

KCA Laboratories 232 North Plaza Drive Nicholasville, KY 40356

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1500mg/30ml Hemp Oil Extact

Sample ID: SA-230112-15657 Batch: January 2023 Type: Finished Products Matrix: Oil / Liquid - Hemp Seed Oil Unit Mass (g):		Collected: 01/12/2023 Received: 01/17/2023 Completed: 01/26/2023		Client GrassRoots Harvest 321 W. Ben White Blvd Austin, TX 78704 USA Lic. #: 2202-1417	
			Summary Test Cannabinoids	Date Tested 01/26/2023	Status Tested
2.06 mg/mL	HE DIL EXTREM Not Section 1 Sec	55.2 mg/mL	Not Tested	Not Tested	Yes
Total ∆9-THC	Total CBD	Total Cannabinoids	Moisture Content	Foreign Matter	Internal Standard Normalization
	Total CBD			Foreign Matter	
Cannabinoid				Foreign Matter Result (%)	
cannabinoid _{nalyte}	s by HPLC-PDA, I	LC-MS/MS, and/	or GC-MS/MS	Result	Normalization
cannabinoid nalyte BC	s by HPLC-PDA, I	LC-MS/MS, and/ LOQ (mg/mL)	or GC-MS/MS Result (mg/mL)	Result (%)	Result (mg/unit)
annabinoid nalyte BC BCA	s by HPLC-PDA, I LOD (mg/mL) 0.00095	LC-MS/MS, and/ LOQ (mg/mL) 0.00284	Vor GC-MS/MS Result (mg/mL) 1.52	Result (%) 0.168	Normalization Result (mg/unit) 45.5
annabinoid nalyte BC BCA BCV	s by HPLC-PDA, I LOD (mg/mL) 0.00095 0.00181	LC-MS/MS, and LOQ (mg/mL) 0.00284 0.00543	Vor GC-MS/MS Result (mg/mL) 1.52 ND	Result (%) 0.168 ND	Result (mg/unit) 45.5 ND
annabinoid nalyte BC BCA BCV BD	s by HPLC-PDA, I LOD (mg/mL) 0.00095 0.00181 0.0006	LC-MS/MS, and LOQ (mg/mL) 0.00284 0.00543 0.0018	Vor GC-MS/MS Result (mg/mL) 1.52 ND ND	Result (%) 0.168 ND ND ND	Result (mg/unit) 45.5 ND ND
annabinoid nalyte BC BCA BCV BD BDA	s by HPLC-PDA, I LOD (mg/mL) 0.00095 0.00181 0.0006 0.00081	LC-MS/MS, and LOQ (mg/mL) 0.00284 0.00543 0.0018 0.00242	Vor GC-MS/MS Result (mg/mL) 1.52 ND ND 49.7	Result (%) 0.168 ND ND 5.50	Normalization Result (mg/unit) 45.5 ND ND 1490
Cannabinoid nalyte BC BCA BCV BD BDA BDA BDV	s by HPLC-PDA, I LOD (mg/mL) 0.00095 0.00181 0.0006 0.00081 0.00043	LC-MS/MS, and LOQ (mg/mL) 0.00284 0.00543 0.0018 0.00242 0.0013	Vor GC-MS/MS Result (mg/mL) 1.52 ND ND 49.7 ND	Result (%) 0.168 ND ND 5.50 ND	Normalization Result (mg/unit) 45.5 ND ND 1490 ND
Cannabinoid nalyte BC BCA BCV BD BDA BDA BDV BDVA	s by HPLC-PDA, I LOD (mg/mL) 0.00095 0.00181 0.0006 0.00081 0.00043 0.00043 0.00061	LC-MS/MS, and LOQ (mg/mL) 0.00284 0.00543 0.0018 0.00242 0.0013 0.0013 0.00182	Yor GC-MS/MS Result (mg/mL) 1.52 ND ND 49.7 ND 0.151	Result (%) 0.168 ND ND 5.50 ND 0.0167	Normalization Result (mg/unit) 45.5 ND ND 1490 ND 4.54
