

PharmLabs San Diego Certificate of Analysis

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 ISO/IEC 17025:2017 Certification L17-427-1 | Accreditation #85368



Sample **Extrax Blue Dream**

Sample ID	SD220813-009 (51010)	Matrix	Flower (Inhalable Cannabis Good)
Tested for	Top Shelf Hemp Co		
Sampled	-	Received	Aug 12, 2022
		Reported	Aug 22, 2022
Analyses executed	FP-IO	Unit Mass (g)	3.5

Laboratory note: The estimated concentration of the unknown peak in the sample is 3.1% | Currently PharmLabs laboratory can not confirm an unidentified peak in your chromatogram due to interference (only with highly concentrated D8 products) from which we believe to be either (+)d8-THC or d9-THC. At this time there are no reference standards available for (+)d8-THC. (+)d8-THC is a different compound from the main (-)d8-THC cannabinoid and, therefore, these two compounds may have different efficacies. Using the most advanced instruments and techniques available, the separation of (+)d8-THC and d9-THC is problematic for the scientific community as a whole. PharmLabs believes the unidentified peak to be a combination of (+)d8-THC and d9-THC with the majority, if not all, of the concentration being (+)d8-THC. Total cannabinoids is estimated to be 21.8%

**\*CAN+ - Cannabinoids Analysis**

Analyzed Aug 22, 2022 | Instrument HPLC-VWD | Method SOP-001  
 Measurement Uncertainty at 95% confidence 7.806%

Analyte	LOD mg/g	LOQ mg/g	Result %	Result mg/g	Result mg/Package
Cannabidiol (CBD)	0.039	0.16	ND	ND	ND
Cannabidiolol Acid (CBDA)	0.001	0.16	7.71	77.11	269.88
Cannabigerol Acid (CBGA)	0.001	0.16	1.35	13.47	47.16
Cannabigerol (CBG)	0.001	0.16	0.24	2.37	8.30
Cannabidiol (CBD)	0.001	0.16	2.24	22.45	78.57
Tetrahydrocannabivarin (THCV)	0.001	0.16	ND	ND	ND
Cannabinol (CBN)	0.001	0.16	0.12	1.25	4.36
Tetrahydrocannabinol (Δ9-THC)	0.003	0.16	UI	UI	UI
Δ8-tetrahydrocannabinol (Δ8-THC)	0.004	0.16	8.14	81.43	285.02
Cannabicyclol (CBL)	0.002	0.16	ND	ND	ND
Cannabichromene (CBC)	0.002	0.16	ND	ND	ND
Tetrahydrocannabinolic Acid (THCA)	0.001	0.16	0.06	0.55	1.94
<b>Total THC (THCa * 0.877 + THC)</b>			<b>0.05</b>	<b>0.49</b>	<b>1.70</b>
<b>Total CBD (CBDA * 0.877 + CBD)</b>			<b>9.01</b>	<b>90.07</b>	<b>315.25</b>
<b>Total CBG (CBGa * 0.877 + CBG)</b>			<b>1.42</b>	<b>14.19</b>	<b>49.66</b>
<b>TOTAL CANNABINOIDS</b>			<b>18.74</b>	<b>187.42</b>	<b>656.00</b>

\*Dry Weight %

Sample photography



**HME - Heavy Metals Detection Analysis**

Analyzed Aug 22, 2022 | Instrument ICP/MSMS | Method SOP-005

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Arsenic (As)	0.0002	0.05	0.15	0.2	Cadmium (Cd)	3.0e-05	0.05	0.07	0.2
Mercury (Hg)	1.0e-05	0.01	ND	0.1	Lead (Pb)	1.0e-05	0.125	0.13	0.5

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



Authorized Signature

*Brandon Starr*

Brandon Starr, Lab Manager  
 Mon, 22 Aug 2022 17:12:02 -0700



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## MIBIG - Microbial Testing Analysis

Analyzed Aug 17, 2022 | Instrument qPCR and/or Plating | Method SOP-007

Analyte	Result CFU/g	Limit	Analyte	Result CFU/g	Limit
Shiga toxin-producing Escherichia Coli	ND	ND per 1 gram	Salmonella spp.	ND	ND per 1 gram
Aspergillus fumigatus	ND	ND per 1 gram	Aspergillus flavus	ND	ND per 1 gram
Aspergillus niger	ND	ND per 1 gram	Aspergillus terreus	ND	ND per 1 gram

## MTO - Mycotoxin Testing Analysis

Analyzed Aug 16, 2022 | Instrument LC/MSMS | Method SOP-004

Analyte	LOD ug/kg	LOQ ug/kg	Result ug/kg (ppb)	Limit ug/kg	Analyte	LOD ug/kg	LOQ ug/kg	Result ug/kg (ppb)	Limit ug/kg
Ochratoxin A	5.0	20.0	ND	20	Aflatoxin B1	2.5	5.0	ND	
Aflatoxin B2	2.5	5.0	ND		Aflatoxin G1	2.5	5.0	ND	
Aflatoxin G2	2.5	5.0	ND		Total Aflatoxins	10.0	20.0	ND	20

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



Authorized Signature

*Brandon Starr*

Brandon Starr, Lab Manager  
 Mon, 22 Aug 2022 17:12:02 -0700

## PES - Pesticides Screening Analysis

Analyzed Aug 16, 2022 | Instrument LC/MSMS GC/MSMS | Method SOP-003

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Aldicarb	0.0078	0.02	ND	0.0078	Carbofuran	0.01	0.02	ND	0.01
Dimethoate	0.01	0.02	ND	0.01	Etofenprox	0.02	0.1	ND	0.02
Fenoxycarb	0.01	0.02	ND	0.01	Thiachloprid	0.01	0.02	ND	0.01
Daminozide	0.01	0.03	ND	0.01	Dichlorvos	0.02	0.07	ND	0.02
Imazalil	0.02	0.07	ND	0.02	Methiocarb	0.01	0.02	ND	0.01
Spiroxamine	0.01	0.02	ND	0.01	Coumaphos	0.01	0.02	ND	0.01
Fipronil	0.01	0.1	ND	0.01	Paclbutrazol	0.01	0.03	ND	0.01
Chlorpyrifos	0.01	0.04	ND	0.01	Ethoprophos (Prophos)	0.01	0.02	ND	0.01
Baygon (Propoxur)	0.01	0.02	ND	0.01	Chlordane	0.04	0.1	ND	0.04
Chlorfenapyr	0.03	0.1	ND	0.03	Methyl Parathion	0.02	0.1	ND	0.02
Mevinphos	0.03	0.08	ND	0.03	Abamectin	0.03	0.08	ND	0.1
Acephate	0.02	0.05	ND	0.1	Acetamiprid	0.01	0.05	ND	0.1
Azoxystrobin	0.01	0.02	ND	0.1	Bifenazate	0.01	0.05	ND	0.1
Bifenthrin	0.02	0.35	ND	3	Boscalid	0.01	0.03	ND	0.1
Carbaryl	0.01	0.02	ND	0.5	Chlorantraniliprole	0.01	0.04	ND	10
Clofentezine	0.01	0.03	ND	0.1	Diazinon	0.01	0.02	ND	0.1
Dimethomorph	0.02	0.06	ND	2	Etoxazole	0.01	0.05	ND	0.1
Fenpyroximate	0.02	0.1	ND	0.1	Fonicamid	0.01	0.02	ND	0.1
Fludioxonil	0.01	0.05	ND	0.1	Hexythiazox	0.01	0.03	ND	0.1
Imidacloprid	0.01	0.05	ND	5	Kresoxim-methyl	0.01	0.03	ND	0.1
Malathion	0.01	0.05	ND	0.5	Metalaxyl	0.01	0.02	ND	2
Methomyl	0.02	0.05	ND	1	Myclobutanil	0.02	0.07	ND	0.1
Naled	0.01	0.02	ND	0.1	Oxamyl	0.01	0.02	ND	0.5
Permethrin	0.01	0.02	ND	0.5	Phosmet	0.01	0.02	ND	0.1
Piperonyl Butoxide	0.02	0.06	ND	3	Propiconazole	0.03	0.08	ND	0.1
Prallethrin	0.02	0.05	ND	0.1	Pyrethrin	0.05	0.41	ND	0.5
Pyridaben	0.02	0.07	ND	0.1	Spinosad A	0.01	0.05	ND	0.1
Spinosad D	0.01	0.05	ND	0.1	Spiromesifen	0.02	0.06	ND	0.1
Spirotetamat	0.01	0.02	ND	0.1	Tebuconazole	0.01	0.02	ND	0.1
Thiamethoxam	0.01	0.02	ND	5	Trifloxystrobin	0.01	0.02	ND	0.1
Acequinocyl	0.02	0.09	ND	0.1	Captan	0.01	0.02	ND	0.7
Cypermethrin	0.02	0.1	ND	1	Cyfluthrin	0.04	0.1	ND	2
Fenhexamid	0.02	0.07	ND	0.1	Spinetoram J,L	0.02	0.07	ND	0.1
Pentachloronitrobenzene	0.01	0.1	ND	0.1					

