

## CERTIFICATE OF ANALYSIS

**Order Type:** Medical Cannabis  
**Order ID:** OR2019-2419

**Customer ID:** 482  
**Customer Name:** Magpie Processing

**Harvest/Extract Lot:** None  
**Harvest/Extract Batch:** None

**Cultivar (Strain):** Gummies  
**Sample Date:** 07/15/2019

**Lab ID:** SA2019-7812  
**Date Received:** 07/15/2019

**Sample Matrix:** Edible  
**Date Completed:** 07/16/2019

**Remarks:** ENCORE - 1:1 - THC : CBD

### CANNABINOID (POTENCY) PROFILE

**Analysis Date/Time:** 07/16/2019 0536  
**Analyst:** OL

**Method:** HPLC/DAD (Internal Method-001)  
**Instrument:** Agilent 1100

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

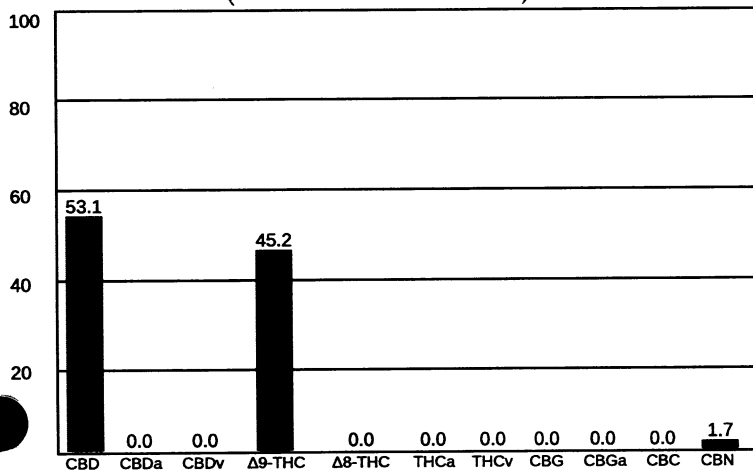
Cannabinoid	Result (%)	Result (mg/g)	Reporting Limit (mg/g)	Result (mg/mL)	Per Unit (mg)
CBD	0.286	2.86	0.0251	-	23
CBDa	-	-	0.0251	-	-
CBDv	-	-	0.0251	-	-
Δ9-THC	0.243	2.43	0.0251	-	19
Δ8-THC	-	-	0.0251	-	-
THCa	-	-	0.0251	-	-
THCv	-	-	0.0251	-	-
CBC	-	-	0.0251	-	-
CBG	-	-	0.0251	-	-
CBGa	-	-	0.0251	-	-
CBN	0.00933	0.0933	0.0251	-	0.747
<b>TOTAL</b>	<b>0.539</b>	<b>5.39</b>			<b>43</b>
<b>TOTAL THC</b>	<b>0.243</b>	<b>2.43</b>			<b>19</b>
<b>TOTAL CBD</b>	<b>0.286</b>	<b>2.86</b>			<b>23</b>



**UNIT MASS (g):** 8

"-" 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

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**F.A.S.T.**  
**LABORATORIES/RESEARCH**

**Arkansas Location**

*Laboratory Address:* 232 S. Broadview St.  
Greenbrier, AR 72058  
*Telephone:* (501) 679-2616

**Oklahoma Location**

*Laboratory Address:* 3680 E. Interstate 240 Service Rd.  
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**CERTIFICATE OF ANALYSIS**

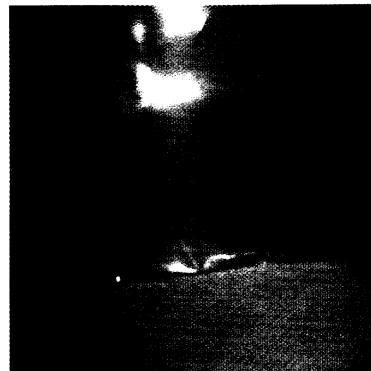
**Order Type:** Medical Cannabis

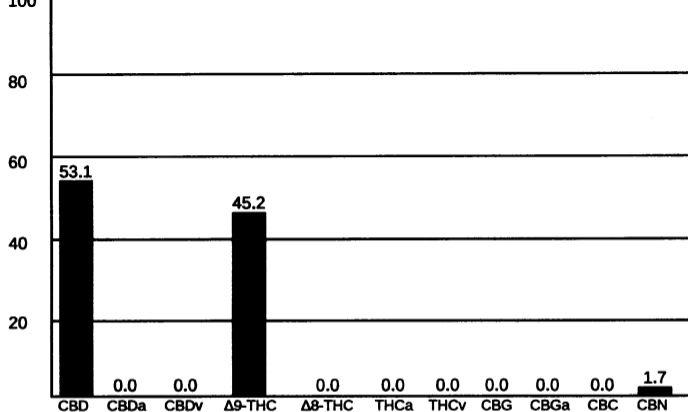
**Customer ID:** 482

**Harvest/Extract Lot:** None

**CANNABINOID (POTENCY) PROFILE****Analysis Date/Time:** 07/16/2019 0536**Method:** HPLC/DAD (Internal Method-001)**Moisture Content (%):****Analyst:** OL**Instrument:** Agilent 1100**Water Activity (aw):** -

<u>Cannabinoid</u>	<u>Result</u> <u>(%)</u>	<u>Result</u> <u>(mg/g)</u>	<u>Reporting Limit</u> <u>(mg/g)</u>	<u>Result</u> <u>(mg/mL)</u>	<u>Per Unit</u> <u>(mg)</u>
CBD	0.286	2.86	0.0251	-	23
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$\Delta$ 9-THC	0.243	2.43	0.0251	-	19
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THCv	-	-	0.0251	-	-
CBC	-	-	0.0251	-	-
CBG	-	-	0.0251	-	-
CBGa	-	-	0.0251	-	-
CBN	0.00933	0.0933	0.0251	-	0.747





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$$\text{Total THC} = (\text{THCa} \times 0.877) + \Delta 9\text{-THC}$$

$$\text{Total CBD} = (\text{CBDa} \times 0.877) + \text{CBD}$$

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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## CERTIFICATE OF ANALYSIS

Order Type: Medical Cannabis  
 Order ID: OR2019-2429

Customer ID: 482  
 Customer Name: Magpie Processing

Harvest/Extract Lot: None  
 Harvest/Extract Batch: None

Cultivar (Strain): Gummies (Orange)  
 Sample Date: 07/16/2019

Lab ID: SA2019-7850  
 Date Received: 07/16/2019

Sample Matrix: Edible  
 Date Completed: 07/22/2019

Remarks:

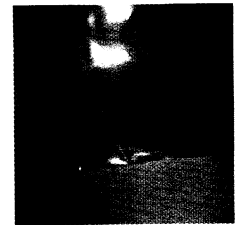
### RESIDUAL SOLVENT PROFILE

Analysis Date/Time: 07/16/2019 0536  
 Analyst: OL

Method: USP <467>  
 Instrument: Agilent 6890

Deviations from SOP:  
 None

Solvent	Result (µg/g)	Action Level (µg/g)	Solvent	Result (µg/g)	Action Level (µg/g)
Acetone (67-64-1)		5000	n-Heptane (142-82-5)		5000
Acetonitrile (75-5-8)		410	n-Hexane (110-54-3)		290
Benzene (71-43-2)		2	Isobutane (75-28-5)		5000
n-Butane (106-97-2)		5000	Isopropanol (67-63-0)		5000
1-Butanol (71-36-3)		5000	Isopropyl acetate (108-21-4)		5000
2-Butanol (78-92-2)		5000	Isopropyl benzene (98-82-8)		70
2-Butanone (78-93-3)		5000	Methanol (67-56-1)		3000
Cyclohexane (110-82-7)		3880	2-Methylbutane (78-78-4)		5000
1,2-Dimethoxyethane (110-71-4)		100	Methylene chloride (75-9-2)		600
N,N-Dimethylacetamide (127-19-5)		1090	2-Methylpentane (107-83-5)		290
2,2-Dimethylbutane (75-83-2)		290	3-Methylpentane (96-10-0)		290
2,3-Dimethylbutane (79-29-8)		290	n-Pentane (109-66-0)		5000
N,N-Dimethylformamide (68-12-2)		880	1-Pentanol (71-41-0)		5000
Dimethylsulfoxide (67-68-5)		5000	n-Propane (74-98-6)		5000
1,4-Dioxane (123-91-1)		380	1-Propanol (71-23-8)		5000
Ethanol (64-17-5)		5000	Pyridine (110-86-1)		200
2-Ethoxyethanol (110-80-5)		160	Tetrahydrofuran (109-99-9)		720
Ethyl ether (60-29-7)		5000	Tetramethylene sulfone (126-33-0)		160
Ethyl acetate (141-78-6)		5000	Toluene (108-88-3)		890
Ethyl benzene (100-41-4)		217	o-Xylene (95-47-6)		2170
Ethylene glycol (107-21-1)		620	m,p-Xylene (108-38-3 or 106-42-3)		2170
Ethylene oxide (75-21-8)		50	Xylenes* (1330-20-7)		2170



