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CERTIFICATE OF ANALYSIS

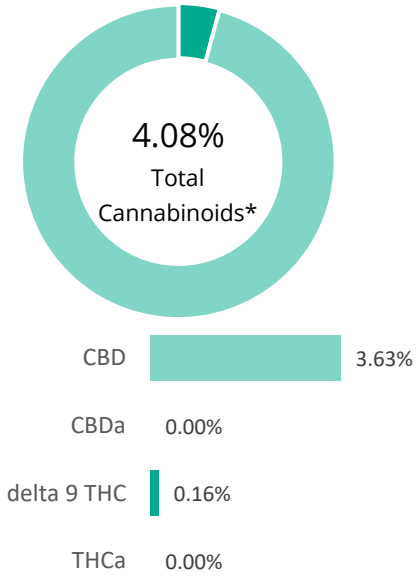
prepared for: Beak and Skiff Research

4473 Cherry Valley Tpke
Lafayette, NY 13084

O_CBD_BAL_MMR

Batch ID:	B0020	**Test ID:**	T000166238
Type:	Concentrate	**Submitted:**	10/01/2021 @ 10:30 AM
Test:	Potency	**Started:**	10/4/2021
Method:	TM14 (HPLC-DAD)	**Reported:**	10/5/2021

CANNABINOID PROFILE



Compound	LOQ (%)	Result (%)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.05	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.06	0.16	1.6
Cannabidiolic acid (CBDA)	0.04	ND	ND
Cannabidiol (CBD)	0.04	3.63	36.3
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.07	ND	ND
Cannabinolic Acid (CBNA)	0.04	ND	ND
Cannabinol (CBN)	0.02	ND	ND
Cannabigerolic acid (CBGA)	0.06	ND	ND
Cannabigerol (CBG)	0.01	0.22	2.2
Tetrahydrocannabivarinic Acid (THCVA)	0.05	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	0.07	0.7
Total Cannabinoids		**4.08**	**40.8**
Total Potential THC**		0.16	1.6
Total Potential CBD**		3.63	36.3

% = % (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

Karen Winternheime
5-Oct-2021
4:38 PM
PREPARED BY / DATE

Rvan Weems
5-Oct-2021
4:40 PM
APPROVED BY / DATE

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CERTIFICATE OF ANALYSIS

Prepared for:

O_CBD_BAL_MMR

Beak and Skiff Research

Batch ID or Lot Number:	Test:	Reported:	Location:
B0020	**Pesticides**	**10/8/21**	4473 Cherry Valley Tpke Lafayette, NY 13084

Matrix:	Test ID:	Started:	USDA License:
Concentrate	T000166239	10/7/21	N/A

Status:	Method:	Received:	Sampler ID:
N/A	TM17(LC-QQQ LC MS/MS):	10/01/2021 @ 10:30 AM	N/A

PESTICIDE DETERMINATION

Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)
Acephate	36	ND	**Fenoxycarb**	18	ND	**Paclobutrazol**	40	ND
Acetamiprid	41	ND	**Fipronil**	30	ND	**Permethrin**	317	ND
Avermectin	345	ND	**Flonicamid**	44	ND	**Phosmet**	40	ND
Azoxystrobin	44	ND	**Fludioxonil**	282	ND	**Prophos**	301	ND
Bifenazate	44	ND	**Hexythiazox**	35	ND	**Propoxur**	42	ND
Boscalid	42	ND	**Imazalil**	292	ND	**Pyridaben**	341	ND
Carbaryl	38	ND	**Imidacloprid**	38	ND	**Spinosad A**	38	ND
Carbofuran	41	ND	**Kresoxim-methyl**	150	ND	**Spinosad D**	57	ND
Chlorantraniliprole	41	ND	**Malathion**	308	ND	**Spiromesifen**	281	ND
Chlorpyrifos	500	ND	**Metalaxyl**	43	ND	**Spirotetramat**	292	ND
Clofentezine	292	ND	**Methiocarb**	40	ND	**Spiroxamine 1**	18	ND
Diazinon	303	ND	**Methomyl**	40	ND	**Spiroxamine 2**	25	ND
Dichlorvos	283	ND	**MGK 264 1**	160	ND	**Tebuconazole**	306	ND
Dimethoate	41	ND	**MGK 264 2**	114	ND	**Thiacloprid**	41	ND
E-Fenpyroximate	336	ND	**Myclobutanil**	38	ND	**Thiamethoxam**	39	ND
Etofenprox	42	ND	**Naled**	47	ND	**Trifloxystrobin**	44	ND
Etoxazole	312	ND	**Oxamyl**	1500	ND			

