

## **Hemp Quality Assurance Testing**

### **CERTIFICATE OF ANALYSIS**

**DATE ISSUED 04/05/2023** 

#### SAMPLE NAME: R&R 30mg Broad Spectrum THC-Free CBD Infused Gummy

Infused, Colorado Infused

**CULTIVATOR / MANUFACTURER** 

Business Name: License Number:

Address:

SAMPLE DETAIL

Batch Number: Lot 2803B Sample ID: 230206M012 Date of Sampling: 02/06/2023 Time of Sampling: 11:28 a.m.

Sampler Name:

Sampler Company:

**DISTRIBUTOR / TESTED FOR** 

Business Name: R&R CBD

License Number:

Address:

**Date Collected:** 02/06/2023 **Date Received:** 02/06/2023

Batch Size:

Sample Size: 1.0 units

Unit Mass:

Serving Size: 9.3416 grams per Serving





Scan QR code to verify authenticity of results.

#### **CANNABINOID ANALYSIS - SUMMARY**

Total THC: Not Detected

Total CBD: 4.058 mg/g

Sum of Cannabinoids: 4.083 mg/g

Total Cannabinoids: 4.083 mg/g

Total THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during the decarboxylation step: Total THC =  $\Delta^9$ -THC + (THCa (0.877))

Total CBD = CBD + (CBDa (0.877))

Sum of Cannabinoids =  $\Delta^9$ -THC + THCa + CBD + CBDa + CBG + CBGa + THCV + THCVa + CBC + CBCa + CBDV + CBDVa +  $\Delta^8$ -THC + CBL + CBN Total Cannabinoids = ( $\Delta^9$ -THC+0.877\*THCa) + (CBD+0.877\*CBDa) + (CBG+0.877\*CBGa) + (THCV+0.877\*THCVa) + (CBC+0.877\*CBCa) +

(CBDV+0.877\*CBDVa) +  $\Delta$ 8-THC + CBL + CBN

### SAFETY ANALYSIS - SUMMARY

Pesticides: PASS

Microbiology (Plating): PASS

Residual Solvents: PASS

Microbiology (PCR): PASS

For quality assurance purposes. Not a Regulatory Hemp Lab Test Report. These results relate only to the sample included on this report. This report shall not be reproduced, except in full, without written approval of the laboratory.

Sample Certification: 6 CCR 1010-21 Colorado Wholesale Food, Industrial Hemp, and Shellfish Regulations; where applicable

**Decision Rule:** Statements of conformity (e.g. Pass/Fail) to specifications are made in this report without taking measurement uncertainty into account. Where statements of conformity are made in this report, the following decision rules are applied: PASS - Results within limits/specifications, FAIL - Results exceed limits/specifications.

References: limit of detection (LOD), limit of quantification (LOQ), not detected (ND), not tested (NT), too numerous to count >250 cfu/plate (TNTC), colony-forming unit (cfu)

Approved by: Josh Wurzer
Job Title: Chief Compliance Officer
Date: 04/05/2023

### **CERTIFICATE OF ANALYSIS**



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# Cannabinoid Analysis

Tested by high-performance liquid chromatography with diode-array detection (HPLC-DAD).

Method: QSP 1157 - Analysis of Cannabinoids by HPLC-DAD

**TOTAL THC: Not Detected**Total THC (Δ<sup>9</sup>-THC+0.877\*THCa)

TOTAL CBD: 4.058 mg/g
Total CBD (CBD+0.877\*CBDa)

### TOTAL CANNABINOIDS: 4.083 mg/g

 $\begin{array}{l} Total \ Cannabinoids \ (Total \ THC) + (Total \ CBD) + \\ (Total \ CBG) + (Total \ THCV) + (Total \ CBC) + \\ (Total \ CBDV) + \Delta^8 - THC + CBL + CBN \end{array}$ 

**TOTAL CBG: ND** 

Total CBG (CBG+0.877\*CBGa)

**TOTAL THCV: ND** 

Total THCV (THCV+0.877\*THCVa)

TOTAL CBC: ND

Total CBC (CBC+0.877\*CBCa)

TOTAL CBDV: 0.025 mg/g
Total CBDV (CBDV+0.877\*CBDVa)

## **Pesticide Analysis**

Pesticide and plant growth regulator analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS) or gas chromatography-mass spectrometry (GC-MS).

