



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

Report Date: 09/29/2023

ORELAP#:

Received: 09/21/23 09:50

Customer: Oscity Biosciences
Product identity: Fahrenheit Hemp Heating Gel

Summary

Potency:

Analyte per 0.4ml	Result	Limits	Units	Status	
CBD per 0.4ml	5.16		mg/0.4ml		CBD-Total per Serving Size 5.16 mg/0.4ml
CBG per 0.4ml	0.0732		mg/0.4ml		
					THC-Total per Serving Size <LOQ
					(Reported in milligrams per serving)

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	0.702	73.05%	Eucalyptol	0.171	17.79%
(R)-(+)-Limonene	0.0480	4.99%	p-Cymene	0.0400	4.16%
Total Terpenes	0.961	100.00%			

Metals:

Less than LOQ for all analytes.

Microbiology:

Less than LOQ for all analytes.



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

Report Date: 09/29/2023

ORELAP#:

Received: 09/21/23 09:50

Customer: Oscity Biosciences
United States of America (USA)

Product identity: Fahrenheit Hemp Heating Gel

Sample Date:

Evidence of Cooling: Yes

Temp: 19 °C

Relinquished by: Shipping

Serving Size #1: 0.4 g

Density: 1.000 g/ml

Sample Results

Potency per 0.4ml	Method: J AOAC 2015 V98-6 (mod)		Units mg/se	Analyze: 9/26/23 8:15:00 AM	
Analyte	Result	Limits	Units	LOQ	Notes
CBD per 0.4ml	5.16		mg/0.4ml	0.125	
CBD-A per 0.4ml ^L	< LOQ		mg/0.4ml	0.0125	
CBD-Total per 0.4ml ^L	5.16		mg/0.4ml	0.136	
CBG per 0.4ml	0.0732		mg/0.4ml	0.0125	
CBG-A per 0.4ml	< LOQ		mg/0.4ml	0.0125	
CBG-Total per 0.4ml	0.0732		mg/0.4ml	0.0233	
CBN per 0.4ml	< LOQ		mg/0.4ml	0.0125	
Δ10-THC-9R per 0.4ml	< LOQ		mg/0.4ml	0.0125	
Δ10-THC-9S per 0.4ml	< LOQ		mg/0.4ml	0.0125	
Δ10-THC-Total per 0.4ml	< LOQ		mg/0.4ml	0.0250	
Δ8-THC per 0.4ml ^L	< LOQ		mg/0.4ml	0.0125	
Δ9-THC per 0.4ml ^L	< LOQ		mg/0.4ml	0.0125	
THC-A per 0.4ml ^L	< LOQ		mg/0.4ml	0.0125	
THC-Total per 0.4ml	< LOQ		mg/0.4ml	0.0235	

Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Aerobic Plate Count	< LOQ	10,000	cfu/g	10	2311165	09/24/23 AOAC 990.12 (Petrifilm)	pass	
E.coli	< LOQ	100.00	cfu/g	10	2311162	09/24/23 AOAC 991.14 (Petrifilm)	pass	
Total Coliforms	< LOQ	100.00	cfu/g	10	2311162	09/24/23 AOAC 991.14 (Petrifilm)	pass	
Mold (RAPID Petrifilm)	< LOQ	1,000.	cfu/g	10	2311164	09/24/23 AOAC 2014.05 (RAPID)	pass	
Yeast (RAPID Petrifilm)	< LOQ	1,000.	cfu/g	10	2311164	09/24/23 AOAC 2014.05 (RAPID)	pass	
Salmonella spp. by PCR ^y	Negative		/25g		2311167	09/23/23 AOAC 2020.02 ^b		
EHEC including STEC ^y	Negative		/25g		2311168	09/23/23 AOAC RI 121806 ^b		

