

Certificate of Analysis

Produced: Dec 18, 2025

Sample: P&B National: Balm Stick: 30ml 3:1 Extra Strength (Topical) • Client: Papa & Barkley CBD • Batch: Pass



Batch No.: 25K002
Matrix: Topical
Sample ID: ICC-251216-44-001
Collected on: Dec 16, 2025
Received on: Dec 16, 2025
Sample Size:
Package Size: 31.34 g

Batch Result: Pass

Potency	Tested	Mycotoxins	Pass
Solvents	Pass	Pesticides	Pass
Metals	Pass	Foreign	Pass
Microbial	Pass		

Cannabinoid Overview

Total THC:	89.9 mg/pkg
Total CBD:	285 mg/pkg
Total Cannabinoids:	389 mg/pkg
Sum of Cannabinoids:	387 mg/pkg

POT-INST-005: POT-INST-005: Expanded Potency • Dec 17, 2025

Analyte	Amt (mg/pkg)	Amt (%)	Amt (mg/g)	LOD/LOQ (mg/g)	Pass/Fail	Analyte	Amt (mg/pkg)	Amt (%)	Amt (mg/g)	LOD/LOQ (mg/g)	Pass/Fail
CBC	11.3	0.0359	0.359	0.0275/0.0826	N/A	CBN	1.60	0.00511	0.0511	0.00950/0.0417	N/A
CBCA		ND	ND	0.0386/0.116	N/A	CBNA		ND	ND	0.0142/0.0425	N/A
CBCV		ND	ND	0.0119/0.0417	N/A	CBT		ND	ND	0.0119/0.0417	N/A
CBD	285	0.908	9.08	0.00842/0.0417	N/A	Δ ⁸ -THC		ND	ND	0.00675/0.0417	N/A
CBDA		ND	ND	0.0201/0.0604	N/A	Δ ⁹ -THC	89.9	0.287	2.87	0.0111/0.0417	N/A
CBDV		ND	ND	0.00667/0.0417	N/A	THCA		ND	ND	0.0153/0.0459	N/A
CBDVA		ND	ND	0.0219/0.0656	N/A	THCV		ND	ND	0.00515/0.0417	N/A
CBG		ND	ND	0.00950/0.0417	N/A	THCVA		ND	ND	0.0166/0.0500	N/A
CBGA		ND	ND	0.0148/0.0445	N/A	Total THC**	89.9	0.287	2.87		N/A
CBL		ND	ND	0.00657/0.0417	N/A	Total CBD**	285	0.908	9.08		N/A
CBLA		ND	ND	0.0912/0.273	N/A	Total Cannabinoids**	387	1.24	12.4		N/A

** Total Cannabinoids = Neutral Cannabinoids + (Acidic Cannabinoids * 0.877)
** Total THC = Delta-10-THC + Delta-8-THC + (Delta-8-THCA x 0.877) + Delta-9-THC + THC-O-acetate + (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.

RS-INST-003, RS-PREP-001: RS-INST-003, RS-PREP-001: Residual Solvents by GC-MS • Dec 17, 2025

Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail
1,2-Dichloroethane	1	ND	0.141/0.429	Pass
Acetone	5000	ND	14.4/43.2	Pass
Acetonitrile	410	ND	0.101/0.302	Pass
Benzene	1	ND	0.0177/0.0538	Pass
Butane	5000	ND	0.818/4.08	Pass
Chloroform	1	ND	0.0303/0.0910	Pass
Ethanol		< LOQ	2.20/6.61	N/A
Ethyl acetate	5000	ND	0.264/1.93	Pass
Ethylene oxide	1	ND	0.129/0.488	Pass
Ethyl ether	5000	ND	0.996/2.99	Pass
Heptane	5000	< LOQ	0.579/2.41	Pass

Compliance requirements for this test are taken from CA Cannabis/Hemp (Based on Submission Type) regulations.

Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail
Hexane	290	ND	0.0556/0.237	Pass
Isopropyl alcohol		ND	1.08/3.23	N/A
Methanol	3000	ND	2.50/7.51	Pass
Methylene chloride	1	ND	0.107/0.614	Pass
Pentane	5000	ND	0.810/3.60	Pass
Propane	5000	ND	3.73/11.2	Pass
Toluene	890	0.757	0.0741/0.728	Pass
Trichloroethylene	1	ND	0.0152/0.122	Pass
o-Xylene		ND	0.0848/0.722	N/A
p- and m-Xylene		ND	0.0972/1.44	N/A
Total xylenes	2170	ND		Pass

HM-INST-003, HM-PREP-001: HM-INST-003, HM-PREP-001: Heavy Metals Testing by ICP-MS • Dec 17, 2025

Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail
Arsenic	1.5	ND	0.00300/0.00900	Pass
Cadmium	0.5	ND	0.00100/0.00200	Pass

Compliance requirements for this test are taken from CA Cannabis/Hemp (Based on Submission Type) regulations.

Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail
Lead	0.5	< LOQ	0.00100/0.00400	Pass
Mercury	3	ND	0.00500/0.0140	Pass

MICRO-INST-001, MICRO-PREP-001: MICRO-INST-001, MICRO-PREP-001: PCR-Microbial (noninhalable) • Dec 18, 2025

Analyte	Limit	Amt	Pass/Fail
Salmonella spp.	Any amt in 1 gram	ND	Pass

Compliance requirements for this test are taken from CA Cannabis/Hemp (Based on Submission Type) regulations.

Analyte	Limit	Amt	Pass/Fail
Shiga toxin-producing E. coli	Any amt in 1 gram	ND	Pass

PESTMYCO-LC-INST-004, PESTMYCO-LC-PREP-001: PESTMYCO-LC-INST-004, PESTMYCO-LC-PREP-001: Mycotoxin Analysis by LC-MS/MS • Dec 17, 2025

Analyte	Limit (µg/kg)	Amt (µg/kg)	LOD/LOQ (µg/kg)	Pass/Fail
Aflatoxin B1		ND	1.94/5.88	N/A
Aflatoxin B2		ND	2.65/8.04	N/A
Aflatoxin G1		ND	3.91/11.9	N/A

Compliance requirements for this test are taken from CA Cannabis/Hemp (Based on Submission Type) regulations.

Analyte	Limit (µg/kg)	Amt (µg/kg)	LOD/LOQ (µg/kg)	Pass/Fail
Aflatoxin G2		ND	1.54/5.00	N/A
Aflatoxins	20	ND		Pass
Ochratoxin A	20	ND	4.78/14.5	Pass

PEST-GC-INST-003, PEST-GC-PREP-001: PEST-GC-INST-003, PEST-GC-PREP-001: Colorado Pesticides by GC-MS/MS • Dec 17, 2025

Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail
α-Endosulfan	0.353	ND	0.118/0.353	Pass
β-Endosulfan	0.239	ND	0.0797/0.239	Pass
Chlorfenapyr	0.0244	ND	0.00814/0.0244	Pass
Cyfluthrin	0.0384	ND	0.0128/0.0384	Pass
Cypermethrin	0.0525	ND	0.0175/0.0525	Pass
Endosulfan sulfate	0.0257	ND	0.00856/0.0257	Pass
Etridiazole	0.0441	ND	0.0147/0.0441	Pass
Fenvalerate	0.402	ND	0.134/0.402	Pass

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

Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail
Iprodione	0.475	ND	0.158/0.475	Pass
Kinoprene	0.221	ND	0.0738/0.221	Pass
Methyl parathion	0.0257	ND	0.00857/0.0257	Pass
MGK-264	Any amt	ND		Pass
MGK-264 I		ND	0.00152/0.00457	N/A
MGK-264 II		ND	0.00392/0.0118	N/A
Quintozene	0.016	ND	0.00533/0.0160	Pass



