



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



**Report Number:** 23-014915/D004.R000  
**Report Date:** 01/29/2024  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 12/21/23 12:37

**Customer:** NW Natural Goods  
**Product identity:** HEMP - PR 0069  
**Client/Metric ID:** .  
**Laboratory ID:** 23-014915-0001

### Summary

**Potency:**

Analyte per 4g	Result	Limits	Units	Status	
CBC per 4g	0.190		mg/4g		CBD-Total per Serving Size 20.0 mg/4g
CBD per 4g	20.0		mg/4g		
CBG per 4g	10.6		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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**Customer:** NW Natural Goods

**Product identity:** HEMP - PR 0069

**Client/Metric ID:** .

**Sample Date:**

**Laboratory ID:** 23-014915-0001

**Evidence of Cooling:** No

**Temp:** 17.2

**Relinquished by:** client

**Serving Size #1:** 4 g

### Sample Results

Potency per 4g					
Method: J AOAC 2015 V98-6 (mod) <sup>b</sup>		Units mg/se		Batch: 2313908	
				Analyze: 12/28/23 7:19:00 PM	
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 4g	0.190		mg/4g	0.127	
CBC-A per 4g	< LOQ		mg/4g	0.127	
CBC-Total per 4g	< LOQ		mg/4g	0.238	
CBD per 4g	20.0		mg/4g	0.127	
CBD-A per 4g	< LOQ		mg/4g	0.127	
CBD-Total per 4g	20.0		mg/4g	0.238	
CBDV per 4g	< LOQ		mg/4g	0.127	
CBDV-A per 4g	< LOQ		mg/4g	0.127	
CBDV-Total per 4g	< LOQ		mg/4g	0.237	
CBE per 4g	< LOQ		mg/4g	0.127	
CBG per 4g	10.6		mg/4g	0.127	
CBG-A per 4g	< LOQ		mg/4g	0.127	
CBG-Total per 4g	10.6		mg/4g	0.237	
CBL per 4g	< LOQ		mg/4g	0.127	
CBL-A per 4g	< LOQ		mg/4g	0.127	
CBL-Total per 4g	< LOQ		mg/4g	0.238	
CBN per 4g	< LOQ		mg/4g	0.127	
CBT per 4g	< LOQ		mg/4g	0.127	
Δ8-THCV per 4g	< LOQ		mg/4g	0.127	
Δ10-THC-9R per 4g	< LOQ		mg/4g	0.127	
Δ10-THC-9S per 4g	< LOQ		mg/4g	0.127	
Δ10-THC-Total per 4g	< LOQ		mg/4g	0.254	
Δ8-THC per 4g	< LOQ		mg/4g	0.127	
Δ9-THC per 4g	< LOQ		mg/4g	0.127	
delta-9-THCP per 4g	< LOQ		mg/4g	0.127	
exo-THC per 4g	< LOQ		mg/4g	0.127	
THC-A per 4g	< LOQ		mg/4g	0.127	
THC-Total per 4g	< LOQ		mg/4g	0.238	
THCV per 4g	< LOQ		mg/4g	0.127	
THCV-A per 4g	< LOQ		mg/4g	0.127	
THCV-Total per 4g	< LOQ		mg/4g	0.238	
Total Cannabinoids per 4g	30.8		mg/4g		

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.

Testing in accordance with: OAR 333-007-0430



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**Microbiology**

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
E.coli	< LOQ		cfu/g	10	2313827	12/29/23 AOAC 991.14 (Petrifilm) <sup>P</sup>		
Total Coliforms	< LOQ		cfu/g	10	2313827	12/29/23 AOAC 991.14 (Petrifilm) <sup>P</sup>		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2313829	12/29/23 AOAC 2014.05 (RAPID) <sup>P</sup>		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2313829	12/29/23 AOAC 2014.05 (RAPID) <sup>P</sup>		

**Water Activity and Moisture**

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Water Activity	0.670		aw	0.0300	2313883	12/28/23 AOAC 978.18 <sup>P</sup>		