Solvents						Method: Residual Solvents by GC/MS ^b	Units µg/g	Batch 2311289	Analyze 09/27/23 11:23 AM				
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes		
1,4-Dioxane ^y	< LOQ	380	100	pass		2-Butanol ^y	< LOQ	5000	200	pass			
2-Ethoxyethanol ^y	< LOQ	160	30.0	pass		2-Methylbutane (Isopentane)	< LOQ		200				
2-Methylpentane	< LOQ		30.0			2-Propanol (IPA) ^y	< LOQ	5000	200	pass			
2,2-Dimethylbutane	< LOQ		30.0			2,2-Dimethylpropane (neo-pentane)	< LOQ		200				
2,3-Dimethylbutane	< LOQ		30.0			3-Methylpentane	< LOQ		30.0				
Acetone ^y	< LOQ	5000	200	pass		Acetonitrile ^y	< LOQ	410	100	pass			
Benzene ^y	< LOQ	2.00	1.00	pass		Butanes (sum)	< LOQ	5000	400	pass			
Cyclohexane ^y	< LOQ	3880	200	pass		Ethyl acetate ^y	< LOQ	5000	200	pass			
Ethyl benzene	< LOQ		200			Ethyl ether ^y	< LOQ	5000	200	pass			
Ethylene glycol ^y	< LOQ	620	200	pass		Ethylene oxide ^y	< LOQ	50.0	20.0	pass			
Hexanes (sum)	< LOQ	290	150	pass		Isopropyl acetate ^y	< LOQ	5000	200	pass			
Isopropylbenzene (Cumene) ^y	< LOQ	70.0	30.0	pass		m,p-Xylene	< LOQ		200				
Methanol ^y	< LOQ	3000	200	pass		Methylene chloride ^y	< LOQ	600	60.0	pass			
Methylpropane (Isobutane)	< LOQ		200			n-Butane	< LOQ		200				
n-Heptane ^y	< LOQ	5000	200	pass		n-Hexane ^y	< LOQ		30.0				
n-Pentane ^y	< LOQ		200			o-Xylene	< LOQ		200				
Pentanes (sum)	< LOQ	5000	600	pass		Propane ^y	< LOQ	5000	200	pass			
Tetrahydrofuran ^y	< LOQ	720	100	pass		Toluene ^y	< LOQ	890	100	pass			
Total Xylenes ^y	< LOQ		400			Total Xylenes and Ethyl benzene	< LOQ	2170	600	pass			

Pesticides		Method: AOAC 2007.01 & EN 15662 (mod)				Units mg/kg	Batch 2311262	Analyze 09/26/23 01:51 PM			
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
Abamectin	< LOQ	0.300	0.100	pass		Acephate	< LOQ	5.00	0.100	pass	
Acequinocyl	< LOQ	4.00	0.100	pass		Acetamiprid	< LOQ	5.00	0.100	pass	
Aldicarb	< LOQ	0.100	0.100	pass		Azoxystrobin	< LOQ	40.0	0.100	pass	
Bifenazate	< LOQ	5.00	0.100	pass		Bifenthrin	< LOQ	0.500	3.00	pass	
Boscalid	< LOQ	10.0	0.100	pass		Captan	< LOQ	5.00	0.700	pass	
Carbaryl	< LOQ	0.500	0.500	pass		Carbofuran	< LOQ	0.100	0.100	pass	
Chlorantraniliprole	< LOQ	40.0	3.00	pass		Chlordane	< LOQ	0.1	0.100	pass	
Chlorfenapyr	< LOQ	0.100	0.100	pass		Chlorpyrifos	< LOQ	0.100	0.100	pass	
Clofentezine	< LOQ	0.500	0.100	pass		Coumaphos	< LOQ	0.100	0.100	pass	
Cyfluthrin	< LOQ	1.00	2.00	pass		Cypermethrin	< LOQ	1.00	1.00	pass	
Daminozide	< LOQ	0.100	0.100	pass		Diazinon	< LOQ	0.200	0.100	pass	
Dichlorvos	< LOQ	0.100	0.100	pass		Dimethoate	< LOQ	0.100	0.100	pass	
Dimethomorph	< LOQ	20.0	2.00	pass		Ethoprophos	< LOQ	0.100	0.100	pass	
Etofenprox	< LOQ	0.100	0.100	pass		Etoxazole	< LOQ	1.50	0.100	pass	
Fenhexamid	< LOQ	10.0	0.100	pass		Fenoxycarb	< LOQ	0.100	0.100	pass	
Fenpyroximate	< LOQ	2.00	0.100	pass		Fipronil	< LOQ	0.100	0.100	pass	
Flonicamid	< LOQ	2.00	0.100	pass		Fludioxonil	< LOQ	30.0	0.100	pass	
Hexythiazox	< LOQ	2.00	0.100	pass		Imazalil	< LOQ	0.100	0.100	pass	
Imidacloprid	< LOQ	3.00	3.00	pass		Kresoxim-methyl	< LOQ	1.00	0.100	pass	
Malathion	< LOQ	5.00	0.500	pass		Metalaxyl	< LOQ	15.0	2.00	pass	
Methiocarb	< LOQ	0.100	0.100	pass		Methomyl	< LOQ	0.100	1.00	pass	
Mevinphos	< LOQ	0.100	0.100	pass		Myclobutanil	< LOQ	9.00	0.100	pass	
Naled	< LOQ	0.500	0.100	pass		Oxamyl	< LOQ	0.200	0.500	pass	
Paclobutrazole	< LOQ	0.100	0.100	pass		Parathion-Methyl	< LOQ	0.100	0.100	pass	
Permethrin	< LOQ	20.0	0.500	pass		Phosmet	< LOQ	0.200	0.100	pass	
Piperonyl butoxide	< LOQ	8.00	3.00	pass		Prallethrin	< LOQ	0.400	0.100	pass	
Propiconazole	< LOQ	20.0	0.100	pass		Propoxur	< LOQ	0.100	0.100	pass	
Pyrethrins (total)	< LOQ	1.00	0.500	pass		Pyridaben	< LOQ	3.00	0.100	pass	
Quintozene	< LOQ	0.200	0.100	pass		Spinetoram	< LOQ	3.00	0.100	pass	
Spinosad	< LOQ	3.00	0.100	pass		Spiromesifen	< LOQ	12.0	0.100	pass	
Spirotetramat	< LOQ	13.0	0.100	pass		Spiroxamine	< LOQ	0.100	0.100	pass	
Tebuconazole	< LOQ	2.00	0.100	pass		Thiacloprid	< LOQ	0.100	0.100	pass	
Thiamethoxam	< LOQ	4.50	3.00	pass		Trifloxystrobin	< LOQ	30.0	0.100	pass	

