



Certificate of Analysis

Apr 08, 2020 | CURALEAF FLORIDA LLC

19000 SW 192 STREET
MIAMI, FL, 33187, US



Sample: DA00406007-008
Harvest/Lot ID: HS-TVF0406202002
Cultivation Facility: Miami Cultivation
Processing Facility: Homestead Processing
Seed to Sale #5914 6885 2628 3600
Batch Date : 04/06/20
Batch#: HS-TVF0406202002
Sample Size Received: 7 gram
Total Weight/Volume: 1473 gram
Retail Product Size: 0.5 gram gram
Ordered : 04/06/20
sampled : 04/06/20
Completed: 04/08/20
Sampling Method: SOP.T.20.010

PASSED

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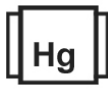
PRODUCT IMAGE



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

81.818%

THC/Container : 409.090 mg



Total CBD

0.000%

CBD/Container : 0.000 mg



Total Cannabinoids

86.352%

Total Cannabinoids/Container : 431.760 mg

	TOTAL CA	TOTAL CB	TOTAL TH	CBC	CBGA	CBG	THCV	DB-THC	CBDV	CBN	CBDA	CBD	D9-THC	THCA
%	86.3520	ND	81.8180	1.3050	0.2200	1.5990	0.7510	0.1660	ND	0.4930	ND	ND	81.8180	ND
mg/g	863.5200	ND	818.1799	13.0500	2.2000	15.9900	7.5100	1.6600	ND	4.9300	ND	ND	818.1799	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: 584
Weight: 1g
Extraction date: 04/06/20
Extracted By: 584
Analyte: LOD
Filtration and Foreign Material: 0
Analysis Method: SOP.T.40.013
Batch Date: 04/06/20 12:08:32
Analytical Batch: DA011463FIL
Reviewed On: 04/06/20 12:11:51
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: 450
Weight: 0.1018g
Extraction date: 04/06/20 12:04:43
Analysis Method: SOP.T.40.020, SOP.T.30.050
Reviewed On: 04/07/20 12:13:56
Analytical Batch: DA011456POT
Instrument Used: DA-LC-003
Extracted By: 965
Batch Date: 04/06/20 09:38:04

Reagent: 032320.11
Dilution: 400
Consums. ID: 180111
914C4-914AK
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

04/08/20

Signed On



Certificate of Analysis

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

Sample : DA00406007-008
Harvest/LOT ID: HS-TVF0406202002

Batch# : HS-TVF0406202002
Sampled : 04/06/20
Ordered : 04/06/20

Sample Size Received : 7 gram
Total Weight/Volume : 1473 gram
Completed : 04/08/20 **Expires:** 04/08/21
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	2.417	0.241		ISOBORNEOL	0.007	ND	ND	
ALPHA-PINENE	0.007	3.638	0.363		HEXAHYDROTHYMOL	0.007	ND	ND	
ALPHA-TERPINENE	0.007	0.408	0.040		FENCHYL ALCOHOL	0.007	ND	ND	
BETA-MYRCENE	0.007	38.381	3.838		3-CARENE	0.007	0.355	0.035	
BETA-PINENE	0.007	3.150	0.315		CIS-NEROLIDOL	0.007	ND	ND	
BORNEOL	0.013	ND	ND		ISOPULEGOL	0.007	ND	ND	
CAMPHENE	0.007	0.263	0.026						
CAMPHOR	0.013	ND	ND						
CARYOPHYLLENE OXIDE	0.007	< 0.2	< 0.020						
CEDROL	0.007	ND	ND						
ALPHA-BISABOOL	0.007	1.820	0.182						
SABINENE	0.007	ND	ND						
SABINENE HYDRATE	0.007	ND	ND						
TERPINEOL	0.007	1.077	0.107						
TERPINOLENE	0.007	13.006	1.300						
BETA-CARYOPHYLLENE	0.007	7.423	0.742						
TRANS-NEROLIDOL	0.007	< 0.2	< 0.020						
VALENCENE	0.007	ND	ND						
PULEGONE	0.007	ND	ND						
ALPHA-PHELLANDRENE	0.007	0.500	0.050						
OCIMENE	0.007	6.150	0.615						
NEROL	0.007	ND	ND						
LINALOOL	0.007	2.316	0.231						
LIMONENE	0.007	13.608	1.360						
GUAJOL	0.007	< 0.2	< 0.020						
GERANYL ACETATE	0.007	ND	ND						
GERANIOL	0.007	ND	ND						
GAMMA-TERPINENE	0.007	0.252	0.025						
FENCHONE	0.007	< 0.2	< 0.020						
FARNESENE	0.007	3.483	0.348						
Total (%)		9.825							



Terpenes

TESTED
Analyzed by 1351 **Weight** 0.9153g **Extraction date** 04/06/20 12:04:03 **Extracted By** 1351

Analysis Method -SOP.T.40.090
Analytical Batch -DA011443TER **Reviewed On** - 04/08/20 10:12:47
Instrument Used : DA-GCMS-004
Running On :
Batch Date : 04/06/20 08:10:01

Reagent	Dilution	Consums. ID
021420.11	10	180111
012120.R13		280670723

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	0.01	ppm	0.1	ND	OXAMYL	0.05	ppm	0.5	ND
ACEPHATE	0.01	ppm	0.1	ND	PACLOBUTRAZOL	0.01	ppm	0.1	ND
ACEQUINOCYL	0.01	ppm	0.1	ND	PHOSMET	0.01	ppm	0.1	ND
ACETAMIPRID	0.01	ppm	0.1	ND	PIPERONYL BUTOXIDE	0.1	ppm	3	ND
ALDICARB	0.01	ppm	0.1	ND	PRALLETHRIN	0.01	ppm	0.1	ND
AZOXYSTROBIN	0.01	ppm	0.1	ND	PROPICONAZOLE	0.01	ppm	0.1	ND
BIFENAZATE	0.01	ppm	0.1	ND	PROPOXUR	0.01	ppm	0.1	ND
BIFENTHRIN	0.01	ppm	0.1	ND	PYRETHRINS	0.05	ppm	0.5	ND
BOSCALID	0.01	PPM	0.1	ND	PYRIDABEN	0.02	ppm	0.2	ND
CAPTAN	0.07	ppm	0.7	ND	SPINETORAM	0.02	PPM	0.2	ND
CARBARYL	0.05	ppm	0.5	ND	SPIROMESIFEN	0.01	ppm	0.1	ND
CARBOFURAN	0.01	ppm	0.1	ND	SPIROTETRAMAT	0.01	ppm	0.1	ND
CHLORANTRANILIPROLE	0.1	ppm	1	ND	SPIROXAMINE	0.01	ppm	0.1	ND
CHLORFENAPYR	0.01	ppm	0.1	ND	TEBUCONAZOLE	0.01	ppm	0.1	ND
CHLORMEQUAT CHLORIDE	0.05	ppm	1	ND	THIACLOPRID	0.01	ppm	0.1	ND
CHLORPYRIFOS	0.01	ppm	0.1	ND	THIAMETHOXAM	0.05	ppm	0.5	ND
CLOFENTEZINE	0.02	ppm	0.2	ND	TOTAL CONTAMINANT LOAD (PESTICIDES)	0	PPM	5	0.083
COUMAPHOS	0.01	ppm	0.1	ND	TOTAL PERMETHRIN	0.01	ppm	0.1	ND
CYFLUTHRIN	0.05	ppm	0.5	ND	TOTAL SPINOSAD	0.01	ppm	0.1	0.083
CYPERMETHRIN	0.05	ppm	0.5	ND	TRIFLOXYSTROBIN	0.01	ppm	0.1	ND
DAMINOZIDE	0.01	ppm	0.1	ND					
DIAZANON	0.01	ppm	0.1	ND					
DICHLORVOS	0.01	ppm	0.1	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					


