



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



Report Number: 20-003928/D02.R00
Report Date: 04/20/2020
ORELAP#: OR100028
Purchase Order:
Received: 04/13/20 13:55

Customer: Trace Minerals Research
Product identity: CBD Extract 1200mg
Client/Metric ID: Lot# 0069A
Laboratory ID: 20-003928-0001

Summary

Potency:

Analyte	Result	Limits	Units	Status	
CBC	0.193		%		CBD-Total (%) 4.64 %
CBD	4.64		%		
CBDV†	0.0244		%		CBD-Total per 1g 46.4 mg/1g
CBG†	0.113		%		
CBL†	0.0272		%		CBD-Total per 30g 1390 mg/30g
CBN	0.00543		%		
Δ9-THC	0.205		%		THC-Total (%) 0.205 %
THCV†	0.0138		%		
					(Reported in milligrams per serving)
Analyte per 1g	Result	Limits	Units	Status	
CBC per 1g	1.93		mg/1g		
CBD per 1g	46.4		mg/1g		
CBDV per 1g	0.244		mg/1g		
CBG per 1g	1.13		mg/1g		
CBL per 1g	0.272		mg/1g		
CBN per 1g	0.0543		mg/1g		
Δ9-THC per 1g	2.05		mg/1g		
THCV per 1g	0.138		mg/1g		
Analyte per 30g	Result	Limits	Units	Status	
CBC per 30g	57.9		mg/30g		
CBD per 30g	1390		mg/30g		
CBDV per 30g	7.32		mg/30g		
CBG per 30g	33.9		mg/30g		
CBL per 30g	8.16		mg/30g		
CBN per 30g	1.63		mg/30g		
Δ9-THC per 30g	61.5		mg/30g		
THCV per 30g	4.14		mg/30g		

Residual Solvents:

All analytes passing and less than LOQ.

Pesticides:

All analytes passing and less than LOQ.

Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.



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



Report Number: 20-003928/D02.R00
Report Date: 04/20/2020
ORELAP#: OR100028
Purchase Order:
Received: 04/13/20 13:55

Terpenes:

Analyte	Percent by weight	Percent of Total	Analyte	Percent by weight	Percent of Total
farnesene [†]	0.0543	28.43%	β-Caryophyllene [†]	0.0532	27.85%
α-Bisabolol [†]	0.0379	19.84%	Humulene [†]	0.0242	12.67%
(-)-caryophyllene oxide [†]	0.0218	11.41%	Total Terpenes[†]	0.191	100.00%

Metals:

Less than LOQ for all analytes.

Microbiology:

Less than LOQ for all analytes.

† Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.



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



Report Number: 20-003928/D02.R00
Report Date: 04/20/2020
ORELAP#: OR100028
Purchase Order:
Received: 04/13/20 13:55

Customer: Trace Minerals Research

Product identity: CBD Extract 1200mg
Client/Metric ID: Lot# 0069A
Sample Date:
Laboratory ID: 20-003928-0001
Relinquished by: FedEx
Temp: 20.4 °C

Sample Results

Potency	Method J AOAC 2015 V98-6 (mod)			Batch: 2003274	Analyze: 4/14/20 12:20:00 PM
Analyte	Result	Limits	Units	LOQ	Notes
CBC	0.193		%	0.0032	
CBC-A [†]	< LOQ		%	0.0032	
CBC-Total [†]	0.193		%	0.0060	
CBD	4.64		%	0.0321	
CBD-A	< LOQ		%	0.0032	
CBD-Total	4.64		%	0.0350	
CBDV [†]	0.0244		%	0.0032	
CBDV-A [†]	< LOQ		%	0.0032	
CBDV-Total [†]	0.0244		%	0.0060	
CBG [†]	0.113		%	0.0032	
CBG-A [†]	< LOQ		%	0.0032	
CBG-Total	0.113		%	0.0060	
CBL [†]	0.0272		%	0.0032	
CBN	0.00543		%	0.0032	
Δ8-THC [†]	< LOQ		%	0.0032	
Δ9-THC	0.205		%	0.0032	
THC-A	< LOQ		%	0.0032	
THC-Total	0.205		%	0.0060	
THCV [†]	0.0138		%	0.0032	
THCV-A [†]	< LOQ		%	0.0032	
THCV-Total [†]	0.0138		%	0.0060	
Total Cannabinoids[†]	5.22		%		

Potency per 1g	Method J AOAC 2015 V98-6 (mod)			Batch: 2003274	Analyze: 4/14/20 12:20:00 PM
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 1g	1.93		mg/1g	0.0321	
CBC-A per 1g	< LOQ		mg/1g	0.0321	
CBC-Total per 1g	1.93		mg/1g	0.0603	
CBD per 1g	46.4		mg/1g	0.321	
CBD-A per 1g	< LOQ		mg/1g	0.0321	
CBD-Total per 1g	46.4		mg/1g	0.350	
CBDV per 1g	0.244		mg/1g	0.0321	

Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.



