Columbia LABORATORIES
A Tentamus Company

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

Report Number: 23-010403/D002.R000
Report Date: 09/07/2023
ORELAP#: OR100028
Purchase Order:
Received: 08/31/23 13:25

Customer: NW Natural Goods
Product identity: HEMP - PCH 0011
Client/Metrc ID: .
Laboratory ID: 23-010403-0001

Summary

Potency:

Analyte per 4g	Result	Limits	Units	Status
CBC per 4g	9.80		mg/4g	
CBD per 4g	20.0		mg/4g	
CBG per 4g	0.592		mg/4g	
CBT per 4g	0.154		mg/4g	

CBD-Total per Serving Size 20.0 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.

Testing in accordance with: OAR 333-007-0430

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Received: 08/31/23 13:25

Customer: NW Natural Goods

Product identity: HEMP - PCH 0011
Client/Metrc ID: .
Sample Date:
Laboratory ID: 23-010403-0001
Evidence of Cooling: No
Temp: 19.9
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:** 2310647 **Analyze:** 9/6/23 4:40:00 AM

Analyte	Result	Limits	Units	LOQ	Notes
CBC per 4g	9.80		mg/4g	0.123	
CBC-A per 4g	< LOQ		mg/4g	0.123	
CBC-Total per 4g	9.80		mg/4g	0.231	
CBD per 4g	20.0		mg/4g	0.123	
CBD-A per 4g	< LOQ		mg/4g	0.123	
CBD-Total per 4g	20.0		mg/4g	0.231	
CBDV per 4g	< LOQ		mg/4g	0.123	
CBDV-A per 4g	< LOQ		mg/4g	0.123	
CBDV-Total per 4g	< LOQ		mg/4g	0.230	
CBE per 4g	< LOQ		mg/4g	0.123	
CBG per 4g	0.592		mg/4g	0.123	
CBG-A per 4g	< LOQ		mg/4g	0.123	
CBG-Total per 4g	0.592		mg/4g	0.230	
CBL per 4g	< LOQ		mg/4g	0.123	
CBL-A per 4g	< LOQ		mg/4g	0.123	
CBL-Total per 4g	< LOQ		mg/4g	0.231	
CBN per 4g	< LOQ		mg/4g	0.123	
CBT per 4g	0.154		mg/4g	0.123	
Δ8-THCV per 4g	< LOQ		mg/4g	0.123	
Δ10-THC-9R per 4g	< LOQ		mg/4g	0.123	
Δ10-THC-9S per 4g	< LOQ		mg/4g	0.123	
Δ10-THC-Total per 4g	< LOQ		mg/4g	0.247	
Δ8-THC per 4g	< LOQ		mg/4g	0.123	
Δ9-THC per 4g	< LOQ		mg/4g	0.123	
delta-9-THCP per 4g	< LOQ		mg/4g	0.123	
exo-THC per 4g	< LOQ		mg/4g	0.123	
THC-A per 4g	< LOQ		mg/4g	0.123	
THC-Total per 4g	< LOQ		mg/4g	0.231	
THCV per 4g	< LOQ		mg/4g	0.123	
THCV-A per 4g	< LOQ		mg/4g	0.123	
THCV-Total per 4g	< LOQ		mg/4g	0.232	
Total Cannabinoids per 4g	30.6		mg/4g		

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Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed	Method	Status	Notes
E.coli	< LOQ		cfu/g	10	2310543	09/03/23	AOAC 991.14 (Petrifilm)þ		
Total Coliforms	< LOQ		cfu/g	10	2310543	09/03/23	AOAC 991.14 (Petrifilm)þ		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2310544	09/03/23	AOAC 2014.05 (RAPID)þ		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2310544	09/03/23	AOAC 2014.05 (RAPID)þ		

Solvents

Method: Residual Solvents by GC/MSþ **Units** µg/g **Batch** 2310644 **Analyze** 09/06/23 10:31 AM

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-Dimethy butane	< LOQ		30.0			2,2-Dimethylpropane (neo-pentane)	< LOQ		200		
2,3-Dimethy butane	< 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	
Isopropy benzene (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)þ **Units** mg/kg **Batch** 2310685 **Analyze** 09/07/23 11:27 AM

