



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



Report Number: 23-002301/D002.R000
Report Date: 03/07/2023
ORELAP#: OR100028
Purchase Order:
Received: 02/27/23 12:43

Customer: NW Natural Goods
Product identity: HEMP- RB 0099
Client/Metric ID: .
Laboratory ID: 23-002301-0001

Summary

Potency:

Analyte per 4g	Result	Limits	Units	Status	
CBC per 4g	0.209		mg/4g		CBD-Total per Serving Size 25.5 mg/4g
CBD per 4g	25.5		mg/4g		
CBG per 4g	0.720		mg/4g		THC-Total per Serving Size <LOQ
					(Reported in milligrams per serving)

Residual Solvents:

All analytes passing and less than LOQ.

Pesticides:

Analyte	Result (mg/kg)	Limits (mg/kg)	Status
Multi-Residue Pesticide Profile	< LOQ for all analytes		

Metals:

Less than LOQ for all analytes.

Microbiology:

Less than LOQ for all analytes.



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Received: 02/27/23 12:43

Customer: NW Natural Goods

Product identity: HEMP- RB 0099

Client/Metric ID: .

Sample Date:

Laboratory ID: 23-002301-0001

Evidence of Cooling: No

Temp: 13.9

Relinquished by: hinton

Serving Size #1: 4 g

Sample Results

Potency per 4g Method: J AOAC 2015 V98-6 (mod) ^b Units mg/se Batch: 2301864 Analyze: 3/1/23 8:44:00 PM					
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 4g	0.209		mg/4g	0.130	
CBC-A per 4g	< LOQ		mg/4g	0.130	
CBC-Total per 4g	< LOQ		mg/4g	0.245	
CBD per 4g	25.5		mg/4g	0.130	
CBD-A per 4g	< LOQ		mg/4g	0.130	
CBD-Total per 4g	25.5		mg/4g	0.245	
CBDV per 4g	< LOQ		mg/4g	0.130	
CBDV-A per 4g	< LOQ		mg/4g	0.130	
CBDV-Total per 4g	< LOQ		mg/4g	0.243	
CBE per 4g	< LOQ		mg/4g	0.130	
CBG per 4g	0.720		mg/4g	0.130	
CBG-A per 4g	< LOQ		mg/4g	0.130	
CBG-Total per 4g	0.720		mg/4g	0.243	
CBL per 4g	< LOQ		mg/4g	0.130	
CBL-A per 4g	< LOQ		mg/4g	0.130	
CBL-Total per 4g	< LOQ		mg/4g	0.245	
CBN per 4g	< LOQ		mg/4g	0.130	
CBT per 4g	< LOQ		mg/4g	0.130	
Δ8-THCV per 4g	< LOQ		mg/4g	0.130	
Δ10-THC-9R per 4g	< LOQ		mg/4g	0.130	
Δ10-THC-9S per 4g	< LOQ		mg/4g	0.130	
Δ10-THC-Total per 4g	< LOQ		mg/4g	0.261	
Δ8-THC per 4g	< LOQ		mg/4g	0.130	
Δ9-THC per 4g	< LOQ		mg/4g	0.130	
exo-THC per 4g	< LOQ		mg/4g	0.130	
THC-A per 4g	< LOQ		mg/4g	0.130	
THC-Total per 4g	< LOQ		mg/4g	0.245	
THCV per 4g	< LOQ		mg/4g	0.130	
THCV-A per 4g	< LOQ		mg/4g	0.130	
THCV-Total per 4g	< LOQ		mg/4g	0.245	
Total Cannabinoids per 4g	26.6		mg/4g		



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Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
E.coli	< LOQ		cfu/g	10	2301773	03/02/23 AOAC 991.14 (Petrifilm) [®]		
Total Coliforms	< LOQ		cfu/g	10	2301773	03/02/23 AOAC 991.14 (Petrifilm) [®]		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2301774	03/03/23 AOAC 2014.05 (RAPID) [®]		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2301774	03/03/23 AOAC 2014.05 (RAPID) [®]		

