

Sample Information

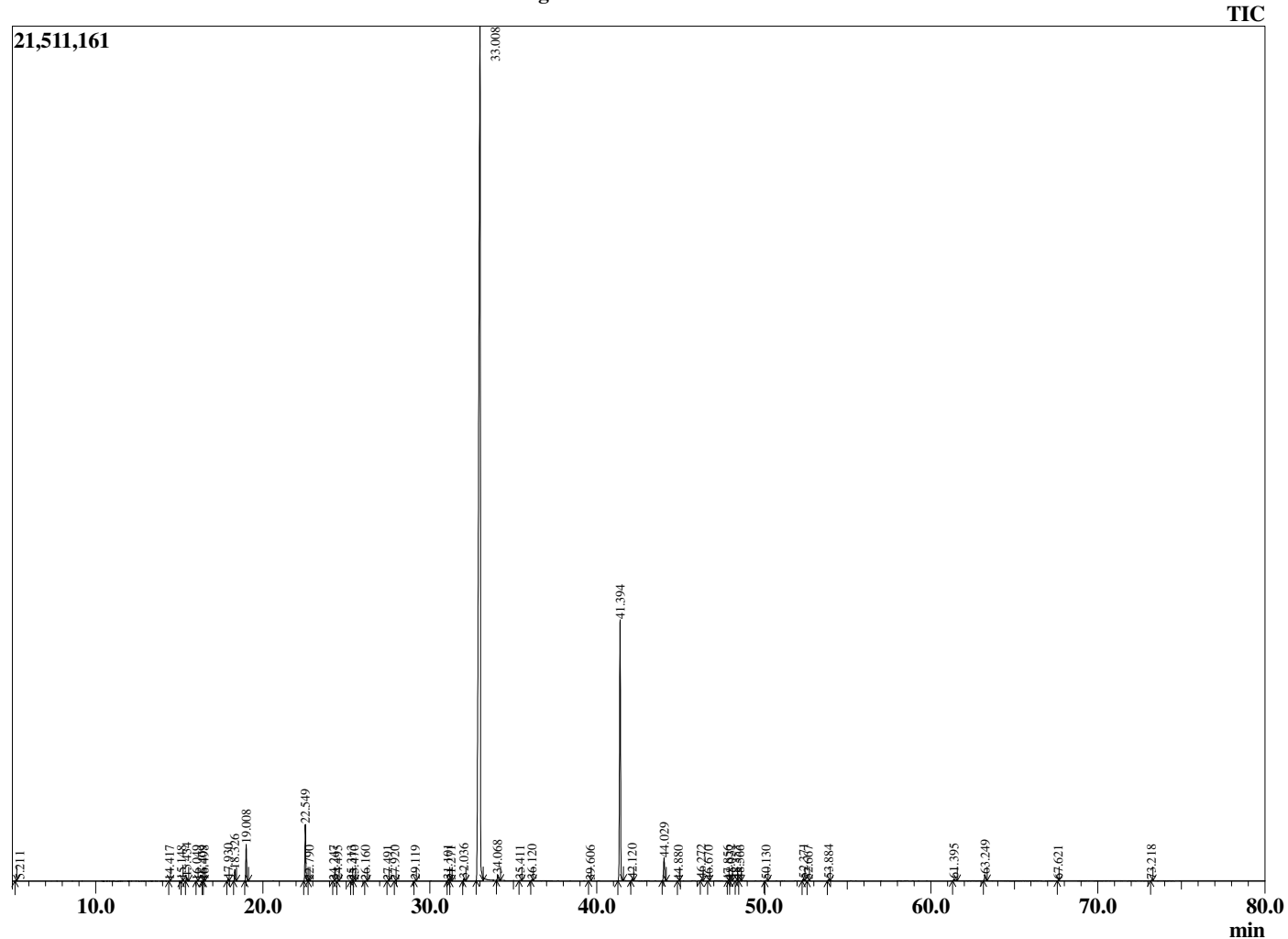
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 3/6/2021 5:51:20 PM
 Sample Type : Essential Oil
 Sample Name : Palmarosa -
 Sample ID : BIOAROMA : BB22AS
 Injection Volume : 0.10
 Instrument ID : GC-4



Peak Report TIC

R.Time	Name	Area%
4.073	3-Methylbutanal	0.01
4.181	2-Methylbutanal	0.00
5.211	1-Pentanol	0.02
14.417	Unidentified	0.01
15.148	6-Methyl hept-5-en-2-one	0.03
15.434	Myrcene	0.18
16.049	Unidentified	0.02
16.409	Unidentified	0.01
16.498	alpha-Phellandrene	0.01
17.930	Limonene	0.09
18.326	(Z)-beta-Ocimene	0.50
19.008	(E)-beta-Ocimene	1.63
22.549	Linalool	2.66
22.790	Unidentified	0.01
24.247	cis-para-Menth-2-en-1-ol	0.02
24.495	allo-Ocimene	0.03
25.313	Unidentified	0.01
25.470	trans-para-Menth-2-en-1-ol	0.02
26.160	Citronellal	0.02
27.491	para-Mentha-1,5-dien-8-ol	0.01
27.920	Menthol	0.01
29.119	alpha-Terpineol	0.03
31.101	Nerol	0.06
31.271	Citronellol	0.02
32.036	Neral	0.12
33.008	Geraniol	77.86
34.068	Geranial	0.30
35.411	Unidentified	0.03
36.120	Geranyl formate	0.06
39.606	Eugenol	0.01
41.394	Geranyl acetate	13.85
42.120	beta-Elemene	0.07
44.029	trans-beta-Caryophyllene	1.31
44.880	trans-alpha-Bergamotene	0.01
46.272	alpha-Humulene	0.07
46.670	Unidentified	0.01
47.856	Germacrene D	0.01
48.032	alpha-Selinene	0.04
48.353	beta-Selinene	0.02
48.566	Valencene	0.02
50.130	delta-Cadinene	0.05
52.371	Geranyl butyrate	0.12
52.667	(E)-Nerolidol	0.03
53.884	Caryophyllene oxide	0.08
61.395	(2E,6E)-Farnesol	0.13
63.249	Geranyl hexanoate	0.34
67.621	Farnesyl acetate	0.01
73.218	Unidentified	0.04
		100.00

