



# STRAIGHT HEMP

## CERTIFICATE OF ANALYSIS

PRODUCT: Full Spectrum Hemp Oil – Certified Organic  
BATCH/LOT: OO22172  
INGREDIENTS: Organic Hemp Seed Oil, Organic Full Spectrum Hemp Extract, Hemp Terpenes  
ADDITIVES: none  
EXCIPIENTS: none

PRODUCTION DATE: 6/2022  
EXPIRATION DATE: 6/2024

TEST	METHOD	SPECIFICATION	RESULTS
<b>Strength &amp; Composition</b>			
Identity	Organoleptic	Conforming	PASS
Identity	HPLC-DAD	Chemical Fingerprint	PASS
Total Cannabidiol (CBD) <sup>i</sup>	HPLC-DAD	36.7 – 42.3 mg/g	40.22 mg/g <sup>ii</sup>
Total Tetrahydrocannabinol (THC) <sup>iii</sup>	HPLC-DAD	NMT 0.30%	0.156%
Terpene assay <sup>iv</sup>	HS-GC/MS	n/e	5,233 ppm
<b>Microbiological<sup>v</sup></b>			
Total Plate Count	TM-26	NMT 10,000 cfu/g	PASS
Total Yeast & Mold	TM-24	NMT 1,000 cfu/g	PASS
Total Coliforms	TM-27	NMT 1,000 cfu/g	PASS
<i>E. coli</i>	TM-25	Absent/25g	PASS
<i>Salmonella</i>	TM-25	Absent/25g	PASS
<b>Mycotoxins</b>			
Alfatoxin B1	LCMS	NMT 20 ppb	PASS
Alfatoxin B2	LCMS	NMT 20 ppb	PASS
Alfatoxin G1	LCMS	NMT 20 ppb	PASS
Alfatoxin G2	LCMS	NMT 20 ppb	PASS
Ochratoxin	LCMS	NMT 20 ppb	PASS
<b>Heavy Metals<sup>vi</sup></b>			
Arsenic (As)	ICP/MS	NMT 1.0 ppm	PASS
Cadmium (Cd)	ICP/MS	NMT 0.5 ppm	PASS
Lead (Pb)	ICP/MS	NMT 0.5 ppm	PASS
Mercury (Hg)	ICP/MS	NMT 0.1 ppm	PASS

<sup>i</sup> Total CBD = CBD + (0.877\*CBDA) to account for loss of acid group during decarboxylation

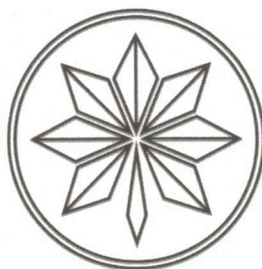
<sup>ii</sup> Corresponds to **37.1 mg/ml**

<sup>iii</sup> Total THC = THC + (0.877\*THCa) to account for loss of acid group during decarboxylation

<sup>iv</sup> Sum of terpene assay (n=22)

<sup>v</sup> Microbiological limits based on USP, WHO, and/or NSF/ANSI

<sup>vi</sup> Limits for As and Pb set below CA Prop 65 *no significant risk level*; Cd and Hg set below USP permitted daily exposure for 110lb body weight. Complies with 6 CCR 1010-21



# STRAIGHT HEMP

## CERTIFICATE OF ANALYSIS

PRODUCT: Full Spectrum Hemp Oil – Certified Organic  
BATCH/LOT: OO22172  
INGREDIENTS: Organic Hemp Seed Oil, Organic Full Spectrum Hemp Extract, Hemp Terpenes  
ADDITIVES: none  
EXCIPIENTS: none


