

CBD Topical Product Guarantee

Product Name	CBD Lotion
Product Category	Topicals/Cosmetics (Not for consumption)
Instructions for use/Preparation	Apply a small amount to the affected area. Use as needed throughout the day. Store in a cool dry place. Do not take internally. Cannabidiol use while pregnant or breastfeeding may be harmful.
CBD Source	CBD sourced from hemp grown under federally authorized state pilot program (e.g. Kentucky, Oregon, or Colorado's R&D program) or approved hemp program.
NOTE: This product is not intended to diagnose, treat, cure or prevent any disease	
WARNING: The safety of this product has not been determined.	
Batch Information	
Batch ID Number	20358
Batch Size	100 lbs
Units Produced per SKU	Item 54052 (6 oz): 240 units
Manufacture date	12/23/2020
Expiration date	12/23/2022



 Approved by Allison Ballard / Quality Assurance Manager

 12/29/2020

 Date

SAMPLE NAME: CBD Lotion 20358_#47

Infused, Non-Inhalable

CULTIVATOR / MANUFACTURER

Business Name:

License Number:

Address:

DISTRIBUTOR

Business Name: Shikai Products

License Number:

Address:

SAMPLE DETAIL

Batch Number: 20358

Sample ID: 201229N004

Date Collected: 12/29/2020

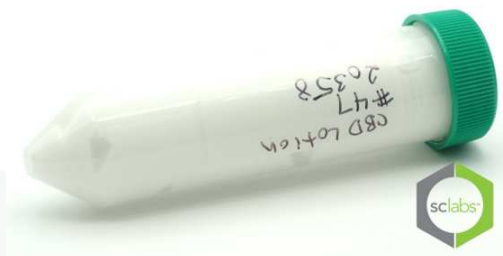
Date Received: 12/29/2020

Batch Size:

Sample Size:

Unit Mass:

Serving Size:



Scan QR code to verify authenticity of results.

CANNABINOID ANALYSIS - SUMMARY

Total THC: Not Detected

Total CBD: 4.988 mg/g

Sum of Cannabinoids: 4.988 mg/g

Total Cannabinoids: 4.988 mg/g

Total THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during the decarboxylation step:
 Total THC = $\Delta 9\text{THC} + (\text{THCa} \cdot 0.877)$
 Total CBD = $\text{CBD} + (\text{CBDa} \cdot 0.877)$
 Sum of Cannabinoids = $\Delta 9\text{THC} + \text{THCa} + \text{CBD} + \text{CBDa} + \text{CBG} + \text{CBGa} + \text{THCV} + \text{THCVa} + \text{CBC} + \text{CBCa} + \text{CBDV} + \text{CBDVa} + \Delta 8\text{THC} + \text{CBL} + \text{CBN}$
 Total Cannabinoids = $(\Delta 9\text{THC} + 0.877 \cdot \text{THCa}) + (\text{CBD} + 0.877 \cdot \text{CBDa}) + (\text{CBG} + 0.877 \cdot \text{CBGa}) + (\text{THCV} + 0.877 \cdot \text{THCVa}) + (\text{CBC} + 0.877 \cdot \text{CBCa}) + (\text{CBDV} + 0.877 \cdot \text{CBDVa}) + \Delta 8\text{THC} + \text{CBL} + \text{CBN}$

Moisture: NT

Density: NT

Viscosity: NT

SAFETY ANALYSIS - SUMMARY

Pesticides: PASS

Mycotoxins: NT

Residual Solvents: PASS

Heavy Metals: PASS

Microbial Impurities (PCR): NT

Microbial Impurities (Plating): ND

Foreign Material: NT

Water Activity: NT

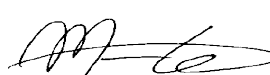
Vitamin E Acetate: NT


For quality assurance purposes. Not a Pre-Harvest Hemp Lab Test Report. These results relate only to the sample included on this report. This report shall not be reproduced, except in full, without written approval of the laboratory.

Sample Certification: California Code of Regulations Title 16 Effect Date January 16, 2019. Authority: Section 26013, Business and Professions Code. Reference: Sections 26100, 26104 and 26110, Business and Professions Code.

Decision Rule: Statements of conformity (e.g. Pass/Fail) to specifications are made in this report without taking measurement uncertainty into account. Where statements of conformity are made in this report, the following decision rules are applied: PASS - Results within limits/specifications, FAIL - Results exceed limits/specifications.

