

CERTIFICATE OF ANALYSIS



Juniper Analytics, LLC
 1334 NE 2nd Street, Bend, OR, 97701
 541.382.3796
 ORELAP: 4101 / OLCC: 010-10035537931

Client Name: **CBD Hemp Experts**
 Sample Type: **Extract**
 External Batch ID: **3065**
 Harvest/Prod. Date: **12/30/2019**
 Sample ID: **T-Compliant Dist.**
 METRC ID: **Industrial Hemp**
 Juniper Batch #: **20JA0026.01_A-B Composite**
 Intake Date: **1/3/2020**

Batch sampled per
 OAR 333-064-0100



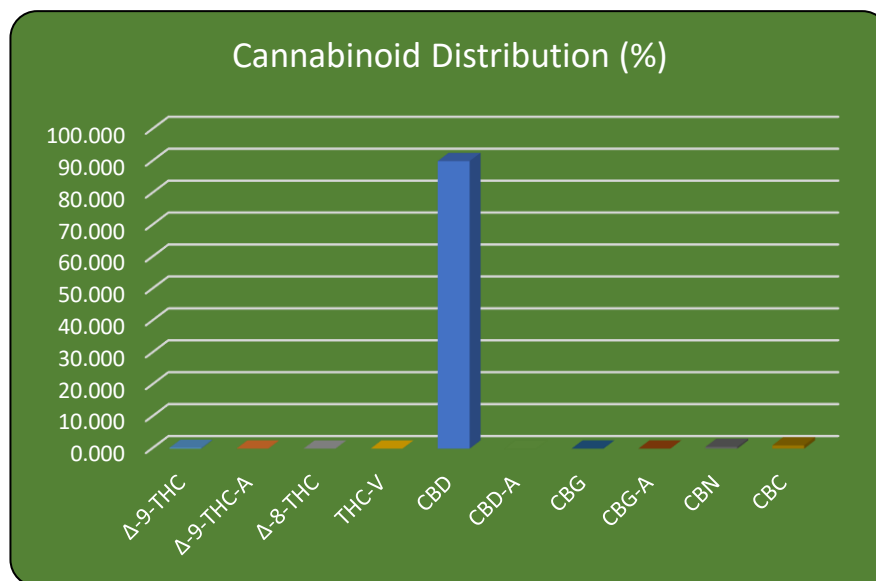
Potency Analysis (Oregon Compliance Standard OAR 333-007-0430)

ANALYSIS DATE: **1/6/2020**

Instrument: HPLC/DAD

Method: JA-Potency-Proprietary

Compound	Weight (%)	Concentration (mg/g)	LOQ (mg/g)
Δ-9-THC	0.226	2.26	1.00
Δ-9-THC-A	<LOQ	<LOQ	1.00
Δ-8-THC	<LOQ	<LOQ	1.00
THC-V	<LOQ	<LOQ	1.00
CBD	90.057	900.57	1.00
CBD-A	<LOQ	<LOQ	1.00
CBG	<LOQ	<LOQ	1.00
CBG-A	<LOQ	<LOQ	1.00
CBN	0.534	5.34	1.00
CBC	1.020	10.20	1.00



TOTAL THC/CBD	Weight (%)	Conc (mg/g)	RPD
% THC Total =	0.226	2.26	0.89%
$\%THC_{Total} = (THC-A * 0.877) + \Delta 9THC$			PASS
% CBD Total =	90.057	900.57	
$\%CBD_{Total} = (CBD-A * 0.877) + CBD$			

Residual Solvent Analysis (Oregon Compliance Standard OAR 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)
Pentanes;	<LOQ	5000 / 500
-n-pentane	<LOQ	**
-iso-pentane	<LOQ	**
-neo-pentane	<LOQ	**
Butanes;	<LOQ	5000 / 500
-n-butane	<LOQ	**
-iso-butane	<LOQ	**
Hexanes;	<LOQ	290 / 50
-n-hexane	<LOQ	**
-2-methylpentane	<LOQ	**
-3-methylpentane	<LOQ	**
-2,2-dimethylbutane	<LOQ	**
-2,3-dimethylbutane	<LOQ	**
Xylenes;	<LOQ	2170 / 300
-1,2-dimethylbenzene	<LOQ	**
-1,3-dimethylbenzene	<LOQ	**
-1,4-dimethylbenzene	<LOQ	**
-Ethyl benzene	<LOQ	**

**RPD calculated for combined results

Residual Solvents **PASS**

Tentatively Identified Compounds: None Detected

<LOQ - Less than the Limit of Quantification

***Largest hit reported to appropriate governing body; RPD only calculated on samples where the average result is above 50% of the action level.