**Solvents Method: Residual Solvents by GC/MS<sup>P</sup> Units µg/g Batch 2400041 Analyze 01/02/24 02:36 PM**

Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
1,4-Dioxane	< LOQ		100			2-Butanol	< LOQ		200		
2-Ethoxyethanol	< LOQ		30.0			2-Methylbutane (Isopentane)	< LOQ		200		
2-Methylpentane	< LOQ		30.0			2-Propanol (IPA)	< LOQ		200		
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		200			Acetonitrile	< LOQ		100		
Benzene	< LOQ		1.00			Butanes (sum)	< LOQ		400		
Cyclohexane	< LOQ		200			Ethyl acetate	< LOQ		200		
Ethyl benzene	< LOQ		200			Ethyl ether	< LOQ		200		
Ethylene glycol	< LOQ		200			Ethylene oxide	< LOQ		20.0		
Hexanes (sum)	< LOQ		150			Isopropyl acetate	< LOQ		200		
Isopropylbenzene (Cumene)	< LOQ		30.0			m,p-Xylene	< LOQ		200		
Methanol	< LOQ		200			Methylene chloride	< LOQ		60.0		
Methylpropane (Isobutane)	< LOQ		200			n-Butane	< LOQ		200		
n-Heptane	< LOQ		200			n-Hexane	< LOQ		30.0		
n-Pentane	< LOQ		200			o-Xylene	< LOQ		200		
Pentanes (sum)	< LOQ		600			Propane	< LOQ		200		
Tetrahydrofuran	< LOQ		100			Toluene	< LOQ		100		
Total Xylenes	< LOQ		400			Total Xylenes and Ethyl benzene	< LOQ		600		

**Pesticides Method: AOAC 2007.01 & EN 15662 (mod)<sup>P</sup> Units mg/kg Batch 2400034 Analyze 01/02/24 12:48 PM**

Analyte	Result	Limits	Status	Notes
Multi-Residue Pesticide Profile	< LOQ for all analytes			



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**Metals**

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Arsenic*	< LOQ		mg/kg	0.0189	2313885	12/28/23 AOAC 2013.06 (mod.) <sup>P</sup>		
Cadmium*	< LOQ		mg/kg	0.0189	2313885	12/28/23 AOAC 2013.06 (mod.) <sup>P</sup>		
Lead*	< LOQ		mg/kg	0.0189	2313885	12/28/23 AOAC 2013.06 (mod.) <sup>P</sup>		
Mercury*	< LOQ		mg/kg	0.00945	2313885	12/28/23 AOAC 2013.06 (mod.) <sup>P</sup>		

**Nutrition**

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Moisture (Loss on Drying)	17.7		g/100g	0.10	2400065	01/02/24 AOAC 925.10 (mod.) <sup>P</sup>		



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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.

<sup>p</sup> = ISO/IEC 17025:2017 accredited method.

<sup>¥</sup> = 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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Cannabis Multi-Residue Profile, Limits of Quantitation

