

CERTIFICATE OF ANALYSIS

Prepared for:

Bent Paddle Brewing Co

1912 W Michigan St. Duluth, MN USA 55806

THC+ - Mango	Tangerine
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Batch ID or Lot Number: 111822	Test, Test ID and Methods: Various	Matrix: Unit	Page 1 of 4	
Reported: 22Nov2022	Started: 21Nov2022	Received: 21Nov2022		

Heavy Metals

Test ID: T000228355
Methods: TM19 (ICP-MS): Heavy

Metals	Dynamic Range (ppm)	Result (ppm)	
Arsenic	0.03 - 3.40	ND	
Cadmium	0.03 - 3.30	ND	
Mercury	0.03 - 3.43	ND	
Lead	0.03 - 3.03	ND	

Final Approval

Genrantha Small	Sam Smith 22Nov2022 10:39:00 AM MST
PREPARED BY / DATE	

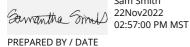
Karen Winternheimer 22Nov2022 Wintersheimen 10:43:00 AM MST APPROVED BY / DATE

Cannabinoids

Test ID: T000228352

Methods: TM14 (HPLC-DAD)	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.146	0.510	ND	ND	# of Servings = 1,
Cannabichromenic Acid (CBCA)	0.133	0.466	ND	ND	Sample
Cannabidiol (CBD)	0.497	1.316	5.260	0.00	Weight=355g
Cannabidiolic Acid (CBDA)	0.510	1.350	ND	ND	
Cannabidivarin (CBDV)	0.118	0.311	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.213	0.563	ND	ND	
Cannabigerol (CBG)	0.083	0.289	<loq< td=""><td><loq< td=""><td></td></loq<></td></loq<>	<loq< td=""><td></td></loq<>	
Cannabigerolic Acid (CBGA)	0.345	1.210	ND	ND	
Cannabinol (CBN)	0.108	0.378	ND	ND	
Cannabinolic Acid (CBNA)	0.236	0.826	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.412	1.442	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.374	1.309	5.160	0.00	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.331	1.160	ND	ND	
Tetrahydrocannabivarin (THCV)	0.075	0.263	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.292	1.023	ND	ND	
Total Cannabinoids			10.420	0.00	
Total Potential THC			5.160	0.00	
Total Potential CBD			5.260	0.00	

Final Approval



Sam Smith

Karen Winternheimer 22Nov2022 Mutenheumen 02:59:00 PM MST APPROVED BY / DATE



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Microbial Contaminants

Methods: TM25 (PCR) TM24, TM26,			Quantitation		
TM27 (Culture Plating)	Method	LOD	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 25Nov2022 10:47:00 AM MST

Wright

Brianne Maillot 25Nov2022 01:59:00 PM MST

PREPARED BY / DATE

APPROVED BY / DATE



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Pesticides

Test ID: T000228353 Methods: TM17

(LC-QQ LC MS/MS)	Dynamic Range (ppb)	Result (ppb)
Abamectin	305 - 2676	ND
Acephate	41 - 2759	ND
Acetamiprid	44 - 2746	ND
Azoxystrobin	46 - 2724	ND
Bifenazate	45 - 2712	ND
Boscalid	45 - 2751	ND
Carbaryl	43 - 2735	ND
Carbofuran	44 - 2736	ND
Chlorantraniliprole	51 - 2753	ND
Chlorpyrifos	46 - 2754	ND
Clofentezine	286 - 2770	ND
Diazinon	283 - 2744	ND
Dichlorvos	312 - 2736	ND
Dimethoate	44 - 2728	ND
E-Fenpyroximate	289 - 2786	ND
Etofenprox	46 - 2791	ND
Etoxazole	305 - 2753	ND
Fenoxycarb	44 - 2762	ND
Fipronil	54 - 2891	ND
Flonicamid	48 - 2696	ND
Fludioxonil	300 - 2724	ND
Hexythiazox	43 - 2798	ND
Imazalil	269 - 2784	ND
Imidacloprid	47 - 2761	ND
Kresoxim-methyl	48 - 2780	ND

	Dynamic Range (ppb)	Result (ppb)
Malathion	301 - 2750	ND
Metalaxyl	47 - 2739	ND
Methiocarb	43 - 2743	ND
Methomyl	43 - 2753	ND
MGK 264 1	181 - 1606	ND
MGK 264 2	120 - 1149	ND
Myclobutanil	46 - 2762	ND
Naled	48 - 2769	ND
Oxamyl	42 - 2740	ND
Paclobutrazol	42 - 2743	ND
Permethrin	240 - 2787	ND
Phosmet	47 - 2723	ND
Prophos	300 - 2744	ND
Propoxur	44 - 2735	ND
Pyridaben	291 - 2703	ND
Spinosad A	34 - 2246	ND
Spinosad D	51 - 504	ND
Spiromesifen	282 - 2763	ND
Spirotetramat	285 - 2787	ND
Spiroxamine 1	17 - 1182	ND
Spiroxamine 2	24 - 1566	ND
Tebuconazole	287 - 2758	ND
Thiacloprid	44 - 2743	ND
Thiamethoxam	41 - 2770	ND
Trifloxystrobin	45 - 2763	ND

Final Approval



Sam Smith 30Nov2022 12:52:00 PM MST

APPROVED BY / DATE

Karen Winternheimer 30Nov2022 Mtenhemmen 12:56:00 PM MST

PREPARED BY / DATE



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Definitions

https://results.botanacor.com/api/v1/coas/uuid/e594084f-62db-4a85-a537-5704ac63f6da

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-THC a*(0.877)) and Total CBD = CBD + (CBD a*(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 by dynamic range of the method), during decarboxylation step. Total Potential THC is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step. Total Potential THC is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step. Total POTEC = 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.

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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