

# Certificate of Quality Assurance

**PRODUCT NAME:** Tranquil Mint Tincture  
**PRODUCT STRENGTH:** 1350 mg  
**LOT NUMBER:** HTM1500-T111  
**OIL BATCH NUMBER:** CONO19-68  
**DATE OF MANUFACTURE:** 6/5/2019  
*Expiration date is 18 months under sealed conditions.*  
**DATE OF ANALYSIS:** 6/5/2019  
**ACTIVE INGREDIENT:** Phytocannabinoid-Rich Hemp Oil  
**INACTIVE INGREDIENTS:** See next page.



## Physical Attributes of Raw Hemp Oil

Attribute	Acceptance Criteria	Result
Appearance	Viscous Dark Amber Oil Possible Crystal Formation	Conforms
Aroma	Characteristic Hemp Aroma	Conforms
Dissolution	Not Cloudy or Turbid, Characteristic Color	Conforms
Microbial Testing	Total Aerobic Count <2000 cfu/g Total Yeast and Mold <2000 cfu/g	Conforms

## Cannabinoid Potency of Raw Hemp Oil

Cannabinoid	Weight %
CBD	83.35
CBG	<0.03
CBN	<0.03
THC	ND
CBC	<0.03
THC-A	ND
CBD-A	<0.03

## Pesticides\*

Compound	Result	Compound	Result
Acequinocil	ND	Spinosad	ND
Pyrethrium	ND	Spirotetramat	ND
Spiromesifin	ND	Bifenazate	ND
Abamectin	ND	Fenoxycarb	ND
Imidacloprid	ND	Paclobutrazol	ND

## Terpene Results\*

Compound	Weight %	Compound	Weight %
$\beta$ -Bisabolene	1.0-3.0	Camphene	0.1-0.2
$\beta$ -Farnesene	1.0-2.0	E-Farnesene	0.1-0.2
Gualol	0.5-2.0	Farnesol	0.1-0.2
$\beta$ -Maaliene	0.5-2.0	$\alpha$ -Bisabolol	<0.1
Calarene	0.5-1.5	p-Cymene	<0.1
$\beta$ -Caryophyllene	0.1-1.0	Linalool	<0.1
$\alpha$ -Humulene	0.1-1.0	Myrcene	<0.1
Cadinene	0.1-1.0	Phytol	<0.1
$\alpha$ -Gurjunene	0.1-0.5	Isopulegol	<0.1
d-Limonene	0.1-0.5	Terpinene	<0.1
Nerolidol	0.1-0.5	Geraniol	<0.1
$\alpha$ -Pinene	0.1-0.5	Myrcene	<0.1
Aristolene	0.1-0.3	$\gamma$ -Terpinene	<0.1
Eucalyptol	0.1-0.2	$\delta$ -3-Carene	<0.1

## Residual Solvents\*

Solvent	Weight %
Acetone	Compliant with USP<467>
Butane	Compliant with USP<467>
Ethanol	Compliant with USP<467>
Hexane	Compliant with USP<467>
Isobutane	Compliant with USP<467>
Isopropanol	Compliant with USP<467>
Pentane	Compliant with USP<467>

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OIL BATCH NUMBER: CONO19-68

DATE OF MANUFACTURE: 6/5/2019

*Expiration date is 18 months under sealed conditions.*

DATE OF ANALYSIS: 6/5/2019

ACTIVE INGREDIENT: Phytocannabinoid-Rich Hemp Oil

INACTIVE INGREDIENTS: Organic Olive Oil, Organic Peppermint Oil, Humulene, Myrcene, Beta-caryophyllene

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## Heavy Metals\*

Metal	Result
Cadmium	Compliant with USP<233>
Lead	Compliant with USP<233>
Arsenic	Compliant with USP<233>
Mercury	Compliant with USP<233>

## Analysis Results for Finished Product

Attribute	Acceptance Criteria	Result
Appearance	Clear Colorless to Light Yellow Liquid	Conforms
Aroma	Characteristic Mint Flavor	Conforms
Cannabidiol Content	95 to 110% of Label Claim	Conforms
THC Content	None Detected	Conforms

\* Results based on testing of multiple batches of hemp oil raw material.

