

**CBG Blue Genius**

Lab ID: 2009199-01

Whole Circle Farms

Harvest / Process Lot: WCF-2020-BluG-001

METRC Batch ID:

Date Sampled: 09/28/20

Date Printed: 10/1/20

Report cannot be used for OLCC/OHA compliance.

**Potency Analysis**

Analytical Method: De Backer, Journal of Chromatography b.2009. 11.004 - SOP 102

Cannabinoids (% weight)		Moisture Adjusted	LOQ
THCA	0.140	0.154	0.0790
delta 9-THC	< LOQ	< LOQ	0.0790
delta 8-THC	< LOQ	< LOQ	0.0790
CBGA	10.8	11.9	0.0790
CBDA	< LOQ	< LOQ	0.0790
CBD	< LOQ	< LOQ	0.0790
CBN	< LOQ	< LOQ	0.0790
CBG	0.155	0.170	0.0790
CBC	0.259	0.284	0.0790
Total CBG	9.62	10.6	0.0790
Total Cannabinoids	10.0	11.0	0.0790

**Total THC**  
**0.135 %**

**Total CBD**  
**< LOQ %**

<LOQ - Results below the Limit of Quantitation

Acid form of THC/CBD are decarboxylated by heat, lose 12% of original mass as CO2. Result = \*bioactive\*

"Total" Cannabinoid accounts for decarboxylation and moisture content. Total THC = [(THCA×0.877) + Δ9THC] / (100%-MC)

**Moisture**

Analysis Method/SOP: SOP 7

Moisture: 9.07 %

Erik Werstler  
Lab Director

## CBG Blue Genius

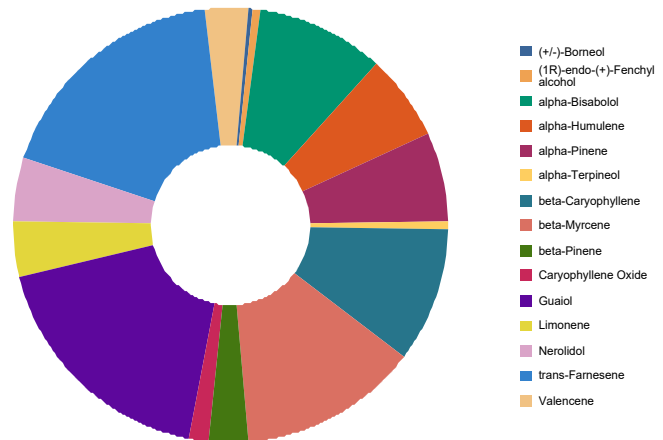
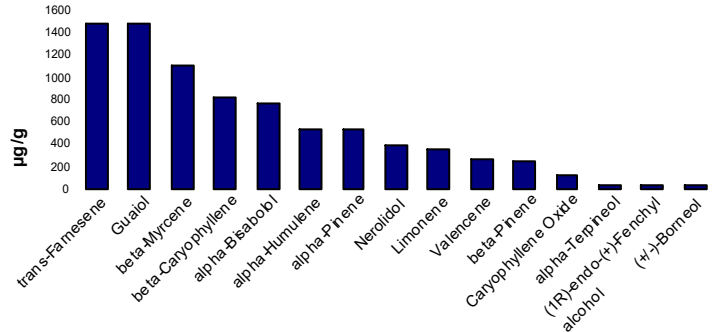
Whole Circle Farms

