



# Certificate of Analysis

Sep 09, 2020 | Grandpas Family Farms LLC

8505 Highway 89 North  
Chamois, MO, 65024, US



Sample: DA00901014-001

Harvest/Lot ID: 1/1a

Seed to Sale #N/A

Batch Date : N/A

Batch#: 1/1a

Sample Size Received: 10 gram

Retail Product Size: 10

Ordered : 09/01/20

Sampled : 09/01/20

Completed: 09/09/20 Expires: 09/09/21

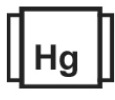
Sampling Method: SOP Client Method

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## PRODUCT IMAGE SAFETY RESULTS



Pesticides  
**PASSED**



Heavy Metals  
**PASSED**



Microbials  
**PASSED**



Mycotoxins  
**PASSED**



Residuals  
Solvents  
**NOT TESTED**



Filtration  
**PASSED**



Water Activity  
**TESTED**



Moisture  
**TESTED**



Terpenes  
**NOT TESTED**

## MISC.

## CANNABINOID RESULTS



Total THC

**0.047%**

THC/Container : 4.736 mg



Total CBD

**0.058%**

CBD/Container : 5.876 mg



Total Cannabinoids

**19.416%**

Total Cannabinoids/Container : 1941.700 mg

**Filtration PASSED**

Analyzed By 457 Weight 1g Extraction date NA LOD(ppm) NA Extracted By NA

Analysis Method -SOP.T.40.013 Batch Date : 09/02/20 11:45:10  
Analytical Batch -DA015316FIL Reviewed On - 09/02/20 16:21:55  
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.



**Water Activity**

**TESTED**

Analyte WATER ACTIVITY Analyzed by Weight 457 1g Ext. date NA LOD 0.1 aw A.L. 0.65aw Result 0.985 aw

Analysis Method -Water Activity SOP.T.40.010 Batch Date : 09/02/20 09:44:41  
Analytical Batch -DA015295WAT Reviewed On - 09/03/20 12:47:19  
Instrument Used : DA-028 Rotronic Hygropalm



**Moisture**

**TESTED**

Analyte MOISTURE CONTENT Analyzed by Weight 457 1g Ext. date NA LOD 1 % A.L. 15% Result 79.250 %

Analysis Method -Moisture Analysis SOP.T.40.011 Batch Date : 09/02/20 11:25:50  
Analytical Batch -DA015313MOI Reviewed On - 09/03/20 12:48:35  
Instrument Used : DA-046 Moisture Analyzer

CBC	CBD	CBDA	CBDV	CBG	CBGA	CBN	D8-THC	D9-THC	THCA	THCV
0.308%	ND	0.067%	0.035%	2.447%	16.469%	ND	ND	ND	0.054%	0.037%
3.080 mg/g	ND	0.670 mg/g	0.350 mg/g	24.470 mg/g	164.690 mg/g	ND	ND	ND	0.540 mg/g	0.370 mg/g
LOD 0.001 %	0.0001 %	0.001 %	0.001 %	0.001 %	0.001 %	0.001 %	0.001 %	0.0001 %	0.001 %	0.001 %

## Cannabinoid Profile Test

Analyzed by 450 Weight 0.2018g Extraction date : 09/03/20 11:09:13 Extracted By : 1823

Analysis Method -SOP.T.40.020, SOP.T.30.050 Reviewed On - 09/09/20 11:57:58  
Analytical Batch -DA015347POT Instrument Used : DA-LC-001 Batch Date : 09/03/20 09:17:28

Reagent	Dilution	Consums. ID
042120.31 090320.R06 090320.R05	400	280678841 918C4-918J 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).

