

SAMPLE NAME: GREEN GRUFF RELAX Calming Plus CBD - Bag | 24 Soft Chews

Infused, Hemp

CULTIVATOR / MANUFACTURER

Business Name:

License Number:

Address:

DISTRIBUTOR / TESTED FOR

Business Name: GREEN GRUFF USA

INC

License Number:

Address:

SAMPLE DETAIL

Batch Number: 3255900

Sample ID: 240112N020

Date Collected: 01/12/2024

Date Received: 01/12/2024

Batch Size:

Sample Size: 1.0 units

Unit Mass: 48 grams per Unit

Serving Size: 2 grams per Serving



Scan QR code to verify authenticity of results.

CANNABINOID ANALYSIS - SUMMARY

CALCULATED USING DRY-WEIGHT

Total THC: 2.016 mg/unit

Total CBD: 146.400 mg/unit

Sum of Cannabinoids: 158.016 mg/unit

Total Cannabinoids: 158.016 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 = Δ^9 -THC + (THCa (0.877))

Total CBD = CBD + (CBDa (0.877))

Sum of Cannabinoids = Δ^9 -THC + THCa + CBD + CBDa + CBG + CBGa + THCV + THCVa + CBC + CBCa + CBDV + CBDVa + Δ^8 -THC + CBL + CBN + exo-THC + Δ^8 -THCV + Δ^8 -iso-THC + 9S-HHC + 9R-HHC + Δ^{10} -THC + Δ^9 -THC Acetate

Total Cannabinoids = (Δ^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) + Δ^8 -THC + CBL + CBN + exo-THC + Δ^8 -THCV + Δ^8 -iso-THC + 9S-HHC + 9R-HHC + Δ^{10} -THC + Δ^9 -THC Acetate

Moisture: 8.6%

TERPENOID ANALYSIS - SUMMARY

39 TESTED, TOP 3 HIGHLIGHTED

Total Terpenoids: ND

SAFETY ANALYSIS - SUMMARY

Pesticides: ND

Mycotoxins: ND

Residual Solvents: DETECTED

Heavy Metals: DETECTED

Microbiology (PCR): DETECTED

Microbiology (Plating): DETECTED

Foreign Material:  PASS

Water Activity: DETECTED

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.


LQC verified by: Kelsey Cochran
Job Title: Laboratory Technician I
Date: 01/17/2024


Approved by: Josh Wurzer
Job Title: Chief Compliance Officer
Date: 01/17/2024

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)

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CoA ID: 240112N020-001 Summary Page



Cannabinoid Analysis

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

†Analytes not part of our ISO/IEC 17025 scope of accreditation.

Method: QSP 1157 - Analysis of Cannabinoids by HPLC-DAD or QSP 34181 - Semisynthetic Cannabinoids Analysis by HPLC

TOTAL THC: 2.016 mg/unit

Total THC (Δ^9 -THC+0.877*THCa)

TOTAL CBD: 146.400 mg/unit

Total CBD (CBD+0.877*CBDA)

TOTAL CANNABINOIDS: 158.016 mg/unit

Total Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCV) + (Total CBC) + (Total CBDV) + Δ^8 -THC + CBL + CBN + exo-THC + Δ^8 -THCV + Δ^8 -iso-THC + 9S-HHC + 9R-HHC + Δ^{10} -THC + Δ^9 -THC Acetate

TOTAL CBG: 0.912 mg/unit

Total CBG (CBG+0.877*CBGa)

TOTAL THCV: ND

Total THCV (THCV+0.877*THCVa)

TOTAL CBC: 6.288 mg/unit

Total CBC (CBC+0.877*CBCa)

TOTAL CBDV: 1.152 mg/unit

Total CBDV (CBDV+0.877*CBDVa)

CANNABINOID TEST RESULTS - 01/16/2024

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
CBD	0.004 / 0.011	±0.1138	3.050	0.3050
CBC	0.003 / 0.010	±0.0042	0.131	0.0131
Δ^9 -THC	0.002 / 0.014	±0.0023	0.042	0.0042
CBN	0.001 / 0.007	±0.0007	0.026	0.0026
CBDV	0.002 / 0.012	±0.0010	0.024	0.0024
CBG	0.002 / 0.006	±0.0009	0.019	0.0019
CBDa	0.001 / 0.026	N/A	<LOQ	<LOQ
Δ^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
CBL	0.003 / 0.010	N/A	ND	ND
CBCa	0.001 / 0.015	N/A	ND	ND
9R-HHC†	0.027 / 0.089	N/A	ND	ND
9S-HHC†	0.027 / 0.090	N/A	ND	ND
Δ^{10} -THC†	0.024 / 0.078	N/A	ND	ND
Δ^8 -iso-THC†	0.025 / 0.084	N/A	ND	ND
Δ^8 -THCV†	0.012 / 0.039	N/A	ND	ND
Δ^9 -THC Acetate†	0.023 / 0.077	N/A	ND	ND
exo-THC†	0.028 / 0.093	N/A	ND	ND
SUM OF CANNABINOIDS			3.292 mg/g	0.3292%

Unit Mass: 48 grams per Unit / Serving Size: 2 grams per Serving

Δ^9 -THC per Unit	2.016 mg/unit
Δ^9 -THC per Serving	0.084 mg/serving
Total THC per Unit	2.016 mg/unit
Total THC per Serving	0.084 mg/serving
CBD per Unit	146.400 mg/unit
CBD per Serving	6.100 mg/serving
Total CBD per Unit	146.400 mg/unit
Total CBD per Serving	6.100 mg/serving
Sum of Cannabinoids per Unit	158.016 mg/unit
Sum of Cannabinoids per Serving	6.584 mg/serving
Total Cannabinoids per Unit	158.016 mg/unit
Total Cannabinoids per Serving	6.584 mg/serving



