



Certificate of Analysis

Apr 30, 2020 | CURALEAF FLORIDA LLC

19000 SW 192 STREET
MIAMI, FL, 33187, US



Sample: DA00427007-011

Harvest/Lot ID: HS-TVF0427202002

Cultivation Facility: Miami Cultivation

Processing Facility: Homestead Processing

Seed to Sale #1633 5603 4128 0465

Batch Date : 04/27/20

Batch#: HS-TVF0427202002

Sample Size Received: 7 gram

Total Weight/Volume: 1700 gram

Retail Product Size: 0.5 gram gram

Ordered : 04/27/20

sampled : 04/27/20

Completed: 04/30/20

Sampling Method: SOP.T.20.010

PASSED

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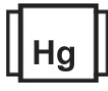
PRODUCT IMAGE



SAFETY RESULTS



Pesticides
PASSED



Heavy Metals
PASSED



Microbials
PASSED



Mycotoxins
PASSED



Residuals
Solvents
PASSED



Filtration
PASSED



Water Activity
NOT TESTED



Moisture
NOT TESTED



Terpenes
TESTED

CANNABINOID RESULTS



Total THC

71.966%

THC/Container : 359.830 mg



Total CBD

8.273%

CBD/Container : 41.366 mg



Total Cannabinoids

83.815%

Total Cannabinoids/Container : 419.075 mg

	TOTAL CA	TOTAL CB	TOTAL TH	CBC	CBGA	CBG	THCV	DB-THC	CBDV	CBN	CBDA	CBD	D9-THC	THCA
%	83.8150	8.2730	71.9659	1.8680	ND	0.6690	0.4780	0.1280	ND	0.3930	0.3230	7.9900	71.9659	ND
mg/g	838.1500	82.7290	719.6600	18.6800	ND	6.6900	4.7800	1.2800	ND	3.9300	3.2300	79.9000	719.6600	ND
LOD	0.0000	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0001	0.0001	0.0010
%	%	%	%	%	%	%	%	%	%	%	%	%	%	%

Filtration PASSED

Analyzed By	Weight	Extraction date	Extracted By
584	1g	04/27/20	584
Analyte			Result
Filtration and Foreign Material			ND
Analysis Method -SOP.T.40.013	Batch Date : 04/27/20 12:07:31		
Analytical Batch -DA011980FIL	Reviewed On - 04/27/20 12:09:19		
Instrument Used : Filtration/Foreign Material Microscope			

This includes but is not limited to hair, insects, feces, packaging contaminants, and manufacturing waste and by-products. An SH-2B/T Stereo Microscope is used for inspection.

Cannabinoid Profile Test

Analyzed by	Weight	Extraction date :	Extracted By :
450	0.1183g	04/27/20 01:04:59	965
Analysis Method -SOP.T.40.020, SOP.T.30.050		Reviewed On - 04/28/20 13:05:05	Batch Date : 04/27/20 10:09:13
Analytical Batch -DA011974POT	Instrument Used : DA-LC-003		

Reagent	Dilution	Consums. ID
032320.25	400	180111
042420.R18		914C4-914AK
042420.R17		929C6-929H

Full spectrum cannabinoid analysis utilizing High Performance Liquid Chromatography with UV detection (HPLC-UV). (Method: SOP.T.30.050 for sample prep and Shimadzu High Sensitivity Method SOP.T.40.020 for analysis. LOQ for all cannabinoids is 1 mg/L).

