

CERTIFICATE OF ANALYSIS



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

Client Name: Guud Manufacturing
 Contact Info: Phillip
 Sample Type: Concentrate
 External Batch ID: 8001
 Harvest/Prod. Date: 8/1/2018
 Sample ID: CBD Isolate
 METRC ID: Hemp
 Juniper Batch #: **18JA1219.02**
 Intake Date: **8/8/2018**



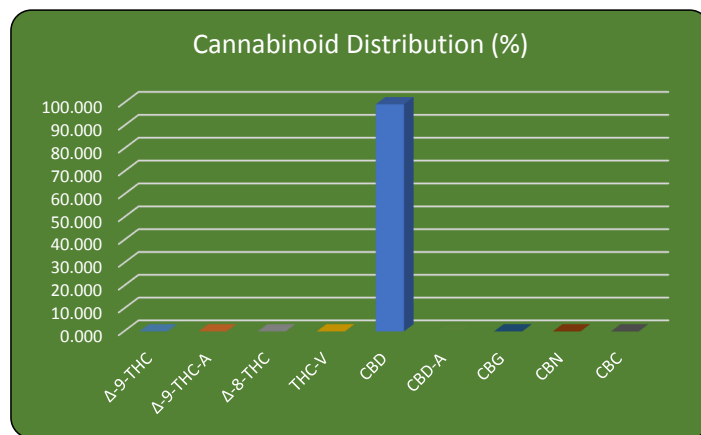
Potency Analysis (Oregon Compliance Standard OAR 333-007-0430)

ANALYSIS DATE: 8/9/2018

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	99.417	994.17	1.00
CBD-A	< LOQ	< LOQ	1.00
CBG	< LOQ	< LOQ	1.00
CBN	< LOQ	< LOQ	1.00
CBC	< LOQ	< LOQ	1.00



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

THC_{Total} = (THC-A * 0.877) + Δ9THC

CBD Total =	99.417	994.17
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CBD_{Total} = (CBD-A * 0.877) + CBD

* < LOQ - Less than the Limit of Quantification

Residual Solvent Analysis (Oregon Compliance Standard OAR 333-007-0410)

ANALYSIS DATE: 8/10/2018

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 / 100
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	**

**Limit based on combined results

Residual Solvents **PASS**

Tentatively Identified Compounds: None detected

<LOQ - Less than the Limit of Quantification

APPROVAL

Case

Report Date: 8/14/2018

QA Review



Juniper Batch #:	18JA1219.02
Intake Date:	8/8/2018

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

ANALYSIS DATE: 8/9/2018			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		
Flonicamid	<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
<i>Escherichia coli (E. coli)</i>	Not tested	Not tested	N/A

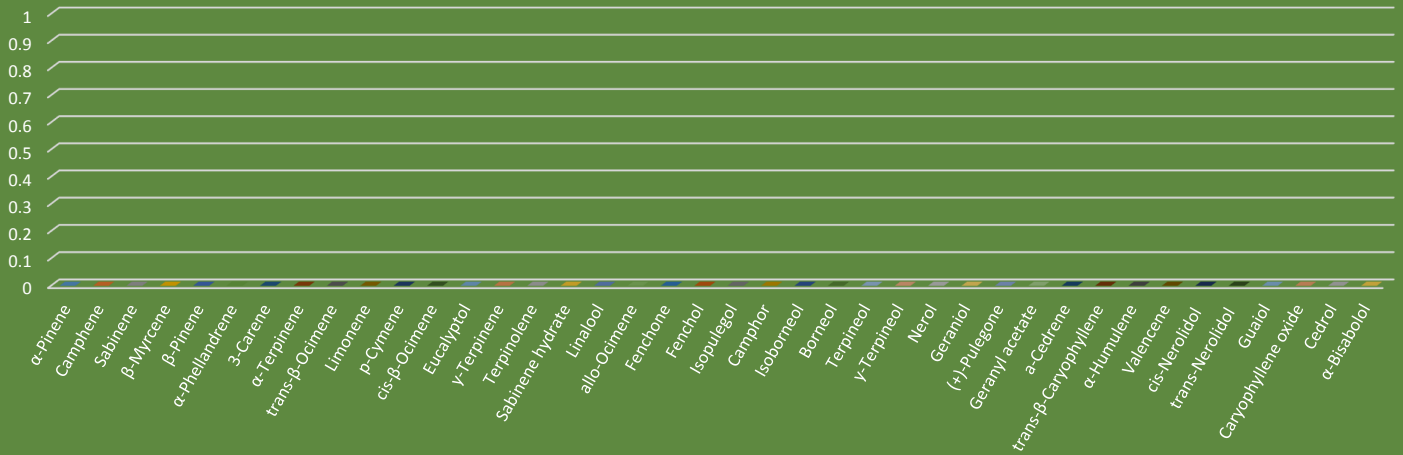


Juniper Batch #: 18JA1219.02
 Intake Date: 8/8/2018

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					

Terpene Levels (µg/g)



Batch QC WorkGroup ID:

Potency PO-2018-08-08-02
 Residual Solvents RS-08-08-18-01
 Pesticide 2018-08-08-01

Disclaimer

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