MOISTURE TEST RESULT

8.6%

Tested 01/14/2024

Method: QSP 1224 - Loss on Drying
(Moisture)Cannabinoid Analysis *Continued*



Terpenoid Analysis

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

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

TERPENOID TEST RESULTS - 01/15/2024

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
α -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
β -Pinene	0.004 / 0.014	N/A	ND	ND
Myrcene	0.008 / 0.025	N/A	ND	ND
α -Phellandrene	0.006 / 0.020	N/A	ND	ND
Δ^3 -Carene	0.005 / 0.018	N/A	ND	ND
α -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
Eucalyptol	0.006 / 0.018	N/A	ND	ND
β -Ocimene	0.006 / 0.020	N/A	ND	ND
γ -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
Menthol	0.008 / 0.025	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
Pulegone	0.003 / 0.011	N/A	ND	ND
Geraniol	0.002 / 0.007	N/A	ND	ND
Geranyl Acetate	0.004 / 0.014	N/A	ND	ND
α -Cedrene	0.005 / 0.016	N/A	ND	ND
β -Caryophyllene	0.004 / 0.012	N/A	ND	ND
trans- β -Farnesene	0.008 / 0.025	N/A	ND	ND
α -Humulene	0.009 / 0.029	N/A	ND	ND
Valencene	0.009 / 0.030	N/A	ND	ND
Nerolidol	0.006 / 0.019	N/A	ND	ND
Caryophyllene Oxide	0.010 / 0.033	N/A	ND	ND
Guaiol	0.009 / 0.030	N/A	ND	ND
Cedrol	0.008 / 0.027	N/A	ND	ND
α -Bisabolol	0.008 / 0.026	N/A	ND	ND
TOTAL TERPENOIDS			ND	ND



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 - 01/16/2024 ND

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Abamectin	0.032 / 0.097	N/A	ND
Acephate	0.006 / 0.018	N/A	ND
Acequinocyl	0.009 / 0.027	N/A	ND
Acetamiprid	0.016 / 0.049	N/A	ND
Aldicarb	0.030 / 0.090	N/A	ND
Allethrin	0.030 / 0.092	N/A	ND
Atrazine	0.006 / 0.019	N/A	ND
Azadirachtin	0.082 / 0.248	N/A	ND
Azoxystrobin	0.003 / 0.009	N/A	ND
Benzovindiflupyr	0.003 / 0.009	N/A	ND
Bifenazate	0.003 / 0.009	N/A	ND
Bifenthrin	0.021 / 0.064	N/A	ND
Boscalid	0.003 / 0.009	N/A	ND
Buprofezin	0.006 / 0.019	N/A	ND
Captan	0.045 / 0.135	N/A	ND
Carbaryl	0.007 / 0.020	N/A	ND
Carbofuran	0.003 / 0.008	N/A	ND
Chlorantraniliprole	0.006 / 0.018	N/A	ND
Chlordane*	0.010 / 0.032	N/A	ND
Chlorfenapyr*	0.005 / 0.015	N/A	ND
Chlormequat chloride	0.022 / 0.066	N/A	ND
Chlorpyrifos	0.013 / 0.039	N/A	ND
Clofentezine	0.003 / 0.009	N/A	ND
Clothianidin	0.008 / 0.025	N/A	ND
Coumaphos	0.003 / 0.010	N/A	ND
Cyantraniliprole	0.003 / 0.010	N/A	ND
Cyfluthrin	0.052 / 0.159	N/A	ND
Cypermethrin	0.051 / 0.153	N/A	ND
Cyprodinil	0.003 / 0.008	N/A	ND
Daminozide	0.026 / 0.077	N/A	ND
Deltamethrin	0.059 / 0.180	N/A	ND
Diazinon	0.006 / 0.017	N/A	ND
Dichlorvos (DDVP)	0.012 / 0.038	N/A	ND
Dimethoate	0.003 / 0.009	N/A	ND
Dimethomorph	0.016 / 0.050	N/A	ND
Dinotefuran	0.010 / 0.030	N/A	ND
Diuron	0.013 / 0.040	N/A	ND
Dodemorph	0.012 / 0.035	N/A	ND
Endosulfan sulfate	0.016 / 0.048	N/A	ND
Endosulfan-α*	0.004 / 0.014	N/A	ND
Endosulfan-β*	0.006 / 0.019	N/A	ND

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Pesticide Analysis *Continued*
PESTICIDE TEST RESULTS - 01/16/2024 *continued ND*