Chromatogram Palmarosa - BIOAROMA



Comments:

The analysis of this Palmarosa batch sample meets the expected chemical profile for authentic essential oil of *Cymbopogon martinii*. 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.

Sample Information

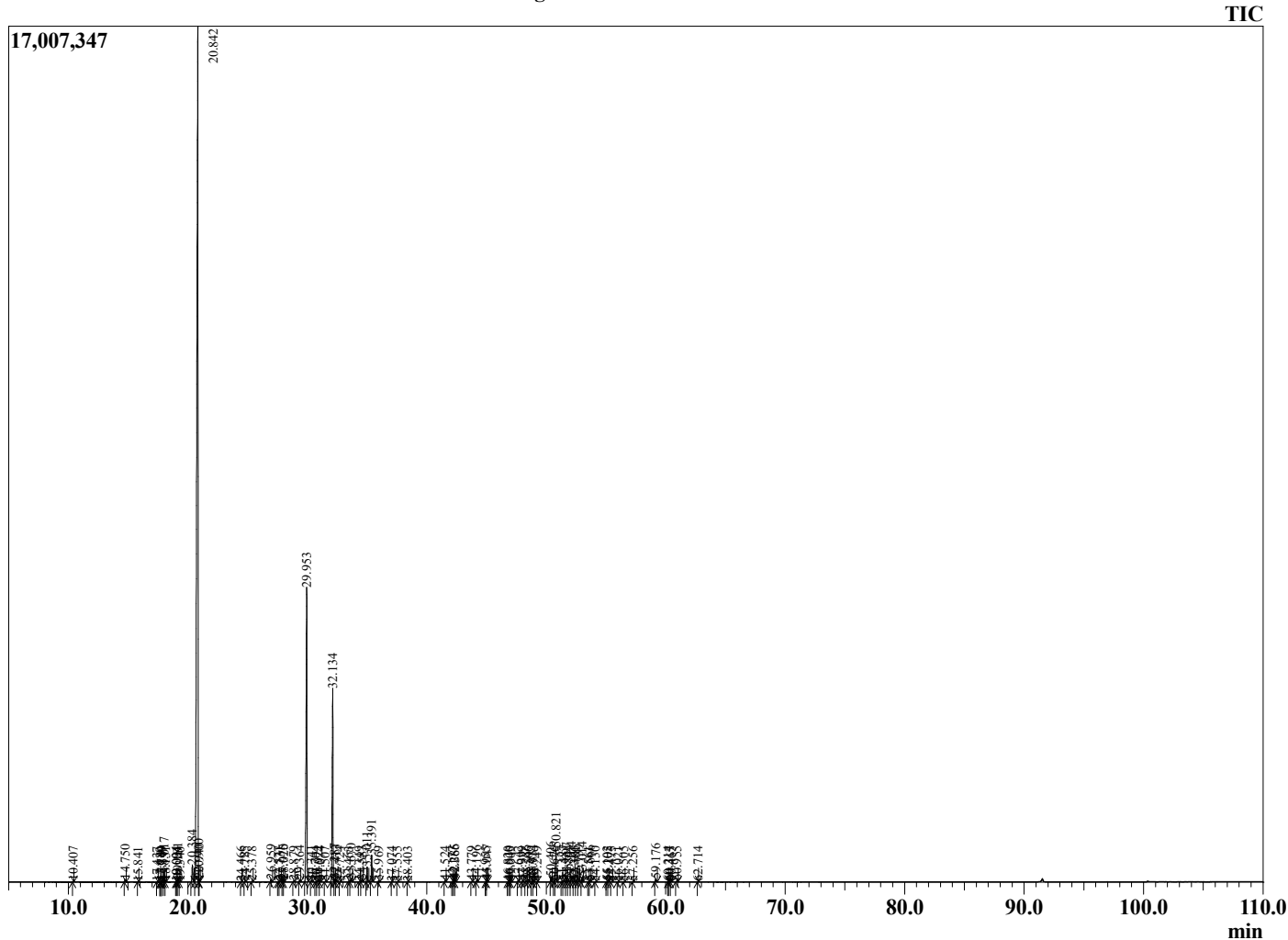
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 3/7/2021 1:59:11 AM
 Sample Type : Essential Oil
 Sample Name : Palo Santo -
 Sample ID : BIOAROMA : BB22AT
 Injection Volume : 0.10
 Instrument ID : GC-2