Cannabinoid nalyte BC BCA BCV BD BDA BDA BDV BDVA BG	s by HPLC-PDA, I LOD (mg/mL) 0.00095 0.00181 0.0006 0.00081 0.00043 0.00043 0.00061 0.00021	LC-MS/MS, and/ LOQ (mg/mL) 0.00284 0.00543 0.0018 0.00242 0.0013 0.00182 0.00063	Yor GC-MS/MS Result (mg/mL) 1.52 ND ND 49.7 ND 0.151 ND	Result (%) 0.168 ND ND 5.50 ND 0.0167 ND	Normalization Result (mg/unit) 45.5 ND ND 1490 ND 4.54 ND
Cannabinoid nalyte BC BCA BCV BD BDA BDA BDV BDVA BG BGA	s by HPLC-PDA, I LOD (mg/mL) 0.00095 0.00181 0.0006 0.00081 0.00043 0.00043 0.00061 0.00021 0.00057	LC-MS/MS, and/ LOQ (mg/mL) 0.00284 0.00543 0.0018 0.00242 0.0013 0.0013 0.00182 0.00063 0.00172	Yor GC-MS/MS Result (mg/mL) 1.52 ND ND 49.7 ND 0.151 ND 0.831	Result (%) 0.168 ND ND 5.50 ND 0.0167 ND 0.0167 ND 0.0920	Normalization Result (mg/unit) 45.5 ND ND 1490 ND 4.54 ND 4.54 ND 24.9
Cannabinoid nalyte BC BCA BCV BD BDA BDA BDV BDVA BGA BGA BL	s by HPLC-PDA, I LOD (mg/mL) 0.00095 0.00181 0.0006 0.00081 0.00043 0.00043 0.00061 0.00021 0.00057 0.00049	LC-MS/MS, and/ LOQ (mg/mL) 0.00284 0.00543 0.0018 0.00242 0.0013 0.00182 0.00063 0.00172 0.00147	Yor GC-MS/MS Result (mg/mL) 1.52 ND ND 49.7 ND 0.151 ND 0.831 ND	Result (%) 0.168 ND ND 5.50 ND 0.0167 ND 0.0920 ND	Normalization Result (mg/unit) 45.5 ND ND 1490 ND 4.54 ND 24.9 ND
Cannabinoid nalyte BC BCA BCV BD BDA BDA BDA BDV BDVA BGA BGA BL BLA	s by HPLC-PDA, I LOD (mg/mL) 0.00095 0.00181 0.0006 0.00081 0.00043 0.00043 0.00043 0.00057 0.00057 0.00049 0.00112	LC-MS/MS, and/ LOQ (mg/mL) 0.00284 0.00543 0.0018 0.00242 0.0013 0.00182 0.00063 0.00172 0.00147 0.00335	Yor GC-MS/MS Result (mg/mL) 1.52 ND ND 49.7 ND 0.151 ND 0.831 ND 0.831 ND 0.104	Result (%) 0.168 ND ND 5.50 ND 0.0167 ND 0.0920 ND 0.0920 ND 0.0115	Normalization Result (mg/unit) 45.5 ND ND 1490 ND 4.54 ND 24.9 ND 24.9 ND 3.12
Cannabinoid malyte BC BCA BCV BD BDA BDA BDA BDA BDA BDA BDA BDA BDA	s by HPLC-PDA, I LOD (mg/mL) 0.00095 0.00181 0.0006 0.00081 0.00043 0.00043 0.00043 0.00057 0.00057 0.00049 0.00112 0.00124	LC-MS/MS, and/ LOQ (mg/mL) 0.00284 0.00543 0.0018 0.00242 0.0013 0.00182 0.00063 0.00172 0.00147 0.00335 0.00371	Yor GC-MS/MS Result (mg/mL) 1.52 ND ND 49.7 ND 0.151 ND 0.151 ND 0.831 ND 0.831 ND 0.104 ND	Result (%) 0.168 ND ND 5.50 ND 0.0167 ND 0.0167 ND 0.0920 ND 0.015 ND	Normalization Result (mg/unit) 45.5 ND ND 1490 ND 4.54 ND 24.9 ND 3.12 ND
