

Sample Information

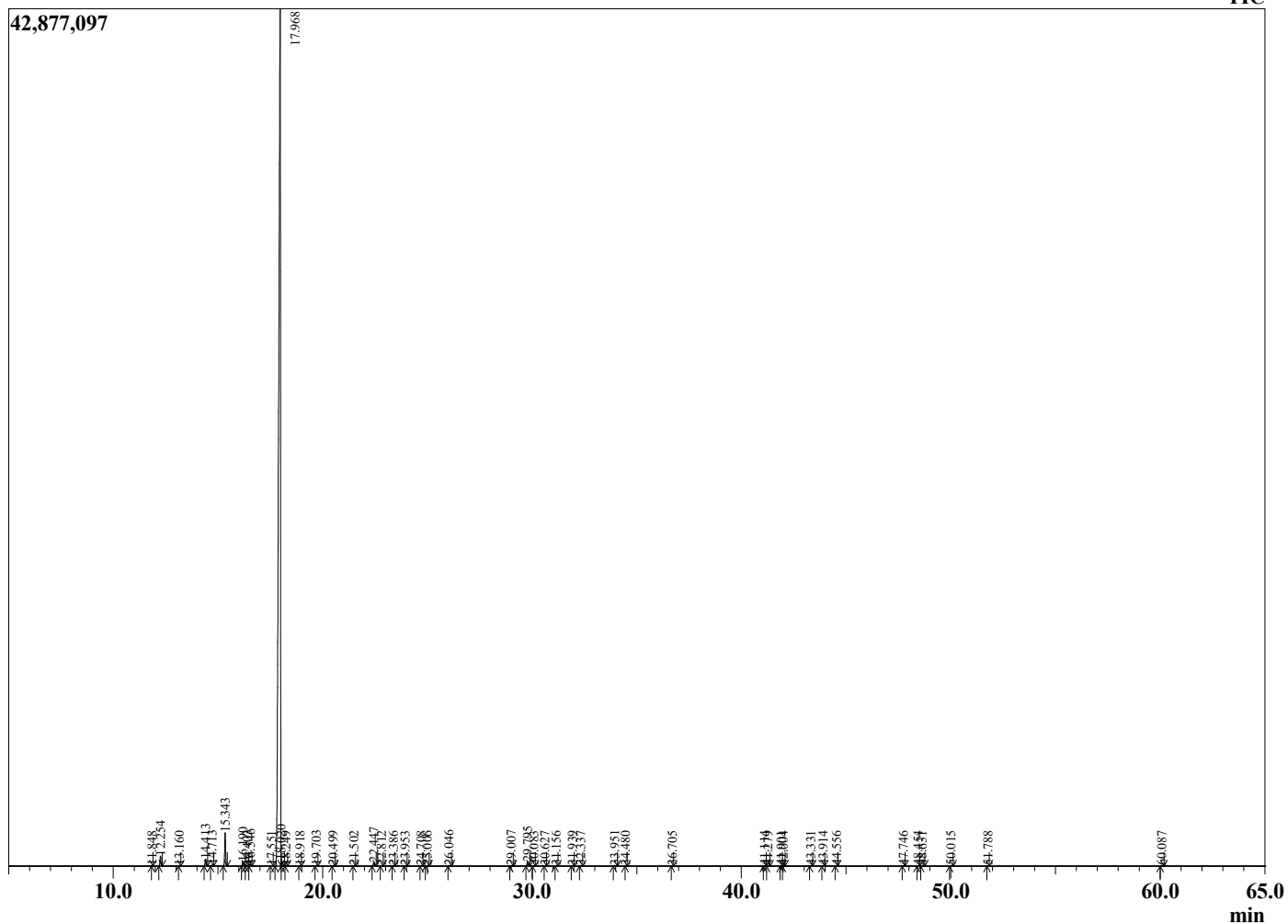
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 10/20/2022 5:16:15 PM
 Sample Type : Essential Oil
 Sample Name : Orange Oil - Barefut
 Sample ID : 0112
 Injection Volume : 0.10
 Instrument ID : GC-4



Peak Report TIC

R.Time	Name	Area%
11.848	alpha-Thujene	0.00
12.254	alpha-Pinene	0.55
13.160	Camphene	0.00
14.413	Sabinene	0.40
14.713	beta-Pinene	0.06
15.343	Myrcene	1.99
16.190	Octanal	0.27
16.403	alpha-Phellandrene	0.04
16.546	delta-3-Carene	0.10
17.551	para-Cymene	0.02
17.968	Limonene	95.18
18.020	beta-Phellandrene	0.22
18.249	cis-beta-Ocimene	0.01
18.918	trans-beta-Ocimene	0.02
19.703	gamma-Terpinene	0.04
20.499	Octanol	0.02
21.502	Terpinolene	0.01
22.447	Linalool	0.26
22.812	Nonanal	0.03
23.386	trans-4,8-Diemthylnona-1,3,7-triene	0.01
23.953	trans-para-Mentha-2,8-dienol	0.01
24.708	cis-Limonene oxide	0.02
25.006	trans-Limonene oxide	0.02
26.046	Citronellal	0.05
29.007	alpha-Terpineol	0.05
29.795	Decanal	0.31
30.083	Octyl acetate	0.02
30.627	trans-Carveol	0.01
31.156	Citronellol	0.01
31.939	Neral	0.03
32.337	Carvone	0.01
33.951	Geranial	0.06
34.480	Perillaldehyde	0.01
36.705	Undecanal	0.00
41.114	alpha-Copaene	0.02
41.279	Geranyl acetate	0.01
41.901	beta-Cubebene	0.01
42.004	beta-Elemene	0.01
43.331	Dodecanal	0.03
43.914	trans-beta-Caryophyllene	0.02
44.556	beta-Copaene	0.01
47.746	Germacrene D	0.01
48.454	Valencene	0.03
48.631	Bicyclogermacrene	0.01
50.015	delta-Cadinene	0.03
51.788	alpha-Elemol	0.01
60.087	beta-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.