References: limit of detection (LOD), limit of quantification (LOQ), not detected (ND), not tested (NT) too numerous to count >250 cfu/plate (TNTC), colony-forming unit (cfu)


 LQC verified by: Maria Garcia
 Date: 01/02/2021


 Approved by: Josh Wurzer, President
 Date: 01/02/2021



Cannabinoid Analysis

Tested by high-performance liquid chromatography with diode-array detection (HPLC-DAD).

Method: QSP 1157 - Analysis of Cannabinoids by HPLC-DAD

TOTAL THC: Not Detected

Total THC ($\Delta 9$ THC+0.877*THCa)

TOTAL CBD: 4.988 mg/g

Total CBD (CBD+0.877*CBDA)

TOTAL CANNABINOIDS: 4.988 mg/g

Total Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCV) + (Total CBC) + (Total CBDV) + $\Delta 8$ THC + CBL + CBN

TOTAL CBG: ND

Total CBG (CBG+0.877*CBGa)

TOTAL THCV: ND

Total THCV (THCV+0.877*THCVa)

TOTAL CBC: ND

Total CBC (CBC+0.877*CBCa)

TOTAL CBDV: <LOQ

Total CBDV (CBDV+0.877*CBDVa)

CANNABINOID TEST RESULTS - 12/31/2020

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
CBD	0.004 / 0.011	±0.2389	4.988	0.4988
CBDV	0.002 / 0.012	N/A	<LOQ	<LOQ
$\Delta 9$ THC	0.002 / 0.014	N/A	ND	ND
$\Delta 8$ THC	0.01 / 0.02	N/A	ND	ND
THCa	0.001 / 0.005	N/A	ND	ND
THCV	0.002 / 0.012	N/A	ND	ND
THCVa	0.002 / 0.019	N/A	ND	ND
CBDA	0.001 / 0.026	N/A	ND	ND
CBDVa	0.001 / 0.018	N/A	ND	ND
CBG	0.002 / 0.006	N/A	ND	ND
CBGa	0.002 / 0.007	N/A	ND	ND
CBL	0.003 / 0.010	N/A	ND	ND
CBN	0.001 / 0.007	N/A	ND	ND
CBC	0.003 / 0.010	N/A	ND	ND
CBCa	0.001 / 0.015	N/A	ND	ND
SUM OF CANNABINOIDS			4.988 mg/g	0.4988%

MOISTURE TEST RESULT

Not Tested

DENSITY TEST RESULT

Not Tested

VISCOSITY TEST RESULT

Not Tested



 **Pesticide Analysis**

CATEGORY 1 PESTICIDE TEST RESULTS - 12/30/2020 ✔ PASS

CATEGORY 1 AND 2 PESTICIDES

Pesticide and plant growth regulator analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS) or gas chromatography-mass spectrometry (GC-MS). *GC-MS utilized where indicated.

Method: QSP 1212 - Analysis of Pesticides and Mycotoxins by LC-MS or QSP 1213 - Analysis of Pesticides by GC-MS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Aldicarb				NT	
Carbofuran				NT	
Chlordane*				NT	
Chlorfenapyr*				NT	
Chlorpyrifos	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Coumaphos				NT	
Daminozide				NT	
DDVP (Dichlorvos)				NT	
Dimethoate				NT	
Ethoprop(hos)				NT	
Etofenprox				NT	
Fenoxycarb				NT	
Fipronil				NT	
Imazalil				NT	
Methiocarb				NT	
Methyl parathion				NT	
Mevinphos				NT	
Paclobutrazol				NT	
Propoxur				NT	
Spiroxamine				NT	
Thiacloprid				NT	


CATEGORY 2 PESTICIDE TEST RESULTS - 12/30/2020 ✔ PASS

Abamectin	0.03 / 0.10	0.3	N/A	ND	PASS
Acephate				NT	
Acequinocyl				NT	
Acetamiprid				NT	
Azoxystrobin	0.01 / 0.04	40	N/A	ND	PASS
Bifenazate	0.01 / 0.02	5	N/A	ND	PASS
Bifenthrin	0.01 / 0.02	0.5	N/A	ND	PASS
Boscalid	0.02 / 0.06	10	N/A	ND	PASS
Captan				NT	
Carbaryl				NT	
Chlorantraniliprole				NT	

Continued on next page



 **Pesticide Analysis** *Continued*

CATEGORY 2 PESTICIDE TEST RESULTS - 12/30/2020 *continued*  **PASS**

CATEGORY 1 AND 2 PESTICIDES


Pesticide and plant growth regulator analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS) or gas chromatography-mass spectrometry (GC-MS). *GC-MS utilized where indicated.

