

Sample Information

Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 5/7/2019 11:03:20 AM  
 Sample Type : Essential Oil  
 Sample Name : Sweet Fennel - Barefut  
 Sample ID : 0105  
 Injection Volume : 0.10  
 Instrument ID : GC-3

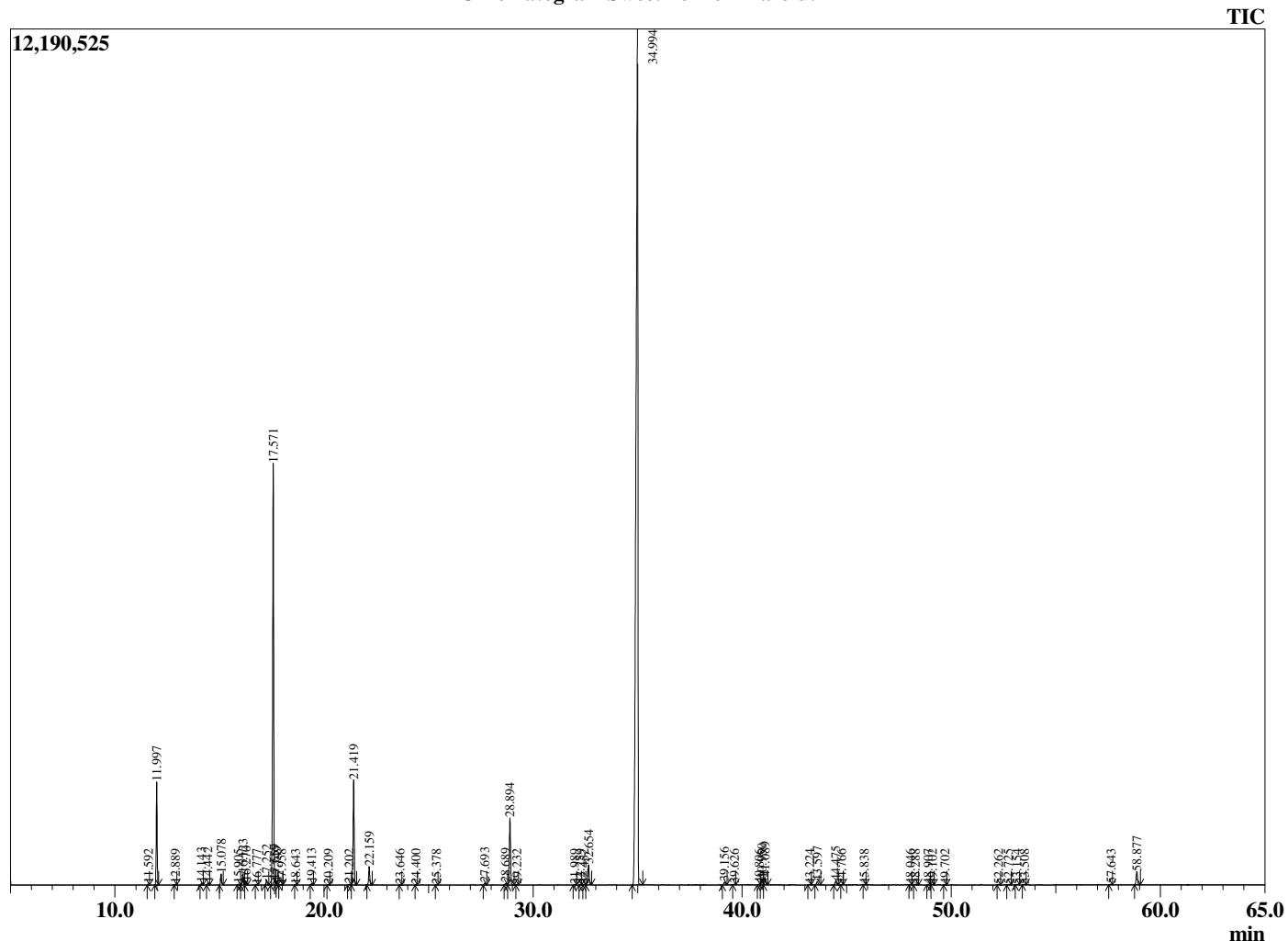


Peak Report TIC

R.Time	Name	Area%
11.592	alpha-Thujene	0.03
11.997	alpha-Pinene	3.72
12.889	Camphene	0.03
14.143	Sabinene	0.08
14.442	beta-Pinene	0.08
15.078	Myrcene	0.44
15.905	Octanal	0.04
16.123	alpha-Phellandrene	0.45
16.270	delta-3-Carene	0.13
16.777	alpha-Terpinene	0.03
17.252	para-Cymene	0.22
17.571	Limonene	18.00
17.659	beta-Phellandrene	0.03
17.749	1,8-Cineole	0.08
17.958	cis-beta-Ocimene	0.02
18.643	trans-beta-Ocimene	0.01
19.413	gamma-Terpinene	0.07
20.209	cis-Linalool oxide (furanoid)	0.01
21.202	Terpinolene	0.04
21.419	Fenchone	4.64
22.159	Linalool	0.82
23.646	trans-para-Mentha-2,8-dienol	0.01
24.400	cis-Limonene oxide	0.01
25.378	Camphor	0.01
27.693	Terpinen-4-ol	0.10
28.689	alpha-Terpineol	0.09
28.894	Estragole	3.21
29.232	alpha-Phellandrene epoxide	0.01
31.989	Carvone	0.02
32.259	Unidentified	0.01
32.452	Geraniol	0.02
32.654	para-Anisaldehyde	1.11
34.994	(E)-Anethole	64.01
39.156	Eugenol	0.15
39.626	Unidentified	0.04
40.806	alpha-Copaene	0.04
40.950	Unidentified	0.33
41.089	Anisyl methyl ketone	0.45
43.224	cis-alpha-Bergamotene	0.03
43.597	beta-Caryophyllene	0.19
44.475	trans-alpha-Bergamotene	0.20
44.766	Aromadendrene	0.01
45.838	alpha-Humulene	0.02
48.046	Viridiflorene (Ledene)	0.02
48.288	Unidentified	0.04
48.907	(E,E)-alpha-Farnesene	0.02
49.102	beta-Bisabolene	0.03
49.702	delta-Cadinene	0.02
52.262	trans-Nerolidol	0.02
52.725	Unidentified	0.03
53.154	Unidentified	0.02
53.508	Unidentified	0.03
57.643	alpha-Cadinol	0.04
58.877	Foeniculin	0.70
		100.00

This report is valid for 1 year from the analyzed date.

Chromatogram Sweet Fennel - Barefut



Comments:

The analysis of this Sweet Fennel batch sample meets the expected chemical profile for authentic essential oil of *Foeniculum vulgare*. No contamination or adulteration was detected.