



Certificate of Analysis

Mar 02, 2020 | CURALEAF FLORIDA LLC

19000 SW 192 STREET
MIAMI, FL, 33187, US



Sample: DA00228013-004
Harvest/Lot ID: HS-TPFP0221202001
Cultivation Facility: Miami Cultivation
Processing Facility: Homestead Processing
Seed to Sale #8396 1954 7535 4281
Batch Date : 02/12/20
Batch#: HS-TPFP0221202001
Sample Size Received: 72
Total Weight/Volume: 2000
Retail Product Size: 3.36 gram
Ordered : 02/28/20
sampled : 02/28/20
Completed: 03/02/20
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
4.507%

THC/Container :151.438 mg



Total CBD
0.026%

CBD/Container :0.874 mg



Total Cannabinoids
4.806%

Total Cannabinoids/Container
:161.482 mg

	TOTAL CA	TOTAL CB	TOTAL TH	CBC	CBGA	CBG	THCV	DB-THC	CBDV	CBN	CBD	D9-THC	THCA
%	4.8060	0.0260	4.5070	0.0680	0.0240	0.1190	0.0260	<0.010	ND	0.0300	<0.010	0.0260	0.0480
mg/g	48.0600	0.2600	45.0690	0.6800	0.2400	1.1900	0.2600	<0.010	ND	0.3000	<0.010	0.2600	0.4800
LOD	0.0000	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	Extracted By
Weight	1g	LOD
Extraction date	03/02/20	Result
Analysis Method -SOP.T.40.013	Batch Date : 03/02/20 07:34:13	ND
Analytical Batch -DA010591FIL	Reviewed On - 03/02/20 07:35:17	
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 :
1224	3.2010g	02/28/20 12:02:15	965
Analysis Method -SOP.T.40.020, SOP.T.30.050	Instrument Used : DA-LC-003	Reviewed On - 03/02/20 10:12:15	Batch Date : 02/28/20 11:49:53
Analytical Batch -DA010579POT			

Reagent	Dilution	Consums. ID
022720.R11	400	180111 280653964 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).

Label Claim

Analyte	LOD	Units	Result
SERVINGS	1	servings	30.000
THC/SERVING	1	mg	5.047
CBD/SERVING	1	mg	0.029

PASSED

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Jorge Segredo
Lab Director

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


Signature

03/02/20

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 : DA00228013-004
Harvest/LOT ID: HS-TPFP0221202001

Batch# : HS-TPFP0221202001
Sampled : 02/28/20
Ordered : 02/28/20

Sample Size Received : 72
Total Weight/Volume : 2000
Completed : 03/02/20 **Expires:** 03/02/21
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	ND	ND		ISOBORNEOL	0.007	ND	ND	
ALPHA-PINENE	0.007	ND	ND		HEXAHYDROTHYMOL	0.007	14.254	1.425	
ALPHA-TERPINENE	0.007	ND	ND		FENCHYL ALCOHOL	0.007	ND	ND	
BETA-MYRCENE	0.007	ND	ND		3-CARENE	0.007	ND	ND	
BETA-PINENE	0.007	ND	ND		CIS-NEROLIDOL	0.007	ND	ND	
BORNEOL	0.013	ND	ND		ISOPULEGOL	0.007	ND	ND	
CAMPHENE	0.007	ND	ND						
CAMPHOR	0.013	ND	ND						
CARYOPHYLLENE OXIDE	0.007	ND	ND						
CEDROL	0.007	ND	ND						
ALPHA-BISABOLOL	0.007	ND	ND						
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	ND	ND						
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	1.883	0.188						
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	ND	ND						
Total (%)		1.613							



Terpenes

TESTED
Analyzed by 1351 **Weight** 0.8834g **Extraction date** 02/28/20 01:02:03 **Extracted By** 1351

Analysis Method -SOP.T.40.090
Analytical Batch -DA010560TER **Reviewed On** - 03/02/20 11:24:44
Instrument Used : GA-Triple Quad GCMS Terp
Running On :
Batch Date : 02/28/20 07:54:16

