

## SUMMARY OF ANALYSIS (SAMPLE ID: SA25427)

<b>Testing Location:</b> OKC 3680 E. I-240 Service Rd. Oklahoma City, OK 73135 License: LAAA-4Y4X-Z72Z	<b>Customer ID:</b> 1648 Red Dirt Sungrown P.O. Box 1399 Guthrie, OK 73044 License: GAAA-41RN-M7KD	<b>Order ID:</b> OR7942 <b>Lot Number:</b> MZ040306 <b>Batch Number:</b> Not Entered	<b>Sample Type:</b> Primary <b>Matrix:</b> Flower <b>Mass:</b> 5g <b>Date Collected:</b> 04/09/2020 <b>Date Received:</b> 04/09/2020
<b>Cultivar (Strain) or Sample Description:</b> Mandarin Zkittles			<b>Date Completed:</b> 04/13/2020

\*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.

<b>Moisture Content (%)</b> 11.5	<b>PASS/FAIL</b> <b>PASS</b>	<b>Water Activity (aw)</b> 0.42 @ 22.3°C	<b>PASS/FAIL</b> <b>PASS</b>
-------------------------------------	---------------------------------	---	---------------------------------

<u>Cannabinoids (Top 3)</u>	<u>(%)</u>	<u>mg/g</u>
THCa	17	170
CBGa	0.481	5
Δ9-THC	0.325	3
TOTAL CBD	0.0698	0.698
TOTAL THC	15.2	152
TOTAL CANNABINOIDS	18.1	181

<u>Terpenes (Top 5)</u>	<u>(%)</u>	<u>µg/g</u>
β-Caryophyllene	0.161	1612
d-Limonene	0.135	1349
Guaiol	0.123	1231
Linalool	0.083	826
α-Humulene	0.076	761
TOTAL TERPENES	0.662	6623

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



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: SA25427)

<b>Testing Location:</b> OKC 3680 E. I-240 Service Rd. Oklahoma City, OK 73135 License: LAAA-4Y4X-Z72Z	<b>Customer ID:</b> 1648 Red Dirt Sungrown P.O. Box 1399 Guthrie, OK 73044 License: GAAA-41RN-M7KD	<b>Order ID:</b> OR7942 <b>Lot Number:</b> MZ040306 <b>Batch Number:</b> Not Entered	<b>Sample Type:</b> Primary <b>Matrix:</b> Flower <b>Mass:</b> 5g <b>Date Collected:</b> 04/09/2020 <b>Date Received:</b> 04/09/2020
--	--	--	--

**Cultivar (Strain) or Sample Description:** Mandarin Zkittles **Date Completed:** 04/13/2020

### CANNABINOID (POTENCY) PROFILE

**Analysis Date/Time:** 04/09/2020 1206 **Method:** HPLC/DAD **Moisture Content (%):** 11.5  
**Analyst:** WW **Instrument:** Agilent 1100 **Water Activity (aw):** 0.4176 @ 22.32Å°C

Cannabinoid	Result (%)	Result (mg/g)	Reporting Limit (mg/g)	Result (mg/mL)	Per Unit (mg)
CBD	0.0207	0.207	0.0499	-	0.207
CBDa	0.0559	0.559	0.0499	-	0.559
CBDv	0.00613	0.0613	0.0499	-	0.0613
Δ9-THC	0.325	3.25	0.0499	-	3
Δ8-THC	0.0139	0.139	0.0499	-	0.139
THCa	17	170	0.0499	-	170
THCv	0.032	0.32	0.0499	-	0.32
CBC	0.0162	0.162	0.0499	-	0.162
CBG	0.171	1.71	0.0499	-	1.71
CBGa	0.481	4.81	0.0499	-	5
CBN	-	-	0.0499	-	-
<b>TOTAL</b>	<b>18.1</b>	<b>181</b>	-	-	<b>181</b>
<b>TOTAL THC</b>	<b>15.2</b>	<b>152</b>	-	-	<b>152</b>
<b>TOTAL CBD</b>	<b>0.0698</b>	<b>0.698</b>	-	-	<b>0.698</b>