Peak Report TIC

R.Time	Name	Area%
10.407	3-Methylcyclopentanone	0.02
14.750	alpha-Pinene	0.08
15.841	3-Methylcyclohexanone	0.01
17.437	Unidentified	0.01
17.680	3-para-Menthene	0.01
17.769	Unidentified	0.03
17.849	Cyclohexyl methyl ketone	0.04
18.017	Myrcene	0.35
18.131	dehydro-1,8-Cineole	0.03
19.034	Pseudolimonene	0.02
19.091	Unidentified	0.02
19.181	alpha-Phellandrene	0.16
19.340	delta-3-Carene	0.01
20.384	para-Cymene	0.82
20.842	Limonene	65.42
20.900	beta-Phellandrene	0.14
20.940	1,8-Cineole	0.08
24.466	Terpinolene	0.01
24.785	para-Cymenene	0.03
25.378	Linalool	0.03
26.959	trans-para-Mentha-2,8-dienol	0.10
27.577	4-Acetyl-1-methylcyclohexene	0.02
27.731	cis-Limonene oxide	0.04
27.975	Unidentified	0.09
28.020	trans-Limonene oxide	0.08
28.879	trans-beta-Terpineol	0.05
29.364	Menthone	0.08
29.953	Menthofuran	15.41
30.341	delta-Terpineol	0.05
30.704	trans-Isopulegone	0.02
30.922	Unidentified	0.07
31.074	Terpinen-4-ol	0.03
31.507	Cryptone	0.03
32.134	alpha-Terpineol	9.96
32.287	(Z)-Dihydrocarvone	0.12
32.413	cis-Piperitol	0.10
32.724	(E)-Dihydrocarvone	0.01
33.463	Unidentified	0.03
33.670	trans-Carveol	0.16
34.349	Unidentified	0.02
34.583	cis-Carveol	0.08
35.011	Pulegone	0.65
35.391	Carvone	1.12
35.969	Unidentified	0.04
37.074	Unidentified	0.01
37.555	Perillaldehyde	0.01
38.403	Unidentified	0.02
41.524	delta-Elementene	0.03
42.177	Unidentified	0.02
42.285	Menthalthalactone isomer	0.13
42.366	Menthalthalactone isomer	0.10
43.779	alpha-Ylangene	0.02
44.196	alpha-Copaene	0.05
44.955	beta-Cubebene	0.02
45.047	beta-Elementene	0.09
46.820	Unidentified	0.02
46.910	beta-Ylangene	0.05
47.005	Unidentified	0.03
47.642	beta-Copaene	0.04
47.999	cis-Thujopsene	0.04
48.286	Menthalthalactone isomer	0.07
48.506	Unidentified	0.02

Chromatogram Palo Santo - BIOAROMA



Comments:

The analysis of this Palo Santo batch sample meets the expected chemical profile for authentic essential oil of *Bursera graveolens*. 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%
48.831	Unidentified	0.12
48.914	Unidentified	0.06
49.249	alpha-Humulene	0.01
50.406	trans-Cadina-1(6),4-diene	0.21
50.676	alpha-Amorphene	0.03
50.821	Germacrene D	1.61
51.327	Unidentified	0.05
51.487	trans-Murrola-4(14),5-diene	0.09
51.697	Menthylactone	0.20
51.844	alpha-Murolene	0.10
52.104	(E,E)-alpha-Farnesene	0.26
52.366	beta-Bisabolene	0.04
52.481	Cuparene	0.02
52.739	gamma-Cadinene	0.09
53.014	delta-Cadinene	0.22
53.561	Menthylactone isomer	0.02
53.666	Unidentified	0.05
54.130	alpha-Cadinene	0.01
55.102	Unidentified	0.04
55.205	Unidentified	0.02
55.475	Unidentified	0.02
56.021	Unidentified	0.02
56.505	Unidentified	0.02
57.256	Unidentified	0.02
59.176	Humulane-1,6-dien-3-ol	0.14
60.214	tau-Cadinol	0.01
60.317	epi-alpha-Cadinol	0.03
60.465	delta-Cadinol	0.02
60.955	alpha-Cadinol	0.06
62.714	alpha-Bisabolol	0.01
		100.00