Solvents		Method: Residual Solvents by GC/MS ^b				Units µg/g	Batch 2301985	Analyze 03/06/23 12:51 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 (Isopentane)	< LOQ		200		
2-Methylpentane	< LOQ		30.0			2-Propanol (IPA)	< 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	< 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	20.0	pass	
Hexanes (sum)	< LOQ	290	150	pass		Isopropyl acetate	< LOQ	5000	200	pass	
Isopropylbenzene (Cumene)	< LOQ	70.0	30.0	pass		m,p-Xylene	< LOQ		200		
Methanol	< LOQ	3000	200	pass		Methylene chloride	< LOQ	600	60.0	pass	
Methylpropane (Isobutane)	< 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 benzene	< LOQ	2170	600	pass	

Pesticides		Method: AOAC 2007.01 & EN 15662 (mod) ^b	Units mg/kg	Batch 2301905	Analyze 03/03/23 10:32 AM
Analyte	Result	Limits	Status	Notes	
Multi-Residue Pesticide Profile	< LOQ for all analytes				

Metals									
Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method		Status	Notes
Arsenic [Ⓜ]	< LOQ	0.200	mg/kg	0.0187	2301995	03/06/23	AOAC 2013.06 (mod.) ^b	pass	
Cadmium [Ⓜ]	< LOQ	0.200	mg/kg	0.0187	2301995	03/06/23	AOAC 2013.06 (mod.) ^b	pass	
Lead [Ⓜ]	< LOQ	0.500	mg/kg	0.0187	2301995	03/06/23	AOAC 2013.06 (mod.) ^b	pass	
Mercury [Ⓜ]	< LOQ	0.100	mg/kg	0.00935	2301995	03/06/23	AOAC 2013.06 (mod.) ^b	pass	



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Nutrition

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Moisture (Loss on Drying)	18.4		g/100g	0.10	2302007	03/06/23 AOAC 925.10 (mod.) ^p		
Water Activity	0.688		Aw	0.030	2301816	02/28/23 AOAC 978.18 ^b		



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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.

Ⓟ = ISO/IEC 17025:2017 accredited method.

¥ = TNI accredited analyte.

Units of Measure

cfu/g = Colony forming units per gram

g = g

g/100g = Grams per 100 Grams

µg/g = Microgram per gram

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

mg/4g = Milligram per 4g

% = Percentage of sample

Aw = Water Activity

% wt = µg/g divided by 10,000

Approved Signatory

Derrick Tanner
General Manager



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P2320 Multi-Residue Pesticide Profile
Cannabis

Analyte	LOQ (mg/kg)
2,4-D	0.1
Abamectin	0.1
Acephate	0.2
Acequinocyl	0.2
Acetamiprid	0.1
Acetochlor	0.2
Acrinathrin	0.1
Alachlor	0.1
Aldicarb	0.1
Aldoxycarb	0.1
Aldrin	0.1
Ametoctradin	0.1
Ametryn	0.1
Anilazine	0.1
Aspon	0.1
Asulam	0.1
Atrazine	0.1
Atrazine-desethyl	0.1
Azinphos-ethyl	0.1
Azinphos-methyl	0.1
Azoxystrobin	0.1
Benalaxyl	0.1
Bendiocarb	0.1
Benoxacor	0.1
Bensulide	0.1
Bentazon	0.1
Bifenazate	0.1
Bifenox	0.1
Bifenthrin	0.1
Binapacryl	0.1
Boscalid	0.1
Bromacil	0.1
Bromophos-ethyl	0.1
Bromopropylate	0.1
Bromoxynil	0.1
Bupirimate	0.1
Buprofezin	0.1
Butachlor	0.1
Butylate	0.1
Cadusafos	0.1
Captan	0.2
Carbaryl	0.1
Carbendazim	0.1
Carbofuran	0.1
Carbofuran 3-hydroxy	0.1
Carbophenothion	0.1
Carbophenothion-methyl	0.1
Carboxin	0.1

