

Order #: 39567 Order Name: Koi Naturals Lemon Lime 1000 mg Batch#: 9305NLL1K Received: 11/06/2019 Completed: 11/11/2019



Koi CBD LLC 14631 Best Ave Norwalk California, 90650 (877) 774-4779 morgan@koicbd.com



#### Sample



N/D D9-THC 3.770% Total CBD

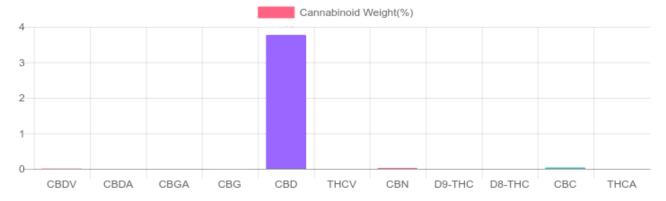
1,088.7 mg Cannabinoids per unit 1,068.9 mg CBD per unit

1 unit = 30 ml per unit x density (0.945) x Cannabinoid concentration

#### Cannabinoids Test

SHIMADZU INTEGRATED UPLC-PDA

GSL SOP 400	PREPARED: 11/08/2019 16:57:47		UPLOADED: 11/	09/2019 09:03:10
Cannabinoids	LOQ	weight(%)	mg/g	mg/unit
D9-THC	10 PPM	N/D	N/D	N/D
THCA	10 PPM	N/D	N/D	N/D
CBD	10 PPM	3.770%	37.702	1,068.9
CBDA	20 PPM	N/D	N/D	N/D
CBDV	20 PPM	0.007%	0.069	2.0
CBC	10 PPM	0.039%	0.386	10.9
CBN	10 PPM	0.023%	0.227	6.4
CBG	10 PPM	0.002%	0.019	0.5
CBGA	20 PPM	N/D	N/D	N/D
D8-THC	10 PPM	N/D	N/D	N/D
THCV	10 PPM	N/D	N/D	N/D
TOTAL D9-THC		N/D	N/D	N/D
TOTAL CBD*		3.770%	37.702	1,068.9
TOTAL CANNABINOIDS		3.841%	38.403	1,088.7



Reporting Limit 10 ppm
\*Total CBD = CBD + CBDA x 0.877
N/D - Not Detected, B/LOQ - Below Limit of Quantification

Dr. Andrew Hall, Ph.D., Chief Scientific Officer

Ben Witten, MS, MT., Lab Director

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GSL SOP 404

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**TERPENES: TOTAL (0.610%)** 

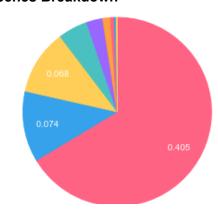
Headspace GCMS - Shimadzu GCMS QP2020 with HS20

Terpene	Results (%)	LOQ (%)	LOD (%)
ALPHA-PINENE	0.017%	0.0067%	0.0063%
BETA-PINENE	0.074%	0.0067%	0.0063%
CAMPHENE	B/LOQ	0.0067%	0.0063%
CIS-BETA-OCIMENE	B/LOQ	0.0067%	0.0031%
GAMMATERPINENE	0.068%	0.0067%	0.0016%
LIMONENE	0.405%	0.0067%	0.0063%
P-CYMENE	0.008%	0.0067%	0.0063%
TERPINOLENE	0.031%	0.0067%	0.0063%
TRANS-BETA-OCIMENE	B/LOQ	0.0067%	0.0031%

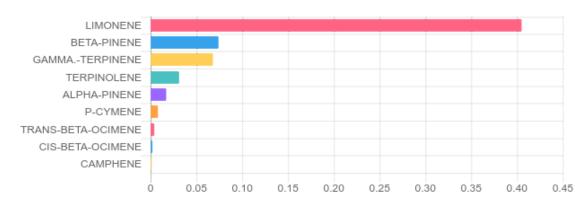
## **Terpenes Breakdown**

Prepared: 11/07/2019 12:49:32

Uploaded: 11/08/2019 08:29:57



## **Top Terpenes Results:**



#### Tested for but not present:

BETA-MYRCENE, 3-CARENE, ALPHA-TERPINENE, LINALOOL, ISOPULEGOL, GERANIOL, CARYOPHYLLENE, HUMULENE, CIS-NEROLIDOL, TRANS-NEROLIDOL, GUAIOL, CARYOPHYLLENE OXIDE, ALPHA-BISABOLOL