Sample Information

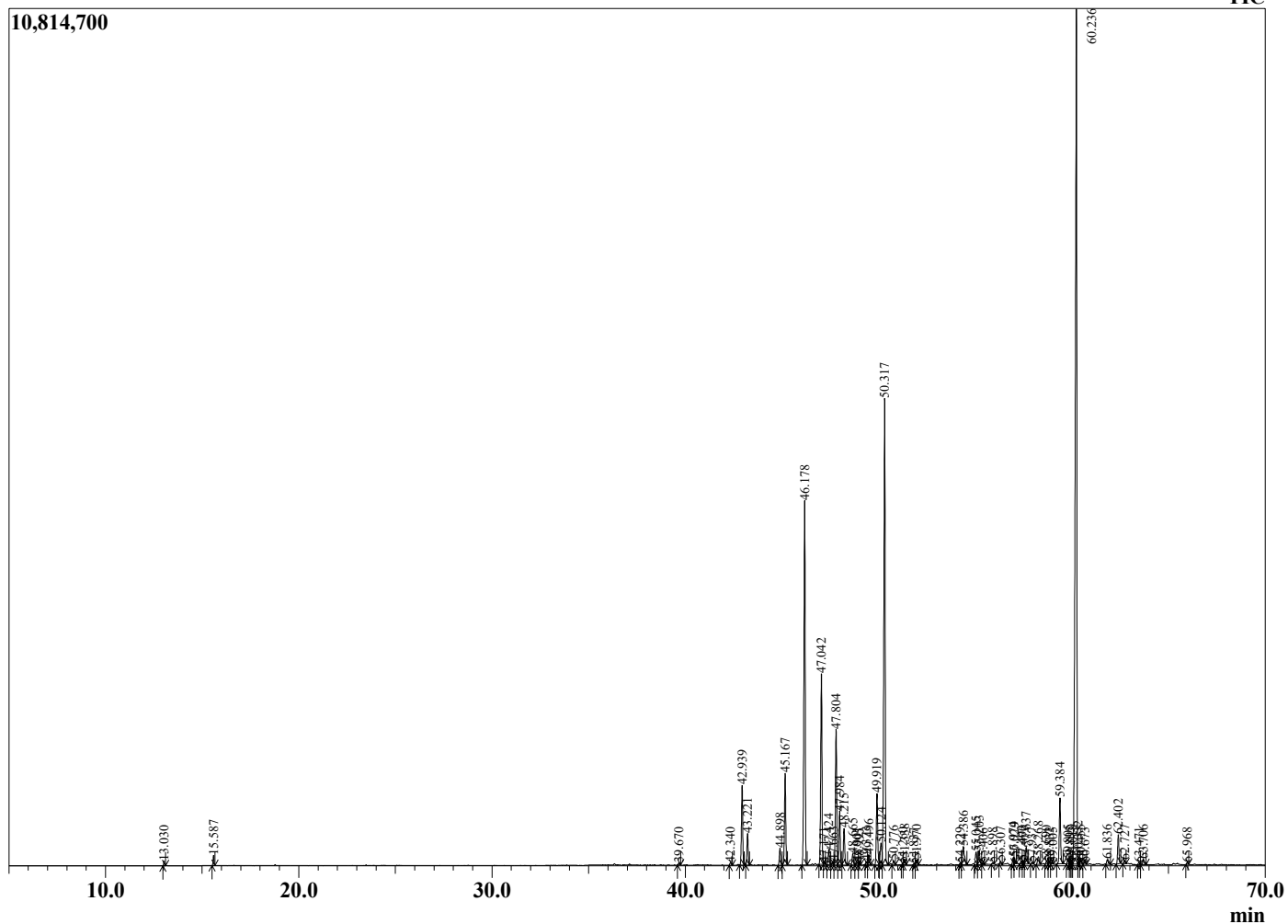
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 7/12/2020 1:59:08 PM
 Sample Type : Essential Oil
 Sample Name : Patchouli - Edens Garden
 Sample ID : BA18FAO
 Injection Volume : 0.10
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
13.030	alpha-Pinene	0.10
15.587	beta-Pinene	0.24
39.670	delta-Elemene	0.07
42.340	alpha-Copaene	0.09
42.939	beta-Patchoulene	2.64
43.221	beta-Elemene	0.98
44.898	Cycloseychellene	0.56
45.167	beta-Caryophyllene	3.04
46.178	alpha-Guaiene	12.48
47.042	Seychellene	6.44
47.171	Unidentified	0.04
47.424	alpha-Humulene	0.52
47.663	Unidentified	0.13
47.804	alpha-Patchoulene	4.60
47.984	Patchoulene analog	1.78
48.215	9-epi-Caryophyllene	1.28
48.665	beta-Chamigrene	0.37
48.901	alpha-Selinene	0.09
48.995	Germacone D	0.05
49.373	delta-Selinene	0.10
49.496	beta-Selinene	0.32
49.919	Aciphyllene	2.51
50.124	Eudesma-2,4(15),11-triene	0.94
50.317	delta-Guaiene	16.45
50.776	Unidentified	0.14
51.260	Unidentified	0.04
51.338	alpha-Panasinsen	0.20
51.837	Unidentified	0.05
51.970	Unidentified	0.18
54.229	Unidentified	0.06
54.386	Norpatchoulene	0.84
55.045	Caryophyllene oxide	0.47
55.203	Unidentified	0.51
55.406	Unidentified	0.05
55.898	Unidentified	0.04
56.307	Unidentified	0.10
56.974	Unidentified	0.23
57.029	Unidentified	0.18
57.403	Unidentified	0.12
57.470	Unidentified	0.08
57.637	Unidentified	0.66
57.937	Unidentified	0.06
58.268	Unidentified	0.32
58.690	Unidentified	0.11
58.832	Unidentified	0.05
59.005	Unidentified	0.04
59.384	Pogostol	2.39
59.805	Unidentified	0.17
59.895	Unidentified	0.07
60.019	Unidentified	0.11
60.236	Patchouli alcohol	34.96
60.332	Unidentified	0.19
60.455	Unidentified	0.15
60.673	Unidentified	0.07
61.836	Rotundone	0.20
62.402	Pogostone	0.94
62.727	Unidentified	0.11
63.471	Unidentified	0.08
63.706	Unidentified	0.19
65.968	Unidentified	0.05
		100.00

Chromatogram Patchouli - Edens Garden



Comments:

The analysis of this Patchouli batch sample meets the expected chemical profile for authentic essential oil of *Pogostemon cablin*. 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.