Analyte	LOQ (mg/kg)
Chlorantraniliprol	0.1
Chlordane, cis-	0.1
Chlordane, trans-	0.1
Chlorfenapyr	0.1
Chlorfenvinphos	0.1
Chlorobenzilate	0.1
Chlorpyrifos-ethyl	0.1
Chlorpyrifos-methyl	0.1
Chlorthal-dimethyl (Dacthal)	0.1
Clethodim	0.1
Clethodim sulfone	0.1
Clethodim sulfoxide	0.1
Clofentezine	0.1
Clomazone	0.1
Clopyralid	0.1
Clothianidin	0.1
Coumaphos	0.1
Crotoxypheos	0.1
Cyanofenphos	0.1
Cyanophos	0.1
Cyantraniliprole	0.1
Cyazofamid	0.1
Cyfluthrin	0.1
Cyhalothrin, lambda	0.1
Cymoxanil	0.1
Cypermethrin	0.1
Cyprodinil	0.1
DDD, o,p'-	0.1
DDD, p,p'-	0.1
DDE, o,p'-	0.1
DDE, p,p'-	0.1
DDT, o,p'-	0.1
DDT, p,p'-	0.1
DEET	0.1
Deltamethrin	0.1
Demeton-S	0.1
Demeton-S-methyl	0.1
Demeton-S-methyl-sulfone	0.1
Desmedipham	0.1
Diazinon	0.1
Dicamba	0.1
Dichlofenthion	0.1
Dichlofluanid	0.1
Dichlorbenzamid	0.1
Dichlorvos	0.1
Diclofop	0.1
Diclofop-methyl	0.1
Diclotophos	0.1

Analyte	LOQ (mg/kg)
Dieldrin	0.1
Diethofencarb	0.1
Difenoconazol	0.1
Diffubenzuron	0.1
Diffufenzopyr	0.1
Dimethenamid	0.1
Dimethoat	0.1
Dimethomorph	0.1
Dinoseb	0.1
Dinotefuran	0.1
Dioxathion	0.1
Diphenamid	0.1
Diphenylamine (DPA)	0.1
Disulfoton	0.1
Disulfoton-sulfone	0.1
Disulfoton-Sulfoxide	0.1
Diuron	0.1
DNOC	0.1
Edifenphos	0.1
Endosulfan (alpha isomer)	0.1
Endosulfan (beta isomer)	0.1
Endosulfan-sulfate	0.1
Endrin	0.1
EPN	0.1
EPTC	0.1
Esfenvalerate/Fenvalerate	0.1
Ethiofencarb	0.1
Ethion	0.1
Ethofumesate	0.1
Ethoprophos	0.1
Etofenprox	0.1
Etoxazole	0.1
Etrimfos	0.1
Famoxadone	0.1
Famphur	0.1
Fenamiphos	0.1
Fenamiphos-Sulfone	0.1
Fenamiphos-Sulfoxide	0.1
Fenazaquin	0.1
Fenbuconazole	0.1
Fenhexamid	0.1
Fenobucarb	0.1
Fenoxycarb	0.1
Fenpropathrin	0.1
Fensulfothion	0.1
Fenthion	0.1
Fenuron	0.1
Fipronil	0.1

LOQ= Limit of Quantitation
mg/kg= milligram per kilogram (ppm)



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P2320 Multi-Residue Pesticide Profile
Cannabis

Analyte	LOQ (mg/kg)
Flonicamid	0.1
Fluazifop	0.1
Fluazinam	0.1
Flucythrinate	0.1
Fludioxonil	0.1
Flufenacet	0.1
Flumioxazin	0.1
Flupicolide	0.1
Fluopyram	0.1
Fluoxastrobin	0.1
Flupyradifurone	0.1
Fluridone	0.1
Fluroxypyr	0.1
Fluthiacet-methyl	0.1
Flutolanil	0.1
Flutriafol	0.1
Fluvalinate	0.1
Fluxapyroxad	0.1
Fomesafen	0.1
Formetanate	0.1
Furathiocarb	0.1
Haloxypop	0.1
Heptachlor	0.1
Heptachlor epoxide	0.1
Hexaconazole	0.1
Hexazinone	0.1
Hexythiazox	0.1
Hydropene	0.1
Imazalil	0.1
Imazethapyr	0.1
Imidacloprid	0.1
Indaziflam	0.1
Indoxacarb	0.1
Iprobenfos	0.1
Iprodion	0.1
Isobenzan	0.1
Isafenphos	0.1
Isafenphos-methyl	0.1
Isafenphos-oxon	0.1
Isoprocab	0.1
Isoprothiolane	0.1
Isoproturon	0.1
Isoxaben	0.1
Kresoxim-methyl	0.1
Lindane	0.1
Linuron	0.1
Malaoxon	0.1
Malathion	0.1