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	0.200	mg/kg	0.0197	2310661	09/06/23	AOAC 2013.06 (mod.)þ	pass	
Cadmium¥	< LOQ	0.200	mg/kg	0.0197	2310661	09/06/23	AOAC 2013.06 (mod.)þ	pass	
Lead¥	< LOQ	0.500	mg/kg	0.0197	2310661	09/06/23	AOAC 2013.06 (mod.)þ	pass	
Mercury¥	< LOQ	0.100	mg/kg	0.00984	2310661	09/06/23	AOAC 2013.06 (mod.)þ	pass	

Nutrition

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed	Method	Status	Notes
Moisture (Loss on Drying)	18.4		g/100g	0.10	2310629	09/05/23	AOAC 925.10 (mod.)þ		
Water Activity	0.695		Aw	0.030	2310567	09/01/23	AOAC 978.18þ		

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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.

ᵇ = 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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Cannabis Multi-Residue Profile, Limits of Quantitation

Compound	LOQ (mg/kg)
Abamectin	0.100
Acephate	0.100
Acequinocyl	0.100
Acetamiprid	0.020
Acetochlor	0.100
Acrinathrin	0.100
Alachlor	0.100
Aldicarb	0.100
Aldicarb sulfoxide	0.100
Aldoxycarb (Aldicarb-sulfone)	0.100
Aldrin	0.100
Amethocarbamide	0.020
Amethyrin	0.500
Aspon	0.100
Asulam	0.100
Atrazine	0.100
Atrazine-desethyl	0.100
Azinphos-ethyl	0.020
Azinphos-methyl	0.020
Azoxystrobin	0.020
Benalaxyl	0.020
Bendiocarb	0.020
Benfluralin	0.100
Benoxacor	0.050
Bensulide	0.050
BHC alpha isomer	0.100
BHC beta isomer	0.100
BHC delta isomer	0.500
Bifenazate	0.020
Bifenthrin	0.020
Boscalid	0.020
Bromophos-ethyl	0.100
Bromophos-methyl	0.200
Bromopropylate	0.100
Bromuconazole	0.100
Bupirimate	0.020
Buprofezin	0.050
Butachlor	0.500
Butralin	0.200
Butylate	0.100
Cadusafos	0.020
Captan	1.000
Carbaryl	0.050
Carbendazim	0.100
Carbofuran	0.020
Carbophenothion	0.200
Carboxin	0.020
Carfentrazone-ethyl	0.100
Chloranthraniliprole	0.020
Chlordane, cis-	0.200
Chlordane, trans-	0.200
Chlorfenapyr	0.500
Chlorfenson	0.200
Chlorfenvinphos	0.050
Chlorobenzilate	0.100
Chloroneb	0.200
Chlorpyrifos	0.050
Chlorpyrifos-methyl	0.200
CPMC	1.000
Clethodim	0.050
Clethodim Sulfone	0.050
Clethodim Sulfoxide	0.050
Clofentezine	0.020
Clomazone	0.020
Clothianidin	0.200
Coumaphos	0.050
Crotoxyphos	0.020
Cyanazine	0.020
Cyanophenphos	0.020
Cyantraniliprole	0.050
Cyazofamid	0.020
Cycloate	0.100
Cyfluthrin	0.200
Cyhalothrin, lambda	0.200
Cymoxanil	0.050
Cypermethrin	0.200
Cyprodinil	0.100
Dachthal	0.100
Daminozide	0.100
DCPMU	0.050
DDD, o,p'-	0.100
DDD, p,p'-	0.100
DDE, o,p'-	0.100
DDE, p,p'-	0.100
DDT, o,p'-	0.100
DDT, p,p'-	0.100
Deet (Tribufos)	0.100
Delamethrin	0.100
Desmedipham	0.100
Dialkate	0.100
Diazinon	0.020
Diazoxon	0.100
Dichlobenil	0.100
Dichlofluanid	0.100
Dichlorvos	0.100
Diclobutrazol	0.050
Dicofol	0.100
Dicrotophos	0.050
Dieldrin	0.100
Diethofencarb	0.020
Difethialone (DFT)	0.050
Difenoconazole	0.100
Dimethenamid	0.050
Dimethoate	0.050
Dimethomorph	0.050
Diniconazole	0.200
Dinotefuran	0.200
Dioxathion	0.100
Diphenamid	0.020
Diphenylamine	0.100
Disulfoton	0.100
Disulfoton sulfone	0.100
Disulfoton sulfoxide	0.100
Diuron	0.050
Edifenphos	0.050
Endosulfan alpha	0.200
Endosulfan beta	0.200
Endosulfan sulfate	0.100
Endrin	0.100
EPN	0.050
EPTC	0.100
Esfenvalerate/ Fenvalerate	0.200
Etaconazole	0.100
Ethalfluralin	0.100
Ethiofencarb	0.050
Ethion	0.200
Ethirimol	0.100
Ethoprophos	0.050
Etofenprox	0.020
Etoxazole	0.020
Etridiazole	0.100
Famoxadone	0.020
Famphur	0.200
Fenamidone	0.100
Fenamiphos	0.020
Fenamiphos sulfone	0.020
Fenamiphos sulfoxide	0.020
Fenazaquin	0.100
Fenbuconazole	0.100
Fenchlorphos	0.100
Fenchlorphos-oxon	0.100
Fenhexamid	0.100
Fenitrothion	0.100
Fenobucarb	0.050
Fenoxycarb	0.020
Fenpropathrin	0.050
Fenpyroximate	0.020
Fenson	0.100
Fensulfothion	0.020
Fensulfothion-oxon	0.020
Fensulfothion-oxon-sulfone	0.100
Fenthion	0.020
Fenthion-oxon	0.050
Fenthion-oxon-sulfone	0.020
Fenthion-sulfone	0.100
Fenthion-sulfoxide	0.050
Fenuron	0.020
Fipronil	0.100
Flonicamid	0.100
Fluchloralin	0.100
Flucythrinate	0.100
Fludioxonil	0.200
Flufenacet	0.020
Flumioxazin	0.100
Fluopicolide	0.020
Fluopyram	0.050
Fluoxastrobin	0.020
Flupyradifurone	0.050
Fluridone	0.020
Flusilazole	0.100
Flutolanil	0.020
Flutriafol	0.020
Fluvalinate, tau-	0.100
Foxapyroxad	0.020

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Cannab s Mu t -Res due Prof e, L m ts of Quant tat on

Compound	LOQ (mg/kg)
omesa en	0.100
ono os	0.100
orchlor enuron	0.050
orme ana e	0.050
ura hiocarb	0.020
ep achlor	0.100
ep achlor epoxide	0.100
ep enophos	0.100
exachlorobenzene	0.100
exaconazole	0.100
exazinone	0.100
exy hiazox	0.020
mazalil	0.100
midacloprid	0.100
ndazi lam	0.020
ndoxacarb	0.020
proben os	0.100
prodione	0.100
sobenzan	0.100
socarbophos	0.500
sodrin	0.100
so enphos	0.050
so enphos-me hyl	0.020
so enphos oxon	0.050
soprocarb	0.020
sopropalin	0.200
sopro hiolane	0.050
sopro uron	0.050
soxaben	0.050
soxa lu ole	0.050
Kresoxim-me hyl	0.050
ac o en	0.500
enacil	0.100
indane (gamma B C)	0.100
inuron	0.020
Malaoxon	0.050
Mala hion	0.050
Mandipropamid	0.020
Mecarbam	0.020
Mepanipyrim	0.050
Merphos	0.500
Me alaxyl	0.050
Me aldehyde	0.050
Me conazole	0.100
Me hacri os	0.100
Me hamidophos	0.050
Me hida hion	0.050
Me hiocarb	0.050
Me hiocarb sul one	0.100
Me hiocarb sul oxide	0.100
Me homyl	0.100
Me hoxychlor	0.100
Me hoxy enozide	0.020
Me obromuron	0.050
Me olachlor	0.100
Me olcarb	0.050
Me ra enone	0.050
Me ribuzin	0.100
Mevinphos	0.100

