



12423 NE Whitaker Way
 Portland, OR 97230
 503-254-1794



Report Number: 20-007909/D14.R00
Report Date: 08/05/2020
ORELAP#: OR100028
Purchase Order:
Received: 07/29/20 12:25

Customer: Trace Minerals Research
Product identity: CBD 600mg - Lot# 130270
Client/Metric ID: Lot# 0071A
Laboratory ID: 20-007909-0004

Sample Date: 05/26/20

Summary

Potency:

Analyte	Result	Limits	Units	Status	
CBC	0.109		%		CBD-Total (%) 2.66%
CBD	2.66		%		
CBDV [†]	0.0139		%		CBD-Total per 1g 26.6 mg/1g
CBG [†]	0.0314		%		
CBN	0.00366		%		CBD-Total per 30g 798 mg/30g
Δ9-THC	0.0780		%		
Analyte per 1g	Result	Limits	Units	Status	THC-Total (%) 0.0780%
CBC per 1g	1.09		mg/1g		(Reported in milligrams per serving)
CBD per 1g	26.6		mg/1g		
CBDV per 1g	0.139		mg/1g		
CBG per 1g	0.314		mg/1g		
CBN per 1g	0.0366		mg/1g		
Δ9-THC per 1g	0.780		mg/1g		
Analyte per 30g	Result	Limits	Units	Status	
CBC per 30g	32.7		mg/30g		
CBD per 30g	798		mg/30g		
CBDV per 30g	4.17		mg/30g		
CBG per 30g	9.42		mg/30g		
CBN per 30g	1.10		mg/30g		
Δ9-THC per 30g	23.4		mg/30g		

Residual Solvents:

All analytes passing and less than LOQ.

Pesticides:

All analytes passing and less than LOQ.

Terpenes:

Analyte	Percent by weight	Percent of Total	Analyte	Percent by weight	Percent of Total
Menthol [†]	0.526	82.83%	Eucalyptol [†]	0.0399	6.28%
(R)-(+)-Limonene [†]	0.0353	5.56%	β-Caryophyllene [†]	0.0337	5.31%
Total Terpenes[†]	0.635	100.00%			

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Metals:

Less than LOQ for all analytes.

Microbiology:

Less than LOQ for all analytes.

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Product identity: CBD 600mg - Lot# 130270
Client/Metric ID: Lot# 0071A
Sample Date: 05/26/20
Laboratory ID: 20-007909-0004
Relinquished by: FEDEX
Temp: 26 °C
Serving Size #1: 1 g
Serving Size #2: 30 g

Sample Results

Potency	Method J AOAC 2015 V98-6 (mod)	Batch: 2006335	Analyze: 7/31/20 8:29:00 PM		
Analyte	Result	Limits	Units	LOQ	Notes
CBC	0.109		%	0.0033	
CBC-A†	< LOQ		%	0.0033	
CBC-Total†	0.109		%	0.0061	
CBD	2.66		%	0.0327	
CBD-A	< LOQ		%	0.0033	
CBD-Total	2.66		%	0.0356	
CBDV†	0.0139		%	0.0033	
CBDV-A†	< LOQ		%	0.0033	
CBDV-Total†	0.0139		%	0.0061	
CBG†	0.0314		%	0.0033	
CBG-A†	< LOQ		%	0.0033	
CBG-Total	0.0314		%	0.0061	
CBL†	< LOQ		%	0.0033	
CBN	0.00366		%	0.0033	
Δ8-THC†	< LOQ		%	0.0033	
Δ9-THC	0.0780		%	0.0033	
THC-A	< LOQ		%	0.0033	
THC-Total	0.0780		%	0.0061	
THCV†	< LOQ		%	0.0033	
THCV-A†	< LOQ		%	0.0033	
THCV-Total†	< LOQ		%	0.0061	
Total Cannabinoids†	2.90		%		

Potency per 1g	Method J AOAC 2015 V98-6 (mod)	Batch: 2006335	Analyze: 7/31/20 8:29:00 PM		
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 1g	1.09		mg/1g	0.0327	
CBC-A per 1g	< LOQ		mg/1g	0.0327	
CBC-Total per 1g	1.09		mg/1g	0.0614	
CBD per 1g	26.6		mg/1g	0.327	
CBD-A per 1g	< LOQ		mg/1g	0.0327	
CBD-Total per 1g	26.6		mg/1g	0.356	
CBDV per 1g	0.139		mg/1g	0.0327	