Compound	LOQ (mg/kg)	Compound	LOQ (mg/kg)	Compound	LOQ (mg/kg)
Abamectin	0.100	Cethodim	0.050	Endrin	0.100
Acephate	0.100	Cethodim Sulfone	0.050	EPN	0.050
Acequinocyl	0.100	Cethodim Sulfoxide	0.050	EPIC	0.100
Acetamiprid	0.020	Cb fenfentzine	0.020	Esfenvalerate/ Fenvalerate	0.200
Acetochlor	0.100	Cb mazone	0.020	Etaconazole	0.100
Acrinathrin	0.100	Cb thianidin	0.200	Ethalfuralin	0.100
Alachlor	0.100	Cumaphos	0.050	Ethiofencarb	0.050
Aldicarb	0.100	Crtoxypfos	0.020	Ethion	0.200
Aldicarb sulfoxide	0.100	Cyarazine	0.020	Ethirimol	0.100
Aldoxycarb (Aldicarb-sulfone)	0.100	Cyartofenphos	0.020	Ethofumesate	0.050
Aldrin	0.100	Cyatraniiprole	0.050	Ethoprophos	0.020
Ametoctradin	0.020	Cyazflamid	0.020	Etofenprox	0.020
Ametryn	0.500	Cytoate	0.100	Etoazole	0.020
Aspon	0.100	Cyfluthrin	0.200	Eridiazole	0.100
Asulam	0.100	Cyhalothrin, lambda	0.200	Erimfos	0.020
Atrazine	0.100	Cymoxanil	0.050	Famoxadone	0.200
Atrazine-desethyl	0.100	Cypermethrin	0.200	Famphur	0.100
Azinphos-ethyl	0.020	Cyprodinil	0.100	Fenamidone	0.020
Azinphos-methyl	0.020	Dadhal	0.100	Fenamiphos	0.020
Azoxystrobin	0.020	Damnozide	0.100	Fenamiphos sulfone	0.020
Beralaxyl	0.020	DCEMU	0.050	Fenamiphos sulfoxide	0.020
Berdicarb	0.020	DDD, op'	0.100	Fenazaquin	0.100
Berfluralin	0.100	DDD, p,p'	0.100	Fenbuconazole	0.100
Berxacor	0.050	DCE, o,p'	0.100	Fenchlorphos	0.100
Bersulide	0.050	DCE, p,p'	0.100	Fenchlorphos-oxon	0.100
BHC alpha isomer	0.100	DDT, o,p'	0.100	Fenhexamid	0.100
BHC beta isomer	0.100	DDT, p,p'	0.100	Fenitrothion	0.100
BHC delta isomer	0.500	DEF (Tribufos)	0.100	Fenobucarb	0.050
Bifenazate	0.020	Delamethrin	0.100	Fenoxycarb	0.020
Bifenthrin	0.020	Desmedipham	0.100	Fenpropathrin	0.050
Boscalid	0.020	Diallate	0.100	Fenpyroximate	0.020
Bromophos-ethyl	0.100	Diazinon	0.020	Fenson	0.100
Bromophos-methyl	0.200	Diazoxon	0.100	Fensulfiothion	0.020
Bromopropylate	0.100	Dichlobenil	0.100	Fensulfiothion oxon	0.020
Bromuconazole	0.100	Dichlofluanid	0.100	Fensulfiothion sulfone	0.100
Bupirimate	0.020	Dichlorvos	0.100	Fensulfiothion-oxon-sulfone	0.020
Buprofezin	0.050	Diclobutrazol	0.050	Fenthion	0.050
Butachlor	0.500	Dicofol	0.100	Fenthion oxon	0.020
Butralin	0.200	Dicrotophos	0.050	Fenthion oxon sulfone	0.100
Butylate	0.100	Dieldrin	0.100	Fenthion sulfone	0.050
Cadusafos	0.020	Diethofencarb	0.020	Fenuron	0.020
Captan	1.000	Diethyltoluamide (DEET)	0.050	Fipronil	0.100
Carbaryl	0.050	Difenoconazole	0.100	Fonicamid	0.100
Carbendazim	0.100	Dimethenamid	0.050	Fuchloralin	0.100
Carbofuran	0.020	Dimethoate	0.050	Flucythrinate	0.100
Carbophenothion	0.200	Dimethomorph	0.050	Fludioxonil	0.200
Carboxin	0.020	Diniconazole	0.200	Flufenacet	0.020
Carfentrazone-ethyl	0.100	Dinotefuran	0.200	Flumioxazin	0.100
Chlorantraniliprole	0.020	Dioxathion	0.100	Flumeturon	0.020
Chordane, cis-	0.200	Diphenamid	0.020	Fluopicolide	0.050
Chordane, trans-	0.200	Diphenylamine	0.100	Fluopyram	0.020
Chlorfenapyr	0.500	Disulfoton	0.100	Fluoxastrobin	0.050
Chlorfenson	0.200	Disulfoton sulfone	0.100	Flupyradifurone	0.020
Chlorfenvinphos	0.050	Disulfoton sulfoxide	0.100	Fluridone	0.100
Chlorobenzilate	0.100	Diuron	0.050	Flusilazole	0.020
Chloroneb	0.200	Edifenphos	0.050	Flutolanil	0.020
Chlorpyrifos	0.050	Endosulfan alpha	0.200	Flutriafol	0.020
Chlorpyrifos-methyl	0.200	Endosulfan beta	0.200	Fluvalinate, tau-	0.100
CIPC	1.000	Endosulfan sulfate	0.100	Fluxapyroxad	0.020