PRODUCTION DATE: 6/2022  
EXPIRATION DATE: 6/2024

TEST	METHOD	SPECIFICATION	RESULTS
<b>Residual Solvents<sup>vii</sup></b>			
Acetone	GC-MS	Below MRL	PASS
Benzene	GC-MS	Below MRL	PASS
Butanes	GC-MS	Below MRL	PASS
Ethanol	GC-MS	Below MRL	PASS
Ethyl Acetate	GC-MS	Below MRL	PASS
Heptanes	GC-MS	Below MRL	PASS
Hexane	GC-MS	Below MRL	PASS
Isopropyl Alcohol	GC-MS	Below MRL	PASS
Methanol	GC-MS	Below MRL	PASS
Pentane	GC-MS	Below MRL	PASS
Propane	GC-MS	Below MRL	PASS
Toluene	GC-MS	Below MRL	PASS
Xylenes	GC-MS	Below MRL	PASS
<b>Pesticides</b>			
Multi-residue panel	UPLC-MS/MS	Below MRL <sup>viii</sup>	PASS

NMT = Not More Than

MRL = Method Reporting Limit

n/e = not established

  
David Cole  
Director of Quality

7/12/22  
Date

<sup>vii</sup> 21 solvent panel may also include: 1,1-Dichloroethene, 1,2-Dichloroethane, Acetonitrile, Chloroform, Ethyl Ether, Ethylene Oxide, Methylene Chloride, Trichloroethylene.  
<sup>viii</sup> 50 residue panel

Prepared for:

## ORGANIC Full Spectrum Oil


## Straight Hemp

Batch ID or Lot Number: <b>0022172</b>	Test: <b>Potency</b>	Reported: <b>6/30/22</b>	Location: 5135 W 58th Ave, Unit 5 Arvada, CO 80002
Matrix: Concentrate	Test ID: T000211691	Started: 6/29/22	USDA License: N/A
Status: Active	Method: TM14 (HPLC-DAD): Potency - Broad Spectrum Analysis, 0.01% THC	Received: 06/24/2022 @ 11:15 AM	Sampler ID: N/A

## CANNABINOID PROFILE

Compound	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)	Notes
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.003	0.009	ND	ND	N/A
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.003	0.010	0.156	1.56	
Cannabidiolic acid (CBDA)	0.018	0.059	<LOQ	0.57	
Cannabidiol (CBD)	0.017	0.057	3.972	39.72	
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.020	0.064	ND	ND	
Cannabinolic Acid (CBNA)	0.011	0.036	ND	ND	
Cannabinol (CBN)	0.005	0.017	0.018	0.18	
Cannabigerolic acid (CBGA)	0.017	0.053	ND	ND	
Cannabigerol (CBG)	0.004	0.013	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.014	0.045	ND	ND	
Tetrahydrocannabivarin (THCV)	0.004	0.012	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.007	0.025	ND	ND	
Cannabidivarin (CBDV)	0.004	0.014	0.014	0.14	
Cannabichromenic Acid (CBCA)	0.006	0.021	ND	ND	
Cannabichromene (CBC)	0.007	0.023	0.132	1.32	
<b>Total Cannabinoids</b>			<b>4.349</b>	<b>43.49</b>	
Total Potential THC**			0.156	1.56	
Total Potential CBD**			4.022	40.22	

  
 Sam Smith  
 30-Jun-22  
 9:42 AM

  
 Kayla Phye  
 30-Jun-22  
 9:45 AM

PREPARED BY / DATE

APPROVED BY / DATE

### Definitions

% = % (w/w) = Percent (Weight of Analyte / Weight of Product)

\*\* Total Potential THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step.

Total THC = THC + (THCa \*(0.877)) and

Total CBD = CBD + (CBDa \*(0.877))

Total Cannabinoids result reflects the absolute sum of all cannabinoids detected.

ND = None Detected (Defined by Dynamic Range of the method)

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC.



CDPHE Certified



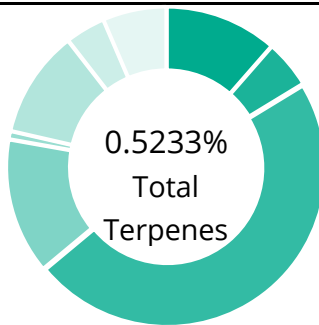
Certificate #4329.02



## ORGANIC Full Spectrum Oil

<b>Batch ID:</b>	OO22172	<b>Test ID:</b>	T000211692
<b>Type:</b>	Concentrate	<b>Submitted:</b>	06/24/2022 @ 11:15 AM
<b>Test:</b>	Terpenes	<b>Started:</b>	6/30/2022
<b>Method:</b>	TM22 (GC-MS)	<b>Reported:</b>	6/30/2022