Analyte	LOQ (mg/kg)
Mandipropamid	0.1
MCPA	0.1
MCPB	0.1
MCPB	0.1
MCPB	0.1
Mecabarm	0.1
Mepanipyrim	0.1
Mesotrione	0.1
Metalaxyl	0.1
Methamidophos	0.1
Methiocarb	0.1
Methiocarb sulfone	0.1
Methiocarb sulfoxide	0.1
Methomyl	0.1
Methoxyfenozide	0.1
Metolachlor	0.1
Metolcarb	0.1
Metrafenone	0.1
Mevinphos	0.1
MGK 264	0.1
Molinat	0.1
Monocrotophos	0.1
Monolinuron	0.1
Myclobutanil	0.1
Naled	0.1
Napropamide	0.1
Neburon	0.1
Norflurazon	0.1
Novaluron	0.1
Omethoat	0.1
Oryzalin	0.1
Oxadiazon	0.1
Oxadixyl	0.1
Oxamyl	0.1
Oxamyl-oxime	0.1
Oxydemeton-Methyl	0.1
Oxyfluorfen	0.1
Paclobutrazol	0.1
Paraaxon-ethyl	0.1
Paraaxon-methyl	0.1
Parathion-methyl	0.1
Penconazole	0.1
Pendimethalin	0.1
Penflufen	0.1
Penthiopyrad	0.1
Permethrin	0.1
Perthane	0.1
Phenmedipham	0.1

Analyte	LOQ (mg/kg)
Phenothrin	0.1
Phenthoate	0.1
Phorate	0.1
Phorate-Sulfone	0.1
Phorate-Sulfoxide	0.1
Phosalone	0.1
Phosmet	0.1
Phosphamidon	0.1
Phoxim	0.1
Pinoxaden	0.1
Piperonyl Butoxide	0.1
Pirimicarb	0.1
Pirimiphos-ethyl	0.1
Pirimiphos-methyl	0.1
Prallethrin	0.1
Prochloraz	0.1
Procymidone	0.1
Profenofos	0.1
Promecarb	0.1
Prometon	0.1
Prometryn	0.1
Propachlor	0.1
Propamocarb	0.1
Propanil	0.1
Propazine	0.1
Propetamophos	0.1
Propham	0.1
Propiconazole	0.1
Propoxur	0.1
Propyzamide	0.1
Prothiofos	0.1
Pyraclostrobin	0.1
Pyraflufen Ethyl	0.1
Pyrazophos	0.1
Pyrethrin	0.1
Pyridaben	0.1
Pyrimethanil	0.1
Pyriproxifen	0.1
Pyroxasulfone	0.1
Pyroxulam	0.1
Quinalphos	0.1
Quinclorac	0.1
Quinoxifen	0.1
Quintozene(PCNB)	0.2
Quizalofop	0.1
Resmethrin	0.1
Rotenone	0.1
Saflufenacil	0.1

LOQ= Limit of Quantitation
mg/kg= milligram per kilogram (ppm)



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P2320 Multi-Residue Pesticide Profile
Cannabis