Terpenes	Method: J AOAC 2015 V98-6				Units %	Batch 2311252	Analyze 09/25/23	08:40 PM	
Analyte	Result	LOQ	% of Total	Notes	Analyte	Result	LOQ	% of Total	Notes
Menthol	0.702	0.019	73.049%		Eucalyptol	0.171	0.019	17.794%	
(R)-(+)-Limonene	0.0480	0.019	4.9948%		p-Cymene	0.0400	0.019	4.1623%	
a-pinene	< LOQ	0.019	0.00%		(+)-Pulegone	< LOQ	0.019	0.00%	
β-Caryophyllene	< LOQ	0.019	0.00%		Geraniol	< LOQ	0.019	0.00%	
Isoborneol	< LOQ	0.019	0.00%		Linalool	< LOQ	0.019	0.00%	
a-Terpinene	< LOQ	0.019	0.00%		(+)-fenchol	< LOQ	0.019	0.00%	
farnesene	< LOQ	0.019	0.00%		Sabinene	< LOQ	0.019	0.00%	
valencene	< LOQ	0.019	0.00%		(-)-β-Pinene	< LOQ	0.019	0.00%	
(±)-Camphor	< LOQ	0.019	0.00%		Sabinene hydrate	< LOQ	0.019	0.00%	
(-)-a-Terpineol	< LOQ	0.019	0.00%		(±)-trans-Nerolidol	< LOQ	0.019	0.00%	
gamma-Terpinene	< LOQ	0.019	0.00%		β-Myrcene	< LOQ	0.019	0.00%	
Geranyl acetate	< LOQ	0.019	0.00%		(+)-Borneol	< LOQ	0.019	0.00%	
(±)-fenchone	< LOQ	0.019	0.00%		Terpinolene	< LOQ	0.019	0.00%	
(-)-Isopulegol	< LOQ	0.019	0.00%		a-phellandrene	< LOQ	0.019	0.00%	
(±)-cis-Nerolidol	< LOQ	0.019	0.00%		(-)-caryophyllene oxide	< LOQ	0.019	0.00%	
(-)-Guaiol	< LOQ	0.019	0.00%		(+)-Cedrol	< LOQ	0.019	0.00%	
a-Bisabolol	< LOQ	0.019	0.00%		a-cedrene	< LOQ	0.019	0.00%	
Camphene	< LOQ	0.019	0.00%		cis-β-Ocimene	< LOQ	0.006	0.00%	
d-3-Carene	< LOQ	0.019	0.00%		Humulene	< LOQ	0.019	0.00%	
nerol	< LOQ	0.019	0.00%		trans-β-Ocimene	< LOQ	0.012	0.00%	
Total Terpenes	0.961								



Metals								
Analyte	Result	Limits	Units	LOQ	Batch	Analized Method	Status	Notes
Arsenic ^y	< LOQ	0.200	mg/kg	0.0928	2311204	09/22/23 AOAC 2013.06 (mod.) ^p	pass	
Cadmium ^y	< LOQ	0.200	mg/kg	0.0928	2311204	09/22/23 AOAC 2013.06 (mod.) ^p	pass	
Lead ^y	< LOQ	0.500	mg/kg	0.0928	2311204	09/22/23 AOAC 2013.06 (mod.) ^p	pass	
Mercury ^y	< LOQ	0.100	mg/kg	0.0464	2311204	09/22/23 AOAC 2013.06 (mod.) ^p	pass	