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



Authorized Signature

Brandon Starr

 Brandon Starr, Lab Manager  
 Mon, 22 Aug 2022 17:12:02 -0700

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## RES - Residual Solvents Testing Analysis

Analyzed Aug 16, 2022 | Instrument GC/FID with Headspace Analyzer | Method SOP-006

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Propane (Prop)	0.4	40.0	ND	5000	Butane (But)	0.4	40.0	ND	5000
Methanol (Metha)	0.4	40.0	1071.0	3000	Ethylene Oxide (EthOx)	0.4	0.8	ND	1
Pentane (Pen)	0.4	40.0	ND	5000	Ethanol (Ethan)	0.4	40.0	402.1	5000
Ethyl Ether (EthEt)	0.4	40.0	ND	5000	Acetone (Acet)	0.4	40.0	118.3	5000
Isopropanol (2-Pro)	0.4	40.0	ND	5000	Acetonitrile (Acetonit)	0.4	40.0	ND	410
Methylene Chloride (MetCh)	0.4	0.8	ND	1	Hexane (Hex)	0.4	40.0	ND	290
Ethyl Acetate (EthAc)	0.4	40.0	ND	5000	Chloroform (Clo)	0.4	0.8	ND	1
Benzene (Ben)	0.4	0.8	ND	1	1-2-Dichloroethane (12-Dich)	0.4	0.8	ND	1
Heptane (Hep)	0.4	40.0	ND	5000	Trichloroethylene (TriClEth)	0.4	0.8	ND	1
Toluene (Toluene)	0.4	40.0	ND	890	Xylenes (Xyl)	0.4	40.0	ND	2170

## FVI - Filth & Foreign Material Inspection Analysis

Analyzed Aug 15, 2022 | Instrument Microscope | Method SOP-010

Analyte / Limit	Result	Analyte / Limit	Result
> 1/4 of the total sample area covered by sand, soil, cinders, or dirt	ND	> 1/4 of the total sample area covered by mold	ND
> 1 insect fragment, 1 hair, or 1 count mammalian excreta per 3g	ND	> 1/4 of the total sample area covered by an imbedded foreign material	ND

## MWA - Moisture Content & Water Activity Analysis

Analyzed Aug 15, 2022 | Instrument Chilled-mirror Dewpoint and Capacitance | Method SOP-008

Analyte	Result	Limit	Analyte	Result	Limit
Moisture (Moi)	6.5 % Mw	13 % Mw	Water Activity (WA)	0.47 a <sub>w</sub>	0.85 a <sub>w</sub>

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



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Brandon Starr, Lab Manager  
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Sample **Extrax Lemon Meringue**

Sample ID	SD220813-006 (51007)	Matrix	Flower (Inhalable Cannabis Good)
Tested for	Top Shelf Hemp Co		
Sampled	-	Received	Aug 12, 2022
		Reported	Aug 22, 2022
Analyses executed	FP-IO	Unit Mass (g)	3.5

Laboratory note: The estimated concentration of the unknown peak in the sample is 0.88%. Currently PharmLabs laboratory can not confirm an unidentified peak in your chromatogram due to interference (only with highly concentrated D8 products) from which we believe to be either (+)d8-THC or d9-THC. At this time there are no reference standards available for (+)d8-THC. (+)d8-THC is a different compound from the main (-)d8-THC cannabinoid and, therefore, these two compounds may have different efficacies. Using the most advanced instruments and techniques available, the separation of (+)d8-THC and d9-THC is problematic for the scientific community as a whole. PharmLabs believes the unidentified peak to be a combination of (+)d8-THC and d9-THC with the majority, if not all, of the concentration being (+)d8-THC. Total cannabinoids is estimated to be 20.3%.

**\*CAN+ - Cannabinoids Analysis**

Analyzed Aug 22, 2022 | Instrument HPLC-VWD | Method SOP-001  
 Measurement Uncertainty at 95% confidence 7.806%

Analyte	LOD mg/g	LOQ mg/g	Result %	Result mg/g	Result mg/Package
Cannabidiol (CBD)	0.039	0.16	ND	ND	ND
Cannabidiol Acid (CBDA)	0.001	0.16	9.00	90.02	315.06
Cannabigerol Acid (CBGA)	0.001	0.16	0.26	2.64	9.26
Cannabigerol (CBG)	0.001	0.16	0.08	0.76	2.66
Cannabidiol (CBD)	0.001	0.16	1.42	14.22	49.76
Tetrahydrocannabivarin (THCV)	0.001	0.16	ND	ND	ND
Cannabinol (CBN)	0.001	0.16	ND	ND	ND
Tetrahydrocannabinol (Δ9-THC)	0.003	0.16	UI	UI	UI
Δ8-tetrahydrocannabinol (Δ8-THC)	0.004	0.16	9.62	96.21	336.74
Cannabicyclol (CBL)	0.002	0.16	ND	ND	ND
Cannabichromene (CBC)	0.002	0.16	ND	ND	ND
Tetrahydrocannabinolic Acid (THCA)	0.001	0.16	0.21	2.09	7.31
<b>Total THC (THCa * 0.877 + THC)</b>			<b>0.18</b>	<b>1.83</b>	<b>6.41</b>
<b>Total CBD (CBDA * 0.877 + CBD)</b>			<b>9.32</b>	<b>93.16</b>	<b>326.07</b>
<b>Total CBG (CBGa * 0.877 + CBG)</b>			<b>0.31</b>	<b>3.08</b>	<b>10.78</b>
<b>TOTAL CANNABINOIDS</b>			<b>19.43</b>	<b>194.29</b>	<b>680.00</b>

