



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



Report Number: 20-001776/D13.R00
Report Date: 02/21/2020
ORELAP#: OR100028
Purchase Order:
Received: 02/14/20 07:30

Customer: Chilled Black Dog
Product identity: Hemp Oil Extract w/ CBD
Client/Metric ID: .
Laboratory ID: 20-001776-0012

Summary

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		

Terpenes:

Analyte	Percent by weight	Percent of Total	Analyte	Percent by weight	Percent of Total
(-)-Guaiol†	0.488	35.88%	(-)-caryophyllene oxide†	0.386	28.38%
β-Caryophyllene†	0.326	23.97%	Humulene†	0.0539	3.96%
Linalool†	0.0283	2.08%	(-)-α-Terpineol†	0.0264	1.94%
(+)-fenchol†	0.0244	1.79%	(+)-Borneol†	0.0226	1.66%
Total Terpenes†	1.36	100.00%			

Metals:

Less than LOQ for all analytes.

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Customer: Chilled Black Dog
Product identity: Hemp Oil Extract w/ CBD
Client/Metric ID: .
Sample Date:
Laboratory ID: 20-001776-0012
Temp: 16.5 °C
Relinquished by: UPS
Weight Received: 3 g

Sample Results

Solvents		Method EPA5021A				Units µg/g	Batch 2001428	Analyze 02/14/20 10:14 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	< LOQ		200		
2-Methylpentane	< LOQ		30.0			2-Propanol (IPA)	< LOQ	5000	200	pass	
2,2-Dimethylbutane	< LOQ		30.0			2,2-Dimethylpropane	< LOQ		200		
2,3-Dimethylbutane	< LOQ		30.0			3-Methylpentane	< LOQ		30.0		
Acetone	< LOQ	5000	200	pass		Acetonitrile	< LOQ	410	100	pass	
Benzene	< LOQ	2.00	1.00	pass		Butanes (sum)	< LOQ	5000	400	pass	
Cyclohexane	< LOQ	3880	200	pass		Ethyl acetate	< LOQ	5000	200	pass	
Ethyl benzene	< LOQ		200			Ethyl ether	< LOQ	5000	200	pass	
Ethylene glycol	< LOQ	620	200	pass		Ethylene oxide	< LOQ	50.0	30.0	pass	
Hexanes (sum)	< LOQ	290	150	pass		Isopropyl acetate	< LOQ	5000	200	pass	
Isopropylbenzene	< LOQ	70.0	30.0	pass		m,p-Xylene	< LOQ		200		
Methanol	< LOQ	3000	200	pass		Methylene chloride	< LOQ	600	200	pass	
Methylpropane	< LOQ		200			n-Butane	< LOQ		200		
n-Heptane	< LOQ	5000	200	pass		n-Hexane	< LOQ		30.0		
n-Pentane	< LOQ		200			o-Xylene	< LOQ		200		
Pentanes (sum)	< LOQ	5000	600	pass		Propane	< LOQ	5000	200	pass	
Tetrahydrofuran	< LOQ	720	100	pass		Toluene	< LOQ	890	100	pass	
Total Xylenes	< LOQ		400			Total Xylenes and Ethyl	< LOQ	2170	600	pass	

Pesticides		Method AOAC 2007.01 & EN 15662 (mod)			Units mg/kg	Batch 2001534	Analyze 02/18/20 08:28 AM			
Analyte	Result	Limits	Status	Notes						
Multi-Residue Pesticide Profile†	< LOQ for all analytes									

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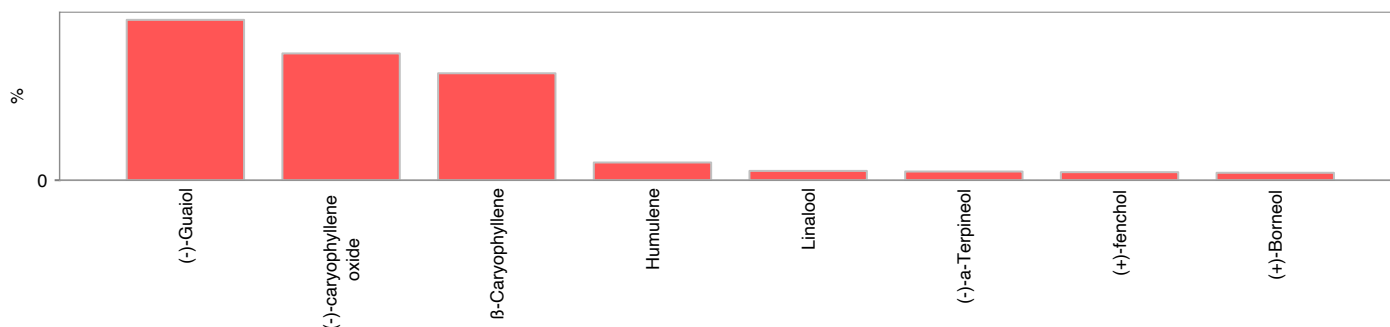


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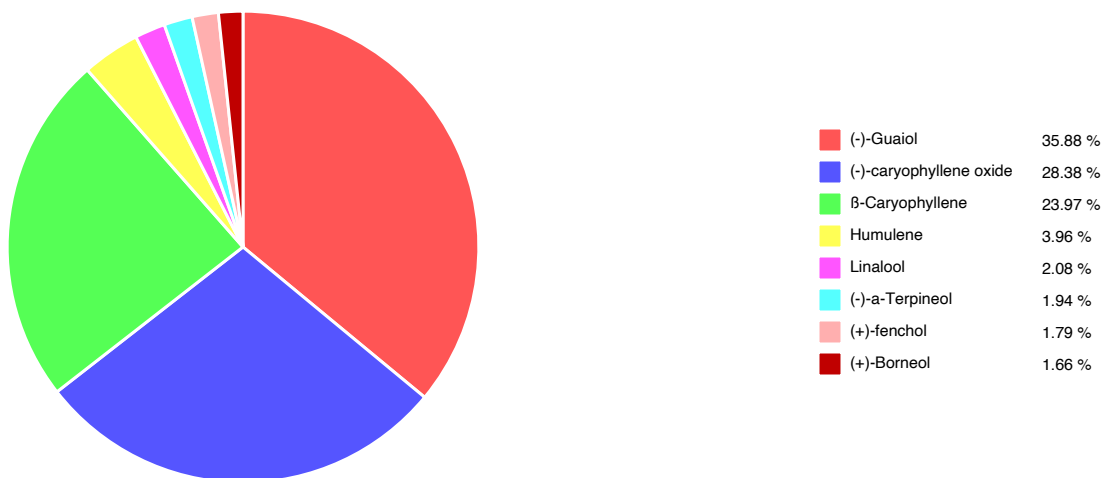


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Terpenes				Method J AOAC 2015 V98-6	Units %	Batch 2001539	Analyze 02/18/20 09:33 AM		
Analyte	Result	LOQ	% of Total	Notes	Analyte	Result	LOQ	% of Total	Notes
(-)-Guaiaol†	0.488	0.020	35.88%		(-)-caryophyllene oxide†	0.386	0.020	28.38%	
β-Caryophyllene†	0.326	0.020	23.97%		Humulene†	0.0539	0.020	3.96%	
Linalool†	0.0283	0.020	2.08%		(-)-α-Terpeneol†	0.0264	0.020	1.94%	
(+)-fenchol†	0.0244	0.020	1.79%		(+)-Borneol†	0.0226	0.020	1.66%	
(-)-Isopulegol†	< LOQ	0.020	0.00%		(-)-β-Pinene†	< LOQ	0.020	0.00%	
(+)-Cedrol†	< LOQ	0.020	0.00%		(+)-Pulegone†	< LOQ	0.020	0.00%	
(±)-Camphor†	< LOQ	0.020	0.00%		(±)-cis-Nerolidol†	< LOQ	0.020	0.00%	
(±)-fenchone†	< LOQ	0.020	0.00%		(±)-trans-Nerolidol†	< LOQ	0.020	0.00%	
(R)-(+)-Limonene†	< LOQ	0.020	0.00%		α-Bisabolol†	< LOQ	0.020	0.00%	
α-cedrene†	< LOQ	0.020	0.00%		α-phellandrene†	< LOQ	0.020	0.00%	
α-pinene†	< LOQ	0.020	0.00%		α-Terpinene†	< LOQ	0.020	0.00%	
Camphene†	< LOQ	0.020	0.00%		cis-β-Ocimene†	< LOQ	0.006	0.00%	
d-3-Carene†	< LOQ	0.020	0.00%		Eucalyptol†	< LOQ	0.020	0.00%	
farnesene†	< LOQ	0.020	0.00%		γ-Terpinene†	< LOQ	0.020	0.00%	
Geraniol†	< LOQ	0.020	0.00%		Geranyl acetate†	< LOQ	0.020	0.00%	
Isoborneol†	< LOQ	0.020	0.00%		Menthol†	< LOQ	0.020	0.00%	
nerol†	< LOQ	0.020	0.00%		p-Cymene†	< LOQ	0.020	0.00%	
Sabinene†	< LOQ	0.020	0.00%		Sabinene hydrate†	< LOQ	0.020	0.00%	
β-Myrcene†	< LOQ	0.020	0.00%		Terpinolene†	< LOQ	0.020	0.00%	
trans-β-Ocimene†	< LOQ	0.013	0.00%		valencene†	< LOQ	0.020	0.00%	
Total Terpenes	1.36								



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Metals

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
Arsenic	< LOQ		mg/kg	0.0499	2001615	02/19/20	AOAC 2013.06 (mod.)	X
Cadmium	< LOQ		mg/kg	0.0499	2001615	02/19/20	AOAC 2013.06 (mod.)	X
Lead	< LOQ		mg/kg	0.0499	2001615	02/19/20	AOAC 2013.06 (mod.)	X
Mercury	< LOQ		mg/kg	0.0249	2001615	02/19/20	AOAC 2013.06 (mod.)	X



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

Abbreviations

Limits: Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220

Limit(s) of Quantitation (LOQ): The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

† = Analyte not NELAP accredited.

Units of Measure

g = Gram

$\mu\text{g/g}$ = Microgram per gram

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

% = Percentage of sample

% wt = $\mu\text{g/g}$ divided by 10,000

Glossary of Qualifiers

X: Not ORELAP accredited.

Approved Signatory

Derrick Tanner
General Manager



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Pixis Labs
Cannabis Multi-Residue Profile, Limits of Quantitation

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

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PIXIS Labs
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	Propanil	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	Prothiofos	0.100
Hexythiazox	0.020	Norflurazon	0.050	Pyraclostrobin	0.020
Imazalil	0.100	Omethoate	0.100	Pyrazophos	0.050
Imidacloprid	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	Pacllobutrazol	0.050	Pyroxulam	0.020
Isufenphos	0.050	Paraoxon-ethyl	0.020	Quinalphos	0.050
Isufenphos-methyl	0.020	Paraoxon methyl	0.100	Quinoxifen	0.050
Isufenphos oxon	0.050	Parathion ethyl	0.100	Quintozene (PCNB)	0.200
Isoprocarb	0.020	Parathion methyl	0.200	Resmethrin	0.050
Isopropalin	0.200	Penconazole	0.050	Rotenone	0.050
Isoprothiolane	0.050	Pendimethalin	0.050	S421	0.100
Isoproturon	0.050	Penflufen	0.020	Simazine	0.100
Isoxaben	0.050	Pentachloroaniline	0.100	Simetryn	0.200
Isoxaflutole	0.050	Pentachloroanisole	0.100	Spinetoram	0.020
Kresoxim-methyl	0.050	Pentachlorobenzene (PCB)	0.100	Spinosad	0.050
Lactofen	0.500	Pentachlorothioanisole (PCTA)	0.100	Spirodiclofen	0.100
Lenacil	0.100	Penthiopyrad	0.020	Spiromesifen	0.050
Lindane (gamma BHC)	0.100	Permethrin	0.050	Spirotetramat	0.050
Linuron	0.020	Perthane	0.100	Spiroxamine	0.020
Malaonox	0.050	Phenmedipham	0.050	Sulfotep	0.050
Malathion	0.050	Phenthoate	0.050	Sulfoxaflor	0.050
Mandipropamid	0.020	Phorate	0.050	Sulprofos	0.020
Mecarbam	0.020	Phorate Sulfone	0.050	Tebuconazole	0.100
Mepanipirim	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
Methacrifos	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	Terbuthylazine	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	Tetradifon	0.200
Methoxychlor	0.100	Procymidone	0.100	Tetramethrin	0.050
Methoxyfenozide	0.020	Profenofos	0.100	Tetrasul	0.100
Metobromuron	0.050	Profluralin	0.100	Thiabendazole	0.100
Metolachlor	0.100	Promecarb	0.050	Thiabendazole, 5-hydroxy	0.100
Metolcarb	0.050	Prometon	0.100	Thiacloprid	0.050
Metrafenone	0.050	Prometryn	0.020	Thiamethoxam	0.100
Metribuzin	0.100	Propachlor	0.020	Thiobencarb	0.050
Mevinphos	0.100			Thiodicarb	0.050
				Thiophanate-methyl	0.050

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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	Tolyfluanid	0.050	Triticonazole	0.050
Tralkoxydim	0.100	Tridiphane	0.500	Vinclozolin	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.