

Prepared for:

120921-Quill 100mg-HD21145C
Arcanum

Batch ID or Lot Number: 1221-Q100	Test: Microbial Contaminants	Reported: 12/15/21	Location: 492 S Suite B Colorado Blvd Glendale, CO 80246
Matrix: Finished Product	Test ID: T000181502	Started: 12/10/21	USDA License: N/A
Status: N/A	Methods: TM25 (qPCR) TM24, TM26, TM27(Culture Plating): Microbial (Colorado Panel)	Received: 12/09/2021 @ 02:53 PM	Sampler ID: N/A

MICROBIAL CONTAMINANTS DETERMINATION

Contaminant	Method	LOD	LLOQ	ULOQ	Result	Notes
Total Aerobic Count*	TM-26, Culture Plating	10 ² CFU/g	10 ³ CFU/g	1.5x10 ⁵ CFU/g	None Detected	Free from visual mold, mildew, and foreign matter
Total Coliforms*	TM-27, Culture Plating	10 ¹ CFU/g	10 ² CFU/g	1.5x10 ⁴ CFU/g	None Detected	
Total Yeast and Mold*	TM-24, Culture Plating	10 ¹ CFU/g	10 ² CFU/g	1.5x10 ⁴ CFU/g	None Detected	
E. coli (STEC)	TM-25, PCR	1 CFU/25 g	NA	NA	Absent	
Salmonella	TM-25, PCR	1 CFU/25 g	NA	NA	Absent	



 Carly Bader
 12/15/2021
 1:50:00 PM



 Eden Thompson-Wright
 12/15/2021
 1:59:00 PM

PREPARED BY / DATE

APPROVED BY / DATE

Definitions

LOD = Limit of Detection | LLOQ = Lower Limit of Quantitation | ULOQ = Upper Limit of Quantitation

 CFU/g = Colony Forming Units per Gram | STEC = Shiga Toxin-Producing *E. coli*

* 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 Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC 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 Botanacor Laboratories, LLC.



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Certificate #4329.02

Prepared for:

120921-Quill 100mg-HD21145C
Arcanum

Batch ID or Lot Number: 1221-Q100	Test: Potency	Reported: 12/14/21	Location: 492 S Suite B Colorado Blvd Glendale, CO 80246
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Matrix: Concentrate	Test ID: T000181501	Started: 12/13/21	USDA License: N/A
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Status: N/A	Method: TM14 (HPLC-DAD): Potency - Standard Cannabinoid Analysis (Colorado Panel)	Received: 12/09/2021 @ 02:53 PM	Sampler ID: N/A
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CANNABINOID PROFILE

Compound	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)	Notes
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.031	0.093	ND	ND	N/A
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.035	0.105	0.088	0.88	
Cannabidiolic acid (CBDA)	0.030	0.105	ND	ND	
Cannabidiol (CBD)	0.029	0.102	1.584	15.84	
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.038	0.116	ND	ND	
Cannabinolic Acid (CBNA)	0.022	0.066	ND	ND	
Cannabinol (CBN)	0.010	0.030	ND	ND	
Cannabigerolic acid (CBGA)	0.032	0.097	ND	ND	
Cannabigerol (CBG)	0.008	0.023	0.040	0.40	
Tetrahydrocannabivarinic Acid (THCVA)	0.027	0.082	ND	ND	
Tetrahydrocannabivarin (THCV)	0.007	0.021	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.012	0.044	ND	ND	
Cannabidivarin (CBDV)	0.007	0.024	0.01*	0.1*	
Cannabichromenic Acid (CBCA)	0.012	0.038	ND	ND	
Cannabichromene (CBC)	0.014	0.041	0.042	0.42	
Total Cannabinoids			1.764	17.64	
Total Potential THC**			0.088	0.88	
Total Potential CBD**			1.584	15.84	

K Winterheimer
 Karen Winterheimer
 14-Dec-2021
 06:06 PM

Daniel Weidensaul
 Daniel Weidensaul
 14-Dec-21
 6:17 PM

PREPARED BY / DATE

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Definitions

% = % (w/w) = Percent (Weight of Analyte / Weight of Product)

* Indicates a value below the Limit of Quantitation (LOQ) and above the Limit of Detection (LOD).

** Total Potential THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step.

$$\text{Total THC} = \text{THC} + (\text{THCa} * (0.877)) \text{ and}$$

$$\text{Total CBD} = \text{CBD} + (\text{CBDa} * (0.877))$$

Total Cannabinoids result reflects the absolute sum of all cannabinoids detected.

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

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