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Jorge Segredo
Lab Director

State License # CMTL-0002
ISO Accreditation # ISO/IEC
17025:2017 Accreditation
PJLA-Testing 97164


Signature

04/30/20

Signed On



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PASSED

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 MIAMI, FL, 33187, US
Telephone: 7865860672
Email: erick.ramirez@curaleaf.com

Sample : DA00427007-011
Harvest/LOT ID: HS-TVF0427202002

Batch# : HS-TVF0427202002
Sampled : 04/27/20
Ordered : 04/27/20

Sample Size Received : 7 gram
Total Weight/Volume : 1700 gram
Completed : 04/30/20 **Expires:** 04/30/21
Sample Method : SOP.T.20.010

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Terpenes

TESTED

Terpenes	LOD(%)	mg/g	%	Result (%)	Terpenes	LOD(%)	mg/g	%	Result (%)
ALPHA-CEDRENE	0.007	ND	ND		EUCALYPTOL	0.007	ND	ND	
ALPHA-HUMULENE	0.007	1.891	0.189		ISOBORNEOL	0.007	ND	ND	
ALPHA-PINENE	0.007	4.817	0.481		HEXAHYDROTHYMOL	0.007	ND	ND	
ALPHA-TERPINENE	0.007	ND	ND		FENCHYL ALCOHOL	0.007	ND	ND	
BETA-MYRCENE	0.007	15.953	1.595		3-CARENE	0.007	< 0.2	< 0.020	
BETA-PINENE	0.007	3.372	0.337		CIS-NEROLIDOL	0.007	ND	ND	
BORNEOL	0.013	ND	ND		ISOPULEGOL	0.007	ND	ND	
CAMPHENE	0.007	< 0.2	< 0.020						
CAMPHOR	0.013	ND	ND						
CARYOPHYLLENE OXIDE	0.007	0.247	0.024						
CEDROL	0.007	ND	ND						
ALPHA-BISABOOL	0.007	2.514	0.251						
SABINENE	0.007	ND	ND						
SABINENE HYDRATE	0.007	ND	ND						
TERPINEOL	0.007	ND	ND						
TERPINOLENE	0.007	13.108	1.310						
BETA-CARYOPHYLLENE	0.007	7.435	0.743						
TRANS-NEROLIDOL	0.007	ND	ND						
VALENCENE	0.007	ND	ND						
PULEGONE	0.007	ND	ND						
ALPHA-PHELLANDRENE	0.007	< 0.2	< 0.020						
OCIMENE	0.007	ND	ND						
NEROL	0.007	ND	ND						
LINALOOL	0.007	ND	ND						
LIMONENE	0.007	14.982	1.498						
GUAJOL	0.007	< 0.2	< 0.020						
GERANYL ACETATE	0.007	ND	ND						
GERANIOL	0.007	ND	ND						
GAMMA-TERPINENE	0.007	< 0.2	< 0.020						
FENCHONE	0.007	ND	ND						
FARNESENE	0.007	ND	ND						
Total (%)		6.432							



Terpenes

TESTED
Analyzed by 1351 **Weight** 1.0301g **Extraction date** 04/27/20 12:04:02 **Extracted By** 1351

Analysis Method -SOP.T.40.090
Analytical Batch -DA011957TER
Instrument Used : DA-GCMS-005
Running On :
Batch Date : 04/27/20 08:29:38
Reviewed On - 04/29/20 11:15:06

Reagent	Dilution	Consums. ID
040720.08	10	180111
012120.R13		280678841
041020.R25		

Terpenoid profile screening is performed using GC-MS with Liquid Injection (Gas Chromatography - Mass Spectrometer) which can screen 38 terpenes using Method SOP.T.40.091 Terpenoid Analysis Via GC/MS.



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Sample Method : SOP.T.20.010

