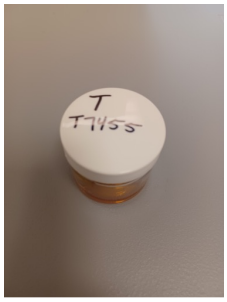
CTLA
Contract TESTING Laboratories
OF AMERICA

Certificate of Analysis

Sample Information

CTLA ID:	52505
Date Received:	5/17/2022
Sample Name:	CBD Oil T
Lot Number:	T7455
Customer:	Utah Cannabis Company



Analysis	Method	MDL	Specification	Result	Units
Cannabinoid Concentration (16)					
Total Cannabinoids	HPLC	26.706	Report	487.576	mg/g
Total Cannabidiol (CBD)	HPLC	26.706	Report	414.967	mg/g
Total Tetrahydrocannabinol (THC)	HPLC	2.671	Report	ND	%
CBDVA	HPLC	26.706	Report	ND	mg/g
CBDV	HPLC	26.706	Report	ND	mg/g
CBDA	HPLC	26.706	Report	ND	mg/g
CBGA	HPLC	26.706	Report	ND	mg/g
CBG	HPLC	26.706	Report	ND	mg/g
CBD	HPLC	26.706	Report	414.967	mg/g
THCV	HPLC	26.706	Report	ND	mg/g
THCVA	HPLC	26.706	Report	ND	mg/g
CBN	HPLC	26.706	Report	33.257	mg/g
CBNA	HPLC	26.706	Report	ND	mg/g
Δ9-THC	HPLC	26.706	Report	ND	mg/g
Δ8-THC	HPLC	26.706	Report	ND	mg/g
CBL	HPLC	26.706	Report	ND	mg/g
CBC	HPLC	26.706	Report	39.353	mg/g
THCA	HPLC	26.706	Report	ND	mg/g
CBCA	HPLC	26.706	Report	ND	mg/g

5/25/2022
DATE

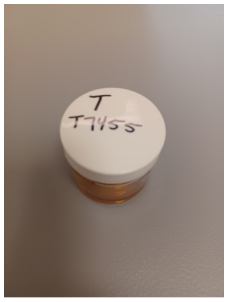
Quality Manager

Specifications provided by the Customer. Results with an asterisk (*) denote Specifications should be reviewed by the Customer. This Certificate of Analysis represents data for the sample submitted and does not constitute a guarantee of quality for the entire product from which it was taken. These results are provided for the benefit of the Customer. MDL = Method Detection Limit.

Certificate of Analysis

Sample Information

CTLA ID:	52505
Date Received:	5/17/2022
Sample Name:	CBD Oil T
Lot Number:	T7455
Customer:	Utah Cannabis Company



Analysis	Method	MDL	Specification	Result	Units

ND = None Detected

Total CBD = CBD + (CBDA*0.877)
Total THC = Δ9-THC + (THCA*0.877)

5/25/2022
DATE

Quality Manager

Specifications provided by the Customer. Results with an asterisk (*) denote Specifications should be reviewed by the Customer. This Certificate of Analysis represents data for the sample submitted and does not constitute a guarantee of quality for the entire product from which it was taken. These results are provided for the benefit of the Customer. MDL = Method Detection Limit.

Aromatic Plant Research Center
230 N 1200 E STE 100
Lehi, UT 84043
www.aromaticplant.org

Quantitative Terpene Analysis Report

Certificate of Analysis

Hemp Oil

Company Name:	Utah Cannabis Company	Sample Received:	10-22-2020
Company Lot Number:	NA	APRC Lot Number:	UCC201022A
Sample Matrix:	Distillate	Release Date:	10-27-2020

Compound	Total % (w/w)	Total (mg/g)	Compound	Total % (w/w)	Total (mg/g)
α-Pinene	ND	ND	Terpinolene	ND	ND
Camphene	ND	ND	Linolool	ND	ND
β-Pinene	ND	ND	Isopulegol	ND	ND
β-Myrcene	<LOQ	<LOQ	Geraniol	ND	ND
Δ-3-Carene	ND	ND	β-Caryophyllene	ND	ND
α-Terpinene	ND	ND	α-Humulene	ND	ND
p-Cymene	ND	ND	*cis*-Nerolidol	ND	ND
Limonene	ND	ND	*trans*-Nerolidol	ND	ND
α-Ocimene	ND	ND	Caryophyllene oxide	ND	ND
Eucalyptol	ND	ND	Guaiol	<LOQ	<LOQ
β-Ocimene	ND	ND	α-Bisabolol	<LOQ	<LOQ
γ-Terpinene	ND	ND	**Total Terpenes**	**ND**	**ND**

Prepared By: A. Anderson

Reviewed By: C. Gunn

Aromatic Plant Research Center
230 N 1200 E STE 100
Lehi, UT 84043
www.aromaticplant.org