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Cannabis Multi-Residue Profile, Limits of Quantitation

Compound	LOQ(mg/kg)	Compound	LOQ(mg/kg)	Compound	LOQ(mg/kg)
Fomesafen	0.100	Mexacarbate	0.020	Propamocarb	0.050
Fonofos	0.100	MGK 264	0.020	Proparil	0.050
Forchlorfenuron	0.050	Mirex	0.100	Propargite	0.050
Formetanate	0.050	Molinate	0.050	Propazine	0.020
Furathiocarb	0.020	Monocrotophos	0.100	Propetamphos	0.050
Heptachlor	0.100	Monolinuron	0.020	Propham	0.050
Heptachlor epoxide	0.100	Myclobutanil	0.050	Propiconazole	0.050
Heptenophos	0.100	Naled	0.100	Propoxur	0.050
Hexachlorobenzene	0.100	Napropamide	0.050	Propoxycarbazone Na	0.050
Hexaconazole	0.100	Neburon	0.020	Propyzamide	0.050
Hexazinone	0.100	Nitrapyrin	0.100	Prthiofos	0.100
Hexythiazox	0.020	Norflurazon	0.050	Pyraclostrobin	0.020
Imazalil	0.100	Omethoate	0.100	Pyrazophos	0.050
Imidacoprid	0.100	O-Phenylphenol	0.100	Pyrethrins	0.050
Indaziflam	0.020	Oxadixyl	0.100	Pyridaben	0.020
Indoxacarb	0.020	Oxamyl	0.100	Pyridafol	0.100
Iprobenfos	0.100	Oxamyl-oxime	0.100	Pyridate	0.020
Iprodione	0.100	Oxychlorane	0.100	Pyrimethanil	0.050
Isobenzan	0.100	Oxydemeton-Methyl	0.100	Pyriproxifen	0.020
Isocarbophos	0.500	Oxythioquinox	0.200	Pyroxasulfone	0.020
Isodrin	0.100	Padlobutrazol	0.050	Pyroxulam	0.020
Isofenphos	0.050	Paraoxon-ethyl	0.020	Quinalphos	0.050
Isofenphos-methyl	0.020	Paraoxon methyl	0.100	Quinoxyfen	0.050
Isofenphos oxon	0.050	Parathion ethyl	0.100	Quintozene (PQNB)	0.200
Isoprocarb	0.020	Parathion methyl	0.200	Resmethrin	0.050
Isopropalin	0.200	Perconazole	0.050	Rotenone	0.050
Isoprothiolane	0.050	Perdimethalin	0.050	S421	0.100
Isoproturon	0.050	Perflufen	0.020	Smaazine	0.100
Isoxaben	0.050	Pertachloroaniline	0.100	Smectryn	0.200
Isoxaflutole	0.050	Pertachloroanisole	0.100	Spinetoram	0.020
Kresoxim-methyl	0.050	Pentachlorobenzene (PCB)	0.100	Spinosad	0.050
Lactofen	0.500	Pentachlorothiobenzene (PCTA)	0.100	Spirodiclofen	0.100
Lenacl	0.100	Perthiopyrad	0.020	Spiromesifen	0.050
Lindane (gammaBHC)	0.100	Permethrin	0.050	Spirotetramat	0.050
Linuron	0.020	Pethane	0.100	Spiroxamine	0.020
Malaaxon	0.050	Phenmedipharm	0.050	Sulfotep	0.050
Malathion	0.050	Phanthoate	0.050	Sulfoxaflor	0.050
Mandipropamid	0.020	Phorate	0.050	Sulprofos	0.020
Mecarbam	0.020	Phorate Sulfone	0.050	Tebuconazole	0.100
Mepanipyrim	0.050	Phorate Sulfoxide	0.050	Tebufenozide	0.020
Merphos	0.500	Phosalone	0.050	Tebuthiuron	0.020
Metalaxyl	0.050	Phosmet	0.100	Tecnazene	0.100
Metaldehyde	0.050	Phosphamidon	0.050	Tefluthrin	0.100
Metconazole	0.100	Phoxim	0.050	Terbufos	0.020
Methacifos	0.100	Pinoxaden	0.020	Terbufos sulfone	0.050
Methamidophos	0.050	Piperonyl butoxide	0.050	Terbufos sulfoxide	0.050
Methidathion	0.050	Pirimicarb	0.020	Terbutylazine	0.020
Methiocarb	0.050	Pirimiphos-methyl	0.050	Terbutryn	0.020
Methiocarb sulfone	0.100	Pirimiphos-ethyl	0.020	Tetrachlorvinphos	0.050
Methiocarb sulfoxide	0.100	Prallethrin	0.100	Tetraconazole	0.050
Methomyl	0.100	Prochloraz	0.020	Tetradfon	0.200
Methoxychlor	0.100	Procyimdone	0.100	Tetramethrin	0.050
Methoxyfenozide	0.020	Prfenofos	0.100	Tetrasul	0.100
Metobromuron	0.050	Prfluralin	0.100	Thiabendazole	0.100
Metolachlor	0.100	Prmecarb	0.050	Thiabendazole, 5-hydroxy	0.100
Metolcarb	0.050	Prometon	0.100	Thiadoprid	0.050
Metraferone	0.050	Prometryn	0.020	Thiamethoxam	0.100
Metribuzin	0.100	Propadchlor	0.020	Thiobencarb	0.050
Mevinphos	0.100			Thiodicarb	0.050
				Thiophanate-methyl	0.050