## TERPENE PROFILE



Compound	%(w/w)	mg/g
(-)-alpha-Bisabolol	0.0328	0.328
Camphene	0.0000	0.000
delta-3-Carene	0.0000	0.000
beta-Caryophyllene	0.0554	0.554
(-)-Caryophyllene Oxide	0.0000	0.000
p-Cymene	0.0000	0.000
Eucalyptol	0.0049	0.049
Geraniol	0.0000	0.000
alpha-Humulene	0.0206	0.206
(-)-Isopulegol	0.0000	0.000
d-Limonene	0.0703	0.703
Linalool	0.0040	0.040
beta-Myrcene	0.2420	2.420
cis-Nerolidol	0.0000	0.000
trans-Nerolidol	0.0018	0.018
Ocimene	0.0000	0.000
beta-Ocimene	0.0021	0.021
alpha-Pinene	0.0581	0.581
(-)-beta-Pinene	0.0247	0.247
alpha-Terpinene	0.0000	0.000
gamma-Terpinene	0.0010	0.010
Terpinolene	0.0056	0.056
	<b>0.5233</b>	<b>5.233</b>


## PREDOMINANT TERPENES

alpha-Pinene	0.0581
(-)-beta-Pinene	0.0247
beta-Myrcene	0.2420
delta-3-Carene	0.0000
alpha-Terpinene	0.0000
d-Limonene	0.0703
Linalool	0.0040
beta-Caryophyllene	0.0554
alpha-Humulene	0.0206
(-)-alpha-Bisabolol	0.0328

## NOTES:

N/A

## FINAL APPROVAL


 Daniel Weidensaul  
 30-Jun-2022  
 5:17 PM


 Jacob Miller  
 30-Jun-2022  
 5:19 PM

PREPARED BY / DATE

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2005 Accredited

A2LA Certificate Number 4329.02

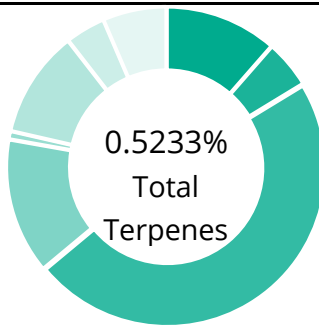


Certificate #4329.02

## ORGANIC Full Spectrum Oil

<b>Batch ID:</b>	OO22172	<b>Test ID:</b>	T000211692
<b>Type:</b>	Concentrate	<b>Submitted:</b>	06/24/2022 @ 11:15 AM
<b>Test:</b>	Terpenes	<b>Started:</b>	6/30/2022
<b>Method:</b>	TM22 (GC-MS)	<b>Reported:</b>	6/30/2022

## TERPENE PROFILE



Compound	%(w/w)	mg/g
(-)-alpha-Bisabolol	0.0328	0.328
Camphene	0.0000	0.000
delta-3-Carene	0.0000	0.000
beta-Caryophyllene	0.0554	0.554
(-)-Caryophyllene Oxide	0.0000	0.000
p-Cymene	0.0000	0.000
Eucalyptol	0.0049	0.049
Geraniol	0.0000	0.000
alpha-Humulene	0.0206	0.206
(-)-Isopulegol	0.0000	0.000
d-Limonene	0.0703	0.703
Linalool	0.0040	0.040
beta-Myrcene	0.2420	2.420
cis-Nerolidol	0.0000	0.000
trans-Nerolidol	0.0018	0.018
Ocimene	0.0000	0.000
beta-Ocimene	0.0021	0.021
alpha-Pinene	0.0581	0.581
(-)-beta-Pinene	0.0247	0.247
alpha-Terpinene	0.0000	0.000
gamma-Terpinene	0.0010	0.010
Terpinolene	0.0056	0.056
	<b>0.5233</b>	<b>5.233</b>

## PREDOMINANT TERPENES

alpha-Pinene	0.0581
(-)-beta-Pinene	0.0247
beta-Myrcene	0.2420
delta-3-Carene	0.0000
alpha-Terpinene	0.0000
d-Limonene	0.0703
Linalool	0.0040
beta-Caryophyllene	0.0554
alpha-Humulene	0.0206
(-)-alpha-Bisabolol	0.0328