Mycotoxins

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Aflatoxin B2 ^Y	< LOQ	5.00	µg/kg	5.00	2311201	09/25/23 AOAC 2007.01 & EN 15662 (mod) ^P	pass	
Aflatoxin B1 ^Y	< LOQ	5.00	µg/kg	5.00	2311201	09/25/23 AOAC 2007.01 & EN 15662 (mod) ^P	pass	
Aflatoxin G1 ^Y	< LOQ	5.00	µg/kg	5.00	2311201	09/25/23 AOAC 2007.01 & EN 15662 (mod) ^P	pass	
Aflatoxin G2 ^Y	< LOQ	5.00	µg/kg	5.00	2311201	09/25/23 AOAC 2007.01 & EN 15662 (mod) ^P	pass	
Ochratoxin A ^Y	< LOQ	20.0	µg/kg	5.00	2311201	09/25/23 AOAC 2007.01 & EN 15662 (mod) ^P	pass	
Ochratoxin A ^Y	< LOQ	20.0	µg/kg	5.00	2311201	09/25/23 AOAC 2007.01 & EN 15662 (mod) ^P	pass	
Total Aflatoxins ^Y	0.000	20.0	µg/kg	20.0		09/28/23 AOAC 2007.01 & EN 15662 (mod) ^P	pass	



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Abbreviations

Limits: Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220, CCR title 16-division 42. BCC-section 5723

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.

Threshold Note: Action levels per 6 CCR 1010-21 CDPHE requirements

^p = ISO/IEC 17025:2017 accredited method.

^v = TNI accredited analyte.

Units of Measure

/25g = Per 25g

cfu/g = Colony forming units per gram

g = g

g/ml = Gram per milliliter

µg/g = Microgram per gram

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

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

mg/0.4ml = Milligram per 0.4ml

% = Percentage of sample

% wt = µg/g divided by 10,000

Approved Signatory

Derrick Tanner
General Manager

Terpenes Quality Control Results

Method Reference: EPA 5035				Batch ID: 2311252					
Method Blank				Laboratory Control Sample					
Analyte	Result	LOQ	Notes	Result	LCS	Units	LCS % Rec	Limits	Notes
a-pinene	<LOQ	< 200		388	500	µg/g	78%	70 - 130	
Camphene	<LOQ	< 200		401	500	µg/g	80%	70 - 130	
Sabinene	<LOQ	< 200		391	500	µg/g	78%	70 - 130	
b-Pinene	<LOQ	< 200		387	500	µg/g	77%	70 - 130	
b-Myrcene	<LOQ	< 200		393	500	µg/g	79%	70 - 130	
a-phellandrene	<LOQ	< 200		407	500	µg/g	81%	70 - 130	
d-3-Carene	<LOQ	< 200		400	500	µg/g	80%	70 - 130	
a-Terpinene	<LOQ	< 200		398	500	µg/g	80%	70 - 130	
p-Cymene	<LOQ	< 200		387	500	µg/g	77%	70 - 130	
D-Limonene	<LOQ	< 200		402	500	µg/g	80%	70 - 130	
Eucalyptol	<LOQ	< 200		404	500	µg/g	81%	70 - 130	
b-cis-Ocimene	<LOQ	< 67		134	167	µg/g	80%	70 - 130	
b-trans-Ocimene	<LOQ	< 133		269	333	µg/g	81%	70 - 130	
g-Terpinene	<LOQ	< 200		386	500	µg/g	77%	70 - 130	
Sabinene Hydrate	<LOQ	< 200		407	500	µg/g	81%	70 - 130	
Terpinolene	<LOQ	< 200		417	500	µg/g	83%	70 - 130	
D-Fenchone	<LOQ	< 200		421	500	µg/g	84%	70 - 130	
Linalool	<LOQ	< 200		424	500	µg/g	85%	70 - 130	
Fenchol	<LOQ	< 200		412	500	µg/g	82%	70 - 130	
Camphor	<LOQ	< 200		399	500	µg/g	80%	70 - 130	
Isopulego	<LOQ	< 200		421	500	µg/g	84%	70 - 130	
Isoborneol	<LOQ	< 200		415	500	µg/g	83%	70 - 130	
Borneol	<LOQ	< 200		413	500	µg/g	83%	70 - 130	
DL-Menthol	<LOQ	< 200		429	500	µg/g	86%	70 - 130	
Terpineol	<LOQ	< 200		414	500	µg/g	83%	70 - 130	
Nerol	<LOQ	< 200		403	500	µg/g	81%	70 - 130	
Pulegone	<LOQ	< 200		426	500	µg/g	85%	70 - 130	
Geraniol	<LOQ	< 200		442	500	µg/g	88%	70 - 130	
Geranyl Acetate	<LOQ	< 200		408	500	µg/g	82%	70 - 130	
a-Cedrene	<LOQ	< 200		424	500	µg/g	85%	70 - 130	
b-Caryophyllene	<LOQ	< 200		408	500	µg/g	82%	70 - 130	
a-Humulene	<LOQ	< 200		419	500	µg/g	84%	70 - 130	
Valenene	<LOQ	< 200		403	500	µg/g	81%	70 - 130	
cis-Nerolidol	<LOQ	< 200		431	500	µg/g	86%	70 - 130	
a-Farnesene	<LOQ	< 200		456	500	µg/g	91%	70 - 130	
trans-Nerolidol	<LOQ	< 200		434	500	µg/g	87%	70 - 130	
Caryophyllene Oxide	<LOQ	< 200		428	500	µg/g	86%	70 - 130	
Guaiol	<LOQ	< 200		418	500	µg/g	84%	70 - 130	
Cedrol	<LOQ	< 200		431	500	µg/g	86%	70 - 130	
a-Bisabolol	<LOQ	< 200		424	500	µg/g	85%	70 - 130	

