



Certificate of Analysis

Feb 13, 2020 | CURALEAF FLORIDA LLC

19000 SW 192 STREET
MIAMI, FL, 33187, US



Sample: DA00210011-002
Harvest/Lot ID: HS-TVF0209202002
Cultivation Facility: Miami Cultivation
Processing Facility: Homestead Processing
Seed to Sale #8034 2290 8549 4490
Batch Date :02/09/20
Batch#: HS-TVF0209202002
Sample Size Received: 7 gram
Total Weight/Volume: 1279 gram
Retail Product Size: 0.5 gram gram
Ordered : 02/10/20
sampled : 02/10/20
Completed: 02/13/20
Sampling Method: SOP Client Method

PASSED

Page 1 of 5

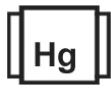
PRODUCT IMAGE



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

MISC.

CANNABINOID RESULTS



Total THC

82.237%

THC/Container :411.19 mg



Total CBD

0.450%

CBD/Container :2.25 mg



Total Cannabinoids

86.723%

Total Cannabinoids / Container
:0.000

	TOTAL CA	TOTAL CB	TOTAL TH	CBC	CBGA	CBG	THCV	DB-THC	CBDV	CBN	CBDA	CBD	DB-THC	THCA
%	86.7230	0.4500	82.2370	1.3590	ND	1.4590	0.9020	ND	ND	0.3160	ND	0.4500	82.2370	ND
mg/g	867.2300	4.5000	822.3690	13.5900	ND	14.5900	9.0200	ND	ND	3.1600	ND	4.5000	822.3700	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
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Analyzed By	Weight	Extraction date	Extracted By
584	1g	02/10/20	584
Analyte			Result
Filtration and Foreign Material			ND
			Batch Date : 02/10/20 13:28:15

Analysis Method -SOP.T.40.013
Analytical Batch -DA010118FIL
Instrument Used :

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 :
1224	0.1194g	02/10/20 11:02:17	574
Analysis Method -SOP.T.40.020, SOP.T.30.050			Batch Date : 02/10/20 11:09:31
Analysis Batch -DA010115POT	Instrument Used : DA-LC-003		

Reagent	Dilution	Consums. ID
020420.R14 020520.R12 020520.R13	400	76124-662 SFN-BX-1025 849CA-849AK 840C6-840H

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).

Label Claim

Analyte	LOD	Units	Result
THC/SERVING	10000	mg	82.237

PASSED

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Jorge Segredo
Lab Director

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


Signature

02/13/20

Signed On



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 19000 SW 192 STREET
 MIAMI, FL, 33187, US
Telephone: 7865860672
Email: erick.ramirez@curaleaf.com

Sample : DA00210011-002
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Batch# : HS-
 TVF0209202002
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Sample Method : SOP Client Method

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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	3.308	0.330		ISOBORNEOL	0.007	ND	ND	
ALPHA-PINENE	0.007	9.347	0.934		HEXAHYDROTHYMOL	0.007	ND	ND	
ALPHA-TERPINENE	0.007	ND	ND		FENCHYL ALCOHOL	0.007	ND	ND	
BETA-MYRCENE	0.007	10.190	1.019		3-CARENE	0.007	ND	ND	
BETA-PINENE	0.007	0.507	0.050		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	0.501	0.050						
CEDROL	0.007	ND	ND						
ALPHA-BISABOOL	0.007	4.525	0.452						
SABINENE	0.007	ND	ND						
SABINENE HYDRATE	0.007	ND	ND						
TERPINEOL	0.007	ND	ND						
TERPINOLENE	0.007	6.077	0.607						
BETA-CARYOPHYLLENE	0.007	9.827	0.982						
TRANS-NEROLIDOL	0.007	< 0.2	< 0.020						
VALENCENE	0.007	ND	ND						
PULEGONE	0.007	ND	ND						
ALPHA-PHELLANDRENE	0.007	0.525	0.052						
OCIMENE	0.007	ND	ND						
NEROL	0.007	ND	ND						
LINALOOL	0.007	9.358	0.935						
LIMONENE	0.007	15.831	1.583						
GUAJOL	0.007	0.279	0.027						
GERANYL ACETATE	0.007	ND	ND						
GERANIOL	0.007	ND	ND						
GAMMA-TERPINENE	0.007	ND	ND						
FENCHONE	0.007	ND	ND						
FARNESENE	0.007	ND	ND						
Total (%)		7.028							