## NOTES:

N/A

## FINAL APPROVAL



 Daniel Weidensaul  
 30-Jun-2022  
 5:17 PM



 Jacob Miller  
 30-Jun-2022  
 5:19 PM

PREPARED BY / DATE

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2005 Accredited

A2LA Certificate Number 4329.02



Certificate #4329.02



## Certificate of Analysis

Straight Hemp  
 5135 W. 58<sup>th</sup> Ave, Ste 5  
 Arvada, CO 80002  
 Phone: 970-214-7814

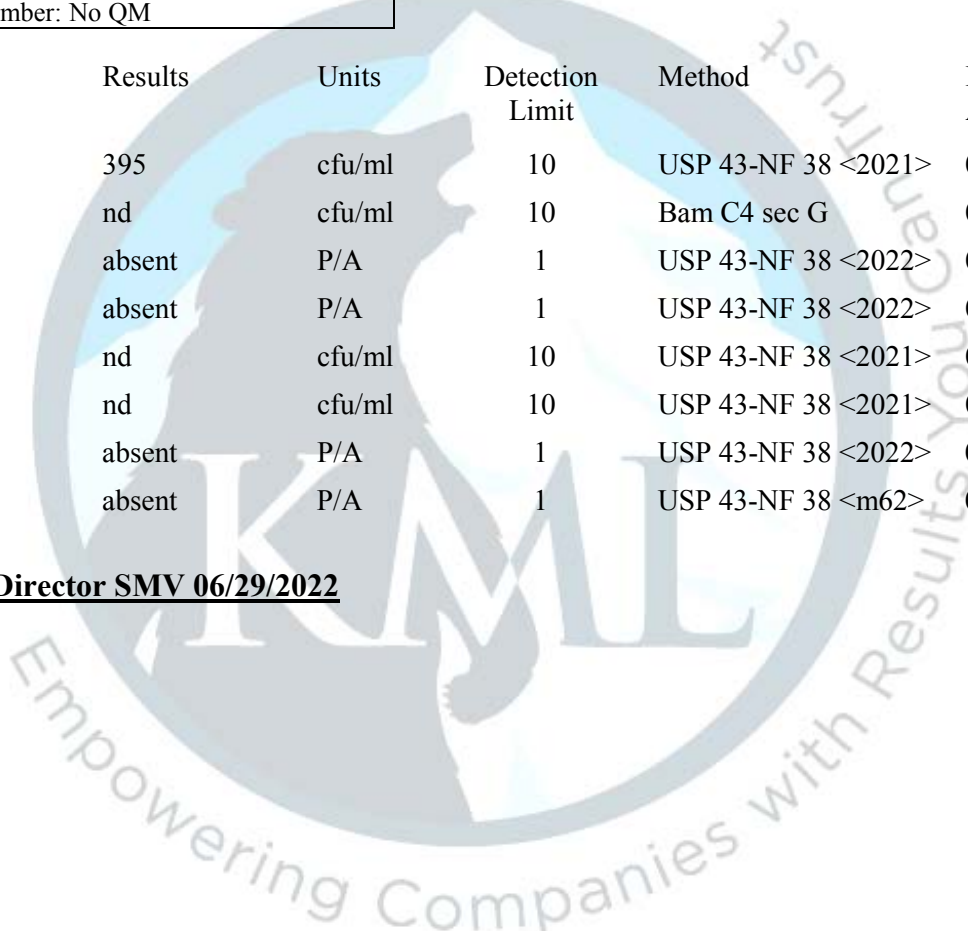
Invoice Number: 22.0832  
 PO Number:  
 Received Date: 06/24/2022  
 Number of Samples: 02  
 Project Name: Routine Testing

### Microbiology Report:

Lab #: 22-5988	Sample Lot: OO22172	Sample Date:
Sample Name: Organic Full Spectrum oil	Additional ID:	Plated Date: 06/24/2022
Qualifying Material Number: No QM		