Residual Solvents Analysis Report

Certificate of Analysis

Hemp Oil

Company Name:	Utah Cannabis Company	Sample Received:	10-22-2020
Company Lot Number:	NA	APRC Lot Number:	UCC201022A
Sample Matrix:	Distillate	Release Date:	10-27-2020

Analyte	Limit (µg/g)†	Concentration (µg/g)	Disposition
1,2 Dimethoxyethane	100	ND	Pass
1,4 Dioxane	380	ND	Pass
1-Butanol	5000	ND	Pass
1-Pentanol	5000	ND	Pass
1-Propanol	5000	ND	Pass
2-Butanol	5000	ND	Pass
2-Butanone	5000	ND	Pass
2-Ethoxyethanol	160	ND	Pass
2-methylbutane	5000	ND	Pass
2-Propanol (Isopropyl Alcohol)	5000	ND	Pass
Acetone	5000	ND	Pass
Acetonitrile	410	ND	Pass
Benzene	2	ND	Pass
Butane	5000	ND	Pass
Cumene	70	ND	Pass
Cyclohexane	3880	ND	Pass
Dichloromethane (Methylene Chloride)	600	ND	Pass
2,2-dimethylbutane	290	ND	Pass
2,3-dimethylbutane	290	ND	Pass
1,2-dimethylbenzene (*o*-Xylene)	See Xylenes	ND	Pass
1,3-dimethylbenzene (*m*-Xylene)	See Xylenes	ND	Pass
1,4-dimethylbenzene (*p*-Xylene)	See Xylenes	ND	Pass
Dimethyl Sulfoxide (DMSO)	5000	ND	Pass
Ethanol	5000	ND	Pass

Aromatic Plant Research Center
230 N 1200 E STE 100
Lehi, UT 84043
www.aromaticplant.org

Analyte	Limit (µg/g)†	Concentration (µg/g)	Disposition
Ethyl Acetate	5000	ND	Pass
Ethylbenzene	See Xylenes	ND	Pass
Ethyl ether	5000	ND	Pass
Ethylene glycol	620	ND	Pass
Ethylene Oxide	50	ND	Pass
Heptane	5000	ND	Pass
Hexane	290	ND	Pass
Isopropyl acetate	5000	ND	Pass
Methanol	3000	ND	Pass
Methylpropane	5000	ND	Pass
2-Methylpentane	290	ND	Pass
3-Methylpentane	290	ND	Pass
N,N-dimethylacetamide	1090	ND	Pass
N,N-dimethylformamide	880	ND	Pass
Pentane	5000	ND	Pass
Propane	5000	ND	Pass
Pyridine	100	ND	Pass
Sulfolane	160	ND	Pass
Tetrahydrofuran	720	ND	Pass
Toluene	890	ND	Pass
Xylenes‡	2170	ND	Pass

† Per Utah state code 4-41a-701(3) Section R68-29-6
‡ Total Xylenes is a combination of the following: *o*-Xylene, *m*-Xylene, *p*-Xylene, and Ethylbenzene

Overall Disposition: Pass

Prepared By: A. Anderson

Reviewed By: C. Gunn

Aromatic Plant Research Center
230 N 1200 E STE 100
Lehi, UT 84043
www.aromaticplant.org

PCR-Microarray Analysis Report

Microbial Certificate of Analysis

Client:	Utah Cannabis Company	Date Received:	10-22-2020
Sample Name:	Hemp Oil	Date Tested:	10-22-2020
Sample Matrix:	Distillate	APRC #:	UCC201022A
Sample Lot:	N/A		

Total Counts			
Group	Result	Specification†	Disposition
Total Aerobic Bacteria	< 100	Report Only	Tested
Total Bile Tolerant Gram-Negative Bacteria	< 100	Report Only	Tested
Total Enterobacteria/Coliforms	< 100	Report Only	Tested
Total Yeast and Mold	< 100	Report Only	Tested

Specific Organism Identification			
Organism	Result	Specification†	Disposition
Escherichia coli – Non *shigella*	ND	Report Only	Tested
Escherichia coli/Shigella spp.‡	ND	Report Only	Tested
Listeria monocytogenes	ND	Report Only	Tested
Salmonella – Specific Gene	ND	Report Only	Tested
Staphylococcus Aureus	ND	Report Only	Tested
Pseudomonas Aeruginosa	Detected	Report Only	Tested

† - Per Utah State R68-29-8 requirements

‡ - Interpretation is based on presence of *Shigella* specific genes along with positive findings of STX1 and STX2 genes.

