

**SAMPLE NAME: R&R Organic Full Spectrum 5000mg Tincture - Fresh Mint**  
Infused, Colorado Infused

**CULTIVATOR / MANUFACTURER**

**Business Name:**  
**License Number:**  
**Address:**

**DISTRIBUTOR / TESTED FOR**

**Business Name: R&R CBD**  
**License Number:**  
**Address:**


**SAMPLE DETAIL**

**Batch Number:** Lot 8801  
**Sample ID:** 230314M008  
**Date of Sampling:** 03/14/2023  
**Time of Sampling:** 11:35 a.m.  
**Sampler Name:**  
**Sampler Company:**

**Date Collected:** 03/14/2023  
**Date Received:** 03/14/2023  
**Batch Size:**  
**Sample Size:** 1.0 units  
**Unit Mass:** 30 milliliters per Unit  
**Serving Size:** 1 milliliters per Serving



Scan QR code to verify authenticity of results.

**CANNABINOID ANALYSIS - SUMMARY**

**Total THC: 77.190 mg/unit**

**Total CBD: 5175.510 mg/unit**

**Sum of Cannabinoids: 5616.600 mg/unit**

**Total Cannabinoids: 5609.310 mg/unit**

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

**Density: 0.9646 g/mL**

**TERPENOID ANALYSIS - SUMMARY**

39 TESTED, TOP 3 HIGHLIGHTED

**Total Terpenoids: 0.1947%**

●  **$\alpha$ -Bisabolol 0.814 mg/g**
● **Menthol 0.510 mg/g**
● **Guaiol 0.495 mg/g**

**SAFETY ANALYSIS - SUMMARY**

**Pesticides:** ✔ **PASS**

**Mycotoxins:** ✔ **PASS**

**Residual Solvents:** ✔ **PASS**

**Heavy Metals:** ✔ **PASS**

**Microbiology (PCR):** ✔ **PASS**

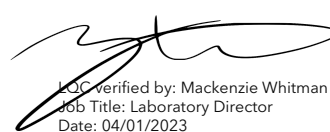
**Microbiology (Plating):** ✔ **PASS**

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)

  
 LOC verified by: Mackenzie Whitman  
 Job Title: Laboratory Director  
 Date: 04/01/2023

  
 Approved by: Josh Wurzer  
 Job Title: Chief Compliance Officer  
 Date: 04/01/2023



## 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: 77.190 mg/unit

Total THC ( $\Delta^9$ -THC+0.877\*THCa)

### TOTAL CBD: 5175.510 mg/unit

Total CBD (CBD+0.877\*CBDA)

### TOTAL CANNABINOIDS: 5609.310 mg/unit

Total Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCV) + (Total CBC) + (Total CBDV) +  $\Delta^8$ -THC + CBL + CBN

### TOTAL CBG: 73.770 mg/unit

Total CBG (CBG+0.877\*CBGa)

### TOTAL THCV: ND

Total THCV (THCV+0.877\*THCVa)

### TOTAL CBC: 145.020 mg/unit

Total CBC (CBC+0.877\*CBCa)

### TOTAL CBDV: 50.430 mg/unit

Total CBDV (CBDV+0.877\*CBDVa)

## CANNABINOID TEST RESULTS - 03/29/2023

| COMPOUND                   | LOD/LOQ (mg/mL) | MEASUREMENT UNCERTAINTY (mg/mL) | RESULT (mg/mL)       | RESULT (%)      |
|----------------------------|-----------------|---------------------------------|----------------------|-----------------|
| CBD                        | 0.004 / 0.011   | ±6.3720                         | 170.831              | 17.7100         |
| CBC                        | 0.003 / 0.010   | ±0.1540                         | 4.783                | 0.4959          |
| CBN                        | 0.001 / 0.007   | ±0.0744                         | 2.591                | 0.2686          |
| $\Delta^9$ -THC            | 0.002 / 0.014   | ±0.1413                         | 2.573                | 0.2667          |
| CBG                        | 0.002 / 0.006   | ±0.1193                         | 2.459                | 0.2549          |
| CBDA                       | 0.001 / 0.026   | ±0.0546                         | 1.922                | 0.1993          |
| CBDV                       | 0.002 / 0.012   | ±0.0686                         | 1.681                | 0.1743          |
| CBL                        | 0.003 / 0.010   | ±0.0119                         | 0.322                | 0.0334          |
| CBCa                       | 0.001 / 0.015   | ±0.0022                         | 0.058                | 0.0060          |
| $\Delta^8$ -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              |
| CBDVa                      | 0.001 / 0.018   | N/A                             | ND                   | ND              |
| CBGa                       | 0.002 / 0.007   | N/A                             | ND                   | ND              |
| Total THC                  |                 | ±0.1413                         | 2.573                | 0.2667          |
| <b>SUM OF CANNABINOIDS</b> |                 |                                 | <b>187.220 mg/mL</b> | <b>19.4091%</b> |