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Pesticides

PASSED

Pesticides	LOD	Units	Action Level	Result	Pesticides	LOD	Units	Action Level	Result
ABAMECTIN B1A	0.01	ppm	0.1	ND	PIPERONYL BUTOXIDE	0.1	ppm	3	ND
ACEPHATE	0.01	ppm	0.1	ND	PRALLETHRIN	0.01	ppm	0.1	ND
ACEQUINOCYL	0.01	ppm	0.1	ND	PROPICONAZOLE	0.01	ppm	0.1	ND
ACETAMIPRID	0.01	ppm	0.1	ND	PROPOXUR	0.01	ppm	0.1	ND
ALDICARB	0.01	ppm	0.1	ND	PYRETHRINS	0.05	ppm	0.5	ND
AZOXYSTROBIN	0.01	ppm	0.1	ND	PYRIDABEN	0.02	ppm	0.2	ND
BIFENAZATE	0.01	ppm	0.1	ND	SPINETORAM	0.02	PPM	0.2	ND
BIFENTHRIN	0.01	ppm	0.1	ND	SPIROMESIFEN	0.01	ppm	0.1	ND
BOSCALID	0.01	PPM	0.1	ND	SPIROTETRAMAT	0.01	ppm	0.1	ND
CARBARYL	0.05	ppm	0.5	ND	SPIROXAMINE	0.01	ppm	0.1	ND
CARBOFURAN	0.01	ppm	0.1	ND	TEBUCONAZOLE	0.01	ppm	0.1	ND
CHLORANTRILIPROLE	0.1	ppm	1	ND	THIACLOPRID	0.01	ppm	0.1	ND
CHLORMEQUAT CHLORIDE	0.05	ppm	1	ND	THIAMETHOXAM	0.05	ppm	0.5	ND
CHLORPYRIFOS	0.01	ppm	0.1	ND	TOTAL CONTAMINANT LOAD (PESTICIDES)	0	PPM	5	ND
CLOFENTEZINE	0.02	ppm	0.2	ND	TOTAL PERMETHRIN	0.01	ppm	0.1	ND
COUMAPHOS	0.01	ppm	0.1	ND	TOTAL SPINOSAD	0.01	ppm	0.1	ND
DAMINOZIDE	0.01	ppm	0.1	ND	TRIFLOXYSTROBIN	0.01	ppm	0.1	ND
DIAZANON	0.01	ppm	0.1	ND					
DICHLORVOS	0.01	ppm	0.1	ND					
CYPERMETHRIN	0.05	ppm	0.5	ND					
DIMETHOATE	0.01	ppm	0.1	ND					
DIMETHOMORPH	0.02	ppm	0.2	ND					
ETHOPROPHOS	0.01	ppm	0.1	ND					
ETOFENPROX	0.01	ppm	0.1	ND					
ETOXAZOLE	0.01	ppm	0.1	ND					
FENHEXAMID	0.01	ppm	0.1	ND					
FENOXYCARB	0.01	ppm	0.1	ND					
FENPYROXIMATE	0.01	ppm	0.1	ND					
FIPRONIL	0.01	ppm	0.1	ND					
FLONICAMID	0.01	ppm	0.1	ND					
FLUDIOXONIL	0.01	ppm	0.1	ND					
HEXYTHIAZOX	0.01	ppm	0.1	ND					
IMAZALIL	0.01	ppm	0.1	ND					
IMIDACLOPRID	0.04	ppm	0.4	ND					
KRESOXIM-METHYL	0.01	ppm	0.1	ND					
MALATHION	0.02	ppm	0.2	ND					
METALAXYL	0.01	ppm	0.1	ND					
METHIOCARB	0.01	ppm	0.1	ND					
METHOMYL	0.01	ppm	0.1	ND					
METHYL PARATHION	0.005	ppm	0.1	ND					
MEVINPHOS	0.01	ppm	0.1	ND					
MYCLOBUTANIL	0.01	ppm	0.1	ND					
NALED	0.025	ppm	0.25	ND					
OXAMYL	0.05	ppm	0.5	ND					
PACLOBUTRAZOL	0.01	ppm	0.1	ND					
PHOSMET	0.01	ppm	0.1	ND					



Pesticides

PASSED

Analyzed by 585	Weight 1.0482g	Extraction date 04/27/20 01:04:08	Extracted By 1082
Analysis Method - SOP.T.30.065, SOP.T.40.065, SOP.T.40.066, SOP.T.40.070, SOP.T.30.065, SOP.T.40.070 Analytical Batch - DA011968PES Instrument Used : DA-LCMS-001_DER (PES) Running On :			
Reagent		Dilution	Consums. ID
111819.93 042720.R14 042720.R15 044228.06		10	180111 280678841
Pesticide screen is performed using LC-MS and/or GC-MS which can screen down to below single digit ppb concentrations for regulated Pesticides. Currently we analyze for 67 Pesticides. (Method: SOP.T.30.060 Sample Preparation for Pesticides Analysis via LCMSMS and GCMSMS. SOP.T.40.065/SOP.T.40.066/SOP.T.40.070 Procedure for Pesticide Quantification Using LCMS and GCMS). * Volatile Pesticide screening is performed using GC-MS which can screen down to below single digit ppb concentrations for regulated Pesticides. Analytes marked with an asterisk were tested using GC-MS.			

