

NELSON ANALYTICAL LAB



ISO 17025:2017 Accreditation ANAB Certificate Number: AT-2169 Maine CDC Accreditation MTF001 Office of Marijuana Policy MTF328

Report Date: 24 Janua

24 January 2021

Maine Coast Hemp:

120 York Street Kennebunk, ME 04043

(207) 467-3478

987 Harold L Dow Highway Eliot ME , 03903:

Enclosed are the results of analytical testing performed on the following samples:

Laboratory ID	Sample Location	Date sampled	Date received
C21010407.01	Mr. Bark 500 2101	20-Jan-21 00:00	21-Jan-21 16:00

If you have any questions concerning this report, please feel free to contact the laboratory at 207-467-3478.

Loui Maling

Lorri Maling Laboratory Director



The results in this report relate only to the submitted samples. This analytical report may only be reproduced in its entirety

120 York Street Kennebunk, ME 04046 (207) 467-3478

## **NELSON ANALYTICAL LAB**

# RP210124013

01/20/2021

01/24/2021

ISO 17025:2017 Certification ANAB Certificate Number AT-2169 Maine CDC Accreditation # MTF001 Office of Marijuana Policy MTF328

Date sampled :

**Reported Date:** 

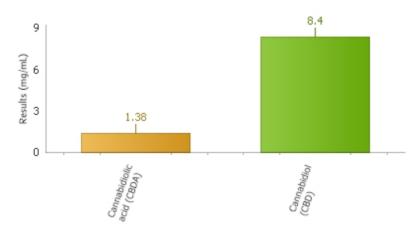
Temp Received:

#### Amount Received:

### **REPORT OF ANALYSIS**

Maine Coast Hemp
C21010407.01

Mr. Bark 500 2101(Tincture)



#### Cannabinoids by HPLC

Analyte	<u>Result</u>	<u>Reporting</u> <u>Limit</u>	<u>Units</u>	Q	Analyzed	Method	<u>Analyst</u>	<u>Pass/Fail</u> <u>Limit</u>	<u>Test</u> <u>Remarks</u>
Cannabidivarin (CBDV)	ND	0.5	mg/mL		01/22/2021 15:32	HPLC SOP-7	NRS	N/A	
Cannabidiolic acid (CBDA)	1.38	0.5	mg/mL		01/22/2021 15:32	HPLC SOP-7	NRS	N/A	
Cannabigerolic acid (CBGA)	ND	0.5	mg/mL		01/22/2021 15:32	HPLC SOP-7	NRS	N/A	
Cannabigerol (CBG)	ND	0.5	mg/mL		01/22/2021 15:32	HPLC SOP-7	NRS	N/A	
Cannabidiol (CBD)	8.40	0.5	mg/mL		01/22/2021 15:32	HPLC SOP-7	NRS	N/A	
Tetrahydrocannabivarin (THCV)	ND	0.5	mg/mL		01/22/2021 15:32	HPLC SOP-7	NRS	N/A	
Cannabinol (CBN)	ND	0.5	mg/mL		01/22/2021 15:32	HPLC SOP-7	NRS	N/A	
Delta-9-THC	ND	0.5	mg/mL		01/22/2021 15:32	HPLC SOP-7	NRS	N/A	
Delta-8-THC	ND	0.5	mg/mL		01/22/2021 15:32	HPLC SOP-7	NRS	N/A	
Cannabichromene (CBC)	ND	0.5	mg/mL		01/22/2021 15:32	HPLC SOP-7	NRS	N/A	
THCA-A	ND	0.5	mg/mL		01/22/2021 15:32	HPLC SOP-7	NRS	N/A	

#### Total Cannabinoids by HPLC (Calculated)

<u>Analyte</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u>	<u>Units</u>	Q	<b>Analyzed</b>	Method	<u>Analyst</u>	<u>Pass/Fail</u> <u>Limit</u>	<u>Test</u> <u>Remarks</u>
CBD+CBDA- Calculated	9.78	0.5	mg/mL		01/22/2021 15:32	HPLC SOP-7	NRS	N/A	
Total CBD-(Max CBD) Calculated	9.61	0.5	mg/mL		01/22/2021 15:32	HPLC SOP-7	NRS	N/A	
THC+THCA- Calculated	ND	0.5	mg/mL		01/22/2021 15:32	HPLC SOP-7	NRS	N/A	
Total THC-(Max THC) Calculated	ND	0.5	mg/mL		01/22/2021 15:32	HPLC SOP-7	NRS	N/A	
Total Cannabinoids- Calculated	9.78	0.5	mg/mL		01/22/2021 15:32	HPLC SOP-7	NRS	N/A	

Results as reported above relate only to samples as submitted, unless specifically noted otherwise.