Approval

[Signature]

Report Date: **1/6/2020**

QA Review



Juniper Batch #:	20JA0026.01_A-B Composite
Intake Date:	1/3/2020

Pesticide Analysis (Oregon Compliance Standard OAR 333-008-1190)

ANALYSIS DATE: 1/6/2020			Instrument: LC/MS/MS			Method: AOAC 2007.1 ^{-modified}		
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			
Etoazole	<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						
Pesticide Screen	Pass							

LOQ= Limit of Quantification

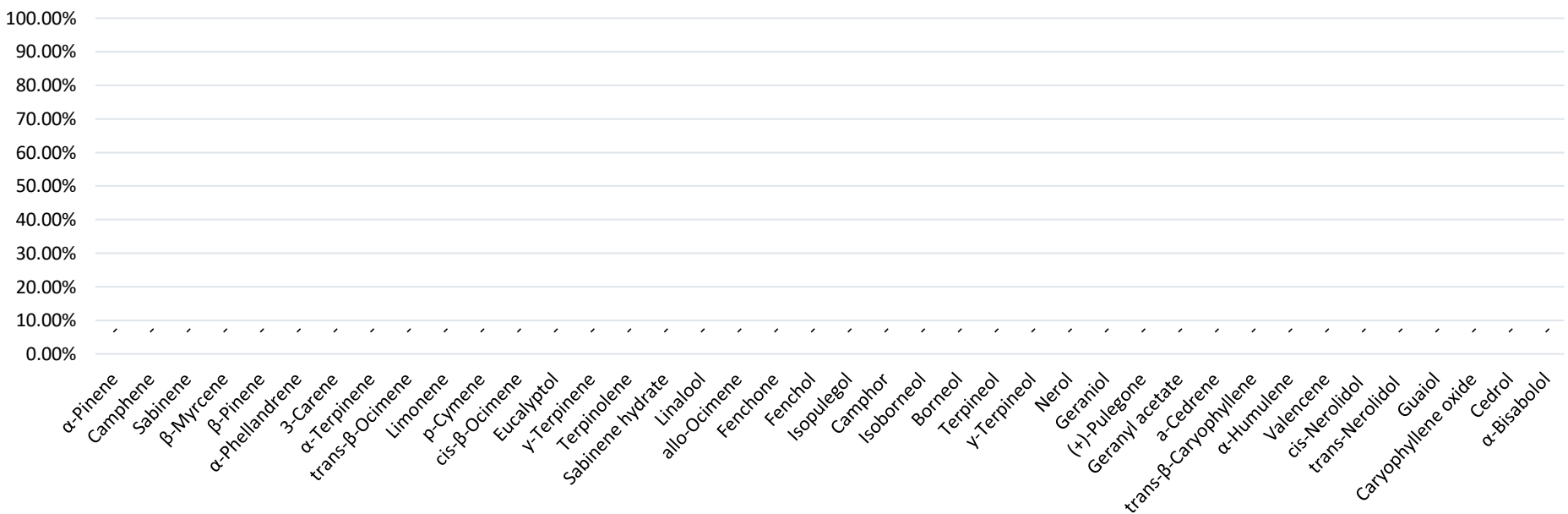
Microbiological Contaminants (Oregon Compliance Standard OAR 333-007-0390)

ANALYSIS DATE: Not Tested			
Microbiological screening	Colony count	CFU/g	Results:
Total coliforms	Not tested	Not tested	N/A
Escherichia coli (E. coli)	Not tested	Not tested	N/A

Terpene Profile

ANALYSIS DATE: Not Tested			Instrument: GC/MS	Method: JA-Terpene-Proprietary	
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		

Terpene Profile*



* Profile expressed as a percent of total terpenes

Batch QC WorkGroup ID:

Potency PO-2020-01-03-04

Pesticides Pest-2020-01-03-03

Residual Solvents RS-2020-01-03-02

Disclaimer

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