Analyte	LOQ (mg/kg)
Sebuthylazin	0.1
Sethoxydim	0.1
Simazine	0.1
Simetryn	0.1
Spinetoram J/L	0.1
Spinosyn A/D	0.1
Spirodiclofen	0.1
Spiromesifen	0.1
Spirotetramat	0.1
Spiroxamine	0.1
Sulfentrazone	0.1
Sulfotep	0.1
Sulfoxafior	0.1
Sulprofos	0.1
Tebuconazole	0.1
Tebufenozide	0.1
Terbufos	0.1
Terbutylazine	0.1
Terbutryn	0.1
Tetrachlorvinphos	0.1
Tetraconazole	0.1
Tetramethrin	0.1
Thiabendazol	0.1
Thiabendazol-5-hydroxy	0.1
Thiacloprid	0.1
Thiamethoxam	0.1
Thiobencarb	0.1
Thiodicarb	0.1
Thiometon	0.1
Thiophanate-methyl	0.2
Tolfenpyrad	0.1
Tolyfluanid	0.1
Triadimefon	0.1
Triadimenol	0.1
Triazophos	0.1
Trifloxystrobin	0.1
Triflumizole	0.1
Triticonazole	0.1
Zoxamid	0.1

LOQ= Limit of Quantitation
mg/kg= milligram per kilogram (ppm)

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Updated: 09.12.2022



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Hemp & Cannabis: Usable / Extract / Finished Product

Chain of Custody Record

ORELAP ID: OR100028 ANAB ISO 17025 ID: AT-1508

NWNATURALGOODS 23-002301

Control ID: 2832 Revision: 5
Effective: 01/04/2022

Company: Northwest Natural Goods			Analysis Requested										Sampled by:		
Contact: Annie Nair													Custom Reporting:		
Address: 11791 SE HWY 212													Source Material: ☐ - Ind. Hemp product ☐ - Rec. Cannabis		
City: Clackamas State: OR Zip Code: 97015													Reporting Type: ☐ - Compliance ☐ - R&D		
☒ Email Results: annienair@nwnaturalgoods.com													Report to: ☐ - METRC ☐ - ODA ☐ - USDA ☐ - Other:		
☐ Ph: () -													Turnaround time (TAT - Business Days): ☒ - 5BD ☐ - 3BD* ☐ - 2BD* *Check for availability		
Name: Email:															
Address:															
City: State: Zip:															
Ph: () -															
Lab ID	Client Sample Identification	Sample date	Pesticides - OR 59 Compounds	Pesticide Multi-Residue - 379 compounds	Potency	Residual Solvents	Water Activity	Moisture	Micro: Yeast and Mold	Micro: E.Coli and Total Coliform	Heavy Metals	Mycotoxins	Material Type †	Weight (Units)	Comments/Metrc ID
	HEMP - RB 0099	02/23/23	✓	✓	✓	✓	✓	✓	✓	✓	✓			80g	
Signature - Relinquished By:			Signature - Received By:			Date			Time			Lab Use Only:			
Annie Nair			MRLA			2/27			10:15			☐ Shipped Via: _____ or ☐ Client drop off			
MRLA			RBS			02/27/23			1243			Evidence of cooling: ☐ Yes ☐ No - Temp (°C): 13.9			
												Sample in good condition: ☐ Yes ☐ No			
												Payment: ☐ Cash ☐ Check ☐ CC ☐ Net:			
												Prelog storage:			

† - Material Type Codes: Plant Material (P) ; Isolate (I) ; Concentrate/Extract (C) ; Tincture/Topical (T) ; Edible (E) ; Beverage (B) ; Vapor Product (V)

Samples submitted to Columbia Laboratories with testing requirements constitute an agreement for services in accordance with the current terms of service associated with this COC. By signing "Relinquished by" you are agreeing to these terms
12423 NE Whitaker Way
Portland, OR 97230
P: (503) 254-1794 | Fax: (503) 254-1452
info@columbialaboratories.com
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www.columbialaboratories.com



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Revision: 1 Document ID: 7148
Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