Quality Certified by:



Matthew Plenert, Ph.D  
Head Chemist and Laboratory Manager

7-19-19

Date

QC Unit released by:



David Boaz  
QC Manager

7-19-19

Date





**SAMPLE INFORMATION**

Sample Name:	BOM# 50919 Batch# 190605T111	Sample Id:	117164
Sample Matrix:	Tincture	Collected:	06/07/2019 09:45
Custom Id:	101577	Serving Size:	30 mL
Received:	06/07/2019 10:00	Density:	0.9163 mg/ml
Servings Per Pkg:	1		
Overall Result:	Pass		

**MANUFACTURER INFO**

Business Name:	MyCBDTest	Street Address:	
City:		State:	
Zip Code:	80524	License:	

 **MICROBIAL ECOLI ANALYSIS**

TEST TYPE RESULT: Pass  
 UNIT OF MEASUREMENT: Colony Forming Unit(CFU)

ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL	ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL
Ecoli	ND	0.0	0.0	100.0 Pass					

**ADDITIONAL INFORMATION**

Method:	OR-SOP-TECH-006	Sample Prepped	06/10/2019 14:50	Sample Approved	06/11/2019 13:31
Instrument:		Sample Analyzed	06/11/2019 13:15		

 **MICROBIAL SALMONELLA ANALYSIS**

TEST TYPE RESULT: Pass  
 UNIT OF MEASUREMENT: Colony Forming Unit(CFU)

ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL	ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL
Salmonella	ND	0.0	0.0	0.0 Pass					

**ADDITIONAL INFORMATION**

Method:	OR-SOP-TECH-008	Sample Prepped	06/10/2019 14:50	Sample Approved	06/11/2019 17:53
Instrument:		Sample Analyzed	06/11/2019 14:12		





# CERTIFICATE OF ANALYSIS

## CANNABINOID ANALYSIS

**i** Total THC,CBD value(s) have been decarboxylated.

TOTAL THC: 0.0 mg per serving [0.0 mg/mL] (0.0 %)  
 TOTAL CBD: 1359 mg per serving [45.31 mg/mL] (4.945 %)  
 TOTAL CANNABINOIDS: 1359 mg per serving [45.31 mg/mL] (4.945 %)

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TEST TYPE RESULT: N/A  
 UNIT OF MEASUREMENT: Milligrams per Milliliter(mg/mL)

ANALYTE	RESULT	LOD	LLOQ	ANALYTE	RESULT	LOD	LLOQ
D9THC	ND	0.0	0.0	D8THC	ND	0.0	0.0
THCa	ND	0.0	0.0	CBG	ND	0.0	0.0
CBN	ND	0.0	0.0	CBD	45.01 mg/mL (4.912 %)	0.0	0.0
CBDA	ND	0.0	0.0	CBGa	ND	0.0	0.0
THCv	ND	0.0	0.0	CBC	ND	0.0	0.0
CBDv	0.3054 mg/mL (0.0333 %)0.0		0.0				

### ADDITIONAL INFORMATION

Method: SOP-LAB-001  
 Instrument: HPLC-DAD

Sample Prepped 06/07/2019 10:39  
 Sample Analyzed 06/07/2019 11:04

Sample Approved 06/10/2019 13:56

## CHEMICAL RESIDUE ANALYSIS

TEST TYPE RESULT: Pass  
 UNIT OF MEASUREMENT: Parts per Million(PPM)

ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL	ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL
Acephate	ND	0.0050	0.0125	0.4000 Pass	Acequinocyl	ND	0.1250	0.2500	2.000 Pass
Acetamiprid	ND	0.0050	0.0625	0.2000 Pass	Aldicarb	ND	0.0050	0.0250	0.4000 Pass
Azoxystrobin	ND	0.0050	0.0125	0.2000 Pass	Bifenazate	ND	0.0050	0.0125	0.2000 Pass
Bifenthrin	ND	0.0050	0.0625	0.2000 Pass	Boscalid	ND	0.0050	0.0625	0.4000 Pass
Carbaryl	ND	0.0125	0.1250	0.2000 Pass	Carbofuran	ND	0.0050	0.0250	0.2000 Pass
Chlorantraniliprole	ND	0.0125	0.0625	0.2000 Pass	Chlorfenapyr	ND	0.0250	0.0625	1.000 Pass
Chlorpyrifos	ND	0.0050	0.0250	0.2000 Pass	Clofentezine	ND	0.0050	0.0250	0.2000 Pass
Cypermethrin	ND	0.0250	0.0625	1.000 Pass	Daminozide	ND	0.0050	0.0250	1.000 Pass
Dichlorvos	ND	0.0250	0.0625	0.1000 Pass	Diazinon	ND	0.0050	0.0125	0.2000 Pass
Dimethoate	ND	0.0050	0.0125	0.2000 Pass	Ethoprophos	ND	0.0050	0.0250	0.2000 Pass
Etofenprox	ND	0.0050	0.0125	0.4000 Pass	Etoxazole	ND	0.0050	0.0625	0.2000 Pass
Fenoxycarb	ND	0.0050	0.0250	0.2000 Pass	Fenpyroximate	ND	0.0625	0.6250	0.4000 Pass
Fipronil	ND	0.1250	0.1875	0.4000 Pass	Flonicamid	ND	0.0050	0.0125	1.000 Pass
Fludioxonil	ND	0.0250	0.0625	0.4000 Pass	Hexythiazox	ND	0.0050	0.0250	1.000 Pass
Imazalil	ND	0.0050	0.0125	0.2000 Pass	Imidacloprid	ND	0.0050	0.0625	0.4000 Pass
KresoximMethyl	ND	0.0250	0.0625	0.4000 Pass	Malathion	ND	0.0050	0.0250	0.2000 Pass
Metalaxyl	ND	0.0050	0.0125	0.2000 Pass	Methiocarb	ND	0.0050	0.0125	0.2000 Pass
Methomyl	ND	0.0050	0.0250	0.4000 Pass	MethylParathion	ND	0.1250	0.0250	0.2000 Pass







CERTIFICATE OF ANALYSIS

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Myclobutanil	<LLOQ	0.0050	0.0625	0.2000	Pass	Naled	ND	0.0125	0.0625	0.5000	Pass
Oxamyl	ND	5.00E-6	1.25E-5	0.0010	Pass	Pacllobutrazol	ND	0.0050	0.0250	0.4000	Pass
Phosmet	ND	0.0050	0.0125	0.2000	Pass	PiperonylButoxide	ND	0.0050	0.0625	2.000	Pass
Prallethrin	ND	0.0250	0.0625	0.2000	Pass	Propoxur	ND	0.0050	0.0250	0.2000	Pass
Pyridaben	ND	0.0050	0.0250	0.2000	Pass	Spiromesifen	ND	0.0625	0.6250	0.2000	Pass
Spirotetramat	ND	0.0050	0.0625	0.2000	Pass	Spiroxamine	ND	0.0050	0.0250	0.4000	Pass
Tebuconazole	ND	0.0050	0.0125	0.4000	Pass	Thiacloprid	ND	0.0050	0.0625	0.2000	Pass
Thiamethoxam	ND	0.0050	0.0125	0.2000	Pass	Trifloxystrobin	ND	0.0050	0.0250	0.2000	Pass
Abamectin	ND	4.851	0.1288	0.5000	Pass	Cyfluthrin	ND	0.0625	0.1250	1.000	Pass
MGK-264	ND	0.0050	0.0625	0.2000	Pass	Permethrins	ND	0.0050	0.0408	0.2000	Pass
Propiconazole	ND	0.0051	0.0494	0.4000	Pass	Pyrethrins	ND	0.0220	0.1006	1.000	Pass
Spinosad	ND	0.0050	0.0230	0.2000	Pass						

ADDITIONAL INFORMATION

Method: SOP  
 Instrument:

Sample Prepped 06/07/2019 10:39  
 Sample Analyzed 06/07/2019 11:05

Sample Approved 06/10/2019 14:33

This report applies to the sample investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. This report provides technical results for a specific sample and the report shall not be altered, modified, supplemented, or abstracted in any manner. Any violation of these conditions renders the report and its results void.

All LQC samples required by state regulations were performed and met the acceptance criteria.

DATA REVIEWED AND APPROVED BY

06/11/2019

Stacey Anderson, PhD  
 Lab Director

Date



June 11, 2019

**JOY ORGANICS**

Attn: Darcie Moran  
1301 Blue Spruce Drive, Suite B-1  
Fort Collins, CO 80521

Order No. 506650  
Sample No. 1028073

**SAMPLE INFORMATION**

Description HTM1500  
Lot Number T111  
Category (Type) Other (Tincture)  
Received June 07, 2019



**ANALYTICAL RESULTS**

Analysis Heavy Metal Screen  Pass  
Instrument ICP-MS  
Method MF 24E020  
Analysis Date June 07, 2019 to June 11, 2019

Analyte	LOD / LOQ (µg/g)	Findings (µg/g)	Limit (µg/g)	Status
Arsenic	0.02/0.05	ND	1.5	Pass
Cadmium	0.02/0.05	ND	0.5	Pass
Lead	0.02/0.05	ND	0.5	Pass
Mercury	0.02/0.05	ND	3.0	Pass

Reported by  
**Anresco, Inc.**

ND = None Detected  
<LOQ = Below Limit of Quantitation  
<LOD = Below Limit of Detection



Yelena Bindman  
Senior Chemist

June 11, 2019



This report cannot be used for ODA, OHA or OLCC compliance requirements.