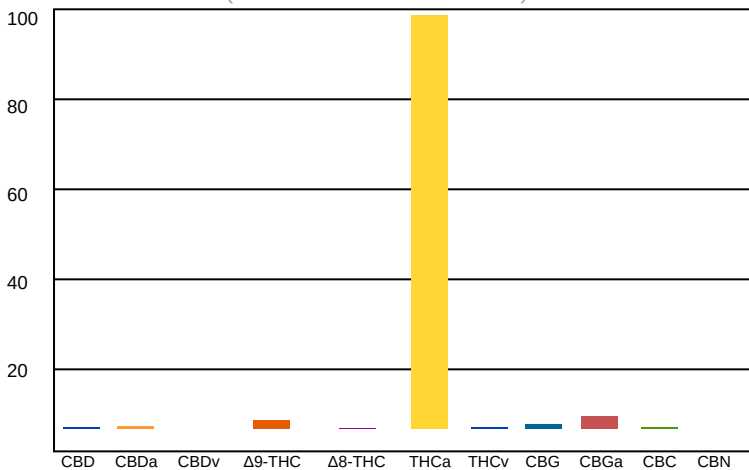


**UNIT MASS (g): 1**

"-" 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: SA25427)**

<b>Testing Location:</b> OKC 3680 E. I-240 Service Rd. Oklahoma City, OK 73135 License: LAAA-4Y4X-Z72Z	<b>Customer ID:</b> 1648 Red Dirt Sungrown P.O. Box 1399 Guthrie, OK 73044 License: GAAA-41RN-M7KD	<b>Order ID:</b> OR7942 <b>Lot Number:</b> MZ040306 <b>Batch Number:</b> Not Entered	<b>Sample Type:</b> Primary <b>Matrix:</b> Flower <b>Mass:</b> 5g <b>Date Collected:</b> 04/09/2020 <b>Date Received:</b> 04/09/2020
<b>Cultivar (Strain) or Sample Description:</b> Mandarin Zkittles			<b>Date Completed:</b> 04/13/2020

**TERPENOID PROFILE**

**Analysis Date/Time:** 04/09/2020 1206      **Method:** HS/GC/FID (Internal Method-002)      **Deviations from SOP:**  
**Analyst:** DJ      **Instrument:** Agilent 6890      None

<u>Terpene</u>	<u>Result (µg/g)</u>	<u>Result (%)</u>	
α-Bisabolol	227	0.0227	█
Camphene	-	-	
δ-3-Carene	-	-	
β-Caryophyllene	1612	0.161	█
Caryophyllene oxide	-	-	
p-Cymene	-	-	
Eucalyptol	-	-	
Geraniol	-	-	
Guaiol	1231	0.123	█
α-Humulene	761	0.0761	█
Isopulegol	-	-	
d-Limonene	1349	0.135	█
Linalool	826	0.0826	█
β-Myrcene	134	0.0134	█
cis-Nerolidol	-	-	
trans-Nerolidol	-	-	
α-Ocimene	-	-	
β-Ocimene	-	-	
α-Pinene	158	0.0158	█
β-Pinene	325	0.0325	█
α-Terpinene	-	-	
γ-Terpinene	-	-	
Terpinolene	-	-	
<b>TOTAL</b>	<b>6623</b>	<b>0.662</b>	



*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): 2**

**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: SA25427)

<b>Testing Location:</b> OKC 3680 E. I-240 Service Rd. Oklahoma City, OK 73135 License: LAAA-4Y4X-Z72Z	<b>Customer ID:</b> 1648 Red Dirt Sungrown P.O. Box 1399 Guthrie, OK 73044 License: GAAA-41RN-M7KD	<b>Order ID:</b> OR7942 <b>Lot Number:</b> MZ040306 <b>Batch Number:</b> Not Entered	<b>Sample Type:</b> Primary <b>Matrix:</b> Flower <b>Mass:</b> 5g <b>Date Collected:</b> 04/09/2020 <b>Date Received:</b> 04/09/2020
<b>Cultivar (Strain) or Sample Description:</b> Mandarin Zkittles			<b>Date Completed:</b> 04/13/2020

