2020 1120

Method: LC/MS/MS

Deviations from SOP:

Analyst: DJ

Instrument: Waters Acquity/TQD

None

<u>Pesticide</u>	<u>Result</u> (µg/g)	<u>Action Level</u> (µg/g)
Abamectin (71751-41-2)	-	0.5
Azoxystrobin (131860-33-8)	-	0.5
Bifenazate* (149877-41-8)	-	0.5
Etoazazole (153233-91-1)	-	0.5
Imazalil (35554-44-0)	-	0.5
Imidacloprid (138261-41-3)	-	0.5
Malathion (121-75-5)	-	0.5
Myclobutanil (88671-89-0)	-	0.5
Permethrins* (52645-53-1)	-	0.5
Spinosad A (168316-95-8)	-	0.5
Spinosad D (168316-95-8)	-	0.5
Spiromesifen (283594-90-1)	-	0.5
Spirotetramat (203313-25-1)	-	0.5
Tebuconazole (80443-41-0)	-	0.5

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

"*" analyzed by GC/MS
(all others analyzed by LC/MS/MS)

Permethrins measured as the cumulative residue of the *cis*- and *trans*-permethrin isomers.



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

<u>Pesticide</u>	<u>Synonym(s)</u>	<u>Pesticide</u>	<u>Synonym(s)</u>	<u>Pesticide</u>	<u>Synonym(s)</u>
Cyfluthrin	Baythroid	Myclobutanil	Systhane	Propiconazole	Tilt
DDVP	Dichlorvos	Naled	Dibrom	Propoxur	Baygon
Ethoprophos	Prophos	Phosmet	Imidan		

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MYCOTOXIN PROFILE**Analysis Date/Time:** 02/21/2020 1120**Method:** LC/MS/MS**Deviations from SOP:****Analyst:** DJ**Instrument:** Waters Acquity/TQD

None

Mycotoxin	Result (µg/kg)	Action Level (µg/kg)
Aflatoxin B1	-	20
Aflatoxin B2	-	20
Aflatoxin G1	-	20
Aflatoxin G2	-	20
Ochratoxin A	-	20



Abbreviations: EC - Escherichia Coli, CFU - Colony-Forming Unit,
RL - Reporting Limit, AL - Action Level

Color Key

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

Reporting Limit (CFU/g)

1

"- " not detected above
reporting limit

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HEAVY METAL PROFILE**Analysis Date/Time:** 02/21/2020 1120**Method:** ICP/MS**Deviations from SOP:****Analyst:** CC**Instrument:** PerkinElmer Elan 9000

None

Heavy Metal	Result (µg/kg)	Action Level (µg/kg)
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

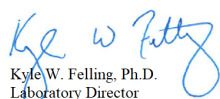
RESULT < 1/2 AL
1/2 AL < RESULT < AL
RESULT > AL

Reporting Limit (µg/kg)
50"- " not detected above
reporting limit

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MICROBIOLOGICAL PROFILE

Analysis Date/Time: 02/21/2020 1120	Method: Hardy Diagnostics CompactDry	Deviations from SOP:
Analyst: KB	Instrument: Thermo Incubator	None

Bacteria/Microbe	Result (CFU/g)	Action Level (CFU/g)
Aerobic Plate Count, Total	90	-
Escherichia Coli (E. Coli)	Absent	1
Mold	Absent	10000
Yeast	Absent	10000
Salmonella spp.	Absent	1



Abbreviations: EC - Escherichia Coli, CFU - Colony-Forming Unit,
RL - Reporting Limit, AL - Action Level, NT - Not Tested

Color Key

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

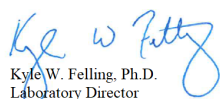
Reporting Limit (CFU/g)
1

"-" not detected above
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