\*Dry Weight %

Sample photography



**HME - Heavy Metals Detection Analysis**

Analyzed Aug 22, 2022 | Instrument ICP/MSMS | Method SOP-005

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Arsenic (As)	0.0002	0.05	0.09	0.2	Cadmium (Cd)	3.0e-05	0.05	0.12	0.2
Mercury (Hg)	1.0e-05	0.01	0.02	0.1	Lead (Pb)	1.0e-05	0.125	0.32	0.5

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



Authorized Signature

*Brandon Starr*

Brandon Starr, Lab Manager  
 Mon, 22 Aug 2022 17:10:09 -0700



## MIBIG - Microbial Testing Analysis

Analyzed Aug 17, 2022 | Instrument qPCR and/or Plating | Method SOP-007

Analyte	Result CFU/g	Limit	Analyte	Result CFU/g	Limit
Shiga toxin-producing Escherichia Coli	ND	ND per 1 gram	Salmonella spp.	ND	ND per 1 gram
Aspergillus fumigatus	ND	ND per 1 gram	Aspergillus flavus	ND	ND per 1 gram
Aspergillus niger	ND	ND per 1 gram	Aspergillus terreus	ND	ND per 1 gram

## MTO - Mycotoxin Testing Analysis

Analyzed Aug 16, 2022 | Instrument LC/MSMS | Method SOP-004

Analyte	LOD ug/kg	LOQ ug/kg	Result ug/kg (ppb)	Limit ug/kg	Analyte	LOD ug/kg	LOQ ug/kg	Result ug/kg (ppb)	Limit ug/kg
Ochratoxin A	5.0	20.0	ND	20	Aflatoxin B1	2.5	5.0	ND	
Aflatoxin B2	2.5	5.0	ND		Aflatoxin G1	2.5	5.0	ND	
Aflatoxin G2	2.5	5.0	ND		Total Aflatoxins	10.0	20.0	ND	20

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



Authorized Signature

*Brandon Starr*

Brandon Starr, Lab Manager  
 Mon, 22 Aug 2022 17:10:09 -0700

# PES - Pesticides Screening Analysis

Analyzed Aug 16, 2022 | Instrument LC/MSMS GC/MSMS | Method SOP-003

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Aldicarb	0.0078	0.02	ND	0.0078	Carbofuran	0.01	0.02	ND	0.01
Dimethoate	0.01	0.02	ND	0.01	Etofenprox	0.02	0.1	ND	0.02
Fenoxycarb	0.01	0.02	ND	0.01	Thiachloprid	0.01	0.02	ND	0.01
Daminozide	0.01	0.03	ND	0.01	Dichlorvos	0.02	0.07	ND	0.02
Imazalil	0.02	0.07	ND	0.02	Methiocarb	0.01	0.02	ND	0.01
Spiroxamine	0.01	0.02	ND	0.01	Coumaphos	0.01	0.02	ND	0.01
Fipronil	0.01	0.1	ND	0.01	Paclobutrazol	0.01	0.03	ND	0.01
Chlorpyrifos	0.01	0.04	ND	0.01	Ethoprophos (Prophos)	0.01	0.02	ND	0.01
Baygon (Propoxur)	0.01	0.02	ND	0.01	Chlordane	0.04	0.1	ND	0.04
Chlorfenapyr	0.03	0.1	ND	0.03	Methyl Parathion	0.02	0.1	ND	0.02
Mevinphos	0.03	0.08	ND	0.03	Abamectin	0.03	0.08	ND	0.1
Acephate	0.02	0.05	ND	0.1	Acetamiprid	0.01	0.05	ND	0.1
Azoxystrobin	0.01	0.02	ND	0.1	Bifenazate	0.01	0.05	ND	0.1
Bifenthrin	0.02	0.35	ND	3	Boscalid	0.01	0.03	ND	0.1
Carbaryl	0.01	0.02	ND	0.5	Chlorantraniliprole	0.01	0.04	ND	10
Clofentezine	0.01	0.03	ND	0.1	Diazinon	0.01	0.02	ND	0.1
Dimethomorph	0.02	0.06	ND	2	Etoxazole	0.01	0.05	ND	0.1
Fenpyroximate	0.02	0.1	ND	0.1	Fonicamid	0.01	0.02	ND	0.1
Fludioxonil	0.01	0.05	ND	0.1	Hexythiazox	0.01	0.03	ND	0.1
Imidacloprid	0.01	0.05	ND	5	Kresoxim-methyl	0.01	0.03	ND	0.1
Malathion	0.01	0.05	ND	0.5	Metalaxyl	0.01	0.02	ND	2
Methomyl	0.02	0.05	ND	1	Myclobutanil	0.02	0.07	ND	0.1
Naled	0.01	0.02	ND	0.1	Oxamyl	0.01	0.02	ND	0.5
Permethrin	0.01	0.02	ND	0.5	Phosmet	0.01	0.02	ND	0.1
Piperonyl Butoxide	0.02	0.06	ND	3	Propiconazole	0.03	0.08	ND	0.1
Prallethrin	0.02	0.05	ND	0.1	Pyrethrin	0.05	0.41	ND	0.5
Pyridaben	0.02	0.07	ND	0.1	Spinosad A	0.01	0.05	ND	0.1
Spinosad D	0.01	0.05	ND	0.1	Spiromesifen	0.02	0.06	ND	0.1
Spirotetramat	0.01	0.02	ND	0.1	Tebuconazole	0.01	0.02	ND	0.1
Thiamethoxam	0.01	0.02	ND	5	Trifloxystrobin	0.01	0.02	ND	0.1
Acequinocyl	0.02	0.09	ND	0.1	Captan	0.01	0.02	ND	0.7
Cypermethrin	0.02	0.1	ND	1	Cyfluthrin	0.04	0.1	ND	2
Fenhexamid	0.02	0.07	ND	0.1	Spinetoram J,L	0.02	0.07	ND	0.1
Pentachloronitrobenzene	0.01	0.1	ND	0.1					

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



Authorized Signature

*Brandon Starr*

Brandon Starr, Lab Manager  
 Mon, 22 Aug 2022 17:10:09 -0700

## RES - Residual Solvents Testing Analysis

Analyzed Aug 16, 2022 | Instrument GC/FID with Headspace Analyzer | Method SOP-006

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Propane (Prop)	0.4	40.0	ND	5000	Butane (But)	0.4	40.0	ND	5000
Methanol (Metha)	0.4	40.0	ND	3000	Ethylene Oxide (EthOx)	0.4	0.8	ND	1
Pentane (Pen)	0.4	40.0	ND	5000	Ethanol (Ethan)	0.4	40.0	ND	5000
Ethyl Ether (EthEt)	0.4	40.0	ND	5000	Acetone (Acet)	0.4	40.0	72.9	5000
Isopropanol (2-Pro)	0.4	40.0	ND	5000	Acetonitrile (Acetonit)	0.4	40.0	ND	410
Methylene Chloride (MetCh)	0.4	0.8	ND	1	Hexane (Hex)	0.4	40.0	ND	290
Ethyl Acetate (EthAc)	0.4	40.0	ND	5000	Chloroform (Clo)	0.4	0.8	ND	1
Benzene (Ben)	0.4	0.8	ND	1	1-2-Dichloroethane (12-Dich)	0.4	0.8	ND	1
Heptane (Hep)	0.4	40.0	ND	5000	Trichloroethylene (TriClEth)	0.4	0.8	ND	1
Toluene (Toluene)	0.4	40.0	ND	890	Xylenes (Xyl)	0.4	40.0	ND	2170

