



Certificate of Analysis

Oct 09, 2019 | CURALEAF FLORIDA LLC

19000 SW 192 STREET
MIAMI, FL, 33187, US

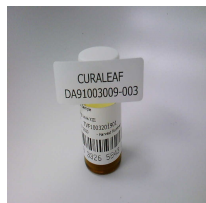


Sample: DA91003009-003
Harvest/Lot ID: HS-TVF1003201901
Cultivation Facility: Miami Cultivation
Processing Facility : Homestead Processing
Seed to Sale #0718 3326 5843 1026
Batch Date : N/A
Batch#: HS-TVF1003201901
Sample Size Received: 7 gram
Total Weight/Volume: 1400 gram
Retail Product Size: 0.5 ml gram
Ordered : 10/03/19
sampled : 10/03/19
Completed: 10/09/19
Sampling Method: SOP Client Method

PASSED

Page 1 of 5

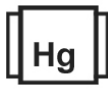
PRODUCT IMAGE



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

87.710%

THC/Container : 438.55 mg



Total CBD

0.177%

CBD/Container : 0.88 mg



Total Cannabinoids

0.000%

Total Cannabinoids / Container
: 0.000

D9-THC	THCA	CBD	CBDA	CBN	CBDV	D8-THC	THCV	CBG	CBGA	CBC	TOTAL TH	TOTAL CB
% 87.7099	ND	0.1770	ND	0.3530	ND	0.3300	0.4710	1.8370	0.0780	1.1880	87.7099	0.1770
mg/g 877.1000	ND	1.7700	ND	3.5300	ND	3.3000	4.7100	18.3700	0.7800	11.8800	877.0990	1.7700
LOD 0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
%	%	%	%	%	%	%	%	%	%	%		

Filtration	PASSED
------------	--------

Analyzed By	Weight	Extraction date	Extracted By
s3	1g	NA	NA
Analyte			Result
Filtration and Foreign Material			ND
Analysis Method -SOP.T.40.013			
Analytical Batch -DA006874			
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 :
372	0.1007g	10/03/19 03:10:42	574
Analysis Method -SOP.T.40.020, SOP.T.30.050			Batch Date :
Analytical Batch -DA006847	Instrument Used :		

Reagent	Dilution	Consums. ID
100219.R03		76124-662
100119.R07		SFA-BX-1025
100219.R02		923CA-923AK
		910C6 - 910H

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).

This report shall not be reproduced, unless in its entirety, without written approval from Kaycha Labs. This report is an Kaycha Labs certification. The results relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. Void after 1 year from test end date. Cannabinoid content of batch material may vary depending on sampling error. IC=In-control QC parameter, NC=Non-controlled QC parameter, ND=Not Detected, NA=Not Analyzed, ppm=Parts Per Million, ppb=Parts Per Billion. Limit of Detection (LoD) and Limit Of Quantitation (LoQ) are terms used to describe the smallest concentration that can be reliably measured by an analytical procedure. RPD=Reproducibility of two measurements. Action Levels are State determined thresholds for human safety for consumption and/or inhalation. The result >99% are variable based on uncertainty of measurement (UM) for the analyte. The UM error is available from the lab upon request. The "Decision Rule" for the pass/fail does not include the UM. The limits are based on F.S. Rule 64-4.310.

Jorge Segredo
Lab Director

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


Signature

10/09/19

Signed On



Certificate of Analysis

PASSED

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

Sample : DA91003009-003
Harvest/LOT ID: HS-TVF1003201901

Batch# : HS-TVF1003201901
Sampled : 10/03/19
Ordered : 10/03/19

Sample Size Received : 7 gram
Total Weight/Volume : 1400 gram
Completed : 10/09/19 **Expires:** 10/09/20
Sample Method : SOP Client Method