Cannabinoid nalyte BC BCA BCV BD BDA BDA BDA BDA BDV BDVA BGA BGA BL BLA BN BNA	s by HPLC-PDA, I LOD (mg/mL) 0.00095 0.00181 0.0006 0.00081 0.00043 0.00043 0.00043 0.00057 0.00057 0.00049 0.00112 0.00124 0.00056	LC-MS/MS, and/ LOQ (mg/mL) 0.00284 0.00543 0.0018 0.00242 0.0013 0.00182 0.00063 0.00172 0.00147 0.00335 0.00371 0.00169	Yor GC-MS/MS Result (mg/mL) 1.52 ND ND 49.7 ND 0.151 ND 0.831 ND 0.831 ND 0.104 ND 0.139	Result (%) 0.168 ND ND 5.50 ND 0.0167 ND 0.0167 ND 0.0920 ND 0.015 ND 0.0154	Normalization Result (mg/unit) 45.5 ND ND 1490 ND 4.54 ND 24.9 ND 3.12 ND 4.18
Cannabinoid malyte BC BCA BCV BD BDA BDA BDA BDV BDVA BGA BGA BL BLA BN BNA BT	s by HPLC-PDA, I LOD (mg/mL) 0.00095 0.00181 0.0006 0.00081 0.00043 0.00043 0.00043 0.00057 0.00057 0.00049 0.00112 0.00124 0.00056 0.0006	LC-MS/MS, and/ LOQ (mg/mL) 0.00284 0.00543 0.0018 0.00242 0.0013 0.00182 0.00063 0.00172 0.00147 0.00335 0.00371 0.00169 0.00181	Yor GC-MS/MS Result (mg/mL) 1.52 ND ND 49.7 ND 0.151 ND 0.831 ND 0.831 ND 0.104 ND 0.139 ND	Result (%) 0.168 ND ND 5.50 ND 0.0167 ND 0.0167 ND 0.0920 ND 0.0155 ND 0.0154 ND	Normalization Result (mg/unit) 45.5 ND ND 1490 ND 4.54 ND 24.9 ND 3.12 ND 3.12 ND 4.18 ND
	s by HPLC-PDA, I LOD (mg/mL) 0.00095 0.00181 0.0006 0.00081 0.00043 0.00043 0.00043 0.00057 0.00057 0.00049 0.00112 0.00124 0.00056 0.0006 0.0006 0.0006 0.0008	LC-MS/MS, and/ LOQ (mg/mL) 0.00284 0.00543 0.0018 0.00242 0.0013 0.00182 0.00063 0.00172 0.00147 0.00335 0.00371 0.00147 0.00335 0.00371 0.00169 0.00181 0.0054	Yor GC-MS/MS Result (mg/mL) 1.52 ND ND 49.7 ND 0.151 ND 0.831 ND 0.104 ND 0.139 ND 0.666	Result (%) 0.168 ND ND 5.50 ND 0.0167 ND 0.0167 ND 0.0920 ND 0.015 ND 0.0154 ND 0.0154 ND 0.0737	Normalization Result (mg/unit) 45.5 ND ND 1490 ND 4.54 ND 24.9 ND 3.12 ND 3.12 ND 4.18 ND 20.0
Cannabinoid malyte BC BCA BCV BD BDA BDA BDV BDVA BDV BDVA BC BCA BCA BCA BCA BCA BCA BCA BCA BCA	s by HPLC-PDA, I LOD (mg/mL) 0.00095 0.00181 0.0006 0.00081 0.00043 0.00043 0.00043 0.00057 0.00057 0.00049 0.00112 0.00124 0.00056 0.0006 0.0006 0.0008 0.0018 0.00104	LC-MS/MS, and/ LOQ (mg/mL) 0.00284 0.00543 0.0018 0.00242 0.0013 0.00182 0.00063 0.00172 0.00147 0.00335 0.00371 0.00169 0.00181 0.0054 0.00312 0.00027	Yor GC-MS/MS Result (mg/mL) 1.52 ND 49.7 ND 0.151 ND 0.831 ND 0.104 ND 0.139 ND 0.139 ND 0.666 ND	Result (%) 0.168 ND ND 5.50 ND 0.0167 ND 0.0167 ND 0.0920 ND 0.015 ND 0.0154 ND 0.0154 ND 0.0737 ND	Result (mg/unit) 45.5 ND 1490 ND 45.4 ND 24.9 ND 3.12 ND 4.18 ND 20.0 ND
