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CERTIFICATE OF ANALYSIS

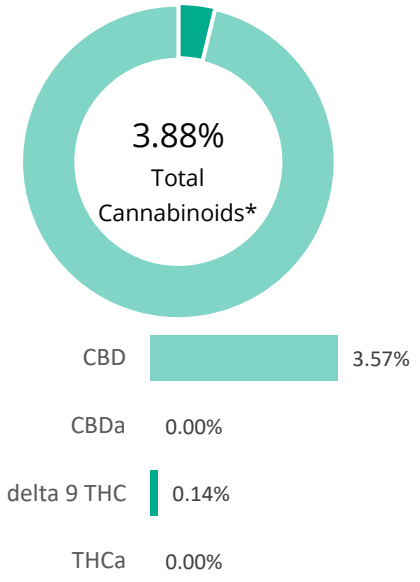
prepared for: Beak and Skiff Research

4473 Cherry Valley Tpke
Lafayette, NY 13084

CBD_BAL_HIY

Batch ID:	B0023	**Test ID:**	T000178213
Type:	Concentrate	**Submitted:**	11/24/2021 @ 10:13 AM
Test:	Potency	**Started:**	11/29/2021
Method:	TM14 (HPLC-DAD)	**Reported:**	11/30/2021

CANNABINOID PROFILE



Compound	LOQ (%)	Result (%)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.05	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.05	0.14	1.4
Cannabidiolic acid (CBDA)	0.05	ND	ND
Cannabidiol (CBD)	0.05	3.57	35.7
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.06	ND	ND
Cannabinolic Acid (CBNA)	0.03	ND	ND
Cannabinol (CBN)	0.02	ND	ND
Cannabigerolic acid (CBGA)	0.05	ND	ND
Cannabigerol (CBG)	0.01	0.11	1.1
Tetrahydrocannabivarinic Acid (THCVA)	0.04	ND	ND
Tetrahydrocannabivarin (THCV)	0.01	ND	ND
Cannabidivarinic Acid (CBDVA)	0.02	ND	ND
Cannabidivarin (CBDV)	0.01	ND	ND
Cannabichromenic Acid (CBCA)	0.02	ND	ND
Cannabichromene (CBC)	0.02	0.06	0.6
Total Cannabinoids		**3.88**	**38.8**
Total Potential THC**		0.14	1.4
Total Potential CBD**		3.57	35.7

% = % (w/w) = Percent (Weight of Analyte / Weight of Product)
* Total Cannabinoids result reflects the absolute sum of all cannabinoids detected.
** 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))
ND = None Detected (Defined by Dynamic Range of the method)

NOTES:
N/A

FINAL APPROVAL

K Winternheimer
Karen Winternheime
30-Nov-2021
4:11 PM
PREPARED BY / DATE

Samantha Smith
Sam Smith
30-Nov-2021
4:17 PM
APPROVED BY / DATE

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. ISO/IEC 17025:2005 Accredited A2LA Certificate Number 4329.02

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CERTIFICATE OF ANALYSIS

Prepared for:

CBD_BAL_HIY

Beak and Skiff Research

Batch ID or Lot Number:	Test:	Reported:	Location:
B0023	**Residual Solvents**	**11/30/21**	4473 Cherry Valley Tpke Lafayette, NY 13084

Matrix:	Test ID:	Started:	USDA License:
N/A	T000178217	11/30/21	N/A

Status:	Methods:	Received:	Sampler ID:
N/A	TM04 (GC-MS): Residual Solvents	11/24/2021 @ 10:13 AM	N/A

RESIDUAL SOLVENTS DETERMINATION

Solvent	Dynamic Range (ppm)	Result (ppm)
Propane	101 - 2016	*ND
Butanes (Isobutane, n-Butane)	200 - 3990	*ND
Methanol	59 - 1184	*ND
Pentane	82 - 1641	*ND
Ethanol	84 - 1676	*ND
Acetone	97 - 1935	*ND
Isopropyl Alcohol	101 - 2017	*ND
Hexane	6 - 117	*ND
Ethyl Acetate	97 - 1939	*ND
Benzene	0.2 - 3.9	*ND
Heptanes	91 - 1826	*ND
Toluene	18 - 353	*ND
Xylenes (m,p,o-Xylenes)	127 - 2543	*ND

Notes

Daniel Weidensaul
30-Nov-21
7:54 PM

PREPARED BY / DATE

Ryan Weems
30-Nov-21
8:02 PM

APPROVED BY / DATE

Definitions

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

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CERTIFICATE OF ANALYSIS

Prepared for:

CBD_BAL_HIY

Beak and Skiff Research

Batch ID or Lot Number:	Test:	Reported:	Location:
B0023	**Pesticides**	**12/2/21**	4473 Cherry Valley Tpke Lafayette, NY 13084

Matrix:	Test ID:	Started:	USDA License:
Concentrate	T000178214	12/1/21	N/A

Status:	Method:	Received:	Sampler ID:
N/A	TM17(LC-QQQ LC MS/MS):	11/24/2021 @ 10:13 AM	N/A

