KCA Laboratories
232 North Plaza Drive
Nicholasville, KY 40356

+1-833-KCA-LABS
https://kcalabs.com
KDA Lic.# P_0058

Certificate of Analysis

H4-CBD GVL-TST511

Sample ID: SA-230208-16763
Batch:
Type: Finished Products
Matrix: Concentrate - Distillate
Unit Mass (g):

Received: 02/13/2023
Completed: 02/23/2023

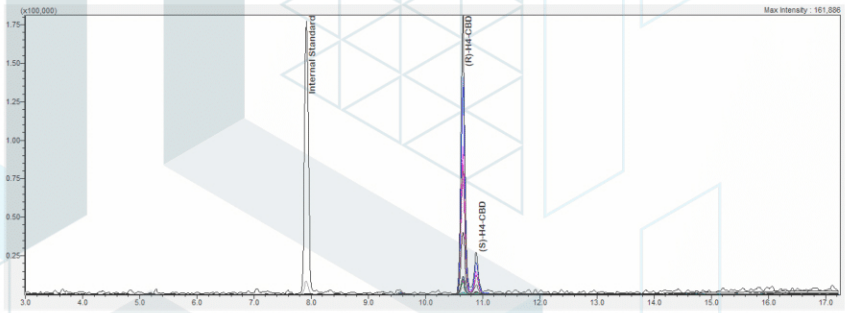
Summary

Test	Date Tested	Status
Cannabinoids	02/23/2023	Tested
Heavy Metals	02/14/2023	Tested
Microbials	02/15/2023	Tested
Pesticides	02/15/2023	Tested
Residual Solvents	02/21/2023	Tested

ND	85.1 %	98.0 %	Not Tested	Not Tested	Yes
Total Δ9-THC	9R-H4-CBD	Total Cannabinoids	Moisture Content	Foreign Matter	Internal Standard Normalization

Cannabinoids by HPLC-PDA, LC-MS/MS, and/or GC-MS/MS

Analyte	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)
CBC	0.0095	0.0284	ND	ND
CBCV	0.006	0.018	ND	ND
CBD	0.0081	0.0242	ND	ND
CBDV	0.0061	0.0182	ND	ND
CBG	0.0057	0.0172	ND	ND
CBL	0.0112	0.0335	ND	ND
CBN	0.0056	0.0169	ND	ND
CBT	0.018	0.054	ND	ND
Δ8-THC	0.0104	0.0312	ND	ND
Δ9-THC	0.0076	0.0227	ND	ND
Δ9-THCV	0.0069	0.0206	ND	ND
9R-H4-CBD	0.0067	0.02	85.1	851
9S-H4-CBD	0.0067	0.02	12.9	129
Total Δ9-THC			**ND**	**ND**
Total CBD			**ND**	**ND**
Total			**98.0**	**980**



ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; RL = Reporting Limit; Δ = Delta; Total Δ9-THC = Δ9-THCA * 0.877 + Δ9-THC; Total CBD = CBDA * 0.877 + CBD;

Generated By: Ryan Bellone
CCO
Date: 02/23/2023

Tested By: Scott Caudill
Senior Scientist
Date: 02/23/2023

ISO/IEC 17025:2017 Accredited
Accreditation #108651

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Heavy Metals by ICP-MS

Analyte	LOD (ppb)	LOQ (ppb)	Result (ppb)
Arsenic	2	20	ND
Cadmium	1	20	ND
Lead	2	20	ND
Mercury	12	50	ND

