



Certificate of Analysis

Client Name Retro Cannabis & Hemp Extracts
Client Address #200 25 4th Street, Charlottetown, PE C1E 2B4
Client Contact Andrew Costa (andrew@retrocannabis.ca)

PPB Analytical Sample ID 3023_0031
Sample Receiving Date Feb. 15, 2023
Sample Registration Date Feb. 15, 2023
Receiving Condition Ambient
Client Sample Code# R00018-BC
Sample Description# R2 Extract
Sample size 45 g
Test Report Date Feb. 23, 2023

Microbial Scan			
Analyte	Specification	Result	Unit
Total Aerobic Microbial Count	NMT 50 000	<10	CFU/g
Method: EP 2.6.12 Analysis Date: Feb. 15, 2023 – Feb. 18, 2023			
Total Combined Yeasts and Molds	NMT 500	<10	CFU/g
Method: EP 2.6.12 Analysis Date: Feb. 15, 2023 – Feb. 21, 2023			
Bile-tolerant Gram-negative bacteria	NMT 100	<10	CFU/g
Method: EP 2.6.31 Analysis Date: Feb. 15, 2023 – Feb. 17, 2023			
<i>Salmonella</i> spp.	Absent	Absent	/25 g
Method: EP 2.6.31 Analysis Date: Feb. 15, 2023 – Feb. 18, 2023			
<i>Escherichia coli</i>	Absent	Absent	/1 g
Method: EP 2.6.31 Analysis Date: Feb. 15, 2023 – Feb. 18, 2023			



Cannabinoid Profile

73.4352 %(w/w) Total THC	ND %(w/w) Total CBD
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Analyte	Specification	Result	Unit	Result	Unit
CBDVA	Report	ND	mg/g	ND	% (w/w)
CBDV	Report	ND	mg/g	ND	% (w/w)
CBDA	Report	ND	mg/g	ND	% (w/w)
CBGA	Report	6.0213	mg/g	0.6021	% (w/w)
CBG	Report	6.4931	mg/g	0.6493	% (w/w)
CBD	Report	ND	mg/g	ND	% (w/w)
THCV	Report	ND	mg/g	ND	% (w/w)
THCVA	Report	0.2584	mg/g	0.0258	% (w/w)
CBN	Report	7.4105	mg/g	0.7410	% (w/w)
Delta-9-THC	Report	673.8933	mg/g	67.3893	% (w/w)
Delta-8-THC	Report	ND	mg/g	ND	% (w/w)
CBC	Report	13.4535	mg/g	1.3454	% (w/w)
Delta-9-THCA	Report	68.9376	mg/g	6.8938	% (w/w)
CBCA	Report	3.6846	mg/g	0.3685	% (w/w)
Total THC*	Report	734.3515	mg/g	73.4352	% (w/w)
Total CBD**	Report	ND	mg/g	ND	% (w/w)

* Total THC = delta9-THC + 0.877 × THCA-A

** Total CBD = CBD + 0.877 × CBDA

LOQ = 0.1250 mg/g = 0.0125% (w/w); LOD = 0.0375 mg/g = 0.00375% (w/w); ND = Not Detected (< LOD)

Method: TM-CA-002

Analysis Date: Feb. 16, 2023 – Feb. 17, 2023

Terpene Profile

6.5617 %(w/w) Total Terpene

Analyte	Specification	Result	Unit
alpha-Pinene	Report	0.1775	% (w/w)
Camphene	Report	ND	% (w/w)
Sabinene	Report	ND	% (w/w)
(-)-beta-Pinene	Report	0.0365	% (w/w)
beta-Myrcene	Report	2.3836	% (w/w)
R-(-)-alpha-Phellandrene	Report	ND	% (w/w)
delta-3-carene	Report	ND	% (w/w)
alpha-Terpinene	Report	ND	% (w/w)



