CERTIFICATE OF ANALYSIS

Juniper Analytics, LLC
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541.382.3796
ORELAP: 4101-001 / OLCC: 10035537931

Client Name:	AHO MCXI
Contact Info:	Brian
Sample Type:	Tincture
External Batch ID:	NA
Harvest/Prod. Date:	NA
Sample ID:	Pumpkin CBD 12-24-18 Dog Oil
METRC ID:	Personal
Juniper Batch #:	18JA2292.02
Intake Date:	12/27/2018

APPROVAL

QA Review

Report Date: 1/4/2019

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

ANALYSIS DATE: 12/28/2018

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

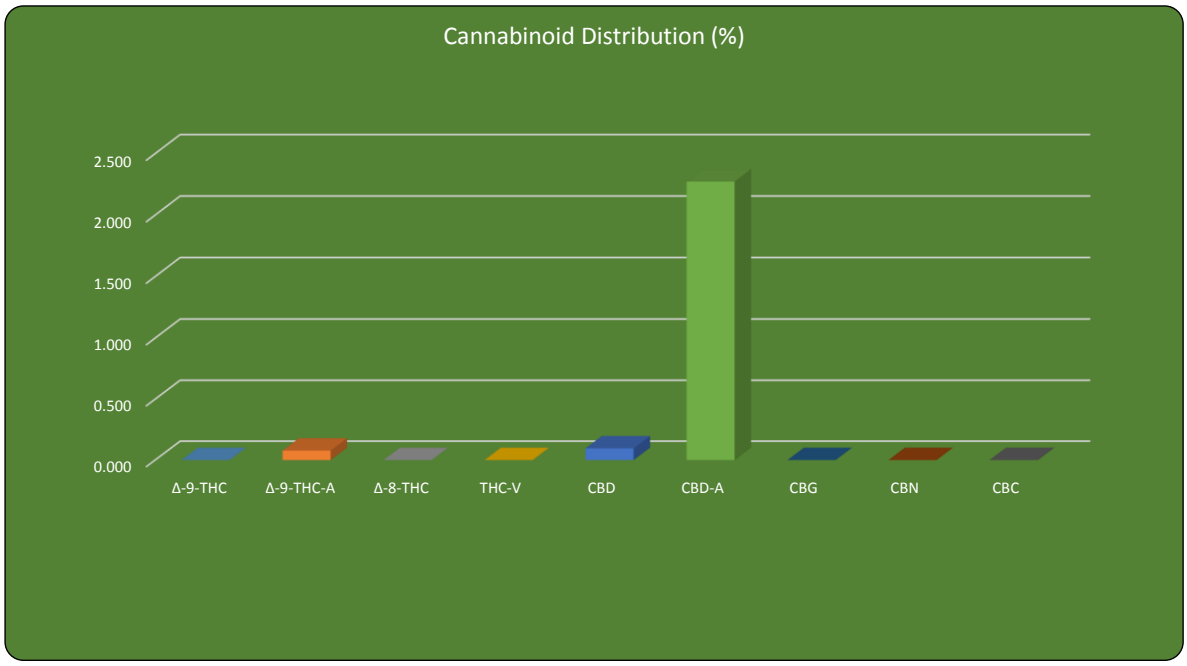
Compound	Weight (%)	Concentration (mg/g)	LOQ * (mg/g)	Concentration (mg/mL)	Concentration (mg/Unit)
Δ-9-THC	<LOQ	<LOQ	0.16	<LOQ	<LOQ
Δ-9-THC-A	0.078	0.78	0.16	0.73	21.70
Δ-8-THC	<LOQ	<LOQ	0.16	<LOQ	<LOQ
THC-V	<LOQ	<LOQ	0.16	<LOQ	<LOQ
CBD	0.096	0.96	0.16	0.91	26.85
CBD-A	2.273	22.73	0.16	21.50	635.96
CBG	<LOQ	<LOQ	0.16	<LOQ	<LOQ
CBN	<LOQ	<LOQ	0.16	<LOQ	<LOQ
CBC	<LOQ	<LOQ	0.16	<LOQ	<LOQ
Total Cannabinoids	**2.447**	**24.47**		**23.15**	**684.52**

TOTAL THC/CBD	Weight (%)	Conc (mg/g)	Conc (mg/mL)	Conc (mg/Unit)
THC Total =	0.068	0.68	0.64	19.03
CBD Total =	2.090	20.90	19.77	584.59

$THC_{Total} = (THC\text{-}A * 0.877) + \Delta 9THC$

$CBD_{Total} = (CBD\text{-}A * 0.877) + CBD$

** < LOQ - Less than the 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

Juniper Batch #:	18JA2292.02
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Residual Solvent Analysis (Oregon Compliance Standard OAR 333-007-0410)

ANALYSIS DATE: **Not Tested** Instrument: GC/MS Method: USP 467 - Modified

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

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

Residual Solvents	N/A

Tentatively Identified Compounds: N/A

<LOQ - Less than the Limit of Quantification

Pesticide Analysis (Oregon Compliance Standard OAR 333-007-0400)