## Unit Mass: 30 milliliters per Unit / Serving Size: 1 milliliters per Serving

|                                 |                    |
|---------------------------------|--------------------|
| $\Delta^9$ -THC per Unit        | 77.190 mg/unit     |
| $\Delta^9$ -THC per Serving     | 2.573 mg/serving   |
| Total THC per Unit              | 77.190 mg/unit     |
| Total THC per Serving           | 2.573 mg/serving   |
| CBD per Unit                    | 5124.930 mg/unit   |
| CBD per Serving                 | 170.831 mg/serving |
| Total CBD per Unit              | 5175.510 mg/unit   |
| Total CBD per Serving           | 172.517 mg/serving |
| Sum of Cannabinoids per Unit    | 5616.600 mg/unit   |
| Sum of Cannabinoids per Serving | 187.220 mg/serving |
| Total Cannabinoids per Unit     | 5609.310 mg/unit   |
| Total Cannabinoids per Serving  | 186.977 mg/serving |

## DENSITY TEST RESULT

0.9646 g/mL

Tested 03/29/2023

**Method:** QSP 7870 - Sample Preparation



## Terpenoid Analysis

Terpene analysis utilizing gas chromatography-flame ionization detection (GC-FID).

Method: QSP 1192 - Analysis of Terpenoids by GC-FID

### 1 $\alpha$ -Bisabolol

A sesquiterpene alcohol with a fragrance that can be described as floral, peppery, sweet and clean. Found in chamomile, figwort, yarrow, skullcaps, lavender, ironwort, germander...etc.

### 2 Menthol

A monoterpene alcohol with a fragrance that can be described as fresh, cool and herbal. It is responsible for the distinct odor of mint. It is frequently added to cigarettes and mouthwash as a flavorant. Found in mint, sunflower, micromeria, mountain mint, rose geranium, pennyroyal, tarragon, savory, basil, juniper, couch grass, rhubarb, acinos (basil thyme), ironwort, muña...etc.

### 3 Guaiol

A sesquiterpene alcohol with a fragrance that can be described as floral, piney, herbal and woody. Found in guaiacum, cypress pine, ginseng, melaleuca, goatweed, incense grass...etc.