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	Kresoxim-methyl	0.03	ND	0.0100/0.0300	Pass
Abamectin Ba		ND	0.0330/0.0990	N/A	Malathion	0.01	ND	0.00500/0.0100	Pass
Acephate	0.03	ND	0.0100/0.0300	Pass	Metalaxyl	0.01	ND	0.00500/0.0100	Pass
Acequinocyl	0.075	ND	0.0200/0.0750	Pass	Methiocarb	0.01	ND	0.00500/0.0100	Pass
Acetamiprid	0.03	ND	0.0100/0.0300	Pass	Methomyl	0.025	ND	0.0100/0.0250	Pass
Aldicarb	0.03	ND	0.0100/0.0300	Pass	Methoprene	0.05	ND	0.0250/0.0500	Pass
Allethrin	0.03	ND	0.0150/0.0300	Pass	Mevinphos	0.025	ND	0.0100/0.0250	Pass
Atrazine	0.005	ND	0.00500/0.00500	Pass	Myclobutanil	0.01	ND	0.00500/0.0100	Pass
Azadirachtin	0.05	ND	0.0300/0.0500	Pass	Naled	0.03	ND	0.0200/0.0300	Pass
Azoxystrobin	0.01	ND	0.00500/0.0100	Pass	Novaluron	0.02	ND	0.0100/0.0200	Pass
Benzovindiflupyr	0.005	ND	0.00500/0.00500	Pass	Oxamyl	0.03	ND	0.0200/0.0300	Pass
Bifenazate	0.01	ND	0.00500/0.0100	Pass	Paclobutrazol	0.01	ND	0.00500/0.0100	Pass
Bifenthrin	0.03	ND	0.00500/0.0300	Pass	Permethrin	0.03	ND	0.00396/0.0300	Pass
Boscalid	0.01	ND	0.00500/0.0100	Pass	Permethrin cis		ND	0.0200/0.0300	N/A
Buprofezin	0.03	ND	0.0150/0.0300	Pass	Permethrin trans		ND	0.0200/0.0300	N/A
Carbaryl	0.025	ND	0.0100/0.0250	Pass	Phenothrin	0.03	ND	0.0150/0.0300	Pass
Carbofuran	0.01	ND	0.00500/0.0100	Pass	Phosmet	0.03	ND	0.0200/0.0300	Pass
Chlorantraniliprole	0.03	ND	0.0100/0.0300	Pass	Piperonylbutoxide	0.03	ND	0.0100/0.0300	Pass
Chlorpyrifos	0.075	ND	0.0100/0.0750	Pass	Pirimicarb	0.01	ND	0.00500/0.0100	Pass
Clofentezine	0.01	ND	0.00500/0.0100	Pass	Prallethrin	0.075	ND	0.0300/0.0750	Pass
Clothianidin	0.01	ND	0.00500/0.0100	Pass	Propiconazole	0.03	ND	0.0100/0.0300	Pass
Coumaphos	0.01	ND	0.00500/0.0100	Pass	Propoxur	0.01	ND	0.00500/0.0100	Pass
Cyantraniliprole	0.01	ND	0.00500/0.0100	Pass	Pyraclostrobin	0.01	ND	0.00500/0.0100	Pass
Cyhalothrin lambda	0.05	ND	0.0300/0.0500	Pass	Pyrethrins	0.03	ND	0.00357/0.0300	Pass
Cyprodinil	0.01	ND	0.00500/0.0100	Pass	Pyrethrins Pyrethrin I		ND	0.0100/0.0450	N/A
Daminozide	0.075	ND	0.0500/0.0750	Pass	Pyrethrins Pyrethrin II		ND	0.0100/0.0300	N/A
Demethrin	0.05	ND	0.0250/0.0500	Pass	Pyridaben	0.02	ND	0.0100/0.0200	Pass
Diazinon	0.03	ND	0.0100/0.0300	Pass	Pyriproxyfen	0.01	ND	0.00500/0.0100	Pass
Dichlorvos	0.05	ND	0.0200/0.0500	Pass	Resmethrin	0.05	ND	0.0250/0.0500	Pass
Dimethoate	0.01	ND	0.00500/0.0100	Pass	Spinetoram	0.03	ND	0.00317/0.0300	Pass
Dimethomorph	0.03	ND	0.0100/0.0300	Pass	Spinetoram J		ND	0.00500/0.0100	N/A
Dinotefuran	0.05	ND	0.0250/0.0500	Pass	Spinetoram L		ND	0.00500/0.0100	N/A
Diuron	0.01	ND	0.00500/0.0100	Pass	Spinosad	0.03	ND	0.00302/0.0300	Pass
Dodemorph	0.02	ND	0.0100/0.0200	Pass	Spinosad A		ND	0.00500/0.0100	N/A
Ethoprophos	0.01	ND	0.00500/0.0100	Pass	Spinosad D		ND	0.00500/0.0100	N/A
Etofenprox	0.03	ND	0.0100/0.0300	Pass	Spirodiclofen	0.05	ND	0.0250/0.0500	Pass
Etoxazole	0.03	ND	0.0100/0.0300	Pass	Spiromesifen	0.03	ND	0.0100/0.0300	Pass
Fenhexamid	0.045	ND	0.0200/0.0450	Pass	Spirotetramat	0.01	ND	0.00500/0.0100	Pass
Fenoxycarb	0.01	ND	0.00500/0.0100	Pass	Spiroxamine	0.03	ND	0.0200/0.0300	Pass
Fenpyroximate	0.03	ND	0.0100/0.0300	Pass	Tebuconazole	0.01	ND	0.00500/0.0100	Pass
Fensulfothion	0.01	ND	0.00500/0.0100	Pass	Tebufenozide	0.01	ND	0.00500/0.0100	Pass
Fenthion	0.0068	ND	0.00227/0.00680	Pass	Teflubenzuron	0.02	ND	0.0100/0.0200	Pass
Fipronil	0.01	ND	0.00500/0.0100	Pass	Tetrachlorvinphos	0.01	ND	0.00500/0.0100	Pass
Flonicamid	0.025	ND	0.0100/0.0250	Pass	Tetramethrin	0.05	ND	0.0250/0.0500	Pass
Fludioxonil	0.01	ND	0.00500/0.0100	Pass	Thiabendazole	0.01	ND	0.00500/0.0100	Pass
Fluopyram	0.005	ND	0.00500/0.00500	Pass	Thiacloprid	0.01	ND	0.00500/0.0100	Pass
Hexythiazox	0.03	ND	0.0100/0.0300	Pass	Thiamethoxam	0.01	ND	0.00500/0.0100	Pass
Imazalil	0.01	ND	0.00500/0.0100	Pass	Thiophanate-methyl	0.02	ND	0.0100/0.0200	Pass
Imidacloprid	0.01	ND	0.00500/0.0100	Pass	Trifloxystrobin	0.01	ND	0.00500/0.0100	Pass

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



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