

Sample:

Client: | Nature's Gift
Sample: | Kaffir Lime (Citrus hystrix)
Batch # | #TH-58676
Cas Number | 91771-50-5
Type: | Essential Oil

Conclusion:

- No adulterants, diluents, or contaminants were detected via this method.
- This oil meets the expected profile for genuine essential oil of Kaffir Lime (Citrus hystrix).



X



Validated By:

Essential Validation Services

747 SW 2nd Ave, Gainesville, FL 32601

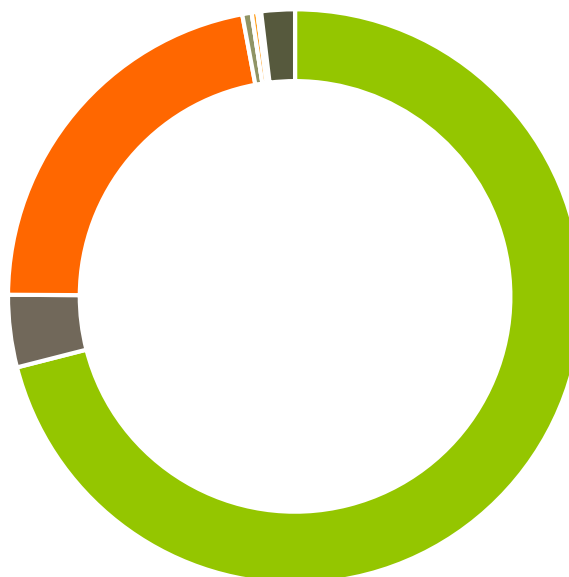
Phone: 317-361-5044 E-mail: Adam@essentialvalidationservices.com

Summary of Analyses

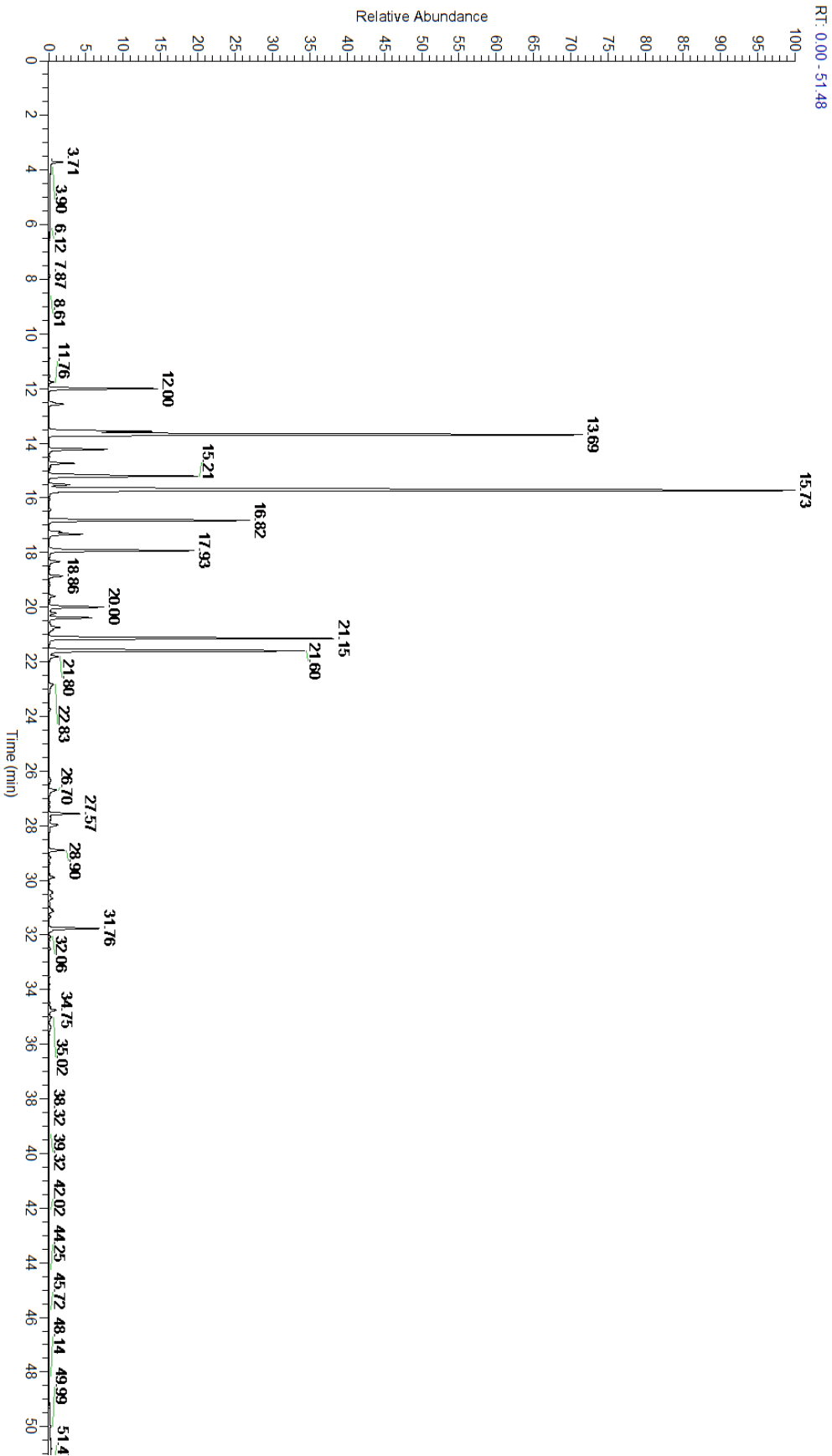
A fresh sample of Kaffir Lime (Citrus hystrix) Essential Oil (10 uL in .5to.5 mL Hexane + ETOH) was prepared and analyzed via split injection GC/EI-MS.