Amount Received:

## **NELSON ANALYTICAL LAB**

# RP210124013

ISO 17025:2017 Certification ANAB Certificate Number AT-2169 Maine CDC Accreditation # MTF001 Office of Marijuana Policy MTF328

### **REPORT OF ANALYSIS**

Maine Coast Hemp

Date sampled :01/20/2021Reported Date:01/24/2021Temp Received:

#### C21010407.01

Mr. Bark 500 2101(Tincture)

#### Terpenes by GC/MS

<u>Analyte</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u>	9 <u>Units</u>	Q	<b>Analyzed</b>	Method	<u>Analyst</u>	<u>Pass/Fail</u> <u>Limit</u>	<u>Test</u> <u>Remarks</u>
alpha-Pinene	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	
Camphene	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	
beta-Myrcene	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	
beta-Pinene	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	
delta-3-carene	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	
alpha-terpinene	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	
Ocimene	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	
d-Limonene	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	
Eucalyptol	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	
gamma-Terpinene	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	
Terpinolene	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	
Linalool	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	
Isopulegol	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	
Geraniol	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	
beta-Caryophyllene	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	
alpha-Humulene	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	
Guaiol	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	
Caryophyllene oxide	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	
alpha-Bisabolol	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	
Total Terpenes	ND	0.08	% by Weight		01/22/2021 20:00	SOP-5-GCMS	LAM	N/A	

#### Microbiological Testing

<u>Analyte</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u>	<u>Units</u>	Q	<b>Analyzed</b>	Method	<u>Analyst</u>	<u>Pass/Fail</u> <u>Limit</u>	<u>Test</u> <u>Remarks</u>
Aerobic Plate Count	ND	100	cfu/g		01/21/2021 16:40	AOAC 990.12	LFT	N/A	
Total Coliform	ND	100	cfu/g		01/21/2021 16:40	AOAC 991.14	LFT	N/A	
Enterobacteriacaea	ND	100	cfu/g		01/21/2021 16:40	AOAC 2003.01	LFT	N/A	
Yeast	ND	100	cfu/g		01/21/2021 16:40	AOAC 2014.05	LFT	N/A	
Mold	ND	100	cfu/g		01/21/2021 16:40	AOAC 2014.05	LFT	N/A	
Total Yeast and Mold	ND	100	cfu/g		01/21/2021 16:40	AOAC 2014.05	LFT	N/A	

Results as reported above relate only to samples as submitted, unless specifically noted otherwise.

120 York Street

Kennebunk, ME 04043 (207)467-3478 or (207)618-9333

# **NELSON ANALYTICAL LAB**

ANAB Certificate Number: AT-2169

RP210124013

www.Testedlabs.com

#### Notes and Definitions

Note: All sample results are based on samples as they are received. Not all potential/existing hazards were tested. Unless otherwise noted below, analyses were performed without significant modifications and QC met the quality standards outlined in the methods reported. For purposes of reporting the terms marijuana and cannabis are used interchangeably. The Pass/Fail column on the report references Maine Adult Use acceptance limits. The State of Maine does not require Medical Marijuana or Hemp to meet these acceptance limits currently.

Results for the Maine Adult Use program are entered into the Metrc system. Due to reporting requirements some results are entered in Metrc as Zero. This is not scientifically accurate. Please refer to the final pdf report for the accurate reporting information. The Total THC number listed on the report may not be the same number listed in the Metrc system. Delta 8, if found in the sample, is not reported in Metrc or as part on the Total THC in Metrc.

Heat activation of cannabis products converts THCA to THC and CBDA to CBD in a time and temperature dependent manner. This conversion is known as decarboxylation and results from the loss of CO2 during heating.