## TERPENOID TEST RESULTS - 03/31/2023

| COMPOUND                  | LOD/LOQ (mg/g) | MEASUREMENT UNCERTAINTY (mg/g) | RESULT (mg/g)     | RESULT (%)     |
|---------------------------|----------------|--------------------------------|-------------------|----------------|
| $\alpha$ -Bisabolol       | 0.008 / 0.026  | $\pm 0.0338$                   | 0.814             | 0.0814         |
| Menthol                   | 0.008 / 0.025  | $\pm 0.0159$                   | 0.510             | 0.0510         |
| Guaiol                    | 0.009 / 0.030  | $\pm 0.0182$                   | 0.495             | 0.0495         |
| Eucalyptol                | 0.006 / 0.018  | $\pm 0.0016$                   | 0.081             | 0.0081         |
| Nerolidol                 | 0.006 / 0.019  | $\pm 0.0015$                   | 0.031             | 0.0031         |
| $\beta$ -Caryophyllene    | 0.004 / 0.012  | $\pm 0.0004$                   | 0.016             | 0.0016         |
| Pulegone                  | 0.003 / 0.011  | N/A                            | <LOQ              | <LOQ           |
| Caryophyllene Oxide       | 0.010 / 0.033  | N/A                            | <LOQ              | <LOQ           |
| $\alpha$ -Pinene          | 0.005 / 0.017  | N/A                            | ND                | ND             |
| Camphene                  | 0.005 / 0.015  | N/A                            | ND                | ND             |
| Sabinene                  | 0.004 / 0.014  | N/A                            | ND                | ND             |
| $\beta$ -Pinene           | 0.004 / 0.014  | N/A                            | ND                | ND             |
| Myrcene                   | 0.008 / 0.025  | N/A                            | ND                | ND             |
| $\alpha$ -Phellandrene    | 0.006 / 0.020  | N/A                            | ND                | ND             |
| $\Delta^3$ -Carene        | 0.005 / 0.018  | N/A                            | ND                | ND             |
| $\alpha$ -Terpinene       | 0.005 / 0.017  | N/A                            | ND                | ND             |
| p-Cymene                  | 0.005 / 0.016  | N/A                            | ND                | ND             |
| Limonene                  | 0.005 / 0.016  | N/A                            | ND                | ND             |
| $\beta$ -Ocimene          | 0.006 / 0.020  | N/A                            | ND                | ND             |
| $\gamma$ -Terpinene       | 0.006 / 0.018  | N/A                            | ND                | ND             |
| Sabinene Hydrate          | 0.006 / 0.022  | N/A                            | ND                | ND             |
| Fenchone                  | 0.009 / 0.028  | N/A                            | ND                | ND             |
| Terpinolene               | 0.008 / 0.026  | N/A                            | ND                | ND             |
| Linalool                  | 0.009 / 0.032  | N/A                            | ND                | ND             |
| Fenchol                   | 0.010 / 0.034  | N/A                            | ND                | ND             |
| Isopulegol                | 0.005 / 0.016  | N/A                            | ND                | ND             |
| Camphor                   | 0.006 / 0.019  | N/A                            | ND                | ND             |
| Isoborneol                | 0.004 / 0.012  | N/A                            | ND                | ND             |
| Borneol                   | 0.005 / 0.016  | N/A                            | ND                | ND             |
| Terpineol                 | 0.009 / 0.031  | N/A                            | ND                | ND             |
| Nerol                     | 0.003 / 0.011  | N/A                            | ND                | ND             |
| Citronellol               | 0.003 / 0.010  | N/A                            | ND                | ND             |
| Geraniol                  | 0.002 / 0.007  | N/A                            | ND                | ND             |
| Geranyl Acetate           | 0.004 / 0.014  | N/A                            | ND                | ND             |
| $\alpha$ -Cedrene         | 0.005 / 0.016  | N/A                            | ND                | ND             |
| trans- $\beta$ -Farnesene | 0.008 / 0.025  | N/A                            | ND                | ND             |
| $\alpha$ -Humulene        | 0.009 / 0.029  | N/A                            | ND                | ND             |
| Valencene                 | 0.009 / 0.030  | N/A                            | ND                | ND             |
| Cedrol                    | 0.008 / 0.027  | N/A                            | ND                | ND             |
| <b>TOTAL TERPENOIDS</b>   |                |                                | <b>1.947 mg/g</b> | <b>0.1947%</b> |



