SC Labs®
Formerly Botanacor Labs

CERTIFICATE OF ANALYSIS

Prepared for:
BLUEBIRD BOTANICALS
PO BOX 271724
Louisville, CO USA 80027

CF-30

Batch ID or Lot Number:	Test, Test ID and Methods:	Matrix:	Page 1 of 7
4310492049	Various	Finished Product	
Reported:	Started:	Received:	
11Mar2024	08Mar2024	08Mar2024	

Microbial Contaminants - Colorado Compliance

Test ID: T000273359
Methods: TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)

	Method	LOD	Quantitation Range	Result	Notes
STEC	TM25: PCR	10^0 CFU/25g	NA	Absent	Free from visual mold, mildew, and foreign matter
Salmonella	TM25: PCR	10^0 CFU/25g	NA	Absent	
Total Yeast and Mold*	TM24: Culture Plating	10^1 CFU/g	$1.0x10^2$ - $1.5x10^4$	None Detected	
Total Aerobic Count*	TM26: Culture Plating	10^2 CFU/g	$1.0x10^3$ - $1.5x10^5$	None Detected	
Total Coliforms*	TM27: Culture Plating	10^1 CFU/g	$1.0x10^2$ - $1.5x10^4$	None Detected	

Final Approval

Eden Thompson-Wright
11Mar2024
11:05:00 AM MDT
PREPARED BY / DATE

Brett Hudson
11Mar2024
11:53:00 AM MDT
APPROVED BY / DATE

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Cannabinoids - Colorado Compliance

Test ID: T000273356
Methods: TM14 (HPLC-DAD): Potency – Standard

Cannabinoid Analysis	**LOD** (mg/mL)	**LOQ** (mg/mL)	**Result** (mg/mL)	**Result** (mg/g)	**Notes**
Cannabichromene (CBC)	0.065	0.215	10.787	11.41	Density = 0.945g/mL
Cannabichromenic Acid (CBCA)	0.060	0.197	ND	ND	
Cannabidiol (CBD)	0.180	0.615	22.137	23.43	
Cannabidiolic Acid (CBDA)	0.185	0.631	ND	ND	
Cannabidivarin (CBDV)	0.043	0.145	<LOQ	<LOQ	
Cannabidivarinic Acid (CBDVA)	0.077	0.263	ND	ND	
Cannabigerol (CBG)	0.037	0.122	0.628	0.66	
Cannabigerolic Acid (CBGA)	0.155	0.511	ND	ND	
Cannabinol (CBN)	0.048	0.159	ND	ND	
Cannabinolic Acid (CBNA)	0.106	0.348	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.184	0.609	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.167	0.553	0.589	0.62	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.148	0.490	ND	ND	
Tetrahydrocannabivarin (THCV)	0.034	0.111	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.131	0.432	ND	ND	
Total Cannabinoids			**34.141**	**36.12**	
Total Potential THC			0.589	0.62	
Total Potential CBD			22.137	23.43	

Final Approval

Karen Winternheimer
12Mar2024
01:07:00 PM MDT
PREPARED BY / DATE

Phillip Travisano
12Mar2024
01:10:00 PM MDT
APPROVED BY / DATE

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Cannabinoids - Colorado Compliance

Test ID: T000273357
Methods: TM14 (HPLC-DAD): Potency – Standard

Cannabinoid Analysis	**LOD** (mg/mL)	**LOQ** (mg/mL)	**Result** (mg/mL)	**Result** (mg/g)	**Notes**
Cannabichromene (CBC)	0.063	0.207	10.717	11.34	Density = 0.945g/mL
Cannabichromenic Acid (CBCA)	0.057	0.189	ND	ND	
Cannabidiol (CBD)	0.173	0.591	22.048	23.33	
Cannabidiolic Acid (CBDA)	0.178	0.606	ND	ND	
Cannabidivarin (CBDV)	0.041	0.140	<LOQ	<LOQ	
Cannabidivarinic Acid (CBDVA)	0.074	0.253	ND	ND	
Cannabigerol (CBG)	0.036	0.117	0.625	0.66	
Cannabigerolic Acid (CBGA)	0.149	0.491	ND	ND	
Cannabinol (CBN)	0.046	0.153	ND	ND	
Cannabinolic Acid (CBNA)	0.102	0.335	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.177	0.585	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.161	0.531	0.572	0.61	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.143	0.471	ND	ND	
Tetrahydrocannabivarin (THCV)	0.032	0.107	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.126	0.415	ND	ND	
Total Cannabinoids			**33.962**	**35.94**	
Total Potential THC			0.572	0.61	
Total Potential CBD			22.048	23.33	

Final Approval

Karen Winternheimer
12Mar2024
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Phillip Travisano
12Mar2024
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Pesticides