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Potency per 1g **Method J AOAC 2015 V98-6 (mod)** **Batch: 2006335** **Analyze: 7/31/20 8:29:00 PM**

Analyte	Result	Limits	Units	LOQ	Notes
CBDV-A per 1g	< LOQ		mg/1g	0.0327	
CBDV-Total per 1g	0.139		mg/1g	0.0611	
CBG per 1g	0.314		mg/1g	0.0327	
CBG-A per 1g	< LOQ		mg/1g	0.0327	
CBG-Total per 1g	0.314		mg/1g	0.0611	
CBL per 1g	< LOQ		mg/1g	0.0327	
CBN per 1g	0.0366		mg/1g	0.0327	
Δ8-THC per 1g	< LOQ		mg/1g	0.0327	
Δ9-THC per 1g	0.780		mg/1g	0.0327	
THC-A per 1g	< LOQ		mg/1g	0.0327	
THC-Total per 1g	0.780		mg/1g	0.0614	
THCV per 1g	< LOQ		mg/1g	0.0327	
THCV-A per 1g	< LOQ		mg/1g	0.0327	
THCV-Total per 1g	< LOQ		mg/1g	0.0614	
Total Cannabinoids 1g[†]	29.0		mg/1g		

Potency per 30g **Method J AOAC 2015 V98-6 (mod)** **Batch: 2006335** **Analyze: 7/31/20 8:29:00 PM**

Analyte	Result	Limits	Units	LOQ	Notes
CBC per 30g	32.7		mg/30g	0.981	
CBC-A per 30g	< LOQ		mg/30g	0.981	
CBC-Total per 30g	32.7		mg/30g	1.84	
CBD per 30g	798		mg/30g	9.81	
CBD-A per 30g	< LOQ		mg/30g	0.981	
CBD-Total per 30g	798		mg/30g	10.7	
CBDV per 30g	4.17		mg/30g	0.981	
CBDV-A per 30g	< LOQ		mg/30g	0.981	
CBDV-Total per 30g	4.17		mg/30g	1.83	
CBG per 30g	9.42		mg/30g	0.981	
CBG-A per 30g	< LOQ		mg/30g	0.981	
CBG-Total per 30g	9.42		mg/30g	1.83	
CBL per 30g	< LOQ		mg/30g	0.981	
CBN per 30g	1.10		mg/30g	0.981	
Δ8-THC per 30g	< LOQ		mg/30g	0.981	
Δ9-THC per 30g	23.4		mg/30g	0.981	
THC-A per 30g	< LOQ		mg/30g	0.981	
THC-Total per 30g	23.4		mg/30g	1.84	
THCV per 30g	< LOQ		mg/30g	0.981	
THCV-A per 30g	< LOQ		mg/30g	0.981	
THCV-Total per 30g	< LOQ		mg/30g	1.84	
Total Cannabinoids 30g[†]	869		mg/30g		

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Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
E.coli	< LOQ		cfu/g	10	2006223	08/01/20	AOAC 991.14 (Petrifilm)	X
Total Coliforms	< LOQ		cfu/g	10	2006223	08/01/20	AOAC 991.14 (Petrifilm)	X
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2006225	08/01/20	AOAC 2014.05 (RAPID)	X
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2006225	08/01/20	AOAC 2014.05 (RAPID)	X