Method: QSP 1212 - Analysis of Pesticides and Mycotoxins by LC-MS or QSP 1213 - Analysis of Pesticides by GC-MS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Clofentezine				NT	
Cyfluthrin				NT	
Cypermethrin	0.1 / 0.3	1	N/A	ND	PASS
Diazinon				NT	
Dimethomorph				NT	
Etoxazole	0.010 / 0.028	1.5	N/A	ND	PASS
Fenhexamid				NT	
Fenpyroximate				NT	
Flonicamid				NT	
Fludioxonil				NT	
Hexythiazox	0.01 / 0.04	2	N/A	ND	PASS
Imidacloprid	0.01 / 0.04	3	N/A	ND	PASS
Kresoxim-methyl				NT	
Malathion	0.02 / 0.05	5	N/A	ND	PASS
Metalaxyl				NT	
Methomyl				NT	
Myclobutanil	0.03 / 0.1	9	N/A	ND	PASS
Naled				NT	
Oxamyl				NT	
Pentachloronitrobenzene*				NT	
Permethrin	0.03 / 0.09	20	N/A	ND	PASS
Phosmet				NT	
Piperonylbutoxide	0.003 / 0.009	8	N/A	ND	PASS
Prallethrin				NT	
Propiconazole	0.01 / 0.03	20	N/A	ND	PASS
Pyrethrins				NT	
Pyridaben				NT	
Spinetoram				NT	
Spinosad				NT	
Spiromesifen	0.02 / 0.05	12	N/A	ND	PASS
Spirotetramat				NT	
Tebuconazole	0.02 / 0.07	2	N/A	ND	PASS
Thiamethoxam				NT	
Trifloxystrobin	0.01 / 0.03	30	N/A	ND	PASS



 **Residual Solvents Analysis**


CATEGORY 1 RESIDUAL SOLVENTS TEST RESULTS - 12/31/2020 

CATEGORY 1 AND 2 RESIDUAL SOLVENTS

Residual Solvent analysis utilizing gas chromatography-mass spectrometry (GC-MS).

Method: QSP 1204 - Analysis of Residual Solvents by GC-MS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
1,2-Dichloroethane	0.05 / 0.1	1	N/A	ND	PASS
Benzene	0.03 / 0.09	1	N/A	ND	PASS
Chloroform	0.1 / 0.2	1	N/A	ND	PASS
Ethylene Oxide	0.1 / 0.4	1	N/A	ND	PASS
Methylene chloride	0.3 / 0.9	1	N/A	ND	PASS
Trichloroethylene	0.1 / 0.3	1	N/A	ND	PASS

CATEGORY 2 RESIDUAL SOLVENTS TEST RESULTS - 12/31/2020 

Acetone	20 / 50	5000	N/A	ND	PASS
Acetonitrile	2 / 7	410	N/A	ND	PASS
Butane	10 / 50	5000	N/A	ND	PASS
Ethanol	20 / 50	5000	N/A	ND	PASS
Ethyl acetate	20 / 60	5000	N/A	ND	PASS
Ethyl ether	20 / 50	5000	N/A	ND	PASS
Heptane	20 / 60	5000	N/A	ND	PASS
Hexane	2 / 5	290	N/A	ND	PASS
Isopropyl Alcohol	10 / 40	5000	N/A	ND	PASS
Methanol	50 / 200	3000	N/A	ND	PASS
Pentane	20 / 50	5000	N/A	ND	PASS
Propane	10 / 20	5000	N/A	ND	PASS
Toluene	7 / 21	890	N/A	ND	PASS
Total Xylenes	50 / 160	2170	N/A	ND	PASS

 **Heavy Metals Analysis**

HEAVY METALS TEST RESULTS - 12/30/2020 

Heavy metal analysis utilizing inductively coupled plasma-mass spectrometry (ICP-MS).

Method: QSP 1160 - Analysis of Heavy Metals by ICP-MS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Cadmium	0.02 / 0.05	0.5	N/A	ND	PASS
Lead	0.04 / 0.1	0.5	N/A	ND	PASS
Arsenic	0.02 / 0.1	1.5	N/A	ND	PASS
Mercury	0.002 / 0.01	3	N/A	ND	PASS



 **Microbial Impurities Analysis**
 PCR AND PLATING

Analysis conducted by polymerase chain reaction (PCR) and fluorescence detection of microbial impurities.