PESTICIDE DETERMINATION

Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)
Acephate	39	ND	**Fenoxycarb**	43	ND	**Paclobutrazol**	48	ND
Acetamiprid	41	ND	**Fipronil**	50	ND	**Permethrin**	284	ND
Avermectin	339	ND	**Flonicamid**	48	ND	**Phosmet**	39	ND
Azoxystrobin	46	ND	**Fludioxonil**	316	ND	**Prophos**	312	ND
Bifenazate	41	ND	**Hexythiazox**	39	ND	**Propoxur**	44	ND
Boscalid	36	ND	**Imazalil**	283	ND	**Pyridaben**	290	ND
Carbaryl	41	ND	**Imidacloprid**	50	ND	**Spinosad A**	35	ND
Carbofuran	44	ND	**Kresoxim-methyl**	150	ND	**Spinosad D**	52	ND
Chlorantraniliprole	67	ND	**Malathion**	302	ND	**Spiromesifen**	290	ND
Chlorpyrifos	500	ND	**Metalaxyl**	44	ND	**Spirotetramat**	290	ND
Clofentezine	293	ND	**Methiocarb**	43	ND	**Spiroxamine 1**	19	ND
Diazinon	284	ND	**Methomyl**	42	ND	**Spiroxamine 2**	24	ND
Dichlorvos	293	ND	**MGK 264 1**	203	ND	**Tebuconazole**	306	ND
Dimethoate	42	ND	**MGK 264 2**	123	ND	**Thiacloprid**	41	ND
E-Fenpyroximate	280	ND	**Myclobutanil**	42	ND	**Thiamethoxam**	43	ND
Etofenprox	44	ND	**Naled**	47	ND	**Trifloxystrobin**	44	ND
Etoxazole	304	ND	**Oxamyl**	1500	ND			

K Winternheimer

Karen Winternheimer
12/2/2021
3:50:00 PM

PREPARED BY / DATE

Samantha Smith

Sam Smith
12/2/2021
3:57:00 PM

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.

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CERTIFICATE OF ANALYSIS

Prepared for:

CBD_BAL_HIY

Beak and Skiff Research

Batch ID or Lot Number:	Test:	Reported:	Location:
B0023	**Metals**	**12/1/21**	4473 Cherry Valley Tpke Lafayette, NY 13084

Matrix:	Test ID:	Started:	USDA License:
Unit	T000178216	11/30/21	N/A

Status:	Method:	Received:	Sampler ID:
N/A	TM19 (ICP-MS): Heavy Metals	11/24/2021 @ 10:13 AM	N/A

HEAVY METALS DETERMINATION

Compound	Dynamic Range (ppm)	Result (ppm)
Arsenic	0.046 - 4.63	ND
Cadmium	0.045 - 4.47	ND
Mercury	0.044 - 4.42	ND
Lead	0.044 - 4.42	ND

Notes

Ryan Weems
1-Dec-21
3:19 PM

PREPARED BY / DATE

Sam Smith
1-Dec-21
3:22 PM

APPROVED BY / DATE

Definitions

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

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CERTIFICATE OF ANALYSIS

prepared for: BEAK AND SKIFF RESEARCH
4473 CHERRY VALLEY TPKE
LAFAYETTE, NY 13084

CBD_BAL_HIY

Batch ID:	B0023	**Test ID:**	T000178215
Matrix:	Finished Product	**Received:**	11/24/2021 @ 10:13 AM
Test:	Microbial Contaminants	**Started:**	11/29/2021
Method:	TM25 (qPCR) TM24, TM26, TM27, TM28 (Culture Plating)	**Reported:**	12/2/2021

MICROBIAL CONTAMINANTS

Contaminant	Method	LOD	LLOQ	ULOQ	Result
Total Aerobic Count*	TM-26 Culture Plating	10^2 CFU/g	10^3 CFU/g	1.5x10^5 CFU/g	**None Detected**
Total Coliforms*	TM-27 Culture Plating	10^1 CFU/g	10^2 CFU/g	1.5x10^4 CFU/g	**None Detected**
Total Yeast and Molds*	TM-24 Culture Plating	10^1 CFU/g	10^2 CFU/g	1.5x10^4 CFU/g	**None Detected**
E. coli	TM-28 Culture Plating	1 CFU/g	NA	NA	**Absent**
***E. coli* (STEC)**	TM-25 PCR	1 CFU/g	NA	NA	**Absent**
Salmonella	TM-25 PCR	1 CFU/g	NA	NA	**Absent**

** Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form.*
Examples: 10^2 = 100 CFU
10^3 = 1,000 CFU
10^4 = 10,000 CFU
10^5 = 100,000 CFU

NOTES:
Free from visual mold, mildew, and foreign matter

DEFINITIONS:
CFU/g = Colony Forming Units per Gram.
LOD = Limit of Detection
ULOQ = Upper Limit of Quantitation
LLOQ = Lower Limit of Quantitation

FINAL APPROVAL

Jackson Osaghae-Nosa
12/2/2021
9:46:00 AM
PREPARED BY / DATE

Brianne Maillot
12/2/2021
11:14:00 AM
APPROVED BY / DATE

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