## FVI - Filth &amp; Foreign Material Inspection Analysis

Analyzed Aug 15, 2022 | Instrument Microscope | Method SOP-010

Analyte / Limit	Result	Analyte / Limit	Result
> 1/4 of the total sample area covered by sand, soil, cinders, or dirt	ND	> 1/4 of the total sample area covered by mold	ND
> 1 insect fragment, 1 hair, or 1 count mammalian excreta per 3g	ND	> 1/4 of the total sample area covered by an imbedded foreign material	ND

## MWA - Moisture Content &amp; Water Activity Analysis

Analyzed Aug 15, 2022 | Instrument Chilled-mirror Dewpoint and Capacitance | Method SOP-008

Analyte	Result	Limit	Analyte	Result	Limit
Moisture (Moi)	8.4 % Mw	13 % Mw	Water Activity (WA)	0.58 a <sub>w</sub>	0.85 a <sub>w</sub>

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



Authorized Signature

Brandon Starr

 Brandon Starr, Lab Manager  
 Mon, 22 Aug 2022 17:10:09 -0700

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Sample **Extrax Rainbow Runtz**

Sample ID	SD220813-010 (51011)	Matrix	Flower (Inhalable Cannabis Good)
Tested for	Top Shelf Hemp Co		
Sampled	-	Received	Aug 12, 2022
		Reported	Aug 22, 2022
Analyses executed	FP-IO	Unit Mass (g)	3.5

Laboratory note: The estimated concentration of the unknown peak in the sample is 0.51% | Currently PharmLabs laboratory can not confirm an unidentified peak in your chromatogram due to interference (only with highly concentrated D8 products) from which we believe to be either (+)d8-THC or d9-THC. At this time there are no reference standards available for (+)d8-THC. (+)d8-THC is a different compound from the main (-)d8-THC cannabinoid and, therefore, these two compounds may have different efficacies. Using the most advanced instruments and techniques available, the separation of (+)d8-THC and d9-THC is problematic for the scientific community as a whole. PharmLabs believes the unidentified peak to be a combination of (+)d8-THC and d9-THC with the majority, if not all, of the concentration being (+)d8-THC. Total cannabinoids is estimated to be 18.8%

**\*CAN+ - Cannabinoids Analysis**

Analyzed Aug 22, 2022 | Instrument HPLC-VWD | Method SOP-001  
 Measurement Uncertainty at 95% confidence 7.806%

Analyte	LOD mg/g	LOQ mg/g	Result %	Result mg/g	Result mg/Package
Cannabidivarin (CBDV)	0.039	0.16	ND	ND	ND
Cannabidiolic Acid (CBDA)	0.001	0.16	11.05	110.49	386.72
Cannabigerol Acid (CBGA)	0.001	0.16	0.58	5.81	20.34
Cannabigerol (CBG)	0.001	0.16	0.13	1.26	4.39
Cannabidiol (CBD)	0.001	0.16	1.80	17.97	62.90
Tetrahydrocannabivarin (THCV)	0.001	0.16	ND	ND	ND
Cannabinol (CBN)	0.001	0.16	<LOQ	<LOQ	<LOQ
Tetrahydrocannabinol (Δ9-THC)	0.003	0.16	UI	UI	UI
Δ8-tetrahydrocannabinol (Δ8-THC)	0.004	0.16	5.91	59.12	206.93
Cannabicyclol (CBL)	0.002	0.16	ND	ND	ND
Cannabichromene (CBC)	0.002	0.16	ND	ND	ND
Tetrahydrocannabinolic Acid (THCA)	0.001	0.16	0.31	3.09	10.83
<b>Total THC (THCa * 0.877 + THC)</b>			<b>0.27</b>	<b>2.71</b>	<b>9.50</b>
<b>Total CBD (CBDa * 0.877 + CBD)</b>			<b>11.49</b>	<b>114.87</b>	<b>402.05</b>
<b>Total CBG (CBGa * 0.877 + CBG)</b>			<b>0.64</b>	<b>6.35</b>	<b>22.23</b>
<b>TOTAL CANNABINOIDS</b>			<b>18.31</b>	<b>183.06</b>	<b>640.71</b>

\*Dry Weight %

Sample photography



**HME - Heavy Metals Detection Analysis**

Analyzed Aug 22, 2022 | Instrument ICP/MSMS | Method SOP-005

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Arsenic (As)	0.0002	0.05	0.13	0.2	Cadmium (Cd)	3.0e-05	0.05	0.16	0.2
Mercury (Hg)	1.0e-05	0.01	0.05	0.1	Lead (Pb)	1.0e-05	0.125	0.27	0.5

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



Authorized Signature

*Brandon Starr*

Brandon Starr, Lab Manager  
 Mon, 22 Aug 2022 17:12:29 -0700



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## MIBIG - Microbial Testing Analysis

Analyzed Aug 17, 2022 | Instrument qPCR and/or Plating | Method SOP-007

Analyte	Result CFU/g	Limit	Analyte	Result CFU/g	Limit
Shiga toxin-producing Escherichia Coli	ND	ND per 1 gram	Salmonella spp.	ND	ND per 1 gram
Aspergillus fumigatus	ND	ND per 1 gram	Aspergillus flavus	ND	ND per 1 gram
Aspergillus niger	ND	ND per 1 gram	Aspergillus terreus	ND	ND per 1 gram

## MTO - Mycotoxin Testing Analysis

Analyzed Aug 16, 2022 | Instrument LC/MSMS | Method SOP-004

Analyte	LOD ug/kg	LOQ ug/kg	Result ug/kg (ppb)	Limit ug/kg	Analyte	LOD ug/kg	LOQ ug/kg	Result ug/kg (ppb)	Limit ug/kg
Ochratoxin A	5.0	20.0	ND	20	Aflatoxin B1	2.5	5.0	ND	
Aflatoxin B2	2.5	5.0	ND		Aflatoxin G1	2.5	5.0	ND	
Aflatoxin G2	2.5	5.0	ND		Total Aflatoxins	10.0	20.0	ND	20