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Ethoprophos	0.003 / 0.009	N/A	ND
Etofenprox	0.014 / 0.042	N/A	ND
Etoxazole	0.007 / 0.020	N/A	ND
Etridiazole*	0.002 / 0.005	N/A	ND
Fenhexamid	0.003 / 0.008	N/A	ND
Fenoxycarb	0.003 / 0.010	N/A	ND
Fenpyroximate	0.007 / 0.020	N/A	ND
Fensulfothion	0.003 / 0.010	N/A	ND
Fenthion	0.003 / 0.010	N/A	ND
Fenvalerate	0.033 / 0.099	N/A	ND
Fipronil	0.003 / 0.010	N/A	ND
Flonicamid	0.007 / 0.022	N/A	ND
Fludioxonil	0.003 / 0.010	N/A	ND
Fluopyram	0.003 / 0.009	N/A	ND
Hexythiazox	0.003 / 0.010	N/A	ND
Imazalil	0.003 / 0.009	N/A	ND
Imidacloprid	0.003 / 0.010	N/A	ND
Iprodione	0.077 / 0.233	N/A	ND
Kinoprene	0.077 / 0.233	N/A	ND
Kresoxim-methyl	0.006 / 0.019	N/A	ND
λ-Cyhalothrin	0.068 / 0.206	N/A	ND
Malathion	0.003 / 0.009	N/A	ND
Metaxyl	0.003 / 0.010	N/A	ND
Methiocarb	0.003 / 0.008	N/A	ND
Methomyl	0.008 / 0.025	N/A	ND
Methoprene	0.172 / 0.521	N/A	ND
Mevinphos	0.008 / 0.024	N/A	ND
MGK-264	0.015 / 0.047	N/A	ND
Myclobutanil	0.003 / 0.009	N/A	ND
Naled	0.021 / 0.064	N/A	ND
Novaluron	0.002 / 0.005	N/A	ND
Oxamyl	0.017 / 0.051	N/A	ND
Paclobutrazol	0.003 / 0.010	N/A	ND
Parathion-methyl	0.016 / 0.050	N/A	ND
Pentachloronitrobenzene*	0.004 / 0.012	N/A	ND
Permethrin	0.056 / 0.168	N/A	ND
Phenothrin	0.016 / 0.047	N/A	ND
Phosmet	0.007 / 0.020	N/A	ND
Piperonyl Butoxide	0.010 / 0.029	N/A	ND
Pirimicarb	0.003 / 0.009	N/A	ND
Prallethrin	0.015 / 0.046	N/A	ND

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Pesticide Analysis *Continued*

PESTICIDE TEST RESULTS - 01/16/2024 *continued* ND

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Propiconazole	0.027 / 0.080	N/A	ND
Propoxur	0.003 / 0.008	N/A	ND
Pyraclostrobin	0.003 / 0.010	N/A	ND
Pyrethrins	0.016 / 0.049	N/A	ND
Pyridaben	0.005 / 0.017	N/A	ND
Pyriproxyfen	0.003 / 0.009	N/A	ND
Resmethrin	0.013 / 0.039	N/A	ND
Spinetoram	0.003 / 0.010	N/A	ND
Spinosad	0.003 / 0.010	N/A	ND
Spirodiclofen	0.031 / 0.093	N/A	ND
Spiromesifen	0.016 / 0.050	N/A	ND
Spirotetramat	0.003 / 0.010	N/A	ND
Spiroxamine	0.020 / 0.062	N/A	ND
Tebuconazole	0.003 / 0.010	N/A	ND
Tebufenozide	0.003 / 0.008	N/A	ND
Teflubenzuron	0.007 / 0.022	N/A	ND
Tetrachlorvinphos	0.003 / 0.008	N/A	ND
Tetramethrin	0.021 / 0.063	N/A	ND
Thiabendazole	0.006 / 0.020	N/A	ND
Thiacloprid	0.003 / 0.009	N/A	ND
Thiamethoxam	0.003 / 0.010	N/A	ND
Thiophanate-methyl	0.013 / 0.040	N/A	ND
Trifloxystrobin	0.003 / 0.009	N/A	ND



Mycotoxin Analysis

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

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

MYCOTOXIN TEST RESULTS - 01/16/2024 ND

COMPOUND	LOD/LOQ (µg/kg)	MEASUREMENT UNCERTAINTY (µg/kg)	RESULT (µg/kg)
Aflatoxin B1	1.6 / 5.0	N/A	ND
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			ND
Ochratoxin A	1.6 / 5.0	N/A	ND



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 Pentanes = n-Pentane + 2-Methylbutane (Isopentane)

Total Hexanes = n-Hexane + 2,2-Dimethylbutane (Neohexane) + 2,3-Dimethylbutane / 2-Methylpentane (Isohexane) + 3-Methylpentane

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) + Ethylbenzene

RESIDUAL SOLVENTS TEST RESULTS - 01/15/2024 DETECTED

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Propane	0.234 / 0.781	N/A	ND
2-Methylpropane (Isobutane)	0.052 / 0.173	N/A	ND
n-Butane	0.019 / 0.063	±0.0098	0.237
Total Butanes			0.237
2-Methylbutane (Isopentane)	0.310 / 1.035	N/A	ND
2,2-Dimethylpropane (Neopentane)	0.035 / 0.117	N/A	ND
n-Pentane	0.310 / 1.033	N/A	ND
Total Pentanes			ND
2,2-Dimethylbutane (Neohexane)	9.831 / 32.77	N/A	ND
2,3-Dimethylbutane / 2-Methylpentane	0.381 / 1.271	N/A	ND
3-Methylpentane	0.109 / 0.365	N/A	ND
n-Hexane	0.110 / 0.366	N/A	ND
Total Hexanes			ND
Cyclohexane	0.357 / 1.190	N/A	ND
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			ND
Cycloheptane	0.597 / 1.989	N/A	ND
Benzene	0.089 / 0.295	N/A	ND
Toluene	0.115 / 0.382	N/A	ND
Cumene	0.180 / 0.600	N/A	ND
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
Ethylbenzene	0.370 / 1.233	N/A	<LOQ
Total Xylenes			<LOQ
Methanol	53.92 / 163.4	±3.64	280.3
Ethanol	8.984 / 27.23	N/A	ND
1-Propanol	1.540 / 5.133	N/A	ND
2-Propanol (Isopropyl Alcohol)	8.421 / 25.52	N/A	ND