Solvents		Method EPA5021A				Units µg/g	Batch 2006252	Analyze 07/30/20 12:46 PM			
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
1,4-Dioxane	< LOQ	380	100	pass		2-Butanol	< LOQ	5000	200	pass	
2-Ethoxyethanol	< LOQ	160	30.0	pass		2-Methylbutane	< LOQ		200		
2-Methylpentane	< LOQ		30.0			2-Propanol (IPA)	< LOQ	5000	200	pass	
2,2-Dimethylbutane	< LOQ		30.0			2,2-Dimethylpropane	< LOQ		200		
2,3-Dimethylbutane	< LOQ		30.0			3-Methylpentane	< LOQ		30.0		
Acetone	< LOQ	5000	200	pass		Acetonitrile	< LOQ	410	100	pass	
Benzene	< LOQ	2.00	1.00	pass		Butanes (sum)	< LOQ	5000	400	pass	
Cyclohexane	< LOQ	3880	200	pass		Ethyl acetate	< LOQ	5000	200	pass	
Ethyl benzene	< LOQ		200			Ethyl ether	< LOQ	5000	200	pass	
Ethylene glycol	< LOQ	620	200	pass		Ethylene oxide	< LOQ	50.0	30.0	pass	
Hexanes (sum)	< LOQ	290	150	pass		Isopropyl acetate	< LOQ	5000	200	pass	
Isopropylbenzene	< LOQ	70.0	30.0	pass		m,p-Xylene	< LOQ		200		
Methanol	< LOQ	3000	200	pass		Methylene chloride	< LOQ	600	200	pass	
Methylpropane	< LOQ		200			n-Butane	< LOQ		200		
n-Heptane	< LOQ	5000	200	pass		n-Hexane	< LOQ		30.0		
n-Pentane	< LOQ		200			o-Xylene	< LOQ		200		
Pentanes (sum)	< LOQ	5000	600	pass		Propane	< LOQ	5000	200	pass	
Tetrahydrofuran	< LOQ	720	100	pass		Toluene	< LOQ	890	100	pass	
Total Xylenes	< LOQ		400			Total Xylenes and Ethyl	< LOQ	2170	600	pass	

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Pesticides											
Method AOAC 2007.01 & EN 15662 (mod) Units mg/kg Batch 2006270 Analyze 07/30/20 04:08 PM											
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
Abamectin	< LOQ	0.50	0.250	pass		Acephate	< LOQ	0.40	0.250	pass	
Acequinocyl	< LOQ	2.0	1.00	pass		Acetamiprid	< LOQ	0.20	0.100	pass	
Aldicarb	< LOQ	0.40	0.200	pass		Azoxystrobin	< LOQ	0.20	0.100	pass	
Bifenazate	< LOQ	0.20	0.100	pass		Bifenthrin	< LOQ	0.20	0.100	pass	
Boscalid	< LOQ	0.40	0.200	pass		Carbaryl	< LOQ	0.20	0.100	pass	
Carbofuran	< LOQ	0.20	0.100	pass		Chlorantraniliprole	< LOQ	0.20	0.100	pass	
Chlorfenapyr	< LOQ	1.0	0.500	pass		Chlorpyrifos	< LOQ	0.20	0.100	pass	
Clofentezine	< LOQ	0.20	0.100	pass		Cyfluthrin	< LOQ	1.0	0.500	pass	
Cypermethrin	< LOQ	1.0	0.500	pass		Daminozide	< LOQ	1.0	0.500	pass	
Diazinon	< LOQ	0.20	0.100	pass		Dichlorvos	< LOQ	1.0	0.500	pass	
Dimethoate	< LOQ	0.20	0.100	pass		Ethoprophos	< LOQ	0.20	0.100	pass	
Etofenprox	< LOQ	0.40	0.200	pass		Etoxazole	< LOQ	0.20	0.100	pass	
Fenoxycarb	< LOQ	0.20	0.100	pass		Fenpyroximate	< LOQ	0.40	0.200	pass	
Fipronil	< LOQ	0.40	0.200	pass		Fonicamid	< LOQ	1.0	0.400	pass	
Fludioxonil	< LOQ	0.40	0.200	pass		Hexythiazox	< LOQ	1.0	0.400	pass	
Imazalil	< LOQ	0.20	0.100	pass		Imidacloprid	< LOQ	0.40	0.200	pass	
Kresoxim-methyl	< LOQ	0.40	0.200	pass		Malathion	< LOQ	0.20	0.100	pass	
Metalaxyl	< LOQ	0.20	0.100	pass		Methiocarb	< LOQ	0.20	0.100	pass	
Methomyl	< LOQ	0.40	0.200	pass		MGK-264	< LOQ	0.20	0.100	pass	
Myclobutanil	< LOQ	0.20	0.100	pass		Naled	< LOQ	0.50	0.250	pass	
Oxamyl	< LOQ	1.0	0.500	pass		Paclobutrazole	< LOQ	0.40	0.200	pass	
Parathion-Methyl	< LOQ	0.20	0.200	pass		Permethrin	< LOQ	0.20	0.100	pass	
Phosmet	< LOQ	0.20	0.100	pass		Piperonyl butoxide	< LOQ	2.0	1.00	pass	
Prallethrin	< LOQ	0.20	0.200	pass		Propiconazole	< LOQ	0.40	0.200	pass	
Propoxur	< LOQ	0.20	0.100	pass		Pyrethrin I (total)	< LOQ	1.0	0.500	pass	
Pyridaben	< LOQ	0.20	0.100	pass		Spinosad	< LOQ	0.20	0.100	pass	
Spiromesifen	< LOQ	0.20	0.100	pass		Spirotetramat	< LOQ	0.20	0.100	pass	
Spiroxamine	< LOQ	0.40	0.200	pass		Tebuconazole	< LOQ	0.40	0.200	pass	
Thiacloprid	< LOQ	0.20	0.100	pass		Thiamethoxam	< LOQ	0.20	0.100	pass	
Trifloxystrobin	< LOQ	0.20	0.100	pass							

