





# Certificate of Analysis

**PASSED**

 5104 Reagan Drive  
 Charlotte, NC, 28206, US  
**Telephone:** (919) 961-2204  
**Email:**  
 barany.jeganatth@carolinacannabinoids.us

**Sample :** DA00128006-001  
**Harvest/LOT ID:** EC 01-1219

**Batch# :** EC 01-1219  
**Sampled :** 01/23/20  
**Ordered :** 01/23/20

**Sample Size Received :** 30 ml  
**Total Weight/Volume :** 30 ml  
**Completed :** 02/11/20 **Expires:** 02/11/21  
**Sample Method :** SOP Client Method

Page 2 of 4



## Pesticides

**PASSED**

Pesticides	LOD	Units	Action Level	Result	Pesticides	LOD	Units	Action Level	Result
ABAMECTIN B1A	0.02	ppm	0.3	ND	PHOSMET	0.01	ppm	0.2	ND
ACEPHATE	0.001	ppm	3	ND	PIPERONYL BUTOXIDE	0.01	ppm	3	ND
ACEQUINOCYL	0.01	ppm	2	ND	PRALLETHRIN	0.05	ppm	0.4	ND
ACETAMIPRID	0.01	ppm	3	ND	PROPICONAZOLE	0.01	ppm	1	ND
ALDICARB	0.02	ppm	0.1	ND	PROPOXUR	0.01	ppm	0.1	ND
AZOXYSTROBIN	0.01	ppm	3	ND	PYRETHRINS	0.01	ppm	1	ND
BIFENAZATE	0.01	ppm	3	ND	PYRIDABEN	0.01	ppm	3	ND
BIFENTHRIN	0.01	ppm	0.5	ND	SPINETORAM	0.01	PPM	3	ND
BOSCALID	0.01	PPM	3	ND	SPIROMESIFEN	0.01	ppm	3	ND
CAPTAN	0.05	ppm	3	ND	SPIROTETRAMAT	0.02	ppm	3	ND
CARBARYL	0.01	ppm	0.5	ND	SPIROXAMINE	0.01	ppm	0.1	ND
CARBOFURAN	0.01	ppm	0.1	ND	TEBUCONAZOLE	0.01	ppm	1	ND
CHLORANTRILIPROLE	0.01	ppm	3	ND	THIACLOPRID	0.01	ppm	0.1	ND
CHLORDANE	0.005	ppm	0.1	ND	THIAMETHOXAM	0.01	ppm	1	ND
CHLORFENAPYR	0.01	ppm	0.1	ND	TOTAL CONTAMINANT LOAD (PESTICIDES)	0.1	PPM	20	ND
CHLORPYRIFOS	0.01	ppm	0.1	ND	TOTAL PERMETHRIN	1	ppm	1	ND
CLOFENTEZINE	0.01	ppm	0.5	ND	TOTAL SPINOSAD	1	ppm	3	ND
COUMAPHOS	0.005	ppm	0.1	ND	TRIFLOXYSTROBIN	0.01	ppm	3	ND
CYPERMETHRIN	0.01	ppm	1	ND					
DAMINOZIDE	0.02	ppm	0.1	ND					
DIAZANON	0.01	ppm	0.2	ND					
DICHLORVOS	0.05	ppm	0.1	ND					
DIMETHOATE	0.01	ppm	0.1	ND					
DIMETHOMORPH	0.005	ppm	3	ND					
ETHOPROPHOS	0.01	ppm	0.1	ND					
ETOFENPROX	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	0.02	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	0.01	ppm	3	ND					
KRESOXIM-METHYL	0.01	ppm	1	ND					
MALATHION	0.01	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	0.01	ppm	0.5	ND					
OXAMYL	0.01	ppm	0.5	ND					
PACLOBUTRAZOL	0.01	ppm	0.1	ND					



## Pesticides

**PASSED**
**Analyzed by** 585 **Weight** 1.0008g **Extraction date** 01/29/20 04:01:20 **Extracted By** 585

**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** - DA009780PES

**Instrument Used** : DA-LCMS-001\_DER

**Running On** :

**Batch Date** : 01/28/20 09:50:06

**Reagent**

 012520.808  
 012420.809

**Dilution**

10

**Consums. ID**

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.T40.065/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

02/11/20

Signed On



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**Sample Method :** SOP Client Method

Page 3 of 4

	<b>Residual Solvents</b>	<b>PASSED</b>
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	<b>Residual Solvents</b>	<b>PASSED</b>
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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	1000000	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
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

<b>Analyzed by</b> 850	<b>Weight</b> 0.0293g	<b>Extraction date</b> 01/28/20 12:01:48	<b>Extracted By</b> 584
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**Analysis Method -SOP.T.40.032**  
**Analytical Batch -DA009791SOL**  
**Instrument Used : Headspace GCMS**  
**Running On :**  
**Batch Date : 01/28/20 12:12:06**

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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**Ordered : 01/23/20**
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**Sample Method : SOP Client Method**

Page 4 of 4

	<b>Microbials</b>	<b>PASSED</b>
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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.	

**Analysis Method -SOP.T.40.043 / SOP.T.40.044 / SOP.T.40.041**
**Analytical Batch -DA009770MIC Batch Date : 01/28/20**
**Instrument Used : PathogenDX PCR\_Array Scanner**
**Running On :**

Analyzed by	Weight	Extraction date	Extracted By
513	1.0612g	01/28/20	1082

Reagent	Consums. ID	Consums. ID
012420.R10	2802012	19193
	2803024	23819111
	A03	012
	010A	
	021	
	2805022	

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.

	<b>Mycotoxins</b>	<b>PASSED</b>
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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 -DA009781**
**Instrument Used : DA-LCMS-001\_DER**
**Running On :**
**Batch Date : 01/28/20 09:51:14**

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 <20ug/Kg.

	<b>Heavy Metals</b>	<b>PASSED</b>
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Reagent	Reagent	Dilution
012420.R17	010220.R04	50
012720.R18	012420.R13	
011620.R12		
011420.R03		
011520.R01		
012420.R01		

Metal	LOD	Unit	Result	Action Level (PPM)
ARSENIC	0.01	PPM	ND	1.5
CADMIUM	0.01	PPM	ND	0.5
LEAD	0.01	PPM	ND	0.5
MERCURY	0.01	PPM	ND	3

Analyzed by	Weight	Extraction date	Extracted By
53	0.2513g	NA	NA

**Analysis Method -SOP.T.40.050, SOP.T.30.052**
**Analytical Batch -DA009769HEA**
**Instrument Used : ICPMS-2030**
**Running On :**
**Batch Date : 01/28/20 08:36:28**

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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**Jorge Segredo**  
 Lab Director

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

  
 Signature

02/11/20

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