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Residual Solvents Analysis

Continued

RESIDUAL SOLVENTS TEST RESULTS - 01/15/2024 *continued* DETECTED

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
1-Butanol	0.475 / 1.582	N/A	ND
2-Butanol	7.248 / 24.16	N/A	ND
1-Pentanol	1.461 / 4.869	N/A	ND
Acetone	10.59 / 32.08	N/A	ND
2-Butanone	0.169 / 0.564	N/A	ND
Tetrahydrofuran	0.622 / 2.075	N/A	ND
Ethyl Ether	0.197 / 0.658	N/A	ND
Ethylene Glycol	3.803 / 12.68	N/A	ND
2-Ethoxyethanol	1.235 / 4.118	N/A	ND
1,2-Dimethoxyethane	2.116 / 7.052	N/A	ND
1,4-Dioxane	0.468 / 1.558	N/A	ND
Ethylene Oxide	0.253 / 0.844	N/A	ND
Ethyl Acetate	1.123 / 3.745	N/A	ND
Isopropyl Acetate	0.347 / 1.158	N/A	ND
Chloroform	0.251 / 0.838	N/A	ND
Dichloromethane (Methylene Chloride)	2.651 / 8.838	N/A	ND
Trichloroethylene	0.299 / 0.996	N/A	ND
1,2-Dichloroethane	0.162 / 0.541	N/A	ND
1,1-Dichloroethene	0.185 / 0.616	N/A	ND
1,2-Dichloroethene	0.428 / 1.427	N/A	ND
Sulfolane	47.66 / 158.9	N/A	ND
Dimethyl Sulfoxide	6.168 / 20.56	N/A	ND
Acetonitrile	1.595 / 4.833	N/A	ND
Pyridine	0.407 / 1.355	N/A	ND
N,N-Dimethylacetamide	0.127 / 0.422	N/A	ND
N,N-Dimethylformamide	0.946 / 3.153	N/A	ND



Heavy Metals Analysis

HEAVY METALS TEST RESULTS - 01/14/2024 DETECTED

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Arsenic	0.02 / 0.1	N/A	<LOQ
Cadmium	0.02 / 0.05	N/A	<LOQ
Lead	0.04 / 0.1	±0.00	0.1
Mercury	0.002 / 0.01	N/A	ND

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

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



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

MICROBIOLOGY TEST RESULTS (PCR) - 01/17/2024 DETECTED

COMPOUND	RESULT (cfu/g)
Shiga toxin-producing <i>Escherichia coli</i>	ND
<i>Salmonella</i> spp.	ND
<i>Aspergillus fumigatus</i>	ND
<i>Aspergillus flavus</i>	ND
<i>Aspergillus niger</i>	ND
<i>Aspergillus terreus</i>	ND
<i>Candida albicans</i>	ND
<i>Campylobacter</i> spp.	ND
<i>Yersinia</i> spp.	ND
<i>Listeria monocytogenes</i>	ND
<i>Pseudomonas aeruginosa</i>	Detected
Bile-Tolerant Gram-Negative Bacteria	105.0
<i>Staphylococcus aureus</i>	ND

Analysis conducted by 3M™ Petrifilm™ and plate counts of microbiological contaminants.

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

MICROBIOLOGY TEST RESULTS (PLATING) - 01/17/2024 DETECTED

COMPOUND	RESULT (cfu/g)
Total Aerobic Bacteria	5500.0
Total Yeast and Mold	ND
Total Enterobacteriaceae	ND
<i>Escherichia coli</i>	ND
Coliforms	ND



Foreign Material Analysis

Visual analysis includes, but is not limited to, sand, soil, cinders, dirt, mold, hair, insect fragments, and mammalian excreta.

Method: QSP 1226 - Analysis of Foreign Material in Cannabis and Cannabis Products

FOREIGN MATERIAL TEST RESULTS - 01/13/2024 PASS

COMPOUND	ACTION LIMIT	RESULT
Total Sample Area Covered by Sand, Soil, Cinders, or Dirt	>25%	PASS
Total Sample Area Covered by Mold	>25%	PASS
Total Sample Area Covered by an Imbedded Foreign Material	>25%	PASS
Insect Fragment Count	> 1 per 3 grams	PASS
Hair Count	> 1 per 3 grams	PASS
Mammalian Excreta Count	> 1 per 3 grams	PASS

 Water Activity Analysis

Method: QSP 1227 - Analysis of Water Activity in Cannabis and Cannabis Products

WATER ACTIVITY TEST RESULTS - 01/13/2024 DETECTED

COMPOUND	LOD/LOQ (Aw)	MEASUREMENT UNCERTAINTY (Aw)	RESULT (Aw)
Water Activity	0.030 / 0.15	±0.020	0.41

SAMPLE NAME: GREEN GRUFF RELAX Calming Plus CBD - Jar | 90 Soft Chews

Infused, Hemp

CULTIVATOR / MANUFACTURER
Business Name:
License Number:
Address:
DISTRIBUTOR / TESTED FOR
Business Name: GREEN GRUFF USA

INC
License Number:
Address:
SAMPLE DETAIL
Batch Number: 3255890

Sample ID: 240109N028

Date Collected: 01/09/2024

Date Received: 01/09/2024

Batch Size:
Sample Size: 1.0 units

Unit Mass: 180 grams per Unit

Serving Size: 2 grams per Serving

Scan QR code to verify
authenticity of results.