Definitions

LOQ	Limit of Quantitation
LCS	Laboratory Control Sample
% REC	Percent Recovery



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Revision: 1 Document ID: 7086
Legacy ID: CFL-E57Worksheet Validated 11/04/2020

Terpenes Quality Control Results

Method Reference: EPA 5035				Batch ID: 2311252			
Sample/Sample Duplicate							
Analyte	Result	Org. Result	LOQ	Units	% RPD	LIMIT	Notes
a-pinene	54100	55100	192	µg/g	2%	< 20	
Camphene	2770	2820	192	µg/g	2%	< 20	
Sabinene	691	674	192	µg/g	2%	< 20	
b-Pinene	31800	32300	192	µg/g	2%	< 20	
b-Myrcene	280000	285000	192	µg/g	2%	< 20	
a-phellandrene	4140	4200	192	µg/g	1%	< 20	
d-3-Carene	2970	3020	192	µg/g	2%	< 20	
a-Terpinene	4730	4800	192	µg/g	1%	< 20	
p-Cymene	723	739	192	µg/g	2%	< 20	
D-Limonene	196000	200000	192	µg/g	2%	< 20	
Eucalyptol	2560	2690	192	µg/g	5%	< 20	
b-cis-OCimene	2590	2650	64.2	µg/g	2%	< 20	
b-trans-OCimene	35300	36100	128	µg/g	2%	< 20	
g-Terpinene	3140	3210	192	µg/g	2%	< 20	
Sabinene_Hydrate	302	318	192	µg/g	5%	< 20	
Terpinolene	96200	97500	192	µg/g	1%	< 20	
D-Fenchone	796	811	192	µg/g	2%	< 20	
Linalool	22000	22400	192	µg/g	2%	< 20	
Fenchol	7070	7200	192	µg/g	2%	< 20	
Camphor	<LOQ	<LOQ	192	µg/g	0%	< 20	
Isopulego	<LOQ	<LOQ	192	µg/g	0%	< 20	
Isoborneol	<LOQ	<LOQ	192	µg/g	0%	< 20	
Borneol	1060	1080	192	µg/g	2%	< 20	
DL-Menthol	<LOQ	<LOQ	192	µg/g	0%	< 20	
Terpineol	3710	3750	192	µg/g	1%	< 20	
Nerol	<LOQ	<LOQ	192	µg/g	0%	< 20	
Pulegone	<LOQ	<LOQ	192	µg/g	0%	< 20	
Geraniol	404	410	192	µg/g	1%	< 20	
Geranyl_Acetate	<LOQ	<LOQ	192	µg/g	0%	< 20	
a-Cedrene	<LOQ	<LOQ	192	µg/g	0%	< 20	
b-Caryophyllene	72700	73500	192	µg/g	1%	< 20	
a-Humulene	27900	28400	192	µg/g	2%	< 20	
Valenene	280	277	192	µg/g	1%	< 20	
cis-Nerolidol	<LOQ	<LOQ	192	µg/g	0%	< 20	
a-Farnesene	29600	31400	192	µg/g	6%	< 20	
trans-Nerolidol	531	538	192	µg/g	1%	< 20	
Caryophyllene_Oxide	1510	1540	192	µg/g	2%	< 20	
Guaiol	306	309	192	µg/g	1%	< 20	
Cedrol	<LOQ	<LOQ	192	µg/g	0%	< 20	
a-Bisabolol	277	298	192	µg/g	7%	< 20	