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Cannabis Multi-Residue Profile, Limits of Quantitation

Compound	LOQ(mg/kg)	Compound	LOQ(mg/kg)	Compound	LOQ(mg/kg)
Tolclofos-methyl	0.100	Triazophos	0.020	Trifloxystrobin	0.020
Triforin	0.100	Tolyfluarid	0.050	Triconazole	0.050
Tralkoxydim	0.100	Tridiphane	0.500	Vindozolin	0.100
Triadimefon	0.050	Triflumizole	0.020	Zoxamide	0.020
Triallate	0.100	Trifluralin	0.100		

LOQ= Limit of Quantitation, mg/kg

Factors affecting the LOQ include instrumentation sensitivity for a particular analyte, sample size, moisture content (percent solids) of the sample, effectiveness of the cleanup on the sample extract, and especially the type of sample matrix.





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**Hemp & Cannabis  
Chain of Custody**

**Northwest-Natural-  
goods-1703093940**

ORELAP ID: **OR1000028** ANAB ISO 17025 ID: **AT1508**

<b>Contact Information</b> Company: Northwest Natural goods 		<b>Project Details</b> Turnaround Time: <u>5 Business Days (Rn, For Micro Testing)   Standard</u> Sample Relinquishment Options: <u>Schedule Pick-Up</u> Desired Pick Up/Sampling Time & Date : <u>12/21/23</u> Compliance: <u>Compliance</u> Project Name/ ID: <u>HEMP-PR 888</u> Cannabis Type (select if applicable): <u>Industrial</u> <b>Pick-Up Details</b> Pick-Up Location Name: <u>Northwest Natural goods</u>  City, State, Zip: <u>Clackamas, OR 97016</u> <b>Receipt Information</b> Sample Condition: <u>Satisfactory</u>				<b>Testing</b>									
		M075 - E. coli Coliform Count (CFU/ml)	P220 - Multi-Residue Pesticide Profile (Cannabis)	N301 - Water Activity	M233 - RAPID Yeast and Mold Count (YMF) (Penicillin)	H0012 - Cannabis Heavy Metals Profile (CF)	H0006 - Pesticidal Solvents (Cannabis - Oregon)	H100 - Moisture (Loss on Drying)	H0010 - Potency Cannabis (East-Extended)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
#	Sample Name Test	Material	Amount Provided	Reporting Unit	Serving Size										
1	HEMP-PR 888	Combinaid Edible	20 each	mg/g & mg/serving	4 g										

