



Certificate of Analysis

Dec 30, 2019 | CURALEAF FLORIDA LLC

19000 SW 192 STREET
MIAMI, FL, 33187, US

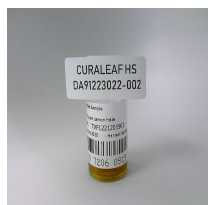


Sample: DA91223022-002
Harvest/Lot ID: HS-TVF1221201901
Cultivation Facility: Miami Cultivation
Processing Facility: Homestead Processing
Seed to Sale #5263 7206 0919 1494
Batch Date : N/A
Batch#: HS-TVF1221201901
Sample Size Received: 7 gram
Total Weight/Volume: 1370 gram
Retail Product Size: 0.5 gram gram
Ordered : 12/23/19
sampled : 12/23/19
Completed: 12/30/19
Sampling Method: SOP Client Method

PASSED

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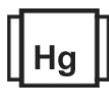
PRODUCT IMAGE



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

85.309%

THC/Container : 426.55 mg



Total CBD

0.175%

CBD/Container : 0.88 mg



Total Cannabinoids

89.705%

Total Cannabinoids / Container
: 0.000

	TOTAL CA	TOTAL CB	TOTAL TH	CBC	CBGA	CBG	THCV	DB-THC	CBDV	CBN	CBDA	CBD	THCA	D9-THC
%	89.7050	0.1750	85.3090	1.0240	ND	2.1070	0.5420	0.0770	ND	0.4200	ND	0.1750	0.4120	84.9479
mg/g	897.0500	1.7500	853.0890	10.2400	ND	21.0700	5.4200	0.7700	ND	4.2000	ND	1.7500	4.1200	849.4800
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	0.0010	0.0001
%	%	%	%	%	%	%	%	%	%	%	%	%	%	%

Filtration	PASSED
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Analyzed By	Weight	Extraction date	Extracted By
584	1g	12/23/19	584
Analyte	LOD	Result	Batch Date
Filtration and Foreign Material	0	ND	
Analysis Method -SOP.T.40.013			
Analytical Batch -DA008942FIL			
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	0.1066g	12/26/19 12:12:00	965
Analysis Method	Instrument Used :	Batch Date :	
-SOP.T.40.020, SOP.T.30.050			
Reagent	Dilution	Consumers. ID	
122319.R05	400	76124-662 SFN-BX-1025 849C4-849AK 840C4-840H	

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).

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Jorge Segredo
Lab Director

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


Signature

12/30/19

Signed On



Certificate of Analysis

PASSED

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

Sample : DA91223022-002
Harvest/LOT ID: HS-TVF1221201901

Batch# : HS-TVF1221201901
Sampled : 12/23/19
Ordered : 12/23/19

Sample Size Received : 7 gram
Total Weight/Volume : 1370 gram
Completed : 12/30/19 **Expires:** 12/30/20
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		SABINENE	0.007	ND	ND	
ALPHA-HUMULENE	0.007	2.179	0.217		SABINENE HYDRATE	0.007	ND	ND	
ALPHA-PINENE	0.007	2.559	0.255		TERPINEOL	0.007	ND	ND	
ALPHA-TERPINENE	0.007	ND	ND		TERPINOLENE	0.007	8.166	0.816	
BETA-MYRCENE	0.007	10.597	1.059		BETA-CARYOPHYLLENE	0.007	7.295	0.729	
BETA-PINENE	0.007	2.008	0.200		TRANS-NEROLIDOL	0.007	ND	ND	
BORNEOL	0.013	ND	ND		VALENCENE	0.007	1.162	0.116	
CAMPHENE	0.007	< 0.2	< 0.020						
CAMPHOR	0.013	ND	ND						
CARYOPHYLLENE OXIDE	0.007	< 0.2	< 0.020						
CEDROL	0.007	ND	ND						
ALPHA-BISABOOL	0.007	5.075	0.507						
ISOPULEGOL	0.007	ND	ND						
CIS-NEROLIDOL	0.007	ND	ND						
3-CARENE	0.007	ND	ND						
FENCHYL ALCOHOL	0.007	ND	ND						
HEXAHYDROTHYMOL	0.007	ND	ND						
EUCALYPTOL	0.007	ND	ND						
ISOBORNEOL	0.007	ND	ND						
FARNESENE	0.007	0.337	0.033						
FENCHONE	0.007	ND	ND						
GAMMA-TERPINENE	0.007	ND	ND						
GERANIOL	0.007	ND	ND						
GERANYL ACETATE	0.007	< 0.2	< 0.020						
GUAJOL	0.007	< 0.2	< 0.020						
LIMONENE	0.007	17.925	1.792						
LINALOOL	0.007	0.290	0.029						
NEROL	0.007	ND	ND						
OCIMENE	0.007	< 0.2	< 0.020						
ALPHA-PHELLANDRENE	0.007	ND	ND						
PULEGONE	0.007	ND	ND						
Total (%)		5.759							