Cannabinoid malyte BC BCA BCV BD BDA BDA BDV BDVA BDV BDVA BC BCA BCA BL BLA BN BNA BT BNA BT BS-THC 9-THC	s by HPLC-PDA, I LOD (mg/mL) 0.00095 0.00181 0.0006 0.00081 0.00043 0.00043 0.00057 0.00057 0.00049 0.00112 0.00124 0.00056 0.0006 0.0006 0.0008 0.0018 0.00104 0.00104 0.00076	LC-MS/MS, and/ LOQ (mg/mL) 0.00284 0.00543 0.0018 0.00242 0.0013 0.00182 0.00063 0.00172 0.00147 0.00335 0.00371 0.00169 0.00181 0.0054 0.0054 0.00312	Yor GC-MS/MS Result (mg/mL) 1.52 ND ND 49.7 ND 0.151 ND 0.831 ND 0.104 ND 0.139 ND 0.139 ND 0.666 ND 2.06	Result (%) 0.168 ND ND 5.50 ND 0.0167 ND 0.0167 ND 0.0920 ND 0.0154 ND 0.0154 ND 0.0154 ND 0.0154 ND 0.0737 ND 0.228	Result (mg/unit) 45.5 ND 1490 ND 45.4 ND 24.9 ND 3.12 ND 4.18 ND 20.0 ND 61.7
Cannabinoid malyte BC BCA BCV BDA BDA BDA BDA BDA BDA BDA BDA BDA BDA	s by HPLC-PDA, I LOD (mg/mL) 0.00095 0.00181 0.0006 0.00081 0.00043 0.00043 0.00057 0.00057 0.00057 0.00049 0.00112 0.00124 0.00124 0.00056 0.0006 0.0018 0.0016 0.0016 0.0016 0.0016 0.0016 0.0016 0.0016 0.0016 0.0016 0.0006 0.0018 0.0016 0.0006 0.0012 0.0006 0.0012 0.0005 0.0012 0.0012 0.0005 0.0012 0.0005 0.0012 0.0005 0.0012 0.0005 0.0012 0.0012 0.0005 0.0012 0.0005 0.0012 0.0005 0.0012 0.0005 0.0012 0.0005 0.0012 0.0005 0.0012 0.0005 0.0012 0.0005 0.0012 0.0005 0.0012 0.0005 0.0012 0.0005 0.0012 0.0005 0.00012 0.0005 0.00012 0.0005 0.00012 0.0005 0.00012 0.0005 0.00012 0.0005 0.00012 0.0005 0.0008 0.0005 0.0005 0.0002 0.0005 0.0	LC-MS/MS, and/ LOQ (mg/mL) 0.00284 0.00543 0.0018 0.00242 0.0013 0.00182 0.00063 0.00172 0.00147 0.00335 0.00371 0.00169 0.00181 0.0054 0.00312 0.0054 0.00312 0.00227 0.00251	Yor GC-MS/MS Result (mg/mL) 1.52 ND ND 49.7 ND 0.151 ND 0.151 ND 0.831 ND 0.104 ND 0.104 ND 0.139 ND 0.666 ND 2.06 ND	Result (%) 0.168 ND ND 5.50 ND 0.0167 ND 0.0167 ND 0.0167 ND 0.0920 ND 0.0154 ND 0.0154 ND 0.0154 ND 0.0154 ND 0.0737 ND 0.228 ND	Result (mg/unit) 45.5 ND 1490 ND 45.5 ND 1490 ND 3.12 ND 4.18 ND 20.0 ND 61.7 ND