CANNABINOID ANALYSIS - SUMMARY
CALCULATED USING DRY-WEIGHT
Total THC: 2.6100 mg/unit

Total CBD: 549.900 mg/unit

Sum of Cannabinoids: 588.420 mg/unit

Total Cannabinoids: 588.420 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 = Δ^9 -THC + (THCa (0.877))

Total CBD = CBD + (CBDa (0.877))

Sum of Cannabinoids = Δ^9 -THC + THCa + CBD + CBDa + CBG + CBGa + THCV + THCVa + CBC + CBCa + CBDV + CBDVa + Δ^8 -THC + CBL + CBN + exo-THC + Δ^8 -THCV + Δ^8 -iso-THC + 9S-HHC + 9R-HHC + Δ^{10} -THC + Δ^9 -THC Acetate

Total Cannabinoids = (Δ^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) + Δ^8 -THC + CBL + CBN + exo-THC + Δ^8 -THCV + Δ^8 -iso-THC + 9S-HHC + 9R-HHC + Δ^{10} -THC + Δ^9 -THC Acetate

Moisture: 7.9%

TERPENOID ANALYSIS - SUMMARY
39 TESTED, TOP 3 HIGHLIGHTED
Total Terpenoids: 0.004%

 α -Bisabolol 0.040 mg/g

 β -Caryophyllene <LOQ

trans- β -Farnesene <LOQ

SAFETY ANALYSIS - SUMMARY
Pesticides: ND

Heavy Metals: DETECTED

Foreign Material: PASS
Mycotoxins: ND

Microbiology (PCR): DETECTED

Water Activity: DETECTED

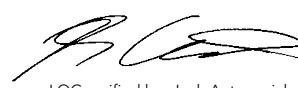
Residual Solvents: DETECTED

Microbiology (Plating): DETECTED

Vitamin E: DETECTED

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.

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)


LQC verified by: Josh Antunovich
Job Title: Laboratory Director
Date: 01/17/2024


Approved by: Josh Wurzer
Job Title: Chief Compliance Officer
Date: 01/17/2024



Cannabinoid Analysis

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

†Analytes not part of our ISO/IEC 17025 scope of accreditation.

Method: QSP 1157 - Analysis of Cannabinoids by HPLC-DAD or QSP 34181 - Semisynthetic Cannabinoids Analysis by HPLC

TOTAL THC: 2.6100 mg/unit

Total THC (Δ^9 -THC+0.877*THCa)

TOTAL CBD: 549.900 mg/unit

Total CBD (CBD+0.877*CBDA)

TOTAL CANNABINOIDS: 588.420 mg/unit

Total Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCV) + (Total CBC) + (Total CBDV) + Δ^8 -THC + CBL + CBN + exo-THC + Δ^8 -THCV + Δ^8 -iso-THC + 9S-HHC + 9R-HHC + Δ^{10} -THC + Δ^9 -THC Acetate

TOTAL CBG: 4.860 mg/unit

Total CBG (CBG+0.877*CBGa)

TOTAL THCV: ND

Total THCV (THCV+0.877*THCVa)

TOTAL CBC: 23.040 mg/unit

Total CBC (CBC+0.877*CBCa)

TOTAL CBDV: 3.060 mg/unit

Total CBDV (CBDV+0.877*CBDVa)

CANNABINOID TEST RESULTS - 01/11/2024

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
CBD	0.004 / 0.011	±0.1140	3.055	0.3055
CBC	0.003 / 0.010	±0.0041	0.128	0.0128
CBG	0.002 / 0.006	±0.0013	0.027	0.0027
CBN	0.001 / 0.007	±0.0008	0.027	0.0027
CBDV	0.002 / 0.012	±0.0007	0.017	0.0017
Δ^9 -THC	0.0006 / 0.0053	±0.00080	0.0145	0.00145
CBDA	0.001 / 0.026	N/A	<LOQ	<LOQ
Δ^8 -THC	0.01 / 0.02	N/A	ND	ND
THCa	0.0003 / 0.0019	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
CBL	0.003 / 0.010	N/A	ND	ND
CBCa	0.001 / 0.015	N/A	ND	ND
9R-HHC†	0.027 / 0.089	N/A	ND	ND
9S-HHC†	0.027 / 0.090	N/A	ND	ND
Δ^{10} -THC†	0.024 / 0.078	N/A	ND	ND
Δ^8 -iso-THC†	0.025 / 0.084	N/A	ND	ND
Δ^8 -THCV†	0.012 / 0.039	N/A	ND	ND
Δ^9 -THC Acetate†	0.023 / 0.077	N/A	ND	ND
exo-THC†	0.028 / 0.093	N/A	ND	ND
SUM OF CANNABINOIDS			3.269 mg/g	0.3269%

Unit Mass: 180 grams per Unit / Serving Size: 2 grams per Serving

Δ^9 -THC per Unit	2.6100 mg/unit
Δ^9 -THC per Serving	0.0290 mg/serving
Total THC per Unit	2.6100 mg/unit
Total THC per Serving	0.0290 mg/serving
CBD per Unit	549.900 mg/unit
CBD per Serving	6.110 mg/serving
Total CBD per Unit	549.900 mg/unit
Total CBD per Serving	6.110 mg/serving
Sum of Cannabinoids per Unit	588.420 mg/unit
Sum of Cannabinoids per Serving	6.538 mg/serving
Total Cannabinoids per Unit	588.420 mg/unit
Total Cannabinoids per Serving	6.538 mg/serving



MOISTURE TEST RESULT

7.9%

Tested 01/14/2024

Method: QSP 1224 - Loss on Drying
(Moisture)Cannabinoid Analysis *Continued*



Terpenoid Analysis

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

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

1 α -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 β -Caryophyllene

A sesquiterpene with a fragrance that can be described as spicy, woody, dry, dusty and mildly sweet. It was one of the first organic compounds to fully synthesized in a laboratory and plays a role in the endocannabinoid system as it is a functional CB₂ receptor agonist. Found in black pepper, clove, hops, rosemary, black-jack, perilla, spicebush, Indian pennywort, celery, frankincense, vitex, parsley, marigold, tamarind...etc.

3 trans- β -Farnesene

A sesquiterpene with a fragrance that can be described as green apple. Found in green apple skin, sandalwood, cedarwood, patchouli, hops, ginger, tumeric, potatoes, gardenias, ylang-ylang, grapefruit, myrrh...etc.