Product identity: HTM1500-T111  
 Laboratory ID: 19-009100-0005

Client/Metric ID:  
 Sample Date:

**Summary**

Terpenes:

Analyte	Percent by weight	Percent of Total	Analyte	Percent by weight	Percent of Total
Menthol <sup>†</sup>	0.181	0.00	β-Caryophyllene <sup>†</sup>	0.164	0.00
Humulene <sup>†</sup>	0.104	0.00	β-Myrcene <sup>†</sup>	0.0971	0.00
(-)-caryophyllene oxide <sup>†</sup>	0.0280	0.00	Eucalyptol <sup>†</sup>	0.0270	0.00
Isoborneol <sup>†</sup>	0.0230	0.00	(R)-(+)-Limonene <sup>†</sup>	0.0221	0.00
<b>Total Terpenes<sup>†</sup></b>	<b>0.646</b>	<b>0.01</b>			



12423 NE Whitaker Way  
Portland, OR 97230  
503-254-1794



**Job Number:** 19-009100  
**Report Number:** 19-009100-00  
**Report Date:** 08/08/2019  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 03/19/00 11:30

This report cannot be used for ODA, OHA or OLCC compliance requirements.

**Customer:** My CBD Test  
  
**Product identity:** HTM1500-T111  
**Client/Metric ID:** .  
**Sample Date:**  
**Laboratory ID:** 19-009100-0005  
**Relinquished by:** Received By Mail  
**Temp:** 25.2 °C

### Sample Results

Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Pixis quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be kept a maximum of 15 days from the report date unless prior arrangements have been made.

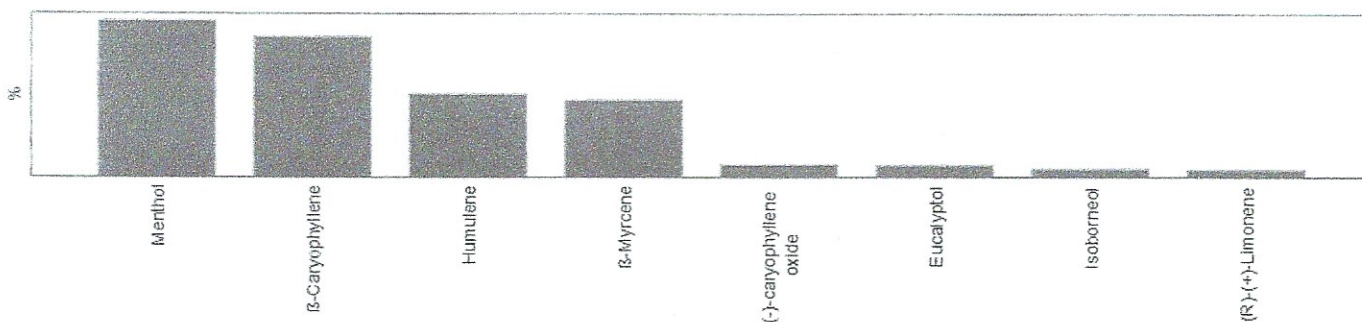
Testing in accordance with





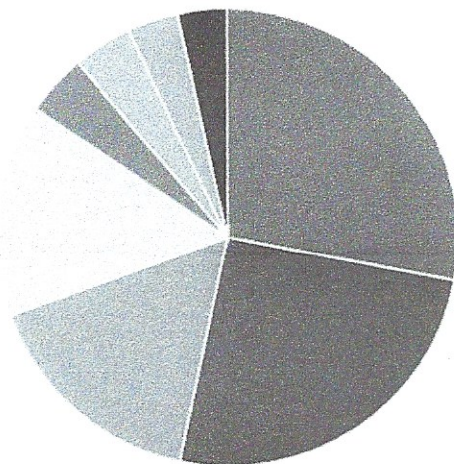
This report cannot be used for ODA, OHA or OLCC compliance requirements.

