

Sample Information

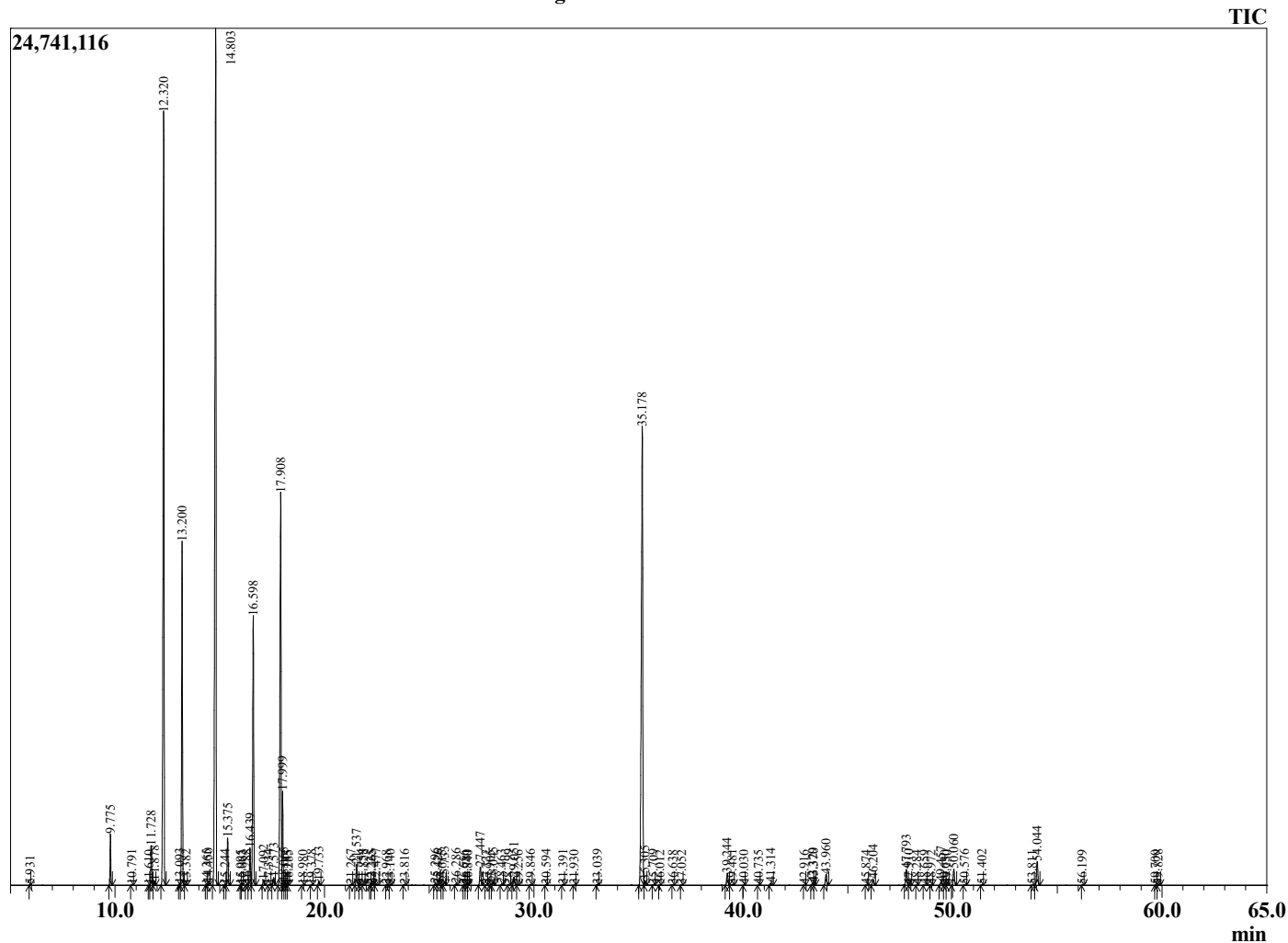
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 3/15/2022 5:42:22 PM
 Sample Type : Essential Oil
 Sample Name : Fir Needle Oil - Revive
 Sample ID : 1344
 Injection Volume : 0.10
 Instrument ID: : GC-4



