



# PERRY JOHNSON LABORATORY ACCREDITATION, INC.

## *Certificate of Accreditation*

*Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:*

### ***KCA Laboratories***

**232 North Plaza Drive, Nicholasville, KY 40356**

*(Hereinafter called the Organization) and hereby declares that Organization is accredited  
in accordance with the recognized International Standard:*

### **ISO/IEC 17025:2017**

This accreditation demonstrates technical competence for a defined scope and the  
operation of a laboratory quality management system  
(as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

### ***Chemical and Microbiological Testing*** ***(As detailed in the supplement)***

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen  
President

*Initial Accreditation Date:*

October 10, 2020

*Issue Date:*

October 28, 2022

*Expiration Date:*

December 31, 2024

*Accreditation No.:*

108651

*Certificate No.:*

L22-715

Perry Johnson Laboratory  
Accreditation, Inc. (PJLA)  
755 W. Big Beaver, Suite 1325  
Troy, Michigan 48084

*The validity of this certificate is maintained through ongoing assessments based on a  
continuous accreditation cycle. The validity of this certificate should be  
confirmed through the PJLA website: [www.pjilabs.com](http://www.pjilabs.com)*



# Certificate of Accreditation: Supplement

## KCA Laboratories

232 North Plaza Drive, Nicholasville, KY 40356  
Contact Name: Alex Morris Phone: 833-522-5227

*Accreditation is granted to the facility to perform the following testing:*

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	RANGE (WHERE APPROPRIATE) AND DETECTION LIMIT
Chemical	Cannabis Plant Materials Cannabis Concentrates Cannabis Oils Cannabis-Infused Products Food Urine Blood (Plasma and Serum)	<b>Cannabinoids:</b> (6aR,9R)- $\Delta$ 10-THC (6aR,9R,10aR)-HHC (6aR,9S)- $\Delta$ 10-THC (6aR,9S,10aR)-HHC (9R)-H4-CBD (9R)-HHCP (9S)-H4-CBD (9S)-HHCP 11-OH- $\Delta$ 9-THC 11-nor-9-COOH- $\Delta$ 9-THC 7-COOH-CBD 7-OH-CBD 9 $\alpha$ -OH-HHC 9 $\beta$ -OH-HHC Abnormal CBD CBC CBCA CBCV CBD CBDA CBDP CBDV CBDVA CBE CBG CBGA CBGV CBL CBLA CBN CBN acetate CBNA CBT exo-THC $\Delta$ 4,8-iso-THC $\Delta$ 6a,10a-THC $\Delta$ 8-iso-THC $\Delta$ 8-THC $\Delta$ 8-THC acetate $\Delta$ 8-THC-C8 $\Delta$ 8-THCP $\Delta$ 8-THCV $\Delta$ 9-THCV	<b>HPLC-PDA</b> TP-400  <b>GC-MS/MS</b> TP-402  <b>LC-MS/MS</b> TP-401 TP-404	HPLC-PDA LOD = 0.02%  GC-MS/MS LOD = 0.067%  LC-MS/MS LOD = 0.1 ppm LOD = 0.02 ppm



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Chemical <sup>F</sup>	Cannabis Plant Materials Cannabis Concentrates Cannabis Oils Cannabis-Infused Products Food Urine Blood (Plasma and Serum)	<b>Cannabinoids:</b> Δ9-cis-THC Δ9-THC Δ9-THC acetate Δ9-THCA Δ9-THCB Δ9-THCH Δ9-THCP Δ9-THCVA	<b>HPLC-PDA</b> TP-400  <b>GC-MS/MS</b> TP-402  <b>LC-MS/MS</b> TP-401 TP-404	<b>HPLC-PDA</b> LOD = 0.02%  <b>GC-MS/MS</b> LOD = 0.067%  <b>LC-MS/MS</b> LOD = 0.1 ppm LOD = 0.02 ppm
	Cannabis Plant Materials Cannabis Concentrates	Moisture Content	<b>Moisture Balance</b> TP-205	Range 0.5% to 90%
	Cannabis Oils Cannabis-Infused Products	<b>Heavy Metals:</b> Arsenic Cadmium Mercury Lead	<b>ICP-MS</b> TP-403	<b>LOD</b> As: 2 ppb Cd: 2 ppb Hg: 12 ppb Pb: 2 ppb
	Cannabis Concentrates	<b>Noble Metals + Nickel:</b> Nickel Palladium Platinum Rhodium Ruthenium	<b>ICP-MS</b> TP-409	<b>LOD = 3 ppb</b>
	Cannabis Plant Materials Cannabis Concentrates Cannabis Oils Cannabis-Infused Products	<b>Residual Solvents:</b> 1,2-Dichloroethane 1,2-Dimethoxyethane 1,4-Dioxane 1-Butanol 1-Pentanol 1-Propanol 2,2-Dimethylbutane 2,2-Dimethylpropane 2,3-Dimethylbutane 2-Butanol 2-Butanone 2-Ethoxyethanol 2-Methylbutane 2-Methylpentane 3-Methylpentane	<b>HS-GC-MS</b> TP-407	<b>LOD = 1 ppm</b>