Definitions

RPD Relative Percent Difference



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Laboratory Quality Control Results
Batch ID: 2311259

J AOAC 2015 V98-6

Laboratory Control Sample

Analyte	LCS	Result	Spike	Units	% Rec	Limits	Evaluation	Notes
CBDVA	2	0.0326	0.0324	%	101	80.0 - 120	Acceptable	
CBDV	2	0.0321	0.0324	%	99.2	80.0 - 120	Acceptable	
CBE	2	0.0344	0.0345	%	99.6	80.0 - 120	Acceptable	
CBD	1	0.0302	0.0324	%	93.0	90.0 - 110	Acceptable	
CBGA	1	0.0305	0.0330	%	92.5	80.0 - 120	Acceptable	
CBG	1	0.0363	0.0379	%	95.7	80.0 - 120	Acceptable	
CBD	1	0.0299	0.0316	%	94.6	90.0 - 110	Acceptable	
THCV	2	0.0336	0.0336	%	100	80.0 - 120	Acceptable	
Δ8THCV	2	0.0297	0.0294	%	101	80.0 - 120	Acceptable	
THCVA	2	0.0321	0.0320	%	100	80.0 - 120	Acceptable	
CBN	1	0.0299	0.0320	%	93.3	80.0 - 120	Acceptable	
exo-THC	2	0.0314	0.0314	%	100	80.0 - 120	Acceptable	
Δ9THC	1	0.0321	0.0320	%	100	90.0 - 110	Acceptable	
Δ8THC	1	0.0290	0.0312	%	93.2	90.0 - 110	Acceptable	
9S-Δ10THC	1	0.0334	0.0344	%	97.0	80.0 - 120	Acceptable	
CBL	2	0.0342	0.0349	%	97.9	80.0 - 120	Acceptable	
9R-Δ10THC	1	0.0312	0.0340	%	91.8	80.0 - 120	Acceptable	
CBG	2	0.0339	0.0332	%	102	80.0 - 120	Acceptable	
THCA	1	0.0303	0.0328	%	92.5	90.0 - 110	Acceptable	
CBGA	2	0.0342	0.0341	%	101	80.0 - 120	Acceptable	
CBLA	2	0.0344	0.0343	%	100	80.0 - 120	Acceptable	
Δ9THCP	2	0.0329	0.0333	%	98.8	80.0 - 120	Acceptable	
CBT	2	0.0352	0.0351	%	100	80.0 - 120	Acceptable	

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBDV	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBE	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBD	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBGA	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBG	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBD	<LOQ	0.00327	%	< 0.00327	Acceptable	
THCV	<LOQ	0.00327	%	< 0.00327	Acceptable	
Δ8THCV	<LOQ	0.00327	%	< 0.00327	Acceptable	
THCVA	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBN	<LOQ	0.00327	%	< 0.00327	Acceptable	
exo-THC	<LOQ	0.00327	%	< 0.00327	Acceptable	
Δ9THC	<LOQ	0.00327	%	< 0.00327	Acceptable	
Δ8THC	<LOQ	0.00327	%	< 0.00327	Acceptable	
9S-Δ10THC	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBL	<LOQ	0.00327	%	< 0.00327	Acceptable	
9R-Δ10THC	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBG	<LOQ	0.00327	%	< 0.00327	Acceptable	
THCA	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBGA	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBLA	<LOQ	0.00327	%	< 0.00327	Acceptable	
Δ9THCP	<LOQ	0.00327	%	< 0.00327	Acceptable	
CBT	<LOQ	0.00327	%	< 0.00327	Acceptable	

Abbreviations

ND - None Detected at or above MRL
RPD - Relative Percent Difference
LOQ - Limit of Quantitation

Units of Measure:

% - Percent



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

Report Date: 09/29/2023

ORELAP#:

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Revision: 4 Document ID: 7148
Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

J AOAC 2015 V98-6

Batch ID: 2311259

Sample Duplicate

Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBDV	0.00510	0.00543	0.00328	%	6.20	< 20	Acceptable	
CBE	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBDA	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBG	0.0177	0.0174	0.00328	%	1.56	< 20	Acceptable	
CBD	1.72	1.72	0.00328	%	0.241	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBN	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
d9THC	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
9S-d10THC	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
9R-d10THC	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBC	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
d9THCP	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBT	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	

Abbreviations

ND - None Detected at or above MRL
RPD - Relative Percent Difference
LOQ - Limit of Quantitation

Units of Measure:

% - Percent



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

Report Date: 09/29/2023

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Laboratory Quality Control Results

