



**Client Name:** NuTrac Hemp

**Sample ID:** SAM-2022-2102

**Sample Name:** CBD/CBN Oil

**Sample Matrix:** Edible

**Sample Type:** Edible (oil, tincture)

**Sample Collection Date:** 10/07/2022

**Client Batch ID:** CBD/CBN-22-B01

**Client Lot ID:** CBD/CBN-22-B01

**Client Sample Size:** 10grams

## Terpenes

**Sample ID:** SAM-2022-2102

**Instrument:** HS-GC/MS

**Date Completed:** 10/24/2022

**Method:** HP002

**Analyst:** B T

Terpene	Result (mg/g)	Result (%)	LOQ (mg/g)
α-Pinene	<LOQ	<LOQ	0.20
Camphene	<LOQ	<LOQ	0.20
β-Myrcene	<LOQ	<LOQ	0.20
β-Pinene	<LOQ	<LOQ	0.20
3-Carene	<LOQ	<LOQ	0.20
α-Terpinene	<LOQ	<LOQ	0.20
δ-Limonene	<LOQ	<LOQ	0.20
Eucalyptol	<LOQ	<LOQ	0.20
γ-Terpinene	<LOQ	<LOQ	0.20
Terpinolene	<LOQ	<LOQ	0.20
Linalool	<LOQ	<LOQ	0.20
Fenchone	<LOQ	<LOQ	0.20
Isopulegol	<LOQ	<LOQ	0.20
Borneol	<LOQ	<LOQ	0.20
Terpineol	<LOQ	<LOQ	0.20
Geraniol	<LOQ	<LOQ	0.20
β-Caryophyllene	<LOQ	<LOQ	0.20
α-Humulene	<LOQ	<LOQ	0.20
Valencene	<LOQ	<LOQ	0.20
cis-Nerolidol	<LOQ	<LOQ	0.20
trans-Nerolidol	<LOQ	<LOQ	0.20
Guaiol	<LOQ	<LOQ	0.20
α-Bisabolol	<LOQ	<LOQ	0.50

LOQ= Limit of quantitation, NR = Not reported



## Residual Solvents

**Sample ID:** SAM-2022-2102  
**Instrument:** HS-GC/MS

**Date Completed:** 10/25/2022  
**Method:** HP002

**Analyst:** B T

Residual Solvent	Result (ppm)	LOQ (ppm)
Methanol	<LOQ	10
n-Pentane	<LOQ	10
Ethanol	<LOQ	10
Acetone	<LOQ	10
Isopropanol	<LOQ	10
Acetonitrile	<LOQ	10
n-Hexane	<LOQ	10
Tetrahydrofuran	<LOQ	10
Chloroform	<LOQ	10
Carbon-Tetrachloride	<LOQ	10
Benzene	<LOQ	10
Heptane	<LOQ	10
Toluene	<LOQ	10
p+m Xylene	<LOQ	10
o-Xylene	<LOQ	10

LOQ= Limit of quantitation, NR = Not reported

## Heavy Metals

**Sample ID:** SAM-2022-2102  
**Instrument:** ICP-MS

**Date Completed:** 10/24/2022  
**Method:** HP008

**Analyst:** D H

Heavy Metals	Result (ppm)	LOQ (ppm)
Arsenic	<LOQ	0.500
Cadmium	<LOQ	0.500
Lead	<LOQ	1.250
Mercury	<LOQ	0.250

LOQ= Limit of quantitation, NR = Not reported  
Assay not covered by current scope of accreditation, method under review.

## Microbial Impurities

**Sample ID:** SAM-2022-2102  
**Instrument:** Culture and qPCR  
**Date TAMC Read:** 10/24/2022

**Date Completed:** 10/28/2022  
**Method:** HP100/101  
**Date TYMC:** 10/28/2022

**Analyst:** C M  
**Sample Amount:** 1.01 g  
**Date qPCR Read:** 10/26/2022

Microbials	Result (CFU/g)	Analytical Sensitivity (CFU/g)
Aerobic Microbials (TAMC)	ND	10
Yeast & Mold (TYMC)	ND	10
E.coli	ND	--

LOQ= Limit of quantitation, NR = Not reported, ND = Not detected  
TNTC = Too numerous to count, CFU = Colony forming units



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## Mycotoxins

**Sample ID:** SAM-2022-2102  
**Instrument:** LC-MS/MS

**Date Completed:** 10/25/2022  
**Method:** HP001/HP004

**Analyst:** B T

Mycotoxins	Result (ppb)	LOQ (ppb)
B1	<LOQ	20.0
B2	<LOQ	20.0
G1	<LOQ	20.0
G2	<LOQ	20.0
Ochratoxin A	<LOQ	20.0