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## **PESTICIDE ANALYSIS:**

GSL SOP 401 PREPARED: 11/07/2019 13:01:03 UPLOADED: 11/08/2019 13:52:57

GCMS-MS - Shimadzu GCMS-TQ8040

Pesticide	Action Level (ppm)	Results (ppm)	LOQ (ppm)	LOD (ppm)
CAPTAN	0.700	N/D	0.003	0.001
CHLORDANE	0.100	N/D	0.003	0.001
CHLORFENAPYR	0.100	N/D	0.003	0.001
COUMAPHOS	0.100	N/D	0.003	0.001
CYFLUTHRIN	2.000	N/D	0.003	0.001

Pesticide	Action Leve (ppm)	l Results (ppm)	LOQ (ppm)	
CYPERMETHRIN	1.000	N/D	0.003	0.001
FIPRONIL	0.100	N/D	0.003	0.001
FLUDIOXONIL	0.100	N/D	0.003	0.001
PARATHION-METHYL	0.100	N/D	0.003	0.001
PENTACHLORONITROBENZENE	0.100	N/D	0.003	0.001

LCMS-MS - Shimadzu LCMS-8060

Pesticide	Action Level (ppm)	Results (ppm)	LOQ (ppm)	LOD (ppm)	Pesticide	Action Level (ppm)	Results (ppm)	LOQ (ppm)	LOD (ppm)
ABAMECTIN B1A	0.100	N/D	0.005	0.001	IMIDACLOPRID	5.000	N/D	0.005	0.001
ACEPHATE	0.100	N/D	0.001	0.001	KRESOXIM-METHYL	0.100	N/D	0.010	0.005
ACEQUINOCYL	0.100	N/D	0.001	0.001	MALATHION	0.500	N/D	0.005	0.001
ACETAMIPRID	0.100	N/D	0.005	0.001	METALAXYL	2.000	N/D	0.001	0.001
ALDICARB	0.100	N/D	0.005	0.001	METHIOCARB	0.100	N/D	0.005	0.001
AZOXYSTROBIN	0.100	N/D	0.001	0.001	METHOMYL	1.000	N/D	0.001	0.001
BIFENAZATE	0.100	N/D	0.005	0.001	MEVINPHOS	0.100	N/D	0.001	0.001
BIFENTHRIN	3.000	N/D	0.005	0.001	MYCLOBUTANIL	0.100	N/D	0.005	0.001
BOSCALID	0.100	N/D	0.005	0.001	NALED	0.100	N/D	0.005	0.001
CARBARYL	0.500	N/D	0.003	0.001	OXAMYL	0.500	N/D	0.001	0.001
CARBOFURAN	0.100	N/D	0.001	0.001	PACLOBUTRAZOL	0.100	N/D	0.005	0.001
CHLORANTRANILIPROLE	10.000	N/D	0.005	0.005	PERMETHRINS	0.500	N/D	0.005	0.001
CHLORPYRIFOS	0.100	N/D	0.001	0.001	PHOSMET	0.100	N/D	0.005	0.001
CLOFENTEZINE	0.100	N/D	0.001	0.001	PIPERONYL	3.000	N/D	0.001	0.001
DAMINOZIDE	0.100	N/D	0.005	0.001	BUTOXIDE	3.000	N/D	0.001	0.001
DIAZANON	0.100	N/D	0.001	0.001	PRALLETHRIN	0.100	N/D	0.005	0.005
DICHLORVOS	0.100	N/D	0.005	0.001	PROPICONAZOLE	0.100	N/D	0.010	0.005
DIMETHOATE	0.100	N/D	0.001	0.001	PROPOXUR	0.100	N/D	0.001	0.001
DIMETHOMORPH ETHOPROPHOS	2.000 0.100	N/D N/D	0.005 0.001	0.001 0.001	PYRETHRINS (PYRETHRIN I)	0.500	N/D	0.005	0.005
ETOFENPROX	0.100	N/D	0.001	0.001	PYRIDABEN	0.100	N/D	0.005	0.001
ETOXAZOLE	0.100	N/D	0.010	0.005	SPINETORAM	0.100	N/D	0.001	0.001
FENHEXAMID	0.100	N/D	0.005	0.001	SPINOSAD	0.100	N/D	0.001	0.001
FENOXYCARB	0.100	N/D	0.005	0.001	SPIROMESIFEN	0.100	N/D	0.005	0.001
FENPYROXIMATE	0.100	N/D	0.001	0.001	SPIROTETRAMAT	0.100	N/D	0.001	0.001
FLONICAMID	0.100	N/D	0.025	0.010	SPIROXAMINE	0.100	N/D	0.001	0.001
HEXYTHIAZOX	0.100	N/D	0.005	0.001	TEBUCONAZOLE	0.100	N/D	0.005	0.001
IMAZALIL	0.100	N/D	0.005	0.001	THIACLOPRID	0.100	N/D	0.001	0.001
					THIAMETHOXAM	5.000	N/D	0.001	0.001
					TRIFLOXYSTROBIN	0.100	N/D	0.001	0.001