Residual Solvents				Batch ID: 2311289					
Method Blank				Laboratory Control Sample					
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes
Propane	ND	< 200		501	584	µg/g	85.8	60 - 120	
Isobutane	ND	< 200		688	767	µg/g	89.7	60 - 120	
Butane	ND	< 200		648	782	µg/g	82.9	60 - 120	
2,2-Dimethylpropane	ND	< 200		788	939	µg/g	83.9	60 - 120	
Methanol	ND	< 200		1590	1670	µg/g	95.2	60 - 120	
Ethylene Oxide	ND	< 30		53	57.1	µg/g	92.8	60 - 120	
2-Methylbutane	ND	< 200		1470	1680	µg/g	87.5	60 - 120	
Pentane	ND	< 200		1470	1670	µg/g	88.0	60 - 120	
Ethanol	ND	< 200		1570	1660	µg/g	94.6	70 - 130	
Ethyl Ether	ND	< 200		1520	1670	µg/g	91.0	60 - 120	
2,2-Dimethylbutane	ND	< 30		166	189	µg/g	87.8	60 - 120	
Acetone	ND	< 200		1580	1670	µg/g	94.6	60 - 120	
2-Propanol	ND	< 200		1540	1630	µg/g	94.5	60 - 120	
Ethyl Formate	ND	< 500		1420	1600	µg/g	88.8	70 - 130	
Acetonitrile	ND	< 100		444	492	µg/g	90.2	60 - 120	
Methyl Acetate	ND	< 500		1620	1600	µg/g	101.3	70 - 130	
2,3-Dimethylbutane	ND	< 30		172	180	µg/g	95.6	60 - 120	
Dichloromethane	ND	< 60		463	488	µg/g	94.9	60 - 120	
2-Methylpentane	ND	< 30		150	182	µg/g	82.4	60 - 120	
MTBE	ND	< 500		1650	1610	µg/g	102.5	70 - 130	
3-Methylpentane	ND	< 30		157	177	µg/g	88.7	60 - 120	
Hexane	ND	< 30		159	177	µg/g	89.8	60 - 120	
1-Propanol	ND	< 500		1620	1600	µg/g	101.3	70 - 130	
Methylethylketone	ND	< 500		1610	1610	µg/g	100.0	70 - 130	
Ethyl acetate	ND	< 200		1490	1630	µg/g	91.4	60 - 120	
2-Butanol	ND	< 200		1500	1630	µg/g	92.0	60 - 120	
Tetrahydrofuran	ND	< 100		456	488	µg/g	93.4	60 - 120	
Cyclohexane	ND	< 200		1450	1610	µg/g	90.1	60 - 120	
2-methyl-1-propanol	ND	< 500		1710	1610	µg/g	106.2	70 - 130	
Benzene	ND	< 1		4.63	4.79	µg/g	96.7	60 - 120	
Isopropyl Acetate	ND	< 200		1530	1650	µg/g	92.7	60 - 120	
Heptane	ND	< 200		1470	1630	µg/g	90.2	60 - 120	
1-Butanol	ND	< 500		1650	1600	µg/g	103.1	70 - 130	
Propyl Acetate	ND	< 500		1600	1600	µg/g	100.0	70 - 130	
1,4-Dioxane	ND	< 100		460	523	µg/g	88.0	60 - 120	
2-Ethoxyethanol	ND	< 30		157	179	µg/g	87.7	60 - 120	
Methylisobutylketone	ND	< 500		1720	1600	µg/g	107.5	70 - 130	
3-Methyl-1-butanol	ND	< 500		1580	1600	µg/g	98.8	70 - 130	
Ethylene Glycol	ND	< 200		234	506	µg/g	46.2	60 - 120	Q6
Toluene	ND	< 100		446	496	µg/g	89.9	60 - 120	
Isobutyl Acetate	ND	< 500		1570	1610	µg/g	97.5	70 - 130	
1-Pentanol	ND	< 500		1390	1600	µg/g	86.9	70 - 130	
Butyl Acetate	ND	< 500		1550	1610	µg/g	96.3	70 - 130	
Ethylbenzene	ND	< 200		835	978	µg/g	85.4	60 - 120	
m,p-Xylene	ND	< 200		826	994	µg/g	83.1	60 - 120	
o-Xylene	ND	< 200		798	982	µg/g	81.3	60 - 120	
Cumene	ND	< 30		131	171	µg/g	76.6	60 - 120	
Anisole	ND	< 500		1440	1600	µg/g	90.0	70 - 130	
DMSO	ND	< 500		1410	1620	µg/g	87.0	70 - 130	
1,2-dimethoxyethane	ND	< 50		185	186	µg/g	99.5	70 - 130	
Triethylamine	ND	< 500		1510	1600	µg/g	94.4	70 - 130	
N,N-dimethylformamide	ND	< 150		458	480	µg/g	95.4	70 - 130	
N,N-dimethylacetamide	ND	< 150		407	483	µg/g	84.3	70 - 130	
Pyridine	ND	< 50		157	168	µg/g	93.5	70 - 130	
Sulfolane	ND	< 50		131	161	µg/g	81.4	70 - 130	
1,2-Dichloroethane	ND	< 1		0.892	1	µg/g	89.2	70 - 130	
Chloroform	ND	< 1		0.878	1	µg/g	87.8	70 - 130	
Trichloroethylene	ND	< 1		0.949	1	µg/g	94.9	70 - 130	
1,1-Dichloroethane	ND	< 1		0.867	1	µg/g	86.7	70 - 130	

