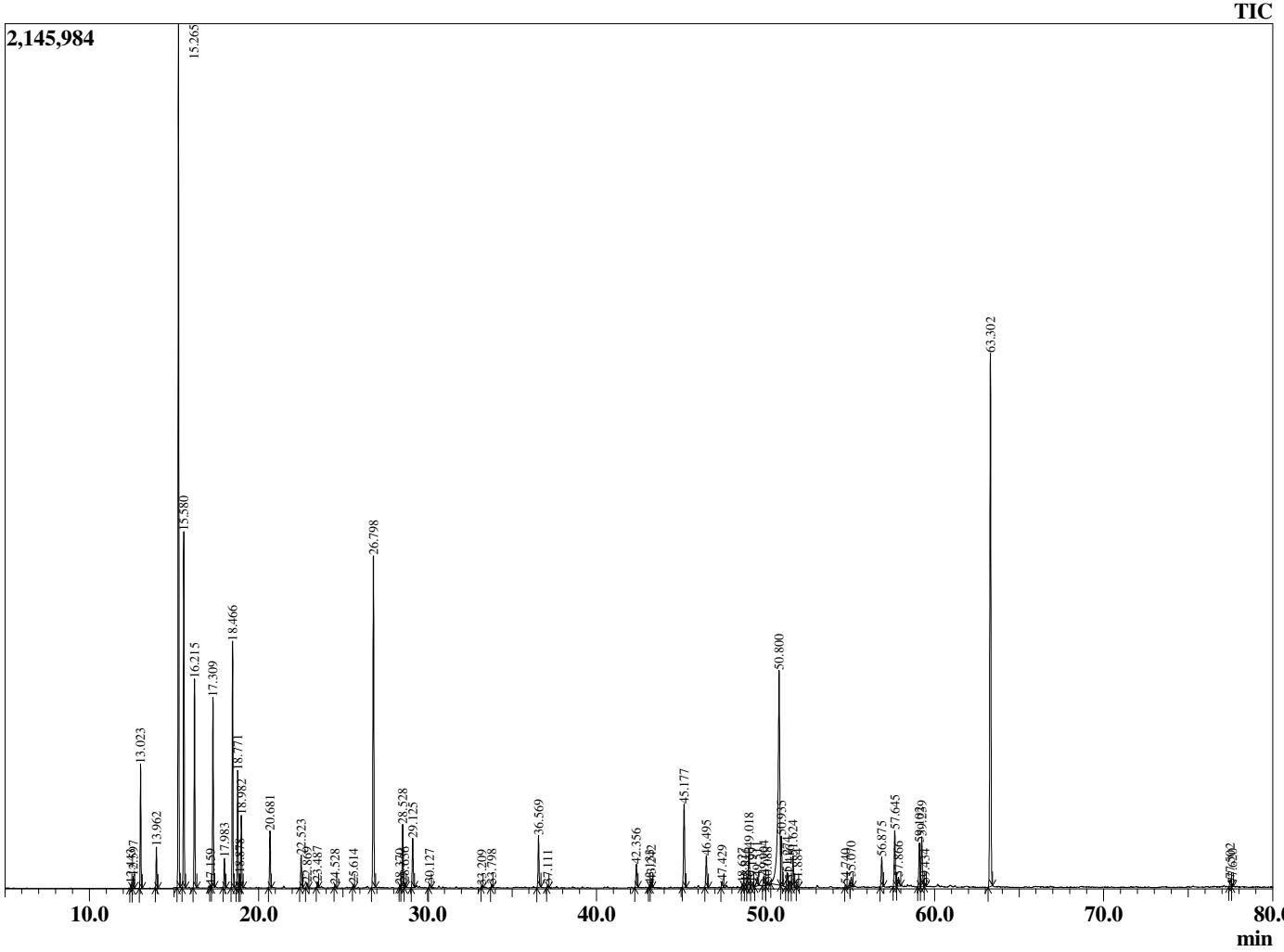
Sample Information

Analyzed by : Dr. Robert S. Pappas
Analyzed : 12/11/2019 11:21:07 PM
Sample Type : Essential Oil
Sample Name : Blue Tansy - Barefut
Sample ID : 0103
Injection Volume : 0.10
Instrument ID: : GC-3

Chromatogram Blue Tansy - Barefut



Peak Report TIC

R.Time	Name	Area%
12.443	Tricyclene	0.08
12.597	alpha-Thujene	0.22
13.023	alpha-Pinene	2.30
13.962	Camphene	0.79
15.265	Sabinene	16.83
15.580	beta-Pinene	7.19
16.215	Myrcene	4.16
17.159	Pseudolimonene	0.05
17.309	alpha-Phellandrene	3.81
17.983	alpha-Terpinene	0.63
18.466	para-Cymene	4.90
18.771	Limonene	2.49
18.878	beta-Phellandrene	0.28
18.982	1,8-Cineole	1.57
20.681	gamma-Terpinene	1.30
22.523	Terpinolene	0.74
22.869	6,7-Epoxymyrcene	0.13
23.487	Linalool	0.12
24.528	Unidentified	0.07
25.614	4-Acetyl-1-methylcyclohexene	0.07
26.798	Camphor	8.06
28.370	Unidentified	0.07
28.528	Borneol	1.59
28.636	Unidentified	0.11
29.125	Terpinen-4-ol	1.21
30.127	alpha-Terpineol	0.10
33.209	Unidentified	0.05
33.798	Carvotanacetone	0.07
36.569	Thymol	1.24
37.111	Carvacrol	0.07
42.356	alpha-Copaene	0.61
43.133	Unidentified	0.07
43.242	beta-Elemene	0.17
45.177	beta-Caryophyllene	2.28
46.495	beta-Sesquiphellandrene	0.86
47.429	alpha-Humulene	0.18
48.627	trans-Cadina-1(6),4-diene	0.08
48.816	Unidentified	0.10
49.018	Germacrene D	1.10
49.199	Unidentified	0.11
49.511	beta-Selinene	0.29
49.904	Bicyclogermacrene	0.29
50.088	alpha-Muurolene	0.07
50.800	3,6-Dihydrochamazulene	9.98
50.935	Dihydrochamazulene isomer	1.37
51.274	delta-Cadinene	0.40
51.416	Dihydrochamzulene isomer	0.20
51.624	beta-Sesquiphellandrene	0.86
51.884	Dihydrochamazulene isomer	0.06
54.740	Spathulenol	0.07
55.070	Caryophyllene oxide	0.22
56.875	5,6-Dihydrochamazulene	0.79
57.645	7,12-Dehydro-5,6,7,8-tetrahydrochamazulene	1.49
57.866	Eremoligenol isomer	0.28
59.102	7,12-Dehydro-5,6,7,8-tetrahydrochamazulene	1.21
59.239	alpha-Eudesmol	1.55
59.434	Unidentified	0.06
63.302	Chamazulene	14.65
77.502	Unidentified	0.23
77.620	Unidentified	0.07
		100.00

Comments:

The analysis of this Blue Tansy batch sample meets the expected chemical profile for authentic essential oil of *Tanacetum annuum*. 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.