Terpenes

TESTED
Analyzed by 1351 **Weight** 0.9684g **Extraction date** 02/10/20 11:02:07 **Extracted By** 1351

Analysis Method -SOP.T.40.090
Analytical Batch -DA010089TER
Instrument Used : Liquid Injection GCMS QP2020 (E-SHI-128)
Running On :
Batch Date : 02/10/20 08:17:56

Reagent	Dilution	Consums. ID
052119.04	10	180711 1929V5454

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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Pesticides

PASSED

Pesticides	LOD	Units	Action Level	Result	Pesticides	LOD	Units	Action Level	Result
ABAMECTIN B1A	0.02	ppm	0.1	ND	PRALLETHRIN	0.05	ppm	0.1	ND
ACEPHATE	0.001	ppm	0.1	ND	PROPICONAZOLE	0.01	ppm	0.1	ND
ACEQUINOCYL	0.01	ppm	0.1	ND	PROPOXUR	0.01	ppm	0.1	ND
ACETAMIPRID	0.01	ppm	0.1	ND	PYRETHRINS	0.01	ppm	0.5	ND
ALDICARB	0.02	ppm	0.1	ND	PYRIDABEN	0.01	ppm	0.2	ND
AZOXYSTROBIN	0.01	ppm	0.1	ND	SPINETORAM	0.01	PPM	0.2	ND
BIFENAZATE	0.01	ppm	0.1	ND	SPIROMESIFEN	0.01	ppm	0.1	ND
BIFENTHRIN	0.01	ppm	0.1	ND	SPIROTETRAMAT	0.02	ppm	0.1	ND
BOSCALID	0.01	PPM	0.1	ND	SPIROXAMINE	0.01	ppm	0.1	ND
CARBARYL	0.01	ppm	0.5	ND	TEBUCONAZOLE	0.01	ppm	0.1	ND
CARBOFURAN	0.01	ppm	0.1	ND	THIACLOPRID	0.01	ppm	0.1	ND
CHLORANTRANILIPROLE	0.01	ppm	1	ND	THIAMETHOXAM	0.01	ppm	0.5	ND
CHLORFENAPYR	0.01	ppm	0.1	ND	TOTAL CONTAMINANT LOAD (PESTICIDES)	0.1	PPM	5	ND
CHLORPYRIFOS	0.01	ppm	0.1	ND	TOTAL PERMETHRIN	1	ppm	0.1	ND
CLOFENTEZINE	0.01	ppm	0.2	ND	TOTAL SPINOSAD	1	ppm	0.1	ND
COUMAPHOS	0.005	ppm	0.1	ND	TRIFLOXYSTROBIN	0.01	ppm	0.1	ND
CYPERMETHRIN	0.01	ppm	0.5	ND	CAPTAN *	0.005	ppm	0.7	ND
DAMINOZIDE	0.02	ppm	0.1	ND	CHLORDANE *	0.005	ppm	0.1	ND
DIAZANON	0.01	ppm	0.1	ND					
DICHLORVOS	0.05	ppm	0.1	ND					
DIMETHOATE	0.01	ppm	0.1	ND					
DIMETHOMORPH	0.005	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	0.02	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	0.01	ppm	0.4	ND					
KRESOXIM-METHYL	0.01	ppm	0.1	ND					
MALATHION	0.01	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					
MEVINPHOS	0.01	ppm	0.1	ND					
MYCLOBUTANIL	0.01	ppm	0.1	ND					
NALED	0.01	ppm	0.25	ND					
OXAMYL	0.01	ppm	0.5	ND					
PACLOBUTRAZOL	0.01	ppm	0.1	ND					
PHOSMET	0.01	ppm	0.1	ND					
PIPERONYL BUTOXIDE	0.01	ppm	3	ND					