Page 2 of 5



Terpenes

TESTED

Terpenes	LOD(%)	mg/g	%	Result (%)	Terpenes	LOD(%)	mg/g	%	Result (%)
ALPHA-CEDRENE	0.007	ND	ND		SABINENE	0.007	< 0.2	< 0.020	
ALPHA-HUMULENE	0.007	2.410	0.241		SABINENE HYDRATE	0.007	ND	ND	
ALPHA-PINENE	0.007	8.596	0.859		TERPINEOL	0.007	< 0.2	< 0.020	
ALPHA-TERPINENE	0.007	< 0.2	< 0.020		TERPINOLENE	0.007	ND	ND	
BETA-MYRCENE	0.007	11.668	1.166		TRANS-CARYOPHYLLENE	0.007	25.035	2.503	
BETA-PINENE	0.007	4.741	0.474		TRANS-NEROLIDOL	0.007	0.288	0.028	
BORNEOL	0.013	ND	ND		VALENCENE	0.007	ND	ND	
CAMPHENE	0.007	0.484	0.048						
CAMPHOR	0.013	ND	ND						
CARYOPHYLLENE OXIDE	0.007	0.201	0.020						
CEDROL	0.007	ND	ND						
ALPHA-BISABOLOL	0.007	4.668	0.466						
ISOPULEGOL	0.007	ND	ND						
CIS-NEROLIDOL	0.007	ND	ND						
3-CARENE	0.007	ND	ND						
FENCHYL ALCOHOL	0.007	< 0.2	< 0.020						
HEXAHYDROTHYMOL	0.007	ND	ND						
EUCALYPTOL	0.007	ND	ND						
ISOBORNEOL	0.007	ND	ND						
FARNESENE	0.007	0.334	0.033						
FENCHONE	0.007	ND	ND						
GAMMA-TERPINENE	0.007	0.233	0.023						
GERANIOL	0.007	ND	ND						
GERANYL ACETATE	0.007	ND	ND						
GUAJOL	0.007	0.476	0.047						
LIMONENE	0.007	18.446	1.844						
LINALOOL	0.007	2.435	0.243						
NEROL	0.007	ND	ND						
OCIMENE	0.007	ND	ND						
ALPHA-PHELLANDRENE	0.007	2.299	0.229						
PULEGONE	0.007	ND	ND						
Total (%)		8.231							



Terpenes

TESTED
Analyzed by 585 **Weight** 0.9589g **Extraction date** 10/03/19 07:10:26 **Extracted By** 585

Analysis Method -SOP.T.40.090
Analytical Batch -DA006866
Instrument Used :
Running On :
Batch Date :

Reagent	Dilution	Consums. ID
100219.R01	10	180711 SFN-BX-1025 923C4-923AK 910C6 - 910H

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.



Certificate of Analysis

PASSED

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

Sample : DA91003009-003
Harvest/LOT ID: HS-TVF1003201901

Batch# : HS-TVF1003201901
Sampled : 10/03/19
Ordered : 10/03/19


Sample Size Received : 7 gram
Total Weight/Volume : 1400 gram
Completed : 10/09/19 **Expires:** 10/09/20
Sample Method : SOP Client Method

Page 3 of 5


Pesticides

PASSED

Pesticides	LOD	Units	Action Level	Result	Pesticides	LOD	Units	Action Level	Result
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		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	0.01	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					
DAZANON	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					
TRANS-PERMETHRIN	0.05	ppm	0.1	ND					


Pesticides

PASSED

Analyzed by 357	Weight 1.0316g	Extraction date 10/03/19 09:10:15	Extracted By 357
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 - DA006863 Instrument Used : Running On :			
		Batch Date :	
Reagent	Dilution 10	Consums. ID	
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.			

This report shall not be reproduced, unless in its entirety, without written approval from Kaycha Labs. This report is an Kaycha Labs certification. The results relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. Void after 1 year from test end date. Cannabinoid content of batch material may vary depending on sampling error. IC=In-control QC parameter, NC=Non-controlled QC parameter, ND=Not Detected, NA=Not Analyzed, ppm=Parts Per Million, ppb=Parts Per Billion. Limit of Detection (LoD) and Limit Of Quantitation (LoQ) are terms used to describe the smallest concentration that can be reliably measured by an analytical procedure. RPD=Reproducibility of two measurements. Action Levels are State determined thresholds for human safety for consumption and/or inhalation. The result >99% are variable based on uncertainty of measurement (UM) for the analyte. The UM error is available from the lab upon request. The "Decision Rule" for the pass/fail does not include the UM. The limits are based on F.S. Rule 64-4.310.

Jorge Segredo
 Lab Director

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


 Signature

10/09/19

Signed On



Certificate of Analysis

PASSED

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

Sample : DA91003009-003
Harvest/LOT ID: HS-TVF1003201901
Batch# : HS-TVF1003201901
Sampled : 10/03/19
Ordered : 10/03/19

Sample Size Received : 7 gram
Total Weight/Volume : 1400 gram
Completed : 10/09/19 **Expires:** 10/09/20
Sample Method : SOP Client Method

Page 4 of 5

	Residual Solvents	PASSED
----------------------------------------------------------------------------------	--------------------------	---------------

	Residual Solvents	PASSED
-----------------------------------------------------------------------------------	--------------------------	---------------

