

Sample Information

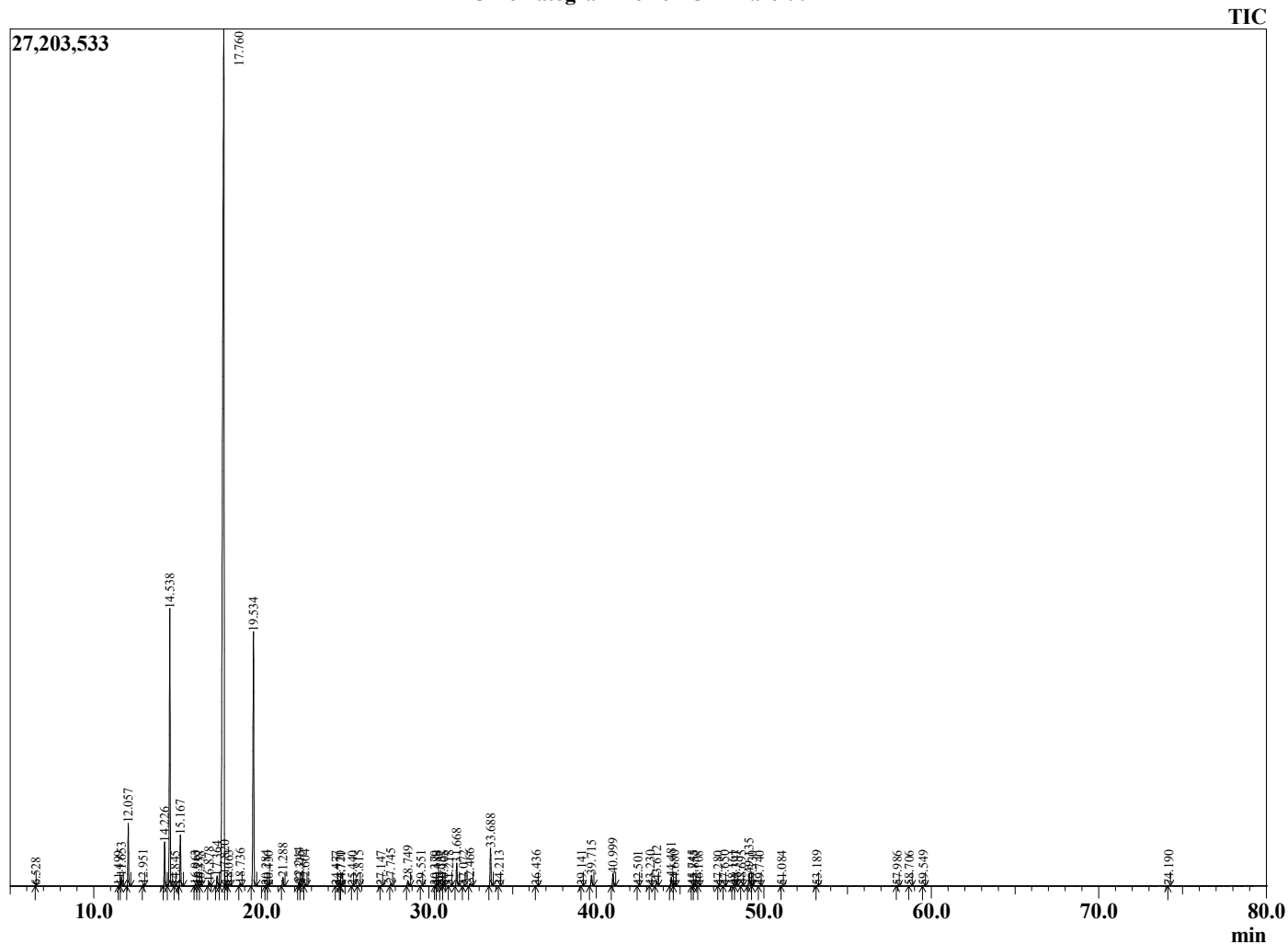
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 1/26/2022 6:33:04 PM  
 Sample Type : Essential Oil  
 Sample Name : Lemon Oil - Barefut  
 Sample ID : 0114  
 Injection Volume : 0.10  
 Instrument ID : GC-2



Peak Report TIC

R.Time	Name	Area%
6.528	Octane	0.00
11.499	Tricyclene	0.01
11.653	alpha-Thujene	0.33
12.057	alpha-Pinene	2.21
12.951	Camphene	0.05
14.226	Sabinene	1.69
14.538	beta-Pinene	11.14
14.845	Unidentified	0.00
15.167	Myrcene	1.98
16.063	Octanal + Unidentified	0.06
16.217	alpha-Phellandrene	0.04
16.358	delta-3-Carene	0.01
16.878	alpha-Terpinene	0.18
17.364	para-Cymene	0.47
17.760	Limonene	63.26
17.820	beta-Phellandrene	0.23
18.063	cis-beta-Ocimene	0.05
18.736	trans-beta-Ocimene	0.10
19.534	gamma-Terpinene	11.15
20.284	trans-Sabinene hydrate	0.03
20.430	Pinol	0.01
21.288	Terpinolene	0.36
22.244	Linalool	0.15
22.315	cis-Sabinene hydrate	0.02
22.604	Nonanal	0.08
24.477	cis-Limonene oxide	0.01
24.720	trans-para-Mentha-2,8-dienol	0.01
24.771	trans-Limonene oxide	0.01
25.440	Camphor	0.01
25.815	Citronellal	0.04
27.147	Isoborneol	0.01
27.745	Terpinen-4-ol	0.10
28.749	alpha-Terpineol	0.24
29.551	Decanal	0.02
30.370	trans-Carveol	0.00
30.488	Unidentified	0.01
30.732	Nerol	0.04
30.905	Citronellol	0.01
31.218	Unidentified	0.02
31.668	Neral	1.05
32.072	Carvone	0.02
32.466	Linalyl acetate	0.13
33.688	Geranial	1.76
34.213	Perillaldehyde	0.02
36.436	Undecenal	0.02
39.141	Citronellyl acetate	0.02
39.715	Neryl acetate	0.52
40.999	Geranyl acetate	0.60
42.501	Tetradecane	0.01
43.230	cis-alpha-Bergamotene	0.03
43.612	trans-beta-Caryophyllene	0.26
44.481	trans-alpha-Bergamotene	0.43
44.680	Unidentified	0.02
45.745	trans-beta-Farnesene	0.02
45.855	alpha-Humulene	0.02
46.108	beta-Santalene	0.01
47.280	Unidentified	0.00
47.650	trans-beta-Bergamotene	0.02
48.161	Valencene	0.02
48.347	Bicyclogermacrene	0.06
48.695	cis-alpha-Bisabolene	0.05
49.135	beta-Bisabolene	0.63

Chromatogram Lemon Oil - Barefut



Comments:

The analysis of this Lemon batch sample meets the expected chemical profile for authentic essential oil of *Citrus limon*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.

R.Time	Name	Area%
49.330	cis-gamma-Bisabolene	0.01
49.740	delta-Cadinene	0.01
51.084	trans-alpha-Bisabolene	0.01
53.189	Spathulenol	0.02
57.986	Unidentified	0.01
58.706	Unidentified	0.02
59.549	alpha-Bisabolol	0.02
74.190	Citropten	0.02
		100.00