## 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

### PESTICIDE TEST RESULTS - 03/24/2023 ✔ PASS

| COMPOUND            | LOD/LOQ (µg/g) | ACTION LIMIT (µg/g) | MEASUREMENT UNCERTAINTY (µg/g) | RESULT (µg/g) | RESULT |
|---------------------|----------------|---------------------|--------------------------------|---------------|--------|
| Abamectin           | 0.032 / 0.097  | 0.25                | N/A                            | ND            | PASS   |
| Acephate            | 0.006 / 0.018  | 0.05                | N/A                            | ND            | PASS   |
| Acequinocyl         | 0.009 / 0.027  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Acetamiprid         | 0.016 / 0.049  | 0.05                | N/A                            | ND            | PASS   |
| Aldicarb            | 0.030 / 0.090  | 0.5                 | N/A                            | ND            | PASS   |
| Allethrin           | 0.030 / 0.092  | 0.1                 | N/A                            | ND            | PASS   |
| Atrazine            | 0.006 / 0.019  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Azadirachtin        | 0.082 / 0.248  | 0.5                 | N/A                            | ND            | PASS   |
| Azoxystrobin        | 0.003 / 0.009  | 0.01                | N/A                            | ND            | PASS   |
| Benzovindiflupyr    | 0.003 / 0.009  | 0.01                | N/A                            | ND            | PASS   |
| Bifenazate          | 0.003 / 0.009  | 0.01                | N/A                            | ND            | PASS   |
| Bifenthrin          | 0.021 / 0.064  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Boscalid            | 0.003 / 0.009  | 0.01                | N/A                            | ND            | PASS   |
| Buprofezin          | 0.006 / 0.019  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Carbaryl            | 0.007 / 0.020  | 0.025               | N/A                            | ND            | PASS   |
| Carbofuran          | 0.003 / 0.008  | 0.01                | N/A                            | ND            | PASS   |
| Chlorantraniliprole | 0.006 / 0.018  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Chlorfenapyr*       | 0.005 / 0.015  | 1.5                 | N/A                            | ND            | PASS   |
| Chlorpyrifos        | 0.013 / 0.039  | 0.5                 | N/A                            | ND            | PASS   |
| Clofentezine        | 0.003 / 0.009  | 0.01                | N/A                            | ND            | PASS   |
| Clothianidin        | 0.008 / 0.025  | 0.025               | N/A                            | ND            | PASS   |
| Coumaphos           | 0.003 / 0.010  | 0.01                | N/A                            | ND            | PASS   |
| Cyantraniliprole    | 0.003 / 0.010  | 0.01                | N/A                            | ND            | PASS   |
| Cyfluthrin          | 0.052 / 0.159  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Cypermethrin        | 0.051 / 0.153  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Cyprodinil          | 0.003 / 0.008  | 0.01                | N/A                            | ND            | PASS   |
| Daminozide          | 0.026 / 0.077  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Deltamethrin        | 0.059 / 0.180  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Diazinon            | 0.006 / 0.017  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Dichlorvos (DDVP)   | 0.012 / 0.038  | 0.05                | N/A                            | ND            | PASS   |
| Dimethoate          | 0.003 / 0.009  | 0.01                | N/A                            | ND            | PASS   |
| Dimethomorph        | 0.016 / 0.050  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Dinotefuran         | 0.010 / 0.030  | 0.05                | N/A                            | ND            | PASS   |
| Diuron              | 0.013 / 0.040  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Dodemorph           | 0.012 / 0.035  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Endosulfan sulfate  | 0.016 / 0.048  | 2.5                 | N/A                            | ND            | PASS   |
| Endosulfan-α*       | 0.004 / 0.014  | 2.5                 | N/A                            | ND            | PASS   |
| Endosulfan-β*       | 0.006 / 0.019  | 2.5                 | N/A                            | ND            | PASS   |
| Ethoprophos         | 0.003 / 0.009  | 0.01                | N/A                            | ND            | PASS   |
| Etofenprox          | 0.014 / 0.042  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Etoxazole           | 0.007 / 0.020  | ≥ LOQ               | N/A                            | ND            | PASS   |

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**Pesticide Analysis** *Continued*