Reagent	Dilution	Consums. ID
021420.10	10	180111
012120.R13		280653964

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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Email: erick.ramirez@curaleaf.com

Sample : DA00228013-004
Harvest/LOT ID: HS-TPFP0221202001

Batch# : HS-TPFP0221202001
Sampled : 02/28/20
Ordered : 02/28/20

Sample Size Received : 72
Total Weight/Volume : 2000
Completed : 03/02/20 **Expires:** 03/02/21
Sample Method : SOP.T.20.010

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Pesticides

PASSED

Pesticides	LOD	Units	Action Level	Result	Pesticides	LOD	Units	Action Level	Result
DIMETHOATE	0.01	ppm	0.1	ND	PROPICONAZOLE	0.01	ppm	1	ND
CYPERMETHRIN	0.01	ppm	1	ND	PROPOXUR	0.01	ppm	0.1	ND
ABAMECTIN B1A	0.02	ppm	0.3	ND	PYRETHRINS	0.01	ppm	1	ND
ACEPHATE	0.001	ppm	3	ND	PYRIDABEN	0.01	ppm	3	ND
DICHLORVOS	0.05	ppm	0.1	ND	SPINETORAM	0.01	PPM	3	ND
DIMETHOMORPH	0.005	ppm	3	ND	SPIROMESIFEN	0.01	ppm	3	ND
ACEQUINOCYL	0.01	ppm	2	ND	SPIROTETRAMAT	0.02	ppm	3	ND
ACETAMIPRID	0.01	ppm	3	ND	SPIROXAMINE	0.01	ppm	0.1	ND
ETHOPROPHOS	0.01	ppm	0.1	ND	TEBUCONAZOLE	0.01	ppm	1	ND
ALDICARB	0.02	ppm	0.1	ND	THIACLOPRID	0.01	ppm	0.1	ND
ETOFENPROX	0.01	ppm	0.1	ND	THIAMETHOXAM	0.01	ppm	1	ND
AZOXYSTROBIN	0.01	ppm	3	ND	TOTAL CONTAMINANT LOAD (PESTICIDES)	0.1	PPM	20	ND
ETOXAZOLE	0.01	ppm	1.5	ND	TOTAL PERMETHRIN	1	ppm	1	ND
BIFENAZATE	0.01	ppm	3	ND	TOTAL SPINOSAD	1	ppm	3	ND
FENHEXAMID	0.01	ppm	3	ND	TRIFLOXYSTROBIN	0.01	ppm	3	ND
FENOXYCARB	0.01	ppm	0.1	ND					
BIFENTHRIN	0.01	ppm	0.5	ND					
BOSCALID	0.01	PPM	3	ND					
FENPYROXIMATE	0.01	ppm	2	ND					
CARBARYL	0.01	ppm	0.5	ND					
FIPRONIL	0.02	ppm	0.1	ND					
FLONICAMID	0.01	ppm	2	ND					
CARBOFURAN	0.01	ppm	0.1	ND					
CHLORANTRANILIPROLE	0.01	ppm	3	ND					
FLUDIOXONIL	0.01	ppm	3	ND					
HEXYTHIAZOX	0.01	ppm	2	ND					
IMAZALIL	0.01	ppm	0.1	ND					
IMIDACLOPRID	0.01	ppm	3	ND					
CHLORPYRIFOS	0.01	ppm	0.1	ND					
KRESOXIM-METHYL	0.01	ppm	1	ND					
MALATHION	0.01	ppm	2	ND					
CLOFENTEZINE	0.01	ppm	0.5	ND					
METALAXYL	0.01	ppm	3	ND					
COUMAPHOS	0.005	ppm	0.1	ND					
METHIOCARB	0.01	ppm	0.1	ND					
METHOMYL	0.01	ppm	0.1	ND					
DAMINOZIDE	0.02	ppm	0.1	ND					
DIAZANON	0.01	ppm	0.2	ND					
MEVINPHOS	0.01	ppm	0.1	ND					
MYCLOBUTANIL	0.01	ppm	3	ND					
NALED	0.01	ppm	0.5	ND					
OXAMYL	0.01	ppm	0.5	ND					
PACLOBUTRAZOL	0.01	ppm	0.1	ND					
PHOSMET	0.01	ppm	0.2	ND					
PIPERONYL BUTOXIDE	0.01	ppm	3	ND					
PRALLETHRIN	0.05	ppm	0.4	ND					