Sample Information

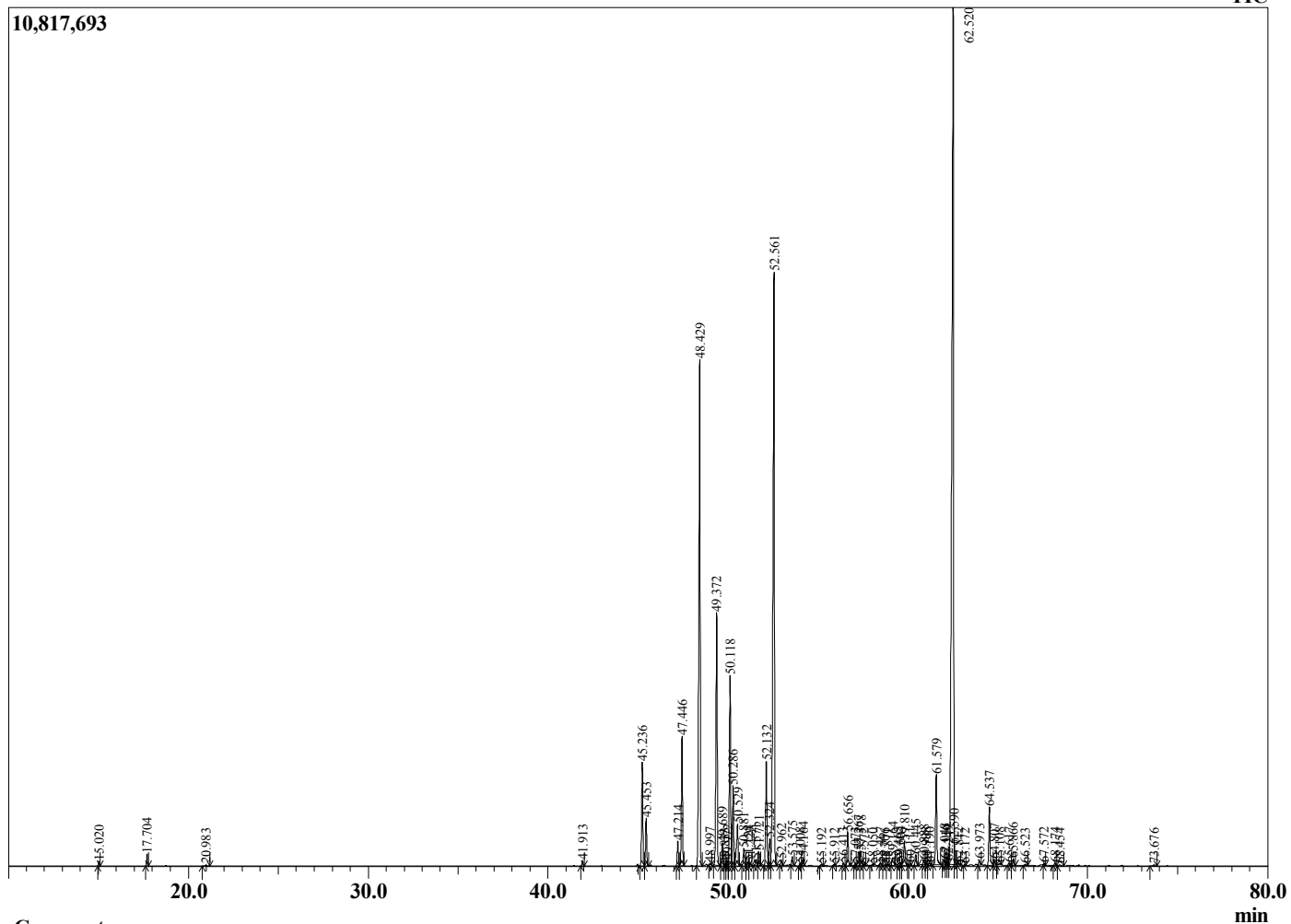
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 9/1/2020 1:52:34 AM
 Sample Type : Essential Oil
 Sample Name : Patchouli Light Organic -
 Sample ID : BIOAROMA : BA08GR
 Injection Volume : 0.10
 Instrument ID: : GC-2