Karen Winternheimer
10/8/2021
8:59:00 AM

PREPARED BY / DATE

Alex Smith
10/8/2021
3:15:00 PM

APPROVED BY / DATE

Definitions

LOQ = Limit of Quantification

ppb = Parts per Billion

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CERTIFICATE OF ANALYSIS

Prepared for:

O_CBD_BAL_MMR

Beak and Skiff Research

Batch ID or Lot Number:	Test:	Reported:	Location:
B0020	**Residual Solvents**	**10/5/21**	4473 Cherry Valley Tpke Lafayette, NY 13084

Matrix:	Test ID:	Started:	USDA License:
N/A	T000166242	10/5/21	N/A

Status:	Methods:	Received:	Sampler ID:
N/A	TM04 (GC-MS): Residual Solvents	10/01/2021 @ 10:30 AM	N/A

RESIDUAL SOLVENTS DETERMINATION

Solvent	Dynamic Range (ppm)	Result (ppm)
Propane	83 - 1651	*ND
Butanes (Isobutane, n-Butane)	162 - 3239	*ND
Methanol	66 - 1327	*ND
Pentane	95 - 1903	*ND
Ethanol	95 - 1903	*ND
Acetone	106 - 2127	*ND
Isopropyl Alcohol	119 - 2371	*ND
Hexane	7 - 138	*ND
Ethyl Acetate	112 - 2242	*ND
Benzene	0 - 4	*ND
Heptanes	103 - 2058	*ND
Toluene	19 - 390	*ND
Xylenes (m,p,o-Xylenes)	142 - 2845	*ND

Notes

Daniel Weidensaul
5-Oct-21
6:41 PM

PREPARED BY / DATE

Ryan Weems
5-Oct-21
6:47 PM

APPROVED BY / DATE

Definitions

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

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CERTIFICATE OF ANALYSIS

Prepared for:

O_CBD_BAL_MMR

Beak and Skiff Research

Batch ID or Lot Number:	Test:	Reported:	Location:
B0020	**Metals**	**10/5/21**	4473 Cherry Valley Tpke Lafayette, NY 13084

Matrix:	Test ID:	Started:	USDA License:
Unit	T000166241	10/4/21	N/A

Status:	Method:	Received:	Sampler ID:
N/A	TM19 (ICP-MS): Heavy Metals	10/01/2021 @ 10:30 AM	N/A

HEAVY METALS DETERMINATION

Compound	Dynamic Range (ppm)	Result (ppm)
Arsenic	0.048 - 4.82	ND
Cadmium	0.047 - 4.74	ND
Mercury	0.046 - 4.58	ND
Lead	0.048 - 4.79	ND

Notes

Sam Smith
5-Oct-21
12:14 PM
PREPARED BY / DATE

Ryan Weems
5-Oct-21
12:17 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

O_CBD_BAL_MMR

Batch ID:	B0020	**Test ID:**	T000166240
Matrix:	Finished Product	**Received:**	10/01/2021 @ 10:30 AM
Test:	Microbial Contaminants	**Started:**	10/1/2021
Method:	TM25 (qPCR) TM24, TM26, TM27, TM28 (Culture Plating)	**Reported:**	10/4/2021

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

Carly Bader
10/4/2021
11:38:00 AM
PREPARED BY / DATE

Sarah Henning
10/4/2021
2:11:00 PM
APPROVED BY / DATE

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