

40 Speen St., Suite #301
 Framingham, MA 01701
 508-465-3470
 lab-ma@greenanalyticlabs.com

GAMA Report ID: CRLC-05783
 Report Submitted: 02/17/2025
 Revision: 1

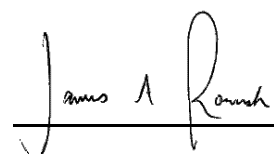
Client Info	Sample Identification
Cedar Roots LLC 50 East Main Street Ware, MA 01082 License: MC282746 Metrc Manifest: 2738514 Date Received: 2/7/2025	METRC Batch ID: N/A METRC Sample ID: 1A40A030000BFCD000005783 METRC Source ID: 1A40A030000BFCD000005779 ME Batch ID: TT-5779 QBench Order ID: CRLC10735

Sample Properties	Product Characterization
Sample Weight (g): 6.64	Production Stage: Raw Plant Material Product Class: Buds Retail Name: Tongue Twister

Results for Requested Analyses Y = Tested "-" = Not Tested P = Pass F = Fail

Cannabinoid Profile	Y	Terpene Profile	Y	Heavy Metals	P	Residual Solvents	-	Pesticides	P	Total Yeast and Mold	P
Mycotoxins	P	Pathogenic Bacteria	P	Total Coliforms	P	Total Aerobic Bacteria	P	Enterobacteriaceae	P	Vitamin E Acetate	-

Authorization
<p>Green Analytics Massachusetts is an Independent Testing Laboratory accredited to ISO/IEC 17025:2017 and licensed by the Massachusetts Cannabis Control Commission (CCC, # IL281277). Analytical methods and best-practices used are in compliance with the CCC's Protocol for Sampling and Analysis of Finished Medical Marijuana Products and Marijuana-Infused Products for MA Registered Medical Marijuana Dispensaries. The net/gross weight of the sample received was verified and all analyses were conducted at the GAMA laboratory. Quality control checks were prepared at known concentrations and run alongside batched client samples. Results presented here pertain to the sample received and relate only to items tested per sub-sampling SOP-071-MA. This Analytical Report shall not be reproduced except in full without GAMA approval. Where statements of conformity are reported ('pass' vs. 'fail'), the simple acceptance decision rule is applied, however the measurement uncertainty associated with the test method applied (not displayed in this simplified report) may impact the certainty with which a statement of conformity is made. This simplified report may not display all test methods' limits of detection (LODs), however this data is also available upon request.</p> <p>Reason for Revision Updated Cannabinoid Results</p>



James Roush
 Laboratory Director

Cannabinoid Profile

Metrc ID Tag: 1A40A030000BFCD000005783

Test ID: #987147

Analysis Date: 02/09/2025

Cannabinoids were analyzed using a High Performance Liquid Chromatograph equipped with a Photodiode Array Detector (HPLC-PDA) following GAMA SOP-002-MA; SOP-025-MA; SOP-073-MA.

Cannabinoid	LOQ (%)	Result (%)	Result (mg/g)
Tetrahydrocannabinolic acid (THCA)	0.040	21.373	213.73
Δ9-Tetrahydrocannabinol (Δ9-THC)	0.040	0.283	2.83
Cannabidiolic acid (CBDA)	0.040	ND	ND
Cannabidiol (CBD)	0.040	ND	ND
Cannabinol (CBN)	0.040	ND	ND
Cannabichromene (CBC)	0.040	ND	ND
Cannabigerolic acid (CBGA)	0.040	0.836	8.36
Cannabigerol (CBG)	0.040	0.267	2.67
Cannabidivarin (CBDV)	0.040	ND	ND
Tetrahydrocannabivarin (THCV)	0.040	ND	ND
Δ8-Tetrahydrocannabinol (Δ8-THC)	0.040	ND	ND
Total THC		19.027	190.27
Total CBD		ND	ND
Total Cannabinoids		22.759	227.59

Total THC: Δ9-THC + (THCA * 0.877)

Total CBD: CBD + (CBDA * 0.877)

Note "NT": Not Tested; "ND": Not Detected; "LOQ": Limit of Quantitation; "BLQ": Below LOQ.

Heavy Metals Analysis

Metrc ID Tag: 1A40A030000BFCD000005783

Test ID: #982269

Analysis Date: 02/10/2025

Heavy Metals were analyzed using an Inductively Coupled Plasma Mass Spectrometer (ICP-MS) following GAMA SOP-021-MA; SOP-061-MA; SOP-072-MA. - **Limit units: ppb**

Analyte	LOQ (ppb)	Result (ppb)	Limit	Pass/Fail
Total Arsenic	132.9	ND	200	PASS
Cadmium	131.7	BLQ	200	PASS
Total Mercury	88.0	BLQ	100	PASS
Lead	175.8	ND	500	PASS

Note "NT": Not Tested; "ND": Not Detected; "LOQ": Limit of Quantitation; "BLQ": Below LOQ.