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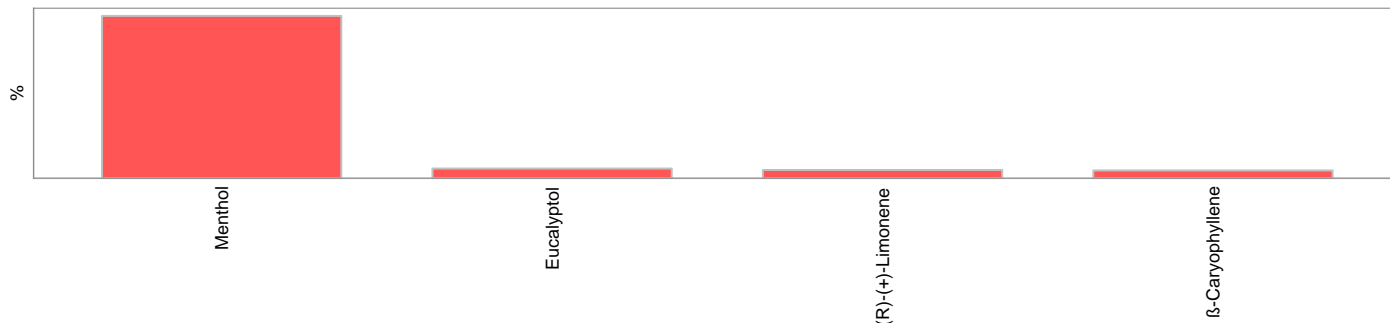


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Terpenes				Method J AOAC 2015 V98-6	Units %	Batch 2006239	Analyze 08/03/20	08:46 AM	
Analyte	Result	LOQ	% of Total	Notes	Analyte	Result	LOQ	% of Total	Notes
Menthol [†]	0.526	0.020	82.83%		Eucalyptol [†]	0.0399	0.020	6.28%	
(R)-(+)-Limonene [†]	0.0353	0.020	5.56%		β-Caryophyllene [†]	0.0337	0.020	5.31%	
(-)-α-Terpineol [†]	< LOQ	0.020	0.00%		(-)-caryophyllene oxide [†]	< LOQ	0.020	0.00%	
(-)-Guaiol [†]	< LOQ	0.020	0.00%		(-)-Isopulegol [†]	< LOQ	0.020	0.00%	
(-)-β-Pinene [†]	< LOQ	0.020	0.00%		(+)-Borneol [†]	< LOQ	0.020	0.00%	
(+)-Cedrol [†]	< LOQ	0.020	0.00%		(+)-fenchol [†]	< LOQ	0.020	0.00%	
(+)-Pulegone [†]	< LOQ	0.020	0.00%		(±)-Camphor [†]	< LOQ	0.020	0.00%	
(±)-cis-Nerolidol [†]	< LOQ	0.020	0.00%		(±)-fenchone [†]	< LOQ	0.020	0.00%	
(±)-trans-Nerolidol [†]	< LOQ	0.020	0.00%		α-Bisabolol [†]	< LOQ	0.020	0.00%	
α-cedrene [†]	< LOQ	0.020	0.00%		α-phellandrene [†]	< LOQ	0.020	0.00%	
α-pinene [†]	< LOQ	0.020	0.00%		α-Terpinene [†]	< LOQ	0.020	0.00%	
Camphene [†]	< LOQ	0.020	0.00%		cis-β-Ocimene [†]	< LOQ	0.006	0.00%	
d-3-Carene [†]	< LOQ	0.020	0.00%		farnesene [†]	< LOQ	0.020	0.00%	
γ-Terpinene [†]	< LOQ	0.020	0.00%		Geraniol [†]	< LOQ	0.020	0.00%	
Geranyl acetate [†]	< LOQ	0.020	0.00%		Humulene [†]	< LOQ	0.020	0.00%	
Isoborneol [†]	< LOQ	0.020	0.00%		Linalool [†]	< LOQ	0.020	0.00%	
nerol [†]	< LOQ	0.020	0.00%		p-Cymene [†]	< LOQ	0.020	0.00%	
Sabinene [†]	< LOQ	0.020	0.00%		Sabinene hydrate [†]	< LOQ	0.020	0.00%	
β-Myrcene [†]	< LOQ	0.020	0.00%		Terpinolene [†]	< LOQ	0.020	0.00%	
trans-β-Ocimene [†]	< LOQ	0.013	0.00%		valencene [†]	< LOQ	0.020	0.00%	
Total Terpenes	0.635								



Metals									
Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes	
Arsenic	< LOQ		mg/kg	0.0465	2006410	08/04/20	AOAC 2013.06 (mod.)	X	
Cadmium	< LOQ		mg/kg	0.0465	2006410	08/04/20	AOAC 2013.06 (mod.)	X	
Lead	< LOQ		mg/kg	0.0465	2006410	08/04/20	AOAC 2013.06 (mod.)	X	
Mercury	< LOQ		mg/kg	0.0233	2006410	08/04/20	AOAC 2013.06 (mod.)	X	

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Mycotoxins

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
Aflatoxin B1†	< LOQ		µg/kg	5.00	2006271	07/30/20	AOAC 2007.01 & EN 15662	
Aflatoxin B2†	< LOQ		µg/kg	5.00	2006271	07/30/20	AOAC 2007.01 & EN 15662	
Aflatoxin G1†	< LOQ		µg/kg	5.00	2006271	07/30/20	AOAC 2007.01 & EN 15662	
Aflatoxin G2†	< LOQ		µg/kg	5.00	2006271	07/30/20	AOAC 2007.01 & EN 15662	
Deoxynivalenol†	< LOQ		µg/kg	200	2006271	07/30/20	AOAC 2007.01 & EN 15662	
Fumonisin B1†	< LOQ		µg/kg	200	2006271	07/30/20	AOAC 2007.01 & EN 15662	
Fumonisin B2†	< LOQ		µg/kg	200	2006271	07/30/20	AOAC 2007.01 & EN 15662	
HT2-Toxin†	< LOQ		µg/kg	40.0	2006271	07/30/20	AOAC 2007.01 & EN 15662	
Nivalenol†	< LOQ		µg/kg	400	2006271	07/30/20	AOAC 2007.01 & EN 15662	
Ochratoxin A†	< LOQ		µg/kg	5.00	2006271	07/30/20	AOAC 2007.01 & EN 15662	
Ochratoxin B†	< LOQ		µg/kg	2.00	2006271	07/30/20	AOAC 2007.01 & EN 15662	
T2-Toxin†	< LOQ		µg/kg	20.0	2006271	07/30/20	AOAC 2007.01 & EN 15662	
Zearalenone†	< LOQ		µg/kg	200	2006271	07/30/20	AOAC 2007.01 & EN 15662	

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Abbreviations

Limits: Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220

Limit(s) of Quantitation (LOQ): The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

† = Analyte not NELAP accredited.

Units of Measure

cfu/g = Colony forming units per gram

g = Gram

µg/g = Microgram per gram

µg/kg = Micrograms per kilogram = parts per billion (ppb)

mg/kg = Milligram per kilogram = parts per million (ppm)

mg/1g = Milligram per 1g

mg/30g = Milligram per 30g

% = Percentage of sample

% wt = µg/g divided by 10,000

Glossary of Qualifiers

X: Not ORELAP accredited.

Approved Signatory

Derrick Tanner
General Manager