Terpenes

TESTED
Analyzed by 1118 **Weight** 0.9923g **Extraction date** 12/23/19 02:12:58 **Extracted By** 1118

Analysis Method -SOP.T.40.090
Analytical Batch -DA008950TER
Instrument Used :
Running On :
Batch Date :

Reagent	Dilution	Consums. ID
	10	

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-TVF1221201901

Batch# : HS-TVF1221201901
Sampled : 12/23/19
Ordered : 12/23/19


Sample Size Received : 7 gram
Total Weight/Volume : 1370 gram
Completed : 12/30/19 **Expires:** 12/30/20
Sample Method : SOP Client Method

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Pesticides

PASSED

Pesticides	LOD	Units	Action Level	Result	Pesticides	LOD	Units	Action Level	Result
CHLORDANE	0.005	ppm	0.1	ND	OXAMYL	0.01	ppm	0.5	ND
CAPTAN	0.05	ppm	0.7	ND	PACLOBUTRAZOL	0.01	ppm	0.1	ND
BOSCALID	0.01	PPM	0.1	ND	TRANS-PERMETHRIN	0.05	ppm	0.1	ND
DIMETHOATE	0.01	ppm	0.1	ND	PHOSMET	0.01	ppm	0.1	ND
ABAMECTIN B1A	0.02	ppm	0.1	ND	PIPERONYL BUTOXIDE	0.01	ppm	3	ND
CIS-PERMETHRIN	0.05	ppm	0.1	ND	PRALLETHRIN	0.05	ppm	0.1	ND
SPINETORAM	0.01	PPM	0.2	ND	PROPICONAZOLE	0.01	ppm	0.1	ND
ACEPHATE	0.001	ppm	0.1	ND	PROPOXUR	0.01	ppm	0.1	ND
DIMETHOMORPH	0.005	ppm	0.2	ND	PYRETHRIN I	0.01	ppm	0.5	ND
ETHOPROPHOS	0.01	ppm	0.1	ND	PYRIDABEN	0.01	ppm	0.2	ND
ACEQUINOCYL	0.01	ppm	0.1	ND	SPINOSAD (SPINOSYN A)	0.01	ppm	0.1	ND
ACETAMIPRID	0.01	ppm	0.1	ND	SPINOSAD (SPINOSYN D)	0.01	ppm	0.1	ND
ETOFENPROX	0.01	ppm	0.1	ND	SPIROMESIFEN	0.01	ppm	0.1	ND
ALDICARB	0.02	ppm	0.1	ND	SPIROTETRAMAT	0.02	ppm	0.1	ND
ETOXAZOLE	0.01	ppm	0.1	ND	SPIROXAMINE	0.01	ppm	0.1	ND
AZOXYSTROBIN	0.01	ppm	0.01	ND	TEBUCONAZOLE	0.01	ppm	0.1	ND
FENHEXAMID	0.01	ppm	0.1	ND	THIACLOPRID	0.01	ppm	0.1	ND
BIFENAZATE	0.01	ppm	0.1	ND	THIAMETHOXAM	0.01	ppm	0.5	ND
FENOXYCARB	0.01	ppm	0.1	ND	TRIFLOXYSTROBIN	0.01	ppm	0.1	ND
FENPYROXIMATE	0.01	ppm	0.1	ND					
BIFENTHRIN	0.01	ppm	0.1	ND					
CARBARYL	0.01	ppm	0.5	ND					
FIPRONIL	0.02	ppm	0.1	ND					
FLONICAMID	0.01	ppm	0.1	ND					
CARBOFURAN	0.01	ppm	0.1	ND					
CHLORANTRANILIPROLE	0.01	ppm	1	ND					
FLUDIOXONIL	0.01	ppm	0.1	ND					
HEXYTHIAZOX	0.01	ppm	0.1	ND					
CHLORFENAPYR	0.01	ppm	0.1	ND					
IMAZALIL	0.01	ppm	0.1	ND					
CHLORPYRIFOS	0.01	ppm	0.1	ND					
IMIDACLOPRID	0.01	ppm	0.4	ND					
CLOFENTEZINE	0.01	ppm	0.2	ND					
KRESOXIM-METHYL	0.01	ppm	0.1	ND					
COUMAPHOS	0.005	ppm	0.1	ND					
MALATHION	0.01	ppm	0.2	ND					
CYPERMETHRIN	0.01	ppm	0.5	ND					
DAMINOZIDE	0.02	ppm	0.1	ND					
METALAXYL	0.01	ppm	0.02	ND					
DICHLORVOS	0.05	ppm	0.1	ND					
METHIOCARB	0.01	ppm	0.05	ND					
METHOMYL	0.01	ppm	0.1	ND					
DIAZANON	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					