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



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*Brandon Starr*

Brandon Starr, Lab Manager  
 Mon, 22 Aug 2022 17:12:29 -0700

## PES - Pesticides Screening Analysis

Analyzed Aug 16, 2022 | Instrument LC/MSMS GC/MSMS | Method SOP-003

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Aldicarb	0.0078	0.02	ND	0.0078	Carbofuran	0.01	0.02	ND	0.01
Dimethoate	0.01	0.02	ND	0.01	Etofenprox	0.02	0.1	ND	0.02
Fenoxycarb	0.01	0.02	ND	0.01	Thiachloprid	0.01	0.02	ND	0.01
Daminozide	0.01	0.03	ND	0.01	Dichlorvos	0.02	0.07	ND	0.02
Imazalil	0.02	0.07	ND	0.02	Methiocarb	0.01	0.02	ND	0.01
Spiroxamine	0.01	0.02	ND	0.01	Coumaphos	0.01	0.02	ND	0.01
Fipronil	0.01	0.1	ND	0.01	Paclobutrazol	0.01	0.03	ND	0.01
Chlorpyrifos	0.01	0.04	ND	0.01	Ethoprophos (Prophos)	0.01	0.02	ND	0.01
Baygon (Propoxur)	0.01	0.02	ND	0.01	Chlordane	0.04	0.1	ND	0.04
Chlorfenapyr	0.03	0.1	ND	0.03	Methyl Parathion	0.02	0.1	ND	0.02
Mevinphos	0.03	0.08	ND	0.03	Abamectin	0.03	0.08	ND	0.1
Acephate	0.02	0.05	ND	0.1	Acetamiprid	0.01	0.05	ND	0.1
Azoxystrobin	0.01	0.02	ND	0.1	Bifenazate	0.01	0.05	ND	0.1
Bifenthrin	0.02	0.35	ND	3	Boscalid	0.01	0.03	ND	0.1
Carbaryl	0.01	0.02	ND	0.5	Chlorantraniliprole	0.01	0.04	ND	10
Clofentezine	0.01	0.03	ND	0.1	Diazinon	0.01	0.02	ND	0.1
Dimethomorph	0.02	0.06	ND	2	Etoazole	0.01	0.05	ND	0.1
Fenpyroximate	0.02	0.1	ND	0.1	Fonicamid	0.01	0.02	ND	0.1
Fludioxonil	0.01	0.05	ND	0.1	Hexythiazox	0.01	0.03	ND	0.1
Imidacloprid	0.01	0.05	ND	5	Kresoxim-methyl	0.01	0.03	ND	0.1
Malathion	0.01	0.05	ND	0.5	Metalaxyl	0.01	0.02	ND	2
Methomyl	0.02	0.05	ND	1	Myclobutanil	0.02	0.07	ND	0.1
Naled	0.01	0.02	ND	0.1	Oxamyl	0.01	0.02	ND	0.5
Permethrin	0.01	0.02	ND	0.5	Phosmet	0.01	0.02	ND	0.1
Piperonyl Butoxide	0.02	0.06	ND	3	Propiconazole	0.03	0.08	ND	0.1
Prallethrin	0.02	0.05	ND	0.1	Pyrethrin	0.05	0.41	ND	0.5
Pyridaben	0.02	0.07	ND	0.1	Spinosad A	0.01	0.05	ND	0.1
Spinosad D	0.01	0.05	ND	0.1	Spiromesifen	0.02	0.06	ND	0.1
Spirotetramat	0.01	0.02	ND	0.1	Tebuconazole	0.01	0.02	ND	0.1
Thiamethoxam	0.01	0.02	ND	5	Trifloxystrobin	0.01	0.02	ND	0.1
Acequinocyl	0.02	0.09	ND	0.1	Captan	0.01	0.02	ND	0.7
Cypermethrin	0.02	0.1	ND	1	Cyfluthrin	0.04	0.1	ND	2
Fenhexamid	0.02	0.07	ND	0.1	Spinetoram J,L	0.02	0.07	ND	0.1
Pentachloronitrobenzene	0.01	0.1	ND	0.1					

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



Authorized Signature

Brandon Starr

 Brandon Starr, Lab Manager  
 Mon, 22 Aug 2022 17:12:29 -0700

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## RES - Residual Solvents Testing Analysis

Analyzed Aug 16, 2022 | Instrument GC/FID with Headspace Analyzer | Method SOP-006

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Propane (Prop)	0.4	40.0	ND	5000	Butane (But)	0.4	40.0	ND	5000
Methanol (Metha)	0.4	40.0	658.7	3000	Ethylene Oxide (EthOx)	0.4	0.8	ND	1
Pentane (Pen)	0.4	40.0	ND	5000	Ethanol (Ethan)	0.4	40.0	110.0	5000
Ethyl Ether (EthEt)	0.4	40.0	ND	5000	Acetone (Acet)	0.4	40.0	106.6	5000
Isopropanol (2-Pro)	0.4	40.0	ND	5000	Acetonitrile (Acetonit)	0.4	40.0	ND	410
Methylene Chloride (MetCh)	0.4	0.8	ND	1	Hexane (Hex)	0.4	40.0	ND	290
Ethyl Acetate (EthAc)	0.4	40.0	ND	5000	Chloroform (Clo)	0.4	0.8	ND	1
Benzene (Ben)	0.4	0.8	ND	1	1-2-Dichloroethane (12-Dich)	0.4	0.8	ND	1
Heptane (Hep)	0.4	40.0	ND	5000	Trichloroethylene (TriClEth)	0.4	0.8	ND	1
Toluene (Toluene)	0.4	40.0	ND	890	Xylenes (Xyl)	0.4	40.0	ND	2170

## FVI - Filth &amp; Foreign Material Inspection Analysis

Analyzed Aug 15, 2022 | Instrument Microscope | Method SOP-010

Analyte / Limit	Result	Analyte / Limit	Result
> 1/4 of the total sample area covered by sand, soil, cinders, or dirt	ND	> 1/4 of the total sample area covered by mold	ND
> 1 insect fragment, 1 hair, or 1 count mammalian excreta per 3g	ND	> 1/4 of the total sample area covered by an imbedded foreign material	ND

## MWA - Moisture Content &amp; Water Activity Analysis

Analyzed Aug 15, 2022 | Instrument Chilled-mirror Dewpoint and Capacitance | Method SOP-008

Analyte	Result	Limit	Analyte	Result	Limit
Moisture (Moi)	7.1 % Mw	13 % Mw	Water Activity (WA)	0.50 a <sub>w</sub>	0.85 a <sub>w</sub>

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



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Brandon Starr

 Brandon Starr, Lab Manager  
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## PharmLabs San Diego Certificate of Analysis

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ISO/IEC 17025:2017 Certification L17-427-1 | Accreditation #85368Sample **Extrax Space Candy**

Sample ID	SD220813-007 (51008)	Matrix	Flower (Inhalable Cannabis Good)
Tested for	Top Shelf Hemp Co		
Sampled	-	Received	Aug 12, 2022
		Reported	Aug 22, 2022
Analyses executed	FP-IO	Unit Mass (g)	3.5

Laboratory note: The estimated concentration of the unknown peak in the sample is 0.97%. Currently PharmLabs laboratory can not confirm an unidentified peak in your chromatogram due to interference (only with highly concentrated D8 products) from which we believe to be either (+)d8-THC or d9-THC. At this time there are no reference standards available for (+)d8-THC. (+)d8-THC is a different compound from the main (-)d8-THC cannabinoid and, therefore, these two compounds may have different efficacies. Using the most advanced instruments and techniques available, the separation of (+)d8-THC and d9-THC is problematic for the scientific community as a whole. PharmLabs believes the unidentified peak to be a combination of (+)d8-THC and d9-THC with the majority, if not all, of the concentration being (+)d8-THC. Total cannabinoids is estimated to be 21.7%.