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

Report Number: 20-003928/D02.R00
Report Date: 04/20/2020
ORELAP#: OR100028
Purchase Order:
Received: 04/13/20 13:55



Potency per 1g					
Method J AOAC 2015 V98-6 (mod) Batch: 2003274 Analyze: 4/14/20 12:20:00 PM					
Analyte	Result	Limits	Units	LOQ	Notes
CBDV-A per 1g	< LOQ		mg/1g	0.0321	
CBDV-Total per 1g	0.244		mg/1g	0.0600	
CBG per 1g	1.13		mg/1g	0.0321	
CBG-A per 1g	< LOQ		mg/1g	0.0321	
CBG-Total per 1g	1.13		mg/1g	0.0600	
CBL per 1g	0.272		mg/1g	0.0321	
CBN per 1g	0.0543		mg/1g	0.0321	
Δ8-THC per 1g	< LOQ		mg/1g	0.0321	
Δ9-THC per 1g	2.05		mg/1g	0.0321	
THC-A per 1g	< LOQ		mg/1g	0.0321	
THC-Total per 1g	2.05		mg/1g	0.0603	
THCV per 1g	0.138		mg/1g	0.0321	
THCV-A per 1g	< LOQ		mg/1g	0.0321	
THCV-Total per 1g	0.138		mg/1g	0.0604	
Total Cannabinoids 1g[†]	52.2		mg/1g		

Potency per 30g					
Method J AOAC 2015 V98-6 (mod) Batch: 2003274 Analyze: 4/14/20 12:20:00 PM					
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 30g	57.9		mg/30g	0.964	
CBC-A per 30g	< LOQ		mg/30g	0.964	
CBC-Total per 30g	57.9		mg/30g	1.81	
CBD per 30g	1390		mg/30g	9.64	
CBD-A per 30g	< LOQ		mg/30g	0.964	
CBD-Total per 30g	1390		mg/30g	10.5	
CBDV per 30g	7.32		mg/30g	0.964	
CBDV-A per 30g	< LOQ		mg/30g	0.964	
CBDV-Total per 30g	7.32		mg/30g	1.80	
CBG per 30g	33.9		mg/30g	0.964	
CBG-A per 30g	< LOQ		mg/30g	0.964	
CBG-Total per 30g	33.9		mg/30g	1.80	
CBL per 30g	8.16		mg/30g	0.964	
CBN per 30g	1.63		mg/30g	0.964	
Δ8-THC per 30g	< LOQ		mg/30g	0.964	
Δ9-THC per 30g	61.5		mg/30g	0.964	
THC-A per 30g	< LOQ		mg/30g	0.964	
THC-Total per 30g	61.5		mg/30g	1.81	
THCV per 30g	4.14		mg/30g	0.964	
THCV-A per 30g	< LOQ		mg/30g	0.964	
THCV-Total per 30g	4.14		mg/30g	1.81	
Total Cannabinoids 30g[†]	1570		mg/30g		

Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.



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



Report Number: 20-003928/D02.R00
Report Date: 04/20/2020
ORELAP#: OR100028
Purchase Order:
Received: 04/13/20 13:55

Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
E.coli	< LOQ		cfu/g	10	2003207	04/15/20	AOAC 991.14 (Petrifilm)	X
Total Coliforms	< LOQ		cfu/g	10	2003207	04/15/20	AOAC 991.14 (Petrifilm)	X
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2003206	04/15/20	AOAC 2014.05 (RAPID)	X
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2003206	04/15/20	AOAC 2014.05 (RAPID)	X

Solvents Method EPA5021A Units µg/g Batch 2003220 Analyze 04/14/20 12:20 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	

Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.



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



Report Number: 20-003928/D02.R00
Report Date: 04/20/2020
ORELAP#: OR100028
Purchase Order:
Received: 04/13/20 13:55

Pesticides											
Method AOAC 2007.01 & EN 15662 (mod) Units mg/kg Batch 2003242 Analyze 04/15/20 11:45 AM											
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		Etoazole	< 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		Paclbutrazole	< 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							

Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.