Cannabinoid analyte BC BCA BCV BDA BDA BDA BDA BDA BDA BDA BDA	s by HPLC-PDA, I LOD (mg/mL) 0.00095 0.00181 0.0006 0.00081 0.00043 0.00043 0.00043 0.00057 0.00057 0.00057 0.00057 0.00049 0.00112 0.00124 0.00124 0.00056 0.0006 0.0018 0.00104 0.00104 0.00076 0.00084 0.00069	LC-MS/MS, and/ LOQ (mg/mL) 0.00284 0.00543 0.0018 0.00242 0.0013 0.00182 0.00063 0.00172 0.00147 0.00335 0.00371 0.00169 0.00181 0.0054 0.00312 0.0054 0.00312 0.0027 0.00251 0.00206	Yor GC-MS/MS Result (mg/mL) 1.52 ND ND 49.7 ND 0.151 ND 0.331 ND 0.104 ND 0.139 ND 0.104 ND 0.139 ND 0.666 ND 2.06 ND 2.06 ND ND ND ND	Result (%) 0.168 ND ND 5.50 ND 0.0167 ND 0.0167 ND 0.0167 ND 0.0920 ND 0.0154 ND 0.0154 ND 0.0154 ND 0.0737 ND 0.0228 ND ND 0.228 ND ND	Result (mg/unit) 45.5 ND 1490 ND 45.4 ND 24.9 ND 3.12 ND 4.18 ND 20.0 ND 61.7 ND ND
Cannabinoid analyte BC BCA BCV BDA BDA BDA BDA BDA BDA BDA BDA	s by HPLC-PDA, I LOD (mg/mL) 0.00095 0.00181 0.0006 0.00081 0.00043 0.00043 0.00043 0.00057 0.00057 0.00057 0.00057 0.00049 0.00112 0.00124 0.00124 0.00056 0.0006 0.0018 0.00104 0.00104 0.00076 0.00084 0.00069	LC-MS/MS, and/ LOQ (mg/mL) 0.00284 0.00543 0.0018 0.00242 0.0013 0.00182 0.00063 0.00172 0.00147 0.00335 0.00371 0.00169 0.00181 0.0054 0.00312 0.0054 0.00312 0.0027 0.00251 0.00206	Yor GC-MS/MS Result (mg/mL) 1.52 ND ND 49.7 ND 0.151 ND 0.151 ND 0.331 ND 0.104 ND 0.139 ND 0.104 ND 0.139 ND 0.6666 ND 2.06 ND 2.06 ND ND ND ND ND ND ND ND 0.151 ND 0.151 ND 0.154 ND 0.154 ND 0.154 ND 0.154 ND 0.155 ND 0.154 ND 0.155 ND 0.154 ND 0.154 ND 0.154 ND 0.154 ND 0.154 ND 0.155 ND 0.154 ND 0.154 ND 0.154 ND 0.155 ND 0.154 ND 0.154 ND 0.154 ND 0.154 ND 0.154 ND 0.154 ND 0.154 ND 0.154 ND 0.154 ND 0.154 ND 0.154 ND 0.154 ND 0.156 ND 0.156 ND 0.154 ND 0.156 ND 0.156 ND 0.156 ND 0.5666 ND 2.066 ND 0.00 ND 0.00 ND 0.056 0.056 ND 0.056 ND 0.056 0.056 ND 0.056 ND 0.056 ND 0.056 ND 0.056 ND 0.056 ND 0.056 ND 0.056 ND 0.056 ND 0.056 ND 0.056 ND 0.056 ND 0.056 ND 0.056 ND 0.056 ND 0.056 ND 0.056 ND 0.056 ND 0.056 ND 0.0566 ND 0.0566 ND 0.0566 ND 0.0566 ND 0.0566 ND 0.0566 ND 0.0566 ND 0.0566 ND 0.0566 ND 0.0566	Result (%) 0.168 ND ND 5.50 ND 0.0167 ND 0.0167 ND 0.0167 ND 0.015 ND 0.0154 ND 0.0737 ND 0.228 ND ND ND ND	Result (mg/unit) 45.5 ND 1490 ND 45.4 ND 24.9 ND 3.12 ND 4.18 ND 20.0 ND 61.7 ND ND ND

ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; RL = Reporting Limit; Δ = Delta; Total Δ 9-THC = Δ 9-THCA * 0.877 + Δ 9-THC; Total CBD = CBDA * 0.877 + CBD;

Generated By: Ryan Bellone CCO Date: 01/26/2023

Tested By: Nicholas Howard Scientist Date: 01/26/2023



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