Compound	LOQ (mg/kg)
Mexacarba e	0.020
MGK 264	0.020
Mirex	0.100
Molina e	0.050
Monocro ophos	0.100
Monolinuron	0.020
Myclobu anil	0.050
Naled	0.100
Napropamide	0.050
Neburon	0.020
Ni rapyrin	0.100
Nor lurazon	0.050
Ome hoa e	0.100
O-Phenylphenol	0.100
Oxadixyl	0.100
Oxamyl	0.100
Oxamyl-oxime	0.100
Oxychlordane	0.100
Oxydeme on-Me hyl	0.100
Oxy hioquinox	0.200
Paclobu razol	0.050
Paraoxon-e hyl	0.020
Paraoxon me hyl	0.100
Para hion e hyl	0.100
Para hion me hyl	0.200
Penconazole	0.050
Pendime halin	0.050
Pen lu en	0.020
Pen achloroaniline	0.100
Pen achloroanisole	0.100
Pen achlorobenzene (PCB)	0.100
Pentachlorothioanisole (PCTA)	0.100
Pen hiopyrad	0.020
Perme hrin	0.050
Per hane	0.100
Phenmedipham	0.050
Phen hoa e	0.050
Phora e	0.050
Phora e Sul one	0.050
Phora e Sul oxide	0.050
Phosalone	0.050
Phosme	0.100
Phosphamidon	0.050
Phoxim	0.050
Pinoxaden	0.020
Piperonyl bu oxide	0.050
Pirimicarb	0.020
Pirimiphos-me hyl	0.050
Pirimiphos-e hyl	0.020
Pralle hrin	0.100
Prochloraz	0.020
Procymidone	0.100
Pro eno os	0.100
Pro luralin	0.100
Promecarb	0.050
Prome on	0.100
Prome ryn	0.020
Propachlor	0.020

Compound	LOQ (mg/kg)
Propamocarb	0.050
Propanil	0.050
Propargi e	0.050
Propazine	0.020
Prope amphos	0.050
Propham	0.050
Propiconazole	0.050
Propoxur	0.050
Propoxycarbazone Na	0.050
Propyzamide	0.050
Pro hio os	0.100
Pyraclos robin	0.020
Pyrazophos	0.050
Pyre hrins	0.050
Pyridaben	0.020
Pyrida ol	0.100
Pyrida e	0.020
Pyrime hanil	0.050
Pyriproxi en	0.020
Pyroxasul one	0.020
Pyroxsulam	0.020
Quinalphos	0.050
Quinoxy en	0.050
Quin ozene (PCNB)	0.200
Resme hrin	0.050
Ro enone	0.050
S421	0.100
Simazine	0.100
Sime ryn	0.200
Spine oram	0.020
Spinosad	0.050
Spirodiclo en	0.100
Spiromesi en	0.050
Spiro e rama	0.050
Spiroxamine	0.020
Sul o ep	0.050
Sul oxa lor	0.050
Sulpro os	0.020
Tebuconazole	0.100
Tebu enozide	0.020
Tebu hiuron	0.020
Tecnazene	0.100
Te lu hrin	0.100
Terbu os	0.020
Terbu os sul one	0.050
Terbu os sul oxide	0.050
Terbu hylazine	0.020
Terbu ryn	0.020
Te rachlorvinphos	0.050
Te raconazole	0.050
Te radi on	0.200
Te rame hrin	0.050
Te rasul	0.100
Thiabendazole	0.100
Thiabendazole, 5-hydroxy	0.100
Thiacloprid	0.050
Thiame hoxam	0.100
Thiobencarb	0.050
Thiodicarb	0.050
Thiophana e-me hyl	0.050

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Cannab s Mu t -Res due Prof e, L m ts of Quant tat on

Compound	LOQ (mg/kg)	Compound	LOQ (mg/kg)	Compound	LOQ (mg/kg)
Tolclo os-me hyl	0.100	Triazophos	0.020	Tri loxys robin	0.020
Tri orin	0.100	Tolyl luanid	0.050	Tri iconazole	0.050
Tralkoxydim	0.100	Tridiphane	0.500	Vinclozolin	0.100
Triadime on	0.050	Tri lumizole	0.020	Zoxamide	0.020
Trialla e	0.100	Tri luralin	0.100		

OQ = imi o Quan i a ion, mg/kg

ac ors a ec ing he OQ include ins rumen a ion sensi ivi y or a par icular analy e, sample size, mois ure con en (percen solids) o he sample, e ec iveness o he cleanup on he sample ex rac , and especially he ype o sample ma rix.