Color Key

1/2 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

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### REPORT OF LABORATORY ANALYSIS

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www.FASTLaboratories.com

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

## CERTIFICATE OF ANALYSIS

Order Type: Medical Cannabis  
 Order ID: OR2019-2429

Customer ID: 482  
 Customer Name: Magpie Processing

Harvest/Extract Lot: None  
 Harvest/Extract Batch: None

Cultivar (Strain): Gummies (Orange)  
 Sample Date: 07/16/2019

Lab ID: SA2019-7850  
 Date Received: 07/16/2019

Sample Matrix: Edible  
 Date Completed: 07/22/2019

Remarks:

### PESTICIDES PROFILE

Analysis Date/Time: 07/16/2019 0536  
 Analyst: OL

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

Deviations from SOP:  
 None

Pesticide	Result (µg/g)	Action Level (µg/g)	Pesticide	Result (µg/g)	Action Level (µg/g)
Abamectin (71751-41-2)		0.1	Imazalil (35554-44-0)		0.1
Acephate (30560-19-1)		0.1	Imidacloprid (138261-41-3)		0.1
Acequinocyl (57960-19-7)		0.1	Kresoxim-methyl* (143390-89-0)		0.1
Acetamiprid (135410-20-7)		0.1	Malathion (121-75-5)		0.1
Aldicarb (116-06-3)		0.1	Metalaxyl* (57837-19-1)		0.1
Azoxystrobin (131860-33-8)		0.1	Methiocarb (2032-65-7)		0.1
Bifenazate* (149877-41-8)		0.1	Methomyl (16752-77-5)		0.1
Bifenthrin* (82657-04-3)		0.1	Methyl parathion* (298-0-0)		0.1
Boscalid* (188425-85-6)		0.1	MGK 264* (113-48-4)		0.1
Carbaryl (63-25-2)		0.1	Myclobutanil (88671-89-0)		0.1
Carbofuran (1563-66-2)		0.1	Naled (300-76-5)		0.1
Chlorantraniliprole (800008-45-7)		0.1	Oxamyl (23135-22-0)		0.1
Chlorfenapyr* (122453-73-0)		0.1	Paclobotrazol* (76738-62-0)		0.1
Chlorpyrifos* (2921-88-2)		0.1	Permethrins* (52645-53-1)		0.1
Clofentezine (74115-24-5)		0.1	Phosmet* (732-11-6)		0.1
Cyfluthrin* (68359-37-5)		0.1	Piperonyl butoxide* (51-03-6)		0.1
Cypermethrin* (52315-07-8)		0.1	Prallethrin* (2331-36-9)		0.1
Daminozide (1596-84-5)		0.1	Propiconazole (60207-90-1)		0.1
DDVP (62-73-7)		0.1	Propoxur* (114-26-1)		0.1
Diazinon* (333-41-5)		0.1	Pyrethrins* (8003-34-7)		0.1
Dimethoate (60-51-5)		0.1	Pyridaben* (96489-71-3)		0.1
Ethoprophos* (13194-48-4)		0.1	Spinosad A (168316-95-8)		0.1
Etofenprox (80844-07-1)		0.1	Spinosad D (168316-95-8)		0.1
Etoxazole (153233-91-1)		0.1	Spiromesifen (283594-90-1)		0.1
Fenoxycarb (72490-01-8)		0.1	Spirotetramat (203313-25-1)		0.1
(E)-Fenpyroximate (134098-61-6)		0.1	Spiroxamine (118134-30-8)		0.1
Fipronil* (120068-37-3)		0.1	Tebuconazole (80443-41-0)		0.1
Fonicamid (158062-67-0)		0.1	Thiacloprid (111988-49-9)		0.1
Fludioxinil (131341-86-1)		0.1	Thiamethoxam (153719-23-4)		0.1
Hexythiazox (78587-05-0)		0.1	Trifloxystrobin* (141517-21-7)		0.1



Color Key

1/2 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.