Analyzed by: A. Anderson

Notes:

Reviewed by: C. Gunn

Hemp Oil_UCC201022A_10232020_1214 PM_012

Sample ID: UCC201022A
Date acquired: 10/23/2020 3:42:37 PM
Acquired by: Admin
Data File: C:\LabSolutions\Data\Hemp Oil_UCC201022A_10232020_1214 PM_012.lcd
Vial: 22 | Inj. Volume: 1.0000uL | Tray: 1

Name	Conc.	Unit	Comment 1	Comment 2
Abamectin B1a	----	ppm	0.5 ppm limit	LOQ = 0.001 ppm
Acephate	----	ppm	0.4 ppm limit	LOQ = 0.001 ppm
Acequinocyl	----	ppm	2 ppm limit	LOQ = 0.001 ppm
Acetamiprid	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Aldicarb	----	ppm	0.4 ppm limit	LOQ = 0.001 ppm
Azoxystrobin	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Bfienthrin	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Bifenazate	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Boscalid	----	ppm	0.4 ppm limit	LOQ = 0.001 ppm
Carbaryl	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Carbofuran	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Chlorantraniliprole	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Chlorfenapyr	----	ppm	1 ppm limit	LOQ = 0.001 ppm
Chlorpyrifos	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Clofentezine	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Cyfluthrin	----	ppm	1 ppm limit	LOQ = 0.001 ppm
Cypermethrin	----	ppm	1 ppm limit	LOQ = 0.001 ppm
Daminozide	----	ppm	1 ppm limit	LOQ = 0.001 ppm
Diazinon	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Dichlorvos	----	ppm	0.1 ppm limit	LOQ = 0.001 ppm
Dimethoate	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Ethoprophos	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Etofenprox	----	ppm	0.4 ppm limit	LOQ = 0.001 ppm
Etoxazole	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Fenoxycarb	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Fenpyroximate	----	ppm	0.4 ppm limit	LOQ = 0.001 ppm
Fipronil	----	ppm	0.4 ppm limit	LOQ = 0.001 ppm
Flonicamid	----	ppm	1 ppm limit	LOQ = 0.001 ppm
Fludioxonil	----	ppm	0.4 ppm limit	LOQ = 0.001 ppm
Hexythiazox	----	ppm	1 ppm limit	LOQ = 0.001 ppm
Imazalil	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Imidacloprid	----	ppm	0.4 ppm limit	LOQ = 0.001 ppm
Kresoxim-methyl	----	ppm	0.4 ppm limit	LOQ = 0.001 ppm
Malathion	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Metalaxyl	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Methiocarb	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Methomyl	----	ppm	0.4 ppm limit	LOQ = 0.001 ppm
MGK 264 (Pyrodone)	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Myclobutanil	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Naled	----	ppm	0.5 ppm limit	LOQ = 0.001 ppm
Oxamyl	----	ppm	1 ppm limit	LOQ = 0.001 ppm
Paclobutrazol	----	ppm	0.4 ppm limit	LOQ = 0.001 ppm
Parathion methyl	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Permethrins	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Phosmet	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Piperonyl butoxide	----	ppm	2 ppm limit	LOQ = 0.001 ppm
Prallethrin	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Propiconazole	----	ppm	0.4 ppm limit	LOQ = 0.001 ppm
Propoxur	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Pyrethrin I	----	ppm	0.5 ppm limit	LOQ = 0.001 ppm
Pyrethrin II	----	ppm	0.5 ppm limit	LOQ = 0.001 ppm
Pyridaben	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Spinosad A	----	ppm	0.1 ppm limit	LOQ = 0.001 ppm
Spinosad D	----	ppm	0.1 ppm limit	LOQ = 0.001 ppm
Spiromesifen	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Spirotetramat	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Spiroxamine-1	----	ppm	0.4 ppm limit	LOQ = 0.001 ppm
Tebuconazole	----	ppm	0.4 ppm limit	LOQ = 0.001 ppm
Thiacloprid	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Thiamethoxam	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm
Trifloxystrobin	----	ppm	0.2 ppm limit	LOQ = 0.001 ppm

Comment:
Pass

Aromatic Plant Research Center
230 N 1200 E STE 100
Lehi, UT 84043
www.aromaticplant.org

ICP-MS Analysis Report

Heavy Metal Certificate of Analysis

Client:	Utah Cannabis Company	Date Received:	10/22/2020
Sample Name:	Hemp Oil	Date Released:	10/27/2020
Sample Matrix:	Distillate	APRC #:	UCC201022A
Sample Lot:	N/A		

Analyte	Conc. (ppm)	Specification† (ppm)	Disposition
Arsenic	0.088	< 2.00	Pass
Cadmium	0.039	< 0.82	Pass
Mercury	0.001	< 0.40	Pass
Lead	0.035	< 1.20	Pass

Prepared by: Cierra Gunn

Reviewed by: Cody Wiscombe

† - Per Utah State Code 4-41a-701 (3) section R68-29-7