PESTICIDE TEST RESULTS - 03/24/2023 *continued* ✔ PASS

| COMPOUND                 | LOD/LOQ (µg/g) | ACTION LIMIT (µg/g) | MEASUREMENT UNCERTAINTY (µg/g) | RESULT (µg/g) | RESULT |
|--------------------------|----------------|---------------------|--------------------------------|---------------|--------|
| Etridiazole*             | 0.002 / 0.005  | 0.15                | N/A                            | ND            | PASS   |
| Fenhexamid               | 0.003 / 0.008  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Fenoxycarb               | 0.003 / 0.010  | 0.01                | N/A                            | ND            | PASS   |
| Fenpyroximate            | 0.007 / 0.020  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Fensulfothion            | 0.003 / 0.010  | 0.01                | N/A                            | ND            | PASS   |
| Fenthion                 | 0.003 / 0.010  | 0.01                | N/A                            | ND            | PASS   |
| Fenvalerate              | 0.033 / 0.099  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Fipronil                 | 0.003 / 0.010  | 0.01                | N/A                            | ND            | PASS   |
| Flonicamid               | 0.007 / 0.022  | 0.025               | N/A                            | ND            | PASS   |
| Fludioxonil              | 0.003 / 0.010  | 0.01                | N/A                            | ND            | PASS   |
| Fluopyram                | 0.003 / 0.009  | 0.01                | N/A                            | ND            | PASS   |
| Hexythiazox              | 0.003 / 0.010  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Imazalil                 | 0.003 / 0.009  | 0.01                | N/A                            | ND            | PASS   |
| Imidacloprid             | 0.003 / 0.010  | 0.01                | N/A                            | ND            | PASS   |
| Iprodione                | 0.077 / 0.233  | 0.5                 | N/A                            | ND            | PASS   |
| Kinoprene                | 0.077 / 0.233  | 1.25                | N/A                            | ND            | PASS   |
| Kresoxim-methyl          | 0.006 / 0.019  | 0.15                | N/A                            | ND            | PASS   |
| λ-Cyhalothrin            | 0.068 / 0.206  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Malathion                | 0.003 / 0.009  | 0.01                | N/A                            | ND            | PASS   |
| Metalaxyl                | 0.003 / 0.010  | 0.01                | N/A                            | ND            | PASS   |
| Methiocarb               | 0.003 / 0.008  | 0.01                | N/A                            | ND            | PASS   |
| Methomyl                 | 0.008 / 0.025  | 0.025               | N/A                            | ND            | PASS   |
| Methoprene               | 0.172 / 0.521  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Mevinphos                | 0.008 / 0.024  | 0.025               | N/A                            | ND            | PASS   |
| MGK-264                  | 0.015 / 0.047  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Myclobutanil             | 0.003 / 0.009  | 0.01                | N/A                            | ND            | PASS   |
| Naled                    | 0.021 / 0.064  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Novaluron                | 0.002 / 0.005  | 0.025               | N/A                            | ND            | PASS   |
| Oxamyl                   | 0.017 / 0.051  | 1.5                 | N/A                            | ND            | PASS   |
| Paclobutrazol            | 0.003 / 0.010  | 0.01                | N/A                            | ND            | PASS   |
| Parathion-methyl         | 0.016 / 0.050  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Pentachloronitrobenzene* | 0.004 / 0.012  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Permethrin               | 0.056 / 0.168  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Phenothrin               | 0.016 / 0.047  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Phosmet                  | 0.007 / 0.020  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Piperonyl Butoxide       | 0.010 / 0.029  | 1.25                | N/A                            | ND            | PASS   |
| Pirimicarb               | 0.003 / 0.009  | 0.01                | N/A                            | ND            | PASS   |
| Prallethrin              | 0.015 / 0.046  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Propiconazole            | 0.027 / 0.080  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Propoxur                 | 0.003 / 0.008  | 0.01                | N/A                            | ND            | PASS   |
| Pyraclostrobin           | 0.003 / 0.010  | 0.01                | N/A                            | ND            | PASS   |

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### Pesticide Analysis *Continued*

PESTICIDE TEST RESULTS - 03/24/2023 *continued* ✔ **PASS**

| COMPOUND           | LOD/LOQ (µg/g) | ACTION LIMIT (µg/g) | MEASUREMENT UNCERTAINTY (µg/g) | RESULT (µg/g) | RESULT |
|--------------------|----------------|---------------------|--------------------------------|---------------|--------|
| Pyrethrins         | 0.016 / 0.049  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Pyridaben          | 0.005 / 0.017  | 0.02                | N/A                            | ND            | PASS   |
| Pyriproxyfen       | 0.003 / 0.009  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Resmethrin         | 0.013 / 0.039  | 0.05                | N/A                            | ND            | PASS   |
| Spinetoram         | 0.003 / 0.010  | 0.01                | N/A                            | ND            | PASS   |
| Spinosad           | 0.003 / 0.010  | 0.01                | N/A                            | ND            | PASS   |
| Spirodiclofen      | 0.031 / 0.093  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Spiromesifen       | 0.016 / 0.050  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Spirotetramat      | 0.003 / 0.010  | 0.01                | N/A                            | ND            | PASS   |
| Spiroxamine        | 0.020 / 0.062  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Tebuconazole       | 0.003 / 0.010  | 0.01                | N/A                            | ND            | PASS   |
| Tebufozide         | 0.003 / 0.008  | 0.01                | N/A                            | ND            | PASS   |
| Teflubenzuron      | 0.007 / 0.022  | 0.025               | N/A                            | ND            | PASS   |
| Tetrachlorvinphos  | 0.003 / 0.008  | 0.01                | N/A                            | ND            | PASS   |
| Tetramethrin       | 0.021 / 0.063  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Thiabendazole      | 0.006 / 0.020  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Thiacloprid        | 0.003 / 0.009  | 0.01                | N/A                            | ND            | PASS   |
| Thiamethoxam       | 0.003 / 0.010  | 0.01                | N/A                            | ND            | PASS   |
| Thiophanate-methyl | 0.013 / 0.040  | ≥ LOQ               | N/A                            | ND            | PASS   |
| Trifloxystrobin    | 0.003 / 0.009  | 0.01                | N/A                            | ND            | PASS   |