Terpenes					Batch 1906964 Analyze 08/02/19 02:17 PM				
Method J AOAC 2015 V98-6					Units %				
Analyte	Result	LOQ	% of Total	Notes	Analyte	Result	LOQ	% of Total	Notes
Menthol <sup>†</sup>	0.181	0.020	0.00%		β-Caryophyllene <sup>†</sup>	0.164	0.020	0.00%	
Humulene <sup>†</sup>	0.104	0.020	0.00%		β-Myrcene <sup>†</sup>	0.0971	0.020	0.00%	
(-)-caryophyllene oxide <sup>†</sup>	0.0280	0.020	0.00%		Eucalyptol <sup>†</sup>	0.0270	0.020	0.00%	
Isoborneol <sup>†</sup>	0.0230	0.020	0.00%		(R)-(+)-Limonene <sup>†</sup>	0.0221	0.020	0.00%	
(-)-α-Terpineol <sup>†</sup>	< LOQ	0.020	0.00%		(-)-Guaiol <sup>†</sup>	< LOQ	0.020	0.00%	
(-)-Isopulegol <sup>†</sup>	< LOQ	0.020	0.00%		(-)-β-Pinene <sup>†</sup>	< LOQ	0.020	0.00%	
(+)-Borneol <sup>†</sup>	< LOQ	0.020	0.00%		(+)-Cedrol <sup>†</sup>	< LOQ	0.020	0.00%	
(+)-fenchol <sup>†</sup>	< LOQ	0.020	0.00%		(+)-Pulegone <sup>†</sup>	< LOQ	0.020	0.00%	
(±)-Camphor <sup>†</sup>	< LOQ	0.020	0.00%		(±)-cis-Nerolidol <sup>†</sup>	< LOQ	0.020	0.00%	
(±)-fenchone <sup>†</sup>	< LOQ	0.020	0.00%		(±)-trans-Nerolidol <sup>†</sup>	< LOQ	0.020	0.00%	
α-Bisabolol <sup>†</sup>	< LOQ	0.020	0.00%		α-cedrene <sup>†</sup>	< LOQ	0.020	0.00%	
α-phellandrene <sup>†</sup>	< LOQ	0.020	0.00%		α-pinene <sup>†</sup>	< LOQ	0.020	0.00%	
α-Terpinene <sup>†</sup>	< LOQ	0.020	0.00%		Camphene <sup>†</sup>	< LOQ	0.020	0.00%	
cis-β-Ocimene <sup>†</sup>	< LOQ	0.006	0.00%		d-3-Carene <sup>†</sup>	< LOQ	0.020	0.00%	
farnesene <sup>†</sup>	< LOQ	0.020	0.00%		γ-Terpinene <sup>†</sup>	< LOQ	0.020	0.00%	
Geraniol <sup>†</sup>	< LOQ	0.020	0.00%		Geranyl acetate <sup>†</sup>	< LOQ	0.020	0.00%	
Linalool <sup>†</sup>	< LOQ	0.020	0.00%		nerol <sup>†</sup>	< LOQ	0.020	0.00%	
p-Cymene <sup>†</sup>	< LOQ	0.020	0.00%		Sabinene <sup>†</sup>	< LOQ	0.020	0.00%	
Sabinene hydrate <sup>†</sup>	< LOQ	0.020	0.00%		Terpinolene <sup>†</sup>	< LOQ	0.020	0.00%	
trans-β-Ocimene <sup>†</sup>	< LOQ	0.013	0.00%		valencene <sup>†</sup>	< LOQ	0.020	0.00%	
<b>Total Terpenes</b>	<b>0.646</b>								





This report cannot be used for ODA, OHA or OLCC compliance requirements.



■ Menthol	0.00 %
■ β-Caryophyllene	0.00 %
■ Humulene	0.00 %
■ β-Myrcene	0.00 %
■ (-)-caryophyllene oxide	0.00 %
■ Eucalyptol	0.00 %
■ Isoborneol	0.00 %
■ (R)-(+)-Limonene	0.00 %



This report cannot be used for ODA, OHA or OLCC compliance requirements.

**Abbreviations**

**Limits:** Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220

**Limit(s) of Quantitation (LOQ):** The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

† = Analyte not NELAP accredited.

**Units of Measure**

% = Percentage of sample

% wt =  $\mu\text{g/g}$  divided by 10,000

Approved Signatory

Derrick Tanner  
General Manager