



Certificate of Analysis

Apr 06, 2020 | CURALEAF FLORIDA LLC

19000 SW 192 STREET
MIAMI, FL, 33187, US



Sample: DA00403012-001

Harvest/Lot ID: HS-TVF0403202001

Cultivation Facility: Mt. Dora Cultivation

Processing Facility: Homestead Processing

Seed to Sale #3548 8128 8027 6731

Batch Date : N/A

Batch#: HS-TVF0403202001

Sample Size Received: 7.0 gram

Total Weight/Volume: 1000 gram

Retail Product Size: 0.5 gram gram

Ordered : 04/03/20

sampled : 04/03/20

Completed: 04/06/20

Sampling Method: SOP.T.20.010

PASSED

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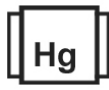
PRODUCT IMAGE



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

MISC.

CANNABINOID RESULTS



Total THC

80.740%

THC/Container : 403.700 mg



Total CBD

0.261%

CBD/Container : 1.305 mg



Total Cannabinoids

85.003%

Total Cannabinoids/Container
: 425.015 mg

	TOTAL CA	TOTAL CB	TOTAL TH	CBC	CBGA	CBG	THCV	DB-THC	CBDV	CBN	CBDA	CBD	D9-THC	THCA
%	85.0030	0.2610	80.7400	1.9330	ND	1.3220	0.4710	ND	ND	0.2760	ND	0.2610	80.7400	ND
mg/g	850.0300	2.6100	807.4000	19.3299	ND	13.2200	4.7100	ND	ND	2.7599	ND	2.6100	807.4000	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	04/06/20	584
Analyte	LOD	Result	
Filtration and Foreign Material	0	ND	
Analysis Method -SOP.T.40.013	Batch Date : 04/06/20 09:34:42		
Analytical Batch -DA011455FIL	Reviewed On - 04/06/20 09:59:19		
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	0.1025g	04/03/20 12:04:19	574
Analysis Method -SOP.T.40.020, SOP.T.30.050	Reviewed On - 04/06/20 10:30:46		Batch Date : 04/03/20 10:13:08
Analytical Batch -DA011425POT	Instrument Used : DA-LC-003		

Reagent	Dilution	Consumers. ID
033120.R19	400	180111
033120.R18		914C-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

04/06/20

Signed On



Certificate of Analysis

PASSED

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

Sample : DA00403012-001
Harvest/LOT ID: HS-TVF0403202001

Batch# : HS-TVF0403202001
Sampled : 04/03/20
Ordered : 04/03/20

Sample Size Received : 7.0 gram
Total Weight/Volume : 1000 gram
Completed : 04/06/20 **Expires:** 04/06/21
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	22.352	2.235		ISOBORNEOL	0.007	ND	ND	
ALPHA-PINENE	0.007	14.969	1.496		HEXAHYDROTHYMOL	0.007	ND	ND	
ALPHA-TERPINENE	0.007	ND	ND		FENCHYL ALCOHOL	0.007	ND	ND	
BETA-MYRCENE	0.007	5.416	0.541		3-CARENE	0.007	ND	ND	
BETA-PINENE	0.007	0.437	0.043		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	0.495	0.049						
CEDROL	0.007	ND	ND						
ALPHA-BISABOOL	0.007	1.080	0.108						
SABINENE	0.007	ND	ND						
SABINENE HYDRATE	0.007	ND	ND						
TERPINEOL	0.007	ND	ND						
TERPINOLENE	0.007	ND	ND						
BETA-CARYOPHYLLENE	0.007	27.543	2.754						
TRANS-NEROLIDOL	0.007	ND	ND						
VALENCENE	0.007	ND	ND						
PULEGONE	0.007	ND	ND						
ALPHA-PHELLANDRENE	0.007	ND	ND						
OCIMENE	0.007	ND	ND						
NEROL	0.007	ND	ND						
LINALOOL	0.007	ND	ND						
LIMONENE	0.007	2.521	0.252						
GUAIOL	0.007	ND	ND						
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	< 0.2	< 0.020						
Total (%)		7.481							



Terpenes

TESTED
Analyzed by 1351 **Weight** 0.9375g **Extraction date** 04/03/20 11:04:08 **Extracted By** 1351

Analysis Method -SOP.T.40.090
Analytical Batch -DA011422TER **Reviewed On - 04/06/20 15:28:37**
Instrument Used : Liquid Injection GCMS QP2020 (E-SHI-128)
Running On :
Batch Date : 04/03/20 09:43:50

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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Harvest/LOT ID: HS-TVF0403202001

Batch# : HS-TVF0403202001
Sampled : 04/03/20
Ordered : 04/03/20

Sample Size Received : 7.0 gram
Total Weight/Volume : 1000 gram
Completed : 04/06/20 **Expires:** 04/06/21
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	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	ND
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	ND
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 1.0628g	Extraction date 04/03/20 12:04:47	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 - DA011409PES		Reviewed On - 04/06/20 09:59:19	
Instrument Used - DA-LCMS-001_DER			
Running On :		Batch Date : 04/03/20 08:39:00	
Reagent	Dilution	Consums. ID	
032120.16	10	180111	
033120.R15		280670723	
040220.R14			
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

04/06/20

Signed On



Certificate of Analysis

PASSED

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

Sample : DA00403012-001
Harvest/LOT ID: HS-TVF0403202001
Batch# : HS-TVF0403202001
Sampled : 04/03/20
Ordered : 04/03/20

Sample Size Received : 7.0 gram
Total Weight/Volume : 1000 gram
Completed : 04/06/20 **Expires:** 04/06/21
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	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	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
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 850	Weight .0204g	Extraction date 04/06/20 09:04:13	Extracted By 850
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Analysis Method -SOP.T.40.032
Analytical Batch -DA011436SOL **Reviewed On - 04/06/20 12:19:06**
Instrument Used : Headspace GCMS-002
Running On :
Batch Date : 04/03/20 14:21:20

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-TVF0403202001
Batch# : HS-TVF0403202001
Sampled : 04/03/20
Ordered : 04/03/20

Sample Size Received : 7.0 gram
Total Weight/Volume : 1000 gram
Completed : 04/06/20 **Expires:** 04/06/21
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 -DA011416MIC , DA011417TYM **Batch Date :** 04/03/20, 04/03/20
Instrument Used : PathogenDX PCR_Array Scanner,PathogenDX PCR_DA-171,
 PathogenDX PCR_Array Scanner
Running On :

Analyzed by	Weight	Extraction date	Extracted By
513, 513	1.0086g	04/03/20	513, 513

Reagent	Reagent	Consums. ID	Consums. ID
012120.04	121719.86	181019-274	19323
101619.04	121719.87	181207119C	23819111
013120.94	020420.358	918C4-918J	190611634
122719.32	013120.409	914C4-914AK	SG298A
013120.112	022120.221	929C6-929H	
022120.176	022120.277	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 -DA011410 | **Reviewed On** - 04/04/20 16:43:22
Instrument Used : DA-LCMS-001_DER
Running On :
Batch Date : 04/03/20 08:39:54

Analyzed by	Weight	Extraction date	Extracted By
585	1g	04/03/20 02:04:16	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
032420.R06	033020.R05	50
040220.R13	033120.R12	
033020.R02	111319.02	
033020.R03		
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	0.2608g	04/03/20 11:04:08	457

Analysis Method -SOP.T.40.050, SOP.T.30.052
Analytical Batch -DA011414HEA | **Reviewed On** - 04/06/20 07:08:01
Instrument Used : ICPMS-2030
Running On :
Batch Date : 04/03/20 08:45:04

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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 Signature

04/06/20

Signed On