## \*CAN+ - Cannabinoids Analysis

Analyzed Aug 22, 2022 | Instrument HPLC-VWD | Method SOP-001  
Measurement Uncertainty at 95% confidence 7.806%

Analyte	LOD mg/g	LOQ mg/g	Result %	Result mg/g	Result mg/Package
Cannabidiol (CBD)	0.039	0.16	ND	ND	ND
Cannabidiol Acid (CBDA)	0.001	0.16	9.20	91.98	321.94
Cannabigerol Acid (CBGA)	0.001	0.16	0.24	2.39	8.36
Cannabigerol (CBG)	0.001	0.16	<LOQ	<LOQ	<LOQ
Cannabidiol (CBD)	0.001	0.16	1.45	14.49	50.70
Tetrahydrocannabivarin (THCV)	0.001	0.16	ND	ND	ND
Cannabinol (CBN)	0.001	0.16	ND	ND	ND
Tetrahydrocannabinol ( $\Delta$ 9-THC)	0.003	0.16	UI	UI	UI
$\Delta$ 8-tetrahydrocannabinol ( $\Delta$ 8-THC)	0.004	0.16	10.73	107.30	375.54
Cannabicyclol (CBL)	0.002	0.16	ND	ND	ND
Cannabichromene (CBC)	0.002	0.16	ND	ND	ND
Tetrahydrocannabinolic Acid (THCA)	0.001	0.16	0.26	2.65	9.27
Total THC (THCa * 0.877 + THC)			0.23	2.32	8.13
Total CBD (CBDA * 0.877 + CBD)			9.52	95.16	333.04
Total CBG (CBGA * 0.877 + CBG)			0.21	2.10	7.33
TOTAL CANNABINOIDS			20.69	206.88	724.04

\*Dry Weight %

## Sample photography



## HME - Heavy Metals Detection Analysis

Analyzed Aug 22, 2022 | Instrument ICP/MSMS | Method SOP-005

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Arsenic (As)	0.0002	0.05	0.09	0.2	Cadmium (Cd)	3.0e-05	0.05	0.09	0.2
Mercury (Hg)	1.0e-05	0.01	0.02	0.1	Lead (Pb)	1.0e-05	0.125	0.24	0.5

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



Authorized Signature

Brandon Starr

Brandon Starr, Lab Manager  
Mon, 22 Aug 2022 17:11:19 -0700

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## MIBIG - Microbial Testing Analysis

Analyzed Aug 17, 2022 | Instrument qPCR and/or Plating | Method SOP-007

Analyte	Result CFU/g	Limit	Analyte	Result CFU/g	Limit
Shiga toxin-producing Escherichia Coli	ND	ND per 1 gram	Salmonella spp.	ND	ND per 1 gram
Aspergillus fumigatus	ND	ND per 1 gram	Aspergillus flavus	ND	ND per 1 gram
Aspergillus niger	ND	ND per 1 gram	Aspergillus terreus	ND	ND per 1 gram

## MTO - Mycotoxin Testing Analysis

Analyzed Aug 16, 2022 | Instrument LC/MSMS | Method SOP-004

Analyte	LOD ug/kg	LOQ ug/kg	Result ug/kg (ppb)	Limit ug/kg	Analyte	LOD ug/kg	LOQ ug/kg	Result ug/kg (ppb)	Limit ug/kg
Ochratoxin A	5.0	20.0	ND	20	Aflatoxin B1	2.5	5.0	ND	
Aflatoxin B2	2.5	5.0	ND		Aflatoxin G1	2.5	5.0	ND	
Aflatoxin G2	2.5	5.0	ND		Total Aflatoxins	10.0	20.0	ND	20

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1  
 gram  
 TNTC Too Numerous to Count



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Brandon Starr, Lab Manager  
 Mon, 22 Aug 2022 17:11:19 -0700

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## PES - Pesticides Screening Analysis

Analyzed Aug 16, 2022 | Instrument LC/MSMS GC/MSMS | Method SOP-003

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Aldicarb	0.0078	0.02	ND	0.0078	Carbofuran	0.01	0.02	ND	0.01
Dimethoate	0.01	0.02	ND	0.01	Etofenprox	0.02	0.1	ND	0.02
Fenoxycarb	0.01	0.02	ND	0.01	Thiachloprid	0.01	0.02	ND	0.01
Daminozide	0.01	0.03	ND	0.01	Dichlorvos	0.02	0.07	ND	0.02
Imazalil	0.02	0.07	ND	0.02	Methiocarb	0.01	0.02	ND	0.01
Spiroxamine	0.01	0.02	ND	0.01	Coumaphos	0.01	0.02	ND	0.01
Fipronil	0.01	0.1	ND	0.01	Paclobutrazol	0.01	0.03	ND	0.01
Chlorpyrifos	0.01	0.04	ND	0.01	Ethoprophos (Prophos)	0.01	0.02	ND	0.01
Baygon (Propoxur)	0.01	0.02	ND	0.01	Chlordane	0.04	0.1	ND	0.04
Chlorfenapyr	0.03	0.1	ND	0.03	Methyl Parathion	0.02	0.1	ND	0.02
Mevinphos	0.03	0.08	ND	0.03	Abamectin	0.03	0.08	ND	0.1
Acephate	0.02	0.05	ND	0.1	Acetamiprid	0.01	0.05	ND	0.1
Azoxystrobin	0.01	0.02	ND	0.1	Bifenazate	0.01	0.05	ND	0.1
Bifenthrin	0.02	0.35	ND	3	Boscalid	0.01	0.03	ND	0.1
Carbaryl	0.01	0.02	ND	0.5	Chlorantraniliprole	0.01	0.04	ND	10
Clofentezine	0.01	0.03	ND	0.1	Diazinon	0.01	0.02	ND	0.1
Dimethomorph	0.02	0.06	ND	2	Etiozazole	0.01	0.05	ND	0.1
Fenpyroximate	0.02	0.1	ND	0.1	Fonicamid	0.01	0.02	ND	0.1
Fludioxonil	0.01	0.05	ND	0.1	Hexythiazox	0.01	0.03	ND	0.1
Imidacloprid	0.01	0.05	ND	5	Kresoxim-methyl	0.01	0.03	ND	0.1
Malathion	0.01	0.05	ND	0.5	Metalaxyl	0.01	0.02	ND	2
Methomyl	0.02	0.05	ND	1	Myclobutanil	0.02	0.07	ND	0.1
Naled	0.01	0.02	ND	0.1	Oxamyl	0.01	0.02	ND	0.5
Permethrin	0.01	0.02	ND	0.5	Phosmet	0.01	0.02	ND	0.1
Piperonyl Butoxide	0.02	0.06	ND	3	Propiconazole	0.03	0.08	ND	0.1
Prallethrin	0.02	0.05	ND	0.1	Pyrethrin	0.05	0.41	ND	0.5
Pyridaben	0.02	0.07	ND	0.1	Spinosad A	0.01	0.05	ND	0.1
Spinosad D	0.01	0.05	ND	0.1	Spiromesifen	0.02	0.06	ND	0.1
Spirotetramat	0.01	0.02	ND	0.1	Tebuconazole	0.01	0.02	ND	0.1
Thiamethoxam	0.01	0.02	ND	5	Trifloxystrobin	0.01	0.02	ND	0.1
Acequinocyl	0.02	0.09	ND	0.1	Captan	0.01	0.02	ND	0.7
Cypermethrin	0.02	0.1	ND	1	Cyfluthrin	0.04	0.1	ND	2
Fenhexamid	0.02	0.07	ND	0.1	Spinetoram J,L	0.02	0.07	ND	0.1
Pentachloronitrobenzene	0.01	0.1	ND	0.1					