Peak Report TIC

R.Time	Name	Area%
15.020	alpha-Pinene	0.08
17.704	beta-Pinene	0.21
20.983	Limonene	0.02
41.913	delta-Elementene	0.12
45.236	beta-Patchoulene	2.43
45.453	trans-beta-Elementene	1.10
47.214	Cycloseychellene	0.58
47.446	trans-beta-Caryophyllene	3.08
48.429	alpha-Guaiene	13.49
48.997	Guaiene isomer	0.04
49.372	Seychellene	6.65
49.689	alpha-Humulene	0.54
49.833	Unidentified	0.03
49.972	2,4-Patchouladiene	0.11
50.118	alpha-Patchoulene	4.68
50.286	gamma-Patchoulene	1.83
50.529	9-epi-Caryophyllene	1.31
50.881	beta-Chamigrene	0.42
51.124	gamma-Gurjunene	0.10
51.229	Germacrene D	0.06
51.571	delta-Selinene	0.15
51.721	beta-Selinene	0.34
52.132	Aciphyllene	2.72
52.324	Unidentified	0.83
52.561	alpha-Bulnesene	17.78
52.962	Unidentified	0.14
53.575	alpha-Panasinsene	0.20
54.008	Unidentified	0.05
54.164	Unidentified	0.17
55.192	Elemol	0.04
55.912	Germacrene B	0.04
56.413	Unidentified	0.07
56.656	Norpatchoulene	0.85
57.073	Unidentified	0.07
57.267	Caryophyllene oxide	0.39
57.378	Unidentified	0.40
57.572	Unidentified	0.04
58.050	Unidentified	0.05
58.467	Unidentified	0.05
58.706	Unidentified	0.03
58.871	Humulene epoxide	0.04
59.164	Unidentified	0.30
59.465	Unidentified	0.07
59.604	Unidentified	0.08
59.810	Unidentified	0.79
60.111	Unidentified	0.04
60.445	Unidentified	0.29
60.888	Unidentified	0.11
60.998	Unidentified	0.05
61.190	Unidentified	0.06
61.579	Pogostol	2.35
62.048	Unidentified	0.12
62.110	Unidentified	0.07
62.249	Unidentified	0.06
62.520	Patchouli alcohol	31.68
62.590	Valerianol	0.24
62.812	Unidentified	0.04
63.172	Unidentified	0.02
63.973	Unidentified	0.14
64.537	Pogostone	1.48
64.807	Unidentified	0.14
65.108	Unidentified	0.05

Chromatogram Patchouli Light Organic - BIOAROMA



Comments:

The analysis of this Patchouli, Light batch sample meets the expected chemical profile for authentic essential oil of *Pogostemon cablin*. 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%
65.617	Unidentified	0.07
65.866	Longifolol	0.16
66.523	Unidentified	0.04
67.572	Unidentified	0.04
68.174	Unidentified	0.06
68.454	Unidentified	0.03
73.676	Unidentified	0.04
		100.00