PCR Microbial Contaminants Analysis

Metrc ID Tag: 1A40A030000BFCD000005783

Test IDs: 982272, 982275, 982276, 982277

Microbial Contaminants were measured using a quantitative PCR (qPCR) technique from which the resulting Cq values were converted to colony forming units per gram (CFU/g) following GAMA SOP-701-MA; SOP-702-MA; SOP-703-MA; SOP-704-MA. - **Limit units: CFU/g**

Analyte	Result	Analysis Date	Limit	Finding
Total Yeast and Mold (TYM)	ND	02/09/2025	10000	PASS
Total Viable Aerobic Bacteria (TAC)	148	02/09/2025	100000	PASS
Total Coliforms (TC)	ND	02/09/2025	1000	PASS
Enterobacteriaceae (EB)	ND	02/09/2025	1000	PASS

Note "NT": Not Tested; "ND": Not Detected.

Pathogenic Bacteria Results

Metrc Id Tag: 1A40A030000BFCD000005783

Test IDs: 982273, 982274

The presence or absence of STEC E. coli and Salmonella spp. was determined using a PCR technique. Samples were incubated for a minimum of 18 hours prior to plating and analyzed following GAMA SOP-700-MA. - **Limit units: CFU/g**

Analyte	Result	Analysis Date	Limit	Finding
STEC E. Coli	Not Detected in 1g	02/10/2025	Detection in 1.0 g	PASS
Salmonella spp.	Not Detected in 1g	02/10/2025	Detection in 1.0 g	PASS

Note "NT": Not Tested; "ND": Not Detected.

Mycotoxins Results

Metrc ID Tag: 1A40A030000BFCD000005783

Test ID: #982271

Analysis Date: 02/11/2025

Mycotoxins were analyzed using a High Performance Liquid Chromatograph equipped with a tandem Mass Spectrometer (LC/MS/MS) following GAMA SOP-002-MA; SOP-062-MA; SOP-070-MA. - **Limit units: µg/kg**

Analyte	LOQ (ppb)	Result (ppb)	Limit (ppb)	Finding
Aflatoxin B1	10.0	ND	20	PASS
Aflatoxin B2	10.0	ND	20	PASS
Aflatoxin G1	10.0	ND	20	PASS
Aflatoxin G2	10.0	ND	20	PASS
Ochratoxin A	10.0	ND	20	PASS

Note "NT": Not Tested; "ND": Not Detected; "LOQ": Limit of Quantitation; "BLQ": Below LOQ.

Pesticides Results

Metrc ID Tag: 1A40A030000BFCD000005783

Test ID: #982270

Analysis Date: 02/11/2025

Pesticides were analyzed using a High Performance Liquid Chromatograph equipped with a tandem Mass Spectrometer (LC/MS/MS) following GAMA SOP-002-MA; SOP-062-MA; SOP-070-MA. - **Limit units: ppb**

Analyte	LOQ (ppb)	Result (ppb)	Limit (ppb)	Finding
Bifenazate	5.0	ND	10	PASS
Bifenthrin	5.0	ND	10	PASS
Cyfluthrin	5.0	ND	10	PASS
Etoxazole	5.0	ND	10	PASS
Imazalil	5.0	ND	10	PASS
Imidacloprid	5.0	ND	10	PASS
Myclobutanil	5.0	ND	10	PASS
Spiromesifen	5.0	ND	10	PASS
Trifloxystrobin	5.0	ND	10	PASS

Note "NT": Not Tested; "ND": Not Detected; "LOQ": Limit of Quantitation; "BLQ": Below LOQ.

Terpenes Profile

Metric ID Tag: 1A40A030000BFCD000005783

Test ID: #982268

Analysis Date: 02/09/2025

Terpenes were analyzed using a Liquid Injection Autosampler coupled to a Gas Chromatograph equipped with a tandem Mass Spectrometer (GC/MS/MS) following GAMA SOP-002-MA; SOP-063-MA; SOP-069-MA.

Analyte	LOQ (%)	Result (%)	Result (mg/g)
α-Pinene	0.01	0.116	1.16
Camphene	NT	NT	NT
Sabinene	NT	NT	NT
β-Pinene	0.01	0.080	0.8
β-Myrcene	0.01	0.053	0.53
Phellandrene	NT	NT	NT
Carene	NT	NT	NT
α-Terpinene	NT	NT	NT
D-Limonene	0.01	0.362	3.62
Eucalyptol	NT	NT	NT
Ocimene	NT	NT	NT
γ-Terpinene	NT	NT	NT
Sabinene Hydrate	NT	NT	NT
Terpinolene	0.01	BLQ	BLQ
Fenchone	NT	NT	NT
Linalool	0.01	0.100	1.0
Fenchol	NT	NT	NT
Camphor	NT	NT	NT
Isoborneol	NT	NT	NT
Borneol	NT	NT	NT
Menthhol	NT	NT	NT
Terpineol	NT	NT	NT
Nerol	NT	NT	NT
Pulegone	NT	NT	NT
Geraniol	NT	NT	NT
Geranyl Acetate	NT	NT	NT
α-Cedrene	NT	NT	NT
Caryophyllene	0.01	0.139	1.39
α-Humulene	0.01	0.035	0.35
Valencene	NT	NT	NT
cis-Nerolidol	NT	NT	NT
trans-Nerolidol	NT	NT	NT
Caryophyllene Oxide	0.01	0.010	0.1
Guaiol	NT	NT	NT
Cedrol	NT	NT	NT
α-Bisabolol	0.01	0.010	0.1
Total Terpenes		0.905	9.05

Note "NT": Not Tested; "ND": Not Detected; "LOQ": Limit of Quantitation; "BLQ": Below LOQ.