TERPENOID TEST RESULTS - 01/11/2024

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
α -Bisabolol	0.008 / 0.026	± 0.0017	0.040	0.0040
β -Caryophyllene	0.004 / 0.012	N/A	<LOQ	<LOQ
trans- β -Farnesene	0.008 / 0.025	N/A	<LOQ	<LOQ
Caryophyllene Oxide	0.010 / 0.033	N/A	<LOQ	<LOQ
Guaiol	0.009 / 0.030	N/A	<LOQ	<LOQ
α -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
β -Pinene	0.004 / 0.014	N/A	ND	ND
Myrcene	0.008 / 0.025	N/A	ND	ND
α -Phellandrene	0.006 / 0.020	N/A	ND	ND
Δ^3 -Carene	0.005 / 0.018	N/A	ND	ND
α -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
Eucalyptol	0.006 / 0.018	N/A	ND	ND
β -Ocimene	0.006 / 0.020	N/A	ND	ND
γ -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
Menthol	0.008 / 0.025	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
Pulegone	0.003 / 0.011	N/A	ND	ND
Geraniol	0.002 / 0.007	N/A	ND	ND
Geranyl Acetate	0.004 / 0.014	N/A	ND	ND
α -Cedrene	0.005 / 0.016	N/A	ND	ND
α -Humulene	0.009 / 0.029	N/A	ND	ND
Valencene	0.009 / 0.030	N/A	ND	ND
Nerolidol	0.006 / 0.019	N/A	ND	ND
Cedrol	0.008 / 0.027	N/A	ND	ND
TOTAL TERPENOIDS			0.040 mg/g	0.004%



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 - 01/12/2024 ND

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Abamectin	0.032 / 0.097	N/A	ND
Acephate	0.006 / 0.018	N/A	ND
Acequinocyl	0.009 / 0.027	N/A	ND
Acetamiprid	0.016 / 0.049	N/A	ND
Aldicarb	0.030 / 0.090	N/A	ND
Allethrin	0.030 / 0.092	N/A	ND
Atrazine	0.006 / 0.019	N/A	ND
Azadirachtin	0.082 / 0.248	N/A	ND
Azoxystrobin	0.003 / 0.009	N/A	ND
Benzovindiflupyr	0.003 / 0.009	N/A	ND
Bifenazate	0.003 / 0.009	N/A	ND
Bifenthrin	0.021 / 0.064	N/A	ND
Boscalid	0.003 / 0.009	N/A	ND
Buprofezin	0.006 / 0.019	N/A	ND
Captan	0.045 / 0.135	N/A	ND
Carbaryl	0.007 / 0.020	N/A	ND
Carbofuran	0.003 / 0.008	N/A	ND
Chlorantraniliprole	0.006 / 0.018	N/A	ND
Chlordane*	0.010 / 0.032	N/A	ND
Chlorfenapyr*	0.005 / 0.015	N/A	ND
Chlormequat chloride	0.022 / 0.066	N/A	ND
Chlorpyrifos	0.013 / 0.039	N/A	ND
Clofentezine	0.003 / 0.009	N/A	ND
Clothianidin	0.008 / 0.025	N/A	ND
Coumaphos	0.003 / 0.010	N/A	ND
Cyantraniliprole	0.003 / 0.010	N/A	ND
Cyfluthrin	0.052 / 0.159	N/A	ND
Cypermethrin	0.051 / 0.153	N/A	ND
Cyprodinil	0.003 / 0.008	N/A	ND
Daminozide	0.026 / 0.077	N/A	ND
Deltamethrin	0.059 / 0.180	N/A	ND
Diazinon	0.006 / 0.017	N/A	ND
Dichlorvos (DDVP)	0.012 / 0.038	N/A	ND
Dimethoate	0.003 / 0.009	N/A	ND
Dimethomorph	0.016 / 0.050	N/A	ND
Dinotefuran	0.010 / 0.030	N/A	ND
Diuron	0.013 / 0.040	N/A	ND
Dodemorph	0.012 / 0.035	N/A	ND
Endosulfan sulfate	0.016 / 0.048	N/A	ND
Endosulfan-α*	0.004 / 0.014	N/A	ND
Endosulfan-β*	0.006 / 0.019	N/A	ND

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Pesticide Analysis *Continued*
PESTICIDE TEST RESULTS - 01/12/2024 *continued ND*

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Ethoprophos	0.003 / 0.009	N/A	ND
Etofenprox	0.014 / 0.042	N/A	ND
Etoxazole	0.007 / 0.020	N/A	ND
Etridiazole*	0.002 / 0.005	N/A	ND
Fenhexamid	0.003 / 0.008	N/A	ND
Fenoxycarb	0.003 / 0.010	N/A	ND
Fenpyroximate	0.007 / 0.020	N/A	ND
Fensulfothion	0.003 / 0.010	N/A	ND
Fenthion	0.003 / 0.010	N/A	ND
Fenvalerate	0.033 / 0.099	N/A	ND
Fipronil	0.003 / 0.010	N/A	ND
Flonicamid	0.007 / 0.022	N/A	ND
Fludioxonil	0.003 / 0.010	N/A	ND
Fluopyram	0.003 / 0.009	N/A	ND
Hexythiazox	0.003 / 0.010	N/A	ND
Imazalil	0.003 / 0.009	N/A	ND
Imidacloprid	0.003 / 0.010	N/A	ND
Iprodione	0.077 / 0.233	N/A	ND
Kinoprene	0.077 / 0.233	N/A	ND
Kresoxim-methyl	0.006 / 0.019	N/A	ND
λ-Cyhalothrin	0.068 / 0.206	N/A	ND
Malathion	0.003 / 0.009	N/A	ND
Metalaxyl	0.003 / 0.010	N/A	ND
Methiocarb	0.003 / 0.008	N/A	ND
Methomyl	0.008 / 0.025	N/A	ND
Methoprene	0.172 / 0.521	N/A	ND
Mevinphos	0.008 / 0.024	N/A	ND
MGK-264	0.015 / 0.047	N/A	ND
Myclobutanil	0.003 / 0.009	N/A	ND
Naled	0.021 / 0.064	N/A	ND
Novaluron	0.002 / 0.005	N/A	ND
Oxamyl	0.017 / 0.051	N/A	ND
Paclobutrazol	0.003 / 0.010	N/A	ND
Parathion-methyl	0.016 / 0.050	N/A	ND
Pentachloronitrobenzene*	0.004 / 0.012	N/A	ND
Permethrin	0.056 / 0.168	N/A	ND
Phenothrin	0.016 / 0.047	N/A	ND
Phosmet	0.007 / 0.020	N/A	ND
Piperonyl Butoxide	0.010 / 0.029	N/A	ND
Pirimicarb	0.003 / 0.009	N/A	ND
Prallethrin	0.015 / 0.046	N/A	ND