Sample Information

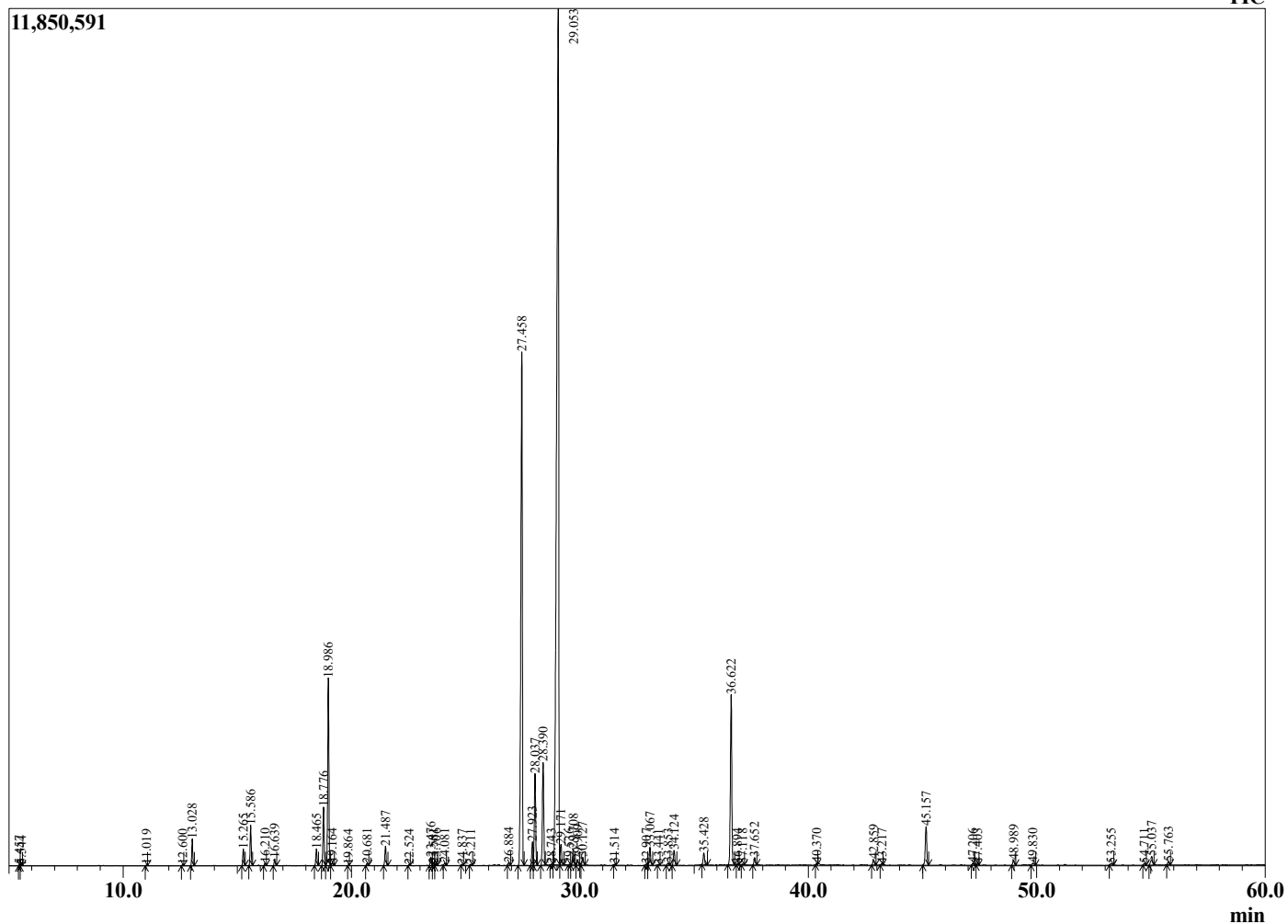
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 7/12/2020 9:51:52 PM
 Sample Type : Essential Oil
 Sample Name : Peppermint - Edens Garden
 Sample ID : BA18FAP
 Injection Volume : 0.10
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
4.241	3-methyl Butanal	0.01
4.354	2-methyl Butanal	0.01
5.457	1-Pentanol	0.02
5.544	2-methyl Butanol	0.02
11.019	2,5-Diethyltetrahydrofuran	0.02
12.600	alpha-Thujene	0.03
13.028	alpha-Pinene	0.71
15.265	Sabinene	0.47
15.586	beta-Pinene	1.15
16.210	Myrcene	0.07
16.639	3-Octanol	0.19
18.465	para-Cymene	0.51
18.776	Limonene	1.78
18.986	1,8-Cineole	5.88
19.164	cis-beta-Ocimene	0.07
19.864	trans-beta-Ocimene	0.01
20.681	gamma-Terpinene	0.06
21.487	trans-Sabinene hydrate	0.62
22.524	Terpinolene	0.02
23.476	Linalool	0.27
23.581	cis-Sabinene hydrate	0.06
23.706	2-Methylbutyl-2-methylbutyrate	0.05
24.081	2-Methylbutyl isovalerate	0.07
24.837	3-Octyl acetate	0.02
25.211	cis-para-Menth-2-en-1-ol	0.04
26.884	Isopulegol	0.09
27.458	Menthone	20.13
27.923	Menthofuran	0.80
28.037	Isomenthone	3.13
28.390	Neomenthol	3.63
28.743	trans-Isopulegone	0.03
29.053	Menthol	46.92
29.171	Terpinen-4-ol	0.78
29.536	para-Cymen-8-ol	0.03
29.708	Isomenthol	0.55
29.909	Neoisomenthol	0.17
30.127	alpha-Terpineol	0.28
31.514	Unidentified	0.03
32.907	3-Hexenyl isovalerate	0.05
33.067	Pulegone	0.64
33.441	Carvone	0.02
33.853	Linalyl acetate	0.08
34.124	Piperitone	0.54
35.428	Neomenthol acetate	0.44
36.622	Menthyl acetate	6.30
36.894	Dihydroedulan I	0.03
37.118	Unidentified	0.03
37.652	Isomenthyl acetate	0.27
40.370	Unidentified	0.05
42.859	beta-Bourbonene	0.20
43.217	beta-Elementene	0.04
45.157	beta-Caryophyllene	1.53
47.206	(Z)-beta-Farnesene	0.07
47.403	alpha-Humulene	0.04
48.989	Germacrene D	0.20
49.830	Menthylactone	0.10
53.255	Unidentified	0.08
54.711	Spathulenol	0.06
55.037	Caryophyllene oxide	0.40
55.763	Viridiflorol	0.11
		100.00

Chromatogram Peppermint - Edens Garden



Comments:

The analysis of this Peppermint batch sample meets the expected chemical profile for authentic essential oil of *Mentha piperita*. 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.

