

**Oklahoma City Location** 3680 E I-240 Service Rd Oklahoma City, OK 73135 (405) 595-0344 **Tulsa Location** 14720 E Admiral Pl, Ste H Tulsa, OK 74108 (918) 340-7139

### SUMMARY OF ANALYSIS (SAMPLE ID: SA2020-22916)

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	AOG021401	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 I	Description: Alien OG		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
11.6	PASS	0.26 @ 21.8°C	PASS
Cannabinoi	ds (Top 3)	<u>(%)</u>	mg/g
THO	Ca	29.6	296
Δ9-Τ	HC	0.786	8
CBC	Ja	0.568	6
TOTAL	CBD	0.0705	0.705
TOTAL	THC	26.7	267
TOTAL CANN	IABINOIDS	31.3	313
Terpenes	<u>(Top 5)</u>	<u>(%)</u>	<u>µg/g</u>
β-Myr	cene	0.633	6331
β-Caryop	hyllene	0.438	4376
d-Limo	nene	0.214	2139
α-Hum	ulene	0.204	2042
α-Bisal	oolol	0.074	738
TOTAL TE	RPENES	1.74	17368
<b>Contaminants</b>	PASS/FAIL	Sample Picture Up	on Receipt
Heavy Metals:	PASS		
Microbiology:	PASS		
Mycotoxins:	PASS	-	
Pesticides:	PASS	Alien 06	
Visual Inspection:	PASS	A06021401	



Kyle W. Felling, Ph.D. Laboratory Director 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

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### **CANNABINOID (POTENCY) PROFILE**

Analysis Date/Time: 02/21/2020 1051 Analyst: JI

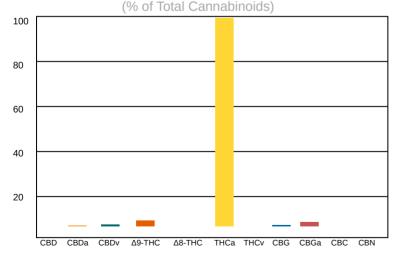
Method: HPLC/DAD

Instrument: Agilent 1100

Moisture Content (%): 11.6 Water Activity (aw): 0.2601 @ 21.83°C

<u>Cannabinoid</u>	<u>Result</u> (%)	<u>Result</u> (mg/g)	<u>Reporting Limit</u> (mg/g)	<u>Result</u> (mg/mL)	<u>Per Unit</u> (mg)		
CBD	-	-	0.0514	<u>(g,)</u> -	<u>(g)</u> -		
CBDa	0.0804	0.804	0.0514	-	0.804	(mar 1)	
CBDv	0.177	1.77	0.0514	-	1.77	Alie	n 06
Δ9-ΤΗC	0.786	7.86	0.0514	-	8		
<b>Δ8-</b> THC	-	-	0.0514	-	-	AOGO	521401
THCa	29.6	296	0.0514	-	296	( and the second	
THCv	-	-	0.0514	-	-		
CBC	-	-	0.0514	-	-		
CBG	0.122	1.22	0.0514	-	1.22		
CBGa	0.568	5.68	0.0514	-	6		
CBN	-	-	0.0514	-	-		
TOTAL	31.3	313		-	313		UN
TOTAL THC	26.7	267		-	267	"_"	' Not dete
TOTAL CBD	0.0705	0.705		-	0.705		

# **Cannabinoid Distribution**



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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) +  $\Delta$ 9-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: Analyst: JS	: 02/21/2020 1051	<b>Method:</b> HS/GC/FID (Internal Method-002) <b>Instrument:</b> Agilent 6890		<b>Deviations from SOP:</b> None
<u>Terpene</u>	<u>Result</u> (µg/g)	<u>Result</u> (%)		
α-Bisabolol	738	0.0738		
Camphene	63	0.00633		
δ-3-Carene	-	-		llien 06
β-Caryophyllene	4376	0.438	A	06021401
Caryophyllene oxide	224	0.0224		
p-Cymene	-	-		
Eucalyptol	-	-		
Geraniol	48	0.00479		
Guaiol	-	-		s: HS - Headspace, GC -
α-Humulene	2042	0.204		is Chromatography, MS - Mass ectrometry, RL - Reporting Limit
Isopulegol	-	-		tion is provided as a
d-Limonene	2139	0.214	service and n	nakes no claims of efficacy
Linalool	458	0.0458		of this product.
β-Myrcene	6331	0.633		alyzed and for the specific
cis-Nerolidol	-	-	· · · · · ·	for informational
trans-Nerolidol	-	-	purposes only	y and should not be used to
α-Ocimene	-	-	-	at, or prevent any ed symptoms.
β-Ocimene	93	0.00931		its and results herein have
α-Pinene	211	0.0211	not been app	roved and/or endorsed by
β-Pinene	478	0.0478	the FDA.	
α-Terpinene	-	-		
γ-Terpinene	-	-		
Terpinolene	167	0.0167	"-" Not detec	ted above RL.
TOTAL	17368	1.74		Reporting Limit (µg/g)