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**Pesticide Analysis** *Continued***PESTICIDE TEST RESULTS - 01/12/2024** *continued ND*

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Propiconazole	0.027 / 0.080	N/A	ND
Propoxur	0.003 / 0.008	N/A	ND
Pyraclostrobin	0.003 / 0.010	N/A	ND
Pyrethrins	0.016 / 0.049	N/A	ND
Pyridaben	0.005 / 0.017	N/A	ND
Pyriproxyfen	0.003 / 0.009	N/A	ND
Resmethrin	0.013 / 0.039	N/A	ND
Spinetoram	0.003 / 0.010	N/A	ND
Spinosad	0.003 / 0.010	N/A	ND
Spirodiclofen	0.031 / 0.093	N/A	ND
Spiromesifen	0.016 / 0.050	N/A	ND
Spirotetramat	0.003 / 0.010	N/A	ND
Spiroxamine	0.020 / 0.062	N/A	ND
Tebuconazole	0.003 / 0.010	N/A	ND
Tebufenozide	0.003 / 0.008	N/A	ND
Teflubenzuron	0.007 / 0.022	N/A	ND
Tetrachlorvinphos	0.003 / 0.008	N/A	ND
Tetramethrin	0.021 / 0.063	N/A	ND
Thiabendazole	0.006 / 0.020	N/A	ND
Thiacloprid	0.003 / 0.009	N/A	ND
Thiamethoxam	0.003 / 0.010	N/A	ND
Thiophanate-methyl	0.013 / 0.040	N/A	ND
Trifloxystrobin	0.003 / 0.009	N/A	ND

**Mycotoxin Analysis****MYCOTOXIN TEST RESULTS - 01/12/2024** ND

COMPOUND	LOD/LOQ (µg/kg)	MEASUREMENT UNCERTAINTY (µg/kg)	RESULT (µg/kg)
Aflatoxin B1	1.6 / 5.0	N/A	ND
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			ND
Ochratoxin A	1.6 / 5.0	N/A	ND

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

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

 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 Pentanes = n-Pentane + 2-Methylbutane (Isopentane)

Total Hexanes = n-Hexane + 2,2-Dimethylbutane (Neohexane) +
2,3-Dimethylbutane / 2-Methylpentane (Isohexane) +
3-Methylpentane

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) +
Ethylbenzene

RESIDUAL SOLVENTS TEST RESULTS - 01/13/2024 DETECTED

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Propane	0.234 / 0.781	N/A	ND
2-Methylpropane (Isobutane)	0.052 / 0.173	N/A	ND
n-Butane	0.019 / 0.063	N/A	ND
Total Butanes			ND
2-Methylbutane (Isopentane)	0.310 / 1.035	N/A	ND
2,2-Dimethylpropane (Neopentane)	0.035 / 0.117	N/A	ND
n-Pentane	0.310 / 1.033	N/A	ND
Total Pentanes			ND
2,2-Dimethylbutane (Neohexane)	9.831 / 32.77	N/A	ND
2,3-Dimethylbutane / 2-Methylpentane	0.381 / 1.271	N/A	ND
3-Methylpentane	0.109 / 0.365	N/A	ND
n-Hexane	0.110 / 0.366	N/A	ND
Total Hexanes			ND
Cyclohexane	0.357 / 1.190	N/A	ND
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			ND
Cycloheptane	0.597 / 1.989	N/A	ND
Benzene	0.089 / 0.295	N/A	ND
Toluene	0.115 / 0.382	N/A	ND
Cumene	0.180 / 0.600	N/A	ND
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
Ethylbenzene	0.370 / 1.233	N/A	ND
Total Xylenes			ND
Methanol	53.92 / 163.4	±4.09	314.8
Ethanol	8.984 / 27.23	N/A	ND
1-Propanol	1.540 / 5.133	N/A	ND
2-Propanol (Isopropyl Alcohol)	8.421 / 25.52	N/A	ND