Relinquished By	Date	Time	Temp., °C	Received By	Date	Time	Received Temp., °C	Evidence of Cooling?
CHARLES MEGARS	12/20/2023	09:39		RAT	12/21/2023	11:16	NA	No
RAT	12/21/2023	12:02	17.20	rke	12/21/2023	12:37	NA	No

Sample submitted to Columbia Laboratories with testing requirements constitute an agreement for services in accordance with the [current terms of services](#) associated with the COC. By signing "Relinquished by" you are agreeing to these terms.  
 Columbia Laboratories  
 12423 NE Whitaker Way  
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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.

Testing in accordance with: OAR 333-007-0390 OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0420 OAR 333-007-0430



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



**Report Number:** 23-014915/D004.R000  
**Report Date:** 01/29/2024  
**ORELAP#:** OR100028  
**Purchase Order:**  
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Revision: 4 Document ID: 7148  
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Laboratory Quality Control Results

JAOAC2015 V986 Batch ID: 2313908

Laboratory Control Sample									
Analyte	LCS	Result	Spike	Units	% Rec	Limits		Evaluation	Notes
CBDVA	2	0.0317	0.0329	%	96.4	80.0	- 120	Acceptable	
CBDV	2	0.0312	0.0322	%	96.8	80.0	- 120	Acceptable	
CBE	2	0.0336	0.0350	%	96.0	80.0	- 120	Acceptable	
CBDA	1	0.0313	0.0317	%	98.7	90.0	- 110	Acceptable	
CBGA	1	0.0311	0.0315	%	98.8	80.0	- 120	Acceptable	
CBG	1	0.0301	0.0309	%	97.6	80.0	- 120	Acceptable	
CBD	1	0.0330	0.0330	%	100	90.0	- 110	Acceptable	
THCV	2	0.0339	0.0352	%	96.3	80.0	- 120	Acceptable	
d8THCV	2	0.0296	0.0307	%	96.2	80.0	- 120	Acceptable	
THCVA	2	0.0307	0.0320	%	96.1	80.0	- 120	Acceptable	
CBN	1	0.0329	0.0330	%	99.6	80.0	- 120	Acceptable	
exo-THC	2	0.0300	0.0313	%	95.9	80.0	- 120	Acceptable	
d9THC	1	0.0337	0.0337	%	99.9	90.0	- 110	Acceptable	
d8THC	1	0.0334	0.0336	%	99.3	90.0	- 110	Acceptable	
9S-d10THC	1	0.0320	0.0326	%	98.3	80.0	- 120	Acceptable	
CBL	2	0.0320	0.0326	%	98.0	80.0	- 120	Acceptable	
9R-d10THC	1	0.0311	0.0318	%	97.9	80.0	- 120	Acceptable	
CBC	2	0.0310	0.0328	%	94.4	80.0	- 120	Acceptable	
THCA	1	0.0319	0.0322	%	98.9	90.0	- 110	Acceptable	
CBCA	2	0.0319	0.0334	%	95.5	80.0	- 120	Acceptable	
CBLA	2	0.0328	0.0343	%	95.7	80.0	- 120	Acceptable	
d9THCP	2	0.0313	0.0328	%	95.3	80.0	- 120	Acceptable	
CBT	2	0.0319	0.0341	%	93.6	80.0	- 120	Acceptable	

