

# Certificate of Analysis

Produced: Mar 25, 2025

Sample: CBN Isolate - Botanically Derived (Concentrate) • Client: Red Mesa Science and Refining • Batch: Pass



**Batch No.:** R250303MS98MS103  
**Matrix:** Concentrate  
**Sample ID:** ICC-250324-13-002  
**Collected on:** Mar 24, 2025  
**Received on:** Mar 24, 2025  
**Sample Size:** 13 g  
**Received By:** Stephanie Paule

Batch Result: Pass

<b>Potency</b>	Tested	<b>Mycotoxins</b>	Pass
<b>Solvents</b>	Pass	<b>Pesticides</b>	Pass
<b>Metals</b>	Pass	<b>Foreign</b>	Pass
<b>Microbial</b>	Pass		

### Cannabinoid Overview

<b>Total THC:</b>	<b>0.00 %</b>
<b>Total CBD:</b>	<b>0.188 %</b>
<b>Total Cannabinoids:</b>	<b>99.2 %</b>
<b>Sum of Cannabinoids:</b>	<b>99.2 %</b>

### POT-INST-005, POT-PREP-001: POT-INST-005, POT-PREP-001: Potency

Analyte	Amt	Amt	LOD/LOQ (mg/g)	Pass/Fail	Analyte	Amt	Amt	LOD/LOQ (mg/g)	Pass/Fail
CBC	ND	ND	0.336/1.01	N/A	CBT	ND	ND	0.146/0.509	N/A
CBD	0.188 %	1.9 mg/g	0.103/0.509	N/A	Δ <sup>8</sup> -THC	ND	ND	0.0823/0.509	N/A
CBDA	ND	ND	0.246/0.736	N/A	Δ <sup>9</sup> -THC	ND	ND	0.136/0.509	N/A
CBDV	ND	ND	0.0814/0.509	N/A	THCA	ND	ND	0.187/0.560	N/A
CBG	ND	ND	0.116/0.509	N/A	THCV	ND	ND	0.0628/0.509	N/A
CBGA	ND	ND	0.181/0.544	N/A	<b>Total THC**</b>	ND	ND		N/A
CBL	ND	ND	0.0801/0.509	N/A	<b>Total CBD**</b>	0.188 %	1.9 mg/g		N/A
CBN	99.0 %	990 mg/g	0.116/0.509	N/A	<b>Total Cannabinoids**</b>	99.2 %	990 mg/g		N/A

\*\* Total Cannabinoids = Neutral Cannabinoids + (Acidic Cannabinoids \* 0.877)

\*\* Total THC = Delta-9-THC + (THCA x 0.877)

\*\* Total CBD = CBD + (CBDA x 0.877)

NR= Not Reported, ND= Not Detected, \*Reported by Dry Mass\*; \*analytical instrumentation used Cannabinoids: UHPLC-DAD, Moisture: Mass by Drying, Water Activity: Water Activity Meter, Foreign: Microscope\*

\*Density tested at a temperature range between 19-24 °C, \*Water Activity tested at a humidity range between 0-90% Relative Humidity. All OA samples are sampled by the client, All California State Compliant samples sampled using SAMPL-SOP-001.



Utah RS-PREP-001, Utah RS-INST-003: Utah RS-PREP-001, Utah RS-INST-003: Utah Residual Solvents by GC-MS • Mar 25, 2025

Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail	Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail
1,2-Dimethoxyethane	100	ND	6.00/18.0	Pass	Ethyl acetate	5000	ND	14.3/42.8	Pass
1,4-Dioxane	380	ND	12.9/38.6	Pass	Ethylbenzene		ND	3.50/10.5	N/A
1-Butanol	5000	ND	3.10/9.40	Pass	Ethylene glycol	620	ND	3.40/10.3	Pass
1-Pentanol	5000	ND	10.0/29.9	Pass	Ethylene oxide	50	ND	6.50/19.6	Pass
2,2-Dimethylbutane	290	ND	0.900/2.60	Pass	Ethyl ether	5000	ND	6.80/20.4	Pass
2,3-Dimethylbutane	290	ND	0.900/2.80	Pass	Heptane	5000	< LOQ	0.400/1.20	Pass
2-Butanol	5000	ND	9.60/28.7	Pass	Hexane	290	ND	0.500/1.50	Pass
2-Butanone	5000	ND	7.20/21.6	Pass	Isopropyl acetate	5000	ND	4.10/12.4	Pass
2-Ethoxyethanol	160	ND	3.90/11.6	Pass	Methanol	3000	ND	18.4/55.3	Pass
2-Methylbutane	5000	ND	0.700/2.00	Pass	Methylpropane	5000	ND	10.2/30.7	Pass
2-Methylpentane	290	ND	9.10/27.2	Pass	N,N-Dimethylacetamide	1090	ND	269/807	Pass
2-Propanol	5000	ND	11.5/34.6	Pass	N,N-Dimethylformamide	880	ND	2.70/8.20	Pass
3-Methylpentane	290	ND	7.40/22.1	Pass	Pentane	5000	128	0.800/2.50	Pass
Acetone	5000	ND	8.20/24.7	Pass	Propane	5000	ND	7.90/23.8	Pass
Acetonitrile	410	ND	8.40/25.1	Pass	Propanol	5000	ND	7.00/21.0	Pass
Benzene	2	ND	0.400/1.10	Pass	Pyridine	100	ND	19.6/58.6	Pass
Butane	5000	ND	9.60/28.7	Pass	Sulfolane	160	ND	22.9/68.7	Pass
Cumene	70	ND	8.30/25.0	Pass	Tetrahydrofuran	720	ND	6.20/18.6	Pass
Cyclohexane	3880	ND	8.40/25.3	Pass	Toluene	890	ND	0.400/1.20	Pass
Dichloromethane	600	ND	4.00/11.9	Pass	o-Xylene		ND	8.80/26.3	N/A
Dimethyl sulfoxide	5000	ND	8.40/25.2	Pass	p- and m-Xylene		ND	1.60/4.90	N/A
Ethanol	5000	ND	4.80/14.4	Pass	Total xylenes + Ethylbenzene	2170	ND		

Compliance requirements for this test are taken from Utah Hemp regulations.

HM-PREP-001, HM-INST-003: HM-PREP-001, HM-INST-003: Heavy Metals Testing by ICP-MS • Mar 24, 2025

Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail	Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail
Arsenic	0.2	< LOQ	0.00300/0.00900	Pass	Lead	0.5	0.00758	0.00100/0.00400	Pass
Cadmium	0.2	ND	0.00100/0.00200	Pass	Mercury	0.1	ND	0.00500/0.0140	Pass

Compliance requirements for this test are taken from California Cannabis regulations.

MICRO-008, MICRO-PREP-001, MICRO-INST-001: MICRO-008, MICRO-PREP-001, MICRO-INST-001: PCR-Microbial (noninhalable) • Mar 25, 2025

Analyte	Amt	Pass/Fail	Analyte	Amt	Pass/Fail
Salmonella spp.	ND	Pass	Shiga toxin-producing E. coli	ND	Pass

Compliance requirements for this test are taken from California Cannabis regulations.

PESTMICO-LC-PREP-001, PESTMICO-LC-INST-004: PESTMICO-LC-PREP-001, PESTMICO-LC-INST-004: Mycotoxin Analysis by LC-MS/MS • Mar 25, 2025

Analyte	Limit (µg/kg)	Amt (µg/kg)	LOD/LOQ (µg/kg)	Pass/Fail	Analyte	Limit (µg/kg)	Amt (µg/kg)	LOD/LOQ (µg/kg)	Pass/Fail
Aflatoxin B1		ND	2.96/8.98	N/A	Aflatoxin G2		ND	2.07/6.26	N/A
Aflatoxin B2		ND	3.36/10.2	N/A	Aflatoxins	20	ND		Pass
Aflatoxin G1		ND	1.73/5.25	N/A	Ochratoxin A	20	ND	4.41/13.4	Pass

Compliance requirements for this test are taken from California Cannabis regulations.

PEST-GC-PREP-001, PEST-GC-INST-003: PEST-GC-PREP-001, PEST-GC-INST-003: Pesticide Analysis by GC-MS/MS • Mar 25, 2025

Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail	Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail
Captan	0.7	ND	0.120/0.358	Pass	Cypermethrin	1	ND	0.0602/0.181	Pass
Chlordane	Any amt	ND	0.0249/0.0747	Pass	Methyl parathion	Any amt	ND	0.00811/0.0243	Pass
Chlorfenapyr	Any amt	ND	0.0251/0.0753	Pass	Pentachloronitrobenzene	0.1	ND	0.0182/0.0545	Pass
Cyfluthrin	2	ND	0.0186/0.0558	Pass					

Compliance requirements for this test are taken from California Cannabis regulations.



