

CERTIFICATE OF ANALYSIS

Prepared for:

Bent Paddle Brewing Co

1912 W Michigan St. Duluth, MN USA 55806

THC+ Mango Tangerine

Batch ID or Lot Number:	Test, Test ID and Methods:	Matrix:	Page 1 of 4
100422	Various	Unit	
Reported:	Started:	Received:	
05Oct2022	05Oct2022	05Oct2022	

Cannabinoids

Methods: TM14 (HPLC-DAD)	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.134	0.477	ND	ND	# of Servings = 1
Cannabichromenic Acid (CBCA)	0.122	0.436	ND	ND	Sample
Cannabidiol (CBD)	0.472	1.270	4.240	0.00	Weight=355g
Cannabidiolic Acid (CBDA)	0.484	1.303	ND	ND	
Cannabidivarin (CBDV)	0.112	0.300	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.202	0.544	ND	ND	
Cannabigerol (CBG)	0.076	0.271	ND	ND	
Cannabigerolic Acid (CBGA)	0.317	1.132	ND	ND	
Cannabinol (CBN)	0.099	0.353	ND	ND	
Cannabinolic Acid (CBNA)	0.216	0.773	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.378	1.349	0.480	0.00	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.343	1.225	5.790	0.00	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.304	1.085	ND	ND	
Tetrahydrocannabivarin (THCV)	0.069	0.246	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.268	0.957	ND	ND	
Total Cannabinoids			10.510	0.03	
Total Potential THC			5.790	0.02	
Total Potential CBD			4.240	0.01	

Final Approval

Sawantha Smoll 050ct2022 05:34:00 PM MDT

Sam Smith

Famel Wantanan 050ct2022 05:36:00 PM MDT

PREPARED BY / DATE

Daniel Weidensaul

APPROVED BY / DATE



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THC+ Mango Tangerine		Duluth, MN USA 55806		
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Pesticides

Test ID: T000223533

Methods: TM17		
(LC-QQ LC MS/MS)	Dynamic Range (ppb)	Result (ppb)
Abamectin	343 - 2633	ND
Acephate	40 - 2824	ND
Acetamiprid	42 - 2765	ND
Azoxystrobin	50 - 2663	ND
Bifenazate	46 - 2726	ND
Boscalid	47 - 2837	ND
Carbaryl	41 - 2776	ND
Carbofuran	44 - 2712	ND
Chlorantraniliprole	47 - 2847	ND
Chlorpyrifos	51 - 2754	ND
Clofentezine	310 - 2221	ND
Diazinon	293 - 2768	ND
Dichlorvos	273 - 2757	ND
Dimethoate	41 - 2727	ND
E-Fenpyroximate	288 - 2736	ND
Etofenprox	49 - 2709	ND
Etoxazole	291 - 2747	ND
Fenoxycarb	50 - 2707	ND
Fipronil	73 - 2722	ND
Flonicamid	53 - 2734	ND
Fludioxonil	293 - 2884	ND
Hexythiazox	42 - 2757	ND
Imazalil	248 - 2765	ND
Imidacloprid	51 - 2858	ND
Kresoxim-methyl	50 - 2750	ND

	Dynamic Range (ppb)	Result (ppb)
Malathion	287 - 2726	ND
Metalaxyl	44 - 2746	ND
Methiocarb	41 - 2930	ND
Methomyl	37 - 2798	ND
MGK 264 1	194 - 1566	ND
MGK 264 2	118 - 1126	ND
Myclobutanil	47 - 2800	ND
Naled	55 - 2715	ND
Oxamyl	41 - 2767	ND
Paclobutrazol	47 - 2699	ND
Permethrin	308 - 2693	ND
Phosmet	48 - 2711	ND
Prophos	280 - 2761	ND
Propoxur	44 - 2742	ND
Pyridaben	287 - 2748	ND
Spinosad A	42 - 2135	ND
Spinosad D	51 - 488	ND
Spiromesifen	249 - 2787	ND
Spirotetramat	296 - 2679	ND
Spiroxamine 1	17 - 1222	ND
Spiroxamine 2	23 - 1628	ND
Tebuconazole	292 - 2768	ND
Thiacloprid	42 - 2739	ND
Thiamethoxam	41 - 2737	ND
Trifloxystrobin	53 - 2624	ND

Final Approval

Sawanthe Small	Sam S 10Oct 07:15:
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Smith t2022 5:00 PM MDT

APPROVED BY / DATE

Karen Winternheimer 100ct2022 Mtempermen 07:19:00 PM MDT

PREPARED BY / DATE



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Heavy Metals

Test ID: T000223535
Methods: TM19 (ICP-MS): Heavy

Metals	Dynamic Range (ppm)	Result (ppm)	
Arsenic	0.04 - 4.29	ND	
Cadmium	0.05 - 4.58	ND	
Mercury	0.05 - 4.60	ND	
Lead	0.04 - 4.30	ND	

Final Approval

Samantha Small	Sam Smith 10Oct2022 04:45:00 PM MDT
PREPARED BY / DATE	

Karen Winternheimer 10Oct2022

Microbial

Contaminants

Test ID: T000223534

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

Ret Verter

Brett Hudson 10Oct2022 12:11:00 PM MDT

Calify Richolde

Courtney Richards 100ct2022 04:58:00 PM MDT

PREPARED BY / DATE

APPROVED BY / DATE

Wintersheimen 04:52:00 PM MDT APPROVED BY / DATE



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Definitions

https://results.botanacor.com/api/v1/coas/uuid/83379ac2-d301-4713-8092-2e72b2f56526

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 *****(0.877)) and Total CBD = (CBD *****(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 PC = THC + (THC *****(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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