

# Certificate of Analysis

**Sample Name:** Root Beer  
**Client:** Mitra9-PRO  
**Sample Code:** DTS-260105-020  
**Matrix Name:** Beverage  
**Type / Result:** Quality Assurance - Pass



**Received Date:** Tue, Jan 6, 2026  
**Published Date:** Mon, Jan 12, 2026  
**Batch/Lot Code:** 21712292025PRO1  
**Batch Size:** N/A  
**Sample Size:** 6U  
**Average Unit Weight:** 343.77g

## RESULT SUMMARY

Mitragynine	45.28 mg /serv
Total Major Alkaloids	45.28 mg /serv

<b>ALKU</b> Kratom Alkaloids High Level ✓	<b>ALKL</b> Kratom Alkaloids Low Level ✓	<b>TAMC</b> Total Aerobic Bacteria Plate ✓	<b>BRX</b> Brix of Liquids ✓	<b>COOX</b> Dissolved CO2 & O2 Liquids ✓
<b>PH</b> pH ✓	<b>HVMET</b> Heavy Metals Big 4 ✓	<b>TYMFD</b> Total Yeast & Mold Plate ✓	<b>PAKLI</b> Lot / Batch Code Verification ✓	<b>PAKVI</b> Package Integrity Verification ✓

## Approvals

### RESULTS REVIEWED BY:

 **Leslie Varela**  
Laboratory Director  
Cambium Analytica  
Monday, Jan 12, 2026

### RESULTS CERTIFIED BY:

 **Douglas Smith**  
VP - Scientific Operations  
Cambium Analytica  
Monday, Jan 12, 2026

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## Lab Information

**Address:** 1230 Woodmere Ave, Traverse City, MI 49686 **Phone:** 231.252.3669 **Accreditation:** ISO/IEC 17025:2017 - #108157



**ALKU**

**Kratom Alkaloids - High Level**

LAB-TM-052 - Determination of Kratom Alkaloid Content by UPLC-DAD  
 ALKU-DTS-260105-020-02 - THU, JAN 8, 2026

Analyte	Value	Value (mg/g)	Per Serving	Per Package	Action Limit	LOD	LOQ	Status
Mitragynine	0.0132 %	0.1317 mg/g	45.28 mg	45.28 mg	N/A	0.3 ug/g	0.5 ug/g	N/A
Paynantheine	ND	N/A	N/A	N/A	N/A	0.3 ug/g	0.5 ug/g	N/A
Speciociliatine	ND	N/A	N/A	N/A	N/A	0.3 ug/g	0.5 ug/g	N/A
Speciogynine	ND	N/A	N/A	N/A	N/A	0.3 ug/g	0.5 ug/g	N/A
Total Major Alkaloids*	0.0132 %	0.1317 mg/g	45.28 mg	45.28 mg	N/A	N/A	N/A	N/A

\*Total Major Alkaloids is calculated as the sum of Mitragynine, Paynantheine, Speciociliatine and Speciogynine.

**ALKL**

**Kratom Alkaloids - Low Level**

LAB-TM-047 - Determination of Kratom Alkaloid Content by LC-TQ  
 ALKL-DTS-260105-020-01 - MON, JAN 12, 2026



Analyte	Value	Value (mg/g)	Per Serving	Per Package	Action Limit	LOD	LOQ	Status
7-Hydroxymitragynine	0.00001 %	0.00007 mg/g	0.02 mg	0.02 mg	0.7 mg/serv	0.002 ug/g	0.011 ug/g	PASS
Mitraphylline	ND	N/A	N/A	N/A	N/A	0.004 ug/g	0.019 ug/g	N/A
Total Minor Alkaloids*	0.00001 %	0.00007 mg/g	0.02 mg	0.02 mg	N/A	N/A	N/A	N/A

\*Total Minor Alkaloids is calculated as the sum of 7-Hydroxymitragynine and Mitraphylline.