Main Compounds	Percentages
Limonene	28.54%
beta-Pinene	17.48%
Terpinen-4-ol	8.86%
alpha-Terpineol	8.13%
epi-Cyclocolorenone?	7.73%
gamma-Terpinene	5.60%
alpha-Terpinene	4.90%
Terpinolene	4.36%
Agarwood Unidentified	3.61%
Sabinene	3.23%
alpha-Pinene	3.00%
Dihydro-Columellarin	1.80%
neo-Isopulegol	1.74%

Monoterpenes	Sesquiterpenes	Monoterpenols	Sesquiterpenols	Ketones
71.02%	4.07%	21.96%	0.53%	0.00%
Esters	Ethers	Aldehydes	Phenols	Other
0.32%	0.00%	0.21%	0.00%	1.89%



- Monoterpenes ■ Sesquiterpenes ■ Monoterpenols
- Sesquiterpenols ■ Ketones ■ Esters
- Ethers ■ Phenols ■ Other



Total Percentage		99.10%			
Peak Number	RT	Area %	Compound Name	RI	Chemical Family
1	11.55	0.02%	Tricyclene	923.00	Monoterpene
2	11.76	0.11%	alpha-Thujene	927.80	Monoterpene
3	12.00	3.00%	alpha-Pinene	936.10	Monoterpene
4	12.57	0.54%	Camphene	950.30	Monoterpene
5	13.57	3.23%	Sabinene	973.00	Monoterpene
6	13.69	17.48%	beta-Pinene	974.00	Monoterpene
7	14.22	1.56%	Myrcene	989.20	Monoterpene
8	14.73	0.71%	alpha-Phellandrene	1002.00	Monoterpene
9	14.86	0.04%	cis-Dehydroxylinool oxide	1006.00	Monoterpenol
10	15.21	4.90%	alpha-Terpinene	1014.00	Monoterpene
11	15.52	0.61%	para-Cymene	1024.30	Monoterpene
12	15.73	28.54%	Limonene	1029.50	Monoterpene
13	16.05	0.01%	(Z)-beta-Ocimene	1037.80	Monoterpene
14	16.42	0.04%	(E)-beta-Ocimene	1047.70	Monoterpene
15	16.82	5.60%	gamma-Terpinene	1054.00	Monoterpene
16	17.25	0.31%	p-Mentha-3,8-diene	1074.00	Monoterpene
17	17.33	0.99%	cis-Linalool oxide	1075.10	Monoterpenol
18	17.93	4.36%	Terpinolene	1092.10	Monoterpene
19	18.33	0.34%	Linalool	1099.00	Monoterpenol
20	18.86	0.40%	Fenchol	1099.10	Monoterpenol
21	19.59	0.19%	1-Terpineol	1135.50	Monoterpenol
22	20.00	1.74%	neo-Isopulegol	1145.10	Monoterpenol
23	20.22	0.21%	Citronellal	1154.50	Monoterpene Aldehyde
24	20.39	1.27%	Isopulegol	1151.25	Monoterpenol
25	20.74	0.32%	Borneol	1168.71	Monoterpenol
26	20.83	0.11%	neo-isopulegol	1145.10	Monoterpenol
27	21.15	8.86%	Terpinen-4-ol	1180.57	Monoterpenol
28	21.60	8.13%	alpha-Terpineol	1191.71	Monoterpenol
29	21.80	0.33%	gamma-Terpineol	1198.50	Monoterpenol
30	22.83	0.23%	Citronellol	1229.25	Monoterpenol
31	26.34	0.08%	delta-Elemene	1335.83	Sesquiterpene
32	26.70	0.32%	Citronellyl acetate	1357.83	Monoterpene Ester
33	27.57	0.87%	alpha-Copaene	1379.00	Sesquiterpene
34	27.97	0.38%	beta-Cubebene	1390.50	Sesquiterpene
35	28.90	0.47%	beta-Caryophyllene	1427.14	Sesquiterpene
36	29.38	0.02%	alpha-Guaiene	1438.67	Sesquiterpene
37	29.89	0.16%	alpha-Humulene	1461.43	Sesquiterpene
38	30.42	0.08%	trans-Cadina-1(6),4-diene	1462.50	Sesquiterpene
39	30.66	0.15%	Germacrene D	1484.71	Sesquiterpene
40	31.06	0.10%	Viridiflorene	1494.14	Sesquiterpene
41	31.14	0.16%	alpha-Muurolene	1500.25	Sesquiterpene
42	31.33	0.06%	Germacrene A	1503.71	Sesquiterpene
43	31.76	1.54%	delta-Cadinene	1524.14	Sesquiterpene