Solvent	LOD	Units	Action Level (PPM)	Pass/Fail	Result
1,2-DICHLOROETHANE	0.2	ppm	2	PASS	ND
1,1-DICHLOROETHENE	0.2	ppm	8	PASS	ND
2-ETHOXYETHANOL	9.6	ppm		PASS	ND
2-PROPANOL	140	ppm	500	PASS	ND
ACETONE	140	ppm	750	PASS	ND
ACETONITRILE	6	ppm	60	PASS	ND
BENZENE	0.1	ppm	1	PASS	ND
BUTANES (ISO-BUTANE)	50	ppm	2000	PASS	ND
BUTANES (N-BUTANE)	50	ppm	2000	PASS	ND
CHLOROFORM	0.2	ppm	2	PASS	ND
ETHANOL	140	ppm	5000	PASS	ND
ETHYL ACETATE	140	ppm	400	PASS	ND
CYCLOHEXANE	232.8	ppm		PASS	ND
DICHLOROMETHANE	36	ppm		PASS	ND
ETHYL ETHER	140	ppm	500	PASS	ND
ETHYLENE OXIDE	0.5	ppm	5	PASS	ND
ETHYLBENZENE	130.2	ppm		PASS	ND
HEPTANE	140	ppm	500	PASS	ND
HEXANES (2,2-DIMETHYLBUTANE)	17.4	ppm	60	PASS	ND
HEXANES (2,3-DIMETHYLBUTANE)	17.4	ppm	60	PASS	ND
HEXANES (2-METHYLPENTANE)	17.4	ppm	60	PASS	ND
HEXANES (3-METHYLPENTANE)	17.4	ppm	60	PASS	ND
ISOPROPYL ACETATE	140	ppm		PASS	ND
METHYLENE CHLORIDE	1	ppm	125	PASS	ND
METHANOL	25	ppm	250	PASS	ND
N-HEXANE	17.4	ppm	60	PASS	ND
PENTANES (ISO-PENTANE)	140	ppm		PASS	ND
PENTANES (N-PENTANE)	50	ppm	750	PASS	ND
PENTANES (NEO-PENTANE)	50	ppm		PASS	ND
PROPANE	10	ppm	2100	PASS	<20.000
TETRAHYDROFURAN	43.2	ppm		PASS	ND
TOLUENE	15	ppm	150	PASS	ND
TOTAL XYLENES	1	ppm	150	PASS	ND
TRICHLOROETHYLENE	0.2	ppm	25	PASS	ND

Analyzed by 850	Weight 0.0256g	Extraction date 10/03/19 02:10:00	Extracted By 850
---------------------------	--------------------------	---------------------------------------------	----------------------------

Analysis Method -SOP.T.40.032
Analytical Batch -DA006855
Instrument Used :
Running On :
Batch Date :

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).

This report shall not be reproduced, unless in its entirety, without written approval from Kaycha Labs. This report is an Kaycha Labs certification. The results relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. Void after 1 year from test end date. Cannabinoid content of batch material may vary depending on sampling error. IC=In-control QC parameter, NC=Non-controlled QC parameter, ND=Not Detected, NA=Not Analyzed, ppm=Parts Per Million, ppb=Parts Per Billion. Limit of Detection (LoD) and Limit Of Quantitation (LoQ) are terms used to describe the smallest concentration that can be reliably measured by an analytical procedure. RPD=Reproducibility of two measurements. Action Levels are State determined thresholds for human safety for consumption and/or inhalation. The result >99% are variable based on uncertainty of measurement (UM) for the analyte. The UM error is available from the lab upon request.The "Decision Rule" for the pass/fail does not include the UM. The limits are based on F.S. Rule 64-4.310.

Jorge Segredo
 Lab Director

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


 Signature

10/09/19

Signed On



Certificate of Analysis

PASSED

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

Sample : DA91003009-003
Harvest/LOT ID: HS-TVF1003201901
Batch# : HS-TVF1003201901
Sampled : 10/03/19
Ordered : 10/03/19

Sample Size Received : 7 gram
Total Weight/Volume : 1400 gram
Completed : 10/09/19 **Expires:** 10/09/20
Sample Method : SOP Client Method

Page 5 of 5

	Microbials	PASSED
----------------------------------------------------------------------------------	-------------------	---------------

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

Analysis Method -SOP.T.40.043 / SOP.T.40.044 / SOP.T.40.041
Analytical Batch -DA006836 **Batch Date :**
Instrument Used :
Running On :

Analyzed by	Weight	Extraction date	Extracted By
513	1.0275g	10/03/19	513

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
-----------------------------------------------------------------------------------	-------------------	---------------

Analyte	LOD	Units	Result	Action Level (PPM)
Analysis Method -SOP.T.30.065, SOP.T.40.065				
Analytical Batch -DA006864				
Instrument Used :				
Running On :				
Batch Date :				
Analyzed by	Weight	Extraction date	Extracted By	
357	1g	10/08/19 02:10:22	357	
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 <20ug/Kg.				

	Heavy Metals	PASSED
-------------------------------------------------------------------------------------	---------------------	---------------

Dilution
 50

Metal	LOD	Unit	Result	Action Level (PPM)
ARSENIC	0.0008369 ppm		<0.002	0.2
CADMIUM	0.0022201 ppm		ND	0.2
LEAD	0.0032903 ppm		ND	0.5
MERCURY	0.0028556 ppm		ND	0.2

Analyzed by	Weight	Extraction date	Extracted By
450	0.5353g	10/03/19 03:10:10	457

Analysis Method -SOP.T.40.050, SOP.T.30.052
Analytical Batch -DA006837
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.