\*GC-MS utilized where indicated.

**Method:** QSP 1212 - Analysis of Pesticides and Mycotoxins by LC-MS or QSP 1213 - Analysis of Pesticides by GC-MS

Exclusions<sup>1</sup> see last page

### **CANNABINOID TEST RESULTS - 02/07/2023**

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
CBD	0.004 / 0.011	±0.1514	4.058	0.4058
CBDV	0.002 / 0.012	±0.0010	0.025	0.0025
Δ <sup>9</sup> -THC	0.002/0.014	N/A	ND	ND
$\Delta^8$ -THC	0.01 / 0.02	N/A	ND	ND
THCa	0.001 / 0.005	N/A	ND	ND
THCV	0.002/0.012	N/A	ND	ND
THCVa	0.002/0.019	N/A	ND	ND
CBDa	0.001 / 0.026	N/A	ND	ND
CBDVa	0.001/0.018	N/A	ND	ND
CBG	0.002 / 0.006	N/A	ND	ND
CBGa	0.002 / 0.007	N/A	ND	ND
CBL	0.003 / 0.010	N/A	ND	ND
CBN	0.001 / 0.007	N/A	ND	ND
СВС	0.003 / 0.010	N/A	ND	ND
CBCa	0.001 / 0.015	N/A	ND	ND
Total THC		N/A	ND	ND
SUM OF CANNAE	BINOIDS		4.083 mg/g	0.4083%

### Serving Size: 9.3416 grams per Serving

$\Delta^9$ -THC per Serving	ND
Total THC per Serving	ND
CBD per Serving	37.908 mg/serving
Total CBD per Serving	37.908 mg/serving
Sum of Cannabinoids per Serving	38.142 mg/serving
Total Cannabinoids per Serving	38.142 mg/serving

### PESTICIDE TEST RESULTS - 02/25/2023 PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Abamectin	0.03 / 0.10	0.3	N/A	ND	PASS
Azoxystrobin	0.02 / 0.07	40	N/A	ND	PASS
Bifenazate	0.01/0.04	5	N/A	ND	PASS
Bifenthrin	0.02 / 0.05	0.5	N/A	ND	PASS
Boscalid	0.03/0.09	10	N/A	ND	PASS
Chlorpyrifos	0.02 / 0.06	≥LOD	N/A	ND	PASS
Cypermethrin	0.11/0.32	1	N/A	ND	PASS
Etoxazole	0.02 / 0.06	1.5	N/A	ND	PASS
Hexythiazox	0.02 / 0.07	2	N/A	ND	PASS
Imidacloprid	0.04 / 0.11	3	N/A	ND	PASS

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## **Hemp Quality Assurance Testing**

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## Pesticide Analysis Continued

### PESTICIDE TEST RESULTS - 02/25/2023 continued **⊘** PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Malathion	0.03 / 0.09	5	N/A	ND	PASS
Myclobutanil	0.03 / 0.09	9	N/A	ND	PASS
Permethrin	0.04 / 0.12	20	N/A	ND	PASS
Piperonyl Butoxide	0.02 / 0.07	8	N/A	ND	PASS
Propiconazole	0.02 / 0.07	20	N/A	ND	PASS
Spiromesifen	0.02 / 0.05	12	N/A	ND	PASS
Tebuconazole	0.02 / 0.07	2	N/A	ND	PASS
Trifloxystrobin	0.03 / 0.08	30	N/A	ND	PASS



## $\overline{\mathbb{Q}}$ Residual Solvents Analysis

Residual Solvent analysis utilizing gas chromatography-mass spectrometry (GC-MS).