Method Blank							
Analyte	Result	LOQ	Units	Limits		Evaluation	Notes
CBDVA	<LOQ	0.00322	%	< 0.00322		Acceptable	
CBDV	<LOQ	0.00322	%	< 0.00322		Acceptable	
CBE	<LOQ	0.00322	%	< 0.00322		Acceptable	
CBDA	<LOQ	0.00322	%	< 0.00322		Acceptable	
CBGA	<LOQ	0.00322	%	< 0.00322		Acceptable	
CBG	<LOQ	0.00322	%	< 0.00322		Acceptable	
CBD	<LOQ	0.00322	%	< 0.00322		Acceptable	
THCV	<LOQ	0.00322	%	< 0.00322		Acceptable	
d8THCV	<LOQ	0.00322	%	< 0.00322		Acceptable	
THCVA	<LOQ	0.00322	%	< 0.00322		Acceptable	
CBN	<LOQ	0.00322	%	< 0.00322		Acceptable	
exo-THC	<LOQ	0.00322	%	< 0.00322		Acceptable	
d9THC	<LOQ	0.00322	%	< 0.00322		Acceptable	
d8THC	<LOQ	0.00322	%	< 0.00322		Acceptable	
9S-d10THC	<LOQ	0.00322	%	< 0.00322		Acceptable	
CBL	<LOQ	0.00322	%	< 0.00322		Acceptable	
9R-d10THC	<LOQ	0.00322	%	< 0.00322		Acceptable	
CBC	<LOQ	0.00322	%	< 0.00322		Acceptable	
THCA	<LOQ	0.00322	%	< 0.00322		Acceptable	
CBCA	<LOQ	0.00322	%	< 0.00322		Acceptable	
CBLA	<LOQ	0.00322	%	< 0.00322		Acceptable	
d9THCP	<LOQ	0.00322	%	< 0.00322		Acceptable	
CBT	<LOQ	0.00322	%	< 0.00322		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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Laboratory Quality Control Results

JAOAC2015 V986		Batch ID: 2313908						
Sample Duplicate		Sample ID: 23-0148630001						
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
CBDV	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
CBE	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
CBD	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
CBDA	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
CBG	0.00384	0.00369	0.00310	%	3.99	< 20	Acceptable	
CBD	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
CBN	0.00795	0.00770	0.00310	%	3.15	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
d9THC	0.250	0.243	0.00310	%	2.92	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
9S-d10THC	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
9R-d10THC	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
CBC	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
CBCA	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
d9THCP	<LOQ	<LOQ	0.00310	%	NA	< 20	Acceptable	
CBT	<LOQ	<LOQ	0.00310	%	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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Laboratory Quality Control Results