Method: QSP 1221 - Analysis of Microbial Impurities

MICROBIAL IMPURITIES TEST RESULTS (PCR)

COMPOUND	ACTION LIMIT	RESULT	RESULT
Shiga toxin-producing <i>Escherichia coli</i>		NT	
<i>Salmonella</i> spp.		NT	
<i>Aspergillus fumigatus</i>		NT	
<i>Aspergillus flavus</i>		NT	
<i>Aspergillus niger</i>		NT	
<i>Aspergillus terreus</i>		NT	

Analysis conducted by 3M™ Petrifilm™ and plate counts of microbial impurities.

Method: QSP 6794 - Plating with 3M™ Petrifilm™

MICROBIAL IMPURITIES TEST RESULTS (PLATING) - 01/02/2021 ND

COMPOUND	RESULT (cfu/g)
Aerobic Plate Count	ND
Total Yeast and Mold	ND



CERTIFICATE OF ANALYSIS:
CRYSTALLINE CANNABIDIOL



Product Name

CC - Crystalline Cannabidiol

Batch Number

190126RE

Manufacture Date

July 31, 2019

Expiration Date

July 2021

Botanical Source

Industrial hemp, grown and processed in Kentucky, USA in compliance with Section 7415 of the Farm Bill and applicable Kentucky State Law and State Department of Agriculture regulations.

Product Description

This product is hemp derived crystalline cannabidiol, isolated through CO₂ extraction and crystal precipitation.

Qualitative Analysis

OBSERVATION	METHOD	RESULT
Foreign Matter	Gross Visual	Absent
Color	Gross Visual	White to Pale Yellow
Molds & Mildews	Gross Visual	Absent
Smell	Olfactory	Odorless to Slight Terpenoid
Product Feel	Tactile	Fine Powder

Quantitative Analysis

Cannabinoid Analysis**

RESULT: PASS

IDENTIFICATION	METHOD	RESULT
Cannabinoid	HPLC-DAD	%wt/wt
Cannabidiolic Acid (CBDA)	HPLC-DAD	N/D
Cannabidiol (CBD)	HPLC-DAD	99.34%
Cannabidivarin (CBDV)	HPLC-DAD	0.18%
Tetrahydrocannabinolic Acid (THCA)	HPLC-DAD	N/D
Δ -9-Tetrahydrocannabinol (Δ -9-THC)	HPLC-DAD	N/D
Cannabinol (CBN)	HPLC-DAD	N/D
Cannabichromene (CBC)	HPLC-DAD	0.02%

**Denotes third party analysis. Source data available upon request.

N/A NOT APPLICABLE TO PRODUCT TYPE

N/D NOT DETECTED



Certificate ID: **60888**

Received: **8/2/19**

Scan QR Code for authenticity



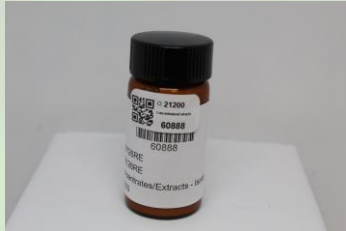
GenCanna

Client Sample ID: **190126RE**

Lot Number: **190126RE**

Matrix: **Concentrates/Extracts - Isolate**

Authorization: Elizabeth R. Wagoner, Lab Director	Signature: 	Date: 8/12/2019
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The data contained within this report was collected in accordance with the requirements of ISO/IEC17025:2017. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

CN: Cannabinoid Profile & Potency [WI-10-17 & WI-10-17-01]

Analyst: *JSG*

Test Date: *8/7/2019*

The client sample was analyzed for plant-based cannabinoids by Liquid Chromatography (LC). The collected data was compared to data collected for certified reference standards at known concentrations.

60888-CN

ID	Weight %	Concentration (mg/g)			
D9-THC	ND	ND			
THCV	ND	ND			
CBD	99.34	993.40			
CBDV	0.18	1.79			
CBG	ND	ND			
CBC	0.02	0.16			
CBN	ND	ND			
THCA	ND	ND			
CBDA	ND	ND			
CBGA	ND	ND			
D8-THC	ND	ND			
exo-THC	ND	ND			
Total	99.53	995.34	0%	Cannabinoids (wt%)	99.3%
Max THC	-	-			
Max CBD	99.34	993.40			

Limit of Quantitation (LOQ) = 0.0049 wt%

Max THC (and Max CBD) are calculated values for total cannabinoids after heating, assuming complete decarboxylation of the acid to the neutral form. It is calculated based on the weight loss of the acid group during decarboxylation: Max THC = (0.877 x THCA) + THC. This calculation does not include other cannabinoid isomers (eg. D8-THC and exo-THC). ND = None detected above the limits of detection (LLD)

EA: Elemental Analysis [WI-10-13]