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### Terpene Test Report

Analysis Method/SOP: Terp

Analyte	Result µg/g	Result %
alpha-Bisabolol	768.8	0.07688
Camphene	< LOQ	< LOQ
Camphor	< LOQ	< LOQ
delta-3-Carene	< LOQ	< LOQ
beta-Caryophyllene	815	0.08150
Caryophyllene Oxide	132.6	0.01326
alpha-Cedrene	< LOQ	< LOQ
Cedrol	< LOQ	< LOQ
p-Cymene	< LOQ	< LOQ
(1R)-endo-(+)-Fenchyl alcohol	39.97	0.003997
Eucalyptol	< LOQ	< LOQ
Geraniol	< LOQ	< LOQ
Geranyl acetate	< LOQ	< LOQ
Guaial	1472	0.1472
alpha-Humulene	543.9	0.05439
Isoborneol	< LOQ	< LOQ
Isopulegol	< LOQ	< LOQ
Limonene	355.1	0.03551
Linalool	< LOQ	< LOQ
beta-Myrcene	1099	0.1099
Nerolidol	395.6	0.03956
Ocimene	< LOQ	< LOQ
alpha-Pinene	539.8	0.05398
beta-Pinene	255.1	0.02551
Pulegone	< LOQ	< LOQ
Sabinene	< LOQ	< LOQ
Sabinene hydrate	< LOQ	< LOQ
gamma-Terpinene	< LOQ	< LOQ
alpha-Terpinene	< LOQ	< LOQ
Terpinolene	< LOQ	< LOQ
Valencene	274.6	0.02746
Nerol	< LOQ	< LOQ
(+/-)-Borneol	33.88	0.003388




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Analysis Method/SOP: Terp

Analyte	Result µg/g	Result %
(+/-)-Fenchone	< LOQ	< LOQ
alpha-Phellandrene	< LOQ	< LOQ
cis-Farnesene	< LOQ	< LOQ
Menthol	< LOQ	< LOQ
trans-Farnesene	1482	0.1482
alpha-Terpineol	45.8	0.004580
gamma-Terpineol	< LOQ	< LOQ
<b>Total Terpenes</b>	<b>8253</b>	<b>0.8253</b>



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## Quality Control Potency

Batch: B20I109 - Potency

### Blank(B20I109-BLK1)

Analyte	Result	LOQ	Units	%Recovery Limits	Extracted	Analyzed	Notes
THCA	< LOQ	0.0734	%		09/29/20 17:53	09/29/20 21:44	
delta 9-THC	< LOQ	0.0734	%		09/29/20 17:53	09/29/20 21:44	
CBGA	< LOQ	0.0734	%		09/29/20 17:53	09/29/20 21:44	
CBDA	< LOQ	0.0734	%		09/29/20 17:53	09/29/20 21:44	
CBD	< LOQ	0.0734	%		09/29/20 17:53	09/29/20 21:44	
CBN	< LOQ	0.0734	%		09/29/20 17:53	09/29/20 21:44	
CBG	< LOQ	0.0734	%		09/29/20 17:53	09/29/20 21:44	
delta 8-THC	< LOQ	0.0734	%		09/29/20 17:53	09/29/20 21:44	
CBC	< LOQ	0.0734	%		09/29/20 17:53	09/29/20 21:44	

### LCS(B20I109-BS1)

Analyte	% Recovery	LOQ	Units	%Recovery Limits	Extracted	Analyzed	Notes
THCA	97.3	0.0713	%	85-115	09/29/20 17:53	09/29/20 21:53	
delta 9-THC	102	0.0713	%	85-115	09/29/20 17:53	09/29/20 21:53	
CBDA	98.4	0.0713	%	85-115	09/29/20 17:53	09/29/20 21:53	
CBD	99.7	0.0713	%	85-115	09/29/20 17:53	09/29/20 21:53	



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## Quality Control Terpene Analysis

Batch: B20I104 - Terp

### Blank(B20I104-BLK1)

Analyte	Result	LOQ	Units	%Recovery Limits	Extracted	Analyzed	Notes
alpha-Bisabolol	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Camphene	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Camphor	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
delta-3-Carene	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
beta-Caryophyllene	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Caryophyllene Oxide	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
alpha-Cedrene	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Cedrol	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
p-Cymene	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
(1R)-endo-(+)-Fenchyl alcol	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Eucalyptol	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Geraniol	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Geranyl acetate	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Guaiol	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
alpha-Humulene	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Isoborneol	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Isopulegol	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Limonene	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Linalool	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
beta-Myrcene	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Nerolidol	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Ocimene	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
alpha-Pinene	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
beta-Pinene	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Pulegone	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Sabinene	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Sabinene hydrate	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
gamma-Terpinene	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
alpha-Terpinene	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Terpinolene	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Valencene	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Nerol	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
(+/-)-Borneol	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
(+/-)-Fenchone	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	



