

CERTIFICATE OF ANALYSIS

Order Type: Cannabis
Order ID: OR2019-6143

Customer ID: 1648
Customer Name: Red Dirt Sungrown

Harvest/Extract Lot: LC121901
Harvest/Extract Batch: None

Cultivar (Strain): Lilac Cookies
Sample Date: 12/19/2019

Lab ID: SA2019-19299
Date Received: 12/19/2019

Sample Matrix: Flower
Date Completed: 12/26/2019

Remarks:

CANNABINOID (POTENCY) PROFILE

Analysis Date/Time: 12/24/2019 0800
Analyst: OL

Method: HPLC/DAD
Instrument: Agilent 1100

Moisture Content (%): 12.5
Water Activity (aw): 0.3994 @ 23.14°C

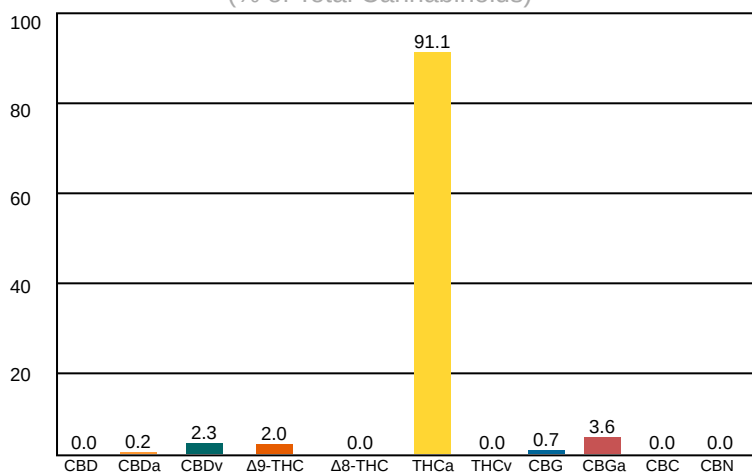
Cannabinoid	Result (%)	Result (mg/g)	Reporting Limit (mg/g)	Result (mg/mL)	Per Unit (mg)
CBD	-	-	0.0502	-	-
CBDa	0.0511	0.511	0.0502	-	0.511
CBDv	0.521	5.21	0.0502	-	5
Δ9-THC	0.466	4.66	0.0502	-	5
Δ8-THC	-	-	0.0502	-	-
THCa	20.8	208	0.0502	-	208
THCv	-	-	0.0502	-	-
CBC	-	-	0.0502	-	-
CBG	0.165	1.65	0.0502	-	1.65
CBGa	0.833	8.33	0.0502	-	8
CBN	-	-	0.0502	-	-
TOTAL	22.9	229			229
TOTAL THC	18.7	187			187
TOTAL CBD	0.0448	0.448			0.448



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 (F.A.S.T.), LLC

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

www.FASTLaboratories.com

CERTIFICATE OF ANALYSIS

Order Type: Cannabis
Order ID: OR2019-6143

Customer ID: 1648
Customer Name: Red Dirt Sungrown

Harvest/Extract Lot: LC121901
Harvest/Extract Batch: None

Cultivar (Strain): Lilac Cookies
Sample Date: 12/19/2019

Lab ID: SA2019-19299
Date Received: 12/19/2019

Sample Matrix: Flower
Date Completed: 12/26/2019

Remarks:

TERPENOID PROFILE

Analysis Date/Time: 12/24/2019 0800
Analyst: OL

Method: HS/GC/FID (Internal Method-002)
Instrument: Agilent 6890

Deviations from SOP:
None

Terpene	Result (µg/g)	Result (%)	
α-Bisabolol	-	-	
Camphene	144	0.0144	
δ-3-Carene	-	-	
β-Caryophyllene	8326	0.833	
Caryophyllene oxide	992	0.0992	
p-Cymene	64	0.0064	
Eucalyptol	-	-	
Geraniol	-	-	
Guaiol	-	-	
α-Humulene	2922	0.292	
Isopulegol	-	-	
d-Limonene	1546	0.155	
Linalool	248	0.0248	
β-Myrcene	3068	0.307	
cis-Nerolidol	-	-	
trans-Nerolidol	-	-	
α-Ocimene	-	-	
β-Ocimene	536	0.0536	
α-Pinene	364	0.0364	
β-Pinene	456	0.0456	
α-Terpinene	132	0.0132	
γ-Terpinene	-	-	
Terpinolene	836	0.0836	
TOTAL	19634	1.96	