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Hemp & Cannabis
Chain of Custody

Northwest-Natrual-
Goods-1933424078

ORELAP ID: OR100028 ANAB ISO 17025 ID: AT1508

[redacted]

Project Information
Project Name: HEMP - PCH 0011
PO Number: N/A
Turnaround Time: 5 Business Days | Rush, For Micro Testing | Standard
Samples Delivered to Laboratory: Schedule Pick-Up
Cannabis Type: Industrial
[redacted]

#	Sample Name Test	Material	Amount Provided	Reporting Unit	Serving Size	Testing							
						H0010 - Potency Cannabinoid Basic + Extended Profile	P2320 - Pesticides - Multi-Residue Profile	H0008 - Residual Solvents - OR	H0013 - Heavy Metals Profile OR (As, Cd, Pb & Hg)	M076 - Total Coliforms + E.Coli	M260 - Yeast and Mold	N190 - Moisture as Loss on Drying	N300 - Water Activity
1	HEMP - PCH 0011	Edible	20 units for sale	mg/g & mg/serving	4 g	✓	✓	✓	✓	✓	✓	✓	✓

Relinquished By	Date	Time	Temp. °C
Kristen Johnson	8/30/2023	12:34	Temp. °C
MRH	8/31/2023	10:47	19.9

Received By	Date	Time	Received Temp. °C	Evidence of Cooling?
MRH	8/31/2023	10:18		No
rda	8/31/2023	13:26		No

Samples submitted to Columbia Laboratories with testing requirements constitute an agreement for services in accordance with the current terms of services associated with this COC. By signing "Relinquished by" you are agreeing to these terms.

Columbia Laboratories
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Columbia LABORATORIES
A Tentamus Company

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

Report Number: 23-010403/D002.R000
Report Date: 09/07/2023
ORELAP#: OR100028
Purchase Order:
Received: 08/31/23 13:25