Peak Report TIC

R.Time	Name	Area%
5.931	Toluene	0.01
9.775	Santene	0.97
10.791	Unidentified	0.01
11.610	Hashishene	0.00
11.728	Tricyclene	0.86
11.878	alpha-Thujene	0.10
12.320	alpha-Pinene	19.35
13.093	alpha-Fenchene	0.04
13.200	Camphene	7.93
13.382	Thuja-2,4(10)-diene	0.02
14.365	Cymene analogue	0.02
14.450	Sabinene	0.05
14.803	beta-Pinene	25.62
15.244	para-Menth-3-ene	0.02
15.375	Myrcene	1.14
15.995	delta-2-Carene	0.00
16.063	para-Menth-1-ene	0.01
16.288	Pseudolimonene	0.03
16.439	alpha-Phellandrene	0.99
16.598	delta-3-Carene	6.91
17.092	alpha-Terpinene	0.14
17.334	Unidentified	0.01
17.573	para-Cymene	0.21
17.908	Limonene	11.35
17.999	beta-Phellandrene	2.11
18.065	1,8-Cineole	0.04
18.183	Unidentified	0.01
18.285	cis-beta-Ocimene	0.01
18.980	trans-beta-Ocimene	0.01
19.378	Melonol	0.02
19.733	gamma-Terpinene	0.11
21.267	Isoterpinolene	0.03
21.537	Terpinolene	0.56
21.754	Fenchone	0.02
21.858	para-Cymenene	0.03
22.225	Unidentified	0.01
22.265	alpha-Campholenal	0.02
22.477	alpha-Pinene oxide	0.05
22.968	beta-Thujone	0.01
23.140	Unidentified	0.01
23.816	Fenchyl alcohol	0.02
25.296	trans-Pinocarveol	0.04
25.426	Unidentified	0.02
25.615	trans-Verbenol	0.01
25.733	Camphor	0.10
26.286	Camphene hydrate	0.04
26.656	trans-Pinocamphone	0.00
26.781	Pinocarvone	0.02
26.840	Unidentified	0.00
27.447	Borneol	0.56
27.727	cis-Pinocamphone	0.01
27.905	Unidentified	0.00
28.045	Terpinen-4-ol	0.09
28.463	para-Cymen-8-ol	0.03
28.799	Methyl salicylate	0.02
29.051	alpha-Terpineol	0.27
29.256	Estragole	0.01
29.846	Verbenone	0.02
30.594	Fenchyl acetate	0.01
31.391	Thymol methyl ether	0.02
31.930	Unidentified	0.01
33.039	Piperitone	0.02

Chromatogram Fir Needle Oil - Revive



Comments:

The analysis of this Fir Needle batch sample meets the expected chemical profile for authentic essential oil of *Abies alba*. 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%
35.178	Bornyl acetate	16.36
35.305	Isobornyl acetate	0.13
35.709	2-Undecanone	0.01
36.012	Unidentified	0.01
36.638	Unidentified	0.00
37.052	Unidentified	0.01
39.244	alpha-Terpinyol acetate	0.39
39.481	alpha-Longipinene	0.03
40.030	Neryl acetate	0.01
40.735	Cyclosativene	0.01
41.314	Geranyl acetate	0.07
42.916	Sibirene	0.01
43.329	Longifolene	0.09
43.370	Dodecanal	0.03
43.960	trans-beta-Caryophyllene	0.37
45.874	alpha-Himachalene	0.01
46.204	alpha-Humulene	0.20
47.793	Germacrene D	0.53
47.910	Alloaromadendrene	0.01
48.284	beta-Selinene	0.00
48.659	gamma-Terpineol	0.02
48.972	beta-Himachalene	0.01
49.457	beta-Bisabolene	0.12
49.630	cis-gamma-Bisabolene	0.01
49.750	gamma-Cadinene	0.01
50.060	delta-Cadinene	0.53
50.576	trans-gamma-Bisabolene	0.02
51.402	trans-alpha-Bisabolene	0.02
53.811	Caryophyllene oxide	0.01
54.044	Globulol	0.80
56.199	Unidentified	0.01
59.700	epi-alpha-Bisabolol	0.01
59.828	alpha-Bisabolol	0.03
		100.00