

Prepared for:

Bent Paddle Brewing Co

1912 W Michigan St.

Duluth, MN USA 55806

CBD+ POG

Batch ID or Lot Number: Lot# 051523	Test, Test ID and Methods: Various	Matrix: Unit	Page 1 of 4
Reported: 16May2023	Started: 16May2023	Received: 16May2023	

Cannabinoids

Test ID: T000244138

Methods: TM14 (HPLC-DAD)

	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.175	0.497	<LOQ	<LOQ	# of Servings = 1, Sample Weight=355g
Cannabichromenic Acid (CBCA)	0.160	0.454	ND	ND	
Cannabidiol (CBD)	0.490	1.314	26.000	0.10	
Cannabidiolic Acid (CBDA)	0.502	1.347	ND	ND	
Cannabidivarin (CBDV)	0.116	0.311	<LOQ	<LOQ	
Cannabidivarinic Acid (CBDVA)	0.209	0.562	ND	ND	
Cannabigerol (CBG)	0.099	0.282	<LOQ	<LOQ	
Cannabigerolic Acid (CBGA)	0.416	1.179	ND	ND	
Cannabinol (CBN)	0.130	0.368	ND	ND	
Cannabinolic Acid (CBNA)	0.283	0.804	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.495	1.404	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.450	1.276	2.590	0.00	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.398	1.130	ND	ND	
Tetrahydrocannabivarin (THCV)	0.090	0.257	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.351	0.997	ND	ND	
Total Cannabinoids			28.590	0.10	
Total Potential THC			2.590	0.00	
Total Potential CBD			26.000	0.10	

Final Approval


Sam Smith
16May2023
01:47:00 PM MDT

PREPARED BY / DATE


Karen Winternheimer
16May2023
01:53:00 PM MDT

APPROVED BY / DATE

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Pesticides

Test ID: T000244139

Methods: TM17

(LC-QQ LC MS/MS)	Dynamic Range (ppb)	Result (ppb)		Dynamic Range (ppb)	Result (ppb)	
Abamectin	287 - 2721	ND		Malathion	280 - 2746	ND
Acephate	42 - 2676	ND		Metalaxyl	42 - 2748	ND
Acetamiprid	40 - 2706	ND		Methiocarb	44 - 2778	ND
Azoxystrobin	40 - 2722	ND		Methomyl	41 - 2741	ND
Bifenazate	41 - 2732	ND		MGK 264 1	171 - 1688	ND
Boscalid	40 - 2717	ND		MGK 264 2	116 - 1076	ND
Carbaryl	38 - 2735	ND		Myclobutanil	48 - 2749	ND
Carbofuran	40 - 2721	ND		Naled	39 - 2757	ND
Chlorantraniliprole	35 - 2741	ND		Oxamyl	41 - 2735	ND
Chlorpyrifos	39 - 2776	ND		Paclobutrazol	40 - 2710	ND
Clofentezine	282 - 2744	ND		Permethrin	298 - 2771	ND
Diazinon	275 - 2730	ND		Phosmet	42 - 2720	ND
Dichlorvos	256 - 2686	ND		Prophos	272 - 2737	ND
Dimethoate	40 - 2705	ND		Propoxur	42 - 2722	ND
E-Fenpyroximate	287 - 2791	ND		Pyridaben	303 - 2724	ND
Etofenprox	41 - 2746	ND		Spinosad A	33 - 2091	ND
Etoxazole	305 - 2725	ND		Spinosad D	70 - 671	ND
Fenoxycarb	10 - 2732	ND		Spiromesifen	287 - 2754	ND
Fipronil	31 - 2693	ND		Spirotetramat	267 - 2771	ND
Flonicamid	47 - 2768	ND		Spiroxamine 1	19 - 1199	ND
Fludioxonil	270 - 2725	ND		Spiroxamine 2	25 - 1549	ND
Hexythiazox	42 - 2755	ND		Tebuconazole	281 - 2741	ND
Imazalil	284 - 2751	ND		Thiacloprid	42 - 2674	ND
Imidacloprid	43 - 2757	ND		Thiamethoxam	40 - 2760	ND
Kresoxim-methyl	45 - 2766	ND		Trifloxystrobin	42 - 2709	ND

Final Approval


Karen Winternheimer
18May2023
06:53:00 AM MDT
PREPARED BY / DATE


Sam Smith
18May2023
06:56:00 AM MDT
APPROVED BY / DATE

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Microbial Contaminants

Test ID: T000244140

Methods: TM25 (PCR) TM24, TM26, TM27 (Culture Plating)

	Method	LOD	Quantitation Range	Result	Notes
STEC	TM25: PCR	10 ⁰ CFU/25g	NA	Absent	Free from visual mold, mildew, and foreign matter
<i>Salmonella</i>	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


Brianne Maillot
19May2023
02:23:00 PM MDT


Brett Hudson
20May2023
11:24:00 AM MDT

PREPARED BY / DATE

APPROVED BY / DATE

Heavy Metals

Test ID: T000244141

Methods: TM19 (ICP-MS): Heavy

Metals	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.05 - 4.53	ND	
Cadmium	0.04 - 4.47	ND	
Mercury	0.05 - 4.60	ND	
Lead	0.04 - 4.50	ND	

Final Approval


Sam Smith
22May2023
07:47:00 AM MDT


Karen Winternheimer
22May2023
07:49:00 AM MDT

PREPARED BY / DATE

APPROVED BY / DATE

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<https://results.botanacor.com/api/v1/coas/uuid/f848b25b-ee91-482f-b719-a907947918ce>

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: 10² = 100 CFU, 10³ = 1,000 CFU, 10⁴ = 10,000 CFU, 10⁵ = 100,000 CFU.

Testing results are based solely upon the sample submitted to SC Laboratories, Inc., in the condition it was received. SC Laboratories, Inc., 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 SC Laboratories, Inc. ISO/IEC 17025:2017 Accredited by A2LA. Some tests listed on this COA may not be within our scope of A2LA accreditation. Please visit [A2LA for more details](#).



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