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Cultivar (Strain) or Sample 1	Description: Alien OG		Date Completed: 02/25/2020

# **Analysis Date/Time:** 02/21/2020 1051 Analyst: DJ

## **PESTICIDES PROFILE**

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

# **Deviations from SOP:**

None

Pesticide	<u>Result</u> (µg/g)	<u>Action Level</u> (µg/g)	<u>Color Key</u>
Abamectin (71751-41-2)	-	0.5	RESULT < 1/2 AL
Azoxystrobin (131860-33-8)	-	0.5	$1/2$ AL $\leq$ RESULI $\leq$ AL ADG021401
Bifenazate* (149877-41-8)	-	0.5	RESULT > AL
Etoxazole (153233-91-1)	-	0.5	Reporting Limit (µg/g)
Imazalil (35554-44-0)	-	0.5	1/2 of AL
Imidacloprid (138261-41-3)	-	0.5	
Malathion (121-75-5)	-	0.5	"-" not detected above reporting limit
Myclobutanil (88671-89-0)	-	0.5	reporting mint
Permethrins* (52645-53-1)	-	0.5	"*" analyzed by GC/MS
Spinosad A (168316-95-8)	-	0.5	(all others analyzed
Spinosad D (168316-95-8)	-	0.5	by LC/MS/MS)
Spiromesifen (283594-90-1)	-	0.5	Permethrins measured as
Spirotetramat (203313-25-1)	-	0.5	the cumulative residue of
Tebuconazole (80443-41-0)	-	0.5	the <i>cis</i> - and <i>trans</i> - permethrin isomers.

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

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





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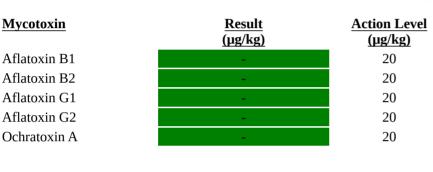
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# **MYCOTOXIN PROFILE**

Analysis Date/Time: 02/21/2020 1051 Analyst: DJ

Method: LC/MS/MS Instrument: Waters Acquity/TQD **Deviations from SOP:** None





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

### **Color Key**



**Reporting Limit (CFU/g)** 1

"-" not detected above reporting limit

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# HEAVY METAL PROFILE

Analysis Date/Time: 02/21/2020 1051

Method: ICP/MS Instrument: PerkinElmer Elan 9000 **Deviations from SOP:** None

**Heavy Metal** Arsenic (As) Cadmium (Cd)

Analyst: CC

Lead (Pb) Mercury (Hg)

<u>Result</u> (µg/kg)	<u>Action Level</u> <u>(μg/kg)</u>
-	400
-	440
-	1000
-	200



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

#### Color Key



Reporting Limit (µg/kg) 50

"-" not detected above reporting limit

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Cultivar (Strain) or Sample I	Date Completed: 02/25/2020		

## MICROBIOLOGICAL PROFILE

Analysis Date/Time: 02/21/2020 1051		od: Hardy Diagnostics Compact	Dry <b>Deviations from SOP:</b>
Analyst: KB		<b>ment:</b> Thermo Incubator	None
Bacteria/Microbe	<u>Result</u> (CFU/g)	Action Level (CFU/g)	
Aerobic Plate Count, Total	70	-	
Escherichia Coli (E. Coli)	Absent	1	
Mold	Absent	10000	Alien 06
Yeast	Absent	10000	A0G021401
Salmonella spp.	Absent	1	(And and a second se

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

#### **Color Key**



**Reporting Limit (CFU/g)** 1

"-" not detected above reporting limit

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