Analyst: JFD

Test Date: 8/6/2019

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

60888-EA

Symbol	Metal	Conc. ¹	MDL	Limits ²	Status
Al	Aluminum	562 ug/kg	5 ug/kg	-	
As	Arsenic	ND	4 ug/kg	150 ug/kg	PASS
Cd	Cadmium	ND	1 ug/kg	150 ug/kg	PASS
Ca	Calcium	3,791 ug/kg	500 ug/kg	-	
Cr	Chromium	73 ug/kg	5 ug/kg	2500 ug/kg	PASS
Co	Cobalt	ND	10 ug/kg	-	
Cu	Copper	ND	500 ug/kg	10000 ug/kg	PASS
Fe	Iron	256 ug/kg	5 ug/kg	-	
Pb	Lead	ND	2 ug/kg	500 ug/kg	PASS
Mg	Magnesium	7,078 ug/kg	500 ug/kg	-	
Mn	Manganese	ND	500 ug/kg	-	
Hg	Mercury	ND	2 ug/kg	150 ug/kg	PASS
Mo	Molybdenum	ND	50 ug/kg	1000 ug/kg	PASS
Ni	Nickel	ND	50 ug/kg	150 ug/kg	PASS
P	Phosphorus	3,024 ug/kg	500 ug/kg	-	
K	Potassium	ND	5 ug/kg	-	
Se	Selenium	ND	10 ug/kg	-	
Ag	Silver	ND	10 ug/kg	-	
S	Sulfur	816 ug/kg	5 ug/kg	-	
Sn	Tin	ND	5000 ug/kg	-	
Zn	Zinc	135 ug/kg	5 ug/kg	-	

1) ND = None detected to the Method Detection Limit (MDL)

2) USP recommended maximum daily limits for inhalational drug product.

MB1: Microbiological Contaminants [WI-10-09]

Analyst: MM

Test Date: 8/6/2019

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

60888-MB1

Symbol	Analysis	Results	Units	Limits*	Status
AC	Total Aerobic Bacterial Count	<100	CFU/g	10,000 CFU/g	PASS
CC	Total Coliform Bacterial Count	<100	CFU/g	100 CFU/g	PASS
EB	Total Bile Tolerant Gram Negative Count	<100	CFU/g	100 CFU/g	PASS
YM	Total Yeast & Mold	<100	CFU/g	1,000 CFU/g	PASS

Note: All recorded Microbiological tests are within the established limits.

MB2: Pathogenic Bacterial Contaminants [WI-10-10]

Analyst: LabAdmin

Test Date: 8/7/2019

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

60888-MB2

Test ID	Analysis	Results	Units	Limits*	Status
60888-ECPT	E. coli (O157)	Negative	NA	Non Detected	PASS
60888-SPT	Salmonella	Negative	NA	Non Detected	PASS

Note: All recorded pathogenic bacteria tests passed.

MY: Mycotoxin Testing [WI-10-05]