N/D = Not Detected, A/LOQ = Above LOQ Level, B/LOQ = Below LOQ Level, B/LOD = Below LOD Level

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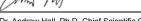
## **RESIDUAL SOLVENTS:**

Headspace GCMS - Shimadzu GCMS QP2020 with HS20

GSL SOP 405

Prepared: 11/07/2019 12:54:19 Uploaded: 11/08/2019 08:04:30

Residual Solvent	Action Level (ppm)	Results (ppm)	LOQ (ppm)	LOD (ppm)
ACETONE	5,000	N/D	140	20
ACETONITRILE	410	N/D	25	1
BENZENE	1	N/D	1	0.5
BUTANE	5,000	N/D	50	10
CHLOROFORM	1	N/D	1	0.5
DICHLOROETHANE	1	N/D	1	0.5
DICHLOROMETHANE	1	N/D	1	0.5
ETHANOL	5,000	N/D	140	20
ETHYL ACETATE	5,000	N/D	140	20
ETHYL ETHER	5,000	N/D	140	20
ISOPROPYL ALCOHOL	5,000	N/D	140	20
METHANOL	3,000	N/D	100	20
N-HEPTANE	5,000	N/D	140	20
N-HEXANE	290	N/D	18	10
PENTANE	5,000	N/D	140	20
PROPANE	5,000	N/D	20	1
TOLUENE	890	N/D	53	1
TRICHLOROETHENE	1	N/D	0	0
XYLENES	2,170	N/D	130	20



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## **Microbial Analysis:**

Microbial Analysis GSL SOP 406

Uploaded: 11/09/2019 15:21:57

PCR - Agilent AriaMX  Test	Test Method Used	Device Used	LOD	Allowable Criteria	Actual Result	Pass/Fail
STEC E.COLI*	USP 61/62†	ARIAMX PCR	2 COPIES OF DNA	PRESENCE / ABSENT	BELOW LOD	PASS
SALMONELLA*	USP 61/62†	ARIAMX PCR	5 COPIES OF DNA	PRESENCE / ABSENT	BELOW LOD	PASS
ASPERGILLUS	USP 61/62†	ARIAMX PCR	ASP_LOD***	PRESENCE / ABSENT	BELOW LOD	PASS
YEAST AND MOLD	USP 61/62†	ARIAMX PCR	363.05518 CFU/G**	1,000	BELOW THRESHOLD	PASS
TOTAL AEROBIC BACTERIA	USP 61/62†	ARIAMX PCR	0.25316 CFU/G**	10,000	4,663,735.526	FAIL
COLIFORM	USP 61/62†	ARIAMX PCR	3.41539 CFU/G**	100	3,018,893.726	FAIL
ENTEROBACTERIACEAE	USP 61/62†	ARIAMX PCR	0.32951 CFU/G**	100	443,221.547	FAIL

<sup>†</sup> USP 61 (enumeration of bacteria TAC, TYM, and ENT/Coliform), USP 62 (identifying specific species E.coli Aspergillus etc) \* STEC and Salmonella run as Multiplex

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<sup>\*\*</sup> CFU/g Calculation based on Select Category Type Gummy MIP/Extract Flower matrix

<sup>\*\*\*</sup> Flavus = 2 Copies of DNA / Fumigatis = 2 Copies of DNA Niger = 20 Copies of DNA / Terrus = 10 copies of DNA



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## **Mycotoxin Analysis:**

LC-MS - Shimadzu LCMS-8060 GSL SOP 401

Uploaded: 11/08/2019 13:52:57

Analyte	Action LvI (ppb)	Results (ppb)
AFLATOXIN B1	20	N/D
AFLATOXIN B2	20	N/D
AFLATOXIN G1	20	N/D
AFLATOXIN G2	20	N/D
OCHRATOXIN A	20	N/D

LOQ is 4ppb, LOD is 1ppb

## **Heavy Metals Analysis:**

ICP-MS - Shimadzu ICPMS-2030

GSL SOP 403

Uploaded: 11/11/2019 21:59:02

Metal	Action Level (ppb)	Result (ppb)
ARSENIC (AS)	200	B/LOQ
CADMIUM (CD)	200	B/LOQ
MERCURY (HG)	100	B/LOQ
LEAD (PB)	500	B/LOQ

Lower Limit of Quantitation (LOQ) is 75 ppb

## Water Activity:

HD-3A Water Activity Meter - GSL SOP 407

Uploaded: 11/07/2019 15:40:46

Water

0.54

## Filth and Foreign Materials Analysis:

Microscope - Amscope Simul-Focal Trinocular Stereo Zoom Microscope - GSL SOP 409

Uploaded: 11/07/2019 15:28:57

Pass: No Foreign Materials Detected

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