Test Performed	Results	Units	Detection Limit	Method	Date Analyzed
Aerobic Plate Count	395	cfu/ml	10	USP 43-NF 38 <2021>	06/27/2022
Coliforms	nd	cfu/ml	10	Bam C4 sec G	06/25/2022
<i>E. coli</i>	absent	P/A	1	USP 43-NF 38 <2022>	06/27/2022
<i>Staph aureus</i>	absent	P/A	1	USP 43-NF 38 <2022>	06/27/2022
Yeast	nd	cfu/ml	10	USP 43-NF 38 <2021>	06/29/2022
Mold	nd	cfu/ml	10	USP 43-NF 38 <2021>	06/29/2022
Salmonella	absent	P/A	1	USP 43-NF 38 <2022>	06/28/2022
<i>Pseudo. aeruginosa</i>	absent	P/A	1	USP 43-NF 38 <m62>	06/27/2022

**Approved By: QA Director SMV 06/29/2022**



**Confidential**

Page 1 of 3

This Certificate/Report shall not be reproduced, except in full, without the prior written consent of KML Laboratories, Inc.

This report may include work not covered by KML's current ISO accreditation as indicated by ‡.

Note: On this date, this material met the specifications designated above, and is **not known if statistically representative of the lot evaluated on a routine basis**. This information is not intended to relieve the purchaser from its responsibility to determine the suitability of this material for purchaser's purposes, to comply with all laws and regulations regarding the safe use of this material. [nd = none detected above the listed detection limit](#)



Prepared for:

**ORGANIC Full Spectrum Oil****Straight Hemp**

Batch ID or Lot Number: <b>0022172</b>	Test: <b>Mycotoxins</b>	Reported: <b>6/30/22</b>	Location: 5135 W 58th Ave, Unit 5 Arvada, CO 80002
Matrix: Concentrate	Test ID: T000211696	Started: 6/29/22	USDA License: N/A
Status: Active	Method: TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	Received: 06/24/2022 @ 11:15 AM	Sampler ID: N/A

**MYCOTOXIN DETERMINATION**

Compound	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	1.6 - 126.4	ND	N/A
Aflatoxin B1	1 - 31.5	ND	
Aflatoxin B2	1.3 - 31.3	ND	
Aflatoxin G1	1.1 - 31.2	ND	
Aflatoxin G2	1.4 - 31.5	ND	
<b>Total Aflatoxins (B1, B2, G1, and G2)</b>		ND	

Sam Smith  
30-Jun-22  
3:25 PM

PREPARED BY / DATE

Jacob Miller  
30-Jun-22  
3:29 PM

APPROVED BY / DATE

**Definitions**

ND = None Detected (Defined by Dynamic Range of the method)

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC.



Certificate #4329.02

Prepared for:

**ORGANIC Full Spectrum Oil**
**Straight Hemp**


Batch ID or Lot Number: <b>0022172</b>	Test: <b>Metals</b>	Reported: <b>6/28/22</b>	Location: 5135 W 58th Ave, Unit 5 Arvada, CO 80002
Matrix: Unit Co	Test ID: T000211694	Started: 6/27/22	USDA License: N/A
Status: Active	Method: TM19 (ICP-MS): Heavy Metals	Received: 06/24/2022 @ 11:15 AM	Sampler ID: N/A

**HEAVY METALS DETERMINATION**

Compound	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.079 - 7.90	ND	
Cadmium	0.079 - 7.87	ND	
Mercury	0.078 - 7.80	ND	
Lead	0.080 - 7.99	ND	


 Daniel Weidensaul  
 28-Jun-22  
 8:05 PM

PREPARED BY / DATE


 Courtney Richards  
 28-Jun-22  
 9:10 PM

APPROVED BY / DATE

**Definitions**

ND = None Detected (Defined by Dynamic Range of the method)

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC.