Test ID: T000273358
Methods: TM17

(LC-QQ LC MS/MS)	**Dynamic Range** (ppb)	**Result** (ppb)
Abamectin	392 - 2731	ND
Acephate	42 - 2664	ND
Acetamiprid	44 - 2648	ND
Azoxystrobin	47 - 2718	ND
Bifenazate	47 - 2741	ND
Boscalid	39 - 2707	ND
Carbaryl	42 - 2679	ND
Carbofuran	44 - 2687	ND
Chlorantraniliprole	38 - 2697	ND
Chlorpyrifos	54 - 2722	ND
Clofentezine	280 - 2713	ND
Diazinon	286 - 2720	ND
Dichlorvos	266 - 2715	ND
Dimethoate	44 - 2642	ND
E-Fenpyroximate	229 - 2831	ND
Etofenprox	49 - 2693	ND
Etoxazole	301 - 2626	ND
Fenoxycarb	43 - 2722	ND
Fipronil	61 - 2766	ND
Flonicamid	56 - 2698	ND
Fludioxonil	284 - 2706	ND
Hexythiazox	42 - 2735	ND
Imazalil	281 - 2771	ND
Imidacloprid	45 - 2681	ND
Kresoxim-methyl	45 - 2785	ND

	Dynamic Range (ppb)	**Result** (ppb)
Malathion	283 - 2748	ND
Metalaxyl	46 - 2742	ND
Methiocarb	44 - 2738	ND
Methomyl	45 - 2685	ND
MGK 264 1	164 - 1602	ND
MGK 264 2	127 - 1068	ND
Myclobutanil	44 - 2663	ND
Naled	49 - 2691	ND
Oxamyl	43 - 2699	ND
Paclobutrazol	44 - 2693	ND
Permethrin	159 - 2746	ND
Phosmet	39 - 2612	ND
Prophos	306 - 2711	ND
Propoxur	47 - 2704	ND
Pyridaben	295 - 2707	ND
Spinosad A	34 - 2071	ND
Spinosad D	67 - 652	ND
Spiromesifen	290 - 2706	ND
Spirotetramat	295 - 2796	ND
Spiroxamine 1	15 - 1051	ND
Spiroxamine 2	24 - 1592	ND
Tebuconazole	297 - 2745	ND
Thiacloprid	45 - 2648	ND
Thiamethoxam	43 - 2686	ND
Trifloxystrobin	46 - 2706	ND

Final Approval

Karen Winternheimer
13Mar2024
09:45:00 AM MDT
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Phillip Travisano
13Mar2024
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Residual Solvents - Colorado Compliance

Test ID: T000273361
Methods: TM04 (GC-MS): Residual Solvents

	Dynamic Range (ppm)	**Result** (ppm)	**Notes**
Propane	118 - 2364	ND	
Butanes (Isobutane, n-Butane)	221 - 4425	ND	
Methanol	66 - 1320	ND	
Pentane	105 - 2101	ND	
Ethanol	107 - 2144	ND	
Acetone	106 - 2115	ND	
Isopropyl Alcohol	107 - 2135	ND	
Hexane	7 - 133	ND	
Ethyl Acetate	106 - 2129	ND	
Benzene	0.2 - 4.3	ND	
Heptanes	103 - 2066	ND	
Toluene	19 - 377	ND	
Xylenes (m,p,o-Xylenes)	133 - 2667	ND	

Final Approval

Karen Winternheimer
13Mar2024
10:30:00 AM MDT
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Phillip Travisano
13Mar2024
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Heavy Metals - Colorado Compliance

Test ID: T000273360
Methods: TM19 (ICP-MS): Heavy Metals

	Dynamic Range (ppm)	**Result** (ppm)	**Notes**
Arsenic	0.05 - 4.62	ND	
Cadmium	0.05 - 4.51	ND	
Mercury	0.05 - 4.59	ND	
Lead	0.04 - 4.50	ND	

Final Approval


Phillip Travisano
13Mar2024
12:04:00 PM MDT
PREPARED BY / DATE


Karen Winternheimer
13Mar2024
12:21:00 PM MDT
APPROVED BY / DATE

Mycotoxins - Colorado Compliance

Test ID: T000273362
Methods: TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins

	Dynamic Range (ppb)	**Result** (ppb)	**Notes**
Ochratoxin A	2.84 - 129.17	ND	N/A
Aflatoxin B1	0.94 - 33.39	ND	
Aflatoxin B2	1.03 - 33.29	ND	
Aflatoxin G1	1.07 - 33.62	ND	
Aflatoxin G2	1.13 - 33.78	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval


Karen Winternheimer
19Mar2024
09:36:00 AM MDT
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Phillip Travisano
19Mar2024
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11Mar2024	08Mar2024	08Mar2024	

https://results.botanacor.com/api/v1/coas/uuid/30354203-7b4c-40bb-bf4f-644c03f581ac

Definitions
LOD = Limit of Detection, ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation, PPB = Parts per Billion, % = % (w/w) = Percent (weight of analyte / weight of product). ND = None Detected (defined by dynamic range of the method). Total Potential Delta 9-THC or CBD is calculated to take into account the loss of a carboxyl group during decarboxylation step, using the following formulas: Total Potential Delta 9-THC = Delta 9-THC + (Delta 9-THCa *(0.877)) and Total CBD = CBD + (CBDa *(0.877)). Fail equates to a concentration level of Delta 9-THC, on a dry weight basis, higher than 0.3 percent + or – the measurement uncertainty. Total Potential THC 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)). ALOQ = Above Limit Of Quantitation (defined by dynamic range of the method), CFU/g = Colony Forming Units per Gram. 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.

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