Pesticides

PASSED

Analyzed by 585	Weight 1.0685g	Extraction date 04/06/20 01:04:07	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 - DA011444PES			
Instrument Used : DA-LCMS-001_DER (PES)		Reviewed On - 04/06/20 12:11:51	
Running On :		Batch Date : 04/06/20 08:18:28	
Reagent	Dilution	Consums. ID	
012120.16 040720.R13 040720.R14 072010.119 032120.817	10	180111 280678841	
<p>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.T40.065/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.</p>			

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Jorge Segredo
 Lab Director

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 17025:2017 Accreditation
 PJLA-Testing 97164


 Signature

04/08/20

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Batch# : HS-TVF0406202002
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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	1	ppm	8	PASS	ND
1,2-DICHLOROETHANE	0.18	ppm	2	PASS	ND
2-PROPANOL	45	ppm	500	PASS	ND
ACETONE	67.5	ppm	750	PASS	ND
ACETONITRILE	5.4	ppm	60	PASS	ND
BENZENE	0.09	ppm	1	PASS	ND
BUTANES (N-BUTANE)	96	ppm	5000	PASS	ND
CHLOROFORM	0.18	ppm	2	PASS	ND
DICHLOROMETHANE	3.75	ppm	125	PASS	ND
ETHANOL	90	ppm	5000	PASS	459.915
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	<17.400
PENTANES (N-PENTANE)	67.5	ppm	750	PASS	ND
PROPANE	120	ppm	5000	PASS	ND
TOLUENE	13.5	ppm	150	PASS	ND
TOTAL XYLENES	13.5	ppm	150	PASS	ND
TRICHLOROETHYLENE	2.25	ppm	25	PASS	ND

Analyzed by	Weight	Extraction date	Extracted By
850	0.0230g	04/06/20 01:04:47	584
Analysis Method -SOP.T.40.032 Analytical Batch -DA011467SOL Instrument Used : DA-GCMS-002 Running On : Batch Date : 04/06/20 13:30:03			
Reviewed On - 04/08/20 06:10:42			
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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Harvest/LOT ID: HS-TVF0406202002
Batch# : HS-TVF0406202002
Sampled : 04/06/20
Ordered : 04/06/20

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Sample Method : SOP.T.20.010

Page 5 of 5

	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 -DA011449MIC , DA011468TYM **Batch Date :** 04/06/20, 04/06/20
Instrument Used : PathogenDX PCR_Array Scanner DA-111,PathogenDX PCR_DA-171,
 PathogenDX PCR_Array Scanner DA-111
Running On :

Analyzed by	Weight	Extraction date	Extracted By
513, 513	0.9960g	04/06/20	513, 513

Reagent	Reagent	Reagent	Reagent	Consums. ID	Consums. ID
012120.04	121719.84	022120.93	022120.295	918C4-918J	50AX26219
101619.04	020420.362	022120.141	022120.198	914C4-914AK	19323
122719.32	022120.221	022120.142	022120.199	929C6-929H	23819111
022120.58	022120.272	022120.150		181019-274	104867-12
013120.114	022120.200	013120.390		5G298A	190611634
013120.139	022120.79	022120.239		181207119C	

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 -DA011445 | **Reviewed On** - 04/08/20 09:35:54
Instrument Used : DA-LCMS-001_DER (MYC)
Running On :
Batch Date : 04/06/20 08:19:46

Analyzed by	Weight	Extraction date	Extracted By
585	1g	04/06/20 03:04:00	795

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
032420.R06	033020.R05	50
040320.R11	033120.R12	
040620.R01	111319.02	
040620.R02		
033020.R06		
033020.R07		

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	0.2673g	04/06/20 01:04:34	457

Analysis Method -SOP.T.40.050, SOP.T.30.052
Analytical Batch -DA011448HEA | **Reviewed On** - 04/07/20 06:45:50
Instrument Used : DA-ICPMS-002
Running On :
Batch Date : 04/06/20 08:41:04

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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Jorge Segredo
 Lab Director

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 Signature

04/08/20

Signed On