



Certificate ID: **84029**

Received: **7/6/20**

Scan QR Code for authenticity




**244 Sanford Road  
Alfred, ME 04002  
Attn: HempX**

Client Sample ID: **JBL**

Lot Number: **EL**

Matrix: **Concentrates/Extracts - Distillate**

Authorization: <b>Scott Eaton, Lab Manager</b>	Signature: 	Date: <b>7/13/2020</b>
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The data contained within this report was collected in accordance with the requirements of ISO/IEC17025:2017. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

**CN: Cannabinoid Profile & Potency [WI-10-17 & WI-10-17-01]**

Analyst: **LCH**

Test Date: **7/8/2020**

The client sample was analyzed for plant-based cannabinoids by Liquid Chromatography (LC). The collected data was compared to data collected for certified reference standards at known concentrations.

**84029-CN**

ID	Weight %	Concentration (mg/g)		
D9-THC	ND	ND		
THCV	ND	ND		
CBD	90.0	900		
CBDV	0.491	4.91		
CBG	0.169	1.69		
CBC	<LOQ	<LOQ		
CBN	0.684	6.84		
THCA	ND	ND		
CBDA	ND	ND		
CBGA	ND	ND		
D8-THC	ND	ND		
exo-THC	0.604	6.04		
Total	92.0	920	0%	Cannabinoids (wt%) 90.0%
Max THC	ND	ND		
Max CBD	90.0	900		

Limit of Quantitation (LOQ) = 0.0921 wt%

Max THC (and Max CBD) are calculated values for total cannabinoids after heating, assuming complete decarboxylation of the acid to the neutral form. It is calculated based on the weight loss of the acid group during decarboxylation: Max THC = (0.877 x THCA) + THC. This calculation does not include other cannabinoid isomers (eg. D8-THC and exo-THC). ND = None detected above the limits of detection (LOD), which is one third of LOQ.



**Customer:** Attn: HempX LLC  
 15 Glidden rd  
 Moultonborough, Nh  
 603-253-5225

**Laboratory ID:** 20-000019-0001

### Summary

**Potency:**

Analyte	Result (%)		
CBD	90.0		CBD-Total 90.0%
CBN	0.782		THC-Total < 0.164%
CBDV <sup>†</sup>	0.620		(Reported in percent of total sample)
CBG <sup>†</sup>	0.263		
CBL <sup>†</sup>	0.102		

**Metals:**

*Less than LOQ for all analytes.*



**Customer:** Attn: HempX LLC  
 15 Glidden rd  
 Moultonborough, Nh  
 603-253-5225

**Product identity:**  
**Client/Metric ID:**  
**Sample Date:**  
**Laboratory ID:** 20-000019-0001  
**Relinquished by:** Received By Mail  
**Temp:** 18.6 °C

**Sample Results**

Potency Method J AOAC 2015 V98-6 Units % Batch 2000172 Analyze 01/08/20 03:05 AM

Analyte	As Received	Dry weight	LOQ	Notes
CBC <sup>+</sup>	< LOQ		0.0872	
CBC-A <sup>+</sup>	< LOQ		0.0872	
CBC-Total <sup>†</sup>	< LOQ		0.164	
CBD	90.0		0.872	
CBD-A	< LOQ		0.0872	
CBD-Total	90.0		0.948	
CBDV <sup>+</sup>	0.620		0.0872	
CBDV-A <sup>+</sup>	< LOQ		0.0872	
CBDV-Total <sup>†</sup>	0.620		0.163	
CBG <sup>+</sup>	0.263		0.0872	
CBG-A <sup>+</sup>	< LOQ		0.0872	
CBG-Total <sup>†</sup>	0.263		0.163	
CBL <sup>+</sup>	0.102		0.0872	
CBN	0.782		0.0872	
Δ8-THC <sup>+</sup>	< LOQ		0.0872	
Δ9-THC	< LOQ		0.0872	
THC-A	< LOQ		0.0872	
THC-Total	< LOQ		0.164	
THCV <sup>+</sup>	< LOQ		0.0872	
THCV-A <sup>+</sup>	< LOQ		0.0872	
THCV-Total <sup>†</sup>	< LOQ		0.163	



**Metals**

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
Arsenic	< LOQ		mg/kg	0.0497	2000160	01/07/20	AOAC 2013.06 (mod.)	X
Cadmium	< LOQ		mg/kg	0.0497	2000160	01/07/20	AOAC 2013.06 (mod.)	X
Lead	< LOQ		mg/kg	0.0497	2000160	01/07/20	AOAC 2013.06 (mod.)	X
Mercury	< LOQ		mg/kg	0.0249	2000160	01/07/20	AOAC 2013.06 (mod.)	X

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 retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.