### Mycotoxin Analysis

MYCOTOXIN TEST RESULTS - 03/18/2023 ✔ **PASS**

Mycotoxin analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS).

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

| COMPOUND        | LOD/LOQ (µg/kg) | ACTION LIMIT (µg/kg) | MEASUREMENT UNCERTAINTY (µg/kg) | RESULT (µg/kg) | RESULT |
|-----------------|-----------------|----------------------|---------------------------------|----------------|--------|
| Aflatoxin B1    | 1.6 / 5.0       | 5                    | N/A                             | ND             | PASS   |
| Aflatoxin B2    | 1.4 / 4.1       |                      | N/A                             | ND             |        |
| Aflatoxin G1    | 1.6 / 4.9       |                      | N/A                             | ND             |        |
| Aflatoxin G2    | 1.6 / 5.0       |                      | N/A                             | ND             |        |
| Total Aflatoxin |                 | 20                   |                                 | ND             | PASS   |
| Ochratoxin A    | 1.6 / 5.0       | 5                    | N/A                             | ND             | PASS   |



## 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>1</sup> see last page

## RESIDUAL SOLVENTS TEST RESULTS - 03/24/2023 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            |        |
| <b>Total Butanes</b>                      |                | 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            |        |
| <b>Total Heptanes</b>                     |                | 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            |        |
| <b>Total Xylenes</b>                      |                | 430                 |                                | ND            | PASS   |
| Methanol                                  | 5.534 / 16.77  | 600                 | N/A                            | ND            | PASS   |
| Ethanol                                   | 8.984 / 27.23  | 1000                | N/A                            | ND            | PASS   |
| 2-Propanol (Isopropyl Alcohol)            | 8.421 / 25.52  | 1000                | N/A                            | ND            | PASS   |
| Acetone                                   | 9.510 / 28.82  | 1000                | N/A                            | ND            | PASS   |
| Ethyl Acetate                             | 1.123 / 3.745  | 1000                | N/A                            | ND            | PASS   |

## Heavy Metals Analysis

Heavy metal analysis utilizing inductively coupled plasma-mass spectrometry (ICP-MS).

**Method:** QSP 1160 - Analysis of Heavy Metals by ICP-MS

## HEAVY METALS TEST RESULTS - 03/17/2023 PASS

| COMPOUND | LOD/LOQ (µg/g) | ACTION LIMIT (µg/g) | MEASUREMENT UNCERTAINTY (µg/g) | RESULT (µg/g) | RESULT |
|----------|----------------|---------------------|--------------------------------|---------------|--------|
| Arsenic  | 0.02 / 0.1     | 1.5                 | N/A                            | ND            | PASS   |
| Cadmium  | 0.02 / 0.05    | 0.5                 | N/A                            | ND            | PASS   |
| Lead     | 0.04 / 0.1     | 0.5                 | N/A                            | ND            | PASS   |
| Mercury  | 0.002 / 0.01   | 1.5                 | 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™ Petrifilm™ and plate counts of microbiological contaminants.

**Method:** QSP 6794 - Plating with 3M™ Petrifilm™

### MICROBIOLOGY TEST RESULTS (PCR) - 03/18/2023 ✔ PASS

| COMPOUND                                      | ACTION LIMIT        | RESULT | RESULT |
|---|---------------------|--------|--------|
| Shiga toxin-producing <i>Escherichia coli</i> | Not Detected in 25g | ND     | PASS   |
| <i>Salmonella</i> spp.                        | Not Detected in 25g | ND     | PASS   |

### MICROBIOLOGY TEST RESULTS (PLATING) - 03/18/2023 ✔ PASS

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

### NOTES

COA amended, update to results and sample certification.

1. Exclusions: LOD of 53.9 ug/g applied to methanol, LOD of 10.6 ug/g applied to acetone.