ANALYSIS DATE: **Not Tested** Instrument: LC/MS/MS Method: AOAC 2007.1-Mod

Pesticide	Result (ppm)	Action Level / LOQ (ppm)
Abamectin		0.5 / 0.25
Acephate		0.4 / 0.20
Acequinocyl		2.0 / 1.00
Acetamiprid		0.2 / 0.10
Aldicarb		0.4 / 0.20
Azoxystrobin		0.2 / 0.10
Bifenazate		0.2 / 0.10
Bifenthrin		0.2 / 0.10
Boscalid		0.4 / 0.20
Carbaryl		0.2 / 0.10
Carbofuran		0.2 / 0.10
Chlorantraniliprole		0.2 / 0.10
Chlorfenapyr		1.0 / 0.50
Chlorpyrifos		0.2 / 0.10
Clofentezine		0.2 / 0.10
Cyfluthrin		1.0 / 0.50
Cypermethrin		1.0 / 0.50
Daminozide		1.0 / 0.50
DDVP (Dichlorvos)		1.0 / 0.50
Diazinon		0.2 / 0.10
Dimethoate		0.2 / 0.10
Ethoprophos		0.2 / 0.10
Etofenprox		0.4 / 0.20
Etoxazole		0.2 / 0.10
Fenoxycarb		0.2 / 0.10
Fenpyroximate		0.4 / 0.20
Fipronil		0.4 / 0.20
Flonicamid		1.0 / 0.50
Fludioxonil		0.4 / 0.20
Hexythiazox		1.0 / 0.50

Pesticide	Result (ppm)	Action Level / LOQ (ppm)
Imazalil		0.2 / 0.10
Imidacloprid		0.4 / 0.20
Kresoxim-methyl		0.4 / 0.20
Malathion		0.2 / 0.10
Metalaxyl		0.2 / 0.10
Methiocarb		0.2 / 0.10
Methomyl		0.4 / 0.20
Methyl Parathion		0.2 / 0.10
MGK-264		0.2 / 0.10
Myclobutanil		0.2 / 0.10
Naled		0.5 / 0.25
Oxamyl		1.0 / 0.50
Paclobutrazol		0.4 / 0.20
Permethrins		0.2 / 0.10
Phosmet		0.2 / 0.10
Piperonyl butoxide		2.0 / 1.00
Prallethrin		0.2 / 0.10
Propiconazole		0.4 / 0.20
Propoxur		0.2 / 0.10
Pyrethrins		1.0 / 0.50
Pyridaben		0.2 / 0.10
Spinosad		0.2 / 0.10
Spiromesifen		0.2 / 0.10
Spirotetramat		0.2 / 0.10
Spiroxamine		0.4 / 0.20
Tebuconazole		0.4 / 0.20
Thiacloprid		0.2 / 0.10
Thiamethoxam		0.2 / 0.10
Trifloxystrobin		0.2 / 0.10

Pesticide Screen	N/A

*LOQ = Limit of Quantification

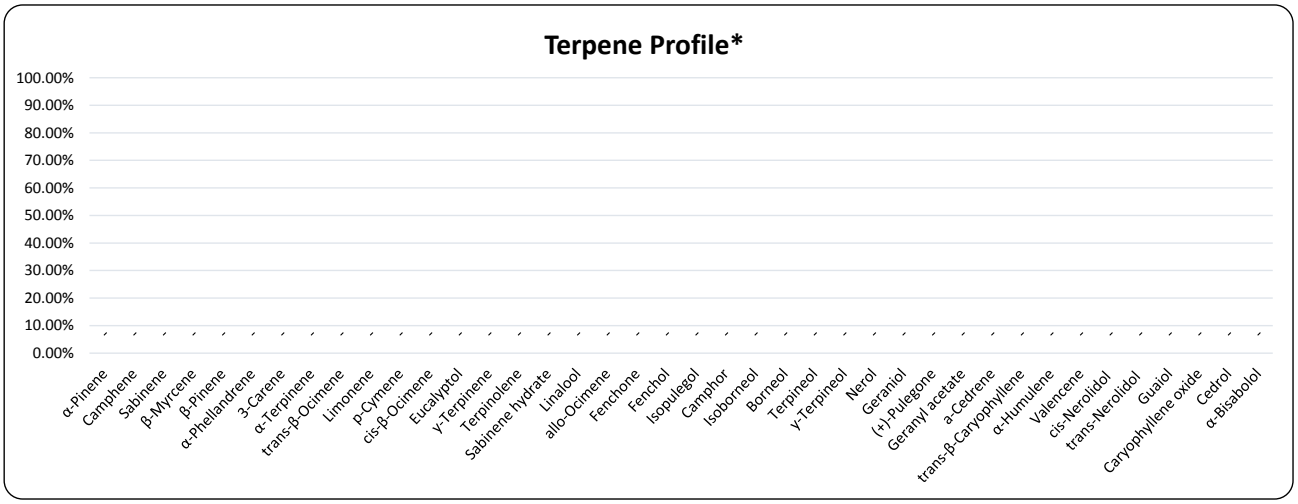
JuniperAnalytics
INTEGRITY AND ACCURACY IN EVERY STEP

Juniper Batch #:	18JA2292.02
Intake Date:	12/27/2018

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			y-Terpineol		
3-Carene			Nerol		
α-Terpinene			Geraniol		
trans-β-Ocimene			(+)-Pulegone		
Limonene			Geranyl acetate		
p-Cymene			a-Cedrene		
cis-β-Ocimene			trans-β-Caryophyllene		
Eucalyptol			α-Humulene		
y-Terpinene			Valencene		
Terpinolene			cis-Nerolidol		
Sabinene hydrate			trans-Nerolidol		
Linalool			Guaiol		
allo-Ocimene			Caryophyllene oxide		
Fenchone			Cedrol		
Fenchol			α-Bisabolol		
			TOTAL	<LOQ	<LOQ



*** Profile expressed as a percent of total terpenes**

Batch QC WorkGroup ID:

Potency PO-2018-12-27-02

Residual Solvents

Pesticide

Disclaimer