**TAMC**

**Total Aerobic Bacteria - Plate - 25g - Full Range**

LAB-TM-060 - Enumeration of Total Aerobic Count in Foods and Dietary Supplements  
 TAMC-DTS-260105-020-01 - THU, JAN 8, 2026



Analyte	Value	Action Limit	LOD	LOQ	Status
Total Aerobic Count	ND	10000 CFU/g	10 CFU/g	10 CFU/g	PASS

**BRX**

**Brix of Liquids**

LAB-TM-017 - Brix & Density Analysis  
 BRX-DTS-260105-020-01 - THU, JAN 8, 2026

Analyte	Value	Action Limit	LOD	LOQ	Status
Brix	0.6 bx	N/A	N/A	N/A	N/A

**COOX**

**Dissolved CO2 & O2 - Liquids**

LAB-TM-020 - Determination of Carbon Dioxide and Dissolved Oxygen in Beverages  
 COOX-DTS-260105-020-01 - WED, JAN 7, 2026



Analyte	Value	Action Limit	LOD	LOQ	Status
Dissolved Carbon Dioxide	2.59 vol	2.35 - 2.85 vol	N/A	N/A	PASS
Dissolved Oxygen	117.5 ug/kg	N/A	N/A	N/A	N/A

**PH**

**pH**

LAB-TM-018 - Determination of pH  
 PH-DTS-260105-020-01 - THU, JAN 8, 2026



Analyte	Value	Action Limit	LOD	LOQ	Status
pH	3.115	N/A	N/A	N/A	N/A



**HVMET**

**Heavy Metals - Big 4**

LAB-TM-044 - Determination of Heavy Metals by ICP-MS  
 HVMET-DTS-260105-020-01 - THU, JAN 8, 2026



Analyte	Value	Value (mg/g)	Per Serving	Per Package	Action Limit	LOD	LOQ	Status
Arsenic	ND	N/A	N/A	N/A	10 ug/serv	0.509 ug/kg	2.062 ug/kg	PASS
Cadmium	ND	N/A	N/A	N/A	4.1 ug/serv	0.256 ug/kg	0.509 ug/kg	PASS
Lead	ND	N/A	N/A	N/A	0.5 ug/serv	0.255 ug/kg	0.515 ug/kg	PASS
Mercury	0.000 ug/g	0.000 mg/g	0.03 ug	0.03 ug	0.3 ug/serv	0.025 ug/kg	0.057 ug/kg	PASS

**TYMFD**

**Total Yeast & Mold - Plate - 25g - Full Range**

LAB-TM-061 - Enumeration of Yeast and Mold in Foods and Dietary Supplements  
 TYMFD-DTS-260105-020-01 - FRI, JAN 9, 2026



Analyte	Value	Action Limit	LOD	LOQ	Status
Total Mold	ND	N/A	10 CFU/g	10 CFU/g	N/A
Total Yeast	ND	N/A	10 CFU/g	10 CFU/g	N/A
Total Yeast and Mold*	ND	1000 CFU/g	10 CFU/g	10 CFU/g	PASS

\*Total Yeast and Mold is calculated as the sum of Total Yeast and Total Mold

**PAKLI**

**Lot / Batch Code - Verification**

LAB-TM-118 - Lot Batch Code Verification  
 PAKLI-DTS-260105-020-01 - WED, JAN 7, 2026

Analyte	Value	Action Limit	LOD	LOQ	Status
Lot/Batch Code Verification	Conforming	N/A	N/A	N/A	N/A

**PAKVI**

**Package Integrity - Verification**

LAB-TM-117 - Package Integrity Verification  
 PAKVI-DTS-260105-020-01 - WED, JAN 7, 2026

Analyte	Value	Action Limit	LOD	LOQ	Status
Child Resistent Mechanism	Conforming	N/A	N/A	N/A	N/A
Discoloration	Conforming	N/A	N/A	N/A	N/A
Label Legibility	Conforming	N/A	N/A	N/A	N/A
Label Placement	Conforming	N/A	N/A	N/A	N/A
Dents & Dings	Conforming	N/A	N/A	N/A	N/A
Seams and Tabs	Conforming	N/A	N/A	N/A	N/A
Wrinkles & Pleats	Conforming	N/A	N/A	N/A	N/A