Analyst: AKR

Test Date: 8/8/2019

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

60888-MY

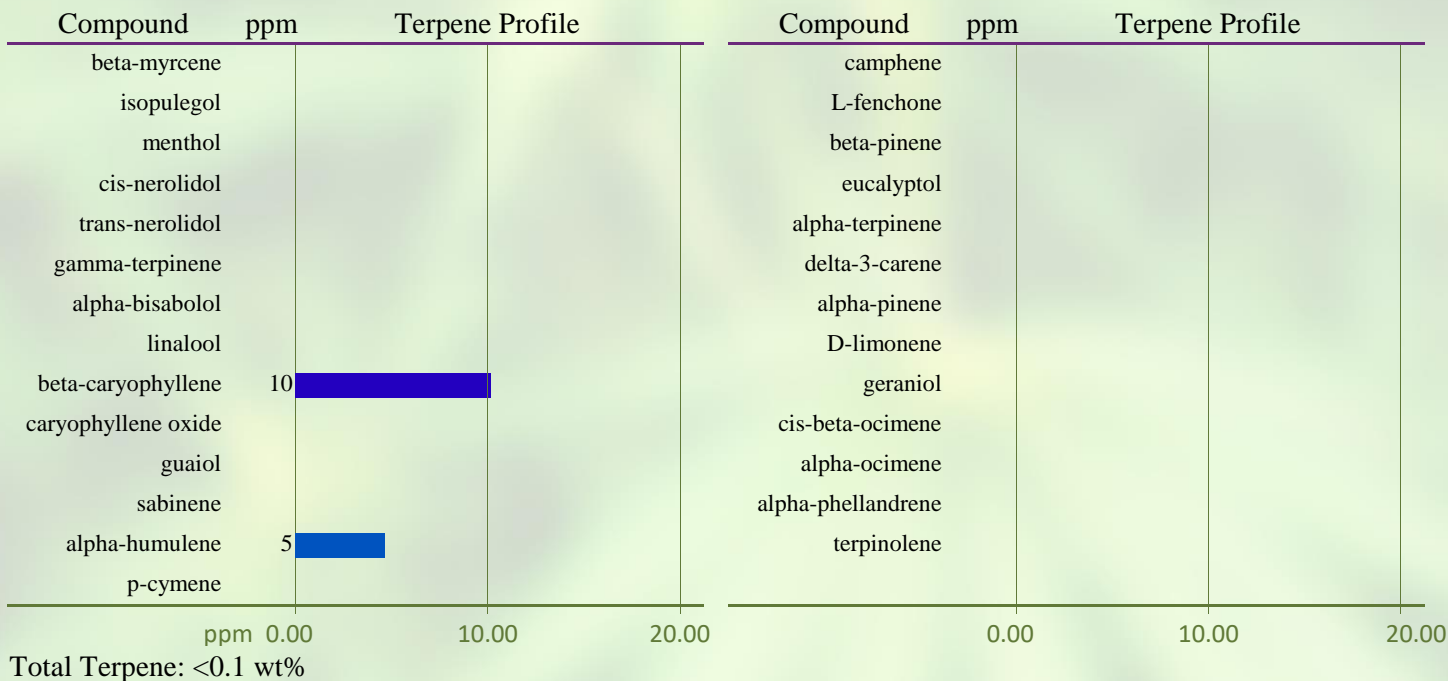
Test ID	Date	Results	MDL	Limits	Status*
Total Aflatoxin	8/8/2019	< MDL	2 ppb	< 20 ppb	PASS
Total Ochratoxin	8/8/2019	< MDL	3 ppb	< 20 ppb	PASS

TP: Terpenes Profile [WI-10-27]

Analyst: CMA

Test Date: 8/6/2019

The client sample was analyzed by Head-Space Gas Chromatography (HS-GC). The collected data was compared to data collected for certified reference standards at known concentrations. All values are semiquantitative estimates based on recorded peak areas relative to terpene calibration data.

60888-TP**VC: Analysis of Volatile Organic Compounds [WI-10-28]**

Analyst: CMA

Test Date: 8/6/2019

The client sample was analyzed by Head-Space Gas Chromatography (HS-GC). The collected data was compared to data collected for certified reference standards at known concentrations.

60888-VC

Compound	CAS	Amount ¹	Limit ²	RL	Status
Propane	74-98-6	ND	1,000 ppm	200	PASS
Isobutane	75-28-5	ND	1,000 ppm	200	PASS
Butane	106-97-8	ND	1,000 ppm	200	PASS
Methanol	67-56-1	ND	3,000 ppm	200	PASS
Pentane	109-66-0	ND	5,000 ppm	200	PASS
Ethanol	64-17-5	ND	5,000 ppm	200	PASS
Acetone	67-64-1	ND	5,000 ppm	200	PASS
Isopropanol	67-63-0	ND	5,000 ppm	200	PASS
Acetonitrile	75-05-8	ND	410 ppm	200	PASS
Hexane	110-54-3	ND	290 ppm	200	PASS
Heptane	142-82-5	ND	5,000 ppm	200	PASS

1) ND = Not detected at a level greater than the Reporting Limit (RL).

2) In ppm, based on USP recommended limits for residual solvents, adopted by the Massachusetts Department of Public Health on 3/31/16.

Butane/Propane limits are based on limits established for state of Colorado.

END OF REPORT

420 Fortune Blvd • Milford, MA 01757 • 617-221-3356
www.ProVerdeLabs.com



GenCanna Global
4274 Colby Rd.
Winchester, KY 40391

Report Number: P191983
Report Date: August 15, 2019
Client Project ID:

Client Sample ID: 190126 RE
PAL Sample ID: P191983-02

Sample Date: 08/01/2019
Received Date: 08/02/2019
Extraction Date: 08/07/2019

Certificate of Analysis

Analysis Date	Analyte	Amount Detected	LOQ (mg/kg)	Notes	Analysis Date	Analyte	Amount Detected	LOQ (mg/kg)	Notes
JASBC 69(3):121-126, 2011 (GC-MS/MS)									
08/09/2019	a-BHC	ND	0.20		08/09/2019	Aldrin	ND	0.20	
08/09/2019	b-BHC	ND	0.20		08/09/2019	Benfluralin	ND	0.20	
08/09/2019	Bolstar	ND	0.20		08/09/2019	Bromopropylate	ND	0.20	
08/09/2019	Captan	ND	4.0		08/09/2019	Chlordane	ND	0.20	
08/09/2019	Chlorfenapyr	ND	0.20		08/09/2019	Chloroneb	ND	0.20	
08/09/2019	Chlorothalonil	ND	0.20		08/09/2019	Chlorpropham	ND	0.20	
08/09/2019	Chlorpyrifos	ND	0.20		08/09/2019	Chlorpyrifos-methyl	ND	0.20	
08/09/2019	cis-Nonachlor	ND	0.20		08/09/2019	Cyfluthrin	ND	1.0	
08/09/2019	Cypermethrin	ND	1.0		08/09/2019	Dacthal	ND	0.20	
08/09/2019	d-BHC	ND	0.20		08/09/2019	Deltamethrin	ND	1.0	
08/09/2019	Diazinon	ND	0.20		08/09/2019	Dichlobenil	ND	0.20	
08/09/2019	Dichlorofenthion	ND	0.20		08/09/2019	Dichlorvos	ND	0.20	
08/09/2019	Diclofop-methyl	ND	0.20		08/09/2019	Dicloran	ND	1.0	
08/09/2019	Dicofol	ND	0.20		08/09/2019	Diphenamid	ND	0.20	
08/09/2019	Dithiopyr	ND	0.20		08/09/2019	Esfenvalerate	ND	0.20	
08/09/2019	Ethalfuralin	ND	0.20		08/09/2019	Ethofumesate	ND	0.20	
08/09/2019	Ethoprophos	ND	0.20		08/09/2019	Ethoxyquin	ND	0.20	
08/09/2019	Etoxazole	ND	0.20		08/09/2019	Etridiazole	ND	0.20	
08/09/2019	Fenarimol	ND	0.20		08/09/2019	Fenvalerate	ND	0.20	
08/09/2019	Fipronil	ND	0.20		08/09/2019	Fludioxonil	ND	0.20	
08/09/2019	Flutolanil	ND	0.20		08/09/2019	g-BHC	ND	0.20	
08/09/2019	Heptachlor	ND	0.20		08/09/2019	Heptachlor epoxide	ND	0.20	
08/09/2019	Hexachlorobenzene	ND	0.20		08/09/2019	Kresoxim-methyl	ND	0.20	
08/09/2019	lambda-Cyhalothrin	ND	0.57		08/09/2019	Malathion	ND	0.20	
08/09/2019	Mefenoxam	ND	0.20		08/09/2019	Metolachlor	ND	0.20	
08/09/2019	MGK-264	ND	0.20		08/09/2019	Myclobutanil	ND	0.20	
08/09/2019	o-Phenylphenol	ND	0.40		08/09/2019	Oxadiazon	ND	0.20	
08/09/2019	Oxyfluorfen	ND	0.40		08/09/2019	p,p'-DDD	ND	0.20	
08/09/2019	p,p'-DDE	ND	0.20		08/09/2019	p,p'-DDT	ND	0.20	
08/09/2019	Pacllobutrazol	ND	0.20		08/09/2019	Parathion-methyl	ND	0.20	
08/09/2019	Pendimethalin	ND	0.20		08/09/2019	Pentachlorophenyl methyl sulfide	ND	0.20	
08/09/2019	Permethrin	ND	0.40		08/09/2019	Pirimicarb	ND	0.20	
08/09/2019	Procymidone	ND	0.20		08/09/2019	Prodiamine	ND	0.40	
08/09/2019	Pronamide	ND	0.20		08/09/2019	Pyriproxyfen	ND	0.20	
08/09/2019	Quinoxifen	ND	0.20		08/09/2019	Spirodiclofen	ND	0.20	
08/09/2019	Tetraconazole	ND	0.20		08/09/2019	trans-Nonachlor	ND	0.20	



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Client Sample ID: 190126 RE
PAL Sample ID: P191983-02

Sample Date: 08/01/2019
Received Date: 08/02/2019
Extraction Date: 08/07/2019

Certificate of Analysis (Continued)