LOQ= Limit of quantitation, NR = Not reported

LLC  
**SATIVA**  
Testing Laboratories



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## Pesticides

**Sample ID:** SAM-2022-2102

**Instrument:** LC-MS/MS

**Date Completed:** 10/25/2022

**Method:** HP001/HP004

**Analyst:** B T

Pesticide	Result (ppb)	LOQ (ppb)
Oxamyl	<LOQ	100
Daminozide	<LOQ	100
Acephate	<LOQ	100
Methomyl	<LOQ	100
Thiamethoxam	<LOQ	100
Imidacloprid	<LOQ	100
Dimethoate	<LOQ	100
Acetamiprid	<LOQ	100
Aldicarb	<LOQ	100
Thiacloprid	<LOQ	100
Dichlorvos	<LOQ	100
Carbofuran	<LOQ	100
Propoxur	<LOQ	100
Carbaryl	<LOQ	100
Naled	<LOQ	100
Imazalil	<LOQ	100
Metalaxyl	<LOQ	100
Phosmet	<LOQ	100
Methiocarb	<LOQ	100
Chlorantraniliprole	<LOQ	100
Boscalid	<LOQ	100
Azoxystrobin	<LOQ	100
Spiroxamine	<LOQ	100
Paclobutrazol	<LOQ	100
Malathion	<LOQ	100
Mycobutanil	<LOQ	100
Bifenazate	<LOQ	100
Spirotetramat	<LOQ	100
Ethoprophos	<LOQ	100
Fenoxycarb	<LOQ	100
Propiconazole	<LOQ	100
Kresoxim-methyl	<LOQ	100
Tebuconazole	<LOQ	100
Diazinon	<LOQ	100
Clofentezine	<LOQ	100
Trifloxystrobin	<LOQ	100
MGK-264	<LOQ	100
Prallethrin	<LOQ	100
Chlorpyrifos	<LOQ	100
Hexythiazox	<LOQ	100
Piperonyl Butoxide	<LOQ	100
Spiromesifen	<LOQ	100
Etoazole	<LOQ	100
Abamectin	<LOQ	100
Cyfluthrin	<LOQ	500
Cypermethrin	<LOQ	100
Fenpyroximate	<LOQ	100
Pyridaben	<LOQ	100
Bifenthrin	<LOQ	100
Etofenprox	<LOQ	100
Acequinocyl	<LOQ	100

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# Certificate of Analysis



Pesticide	Result (ppb)	LOQ (ppb)
Flonicamid	<LOQ	100
Fludioxonil	<LOQ	100
Fipronil	<LOQ	100
Permethrins	<LOQ	100
Chlorfenapyr	<LOQ	500
Parathion Methyl	<LOQ	200
Pyrethrins	<LOQ	100
Spinosad	<LOQ	100

LOQ= Limit of quantitation, NR = Not reported

## Cannabinoids

**Sample ID:** SAM-2022-2102

**Instrument:** HPLC-UV/Vis

**Date Completed:** 10/14/2022

**Method:** HP001/HP003

**Analyst:** D H

**Density:** 0.92 g/mL

Cannabinoid	Result (%)	Result (mg/mL)	LOQ (mg/mL)
CBC	<LOQ	<LOQ	0.18
CBCA	<LOQ	<LOQ	0.18
CBD	2.44	22.49	0.18
CBDa	<LOQ	<LOQ	0.18
CBDV	0.03	0.28	0.18
CBDVA	<LOQ	<LOQ	0.18
CBG	0.07	0.60	0.18
CBGA	<LOQ	<LOQ	0.18
CBN	0.97	8.89	0.18
Δ8-THC	<LOQ	<LOQ	0.18
Δ9-THC	0.12	1.13	0.18
THCA	<LOQ	<LOQ	0.18
THCV	0.07	0.62	0.18
THCVA	<LOQ	<LOQ	0.18
Total THC	0.12	1.13	-
Total CBD	2.44	22.49	-
Total Cannabinoids	3.70	34.02	-

LOQ= Limit of quantitation, NR = Not reported

Total THC = THCa \* 0.877 + d9-THC, Total CBD = CBDa \* 0.877 + CBD, Measurement Uncertainty for Total THC at 0.3% is ± 0.04%

Brandon Thorpe, PhD  
Lab Director



10/28/2022

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