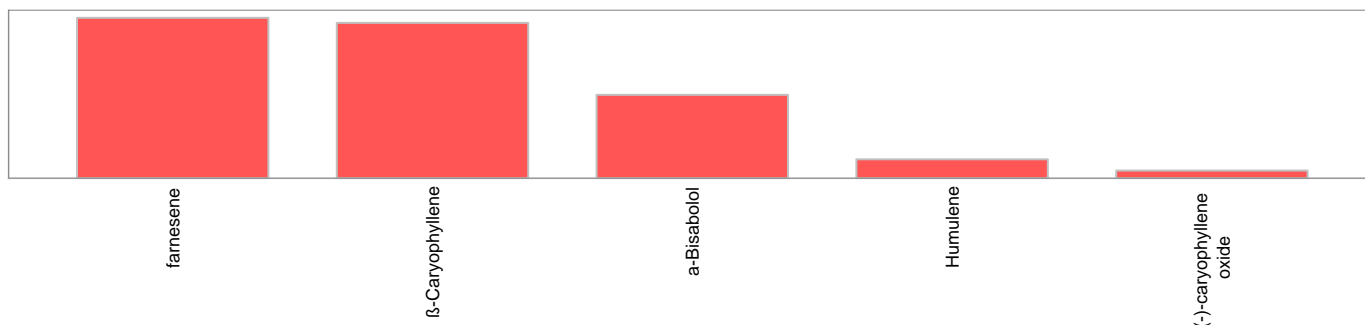


12423 NE Whitaker Way
Portland, OR 97230
503-254-1794

Report Number: 20-003928/D02.R00
Report Date: 04/20/2020
ORELAP#: OR100028
Purchase Order:
Received: 04/13/20 13:55



Terpenes				Method J AOAC 2015 V98-6	Units %	Batch 2003190	Analyze 04/14/20 09:41 AM		
Analyte	Result	LOQ	% of Total	Notes	Analyte	Result	LOQ	% of Total	Notes
farnesene [†]	0.0543	0.020	28.43%		β-Caryophyllene [†]	0.0532	0.020	27.85%	
α-Bisabolol [†]	0.0379	0.020	19.84%		Humulene [†]	0.0242	0.020	12.67%	
(-)-caryophyllene oxide [†]	0.0218	0.020	11.41%		(-)-Guaiol [†]	< LOQ	0.020	0.00%	
(-)-α-Terpineol [†]	< 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%	
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%		Eucalyptol [†]	< 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%		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-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	0.191								



Metals									
Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes	
Arsenic	< LOQ		mg/kg	0.0406	2003273	04/15/20	AOAC 2013.06 (mod.)	X	
Cadmium	< LOQ		mg/kg	0.0406	2003273	04/15/20	AOAC 2013.06 (mod.)	X	
Lead	< LOQ		mg/kg	0.0406	2003273	04/15/20	AOAC 2013.06 (mod.)	X	
Mercury	< LOQ		mg/kg	0.0203	2003273	04/15/20	AOAC 2013.06 (mod.)	X	

Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.



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



Report Number: 20-003928/D02.R00
Report Date: 04/20/2020
ORELAP#: OR100028
Purchase Order:
Received: 04/13/20 13:55

Mycotoxins

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
Aflatoxin B1†	< LOQ		µg/kg	5.00	2003241	04/15/20	AOAC 2007.01 & EN 15662	
Aflatoxin B2†	< LOQ		µg/kg	5.00	2003241	04/15/20	AOAC 2007.01 & EN 15662	
Aflatoxin G1†	< LOQ		µg/kg	5.00	2003241	04/15/20	AOAC 2007.01 & EN 15662	
Aflatoxin G2†	< LOQ		µg/kg	5.00	2003241	04/15/20	AOAC 2007.01 & EN 15662	
Deoxynivalenol†	< LOQ		µg/kg	200	2003241	04/15/20	AOAC 2007.01 & EN 15662	
Fumonisin B1†	< LOQ		µg/kg	200	2003241	04/15/20	AOAC 2007.01 & EN 15662	
Fumonisin B2†	< LOQ		µg/kg	200	2003241	04/15/20	AOAC 2007.01 & EN 15662	
HT2-Toxin†	< LOQ		µg/kg	40.0	2003241	04/15/20	AOAC 2007.01 & EN 15662	
Nivalenol†	< LOQ		µg/kg	400	2003241	04/15/20	AOAC 2007.01 & EN 15662	
Ochratoxin A†	< LOQ		µg/kg	5.00	2003241	04/15/20	AOAC 2007.01 & EN 15662	
Ochratoxin B†	< LOQ		µg/kg	2.00	2003241	04/15/20	AOAC 2007.01 & EN 15662	
T2-Toxin†	< LOQ		µg/kg	20.0	2003241	04/15/20	AOAC 2007.01 & EN 15662	
Zearalenone†	< LOQ		µg/kg	200	2003241	04/15/20	AOAC 2007.01 & EN 15662	

Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.



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



Report Number: 20-003928/D02.R00
Report Date: 04/20/2020
ORELAP#: OR100028
Purchase Order:
Received: 04/13/20 13:55

These test results are representative of the individual sample selected and submitted by the client.

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