Pyrethrin measured as the cumulative residue of pyrethrin I, cinerin I, and jasmolin I.

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

Pesticide	Synonym(s)	Pesticide	Synonym(s)	Pesticide	Synonym(s)
Cyfluthrin	Baythroid	Myclobutanil	Sythane	Propiconazole	Tilt
DDVP	Dichlorvos	Naled	Dibrom	Propoxur	Baygon
Ethoprophos	Prophos	Phosmet	Imidan		

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*Kyle W. Felling*  
 Kyle W. Felling, Ph.D.  
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### Arkansas Location

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### Oklahoma Location

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## CERTIFICATE OF ANALYSIS

Order Type: Medical Cannabis

Order ID: OR2019-2429

Customer ID: 482

Customer Name: Maggie Processing

Harvest/Extract Lot: None

Harvest/Extract Batch: None

Cultivar (Strain): Gummies (Orange)

Sample Date: 07/16/2019

Lab ID: SA2019-7850

Date Received: 07/16/2019

Sample Matrix: Edible

Date Completed: 07/22/2019

Remarks:

### MYCOTOXIN PROFILE

Analysis Date/Time: 07/16/2019 0536

Analyst: OL

Method: LC/MS/MS

Instrument: Waters Acquity/TQD

Deviations from SOP:

None

#### Mycotoxin

Result  
(µg/kg)

Action Level  
(µg/kg)

Aflatoxin B1

20

Aflatoxin B2

20

Aflatoxin G1

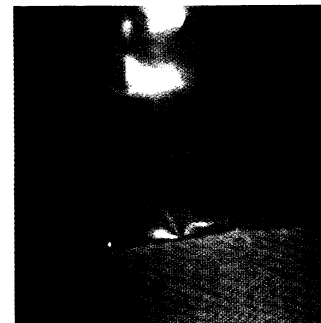
20

Aflatoxin G2

20

Ochratoxin A

20



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

#### Color Key

1/2 AL < RESULT < AL

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**Lab ID:** SA2019-7850

**Sample Matrix:** Edible

**Sample Date:** 07/16/2019

**Date Received:** 07/16/2019

**Date Completed:** 07/22/2019

**Remarks:**

### HEAVY METAL PROFILE

**Analysis Date/Time:** 07/16/2019 0536

**Method:** ICP/MS

**Deviations from SOP:**

**Analyst:** OL

**Instrument:** PerkinElmer Elan 9000

None

#### Heavy Metal

#### Result (µg/kg)

#### Action Level (µg/kg)

Arsenic (As)



200

Cadmium (Cd)



200

Lead (Pb)

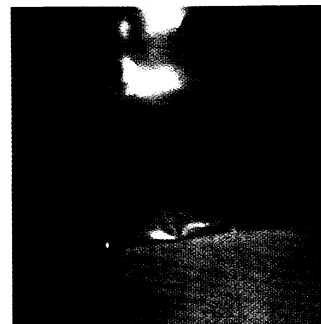


100

Mercury (Hg)



500



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Customer ID: 482

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Sample Date: 07/16/2019

Lab ID: SA2019-7850

Date Received: 07/16/2019

Sample Matrix: Edible

Date Completed: 07/22/2019

Remarks:

### MICROBIOLOGICAL PROFILE

Analysis Date/Time: 07/16/2019 0536

Analyst: OL

Method: Hardy Diagnostics CompactDry

Instrument:

Deviations from SOP:

None

#### Bacteria/Microbe

Result  
(CFU/g)

Action Level  
(CFU/g)

Aerobic Plate Count, Total

100

Coliforms, Total

100

Escherichia Coli (E. Coli)

1

Mold

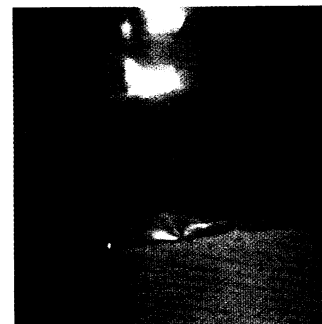
104

Yeast

104

Salmonella spp.

1



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

#### Color Key

1/2 AL < RESULT < AL

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