

Sample Information

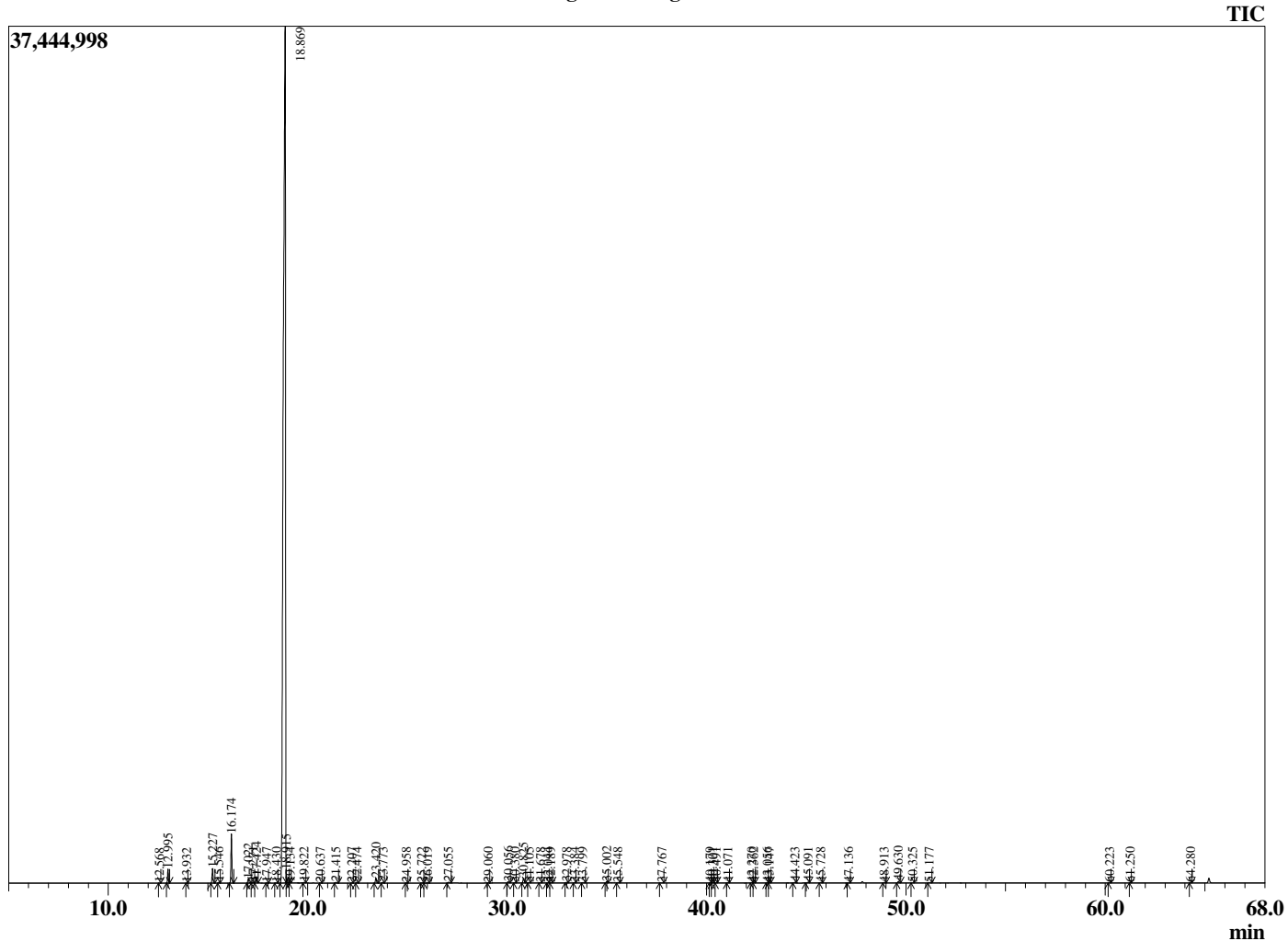
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 11/26/2020 2:05:52 AM  
 Sample Type : Essential Oil  
 Sample Name : Orange Oil-Barefut  
 Sample ID : 0110  
 Injection Volume : 0.10  
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
12.568	alpha-Thujene	0.01
12.995	alpha-Pinene	0.65
13.932	Camphene	0.00
15.227	Sabinene	0.71
15.546	beta-Pinene	0.04
16.174	Myrcene	2.36
17.022	Octanal	0.22
17.271	alpha-Phellandrene	0.06
17.424	delta-3-Carene	0.32
17.947	Unidentified	0.01
18.430	para-Cymene	0.02
18.869	Limonene	93.74
18.915	beta-Phellandrene	0.28
19.134	(Z)-beta-Ocimene	0.00
19.822	(E)-beta-Ocimene	0.03
20.637	gamma-Terpinene	0.01
21.415	Octanol	0.04
22.207	Isoterpinolene	0.01
22.474	Terpinolene	0.04
23.420	Linalool	0.27
23.773	Nonanal	0.04
24.958	trans-para-Mentha-2,8-dienol	0.01
25.722	cis-Limonene oxide	0.02
26.019	trans-Limonene oxide	0.04
27.055	Citronellal	0.05
29.060	Unidentified	0.01
30.056	alpha-Terpineol	0.06
30.380	Unidentified	0.01
30.825	Decanal	0.28
31.105	Octyl acetate	0.02
31.678	trans-Carveol	0.01
32.044	Nerol	0.01
32.189	Citronellol	0.01
32.978	Neral	0.03
33.384	Carvone	0.02
33.799	Geraniol	0.02
35.002	Geranial	0.08
35.548	Perillaldehyde	0.02
37.767	Unidentified	0.01
40.179	Unidentified	0.01
40.301	Unidentified	0.01
40.491	Citronellyl acetate	0.00
41.071	Neryl acetate	0.02
42.270	alpha-Copaene	0.03
42.362	Unidentified	0.01
43.056	Unidentified	0.02
43.147	beta-Elemene	0.02
44.423	Dodecanal	0.04
45.091	trans-beta-Caryophyllene	0.05
45.728	beta-Copaene	0.03
47.136	(E)-beta-Farnesene	0.01
48.913	Germacrene D	0.02
49.630	Valencene	0.10
50.325	(E,E)-alpha-Farnesene	0.01
51.177	delta-Cadinene	0.03
60.223	Unidentified	0.01
61.250	beta-Sinensal	0.01
64.280	alpha-Sinensal	0.01
		100.00

Chromatogram Orange Oil-Barefut



Comments:

The analysis of this Orange batch sample meets the expected chemical profile for authentic essential oil of *Citrus sinensis*. 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.