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 # 97164



Signature

09/09/2020

Signed On



# Certificate of Analysis

**Grandpas Family Farms LLC**

 8505 Highway 89 North  
 Chamois, MO, 65024, US

**Telephone:** (573) 645-7793

**Email:** scott.mertz@hotmail.com

**Sample : DA00901014-001**
**Harvest/LOT ID: 1/1a**
**Batch# : 1/1a**
**Sampled : 09/01/20**
**Ordered : 09/01/20**
**Sample Size Received : 10 gram**
**Completed : 09/09/20 Expires: 09/09/21**
**Sample Method : SOP Client Method**

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## Pesticides

**PASSED**

Pesticides	LOD	Units	Action Level	Result	Pesticides	LOD	Units	Action Level	Result
ABAMECTIN B1A	0.01	ppm	0.3	ND	PROPICONAZOLE	0.01	ppm	1	ND
ACEPHATE	0.01	ppm	3	ND	PROPOXUR	0.01	ppm	0.1	ND
ACEQUINOCYL	0.01	ppm	2	ND	PYRETHRINS	0.05	ppm	1	ND
ACETAMIPRID	0.01	ppm	3	ND	PYRIDABEN	0.02	ppm	3	ND
ALDICARB	0.01	ppm	0.1	ND	SPINETORAM	0.02	PPM	3	ND
AZOXYSTROBIN	0.01	ppm	3	ND	SPIROMESIFEN	0.01	ppm	3	ND
BIFENAZATE	0.01	ppm	3	ND	SPIROTETRAMAT	0.01	ppm	3	ND
BIFENTHRIN	0.01	ppm	0.5	ND	SPIROXAMINE	0.01	ppm	0.1	ND
BOSCALID	0.01	PPM	3	ND	TEBUCONAZOLE	0.01	ppm	1	ND
CARBARYL	0.05	ppm	0.5	ND	THIACLOPRID	0.01	ppm	0.1	ND
CARBOFURAN	0.01	ppm	0.1	ND	THIAMETHOXAM	0.05	ppm	1	ND
CHLORANTRANILIPROLE	0.1	ppm	3	ND	TOTAL CONTAMINANT LOAD (PESTICIDES)	0	PPM	20	ND
CHLORMEQUAT CHLORIDE	0.1	ppm	3	ND	TOTAL PERMETHRIN	0.01	ppm	1	ND
CHLORPYRIFOS	0.01	ppm	0.1	ND	TOTAL SPINOSAD	0.01	ppm	3	ND
CLOFENTEZINE	0.02	ppm	0.5	ND	TRIFLOXYSTROBIN	0.01	ppm	3	ND
COUMAPHOS	0.01	ppm	0.1	ND					
DAMINOZIDE	0.01	ppm	0.1	ND					
DIAZANON	0.01	ppm	0.2	ND					
DICHLORVOS	0.01	ppm	0.1	ND					
DIMETHOATE	0.01	ppm	0.1	ND					
DIMETHOMORPH	0.02	ppm	3	ND					
ETHOPROPHOS	0.01	ppm	0.1	ND					
ETOXAZOLE	0.01	ppm	0.1	ND					
ETOXAZOLE	0.01	ppm	1.5	ND					
FENHEXAMID	0.01	ppm	3	ND					
FENOXYCARB	0.01	ppm	0.1	ND					
FENPYROXIMATE	0.01	ppm	2	ND					
FIPRONIL	0.01	ppm	0.1	ND					
FLONICAMID	0.01	ppm	2	ND					
FLUDIOXONIL	0.01	ppm	3	ND					
HEXYTHIAZOX	0.01	ppm	2	ND					
IMAZALIL	0.01	ppm	0.1	ND					
IMIDACLOPRID	0.04	ppm	3	ND					
KRESOXIM-METHYL	0.01	ppm	1	ND					
MALATHION	0.02	ppm	2	ND					
METALAXYL	0.01	ppm	3	ND					
METHIOCARB	0.01	ppm	0.1	ND					
METHOMYL	0.01	ppm	0.1	ND					
MEVINPHOS	0.01	ppm	0.1	ND					
MYCLOBUTANIL	0.01	ppm	3	ND					
NALED	0.025	ppm	0.5	ND					
OXAMYL	0.05	ppm	0.5	ND					
PACLOBUTRAZOL	0.01	ppm	0.1	ND					
PHOSMET	0.01	ppm	0.2	ND					
PIPERONYL BUTOXIDE	0.1	ppm	3	ND					
PRALLETHRIN	0.01	ppm	0.4	ND					