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Jorge Segredo
 Lab Director

 State License # CMTL-0002
 ISO Accreditation # ISO/IEC
 17025:2017 Accreditation
 PJLA-Testing 97164


 Signature

04/30/20

Signed On



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Batch# : HS-TVF0427202002
Sampled : 04/27/20
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Sample Size Received : 7 gram
Total Weight/Volume : 1700 gram
Completed : 04/30/20 **Expires:** 04/30/21
Sample Method : SOP.T.20.010

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	Residual Solvents	PASSED
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	Residual Solvents	PASSED
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Solvent	LOD	Units	Action Level (PPM)	Pass/Fail	Result
1,1-DICHLOROETHENE	0.8	ppm	8	PASS	ND
1,2-DICHLOROETHANE	0.2	ppm	2	PASS	ND
2-PROPANOL	50	ppm	500	PASS	ND
ACETONE	75	ppm	750	PASS	ND
ACETONITRILE	6	ppm	60	PASS	ND
BENZENE	0.1	ppm	1	PASS	ND
BUTANES (N-BUTANE)	500	ppm	5000	PASS	ND
CHLOROFORM	0.2	ppm	2	PASS	ND
DICHLROMETHANE	12.5	ppm	125	PASS	ND
ETHANOL	500	ppm	5000	PASS	ND
ETHYL ACETATE	40	ppm	400	PASS	ND
ETHYL ETHER	50	ppm	500	PASS	ND
ETHYLENE OXIDE	0.5	ppm	5	PASS	ND
HEPTANE	500	ppm	5000	PASS	ND
METHANOL	25	ppm	250	PASS	ND
N-HEXANE	25	ppm	250	PASS	ND
PENTANES (N-PENTANE)	75	ppm	750	PASS	ND
PROPANE	500	ppm	5000	PASS	ND
TOLUENE	15	ppm	150	PASS	ND
TOTAL XYLENES	15	ppm	150	PASS	ND
TRICHLOROETHYLENE	2.5	ppm	25	PASS	ND

Analyzed by 850	Weight 0.0207g	Extraction date 04/27/20 04:04:16	Extracted By 850
Analysis Method -SOP.T.40.032		Reviewed On - 04/29/20 13:43:18	
Analytical Batch -DA011989SOL			
Instrument Used : DA-GCMS-002			
Running On :			
Batch Date : 04/27/20 16:39:55			
Reagent	Dilution	Consums. ID	
	1	00279984	
		161291-1	
		24154107	

Residual solvents screening is performed using GC-MS which can detect below single digit ppm concentrations. Currently we analyze for 21 Residual solvents.(Method: SOP.T.40.032 Residual Solvents Analysis via GC-MS).



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Batch# : HS-TVF0427202002
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Sample Method : SOP.T.20.010

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	Microbials	PASSED
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Analyte	LOD	Result	Action Level (cfu/g)
ASPERGILLUS_FLAVUS		not present in 1 gram.	
ASPERGILLUS_FUMIGATUS		not present in 1 gram.	
ASPERGILLUS_NIGER		not present in 1 gram.	
ASPERGILLUS_TERREUS		not present in 1 gram.	
ESCHERICHIA_COLI_SHIGELLA_SPP		not present in 1 gram.	
SALMONELLA_SPECIFIC_GENE		not present in 1 gram.	
TOTAL_YEAST_AND_MOLD		<100	