Method: QSP 1204 - Analysis of Residual Solvents by GC-MS

**Total Butanes** = n-Butane + 2-Methylpropane (Isobutane) **Total Heptanes** = 2,2-Dimethylpentane (Neoheptane) + 2,3-Dimethylpentane + 2,4-Dimethylpentane + 3,3-Dimethylpentane + 2,2,3-Trimethylbutane (Triptane) + 2-Methylhexane (Isoheptane) + 3-Methylhexane + 3-Ethylpentane + n-Heptane **Total Xylenes** = 1,2-Dimethylbenzene (o-Xylene) + 1,3-Dimethylbenzene (m-Xylene) / 1,4-Dimethylbenzene (p-Xylene)

Exclusions<sup>2</sup> see last page

### RESIDUAL SOLVENTS TEST RESULTS - 03/22/2023 **⊘** PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (μg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Propane	0.234 / 0.781	1000	N/A	ND	PASS
2-Methylpropane (Isobutane)	0.052 / 0.173		N/A	ND	
n-Butane	0.019 / 0.063		N/A	ND	
Total Butanes		1000		ND	PASS
n-Pentane	0.310 / 1.033	1000	N/A	ND	PASS
n-Hexane	0.110 / 0.366	60	N/A	ND	PASS
2,2-Dimethylpentane (Neoheptane)	0.493 / 1.642		N/A	ND	
2,3-Dimethylpentane	1.009 / 3.365		N/A	ND	
2,4-Dimethylpentane	0.737 / 2.458		N/A	ND	
3,3-Dimethylpentane	0.198 / 0.660		N/A	ND	
2,2,3-Trimethylbutane (Triptane)	0.521 / 1.738		N/A	ND	
2-Methylhexane (Isoheptane)	0.610/2.034		N/A	ND	
3-Methylhexane	0.235 / 0.785		N/A	ND	
3-Ethylpentane	0.304 / 1.012		N/A	ND	
n-Heptane	13.12 / 43.72		N/A	ND	
Total Heptanes		1000		ND	PASS
Benzene	0.089 / 0.295	2	N/A	ND	PASS
Toluene	0.115 / 0.382	180	N/A	ND	PASS
1,3-Dimethylbenzene / 1,4-Dimethylbenzene	0.451 / 1.502		N/A	ND	
1,2-Dimethylbenzene (o-Xylene)	0.387 / 1.289		N/A	ND	
Total Xylenes		430		ND	PASS
Methanol	5.534 / 16.77	600	N/A	ND	PASS
Ethanol	8.984 / 27.23	1000	N/A	<loq< td=""><td>PASS</td></loq<>	PASS
2-Propanol (Isopropyl Alcohol)	8.421 / 25.52	1000	N/A	ND	PASS
Acetone	9.510 / 28.82	1000	N/A	ND	PASS

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### RESIDUAL SOLVENTS TEST RESULTS - 03/22/2023 continued PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Ethyl Acetate	1.123 / 3.745	1000	N/A	ND	PASS



### **Microbiology Analysis**

PCR AND PLATING

Analysis conducted by polymerase chain reaction (PCR) and fluorescence detection of microbiological contaminants.

Method: QSP 1221 - Analysis of Microbiological Contaminants

Analysis conducted by  $3M^{^{\text{TM}}}$  Petrifilm $^{^{\text{TM}}}$  and plate counts of microbiological contaminants.

Method: QSP 6794 - Plating with 3M<sup>™</sup> Petrifilm<sup>™</sup>

### MICROBIOLOGY TEST RESULTS (PCR) - 02/27/2023 PASS

COMPOUND	ACTION LIMIT	RESULT	RESULT
Shiga toxin-producing Escherichia coli	Not Detected in 1g	ND	PASS
Salmonella spp.	Not Detected in 1g	ND	PASS

### MICROBIOLOGY TEST RESULTS (PLATING) - 02/27/2023 PASS

	COMPOUND	ACTION LIMIT (cfu/g)	RESULT (cfu/g)	RESULT
	Total Aerobic Bacteria	10000	ND	PASS
Ī	Total Yeast and Mold	1000	ND	PASS
	Coliforms	100	ND	PASS

COA amended, update to results. COA amended to reflect requested assays.

- 1. Exclusions: Sample Certification: California Code of Regulation Title 4 Division 19
- 2. Exclusions: LOD of 53.9 ug/g applied to methanol.