Analysis Date	Analyte	Amount Detected	LOQ (mg/kg)	Notes	Analysis Date	Analyte	Amount Detected	LOQ (mg/kg)	Notes
JASBC 69(3):121-126, 2011 (GC-MS/MS) (Continued)									
08/09/2019	Trifluralin	ND	0.20						
JASBC 69(3):121-126, 2011 (LC-MS/MS)									
08/08/2019	3-Hydroxycarbofuran	ND	0.20		08/08/2019	Abamectin	ND	1.0	
08/08/2019	Acephate	ND	0.80		08/08/2019	Acequinocyl-Hydroxy	ND	1.0	
08/08/2019	Acetamiprid	ND	0.20		08/08/2019	Aldicarb	ND	0.20	
08/08/2019	Aldicarb Sulfone	ND	0.20		08/08/2019	Aldicarb Sulfoxide	ND	0.20	
08/08/2019	Ametoctradin	ND	0.20		08/08/2019	Atrazine	ND	0.20	
08/08/2019	Azinphos-methyl	ND	0.40		08/08/2019	Azoxystrobin	ND	0.20	
08/08/2019	Bendiocarb	ND	0.20		08/08/2019	Bensulide	ND	0.20	
08/08/2019	Bifenazate	ND	0.20		08/08/2019	Bifenthrin	ND	0.20	
08/08/2019	Boscalid	ND	0.20		08/08/2019	Bromacil	ND	0.20	
08/08/2019	Carbaryl	ND	0.20		08/08/2019	Carbendazim	ND	0.20	
08/08/2019	Carbofuran	ND	0.20		08/08/2019	Carfentrazone-ethyl	ND	0.20	
08/08/2019	Chlorantraniliprole	ND	0.20		08/08/2019	Clethodim	ND	0.40	
08/08/2019	Clofentezine	ND	0.20		08/08/2019	Clothianidin	ND	0.20	
08/08/2019	Cyanazine	ND	0.20		08/08/2019	Cyantraniliprole	ND	0.20	
08/08/2019	Cyazofamid	ND	0.20		08/08/2019	Cycloate	ND	0.40	
08/08/2019	Cyflufenamid	ND	0.20		08/08/2019	Cyflumetofen	ND	0.20	
08/08/2019	Cymoxanil	ND	0.20		08/08/2019	Daminozide	ND	1.0	
08/08/2019	DCPMU	ND	0.20		08/08/2019	Diazoxon	ND	0.20	
08/08/2019	Diflubenzuron	ND	0.20		08/08/2019	Dimethoate	ND	0.20	
08/08/2019	Dimethomorph	ND	0.20		08/08/2019	Dinotefuran	ND	0.20	
08/08/2019	Disulfoton sulfone	ND	0.20		08/08/2019	Diuron	ND	0.20	
08/08/2019	d-Phenothrin	ND	0.50		08/08/2019	Etofenprox	ND	0.20	
08/08/2019	Famphur	ND	0.20		08/08/2019	Fenamidone	ND	0.20	
08/08/2019	Fenamiphos sulfone	ND	0.20		08/08/2019	Fenamiphos sulfoxide	ND	0.20	
08/08/2019	Fenazaquin	ND	0.20		08/08/2019	Fenbuconazole	ND	0.20	
08/08/2019	Fenoxycarb	ND	0.20		08/08/2019	Fenpropathrin	ND	0.20	
08/08/2019	Fenpyroximate	ND	0.20		08/08/2019	Fonicamid	ND	1.0	
08/08/2019	Fluometuron	ND	0.20		08/08/2019	Fluopicolide	ND	0.20	
08/08/2019	Fluopyram	ND	0.20		08/08/2019	Fluoxastrobin	ND	0.20	
08/08/2019	Flupyradifurone	ND	0.20		08/08/2019	Fluridone	ND	0.20	
08/08/2019	Flutriafol	ND	0.20		08/08/2019	Fluvalinate	ND	0.20	
08/08/2019	Fluxapyroxad	ND	0.20		08/08/2019	Formetanate HCl	ND	0.20	
08/08/2019	Hexazinone	ND	0.20		08/08/2019	Hexythiazox	ND	0.20	
08/08/2019	Imazalil	ND	0.20		08/08/2019	Imidacloprid	ND	0.20	



PACIFIC AGRICULTURAL LABORATORY

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Certificate of Analysis
(Continued)

Table with 10 columns: Analysis Date, Analyte, Amount Detected, LOQ (mg/kg), Notes, Analysis Date, Analyte, Amount Detected, LOQ (mg/kg), Notes. Contains data for JASBC 69(3):121-126, 2011 (LC-MS/MS) (Continued) listing various pesticides and their detection results.

Handwritten signature of Rick Jordan



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Notes and Definitions

<u>Notes</u>	<u>Definition</u>
LOQ	Limit of Quantitation
ND	Not Detected
*	Not included under current scope of accreditation

The results contained in this report relate only to the items tested.
The results reflect the condition of the samples as received by PAL.
Samples will be stored for a minimum of 60 days after the final report is issued, as described in our Quality Manual.
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