Pesticides

PASSED

Analyzed by	Weight	Extraction date	Extracted By
585	0.9742g	NA	NA
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 - DA008932PES			
Instrument Used :		Batch Date :	
Running On :			
Reagent	Dilution	Consums. ID	
112119.32		180711	
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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 17025:2017 Accreditation
 PJLA-Testing 97164


 Signature

12/30/19

Signed On



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Sample : DA91223022-002
Harvest/LOT ID: HS-TVF1221201901
Batch# : HS-TVF1221201901
Sampled : 12/23/19
Ordered : 12/23/19

Sample Size Received : 7 gram
Total Weight/Volume : 1370 gram
Completed : 12/30/19 **Expires:** 12/30/20
Sample Method : SOP Client Method

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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
PROPANE	120	ppm	2100	PASS	ND
BUTANES (N-BUTANE)	96	ppm	2000	PASS	ND
ETHYLENE OXIDE	0.6	ppm	5	PASS	ND
METHANOL	22.5	ppm	250	PASS	<100.000
ETHANOL	90	ppm	5000	PASS	ND
PENTANES (N-PENTANE)	67.5	ppm	750	PASS	ND
ETHYL ETHER	45	ppm	500	PASS	ND
ACETONE	67.5	ppm	750	PASS	<140.000
2-PROPANOL	45	ppm	500	PASS	ND
ACETONITRILE	5.4	ppm	60	PASS	ND
DICHLOROMETHANE	11.25	ppm	125	PASS	ND
N-HEXANE	4.5	ppm	250	PASS	<17.400
ETHYL ACETATE	36	ppm	400	PASS	ND
BENZENE	0.09	ppm	1	PASS	ND
HEPTANE	45	ppm	500	PASS	ND
TOLUENE	13.5	ppm	150	PASS	ND
CHLOROFORM	0.18	ppm	2	PASS	ND
1,2-DICHLOROETHANE	0.18	ppm	2	PASS	ND
TRICHLOROETHYLENE	2.25	ppm	25	PASS	ND
1,1-DICHLOROETHENE	1	ppm	8	PASS	ND
TOTAL XYLENES	13.5	ppm	150	PASS	ND

Analyzed by 850	Weight 0.0211g	Extraction date 12/23/19 03:12:21	Extracted By 850
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Analysis Method -SOP.T.40.032
Analytical Batch -DA008957SOL
Instrument Used :
Running On :
Batch Date :

Reagent	Dilution	Consums. ID
	1	00276446 161040-1 24152436

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-TVF1221201901
Batch# : HS-TVF1221201901
Sampled : 12/23/19
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Sample Size Received : 7 gram
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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 -DA008923MIC Batch Date :
Instrument Used :
Running On :

Analyzed by	Weight	Extraction date	Extracted By
513,	1.0617g	12/23/19	513,

Reagent	Consums. ID	Consums. ID
121819.R08	2802012	19193
	2803022	
	A02	
	009D	
	020	
	011	

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	
AFLATOXIN G1	0.002	ppm	ND	
AFLATOXIN B2	0.002	ppm	ND	
AFLATOXIN B1	0.002	ppm	ND	
OCHRATOXIN A+	0.002	ppm	ND	0.02
TOTAL AFLATOXINS	0.02	PPM	ND	0.02

Analysis Method -SOP.T.30.065, SOP.T.40.065
Analytical Batch -DA008933
Instrument Used :
Running On :
Batch Date :

Analyzed by	Weight	Extraction date	Extracted By
585	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.T.40.065 Procedure for Mycotoxins Quantification Using LCMS. LOQ 1.0 ppb). Aflatoxin B1, B2, G1, and G2 must individually be <20ug/Kg. Ochratoxins must be <20µg/Kg.

	Heavy Metals	PASSED
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Reagent	Reagent	Dilution
121019.R02	111319.01	50
122319.R02		
121919.R01		
121319.R05		
121219.R08		
120419.R02		

Metal	LOD	Unit	Result	Action Level (PPM)
ARSENIC	0.01	PPM	0.038	0.2
CADMIUM	0.01	PPM	ND	0.2
LEAD	0.01	PPM	ND	0.5
MERCURY	0.01	PPM	ND	0.1

Analyzed by	Weight	Extraction date	Extracted By
53	0.2553g	12/23/19 02:12:42	457

Analysis Method -SOP.T.40.050, SOP.T.30.052
Analytical Batch -DA008951HEA
Instrument Used :
Running On :
Batch Date :

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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 Lab Director

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