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m-Cymene	Report	ND	% (w/w)
p-Cymene	Report	ND	% (w/w)
d-Limonene	Report	0.3720	% (w/w)
Eucalyptol	Report	0.0211	% (w/w)
o-Cymene	Report	ND	% (w/w)
Ocimene	Report	0.6639	% (w/w)
gamma-Terpinene	Report	< LOQ	% (w/w)
Sabinene hydrate	Report	< LOQ	% (w/w)
Terpinolene	Report	< LOQ	% (w/w)
Linalool	Report	0.1413	% (w/w)
(1R)-endo-(+)-Fenchyl alcohol	Report	< LOQ	% (w/w)
(-)-Isopulegol	Report	ND	% (w/w)
Isoborneol	Report	ND	% (w/w)
L(-)-Borneol + (+)-Borneol	Report	< LOQ	% (w/w)
Menthol	Report	ND	% (w/w)
Terpinen-4-ol	Report	< LOQ	% (w/w)
alpha-Terpineol	Report	0.0291	% (w/w)
Nerol + Citronellol	Report	ND	% (w/w)
Geraniol	Report	ND	% (w/w)
Thymol	Report	ND	% (w/w)
Carvacrol	Report	< LOQ	% (w/w)
(-)-alpha-Cedrene	Report	ND	% (w/w)
beta-Caryophyllene	Report	1.3324	% (w/w)
trans-beta-Farnesene	Report	0.0724	% (w/w)
alpha-Humulene	Report	0.6891	% (w/w)
Valencene	Report	0.0357	% (w/w)
cis-Nerolidol	Report	0.0263	% (w/w)
trans-Nerolidol	Report	0.0965	% (w/w)
(-)-Guaiol	Report	< LOQ	% (w/w)
Cedrol	Report	0.0512	% (w/w)
(-)-alpha-Bisabolol	Report	0.4083	% (w/w)
Farnesol 1	Report	0.0248	% (w/w)
Farnesol 2	Report	< LOQ	% (w/w)
Phytane	Report	< LOQ	% (w/w)
Squalene	Report	< LOQ	% (w/w)
Total Terpene	Report	6.5617	% (w/w)
LOQ = 0.0125% (w/w) LOD = 0.0025% (w/w) ND = Not Detected (< LOD) Method: TM-CA-005 Analysis Date: Feb. 16, 2023 – Feb. 17, 2023			



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Heavy metals			
Analyte	Specification	Result	Unit
Arsenic	1.5	ND (< LOD = 0.0330 µg/g)	µg/g
Cadmium	0.5	ND (< LOD = 0.0180 µg/g)	µg/g
Mercury	3.0	ND (< LOD = 0.0230 µg/g)	µg/g
Lead	0.5	ND (< LOD = 0.0510 µg/g)	µg/g
ND = Not detected (< LOD) Method: TM-CA-008 Analysis Date: Feb. 22, 2023 – Feb. 22, 2023			

Mycotoxins			
Analyte	Specification	Result	Unit
Aflatoxin B1	< 2	ND (< LOD = 0.4 µg/kg)	µg/kg
Aflatoxin B2	< 2	ND (< LOD = 0.1 µg/kg)	µg/kg
Aflatoxin G1	< 2	ND (< LOD = 0.4 µg/kg)	µg/kg
Aflatoxin G2	< 2	ND (< LOD = 0.1 µg/kg)	µg/kg
Total Aflatoxins (B1+B2+G1+G2)	< 4	ND	µg/kg
ND = Not detected (< LOD) Method: TM-CA-004 Analysis Date: Feb. 15, 2023 – Feb. 16, 2023			

Foreign Matter		
Analyte	Specification	Result
Foreign Matter	Report	Not detected
Method: In-house method Analysis Date: Feb. 16, 2023 – Feb. 16, 2023		

Residual Solvent			
Analyte	Specification	Result	Unit
Acetone	< 5000	ND	µg/g
Anisole	< 5000	ND	µg/g
1-Butanol	< 5000	ND	µg/g
2-Butanol	< 5000	ND	µg/g
Butane	< 5000	ND	µg/g
Butyl acetate	< 5000	ND	µg/g
Tert-Butylmethyl ether	< 5000	ND	µg/g
Dimethyl Sulfoxide	< 5000	ND	µg/g
Ethanol	< 5000	ND	µg/g
Ethyl acetate	< 5000	ND	µg/g
Ethyl ether	< 5000	ND	µg/g
Ethyl formate	< 5000	ND	µg/g



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Heptane	< 5000	ND	µg/g
Isobutyl acetate	< 5000	ND	µg/g
Isopropyl acetate	< 5000	ND	µg/g
Methyl acetate	< 5000	ND	µg/g
3-Methyl-1-butanol	< 5000	ND	µg/g
Methyl ethyl ketone	< 5000	ND	µg/g
2-Methyl-1-propanol	< 5000	ND	µg/g
Pentane	< 5000	ND	µg/g
1-Pentanol	< 5000	ND	µg/g
1-Propanol	< 5000	ND	µg/g
2-Propanol	< 5000	ND	µg/g
Propane	< 5000	ND	µg/g
Propyl acetate	< 5000	ND	µg/g
Triethylamine	< 5000	ND	µg/g
ND = Not detected Method: TM-CA-010 Analysis Date: Feb. 16, 2023 – Feb. 17, 2023			

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Cheuk Kuen (Isaac) Lai
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Title: