



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



Report Number: 20-007909/D12.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#121A
Client/Metric ID: Lot# 0071A
Laboratory ID: 20-007909-0003

Sample Date: 05/26/20

Summary

Potency:

Analyte	Result	Limits	Units	Status	
CBC	0.0518		%		CBD-Total (%) 1.26%
CBD	1.26		%		
CBDV [†]	0.00686		%		CBD-Total per 1g 12.6 mg/1g
CBG [†]	0.0314		%		
Δ9-THC	0.0478		%		CBD-Total per 30g 378 mg/30g
THCV [†]	0.00343		%		
Analyte per 1g	Result	Limits	Units	Status	THC-Total (%) 0.0478%
CBC per 1g	0.518		mg/1g		(Reported in milligrams per serving)
CBD per 1g	12.6		mg/1g		
CBDV per 1g	0.0686		mg/1g		
CBG per 1g	0.314		mg/1g		
Δ9-THC per 1g	0.478		mg/1g		
THCV per 1g	0.0343		mg/1g		
Analyte per 30g	Result	Limits	Units	Status	
CBC per 30g	15.5		mg/30g		
CBD per 30g	378		mg/30g		
CBDV per 30g	2.06		mg/30g		
CBG per 30g	9.42		mg/30g		
Δ9-THC per 30g	14.3		mg/30g		
THCV per 30g	1.03		mg/30g		

Residual Solvents:

All analytes passing and less than LOQ.

Pesticides:

All analytes passing and less than LOQ.

Terpenes:

Less than LOQ for all analytes.

Metals:

Less than LOQ for all analytes.

Microbiology:

Less than LOQ for all analytes.

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Product identity: CBD 600mg - Lot#121A
Client/Metric ID: Lot# 0071A
Sample Date: 05/26/20
Laboratory ID: 20-007909-0003
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 8:18:00 PM		
Analyte	Result	Limits	Units	LOQ	Notes
CBC	0.0518		%	0.0033	
CBC-A†	< LOQ		%	0.0033	
CBC-Total†	0.0518		%	0.0061	
CBD	1.26		%	0.0326	
CBD-A	< LOQ		%	0.0033	
CBD-Total	1.26		%	0.0355	
CBDV†	0.00686		%	0.0033	
CBDV-A†	< LOQ		%	0.0033	
CBDV-Total†	0.00686		%	0.0061	
CBG†	0.0314		%	0.0033	
CBG-A†	< LOQ		%	0.0033	
CBG-Total	0.0314		%	0.0061	
CBL†	< LOQ		%	0.0033	
CBN	< LOQ		%	0.0033	
Δ8-THC†	< LOQ		%	0.0033	
Δ9-THC	0.0478		%	0.0033	
THC-A	< LOQ		%	0.0033	
THC-Total	0.0478		%	0.0061	
THCV†	0.00343		%	0.0033	
THCV-A†	< LOQ		%	0.0033	
THCV-Total†	< LOQ		%	0.0061	
Total Cannabinoids†	1.40		%		

Potency per 1g	Method J AOAC 2015 V98-6 (mod)	Batch: 2006335	Analyze: 7/31/20 8:18:00 PM		
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 1g	0.518		mg/1g	0.0326	
CBC-A per 1g	< LOQ		mg/1g	0.0326	
CBC-Total per 1g	0.518		mg/1g	0.0613	
CBD per 1g	12.6		mg/1g	0.326	
CBD-A per 1g	< LOQ		mg/1g	0.0326	
CBD-Total per 1g	12.6		mg/1g	0.355	
CBDV per 1g	0.0686		mg/1g	0.0326	

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Potency per 1g **Method J AOAC 2015 V98-6 (mod) Batch: 2006335 Analyze: 7/31/20 8:18:00 PM**

Analyte	Result	Limits	Units	LOQ	Notes
CBDV-A per 1g	< LOQ		mg/1g	0.0326	
CBDV-Total per 1g	0.0686		mg/1g	0.0609	
CBG per 1g	0.314		mg/1g	0.0326	
CBG-A per 1g	< LOQ		mg/1g	0.0326	
CBG-Total per 1g	0.314		mg/1g	0.0609	
CBL per 1g	< LOQ		mg/1g	0.0326	
CBN per 1g	< LOQ		mg/1g	0.0326	
Δ8-THC per 1g	< LOQ		mg/1g	0.0326	
Δ9-THC per 1g	0.478		mg/1g	0.0326	
THC-A per 1g	< LOQ		mg/1g	0.0326	
THC-Total per 1g	0.478		mg/1g	0.0613	
THCV per 1g	0.0343		mg/1g	0.0326	
THCV-A per 1g	< LOQ		mg/1g	0.0326	
THCV-Total per 1g	< LOQ		mg/1g	0.0613	
Total Cannabinoids 1g[†]	14.0		mg/1g		

Potency per 30g **Method J AOAC 2015 V98-6 (mod) Batch: 2006335 Analyze: 7/31/20 8:18:00 PM**

Analyte	Result	Limits	Units	LOQ	Notes
CBC per 30g	15.5		mg/30g	0.979	
CBC-A per 30g	< LOQ		mg/30g	0.979	
CBC-Total per 30g	15.5		mg/30g	1.84	
CBD per 30g	378		mg/30g	9.79	
CBD-A per 30g	< LOQ		mg/30g	0.979	
CBD-Total per 30g	378		mg/30g	10.7	
CBDV per 30g	2.06		mg/30g	0.979	
CBDV-A per 30g	< LOQ		mg/30g	0.979	
CBDV-Total per 30g	2.06		mg/30g	1.83	
CBG per 30g	9.42		mg/30g	0.979	
CBG-A per 30g	< LOQ		mg/30g	0.979	
CBG-Total per 30g	9.42		mg/30g	1.83	
CBL per 30g	< LOQ		mg/30g	0.979	
CBN per 30g	< LOQ		mg/30g	0.979	
Δ8-THC per 30g	< LOQ		mg/30g	0.979	
Δ9-THC per 30g	14.3		mg/30g	0.979	
THC-A per 30g	< LOQ		mg/30g	0.979	
THC-Total per 30g	14.3		mg/30g	1.84	
THCV per 30g	1.03		mg/30g	0.979	
THCV-A per 30g	< LOQ		mg/30g	0.979	
THCV-Total per 30g	< LOQ		mg/30g	1.84	
Total Cannabinoids 30g[†]	420		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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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
(-)-a-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%		(R)-(+)-Limonene†	< LOQ	0.020	0.00%	
a-Bisabolol†	< LOQ	0.020	0.00%		a-cedrene†	< LOQ	0.020	0.00%	
a-phellandrene†	< LOQ	0.020	0.00%		a-pinene†	< LOQ	0.020	0.00%	
a-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%	
Eucalyptol†	< LOQ	0.020	0.00%		farnesene†	< LOQ	0.020	0.00%	
gamma-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%	
Menthol†	< 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-Caryophyllene†	< 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	< LOQ								

Metals									
Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes	
Arsenic	< LOQ		mg/kg	0.0424	2006410	08/04/20	AOAC 2013.06 (mod.)	X	
Cadmium	< LOQ		mg/kg	0.0424	2006410	08/04/20	AOAC 2013.06 (mod.)	X	
Lead	< LOQ		mg/kg	0.0424	2006410	08/04/20	AOAC 2013.06 (mod.)	X	
Mercury	< LOQ		mg/kg	0.0212	2006410	08/04/20	AOAC 2013.06 (mod.)	X	

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