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### Quality Control

### Terpene Analysis (Continued)

**Batch: B20I104 - Terp (Continued)**

**Blank(B20I104-BLK1)**

Analyte	Result	LOQ	Units	%Recovery Limits	Extracted	Analyzed	Notes
alpha-Phellandrene	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
cis-Farnesene	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
Menthol	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
trans-Farnesene	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
alpha-Terpineol	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	
gamma-Terpineol	< LOQ	5.000E-4	%		09/28/20 18:42	09/30/20 00:15	

**LCS(B20I104-BS1)**

Analyte	% Recovery	LOQ	Units	%Recovery Limits	Extracted	Analyzed	Notes
alpha-Bisabolol	147	5.250E-4	%	50-150	09/28/20 18:42	09/30/20 00:47	
Camphene	124	5.250E-4	%	50-150	09/28/20 18:42	09/30/20 00:47	
beta-Caryophyllene	84.2	5.250E-4	%	50-150	09/28/20 18:42	09/30/20 00:47	
Caryophyllene Oxide	125	5.250E-4	%	50-150	09/28/20 18:42	09/30/20 00:47	
(1R)-endo-(+)-Fenchyl alcol	134	5.250E-4	%	50-150	09/28/20 18:42	09/30/20 00:47	
Guaiol	171	5.250E-4	%	50-150	09/28/20 18:42	09/30/20 00:47	Q1
alpha-Humulene	146	5.250E-4	%	50-150	09/28/20 18:42	09/30/20 00:47	
Limonene	118	5.250E-4	%	50-150	09/28/20 18:42	09/30/20 00:47	
Linalool	142	5.250E-4	%	50-150	09/28/20 18:42	09/30/20 00:47	
beta-Myrcene	79.8	5.250E-4	%	50-150	09/28/20 18:42	09/30/20 00:47	
Ocimene	146	5.250E-4	%	50-150	09/28/20 18:42	09/30/20 00:47	
alpha-Pinene	143	5.250E-4	%	50-150	09/28/20 18:42	09/30/20 00:47	
beta-Pinene	143	5.250E-4	%	50-150	09/28/20 18:42	09/30/20 00:47	
Terpinolene	138	5.250E-4	%	50-150	09/28/20 18:42	09/30/20 00:47	
(+/-)-Borneol	176	5.250E-4	%	50-150	09/28/20 18:42	09/30/20 00:47	Q1
trans-Farnesene	129	5.250E-4	%	50-150	09/28/20 18:42	09/30/20 00:47	

**Batch: B20I105 - Moisture Content**

**Blank(B20I105-BLK1)**

Analyte	Result	LOQ	Units	%Recovery Limits	Extracted	Analyzed	Notes
Percent Moisture	0.200	0.00	%		09/28/20 21:50	09/28/20 21:50	

**LCS(B20I105-BS1)**

Analyte	% Recovery	LOQ	Units	%Recovery Limits	Extracted	Analyzed	Notes
Percent Moisture	97.9	0.00	%	80-120	09/28/20 21:50	09/28/20 21:50	



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### Notes and Definitions

- B Analyte detected in method blank, but not associated samples.
  - B2 Analyte detected in sample and associate method blank.
  - C Interference due to co-elution.
  - D Initial result exceeded calibration range, reported data are based on analysis of a dilution.
  - H Non-homogenous sample matrix affecting RPD and/or QC.
  - I Manual Integration was performed.
  - L Duplicate sample relative percent difference (RPD) exceeds QC limits.
  - M Anomalous results due to matrix interference
  - P Peaks manually split.
  - Q1 QC out of limits but still ok
  - Q2 Quality Control outside QC limits. Data considered estimate.
  - Q3 CCV was above the acceptance criteria. Non-detect samples are considered acceptable.
  - Q4 CCV was below the acceptance criteria, however the sample still exceeds the regulatory limit.
  - R Marginal Exceedence.
  - U Reported result is an estimate. The analyte was detected above the calibration range.
  - X Problems with initial analysis, reported data are from reinjection of prepared sample.
- <LOQ - Results below the Limit of Quantitation - Compound not detected



**Erik Werstler**

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