J AOAC 2015 V98-6 Batch ID: 2301864

Laboratory Control Sample									
Analyte	LCS	Result	Spike	Units	% Rec	Limits	Evaluation	Notes	
CBDVA	2	0.0335	0.033	%	101	80.0 - 120	Acceptable		
CBDV	2	0.0356	0.035	%	101	80.0 - 120	Acceptable		
CBE	2	0.0349	0.034	%	103	80.0 - 120	Acceptable		
CBD	1	0.0321	0.032	%	100	90.0 - 110	Acceptable		
CBGA	1	0.0318	0.032	%	99.6	80.0 - 120	Acceptable		
CBG	1	0.0334	0.033	%	101	80.0 - 120	Acceptable		
CBD	1	0.0324	0.033	%	97.4	90.0 - 110	Acceptable		
THCV	2	0.0339	0.033	%	102	80.0 - 120	Acceptable		
d8THCV	2	0.0382	0.036	%	106	80.0 - 120	Acceptable		
THCVA	2	0.0331	0.033	%	101	80.0 - 120	Acceptable		
CBN	1	0.0337	0.033	%	101	80.0 - 120	Acceptable		
exo-THC	2	0.0332	0.034	%	98.9	80.0 - 120	Acceptable		
d9THC	1	0.0343	0.033	%	104	90.0 - 110	Acceptable		
d8THC	1	0.0331	0.034	%	97.9	90.0 - 110	Acceptable		
9S-d10THC	1	0.0341	0.034	%	99.9	80.0 - 120	Acceptable		
CBL	2	0.0334	0.033	%	100	80.0 - 120	Acceptable		
9R-d10THC	1	0.0318	0.032	%	99.3	80.0 - 120	Acceptable		
CB	2	0.0359	0.036	%	101	80.0 - 120	Acceptable		
THCA	1	0.0320	0.032	%	98.9	90.0 - 110	Acceptable		
CBGA	2	0.0351	0.035	%	100	80.0 - 120	Acceptable		
CBLA	2	0.0343	0.035	%	98.3	80.0 - 120	Acceptable		
CBT	2	0.0338	0.036	%	94.9	80.0 - 120	Acceptable		

Method Blank						
Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.003	%	< 0.003	Acceptable	
CBDV	<LOQ	0.003	%	< 0.003	Acceptable	
CBE	<LOQ	0.003	%	< 0.003	Acceptable	
CBD	<LOQ	0.003	%	< 0.003	Acceptable	
CBGA	<LOQ	0.003	%	< 0.003	Acceptable	
CBG	<LOQ	0.003	%	< 0.003	Acceptable	
CBD	<LOQ	0.003	%	< 0.003	Acceptable	
THCV	<LOQ	0.003	%	< 0.003	Acceptable	
d8THCV	<LOQ	0.003	%	< 0.003	Acceptable	
THCVA	<LOQ	0.003	%	< 0.003	Acceptable	
CBN	<LOQ	0.003	%	< 0.003	Acceptable	
exo-THC	<LOQ	0.003	%	< 0.003	Acceptable	
d9THC	<LOQ	0.003	%	< 0.003	Acceptable	
d8THC	<LOQ	0.003	%	< 0.003	Acceptable	
9S-d10THC	<LOQ	0.003	%	< 0.003	Acceptable	
CBL	<LOQ	0.003	%	< 0.003	Acceptable	
9R-d10THC	<LOQ	0.003	%	< 0.003	Acceptable	
CB	<LOQ	0.003	%	< 0.003	Acceptable	
THCA	<LOQ	0.003	%	< 0.003	Acceptable	
CBGA	<LOQ	0.003	%	< 0.003	Acceptable	
CBLA	<LOQ	0.003	%	< 0.003	Acceptable	
CBT	<LOQ	0.003	%	< 0.003	Acceptable	

Abbreviations

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

Units of Measure:

% - Percent



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Report Number: 23-002301/D002.R000
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Purchase Order:
Received: 02/27/23 12:43

Revision: 1 Document ID: 7148
Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

J AOAC 2015 V98-6 Batch ID: 2301864								
Sample Duplicate Sample ID: 23-002261-0001								
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBDV	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBE	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBDA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBG	0.0133	0.0134	0.003	%	0.698	< 20	Acceptable	
CBD	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBN	0.0034	0.0034	0.003	%	0.300	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
d9THC	0.264	0.265	0.003	%	0.520	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
9S-d10THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
9R-d10THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBC	0.0165	0.0166	0.003	%	0.325	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBCA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBT	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	

Abbreviations

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

Units of Measure:

% - Percent



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Revision: 2 Document ID: 7087
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Laboratory Quality Control Results

Residual Solvents				Batch ID: 2301985					
Method Blank				Laboratory Control Sample					
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes
Propane	ND	< 200		384	572	µg/g	67.1	60 - 120	
Isobutane	ND	< 200		494	731	µg/g	67.6	60 - 120	
Butane	ND	< 200		492	731	µg/g	67.3	60 - 120	
2,2-Dimethylpropane	ND	< 200		611	936	µg/g	65.3	60 - 120	
Methanol	ND	< 200		1850	1610	µg/g	114.9	60 - 120	
Ethylene Oxide	ND	< 30		38.2	56.2	µg/g	68.0	60 - 120	
2-Methylbutane	ND	< 200		2060	1600	µg/g	128.8	60 - 120	Q1
Pentane	ND	< 200		2050	1610	µg/g	127.3	60 - 120	Q1
Ethanol	ND	< 200		1870	1600	µg/g	116.9	70 - 130	
Ethyl Ether	ND	< 200		1950	1610	µg/g	121.1	60 - 120	Q1
2,2-Dimethylbutane	ND	< 30		210	173	µg/g	121.4	60 - 120	Q1
Acetone	ND	< 200		1920	1620	µg/g	118.5	60 - 120	
2-Propanol	ND	< 200		1890	1600	µg/g	118.1	60 - 120	
Acetonitrile	ND	< 100		576	488	µg/g	118.0	60 - 120	
2,3-Dimethylbutane	ND	< 30		198	165	µg/g	120.0	60 - 120	
Dichloromethane	ND	< 60		528	487	µg/g	108.4	60 - 120	
2-Methylpentane	ND	< 30		195	160	µg/g	121.9	60 - 120	Q1
3-Methylpentane	ND	< 30		175	161	µg/g	108.7	60 - 120	
Hexane	ND	< 30		233	162	µg/g	143.8	60 - 120	Q1
Ethyl acetate	ND	< 200		1840	1600	µg/g	115.0	60 - 120	
2-Butanol	ND	< 200		1860	1610	µg/g	115.5	60 - 120	
Tetrahydrofuran	ND	< 100		546	483	µg/g	113.0	60 - 120	
Cyclohexane	ND	< 200		1810	1610	µg/g	112.4	60 - 120	
Benzene	ND	< 1		7.17	4.98	µg/g	144.0	60 - 120	Q1
Isopropyl Acetate	ND	< 200		1800	1610	µg/g	111.8	60 - 120	
Heptane	ND	< 200		1830	1620	µg/g	113.0	60 - 120	
1,4-Dioxane	ND	< 100		525	494	µg/g	106.3	60 - 120	
2-Ethoxyethanol	ND	< 30		190	165	µg/g	115.2	60 - 120	
Ethylene Glycol	ND	< 200		674	486	µg/g	138.7	60 - 120	Q1
Toluene	ND	< 100		509	513	µg/g	99.2	60 - 120	
Ethylbenzene	ND	< 200		983	967	µg/g	101.7	60 - 120	
m,p-Xylene	ND	< 200		987	994	µg/g	99.3	60 - 120	
o-Xylene	ND	< 200		974	992	µg/g	98.2	60 - 120	
Cumene	ND	< 30		168	171	µg/g	98.2	60 - 120	



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QC - Sample Duplicate

Sample ID: 23-002392-0001

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	395	494	200	µg/g	22.3	< 20	FAIL	Q4
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	
Acetonitrile	ND	ND	100	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	
3-Methylpentane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Hexane	ND	ND	30	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	
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	
1,4-Dioxane	ND	ND	100	µg/g	0.0	< 20	Acceptable	
2-Ethoxyethanol	ND	ND	30	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	
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	

Abbreviations

ND - None Detected at or above MRL
RPD - Relative Percent Difference
LOQ - Limit of Quantitation
Q1 - Quality control result biased high. Only non-detect samples reported.
Q4 - Non-homogenous sample matrix, affecting RPD result and/or % recoveries.

Units of Measure:

µg/g- Microgram per gram or ppm



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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.