

## Certificate of Analysis

<b>Company:</b> Mad River Botanicals	<b>Sample ID:</b> WPE 00187-22-T-MRB-SH/LF-1-E1	<b>Report Date:</b> 12/21/2022
410 Butternut Hill Rd	<b>Lot:</b> LOT 3	<b>Date Analyzed:</b> 12/19/2022
Waitsfield, VT 05673	<b>Matrix:</b> Concentrate	<b>Analyst:</b> 011
<b>Customer ID:</b> 210119-0	<b>Date Sampled:</b> N/A	<b>Report ID:</b> C221202BA
<b>Grower License #:</b> #50_2022_00000111	<b>Date Received:</b> 12/2/2022	

### Cannabinoid Summary

Cannabinoid Profile	LOQ (mg/g)	Concentration (mg/g)	Weight (%)
CBDVA	0.0005	<LOQ	<LOQ
CBDV	0.0012	4.76	0.48
CBDA	0.0008	13.51	1.35
CBGA	0.0008	<LOQ	<LOQ
CBG	0.0019	42.59	4.26
CBD	0.0019	645.02	64.50
THCV	0.0021	<LOQ	<LOQ
CBN	0.0013	<LOQ	<LOQ
Δ9-THC	0.0020	24.03	2.40
Δ8-THC	0.0019	<LOQ	<LOQ
THC-A	0.0034	<LOQ	<LOQ
CBC	0.0024	34.01	3.40
<b>Total THC</b>		<b>24.03</b>	<b>2.40</b>
<b>Total CBD</b>		<b>656.87</b>	<b>65.69</b>
<b>Total Cannabinoids</b>		<b>763.93</b>	<b>76.39</b>

<p>2.4%</p> <p><b>Total THC</b></p>	<p>65.69%</p> <p><b>Total CBD</b></p>
-------------------------------------	---------------------------------------

<p>76.39%</p> <p><b>Total Cannabinoids</b></p>	<p>2.4%</p> <p><b>Δ9-THC</b></p>
--	----------------------------------

<p>N/A</p> <p><b>Percent Moisture</b></p>	<p>1 : 27.3</p> <p><b>THC : CBD Ratio</b></p>
---	---

**Cannabinoids Methodology:** High Performance Liquid Chromatography (HPLC) using PerkinElmer FLEXAR™ with Photo Diode Array Detector (PDA)

Total CBD and total THC are calculated values, to account for assumed decarboxylation from the acid form (THCA or CBDA) to the neutral form, causing weight loss of the acid group. These values are calculated as follows:  
 Total THC = (THCA x 0.877) + Δ9-THC      Total CBD = (CBDA x 0.877) + CBD  
 Ratio of Total CBD: Total THC      Reagent Blanks: < LOQs for all analytes

LOQ = The lowest quantity that this method can reliably detect. Any cannabinoid that was not detected is assumed to be less than the stated LOQ (<LOQ).

All results reflect dry weight of material, based on % moisture of the sample.

Measurement of Uncertainty (MU): the parameter, associated with the result of a measurement, that characterizes the dispersion of the values that could reasonably be attributed to the particular quantity subject to measurement.  
 Δ9-THC MU = ±0.005%      Total THC MU = ±0.007%

All other cannabinoid MU values are available upon request.

All moisture analysis is determined by loss-on-drying measurement using OHAUS Model MB90 Moisture Content Readers.



This report shall not be reproduced except in full without approval of the laboratory. This is to provide assurance that parts of a report are not taken out of context. Results apply to the samples as received.

Certified by: *Luke E. M.*  
 Luke Emerson Mason (Laboratory Director, Bia Diagnostics)