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Chemical <sup>F</sup>	Cannabis Plant Materials Cannabis Concentrates Cannabis Oils Cannabis-Infused Products	<b>Residual Solvents:</b> Acetone Acetonitrile Benzene Butane Chloroform Cyclohexane Dimethyl Sulfoxide Ethanol Ethyl Acetate Ethyl Ether Ethylbenzene Ethylene Glycol Ethylene Oxide Heptane Isobutane Isopropyl Acetate Isopropyl Alcohol Isopropylbenzene (Cumene) Methanol Methylene Chloride N, N-Dimethylacetamide N, N-Dimethylformamide n-Hexane n-Pentane n-Propane Pyridine Tetrahydrofuran Tetramethylene Sulfone Toluene Trichloroethylene Xylenes (o-, m-, and p-)	<b>HS-GC-MS</b> TP-407	<b>LOD = 1 ppm</b>
	Plant Materials Cannabis Concentrates Cannabis Oils Cannabis-Infused Products	<b>Mycotoxins:</b> Aflatoxin B1 Aflatoxin B2 Aflatoxin G1 Aflatoxin G2 Ochratoxin A	<b>LC-MS/MS</b> TP-408	<b>LOD = 0.3 ppb</b>



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Chemical <sup>F</sup>	Plant Materials Cannabis Concentrates Cannabis Oils Cannabis-Infused Products	<b>Pesticides:</b> Abamectin Acephate Acequinocyl Acetamiprid Aldicarb Azoxystrobin Bifenazate Bifenthrin Boscalid Carbaryl Carbofuran Chloranthraniliprole Chlorfenapyr Chlorpyrifos Clofentezine Coumaphos Daminozide Diazinon Dichlorvos Dimethoate Dimethomorph Ethoprophos Etofenprox Etoxazole Fenhexamid Fenoxycarb Fenpyroximate Fipronil Flonicamid Fludioxonil Hexythiazox Imazalil Imidacloprid Kresoxim methyl Malathion Metalaxyl Methiocarb Methomyl Mevinphos Myclobutanil Naled Oxamyl Paclobutrazol Permethrins	LC-MS/MS TP-408	LOD = 3 ppb  10 ppb Daminozide Fludioxonil Naled



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Chemical <sup>F</sup>	Plant Materials Cannabis Concentrates Cannabis Oils Cannabis-Infused Products	<b>Pesticides:</b> Phosmet Piperonyl Butoxide Prallethrin Propiconazole Propoxur Pyrethrins Pyridaben Spinetoram Spinosad Spiromesifen Spirotetramat Spiroxamine Tebuconazole Thiacloprid Thiamethoxam Trifloxystrobin	<b>LC-MS/MS</b> TP-408	<b>LOD = 3 ppb</b>  10 ppb Daminozide Fludioxonil Naled
Microbiological <sup>F</sup>	Cannabis Plant Materials Cannabis Concentrates Cannabis Oils Cannabis-Infused Products Food Environmental Water	Aerobic Plate Count Enterobacteriaceae Generic <i>E. coli</i> Total Coliforms Total Yeast and Mold	<b>3M Petrifilm</b> TP-506 TP-507 TP-508 TP-509	<b>LOD = 10 CFU/g</b> Cannabis: 10 CFU/g Food: 10 CFU/25g Environmental: 1 CFU/area of surface tested Water: 1 CFU/mL
	Cannabis Plant Materials Cannabis Concentrates Cannabis Oils Cannabis-Infused Products Food Environmental Sponges Water	Enterohemorrhagic <i>E. coli</i> (EHEC) <i>Listeria monocytogenes</i> <i>Listeria spp.</i> <i>Salmonella spp.</i> Shiga toxin-producing <i>E. coli</i> (STEC)	<b>PCR</b> TP-405 TP-406 TP-410 TP-411 TP-412 TP-413	<b>LOD = 1 CFU/g</b>

1. The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer<sup>F</sup> would mean that the laboratory performs this testing at its fixed location.