QC - Sample Duplicate

Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Accept/Fail	Notes
Propane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Isobutane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Butane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2,2-Dimethylpropane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Methanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethylene Oxide	ND	ND	30	µg/g	0.0	< 20	Acceptable	
2-Methylbutane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Pentane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethyl Ether	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2,2-Dimethylbutane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Acetone	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-Propanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethyl Formate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Acetonitrile	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Methyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
2,3-Dimethylbutane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Dichloromethane	ND	ND	60	µg/g	0.0	< 20	Acceptable	
2-Methylpentane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
MTBE	ND	ND	500	µg/g	0.0	< 20	Acceptable	
3-Methylpentane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Hexane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
1-Propanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Methylethylketone	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Ethyl acetate	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-Butanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Tetrahydrofuran	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Cyclohexane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-methyl-1-propanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Benzene	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Isopropyl Acetate	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Heptane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
1-Butanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Propyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1,4-Dioxane	ND	ND	100	µg/g	0.0	< 20	Acceptable	
2-Ethoxyethanol	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Methylisobutylketone	ND	ND	500	µg/g	0.0	< 20	Acceptable	
3-Methyl-1-butanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Ethylene Glycol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Toluene	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Isobutyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1-Pentanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Butyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Ethylbenzene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
m,p-Xylene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
o-Xylene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Cumene	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Anisole	ND	ND	500	µg/g	0.0	< 20	Acceptable	
DMSO	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1,2-dimethoxyethane	ND	ND	50	µg/g	0.0	< 20	Acceptable	
Triethylamine	ND	ND	500	µg/g	0.0	< 20	Acceptable	
N,N-dimethylformamide	ND	ND	150	µg/g	0.0	< 20	Acceptable	
N,N-dimethylacetamide	ND	ND	150	µg/g	0.0	< 20	Acceptable	
Pyridine	ND	ND	50	µg/g	0.0	< 20	Acceptable	
Sulfolane	ND	ND	50	µg/g	0.0	< 20	Acceptable	
1,2-Dichloroethane	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Chloroform	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Trichloroethylene	ND	ND	1	µg/g	0.0	< 20	Acceptable	
1,1-Dichloroethane	ND	ND	1	µg/g	0.0	< 20	Acceptable	

Abbreviations

ND - None Detected at or above MRL

RPD - Relative Percent Difference

LOQ - Limit of Quantitation

Q6 - Quality control outside QC limits. Data acceptable based on remaining QC.

Units of Measure:

µg/g- Microgram per gram or ppm

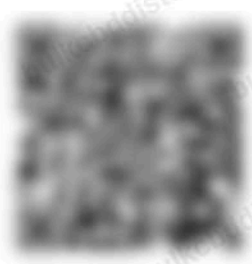


12423 NE Whitaker Way
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Report Date: 09/29/2023

ORELAP#:

Received: 09/21/23 09:50



Explanation of QC Flag Comments:

Code	Explanation
Q	Matrix interferences affecting spike or surrogate recoveries.
Q1	Quality control result biased high. Only non-detect samples reported.
Q2	Quality control outside QC limits. Data considered estimate.
Q3	Sample concentration greater than four times the amount spiked.
Q4	Non-homogenous sample matrix, affecting RPD result and/or % recoveries.
Q5	Spike results above calibration curve.
Q6	Quality control outside QC limits. Data acceptable based on remaining QC.
R	Relative percent difference (RPD) outside control limit.
R1	RPD non-calculable, as sample or duplicate results are less than five times the LOQ.
R2	Sample replicates RPD non-calculable, as only one replicate is within the analytical range.
LOQ1	Quantitation level raised due to low sample volume and/or dilution.
LOQ2	Quantitation level raised due to matrix interference.
B	Analyte detected in method blank, but not in associated samples.
B1	The sample concentration is greater than 5 times the blank concentration.
B2	The sample concentration is less than 5 times the blank concentration.