Total THC (Max THC) = Delta 8 THC + Delta 9 THC + (THCA x 0.877) Total CBD (Max CBD) = CBD + (CBDA x 0.880)

Nelson Analytical is accredited for testing by ISO/IEC 17025:2017 and certified by ME CDC for the following parameters only:

Cannabinoids: Cannabinol (CBN), Cannabidol (CBD)\*, Cannabidiolic Acid (CBDA)\*, Cannabigerol (CBG), Cannabigerolic Acid (CBGA), Cannabichromene (CBC), delta-9-THC\*, delta-8-THC, THCA-A\*, Tetrahydrocannabivarin (THCV), Cannabidivarin (CBDV) by High Pressure Liquid Chromatography (HPLC). Internal SOP-1/SOP-7 Analysis of Cannabinoids \*NOTE: ME CDC certification for CBD, CBDA, Delta 9 THC and THCA-A, Total THC and Total CBD.

Homogeneity (Internal SOP-1/SOP-7 Analysis of Cannabinoids)

Visual Inspection - Foreign Material Testing (Internal SOP-24-Visual Inspection)

% Moisture (Loss on drying) (Internal SOP 59 - % Moisture)

Metals Preparation and Analysis: Arsenic, Cadmium, Lead and Mercury (SOP-17- ICP MS based on EPA 200.8)

Mycotoxins: Total Aflatoxin and Ochratoxin by ELISA - Internal SOP-4 Total Aflatoxin and Ochratoxin

Yeast and Mold (based on AOAC Method 997.02/2014.05), Total Coliform and E. coli (based on AOAC Method 991.14) E. Coli P/A (based on AOAC 991.14 Modified with enrichment before plating), Aerobic Plate Count (based on AOAC Method 990.12), Enterobacteriaceae (based on OMA 2003.01), Salmonella (based on AOAC 2014.01) SOP-3-Microbiologial analysis by Petri Film.

Water Activity (SOP-53-Water Activity-based on ASTM D81918)

< or ND - Analyte result not detected above the method reporting limit

All sample results are reported on an "as received" basis.

Edibles are reported in mg/serving. The serving size is defined by the customer for Adult Use testing.

If the serving size is not defined by the customer (for R&D or Medical testing), the number reported is based on the weight of one unit of the product or as defined on the customer label.

The mg/serving reported are based on weights of the serving size taken at the laboratory. The mg/package results reported are based on information supplied by the customer.

Edible conversion calculation: mg/g in serving x weight of serving = mg per serving

Mg/package conversion: mg/serving x servings per package = mg/package

Laboratory uncertainty is calculated and updated on a regular basis.

The uncertainty calculated for edibles is applied to the Total THC results for Maine Adult use marijuana products. The uncertainty value currently in use is 10 mg per serving +/- 0.5 mg/serving based on uncertainty data calculated through August 2020.

The uncertainty calculated for Total THC in hemp is 0.30% +/- 0.05%. The uncertainty is based on data calculated through August 2020.

Samples are extracted and analyzed on the same day unless otherwise noted.

Cannabinoid and Terpene Analysis are based on laboratory developed methods. All other test methods are based on established EPA, USP or FDA methods.

Matrix matched quality control check samples for marijuana are available for microbiological analysis in a hemp-based QC. Other matrix matched quality control samples for most matrices may be available for hemp but do not currently exist in marijuana. Due to this unavailability, even ISO/IEC validated methods cannot be fully verified for the efficiency and accuracy of the marijuana extraction and analysis in any current Maine Testing facility.

To convert mg/ml to a % percentage move the decimal place one to the left.

Results as reported above relate only to samples as submitted, unless specifically noted otherwise.

#### NELSON ANALYTICAL LAB



Medical Marijuana and Hemp are not currently regulated in the State of Maine. For your reference, the limits listed in the rules for Maine Adult Use Testing as specified by the Maine Office of Marijuana Policy testing are listed below.

#### Water Activity and Moisture Content

If the water activity in a dried flower production batch sample is at or below, 0.65  $A_w$ , the sample will be designated with "pass". If the water activity in a dried flower production batch sample greater than 0.65  $A_w$ , the sample will be designated with "fail".