evision 2 Document D 7087
Legacy D CFL-E33Effective

Laboratory Quality Control Results

Residual Solvents **Batch ID:** 2310644

Method Blank					Laboratory Control Sample							
Analyte	**Result**		**LOQ**	**Notes**	**Result**	**Spike**	**Units**	**% Rec**	**Limits**		**Notes**	
Propane	ND	<	200		541	584	µg/g	92.6	60	120		
Isobutane	ND	<	200		715	767	µg/g	93.2	60	120		
Butane	ND	<	200		743	782	µg/g	95.0	60	120		
2,2 Dimethylpropane	ND	<	200		913	939	µg/g	97.2	60	120		
Methanol	ND	<	200		1640	1670	µg/g	98.2	60	120		
Ethylene Oxide	ND	<	30		58.3	57.1	µg/g	102.1	60	120		
2 Methylbutane	ND	<	200		1520	1680	µg/g	90.5	60	120		
Pentane	ND	<	200		1530	1670	µg/g	91.6	60	120		
Ethanol	ND	<	200		1640	1660	µg/g	98.8	70	130		
Ethyl Ether	ND	<	200		1570	1670	µg/g	94.0	60	120		
2,2 Dimethylbutane	ND	<	30		174	189	µg/g	92.1	60	120		
Acetone	ND	<	200		1630	1670	µg/g	97.6	60	120		
2 Propanol	ND	<	200		1630	1630	µg/g	100.0	60	120		
Ethyl Formate	ND	<	500		1520	1600	µg/g	95.0	70	130		
Acetonitrile	ND	<	100		478	492	µg/g	97.2	60	120		
Methyl Acetate	ND	<	500		1640	1600	µg/g	102.5	70	130		
2,3 Dimethylbutane	ND	<	30		174	180	µg/g	96.7	60	120		
Dichloromethane	ND	<	60		477	488	µg/g	97.7	60	120		
2 Methylpentane	ND	<	30		170	182	µg/g	93.4	60	120		
M BE	ND	<	500		1640	1610	µg/g	101.9	70	130		
3 Methylpentane	ND	<	30		166	177	µg/g	93.8	60	120		
Hexane	ND	<	30		170	177	µg/g	96.0	60	120		
1 Propanol	ND	<	500		1610	1600	µg/g	100.6	70	130		
Methylethylketone	ND	<	500		1650	1610	µg/g	102.5	70	130		
Ethyl acetate	ND	<	200		1610	1630	µg/g	98.8	60	120		
2 Butanol	ND	<	200		1650	1630	µg/g	101.2	60	120		
etrahydrofuran	ND	<	100		491	488	µg/g	100.6	60	120		
Cyclohexane	ND	<	200		1580	1610	µg/g	98.1	60	120		
2 methyl 1 propanol	ND	<	500		1620	1610	µg/g	100.6	70	130		
Benzene	ND	<	1		4.99	4.79	µg/g	104.2	60	120		
Isopropyl Acetate	ND	<	200		1680	1650	µg/g	101.8	60	120		
Heptane	ND	<	200		1630	1630	µg/g	100.0	60	120		
1 Butanol	ND	<	500		1540	1600	µg/g	96.3	70	130		
Propyl Acetate	ND	<	500		1630	1600	µg/g	101.9	70	130		
1,4 Dioxane	ND	<	100		506	523	µg/g	96.7	60	120		
2 Ethoxyethanol	ND	<	30		195	179	µg/g	108.9	60	120		
Methylisobutylketone	ND	<	500		1630	1600	µg/g	101.9	70	130		
3 Methyl 1 butanol	ND	<	500		1510	1600	µg/g	94.4	70	130		
Ethylene Glycol	ND	<	200		283	506	µg/g	55.9	60	120	Q6	
oluene	ND	<	100		521	496	µg/g	105.0	60	120		
Isobutyl Acetate	ND	<	500		1710	1610	µg/g	106.2	70	130		
1 Pentanol	ND	<	500		1480	1600	µg/g	92.5	70	130		
Butyl Acetate	ND	<	500		1650	1610	µg/g	102.5	70	130		
Ethylbenzene	ND	<	200		1000	978	µg/g	102.2	60	120		
m,p Xylene	ND	<	200		1040	994	µg/g	104.6	60	120		
o Xylene	ND	<	200		1010	982	µg/g	102.9	60	120		
Cumene	ND	<	30		151	171	µg/g	88.3	60	120		
Anisole	ND	<	500		1670	1600	µg/g	104.4	70	130		
DMSO	ND	<	500		1730	1620	µg/g	106.8	70	130		
1,2 dimethoxyethane	ND	<	50		184	186	µg/g	98.9	70	130		
riethylamine	ND	<	500		1550	1600	µg/g	96.9	70	130		
N,N dimethylformamide	ND	<	150		533	480	µg/g	111.0	70	130		
N,N dimethylacetamide	ND	<	150		481	483	µg/g	99.6	70	130		
Pyridine	ND	<	50		172	168	µg/g	102.4	70	130		
Sulfolane	ND	<	50		139	161	µg/g	86.3	70	130		
1,2 Dichloroethane	ND	<	1		1.06	1	µg/g	106.0	70	130		
Chloroform	ND	<	1		1.05	1	µg/g	105.0	70	130		
richloroethylene	ND	<	1		1.02	1	µg/g	102.0	70	130		
1,1 Dichloroethane	ND	<	1		1.02	1	µg/g	102.0	70	130		

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Legacy D CFL-E33Effective

QC - Sample Duplicate **Sample ID: 23-010144-0001**

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	
M BE	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	
etrahydrofuran	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	
oluene	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	
riethylamine	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	
richloroethylene	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

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Laboratory Quality Control Results