**PESTMYCO-LC-PREP-001, PESTMYCO-LC-INST-004: PESTMYCO-LC-PREP-001, PESTMYCO-LC-INST-004: Pesticide Analysis by LC-MS/MS • Mar 25, 2025**

Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail	Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail
Abamectin	0.1	ND	0.0500/0.100	Pass	Malathion	0.5	ND	0.00313/0.0300	Pass
Abamectin Ba		ND	0.0330/0.0990	N/A	Metalaxyl	2	ND	0.00467/0.0300	Pass
Acephate	0.1	ND	0.00743/0.0300	Pass	Methiocarb	Any amt	ND	0.00245/0.0300	Pass
Acequinocyl	0.1	ND	0.0150/0.0456	Pass	Methomyl	1	ND	0.00879/0.0300	Pass
Acetamiprid	0.1	ND	0.00496/0.0300	Pass	Mevinphos	Any amt	ND	0.00772/0.0300	Pass
Aldicarb	Any amt	ND	0.00838/0.0300	Pass	Myclobutanil	0.1	ND	0.00707/0.0300	Pass
Azoxystrobin	0.1	ND	0.00530/0.0300	Pass	Naled	0.1	ND	0.00849/0.0300	Pass
Bifenazate	0.1	ND	0.00706/0.0300	Pass	Oxamyl	0.5	ND	0.00746/0.0300	Pass
Bifenthrin	3	ND	0.00439/0.0300	Pass	Paclobutrazol	Any amt	ND	0.00851/0.0300	Pass
Boscalid	0.1	ND	0.00809/0.0300	Pass	Permethrin	0.5	ND	0.00190/0.0300	Pass
Carbaryl	0.5	ND	0.00604/0.0300	Pass	Permethrin cis		ND	0.0200/0.0300	N/A
Carbofuran	Any amt	ND	0.00538/0.0300	Pass	Permethrin trans		ND	0.0200/0.0300	N/A
Chlorantranilprole	10	ND	0.00883/0.0300	Pass	Phosmet	0.1	ND	0.00511/0.0300	Pass
Chlorpyrifos	Any amt	ND	0.0152/0.0460	Pass	Piperonylbutoxide	3	ND	0.00267/0.0300	Pass
Clofentezine	0.1	ND	0.00206/0.0300	Pass	Prallethrin	0.1	ND	0.0235/0.0711	Pass
Coumaphos	Any amt	ND	0.00393/0.0300	Pass	Propiconazole	0.1	ND	0.00909/0.0300	Pass
Daminozide	Any amt	ND	0.0176/0.0534	Pass	Propoxur	Any amt	ND	0.00780/0.0300	Pass
Diazinon	0.1	ND	0.00475/0.0300	Pass	Pyrethrins	0.5	ND	0.00278/0.0300	Pass
Dichlorvos	Any amt	ND	0.0182/0.0550	Pass	Pyrethrins Pyrethrin I		ND	0.0100/0.0450	N/A
Dimethoate	Any amt	ND	0.00592/0.0300	Pass	Pyrethrins Pyrethrin II		ND	0.0100/0.0300	N/A
Dimethomorph	2	ND	0.00454/0.0300	Pass	Pyridaben	0.1	ND	0.00231/0.0300	Pass
Ethoprophos	Any amt	ND	0.00610/0.0300	Pass	Spinetoram	0.1	ND	0.00119/0.0300	Pass
Etofenprox	Any amt	ND	0.00437/0.0300	Pass	Spinetoram J		ND	0.00500/0.0100	N/A
Etoxazole	0.1	ND	0.00365/0.0300	Pass	Spinetoram L		ND	0.00500/0.0100	N/A
Fenhexamid	0.1	ND	0.0113/0.0342	Pass	Spinosad	0.1	ND	0.000830/0.0300	Pass
Fenoxycarb	Any amt	ND	0.00415/0.0300	Pass	Spinosad A		ND	0.00500/0.0100	N/A
Fenpyroximate	0.1	ND	0.00396/0.0300	Pass	Spinosad D		ND	0.00500/0.0100	N/A
Fipronil	Any amt	ND	0.0165/0.0500	Pass	Spiromesifen	0.1	ND	0.00894/0.0300	Pass
Flonicamid	0.1	ND	0.0115/0.0350	Pass	Spirotetramat	0.1	ND	0.00808/0.0300	Pass
Fludioxonil	0.1	ND	0.0119/0.0362	Pass	Spiroxamine	Any amt	ND	0.00555/0.0300	Pass
Hexythiazox	0.1	ND	0.00124/0.0300	Pass	Tebuconazole	0.1	ND	0.00605/0.0300	Pass
Imazalil	Any amt	ND	0.00898/0.0300	Pass	Thiacloprid	Any amt	ND	0.00506/0.0300	Pass
Imidacloprid	5	ND	0.0109/0.0331	Pass	Thiamethoxam	5	ND	0.00760/0.0300	Pass
Kresoxim-methyl	0.1	ND	0.00708/0.0300	Pass	Trifloxystrobin	0.1	ND	0.00293/0.0300	Pass

Compliance requirements for this test are taken from California Cannabis regulations.