If the water activity in solid and semi-solid edible marijuana products that do not require additional preservation (e.g. refrigeration) is at, or below, 0.85 A<sub>w</sub>, the sample will be designated with "pass". If the water activity is greater than 0.85 A<sub>w</sub>, the sample will be designated as "fail".

#### Visual Inspection for Filth and Foreign Material

The samples shall not pass if any living or dead insect, at any life cycle stage; one hair; or one count of mammalian excreta is found or if one fourth of the total area is covered by mold, sand, soil, cinders, dirt or imbedded foreign material.

#### Homogeneity of cannabinoids

Total THC and, if applicable, Total CBD values between samples must not vary by more than 15% or the product fails testing.

#### THC per serving and per package

The concentration in any marijuana product may not exceed 10 milligrams per serving of THC. The concentration in any marijuana may not exceed 100 milligrams per package of Total THC.

#### Microbiological Contaminants in CFU/g

Marijuana Material	Total Viable Aerobic Bacteria	Total Yeast and Mold	Total Coliform Bacteria	Enterobacteriaceae	E. coli and Salmonella (spp.)
Unprocessed and Processed Plant Material and Marijuana Products	100,000	10,000	1000	1000	<1/g sample (pass)
CO <sub>2</sub> and Solvent- Based Extracts	10,000	1000	100	100	<1/g sample (pass)

#### Heavy Metals testing

Note: Heavy Metals tests are not included in the required analysis at this time. The limits below are listed for reference if voluntary testing is performed.

Heavy Metal	Inhalation	Ingestion or Suppository	Topical Application
Cadmium (Cd)	200 ug/kg	500 ug/kg	5000 ug/kg
Lead (Pb)	500 ug/kg	500 ug/kg	10,000 ug/kg
Arsenic (As)	200 ug/kg	1500 ug/kg	1000 ug/kg
Mercury (Hg)	100 ug/kg	3000 ug/kg	1000 ug/kg

Note: Residual Solvent and Pesticide limits are listed in the Adult Use testing rule from the Office of Marijuana Policy. These tests are not included in the required analysis at this time.

## **QUALIFIER DEFINITION**

## NELSON ANALYTICAL LAB

120 York Street, Kennebunk, ME 04043 www.nelsonanalytical.com

(207)467-3478 phone

**Qualifier Definition** 

### **REPORT OF ANALYSIS**

Laboratory ID: C21010407

NH ELAP Accreditation #NH2018 Maine State Certification # ME0015

Maine Radon Certification # ME17500

Notes: mg/L=ppb; ng/L=ppb; ng/L=ppb; ng/L=ppb; ng/L=ppt, "<" denotes "less than". This report of analysis may not be modified in any way, or reproduced except in full, without written approval from Nelson Analytical, LLC. Results reported above relate only to samples as submitted, unless specifically noted otherwise. Nelson Analytical, LLC is currently accredited by the New Hampshire Environmental Lab Accreditation Program, ANAB, and the Maine Laboratory Accreditation Program. For a list of current accredited tests, please visit the websites listed below. Sampling performed by the lab is according to the lab document "Water Sampling Instructions". EPA standards list pH & Chlorine as field parameters which should be tested immediately upon sample collection. Samples tested for pH after submission are beyond the hold time. Samples will be analyzed as quickly as laboratory operations allow. Metals samples preserved and analyzed on the same day do not meet the method criteria. #-Sample(s) received at laboratory do not meet method specified temperature criteria. Solid samples are reported on a dry weight basis unless noted otherwise.<br/>
Subcontract Laboratories: SUB1: Nelson Analytical Manchester (NH1005) ME-NH01005 SUB 2: (NH 2136) (ME-CT00007),SUB 3: (NH2001) (ME00019), SUB 4: NH2073 SUB5: (NH2530) (ME FL00117), SUB7: EAI Analytical (NH 1007),SUB 8: ME00002 SUB9: (NH2516) (MA00100) <br/>
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/<br/>
https://www.maine.gov/dhhs/mecd/environmental-health/dwp/professionals/labCert.shtml <br/>
http://search.anab.org/public/organization files/Tested-LabsNelson-Analytical-Cert-and-Scope-File-08-13-2019\_1565710045.pdf