J AOAC 2015 V98-6 **Batch ID: 2310647**

Laboratory Control Sample

Analyte	LCS	Result	Spike	Units	% Rec	Limits	Evaluation	Notes
CBDVA	2	0.0313	0.0309	%	101	80.0 - 120	Acceptable	
CBDV	2	0.0315	0.0313	%	101	80.0 - 120	Acceptable	
CBE	2	0.0329	0.0329	%	99.9	80.0 - 120	Acceptable	
CBDA	1	0.0348	0.0338	%	103	90.0 - 110	Acceptable	
CBGA	1	0.0352	0.0343	%	103	80.0 - 120	Acceptable	
CBG	1	0.0372	0.0363	%	102	80.0 - 120	Acceptable	
CBD	1	0.0369	0.0351	%	105	90.0 - 110	Acceptable	
THCV	2	0.0204	0.0200	%	102	80.0 - 120	Acceptable	
d8THCV	2	0.0275	0.0276	%	99.8	80.0 - 120	Acceptable	
THCVA	2	0.0309	0.0307	%	101	80.0 - 120	Acceptable	
CBN	1	0.0349	0.0343	%	102	80.0 - 120	Acceptable	
exo-THC	2	0.0301	0.0302	%	99.5	80.0 - 120	Acceptable	
d9THC	1	0.0364	0.0355	%	102	90.0 - 110	Acceptable	
d8THC	1	0.0366	0.0364	%	101	90.0 - 110	Acceptable	
9S-d10THC	1	0.0358	0.0354	%	101	80.0 - 120	Acceptable	
CBL	2	0.0329	0.0311	%	106	80.0 - 120	Acceptable	
9S-HHC	3	0.0994	0.0997	%	99.7	80.0 - 120	Acceptable	
9R-d10THC	1	0.0113	0.0115	%	98.1	80.0 - 120	Acceptable	
CBC	2	0.0325	0.0335	%	97.1	80.0 - 120	Acceptable	
9R-HHC	3	0.0835	0.0847	%	98.6	80.0 - 120	Acceptable	
THCA	1	0.0358	0.0344	%	104	90.0 - 110	Acceptable	
CBCA	2	0.0322	0.0319	%	101	80.0 - 120	Acceptable	
CBLA	2	0.0645	0.0647	%	99.7	80.0 - 120	Acceptable	
d9THCP	2	0.0311	0.0316	%	98.2	80.0 - 120	Acceptable	
d8THCO	3	0.0341	0.0328	%	104	80.0 - 120	Acceptable	
CBT	2	0.0305	0.0308	%	99.0	80.0 - 120	Acceptable	
d9THCO	3	0.0317	0.0321	%	98.6	80.0 - 120	Acceptable	

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.00313	%	< 0.00313	Acceptable	
CBDV	<LOQ	0.00313	%	< 0.00313	Acceptable	
CBE	<LOQ	0.00313	%	< 0.00313	Acceptable	
CBDA	<LOQ	0.00313	%	< 0.00313	Acceptable	
CBGA	<LOQ	0.00313	%	< 0.00313	Acceptable	
CBG	<LOQ	0.00313	%	< 0.00313	Acceptable	
CBD	<LOQ	0.00313	%	< 0.00313	Acceptable	
THCV	<LOQ	0.00313	%	< 0.00313	Acceptable	
d8THCV	<LOQ	0.00313	%	< 0.00313	Acceptable	
THCVA	<LOQ	0.00313	%	< 0.00313	Acceptable	
CBN	<LOQ	0.00313	%	< 0.00313	Acceptable	
exo-THC	<LOQ	0.00313	%	< 0.00313	Acceptable	
d9THC	<LOQ	0.00313	%	< 0.00313	Acceptable	
d8THC	<LOQ	0.00313	%	< 0.00313	Acceptable	
9S-d10THC	<LOQ	0.00313	%	< 0.00313	Acceptable	
CBL	<LOQ	0.00313	%	< 0.00313	Acceptable	
9S-HHC	<LOQ	0.00313	%	< 0.00313	Acceptable	
9R-d10THC	<LOQ	0.00313	%	< 0.00313	Acceptable	
CBC	<LOQ	0.00313	%	< 0.00313	Acceptable	
9R-HHC	<LOQ	0.00313	%	< 0.00313	Acceptable	
THCA	<LOQ	0.00313	%	< 0.00313	Acceptable	
CBCA	<LOQ	0.00313	%	< 0.00313	Acceptable	
CBLA	<LOQ	0.00313	%	< 0.00313	Acceptable	
d9THCP	<LOQ	0.00313	%	< 0.00313	Acceptable	
d8THCO	<LOQ	0.00313	%	< 0.00313	Acceptable	
CBT	<LOQ	0.00313	%	< 0.00313	Acceptable	
d9THCO	<LOQ	0.00313	%	< 0.00313	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

J AOAC 2015 V98-6 **Batch ID: 2310647**

Sample Duplicate Sample ID **23-010317-0003**

Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
CBDV	0.00331	0.00324	0.00322	%	2.23	< 20	Acceptable	
CBE	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
CBDA	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
CBG	0.689	0.671	0.00322	%	2.70	< 20	Acceptable	
CBD	0.703	0.684	0.00322	%	2.72	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
CBN	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
d9THC	0.359	0.350	0.00322	%	2.55	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
9S-d10THC	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
9S-HHC	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
9R-d10THC	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
CBC	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
9R-HHC	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
CBCA	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
d9THCP	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
d8THCO	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
CBT	<LOQ	<LOQ	0.00322	%	NA	< 20	Acceptable	
d9THCO	<LOQ	<LOQ	0.00322	%	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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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	Quantitaion 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.