Residual Solvents				Batch ID: 2400041						
Method Blank				Laboratory Control Sample						
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes	
Propane	ND	< 200		580	584	µg/g	99.3	60 - 120		
Isobutane	ND	< 200		704	767	µg/g	91.8	60 - 120		
Butane	ND	< 200		710	782	µg/g	90.8	60 - 120		
2,2-Dimethylpropane	ND	< 200		937	939	µg/g	99.8	60 - 120		
Methanol	ND	< 200		1380	1600	µg/g	86.3	60 - 120		
Ethylene Oxide	ND	< 30		53.3	57.1	µg/g	93.3	60 - 120		
2-Methylbutane	ND	< 200		1400	1600	µg/g	87.5	60 - 120		
Pentane	ND	< 200		1370	1600	µg/g	85.6	60 - 120		
Ethanol	ND	< 200		1270	1600	µg/g	79.4	70 - 130		
Ethyl Ether	ND	< 200		1350	1600	µg/g	84.4	60 - 120		
2,2-Dimethylbutane	ND	< 30		137	161	µg/g	85.1	60 - 120		
Acetone	ND	< 200		1400	1600	µg/g	87.5	60 - 120		
2-Propanol	ND	< 200		1360	1600	µg/g	85.0	60 - 120		
Ethyl Formate	ND	< 500		1210	1600	µg/g	75.6	70 - 130		
Acetonitrile	ND	< 100		404	488	µg/g	82.8	60 - 120		
Methyl Acetate	ND	< 500		1410	1610	µg/g	87.6	70 - 130		
2,3-Dimethylbutane	ND	< 30		133	163	µg/g	81.6	60 - 120		
Dichloromethane	ND	< 60		403	488	µg/g	82.6	60 - 120		
2-Methylpentane	ND	< 30		141	161	µg/g	87.6	60 - 120		
MTBE	ND	< 500		1550	1650	µg/g	93.9	70 - 130		
3-Methylpentane	ND	< 30		137	162	µg/g	84.6	60 - 120		
Hexane	ND	< 30		122	161	µg/g	75.8	60 - 120		
1-Propanol	ND	< 500		1470	1620	µg/g	90.7	70 - 130		
Methylethylketone	ND	< 500		1410	1610	µg/g	87.6	70 - 130		
Ethyl acetate	ND	< 200		1370	1610	µg/g	85.1	60 - 120		
2-Butanol	ND	< 200		1310	1610	µg/g	81.4	60 - 120		
Tetrahydrofuran	ND	< 100		397	483	µg/g	82.2	60 - 120		
Cyclohexane	ND	< 200		1290	1600	µg/g	80.6	60 - 120		
2-methyl-1-propanol	ND	< 500		1350	1600	µg/g	84.4	70 - 130		
Benzene	ND	< 1		2.42	4.99	µg/g	48.5	60 - 120		
Isopropyl Acetate	ND	< 200		1330	1600	µg/g	83.1	60 - 120		
Heptane	ND	< 200		1310	1600	µg/g	81.9	60 - 120		
1-Butanol	ND	< 500		1370	1610	µg/g	85.1	70 - 130		
Propyl Acetate	ND	< 500		1410	1610	µg/g	87.6	70 - 130		
1,4-Dioxane	ND	< 100		334	480	µg/g	69.6	60 - 120		
2-Ethoxyethanol	ND	< 30		114	161	µg/g	70.8	60 - 120		
Methylisobutylketone	ND	< 500		1360	1610	µg/g	84.5	70 - 130		
3-Methyl-1-butanol	ND	< 500		1300	1610	µg/g	80.7	70 - 130		
Ethylene Glycol	ND	< 200		257	481	µg/g	53.4	60 - 120	Q6	
Toluene	ND	< 100		364	483	µg/g	75.4	60 - 120		
Isobutyl Acetate	ND	< 500		1390	1610	µg/g	86.3	70 - 130		
1-Pentanol	ND	< 500		1310	1610	µg/g	81.4	70 - 130		
Butyl Acetate	ND	< 500		1320	1600	µg/g	82.5	70 - 130		
Ethylbenzene	ND	< 200		706	962	µg/g	73.4	60 - 120		
m,p-Xylene	ND	< 200		682	972	µg/g	70.2	60 - 120		
o-Xylene	ND	< 200		698	965	µg/g	72.3	60 - 120		
Cumene	ND	< 30		120	169	µg/g	71.0	60 - 120		
Anisole	ND	< 500		1160	1600	µg/g	72.5	70 - 130		
DMSO	ND	< 500		1030	1600	µg/g	64.4	70 - 130	Q6	
1,2-dimethoxyethane	ND	< 50		145	163	µg/g	89.0	70 - 130		
Triethylamine	ND	< 500		1220	1600	µg/g	76.3	70 - 130		
N,N-dimethylformamide	ND	< 150		380	482	µg/g	78.8	70 - 130		
N,N-dimethylacetamide	ND	< 150		362	483	µg/g	74.9	70 - 130		
Pyridine	ND	< 50		139	161	µg/g	86.3	70 - 130		
Sulfolane	ND	< 50		102	163	µg/g	62.6	70 - 130	Q6	
1,2-Dichloroethane	ND	< 1		0.92	1	µg/g	92.0	70 - 130		
Chloroform	ND	< 1		0.81	1	µg/g	81.0	70 - 130		
Trichloroethylene	ND	< 1		0.747	1	µg/g	74.7	70 - 130		
1,1-Dichloroethane	ND	< 1		0.846	1	µg/g	84.6	70 - 130		



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QC - Sample Duplicate Sample ID: 23-014915-0001

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	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	
Methyl ethyl ketone	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

**Units of Measure:**

µg/g - Microgram per gram or ppm



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**Report Number:** 23-014915/D004.R000  
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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.