Certificate #4329.02




Prepared for:


**ORGANIC Full Spectrum Oil**
**Straight Hemp**

Batch ID or Lot Number: <b>0022172</b>	Test: <b>Residual Solvents</b>	Reported: <b>6/29/22</b>	Location: 5135 W 58th Ave, Unit 5 Arvada, CO 80002
Matrix: N/A	Test ID: T000211695	Started: 6/28/22	USDA License: N/A
Status: Active	Methods: TM04 (GC-MS): Residual Solvents	Received: 06/24/2022 @ 11:15 AM	Sampler ID: N/A

**RESIDUAL SOLVENTS DETERMINATION**

Solvent	Dynamic Range (ppm)	Result (ppm)	Notes
<b>Propane</b>	84 - 1677	*ND	
<b>Butanes</b> (Isobutane, n-Butane)	173 - 3458	*ND	
<b>Methanol</b>	62 - 1239	*ND	
<b>Pentane</b>	93 - 1868	*ND	
<b>Ethanol</b>	93 - 1858	*ND	
<b>Acetone</b>	100 - 1995	*ND	
<b>Isopropyl Alcohol</b>	101 - 2024	*ND	
<b>Hexane</b>	6 - 123	*ND	
<b>Ethyl Acetate</b>	102 - 2050	*ND	
<b>Benzene</b>	0.2 - 4	*ND	
<b>Heptanes</b>	98 - 1968	*ND	
<b>Toluene</b>	18 - 370	*ND	
<b>Xylenes</b> (m,p,o-Xylenes)	136 - 2724	*ND	


 Sam Smith  
 29-Jun-22  
 7:18 PM


 Daniel Weidensaul  
 29-Jun-22  
 7:23 PM

PREPARED BY / DATE

APPROVED BY / DATE

**Definitions**

\* ND = None Detected (Defined by Dynamic Range of the method)

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC.



Certificate #4329.02

Prepared for:

**ORGANIC Full Spectrum Oil**
**Straight Hemp**


Batch ID or Lot Number: <b>0022172</b>	Test: <b>Pesticides</b>	Reported: <b>7/1/22</b>	Location: 5135 W 58th Ave, Unit 5 Arvada, CO 80002
---	----------------------------	----------------------------	--


Matrix: Concentrate	Test ID: T000211693	Started: 6/30/22	USDA License: N/A
------------------------	------------------------	---------------------	----------------------

Status: N/A	Method: TM17(LC-QQQ LC MS/MS):	Received: 06/24/2022 @ 11:15 AM	Sampler ID: N/A
----------------	-----------------------------------	------------------------------------	--------------------

**PESTICIDE DETERMINATION**

Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)
Acephate	41	ND	Fenoxycarb	36	ND	Paclobutrazol	43	ND
Acetamiprid	43	ND	Fipronil	22	ND	Permethrin	298	ND
Abamectin	306	ND	Flonicamid	48	ND	Phosmet	40	ND
Azoxystrobin	47	ND	Fludioxonil	333	ND	Prophos	287	ND
Bifenazate	44	ND	Hexythiazox	46	ND	Propoxur	42	ND
Boscalid	67	ND	Imazalil	292	ND	Pyridaben	299	ND
Carbaryl	38	ND	Imidacloprid	44	ND	Spinosad A	36	ND
Carbofuran	43	ND	Kresoxim-methyl	150	ND	Spinosad D	49	ND
Chlorantraniliprole	55	ND	Malathion	293	ND	Spiromesifen	235	ND
Chlorpyrifos	500	ND	Metalaxyl	49	ND	Spirotetramat	293	ND
Clofentezine	280	ND	Methiocarb	45	ND	Spiroxamine 1	19	ND
Diazinon	283	ND	Methomyl	42	ND	Spiroxamine 2	25	ND
Dichlorvos	280	ND	MGK 264 1	109	ND	Tebuconazole	284	ND
Dimethoate	45	ND	MGK 264 2	121	ND	Thiacloprid	43	ND
E-Fenpyroximate	290	ND	Myclobutanil	49	ND	Thiamethoxam	42	ND
Etofenprox	41	ND	Naled	43	ND	Trifloxystrobin	43	ND
Etoxazole	297	ND	Oxamyl	1500	ND			

  
 Daniel Weidensaul  
 7/1/2022  
 12:16:00 PM

  
 Sam Smith  
 7/1/2022  
 12:23:00 PM

PREPARED BY / DATE

APPROVED BY / DATE

**Definitions**

LOQ = Limit of Quantification  
 ppb = Parts per Billion

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC.



Certificate #4329.02