

# Certificate of Analysis



**Sample Name:** Dec. White  
**Client:** Top Tree Herbs  
**Sample Code:** DTS-251210-033  
**Matrix Name:** Botanical Powder - Plant  
**Type / Result:** Quality Assurance - Pass



**Received Date:** Fri, Dec 19, 2025  
**Published Date:** Fri, Jan 2, 2026  
**Batch/Lot Code:** TTHWRL01125,  
TTHWCS02125,  
TTHLLW01125  
**Batch Size:** N/A  
**Sample Size:** 1U

## RESULT SUMMARY

Mitragynine	1.1229 %
Total Major Alkaloids	1.9263 %

ALKU  
Kratom Alkaloids  
High Level

ALKL  
Kratom Alkaloids  
Low Level

TAMC  
Total Aerobic Bacteria  
Plate

SS  
Salmonella & STEC  
qPCR

HVMET  
Heavy Metals  
Big 4

## Approvals

### RESULTS REVIEWED BY:

**Leslie Varela**  
Laboratory Director

Cambium Analytica  
Friday, Jan 2, 2026

### RESULTS CERTIFIED BY:

**Douglas Smith**  
VP - Scientific  
Operations

Cambium Analytica  
Friday, Jan 2, 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-251210-033-02 - TUE, DEC 23, 2025

Analyte	Value	Value (mg/g)	Action Limit	LOD	LOQ	Status
Mitragynine	1.1229 %	11.2288 mg/g	N/A	0.3 ug/g	0.5 ug/g	N/A
Speciociliatine	0.3278 %	3.2778 mg/g	N/A	0.3 ug/g	0.5 ug/g	N/A
Paynantheine	0.3154 %	3.1537 mg/g	N/A	0.3 ug/g	0.5 ug/g	N/A
Speciogynine	0.1603 %	1.6028 mg/g	N/A	0.3 ug/g	0.5 ug/g	N/A
Total Major Alkaloids*	1.9263 %	19.2631 mg/g	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-251210-033-01 - TUE, DEC 23, 2025

Analyte	Value	Value (mg/g)	Action Limit	LOD	LOQ	Status
7-Hydroxymitragynine	0.00161 %	0.01606 mg/g	N/A	0.002 ug/g	0.011 ug/g	N/A
Mitraphylline	0.00001 %	0.00010 mg/g	N/A	0.004 ug/g	0.019 ug/g	N/A
Total Minor Alkaloids*	0.00162 %	0.01616 mg/g	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-251210-033-01 - TUE, DEC 23, 2025

Analyte	Value	Action Limit	LOD	LOQ	Status
Total Aerobic Count	19000 CFU/g	N/A	1000 CFU/g	1000 CFU/g	N/A

SS

**Salmonella & STEC - qPCR**LAB-TM-006 - Microbial Analysis by qPCR  
SS-DTS-251210-033-02 - FRI, JAN 2, 2026

Analyte	Value	Action Limit	LOD	LOQ	Status
Salmonella spp.	ND	N/A	N/A	N/A	N/A
Shiga Toxin Producing E. coli	ND	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-251210-033-01 - TUE, DEC 23, 2025

Analyte	Value	Value (mg/g)	Action Limit	LOD	LOQ	Status
Arsenic	0.166 ug/g	0.000 mg/g	N/A	0.509 ug/kg	2.062 ug/kg	N/A
Cadmium	0.023 ug/g	0.000 mg/g	N/A	0.256 ug/kg	0.509 ug/kg	N/A
Lead	0.139 ug/g	0.000 mg/g	N/A	0.255 ug/kg	0.515 ug/kg	N/A
Mercury	0.020 ug/g	0.000 mg/g	N/A	0.025 ug/kg	0.057 ug/kg	N/A