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



Authorized Signature

Brandon Starr

Brandon Starr, Lab Manager  
Mon, 22 Aug 2022 17:11:19 -0700

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## RES - Residual Solvents Testing Analysis

Analyzed Aug 16, 2022 | Instrument GC/FID with Headspace Analyzer | Method SOP-006

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Propane (Prop)	0.4	40.0	ND	5000	Butane (But)	0.4	40.0	ND	5000
Methanol (Metha)	0.4	40.0	988.6	3000	Ethylene Oxide (EthOx)	0.4	0.8	ND	1
Pentane (Pen)	0.4	40.0	ND	5000	Ethanol (Ethan)	0.4	40.0	585.3	5000
Ethyl Ether (EthEt)	0.4	40.0	ND	5000	Acetone (Acet)	0.4	40.0	98.1	5000
Isopropanol (2-Pro)	0.4	40.0	ND	5000	Acetonitrile (Acetonit)	0.4	40.0	ND	410
Methylene Chloride (MetCh)	0.4	0.8	ND	1	Hexane (Hex)	0.4	40.0	ND	290
Ethyl Acetate (EthAc)	0.4	40.0	ND	5000	Chloroform (Clo)	0.4	0.8	ND	1
Benzene (Ben)	0.4	0.8	ND	1	1-2-Dichloroethane (12-Dich)	0.4	0.8	ND	1
Heptane (Hep)	0.4	40.0	ND	5000	Trichloroethylene (TriClEth)	0.4	0.8	ND	1
Toluene (Toluene)	0.4	40.0	ND	890	Xylenes (Xyl)	0.4	40.0	ND	2170

## FVI - Filth &amp; Foreign Material Inspection Analysis

Analyzed Aug 15, 2022 | Instrument Microscope | Method SOP-010

Analyte / Limit	Result	Analyte / Limit	Result
> 1/4 of the total sample area covered by sand, soil, cinders, or dirt	ND	> 1/4 of the total sample area covered by mold	ND
> 1 insect fragment, 1 hair, or 1 count mammalian excreta per 3g	ND	> 1/4 of the total sample area covered by an imbedded foreign material	ND

## MWA - Moisture Content &amp; Water Activity Analysis

Analyzed Aug 15, 2022 | Instrument Chilled-mirror Dewpoint and Capacitance | Method SOP-008

Analyte	Result	Limit	Analyte	Result	Limit
Moisture (Moi)	6.6 % Mw	13 % Mw	Water Activity (WA)	0.51 a <sub>w</sub>	0.85 a <sub>w</sub>

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



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PharmLabs San Diego Certificate of Analysis

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 ISO/IEC 17025:2017 Certification L17-427-1 | Accreditation #85368



Sample **Extrax Strawberry Lemonade**

Sample ID	SD220813-008 (51009)	Matrix	Flower (Inhalable Cannabis Good)
Tested for	Top Shelf Hemp Co		
Sampled	-	Received	Aug 12, 2022
		Reported	Aug 22, 2022
Analyses executed	FP-IO	Unit Mass (g)	3.5

Laboratory note: The estimated concentration of the unknown peak in the sample is 0.79% | Currently PharmLabs laboratory can not confirm an unidentified peak in your chromatogram due to interference (only with highly concentrated D8 products) from which we believe to be either (+)d8-THC or d9-THC. At this time there are no reference standards available for (+)d8-THC. (+)d8-THC is a different compound from the main (-)d8-THC cannabinoid and, therefore, these two compounds may have different efficacies. Using the most advanced instruments and techniques available, the separation of (+)d8-THC and d9-THC is problematic for the scientific community as a whole. PharmLabs believes the unidentified peak to be a combination of (+)d8-THC and d9-THC with the majority, if not all, of the concentration being (+)d8-THC. Total cannabinoids is estimated to be 21.0%

**\*CAN+ - Cannabinoids Analysis**

Analyzed Aug 22, 2022 | Instrument HPLC-VWD | Method SOP-001  
 Measurement Uncertainty at 95% confidence 7.806%

Analyte	LOD mg/g	LOQ mg/g	Result %	Result mg/g	Result mg/Package
Cannabidiol (CBD)	0.039	0.16	ND	ND	ND
Cannabidiol Acid (CBDA)	0.001	0.16	9.76	97.63	341.71
Cannabigerol Acid (CBGA)	0.001	0.16	0.26	2.58	9.02
Cannabigerol (CBG)	0.001	0.16	0.11	1.06	3.71
Cannabidiol (CBD)	0.001	0.16	3.88	38.75	135.63
Tetrahydrocannabivarin (THCV)	0.001	0.16	ND	ND	ND
Cannabinol (CBN)	0.001	0.16	ND	ND	ND
Tetrahydrocannabinol (Δ9-THC)	0.003	0.16	UI	UI	UI
Δ8-tetrahydrocannabinol (Δ8-THC)	0.004	0.16	7.30	73.00	255.51
Cannabicyclol (CBL)	0.002	0.16	ND	ND	ND
Cannabichromene (CBC)	0.002	0.16	ND	ND	ND
Tetrahydrocannabinolic Acid (THCA)	0.001	0.16	0.18	1.80	6.29
<b>Total THC (THCa * 0.877 + THC)</b>			<b>0.16</b>	<b>1.58</b>	<b>5.52</b>
<b>Total CBD (CBDA * 0.877 + CBD)</b>			<b>12.44</b>	<b>124.37</b>	<b>435.31</b>
<b>Total CBG (CBGa * 0.877 + CBG)</b>			<b>0.33</b>	<b>3.32</b>	<b>11.62</b>
<b>TOTAL CANNABINOIDS</b>			<b>20.23</b>	<b>202.27</b>	<b>707.96</b>

\*Dry Weight %

Sample photography



**HME - Heavy Metals Detection Analysis**

Analyzed Aug 22, 2022 | Instrument ICP/MSMS | Method SOP-005

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Arsenic (As)	0.0002	0.05	0.12	0.2	Cadmium (Cd)	3.0e-05	0.05	0.07	0.2
Mercury (Hg)	1.0e-05	0.01	0.01	0.1	Lead (Pb)	1.0e-05	0.125	0.17	0.5

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



Authorized Signature

*Brandon Starr*

Brandon Starr, Lab Manager  
 Mon, 22 Aug 2022 17:11:38 -0700



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### MIBIG - Microbial Testing Analysis

Analyzed Aug 17, 2022 | Instrument qPCR and/or Plating | Method SOP-007

Analyte	Result CFU/g	Limit	Analyte	Result CFU/g	Limit
Shiga toxin-producing Escherichia Coli	ND	ND per 1 gram	Salmonella spp.	ND	ND per 1 gram
Aspergillus fumigatus	ND	ND per 1 gram	Aspergillus flavus	ND	ND per 1 gram
Aspergillus niger	ND	ND per 1 gram	Aspergillus terreus	ND	ND per 1 gram

### MTO - Mycotoxin Testing Analysis

Analyzed Aug 16, 2022 | Instrument LC/MSMS | Method SOP-004

Analyte	LOD ug/kg	LOQ ug/kg	Result ug/kg (ppb)	Limit ug/kg	Analyte	LOD ug/kg	LOQ ug/kg	Result ug/kg (ppb)	Limit ug/kg
Ochratoxin A	5.0	20.0	ND	20	Aflatoxin B1	2.5	5.0	ND	
Aflatoxin B2	2.5	5.0	ND		Aflatoxin G1	2.5	5.0	ND	
Aflatoxin G2	2.5	5.0	ND		Total Aflatoxins	10.0	20.0	ND	20

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



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*Brandon Starr*

Brandon Starr, Lab Manager  
 Mon, 22 Aug 2022 17:11:38 -0700

## PES - Pesticides Screening Analysis

Analyzed Aug 16, 2022 | Instrument LC/MSMS GC/MSMS | Method SOP-003

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Aldicarb	0.0078	0.02	ND	0.0078	Carbofuran	0.01	0.02	ND	0.01
Dimethoate	0.01	0.02	ND	0.01	Etofenprox	0.02	0.1	ND	0.02
Fenoxycarb	0.01	0.02	ND	0.01	Thiachloprid	0.01	0.02	ND	0.01
Daminozide	0.01	0.03	ND	0.01	Dichlorvos	0.02	0.07	ND	0.02
Imazalil	0.02	0.07	ND	0.02	Methiocarb	0.01	0.02	ND	0.01
Spiroxamine	0.01	0.02	ND	0.01	Coumaphos	0.01	0.02	ND	0.01
Fipronil	0.01	0.1	ND	0.01	Paclbutrazol	0.01	0.03	ND	0.01
Chlorpyrifos	0.01	0.04	ND	0.01	Ethoprophos (Prophos)	0.01	0.02	ND	0.01
Baygon (Propoxur)	0.01	0.02	ND	0.01	Chlordane	0.04	0.1	ND	0.04
Chlorfenapyr	0.03	0.1	ND	0.03	Methyl Parathion	0.02	0.1	ND	0.02
Mevinphos	0.03	0.08	ND	0.03	Abamectin	0.03	0.08	ND	0.1
Acephate	0.02	0.05	ND	0.1	Acetamiprid	0.01	0.05	ND	0.1
Azoxystrobin	0.01	0.02	ND	0.1	Bifenazate	0.01	0.05	ND	0.1
Bifenthrin	0.02	0.35	ND	3	Boscalid	0.01	0.03	ND	0.1
Carbaryl	0.01	0.02	ND	0.5	Chlorantraniliprole	0.01	0.04	ND	10
Clofentezine	0.01	0.03	ND	0.1	Diazinon	0.01	0.02	ND	0.1
Dimethomorph	0.02	0.06	ND	2	Etoxazole	0.01	0.05	ND	0.1
Fenpyroximate	0.02	0.1	ND	0.1	Fonicamid	0.01	0.02	ND	0.1
Fludioxonil	0.01	0.05	ND	0.1	Hexythiazox	0.01	0.03	ND	0.1
Imidacloprid	0.01	0.05	ND	5	Kresoxim-methyl	0.01	0.03	ND	0.1
Malathion	0.01	0.05	ND	0.5	Metalaxyl	0.01	0.02	ND	2
Methomyl	0.02	0.05	ND	1	Myclobutanil	0.02	0.07	ND	0.1
Naled	0.01	0.02	ND	0.1	Oxamyl	0.01	0.02	ND	0.5
Permethrin	0.01	0.02	ND	0.5	Phosmet	0.01	0.02	ND	0.1
Piperonyl Butoxide	0.02	0.06	ND	3	Propiconazole	0.03	0.08	ND	0.1
Prallethrin	0.02	0.05	ND	0.1	Pyrethrin	0.05	0.41	ND	0.5
Pyridaben	0.02	0.07	ND	0.1	Spinosad A	0.01	0.05	ND	0.1
Spinosad D	0.01	0.05	ND	0.1	Spiromesifen	0.02	0.06	ND	0.1
Spirotetramat	0.01	0.02	ND	0.1	Tebuconazole	0.01	0.02	ND	0.1
Thiamethoxam	0.01	0.02	ND	5	Trifloxystrobin	0.01	0.02	ND	0.1
Acequinocyl	0.02	0.09	ND	0.1	Captan	0.01	0.02	ND	0.7
Cypermethrin	0.02	0.1	ND	1	Cyfluthrin	0.04	0.1	ND	2
Fenhexamid	0.02	0.07	ND	0.1	Spinetoram J,L	0.02	0.07	ND	0.1
Pentachloronitrobenzene	0.01	0.1	ND	0.1					

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



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## RES - Residual Solvents Testing Analysis

Analyzed Aug 16, 2022 | Instrument GC/FID with Headspace Analyzer | Method SOP-006

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Propane (Prop)	0.4	40.0	ND	5000	Butane (But)	0.4	40.0	ND	5000
Methanol (Metha)	0.4	40.0	1514.8	3000	Ethylene Oxide (EthOx)	0.4	0.8	ND	1
Pentane (Pen)	0.4	40.0	ND	5000	Ethanol (Ethan)	0.4	40.0	ND	5000
Ethyl Ether (EthEt)	0.4	40.0	ND	5000	Acetone (Acet)	0.4	40.0	ND	5000
Isopropanol (2-Pro)	0.4	40.0	ND	5000	Acetonitrile (Acetonit)	0.4	40.0	ND	410
Methylene Chloride (MetCh)	0.4	0.8	ND	1	Hexane (Hex)	0.4	40.0	ND	290
Ethyl Acetate (EthAc)	0.4	40.0	ND	5000	Chloroform (Clo)	0.4	0.8	ND	1
Benzene (Ben)	0.4	0.8	ND	1	1-2-Dichloroethane (12-Dich)	0.4	0.8	ND	1
Heptane (Hep)	0.4	40.0	ND	5000	Trichloroethylene (TriClEth)	0.4	0.8	ND	1
Toluene (Toluene)	0.4	40.0	ND	890	Xylenes (Xyl)	0.4	40.0	ND	2170

## FVI - Filth &amp; Foreign Material Inspection Analysis

Analyzed Aug 15, 2022 | Instrument Microscope | Method SOP-010

Analyte / Limit	Result	Analyte / Limit	Result
> 1/4 of the total sample area covered by sand, soil, cinders, or dirt	ND	> 1/4 of the total sample area covered by mold	ND
> 1 insect fragment, 1 hair, or 1 count mammalian excreta per 3g	ND	> 1/4 of the total sample area covered by an imbedded foreign material	ND

## MWA - Moisture Content &amp; Water Activity Analysis

Analyzed Aug 15, 2022 | Instrument Chilled-mirror Dewpoint and Capacitance | Method SOP-008

Analyte	Result	Limit	Analyte	Result	Limit
Moisture (Moi)	7.6 % Mw	13 % Mw	Water Activity (WA)	0.54 a <sub>w</sub>	0.85 a <sub>w</sub>

UI Not Identified  
 ND Not Detected  
 N/A Not Applicable  
 NT Not Reported  
 LOD Limit of Detection  
 LOQ Limit of Quantification  
 <LOQ Detected  
 >ULOL Above upper limit of linearity  
 CFU/g Colony Forming Units per 1 gram  
 TNTC Too Numerous to Count



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