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Residual Solvents Analysis

Continued

RESIDUAL SOLVENTS TEST RESULTS - 01/13/2024 *continued* DETECTED

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
1-Butanol	0.475 / 1.582	N/A	ND
2-Butanol	7.248 / 24.16	N/A	ND
1-Pentanol	1.461 / 4.869	N/A	ND
Acetone	10.59 / 32.08	N/A	<LOQ
2-Butanone	0.169 / 0.564	N/A	ND
Tetrahydrofuran	0.622 / 2.075	N/A	ND
Ethyl Ether	0.197 / 0.658	N/A	ND
Ethylene Glycol	3.803 / 12.68	N/A	ND
2-Ethoxyethanol	1.235 / 4.118	N/A	ND
1,2-Dimethoxyethane	2.116 / 7.052	N/A	ND
1,4-Dioxane	0.468 / 1.558	N/A	ND
Ethylene Oxide	0.253 / 0.844	N/A	ND
Ethyl Acetate	1.123 / 3.745	N/A	ND
Isopropyl Acetate	0.347 / 1.158	N/A	ND
Chloroform	0.251 / 0.838	N/A	ND
Dichloromethane (Methylene Chloride)	2.651 / 8.838	N/A	ND
Trichloroethylene	0.299 / 0.996	N/A	ND
1,2-Dichloroethane	0.162 / 0.541	N/A	ND
1,1-Dichloroethene	0.185 / 0.616	N/A	ND
1,2-Dichloroethene	0.428 / 1.427	N/A	ND
Sulfolane	47.66 / 158.9	N/A	ND
Dimethyl Sulfoxide	6.168 / 20.56	N/A	ND
Acetonitrile	1.595 / 4.833	N/A	ND
Pyridine	0.407 / 1.355	N/A	ND
N,N-Dimethylacetamide	0.127 / 0.422	N/A	ND
N,N-Dimethylformamide	0.946 / 3.153	N/A	ND



Heavy Metals Analysis

HEAVY METALS TEST RESULTS - 01/14/2024 DETECTED

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Arsenic	0.02 / 0.1	N/A	<LOQ
Boron	0.21 / 0.64	±0.395	6.98
Cadmium	0.02 / 0.05	N/A	<LOQ
Chromium	0.12 / 0.35	±0.016	0.58
Cobalt	0.10 / 0.30	N/A	ND
Copper	0.14 / 0.44	±1.296	9.00
Lead	0.04 / 0.1	±0.00	0.1
Lithium	0.10 / 0.31	N/A	ND
Manganese	0.13 / 0.40	±1.480	44.32
Mercury	0.002 / 0.01	N/A	<LOQ

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

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

Continued on next page

 **Heavy Metals Analysis** *Continued* HEAVY METALS TEST RESULTS - 01/14/2024 *continued* DETECTED

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Molybdenum	0.15 / 0.44	±0.012	0.56
Nickel	0.13 / 0.39	±0.030	1.05
Selenium	0.5 / 1.5	N/A	ND
Silver	0.15 / 0.47	N/A	ND
Sulfur	78 / 235	±44.8	1568
Titanium	0.12 / 0.38	±0.079	2.20
Tungsten	0.10 / 0.32	N/A	ND
Zinc	0.8 / 2.5	±4.71	35.9

**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

MICROBIOLOGY TEST RESULTS (PCR) - 01/16/2024 DETECTED

COMPOUND	RESULT (cfu/g)
Shiga toxin-producing <i>Escherichia coli</i>	ND
<i>Salmonella</i> spp.	ND
<i>Aspergillus fumigatus</i>	ND
<i>Aspergillus flavus</i>	ND
<i>Aspergillus niger</i>	ND
<i>Aspergillus terreus</i>	ND
<i>Candida albicans</i>	ND
<i>Campylobacter</i> spp.	ND
<i>Yersinia</i> spp.	ND
<i>Listeria monocytogenes</i>	ND
<i>Pseudomonas aeruginosa</i>	Detected
Bile-Tolerant Gram-Negative Bacteria	8556.0
<i>Staphylococcus aureus</i>	ND

Analysis conducted by 3M™ Petrifilm™ and plate counts of microbiological contaminants.

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

MICROBIOLOGY TEST RESULTS (PLATING) - 01/16/2024 DETECTED

COMPOUND	RESULT (cfu/g)
Total Aerobic Bacteria	11400.0
Total Yeast and Mold	ND
Total Enterobacteriaceae	ND
<i>Escherichia coli</i>	ND
Coliforms	ND

 **Foreign Material Analysis**

Visual analysis includes, but is not limited to, sand, soil, cinders, dirt, mold, hair, insect fragments, and mammalian excreta.

Method: QSP 1226 - Analysis of Foreign Material in Cannabis and Cannabis Products

FOREIGN MATERIAL TEST RESULTS - 01/11/2024 **PASS**

COMPOUND	ACTION LIMIT	RESULT
Total Sample Area Covered by Sand, Soil, Cinders, or Dirt	>25%	PASS
Total Sample Area Covered by Mold	>25%	PASS
Total Sample Area Covered by an Imbedded Foreign Material	>25%	PASS
Insect Fragment Count	> 1 per 3 grams	PASS
Hair Count	> 1 per 3 grams	PASS
Mammalian Excreta Count	> 1 per 3 grams	PASS

 Water Activity Analysis

Method: QSP 1227 - Analysis of Water Activity in Cannabis and Cannabis Products

WATER ACTIVITY TEST RESULTS - 01/13/2024 **DETECTED**

COMPOUND	LOD/LOQ (Aw)	MEASUREMENT UNCERTAINTY (Aw)	RESULT (Aw)
Water Activity	0.030 / 0.15	±0.020	0.41

 Vitamin E Analysis

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

Method: QSP 6793 - Analysis of Vitamin E by HPLC-DAD

Technical Support. For questions and technical support regarding a failed result, please contact your SC Labs representative.

VITAMIN E TEST RESULTS - 01/17/2024 **DETECTED**

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
β-Tocopherol / γ-Tocopherol*	0.093 / 0.281	±0.0249	1.081	0.1081
δ-Tocopherol	0.061 / 0.183	±0.0151	0.551	0.0551
α-Tocopherol	0.069 / 0.209	±0.0018	0.265	0.0265
Tocopheryl Acetate	0.047 / 0.143	N/A	ND	ND

*beta-Tocopherol / gamma-Tocopherol reported as a sum