Pesticides

PASSED

Analyzed by 585	Weight 1.0130g	Extraction date 02/28/20 01:02:35	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.T40.070			
Analytical Batch - DA010567PES		Reviewed On- 03/02/20 07:35:17	
Instrument Used : DA-LCMS-001_DER		Batch Date : 02/28/20 09:09:04	
Running On :			
Reagent	Dilution	Consums. ID	
013120.30 022720.R13 022720.R14	10	180111 280653964	
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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Sample : DA00228013-004
Harvest/LOT ID: HS-TPFP0221202001

Batch# : HS-TPFP0221202001
Sampled : 02/28/20
Ordered : 02/28/20

Sample Size Received : 72
Total Weight/Volume : 2000
Completed : 03/02/20 **Expires:** 03/02/21
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
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	<17.400
PENTANES (N-PENTANE)	67.5	ppm	750	PASS	ND
ACETONE	67.5	ppm	750	PASS	ND
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	Weight	Extraction date	Extracted By
850	0.0229g	02/28/20 03:02:23	850
Analysis Method -SOP.T.40.032			
Analytical Batch -DA010584SOL			
Instrument Used : Headspace GCMS			
Running On :			
Batch Date : 02/28/20 15:42:57			
Reviewed On - 03/02/20 11:59:16			
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-TPFP0221202001
Batch# : HS-TPFP0221202001
Sampled : 02/28/20
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Sample Size Received : 72
Total Weight/Volume : 2000
Completed : 03/02/20 Expires: 03/02/21
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		not present in 1 gram.	

Analysis Method -SOP.T.40.043 / SOP.T.40.044 / SOP.T.40.041
Analytical Batch -DA010562MIC Batch Date : 02/28/20, 02/28/20
Instrument Used : PathogenDX PCR_Array Scanner, PathogenDX PCR_Array Scanner
Running On :

Analyzed by	Weight	Extraction date	Extracted By
513,	1.0064g	02/28/20	1082,

Reagent	Reagent	Consums. ID	Consums. ID
022620.R03	122719.72	181019-274	19323
121619.09	122719.73	181207119C	23819111
013120.77	013120.344	918C4-918J	190611634
013120.110	020420.364	914C4-914AK	SG298A
013120.131	013120.404	929C6-929H	
013120.137	122719.50	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 -DA010568 | Reviewed On - 03/02/20 10:22:00
Instrument Used : DA-LCMS-001_DER
Running On :
Batch Date : 02/28/20 09:10:00

Analyzed by	Weight	Extraction date	Extracted By
585	1g	02/28/20 03:02:08	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
022520.R13	021720.R04	50
022820.R01	020720.R02	
022420.R01	111319.02	
022420.R02		
021720.R06		
021920.R01		

Metal	LOD	Unit	Result	Action Level (PPM)
ARSENIC	0.02	PPM	ND	1.5
CADMIUM	0.02	PPM	ND	0.5
LEAD	0.02	PPM	<0.050	0.5
MERCURY	0.02	PPM	ND	3

Analyzed by	Weight	Extraction date	Extracted By
53	0.2549g	02/28/20 02:02:40	457

Analysis Method -SOP.T.40.050, SOP.T.30.052
Analytical Batch -DA010563HEA | Reviewed On - 03/02/20 07:19:35
Instrument Used : ICPMS-2030 B
Running On :
Batch Date : 02/28/20 08:47:25

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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