## PESTICIDES PROFILE

**Analysis Date/Time:** 04/09/2020 1206  
**Analyst:** DJ

**Method:** LC/MS/MS  
**Instrument:** Waters Acquity/TQD

**Deviations from SOP:**  
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	Sythane	Propiconazole	Tilt
DDVP	Dichlorvos	Naled	Dibrom	Propoxur	Baygon
Ethoprophos	Prophos	Phosmet	Imidan		

**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



## SUMMARY OF ANALYSIS (SAMPLE ID: SA25427)

<b>Testing Location:</b> OKC 3680 E. I-240 Service Rd. Oklahoma City, OK 73135 License: LAAA-4Y4X-Z72Z	<b>Customer ID:</b> 1648 Red Dirt Sungrown P.O. Box 1399 Guthrie, OK 73044 License: GAAA-41RN-M7KD	<b>Order ID:</b> OR7942 <b>Lot Number:</b> MZ040306 <b>Batch Number:</b> Not Entered	<b>Sample Type:</b> Primary <b>Matrix:</b> Flower <b>Mass:</b> 5g <b>Date Collected:</b> 04/09/2020 <b>Date Received:</b> 04/09/2020
<b>Cultivar (Strain) or Sample Description:</b> Mandarin Zkittles			<b>Date Completed:</b> 04/13/2020

### MYCOTOXIN PROFILE

**Analysis Date/Time:** 04/09/2020 1206

**Analyst:** DJ

**Method:** LC/MS/MS

**Instrument:** Waters Acquity/TQD

**Deviations from SOP:**

None

<u>Mycotoxin</u>	<u>Result (µg/kg)</u>	<u>Action Level (µg/kg)</u>
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

*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

[www.FASTLaboratories.com](http://www.FASTLaboratories.com)



**SUMMARY OF ANALYSIS (SAMPLE ID: SA25427)**

<b>Testing Location:</b> OKC 3680 E. I-240 Service Rd. Oklahoma City, OK 73135 License: LAAA-4Y4X-Z72Z	<b>Customer ID:</b> 1648 Red Dirt Sungrown P.O. Box 1399 Guthrie, OK 73044 License: GAAA-41RN-M7KD	<b>Order ID:</b> OR7942 <b>Lot Number:</b> MZ040306 <b>Batch Number:</b> Not Entered	<b>Sample Type:</b> Primary <b>Matrix:</b> Flower <b>Mass:</b> 5g <b>Date Collected:</b> 04/09/2020 <b>Date Received:</b> 04/09/2020
<b>Cultivar (Strain) or Sample Description:</b> Mandarin Zkittles			<b>Date Completed:</b> 04/13/2020

**HEAVY METAL PROFILE**

**Analysis Date/Time:** 04/09/2020 1206  
**Analyst:** CC

**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: SA25427)**

<b>Testing Location:</b> OKC 3680 E. I-240 Service Rd. Oklahoma City, OK 73135 License: LAAA-4Y4X-Z72Z	<b>Customer ID:</b> 1648 Red Dirt Sungrown P.O. Box 1399 Guthrie, OK 73044 License: GAAA-41RN-M7KD	<b>Order ID:</b> OR7942 <b>Lot Number:</b> MZ040306 <b>Batch Number:</b> Not Entered	<b>Sample Type:</b> Primary <b>Matrix:</b> Flower <b>Mass:</b> 5g <b>Date Collected:</b> 04/09/2020 <b>Date Received:</b> 04/09/2020
<b>Cultivar (Strain) or Sample Description:</b> Mandarin Zkittles			<b>Date Completed:</b> 04/13/2020

**MICROBIOLOGICAL PROFILE**

**Analysis Date/Time:** 04/09/2020 1206      **Method:** Hardy Diagnostics CompactDry      **Deviations from SOP:**  
**Analyst:** KB      **Instrument:** Thermo Incubator      None

<u>Bacteria/Microbe</u>	<u>Result (CFU/g)</u>	<u>Action Level (CFU/g)</u>
Aerobic Plate Count, Total	Absent	-
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 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

