



PURE ANALYTICS™
CANNABIS POTENCY & SAFETY SCREENING

Test Report

Customer	PAN1711
Sample ID's	PAN1711-1
Report Date	13-Dec-17

Results Summary

Cannabinoid Results

Sample I.D.	Sample Name	THC mg/ea	THCA mg/ea	d-8 THC mg/ea	CBD mg/ea	CBDA mg/ea	CBN mg/ea	CBC mg/ea	CBCA mg/ea	CBL mg/ea	CBG mg/ea	CBGA mg/ea	THCV mg/ea	THCVA mg/ea	CBDV mg/ea	CBDVA mg/ea	Total Cannabinoids mg/ea
PAN1711-1	CBD Softgels (50mg)	0.8	ND	ND	28.4	0.2	ND	1.2	ND	0.4	ND	ND	ND	ND	0.7	ND	31.5

*ND: Not Detected (<0.05%, 0.01 mg/g or mL)

Results reported on a percent by weight basis using the full moisture content weight of the product as received by Pure Analytics.

Analytical Method: Methanol, IPA or Ethanol extraction using sonication with analysis by HPLC-DAD.

Results Summary

Microbiology

Sample I.D.	Sample Name	Aerobic plate count	Total Coliform	E.Coli	Total Yeast and Mold	Salmonella	Pseudomonas
PAN1711-1	CBD Softgels (50mg)	ND	ND	ND	ND	ND	ND

Methods: Aerobic Plate Count- AOAC 990.12; Total Coliform/E.coli- AOAC 991.14; Total Yeast/Mold- AOAC 997.02; Salmonella- OMA 2014.01; Psuedomonas Method- FDA BAM

Results Summary

Microbiology Action Limits

Action Limit Standard	Aerobic plate count	Total Coliform	E.Coli	Total Yeast and Mold	Salmonella	Pseudomonas
American Herbal Pharmacopoeia						
AHP Unprocessed Materials	<i>10⁵ CFU</i>	<i>10³ CFU</i>	<i>ND in 1g</i>	<i>10⁴ CFU</i>	<i>ND in 1g</i>	<i>ND</i>
AHP Processed Materials	<i>10⁵ CFU</i>	<i>10³ CFU</i>	<i>ND in 1g</i>	<i>10⁴ CFU</i>	<i>ND in 1g</i>	<i>ND</i>
AHP CO2 & Solvent-based extracts	<i>10⁴ CFU</i>	<i>10² CFU</i>	<i>ND in 1g</i>	<i>10³ CFU</i>	<i>ND in 1g</i>	<i>ND</i>
City of Berkeley						
City of Berkeley Action Limits for All Cannabis	<i><100,000 CFU</i>	<i><1,000 CFU</i>	<i>0 CFU</i>	<i><10 CFU</i>	<i>0 CFU</i>	<i><1,000 CFU</i>

CFU: Colony Formng Unit per Gram

ND: Not Detected

10²: 100

10³: 1000

10⁴: 10,000

10⁵: 100,000

Methods: Aerobic Plate Count- AOAC 990.12; Total Coliform/E.coli- AOAC 991.14; Total Yeast/Mold- AOAC 997.02; Salmonella- OMA 2014.01; Psuedomonas Method- FDA BAM

Results Summary

Pesticide and Chemical Residue Screen Results

Sample I.D.	Sample Name	Pesticide or Chemical Residues Detected
PAN1711-1	CBD Softgels (50mg)	PASS

*ND: Not Detected

Pesticide and Chemical Residue Screen detects all chlorinated, brominated and fluorinated compounds. This includes many commonly used insecticides, miticides and fungicides. Specific levels of compounds on our list will be reported with quantified results, all other compounds will be listed as detected or not detected.

Analytical Method: Acetone extraction using sonication with analysis by GC-ECD.

Certificate of Analysis- Cannabis

Sample Name: CBD Softgels (50mg)

Client Name: PAN1711

Sample I.D.: PAN1711-1

Sample Type: Capsule

Date Received: 12/6/2017

Date Tested: 12/7/2017

Date Reported: 12/13/2017

QC Batch(es):

PA12861,63-64

Cannabinoid Analysis: Method: Extraction by Methanol, IPA or Ethanol with sonication and HPLC-DAD and GC-FID analysis

THC	THCA	d-8 THC	CBD	CBDA	CBN	CBC	CBCA	CBG	CBGA	CBL	THCV	THCVA	CBDV	CBDVA	Total THC*	Total
% wt.	% wt.	% wt.	% wt.	% wt.	% wt.	% wt.	% wt.	% wt.	% wt.	% wt.	% wt.	% wt.	% wt.	% wt.	% wt.	% wt.
0.08%	ND	ND	2.84%	0.02%	ND	0.12%	ND	0.04%	ND	ND	ND	ND	0.07%	ND	NA	3.15%
mg/ea	mg/ea	mg/ea	mg/ea	mg/ea	mg/ea	mg/ea	mg/ea	mg/ea	mg/ea	mg/ea	mg/ea	mg/ea	mg/ea	mg/ea	mg/ea	mg/ea
0.8	ND	ND	28.4	0.2	ND	1.2	ND	0.4	ND	ND	ND	ND	0.7	ND	NA	31.5
mg/mL	mg/mL	mg/mL	mg/mL	mg/mL	mg/mL	mg/mL	mg/mL	mg/mL	mg/mL	mg/mL	mg/mL	mg/mL	mg/mL	mg/mL	mg/mL	mg/mL
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0