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): 200

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Felling Analytical Services and Technology (F.A.S.T.), LLC

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

www.FASTLaboratories.com

CERTIFICATE OF ANALYSIS

Order Type: Cannabis
Order ID: OR2019-6143

Customer ID: 1648
Customer Name: Red Dirt Sungrown

Harvest/Extract Lot: LC121901
Harvest/Extract Batch: None

Cultivar (Strain): Lilac Cookies
Sample Date: 12/19/2019

Lab ID: SA2019-19299
Date Received: 12/19/2019

Sample Matrix: Flower
Date Completed: 12/26/2019

Remarks:

PESTICIDES PROFILE

Analysis Date/Time: 12/24/2019 0800
Analyst: OL

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

<u>Color Key</u>
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		

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 (F.A.S.T.), LLC

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

www.FASTLaboratories.com

CERTIFICATE OF ANALYSIS**Order Type:** Cannabis
Order ID: OR2019-6143**Customer ID:** 1648
Customer Name: Red Dirt Sungrown**Harvest/Extract Lot:** LC121901
Harvest/Extract Batch: None**Cultivar (Strain):** Lilac Cookies
Sample Date: 12/19/2019**Lab ID:** SA2019-19299
Date Received: 12/19/2019**Sample Matrix:** Flower
Date Completed: 12/26/2019**Remarks:****MYCOTOXIN PROFILE****Analysis Date/Time:** 12/24/2019 0800
Analyst: OL**Method:** LC/MS/MS
Instrument: Waters Acquity/TQD**Deviations from SOP:**
None

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

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 (F.A.S.T.), LLC

www.FASTLaboratories.com

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

CERTIFICATE OF ANALYSIS**Order Type:** Cannabis
Order ID: OR2019-6143**Customer ID:** 1648
Customer Name: Red Dirt Sungrown**Harvest/Extract Lot:** LC121901
Harvest/Extract Batch: None**Cultivar (Strain):** Lilac Cookies
Sample Date: 12/19/2019**Lab ID:** SA2019-19299
Date Received: 12/19/2019**Sample Matrix:** Flower
Date Completed: 12/26/2019**Remarks:****HEAVY METAL PROFILE****Analysis Date/Time:** 12/24/2019 0800
Analyst: OL**Method:** ICP/MS
Instrument: PerkinElmer Elan 9000**Deviations from SOP:**
None

<u>Heavy Metal</u>	<u>Result</u> (µg/kg)	<u>Action Level</u> (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

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 (F.A.S.T.), LLC

www.FASTLaboratories.com

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

CERTIFICATE OF ANALYSIS**Order Type:** Cannabis
Order ID: OR2019-6143**Customer ID:** 1648
Customer Name: Red Dirt Sungrown**Harvest/Extract Lot:** LC121901
Harvest/Extract Batch: None**Cultivar (Strain):** Lilac Cookies
Sample Date: 12/19/2019**Lab ID:** SA2019-19299
Date Received: 12/19/2019**Sample Matrix:** Flower
Date Completed: 12/26/2019**Remarks:****MICROBIOLOGICAL PROFILE****Analysis Date/Time:** 12/24/2019 0800
Analyst: OL**Method:** Hardy Diagnostics CompactDry
Instrument: Thermo Incubator**Deviations from SOP:**
None

<u>Bacteria/Microbe</u>	<u>Result</u> <u>(CFU/g)</u>	<u>Action Level</u> <u>(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 (F.A.S.T.), LLC

www.FASTLaboratories.com

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