Pesticides

PASSED
Analyzed by 56 , **Weight** 1.0500g **Extraction date** 02/10/20 01:02:40 **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 - DA010112PES

Instrument Used : LCMS E-SHI-039

Running On :

Batch Date : 02/10/20 11:05:11

Reagent	Dilution	Consums. ID
	10	

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

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Signature

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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
BUTANES (N-BUTANE)	96	ppm	5000	PASS	ND
CHLOROFORM	0.18	ppm	2	PASS	ND
1,2-DICHLOROETHANE	0.18	ppm	2	PASS	ND
1,1-DICHLOROETHENE	1	ppm	8	PASS	ND
DICHLOROMETHANE	3.75	ppm	125	PASS	ND
ETHANOL	90	ppm	5000	PASS	ND
ETHYL ACETATE	36	ppm	400	PASS	ND
ETHYL ETHER	45	ppm	500	PASS	ND
ETHYLENE OXIDE	0.6	ppm	5	PASS	ND
HEPTANE	45	ppm	5000	PASS	ND
METHANOL	22.5	ppm	250	PASS	ND
N-HEXANE	4.5	ppm	250	PASS	ND
PENTANES (N-PENTANE)	67.5	ppm	750	PASS	ND
ACETONE	67.5	ppm	750	PASS	<140.000
PROPANE	120	ppm	5000	PASS	ND
ACETONITRILE	5.4	ppm	60	PASS	ND
TOLUENE	13.5	ppm	150	PASS	ND
BENZENE	0.09	ppm	1	PASS	ND
TOTAL XYLENES	13.5	ppm	150	PASS	ND
2-PROPANOL	45	ppm	500	PASS	ND
TRICHLOROETHYLENE	2.25	ppm	25	PASS	ND

Analyzed by 850	Weight 0.0280g	Extraction date 02/10/20 02:02:55	Extracted By 850
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Analysis Method -SOP.T.40.032
Analytical Batch -DA010121SOL
Instrument Used : Headspace GCMS
Running On :
Batch Date : 02/10/20 14:39:53

Reagent	Dilution	Consums. ID
	1	

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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	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		not present in 1 gram.	

Analysis Method -SOP.T.40.043 / SOP.T.40.044 / SOP.T.40.041
 Analytical Batch -DA010160MIC Batch Date : 02/10/20, 02/10/20
 Instrument Used : PathogenDX PCR_Array Scanner,PathogenDX PCR_NEW MINI AMP
 DA-089, PathogenDX PCR_Array Scanner
 Running On :

Analyzed by	Weight	Extraction date	Extracted By
513,	1.1046g	02/12/20	513,

Reagent	Consums. ID	Consums. ID
021120.R12	181019-274	190611634
	181207119C	SG298A
	918C4	19323
	923C4-923AK	23819111
	929C6-929H	3354CN
	50AX26219	

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 -DA010114
 Instrument Used : LCMS E-SHI-039
 Running On :
 Batch Date : 02/10/20 11:05:16

Analyzed by	Weight	Extraction date	Extracted By
56	1g	NA	NA

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
020320.R22	020720.R02	50
020720.R03	111319.01	
020620.R01	012920.R01	
020620.R02		
012920.R03		
020520.R01		

Metal	LOD	Unit	Result	Action Level (PPM)
ARSENIC	0.01	PPM	ND	0.2
CADMIUM	0.01	PPM	ND	0.2
LEAD	0.01	PPM	0.125	0.5
MERCURY	0.01	PPM	ND	0.2

Analyzed by	Weight	Extraction date	Extracted By
457	0.2532g	02/10/20 11:02:38	457

Analysis Method -SOP.T.40.050, SOP.T.30.052
 Analytical Batch -DA010111HEA
 Instrument Used : ICPMS-2030 B
 Running On :
 Batch Date : 02/10/20 11:05:10

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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