Analysis Method -SOP.T.40.043 / SOP.T.40.044 / SOP.T.40.041
 Analytical Batch -DA011961MIC , DA011967TYM Batch Date : 04/27/20, 04/27/20
 Instrument Used : PathogenDX PCR_Array Scanner DA-111,PathogenDX PCR_DA-013,
 PathogenDX PCR_Array Scanner DA-111
 Running On :

Analyzed by	Weight	Extraction date	Extracted By
513, 513	1.0213g	04/27/20	357, 513

Reagent	Reagent	Reagent	Reagent	Consums. ID	Consums. ID
082019.32	013120.375	022120.244	032720.53	181019-274	50AX26219
101619.04	121719.80	022120.292		SG298A	19323
022120.56	022120.228	022120.203		181207119C	23819111
022120.26	032720.21	022120.204		918C4-918J	190611634
022120.180	022120.205	032720.160		914C4-914AK	
022120.41	013120.383	032720.51		929C6-929H	

Microbiological testing for Fungal and Bacterial Identification via Polymerase Chain Reaction (PCR) method consisting of sample DNA amplified via tandem Polymerase Chain Reaction (PCR) as a crude lysate which avoids purification. (Method SOP.T.40.043) If a pathogenic Escherichia Coli, Salmonella, Aspergillus fumigatus, Aspergillus flavus, Aspergillus niger, or Aspergillus terreus is detected in 1g of a sample, the sample fails the microbiological-impurity testing. Pour-plating is used for quantitation and confirmation, Total Yeast and Mold has an action limit of 100,000 CFU.

	Mycotoxins	PASSED
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Analyte	LOD	Units	Result	Action Level (PPM)
AFLATOXIN G2	0.002	ppm	ND	0.02
AFLATOXIN G1	0.002	ppm	ND	0.02
AFLATOXIN B2	0.002	ppm	ND	0.02
AFLATOXIN B1	0.002	ppm	ND	0.02
OCHRATOXIN A+	0.002	ppm	ND	0.02

Analysis Method -SOP.T.30.065, SOP.T.40.065
 Analytical Batch -DA011970 | Reviewed On - 04/28/20 16:21:11
 Instrument Used : DA-LCMS-001_DER (MYC)
 Running On :
 Batch Date : 04/27/20 09:54:36

Analyzed by	Weight	Extraction date	Extracted By
585	1g	04/27/20 04:04:48	585

Aflatoxins B1, B2, G1, G2, and Ochratoxins A testing using LC-MS. (Method: SOP.T.30.065 for Sample Preparation and SOP.T40.065 Procedure for Mycotoxins Quantification Using LCMS. LOQ 1.0 ppb). Aflatoxin B1, B2, G1, and G2 must individually be <20ug/Kg. Ochratoxins must be <20ug/Kg.

	Heavy Metals	PASSED
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Reagent	Reagent	Dilution	Consums. ID
042220.R01	042020.R28	50	106557-04-091619
042720.R01	041320.R01		
030920.01	042220.R02		
042720.R02			
042720.R03			
041320.R03			

Metal	LOD	Unit	Result	Action Level (PPM)
ARSENIC	0.02	PPM	ND	0.2
CADMIUM	0.02	PPM	ND	0.2
LEAD	0.05	PPM	ND	0.5
MERCURY	0.02	PPM	ND	0.2

Analyzed by	Weight	Extraction date	Extracted By
53	0.2646g	04/27/20 01:04:07	457

Analysis Method -SOP.T.40.050, SOP.T.30.052
 Analytical Batch -DA011960HEA | Reviewed On - 04/28/20 07:01:14
 Instrument Used : DA-ICPMS-001
 Running On :
 Batch Date : 04/27/20 08:49:15

Heavy Metals screening is performed using ICP-MS (Inductively Coupled Plasma - Mass Spectrometer) which can screen down to below single digit ppb concentrations for regulated heavy metals using Method SOP.T.30.052 Sample Preparation for Heavy Metals Analysis via ICP-MS and SOP.T.40.050 Heavy Metals Analysis via ICP-MS.

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