*Total THC=(THCA * 0.88) + THC + d-8 THC

Tests Performed: Cannabinoids, Micro, Pesticides

Microbiology Analysis:

Methods: Aerobic Plate Count- AOAC 990.12; Total Coliform/E.coli- AOAC 991.14; Total Yeast/Mold- AOAC 997.02; Salmonella- OMA 2014.01; Pseudomonas- FDA BAM; Berkeley-compliant

Terpene Analysis:

Method: Methanol Extraction with Sonication and GC-FID Analysis

Pesticides Analysis:

Method: Acetone extraction with sonication, SPE clean-up, LCMSMS and GC-ECD analysis

Analysis	CFU/g	Compound	% wt.	Compound	Result (ppm)	Report Limit (ppm)	Compound	Result (ppm)	Report Limit (ppm)
Aerobic plate count	ND	α-Pinene	NA	Myclobutanil	ND	0.02	Carbofuran	ND	0.01
Total coliform	ND	Camphene	NA	Paclotrazole	ND	0.01	Chlorantraniliprole	ND	0.02
E. coli	ND	β-Pinene	NA	Bifenthrin	ND	0.01	Clofentezine	ND	0.04
Total yeast & mold	ND	β-Myrcene	NA	Permethrin	ND	0.02	Coumaphos	ND	0.01
Salmonella	ND	3-Carene	NA	β-Cyfluthrin	ND	0.01	Diazinon	ND	0.01
Pseudomonas	ND	R-Limonene	NA	Cypermethrin	ND	0.50	Dimethoate	ND	0.01
		Eucalyptol	NA	Fipronil	ND	0.01	Dimethomorph	ND	0.01
		Ocimene	NA	λ-Cyhalothrin	ND	0.01	Ethoprop	ND	0.01
		γ-Terpinene	NA	Bifenazate	ND	0.10	Fenhexamid	ND	0.08
		Terpinolene	NA	Abamectin	ND	0.10	Fenpyroximate	ND	0.10
		Linalool	NA	Malathion	ND	0.01	Flonicamid	ND	0.10
		Fenchol	NA	Imidacloprid	ND	0.02	Hexythiazox	ND	0.10
		(+)-Pulegone	NA	Spinosad	ND	0.02	Kresoxim-methyl	ND	0.02
		Menthol	NA	Spiromesifen	ND	0.10	Methiocarb	ND	0.01
		Borneol	NA	Spirotetramat	ND	0.10	Methomyl	ND	0.01
		α-Terpineol	NA	Trifloxystrobin	ND	0.02	Naled	ND	0.01
		Geraniol	NA	Azoxystrobin	ND	0.01	Oxamyl	ND	0.20
		β-Caryophyllene	NA	Boscalid	ND	0.01	Parathion-methyl	ND	0.10
		α-Humulene	NA	Carbaryl	ND	0.01	Piperonyl butoxide	ND	3.00
		Valencene	NA	Daminozide	ND	0.01	Prallethrin	ND	0.02
		Farnesene	NA	Dichlorvos	ND	0.02	Pyrethrins	ND	0.50
		trans-Nerolidol	NA	Etoxazole	ND	0.05	Pyridaben	ND	0.02
		cis-Nerolidol	NA	Fenoxycarb	ND	0.01	Resmethrin	ND	0.10
		Guaiol	NA	Imazilil	ND	0.01	Spinatoram	ND	0.10
		α-Bisabolol	NA	Metalaxyl	ND	0.01	Spiroxamine	ND	0.01
		Eicosane	NA	Tebuconazole	ND	0.01	Thiacloprid	ND	0.01
		Camphor	NA	Acephate	ND	0.02	Thiamethoxam	ND	0.01
		L-Fenchone	NA	Aldicarb	ND	0.01			
		Sabinene	NA						
		β-Caryoph. Ox.	NA						
		Phytol	NA						
		a-Phellandrene	NA						
		Total %	NA						
Residual Solvent:									
Method: Full evaporation technique by GC-HS-FID.									
Compound	(ppm)								
n-butane	NA								
n-pentane	NA								
acetone	NA								
ethanol	NA								
2-methyl butane	NA								
n-hexane	NA								
methanol	NA								
2-propanol	NA								
2-methyl propanol	NA								
3-methyl-1-butanol	NA								
1-butanol	NA								
1-pentanol	NA								
2-butanol	NA								
1-propanol	NA								
anisole	NA								
ethyl acetate	NA								
n-heptane	NA								
2-methyl-1-propanol	NA								
MTBE	NA								
ether	NA								
ethyl formate	NA								
4-methyl-2-pentanone	NA								
isopropylbenzene	NA								
propane	NA								
1-butanone	NA								
Total ppm	0.0								

Testing performed by:

Pure Analytics
5468 Skylane Blvd Ste 102
Santa Rosa, CA 95403

The results contained in this report only pertain to the specific sample submitted. This certificate may not be reproduced in full without permission from the laboratory.

ND: Not Detected

NA: Not Applicable, Test Not Performed

Approved by: *Samantha J. Miller*