## Pesticides

**PASSED**

Analyzed by <b>585</b>	Weight 1.0155g	Extraction date 09/03/20 10:09:29	Extracted By 1082
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Analysis Method - SOP.T.30.065, SOP.T.40.065 ,  
 SOP.T.30.065, SOP.T.40.070  
 Analytical Batch - DA015350PES  
 Instrument Used : DA-LCMS-002\_FLO (PES)  
 Batch Date : 09/03/20 09:33:31

Reviewed On- 09/02/20 16:21:55

Reagent 089320.03	Dilution 10	Consums. ID 280678841 76262-590
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Pesticide screen is performed using LC-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 SOP.T.40.065 Procedure for Pesticide Quantification Using LCMS). \* 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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Sample : DA00901014-001

Harvest/LOT ID: 1/1a

Batch# : 1/1a

Sampled : 09/01/20

Ordered : 09/01/20

Sample Size Received : 10 gram

Completed : 09/09/20 Expires: 09/09/21

Sample Method : SOP Client Method

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	<b>Microbials</b>	<b>PASSED</b>		<b>Mycotoxins</b>	<b>PASSED</b>
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Analyte	LOD	Result	Analyte	LOD	Units	Result	Action Level (PPM)
ASPERGILLUS_FLAVUS		not present in 1 gram.	AFLATOXIN G2	0.002	ppm	ND	0.02
ASPERGILLUS_FUMIGATUS		not present in 1 gram.	AFLATOXIN G1	0.002	ppm	ND	0.02
ASPERGILLUS_NIGER		not present in 1 gram.	AFLATOXIN B2	0.002	ppm	ND	0.02
ASPERGILLUS_TERREUS		not present in 1 gram.	AFLATOXIN B1	0.002	ppm	ND	0.02
ESCHERICHIA_COLI_SHIGELLA_SPP		not present in 1 gram.	OCHRATOXIN A+	0.002	ppm	ND	0.02
SALMONELLA_SPECIFIC_GENE		not present in 1 gram.					

Analysis Method -SOP.T.40.043 / SOP.T.40.044

Analytical Batch -DA015284MIC Batch Date : 09/02/20

Instrument Used : PathogenDX PCR\_Array Scanner DA-111,PathogenDX PCR\_DA-013

Running On :

Analyzed by	Weight	Extraction date	Extracted By
513	1.1862g	09/02/20	513

Reagent	Consums. ID	Consums. ID	Consums. ID	Consums. ID
071020.17	181019-274	50AX30819	2804026	029
101519.09	SG298A	19423	2808006	2811017
	11989-024CC-024	080717	2802020	001001
	181207119C	850C6-850H	2803029	
	918C4-918J	2807008	A08	
	914C4-914AK	2809005	2810014D	

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.

Analysis Method -SOP.T.30.065, SOP.T.40.065

Analytical Batch -DA015360MYC | Reviewed On - 09/08/20 13:55:09

Instrument Used : DA-LCMS-002\_FLO (MYC)

Running On :

Batch Date : 09/03/20 11:31:41

Analyzed by	Weight	Extraction date	Extracted By
585	1g	09/04/20 04:09:35	585

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.

	<b>Heavy Metals</b>	<b>PASSED</b>
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Reagent	Reagent	Dilution	Consums. ID
090220.R05	090220.R02	100	89401-566
090120.R09	082420.R18		
071320.08	082720.R01		
083120.R06	022520.02		
082720.R14	030420.06		
090220.R01	080120.01		

Metal	LOD	Unit	Result	Action Level (PPM)
ARSENIC	0.02	PPM	<0.100	1.5
CADMIUM	0.02	PPM	<0.100	0.5
LEAD	0.05	PPM	<0.250	0.5
MERCURY	0.02	PPM	ND	3

Analyzed by	Weight	Extraction date	Extracted By
53	0.2388g	09/02/20 03:09:06	1022

Analysis Method -SOP.T.40.050, SOP.T.30.052

Analytical Batch -DA015310HEA | Reviewed On - 09/03/20 09:02:10

Instrument Used : DA-ICPMS-001

Running On :

Batch Date : 09/02/20 10:41:10

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.