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Date: 02/23/2023

Tested By: Kelsey Rogers
Scientist
Date: 02/14/2023

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Pesticides by LC-MS/MS

Analyte	LOD (ppb)	LOQ (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Result (ppb)
Acephate	30	100	ND	Hexythiazox	30	100	ND
Acetamiprid	30	100	ND	Imazalil	30	100	ND
Aldicarb	30	100	ND	Imidacloprid	30	100	ND
Azoxystrobin	30	100	ND	Kresoxim methyl	30	100	ND
Bifenazate	30	100	ND	Malathion	30	100	ND
Bifenthrin	30	100	ND	Metalaxyl	30	100	ND
Boscalid	30	100	ND	Methiocarb	30	100	ND
Carbaryl	30	100	ND	Methomyl	30	100	ND
Carbofuran	30	100	ND	Mevinphos	30	100	ND
Chloranthraniliprole	30	100	ND	Myclobutanil	30	100	ND
Chlorfenapyr	30	100	ND	Naled	30	100	ND
Chlorpyrifos	30	100	ND	Oxamyl	30	100	ND
Clofentezine	30	100	ND	Paclobutrazol	30	100	ND
Coumaphos	30	100	ND	Permethrin	30	100	ND
Daminozide	30	100	ND	Phosmet	30	100	ND
Diazinon	30	100	ND	Piperonyl Butoxide	30	100	ND
Dichlorvos	30	100	ND	Prallethrin	30	100	ND
Dimethoate	30	100	ND	Propiconazole	30	100	ND
Dimethomorph	30	100	ND	Propoxur	30	100	ND
Ethoprophos	30	100	ND	Pyrethrins	30	100	ND
Etofenprox	30	100	ND	Pyridaben	30	100	ND
Etoxazole	30	100	ND	Spinetoram	30	100	ND
Fenhexamid	30	100	ND	Spinosad	30	100	ND
Fenoxycarb	30	100	ND	Spiromesifen	30	100	ND
Fenpyroximate	30	100	ND	Spirotetramat	30	100	ND
Fipronil	30	100	ND	Spiroxamine	30	100	ND
Flonicamid	30	100	ND	Tebuconazole	30	100	ND
Fludioxonil	30	100	ND	Thiacloprid	30	100	ND
				Thiamethoxam	30	100	ND
				Trifloxystrobin	30	100	ND

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CCO
Date: 02/23/2023

Tested By: Jasper van Heemst
Principal Scientist
Date: 02/15/2023

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Microbials by PCR and Plating

Analyte	LOD (CFU/g)	Result (CFU/g)
Total aerobic count	1	ND
Total coliforms	1	ND
Generic E. coli	1	ND
Salmonella spp.	1	ND
Shiga-toxin producing E. coli (STEC)	1	ND

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Generated By: Ryan Bellone
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Date: 02/23/2023

Tested By: Lucy Jones
Scientist
Date: 02/15/2023

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Residual Solvents by HS-GC-MS

Analyte	LOD (ppm)	LOQ (ppm)	Result (ppm)	Analyte	LOD (ppm)	LOQ (ppm)	Result (ppm)
Acetone	167	500	ND	Ethylene Glycol	21	62	ND
Acetonitrile	14	41	ND	Ethylene Oxide	0.5	1	ND
Benzene	0.5	1	ND	Heptane	167	500	ND
Butane	167	500	ND	n-Hexane	10	29	ND
1-Butanol	167	500	ND	Isobutane	167	500	ND
2-Butanol	167	500	ND	Isopropyl Acetate	167	500	ND
2-Butanone	167	500	ND	Isopropyl Alcohol	167	500	ND
Chloroform	2	6	ND	Isopropylbenzene	167	500	ND
Cyclohexane	129	388	ND	Methanol	100	300	ND
1,2-Dichloroethane	0.5	1	ND	2-Methylbutane	10	29	ND
1,2-Dimethoxyethane	4	10	ND	Methylene Chloride	20	60	ND
Dimethyl Sulfoxide	167	500	ND	2-Methylpentane	10	29	ND
N,N-Dimethylacetamide	37	109	ND	3-Methylpentane	10	29	ND
2,2-Dimethylbutane	10	29	ND	n-Pentane	167	500	ND
2,3-Dimethylbutane	10	29	ND	1-Pentanol	167	500	ND
N,N-Dimethylformamide	30	88	ND	n-Propane	167	500	ND
2,2-Dimethylpropane	167	500	ND	1-Propanol	167	500	ND
1,4-Dioxane	13	38	ND	Pyridine	7	20	ND
Ethanol	167	500	ND	Tetrahydrofuran	24	72	ND
2-Ethoxyethanol	6	16	ND	Toluene	30	89	ND
Ethyl Acetate	167	500	ND	Trichloroethylene	3	8	ND
Ethyl Ether	167	500	ND	Tetramethylene Sulfone	6	16	ND
Ethylbenzene	3	7	ND	Xylenes (o-, m-, and p-)	73	217	ND

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Tested By: Scott Caudill
Senior Scientist
Date: 02/21/2023