These test results are representative of the individual sample selected and submitted by the client.

**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**

mg/kg = Milligram per kilogram = parts per million (ppm)

% = Percentage of sample

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

**Glossary of Qualifiers**

X: Not ORELAP accredited.

Approved Signatory

Derrick Tanner  
General Manager

# CERTIFICATE OF ANALYSIS

Attn: HempX LLC  
15 Glidden rd  
Moultonborough, NH  
603-253-5225

ORELAP: 4101 / OLCC: 010-10035537931

**Client Name:**  
**Contact Info:** Carl  
**Sample Type:** Extract  
**External Batch ID:** NA  
**Harvest/Prod. Date:** NA  
**Sample ID:** JB-12.30.2019  
**METRC ID:** Personal



Sample not sampled per  
OAR 333-064-0100

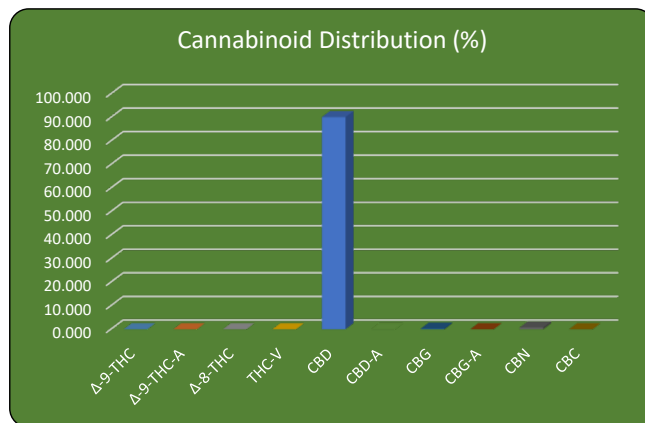
**Intake Date:** 20JA0003.01  
1/2/2020

## Potency Analysis (Vermont Compliance Standard 333-007-0430)

ANALYSIS DATE: 1/2/2020

Instrument: HPLC/DAD  
Method: JA-Potency-Proprietary

Compound	Weight (%)	Concentration (mg/g)	LOQ* (mg/g)
Δ-9-THC	< LOQ	< LOQ	1.00
Δ-9-THC-A	< LOQ	< LOQ	1.00
Δ-8-THC	< LOQ	< LOQ	1.00
THC-V	< LOQ	< LOQ	1.00
CBD	90.103	901.03	1.00
CBD-A	< LOQ	< LOQ	1.00
CBG	0.265	2.65	1.00
CBG-A	< LOQ	< LOQ	1.00
CBN	0.718	7.18	1.00
CBC	< LOQ	< LOQ	1.00



TOTAL THC/CBD	Weight (%)	Conc (mg/g)
THC Total =	<LOQ	<LOQ

THC<sub>Total</sub> = (THC-A \* 0.877) + Δ9THC

CBD Total =	90.103	901.03
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CBD<sub>Total</sub> = (CBD-A \* 0.877) + CBD

\* < LOQ - Less than the Limit of Quantification

## Residual Solvent Analysis (Vermont Compliance Standard 333-007-0410)

ANALYSIS DATE: 1/6/2020

Instrument: GC/MS

Method: USP 467 - Modified

Solvent	Result (ppm)	Action Level / LOQ (ppm)
1,4-Dioxane	<LOQ	380 / 100
2-Butanol	<LOQ	5000 / 500
2-Ethoxyethanol	<LOQ	160 / 100
2-Propanol (IPA)	<LOQ	5000 / 500
Acetone	<LOQ	5000 / 500
Acetonitrile	<LOQ	410 / 100
Benzene	<LOQ	2 / 1
Cumene	<LOQ	70 / 50
Cyclohexane	<LOQ	3880 / 500
Dichloromethane	<LOQ	600 / 100
Ethyl acetate	<LOQ	5000 / 500
Ethyl ether	<LOQ	5000 / 500
Ethylene glycol	<LOQ	620 / 300
Ethylene oxide	<LOQ	50 / 10
Heptane	<LOQ	5000 / 500
Isopropyl acetate	<LOQ	5000 / 500
Methanol	<LOQ	3000 / 500
Propane	<LOQ	5000 / 500
Tetrahydrofuran	<LOQ	720 / 100
Toluene	<LOQ	890 / 100

Solvent	Result (ppm)	Action Level / LOQ (ppm)
<b>Pentanes;</b>	<LOQ	5000 / 500
-n-pentane	<LOQ	**
-iso-pentane	<LOQ	**
-neo-pentane	<LOQ	**
<b>Butanes;</b>	<LOQ	5000 / 500
-n-butane	<LOQ	**
-iso-butane	<LOQ	**
<b>Hexanes;</b>	<LOQ	290 / 50
-n-hexane	<LOQ	**
-2-methylpentane	<LOQ	**
-3-methylpentane	<LOQ	**
-2,2-dimethylbutane	<LOQ	**
-2,3-dimethylbutane	<LOQ	**
<b>Xylenes;</b>	<LOQ	2170 / 300
-1,2-dimethylbenzene	<LOQ	**
-1,3-dimethylbenzene	<LOQ	**
-1,4-dimethylbenzene	<LOQ	**
-Ethyl benzene	<LOQ	**

\*\*Limit based on combined results

Residual Solvents **PASS**

<LOQ - Less than the Limit of Quantification

## APPROVAL

*Casey E...*

Report Date: 1/7/2020

QA Review

	20JA0003.01
Intake Date:	1/2/2020

**Pesticide Analysis (Vermont Compliance Standard 333-007-0400)**

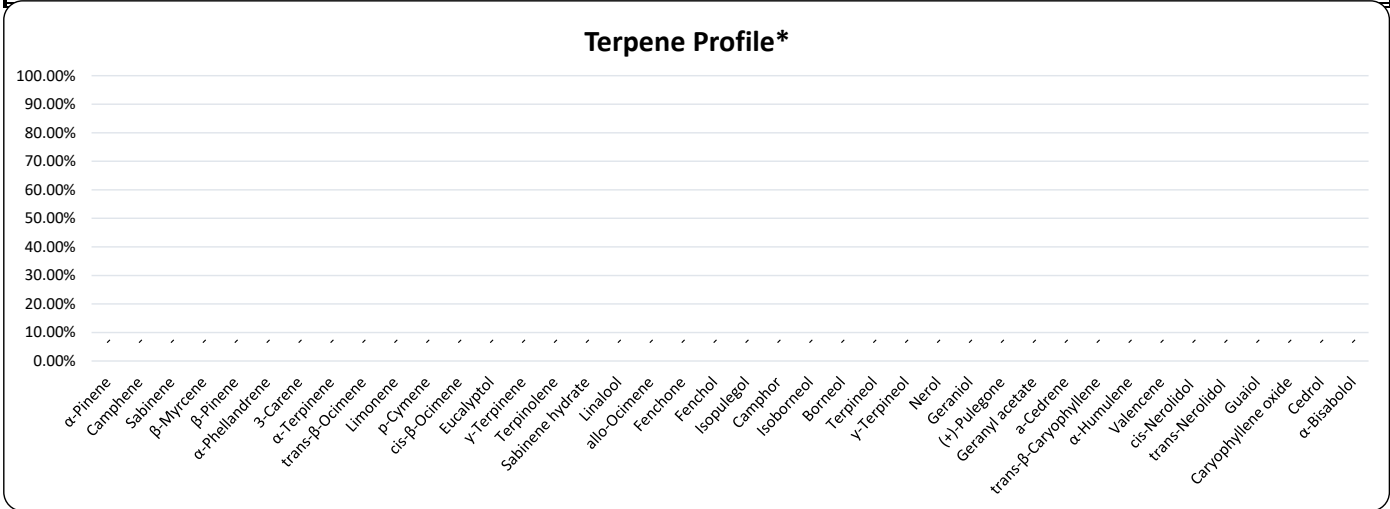
ANALYSIS DATE: 1/3/2020			Instrument: LC/MS/MS			Method: AOAC 2007.1-Mod		
Pesticide	Result (ppm)	Action Level / LOQ (ppm)	Pesticide	Result (ppm)	Action Level / LOQ (ppm)			
Abamectin	<LOQ	0.5 / 0.25	Imazalil	<LOQ	0.2 / 0.10			
Acephate	<LOQ	0.4 / 0.20	Imidacloprid	<LOQ	0.4 / 0.20			
Acequinocyl	<LOQ	2.0 / 1.00	Kresoxim-methyl	<LOQ	0.4 / 0.20			
Acetamiprid	<LOQ	0.2 / 0.10	Malathion	<LOQ	0.2 / 0.10			
Aldicarb	<LOQ	0.4 / 0.20	Metalaxyl	<LOQ	0.2 / 0.10			
Azoxystrobin	<LOQ	0.2 / 0.10	Methiocarb	<LOQ	0.2 / 0.10			
Bifenazate	<LOQ	0.2 / 0.10	Methomyl	<LOQ	0.4 / 0.20			
Bifenthrin	<LOQ	0.2 / 0.10	Methyl Parathion	<LOQ	0.2 / 0.10			
Boscalid	<LOQ	0.4 / 0.20	MGK-264	<LOQ	0.2 / 0.10			
Carbaryl	<LOQ	0.2 / 0.10	Myclobutanil	<LOQ	0.2 / 0.10			
Carbofuran	<LOQ	0.2 / 0.10	Naled	<LOQ	0.5 / 0.25			
Chlorantraniliprole	<LOQ	0.2 / 0.10	Oxamyl	<LOQ	1.0 / 0.50			
Chlorfenapyr	<LOQ	1.0 / 0.50	Paclobutrazol	<LOQ	0.4 / 0.20			
Chlorpyrifos	<LOQ	0.2 / 0.10	Permethrins	<LOQ	0.2 / 0.10			
Clofentezine	<LOQ	0.2 / 0.10	Phosmet	<LOQ	0.2 / 0.10			
Cyfluthrin	<LOQ	1.0 / 0.50	Piperonyl butoxide	<LOQ	2.0 / 1.00			
Cypermethrin	<LOQ	1.0 / 0.50	Prallethrin	<LOQ	0.2 / 0.10			
Daminozide	<LOQ	1.0 / 0.50	Propiconazole	<LOQ	0.4 / 0.20			
DDVP (Dichlorvos)	<LOQ	1.0 / 0.50	Propoxur	<LOQ	0.2 / 0.10			
Diazinon	<LOQ	0.2 / 0.10	Pyrethrins	<LOQ	1.0 / 0.50			
Dimethoate	<LOQ	0.2 / 0.10	Pyridaben	<LOQ	0.2 / 0.10			
Ethoprophos	<LOQ	0.2 / 0.10	Spinosad	<LOQ	0.2 / 0.10			
Etofenprox	<LOQ	0.4 / 0.20	Spiromesifen	<LOQ	0.2 / 0.10			
Etoxazole	<LOQ	0.2 / 0.10	Spirotetramat	<LOQ	0.2 / 0.10			
Fenoxycarb	<LOQ	0.2 / 0.10	Spiroxamine	<LOQ	0.4 / 0.20			
Fenpyroximate	<LOQ	0.4 / 0.20	Tebuconazole	<LOQ	0.4 / 0.20			
Fipronil	<LOQ	0.4 / 0.20	Thiacloprid	<LOQ	0.2 / 0.10			
Fonicamid	<LOQ	1.0 / 0.50	Thiamethoxam	<LOQ	0.2 / 0.10			
Fludioxonil	<LOQ	0.4 / 0.20	Trifloxystrobin	<LOQ	0.2 / 0.10			
Hexythiazox	<LOQ	1.0 / 0.50						
<b>Pesticide Screen</b>	<b>PASS</b>							

\*LOQ = Limit of Quantification


	20JA0003.01
Intake Date:	1/2/2020

**Terpene Profile**

ANALYSIS DATE: Not Tested			Instrument: GC/MS			Method: JA-Terpene-Proprietary		
Compound	µg/g	%	Compound	µg/g	%	Compound	µg/g	%
α-Pinene			Isopulegol					
Camphene			Camphor					
Sabinene			Isoborneol					
β-Myrcene			Borneol					
β-Pinene			Terpineol					
α-Phellandrene			γ-Terpineol					
3-Carene			Nerol					
α-Terpinene			Geraniol					
trans-β-Ocimene			(+)-Pulegone					
Limonene			Geranyl acetate					
p-Cymene			α-Cedrene					
cis-β-Ocimene			trans-β-Caryophyllene					
Eucalyptol			α-Humulene					
γ-Terpinene			Valencene					
Terpinolene			cis-Nerolidol					
Sabinene hydrate			trans-Nerolidol					
Linalool			Guaiol					
allo-Ocimene			Caryophyllene oxide					
Fenchone			Cedrol					
Fenchol			α-Bisabolol					
			TOTAL					



\* Profile expressed as a percent of total terpenes

Batch QC WorkGroup ID:  
 Potency PO-2020-01-02-02  
 Residual Solvents RS-2020-01-03-01  
 Pesticide Pest-2020-01-02-01