Sample Information

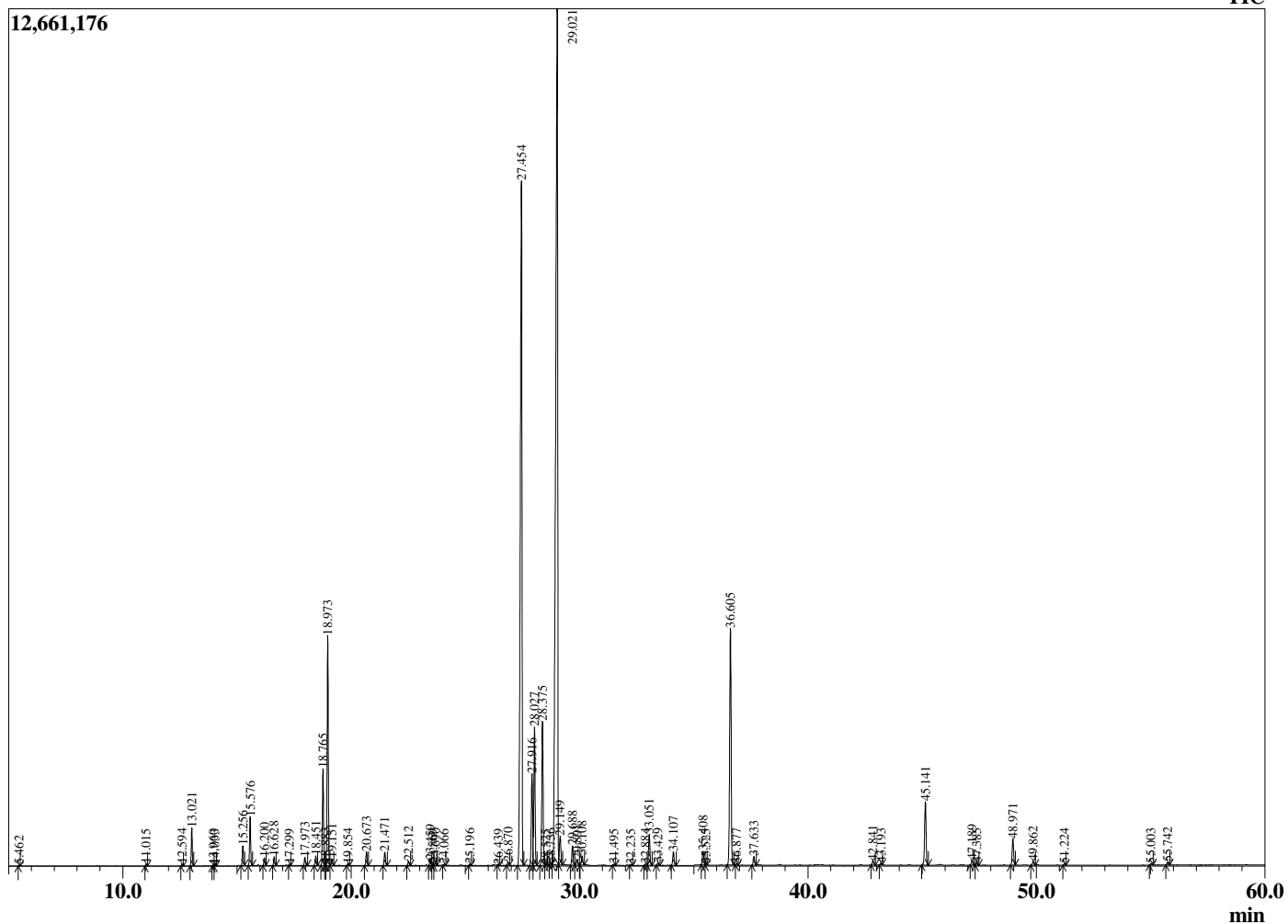
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 8/29/2020 10:45:36 AM
 Sample Type : Essential Oil
 Sample Name : Peppermint, India -
 Sample ID : BIOAROMA : BA08GS
 Injection Volume : 0.10
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
4.245	3-Methyl butanal	0.01
5.462	Isoamyl alcohol	0.02
11.015	2,5-Diethyltetrahydrofuran	0.03
12.594	alpha-Thujene	0.04
13.021	alpha-Pinene	0.82
13.960	Camphene	0.02
14.033	3-Methylcyclohexanone	0.03
15.256	Sabinene	0.46
15.576	beta-Pinene	1.14
16.200	Myrcene	0.17
16.628	3-Octanol	0.21
17.299	alpha-Phellandrene	0.03
17.973	alpha-Terpinene	0.20
18.451	para-Cymene	0.23
18.765	Limonene	2.44
18.883	beta-Phellandrene	0.04
18.973	1,8-Cineole	5.77
19.151	cis-beta-Ocimene	0.16
19.854	trans-beta-Ocimene	0.04
20.673	gamma-Terpinene	0.36
21.471	trans-Sabinene hydrate	0.37
22.512	Terpinolene	0.11
23.459	Linalool	0.15
23.569	cis-Sabinene hydrate	0.03
23.690	2-Methylbutyl-2-methylbutyrate	0.06
24.066	2-Methylbutyl isovalerate	0.03
25.196	cis-para-Menth-2-en-1-ol	0.03
26.439	trans-para-Menth-2-en-1-ol	0.02
26.870	Isopulegol	0.08
27.454	Menthone	24.07
27.916	Menthofuran	2.64
28.027	Isomenthone	3.77
28.375	Neomenthol	4.16
28.525	Borneol	0.02
28.736	trans-Isopulegone	0.05
29.021	Menthol	37.17
29.149	Terpinen-4-ol	0.90
29.688	Isomenthol	0.54
29.891	Neoisomenthol	0.17
30.108	alpha-Terpineol	0.27
31.495	Unidentified	0.03
32.235	Citronellol	0.02
32.884	Hex-(3Z)-enyl isovalerate	0.04
33.051	Pulegone	0.90
33.429	Carvone	0.06
34.107	Piperitone	0.40
35.408	Neomenthyl acetate	0.42
35.525	Unidentified	0.02
36.605	Menthyl acetate	7.43
36.877	Dihydroedulan I	0.04
37.633	Isomenthyl acetate	0.26
42.841	beta-Bourbonene	0.13
43.193	beta-Elemene	0.05
45.141	beta-Caryophyllene	2.03
47.189	trans-beta-Farnesene	0.15
47.385	alpha-Humulene	0.06
48.971	Germacrene D	0.81
49.862	Bicyclogermacrene	0.13
51.224	delta-Cadinene	0.04
55.003	Caryophyllene oxide	0.05
55.742	Viridiflorol	0.08
		100.00

Chromatogram Peppermint, India - BIOAROMA



Comments:

The analysis of this Peppermint, India batch sample meets the expected chemical profile for authentic essential oil of *Mentha piperita*. 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.

Sample Information

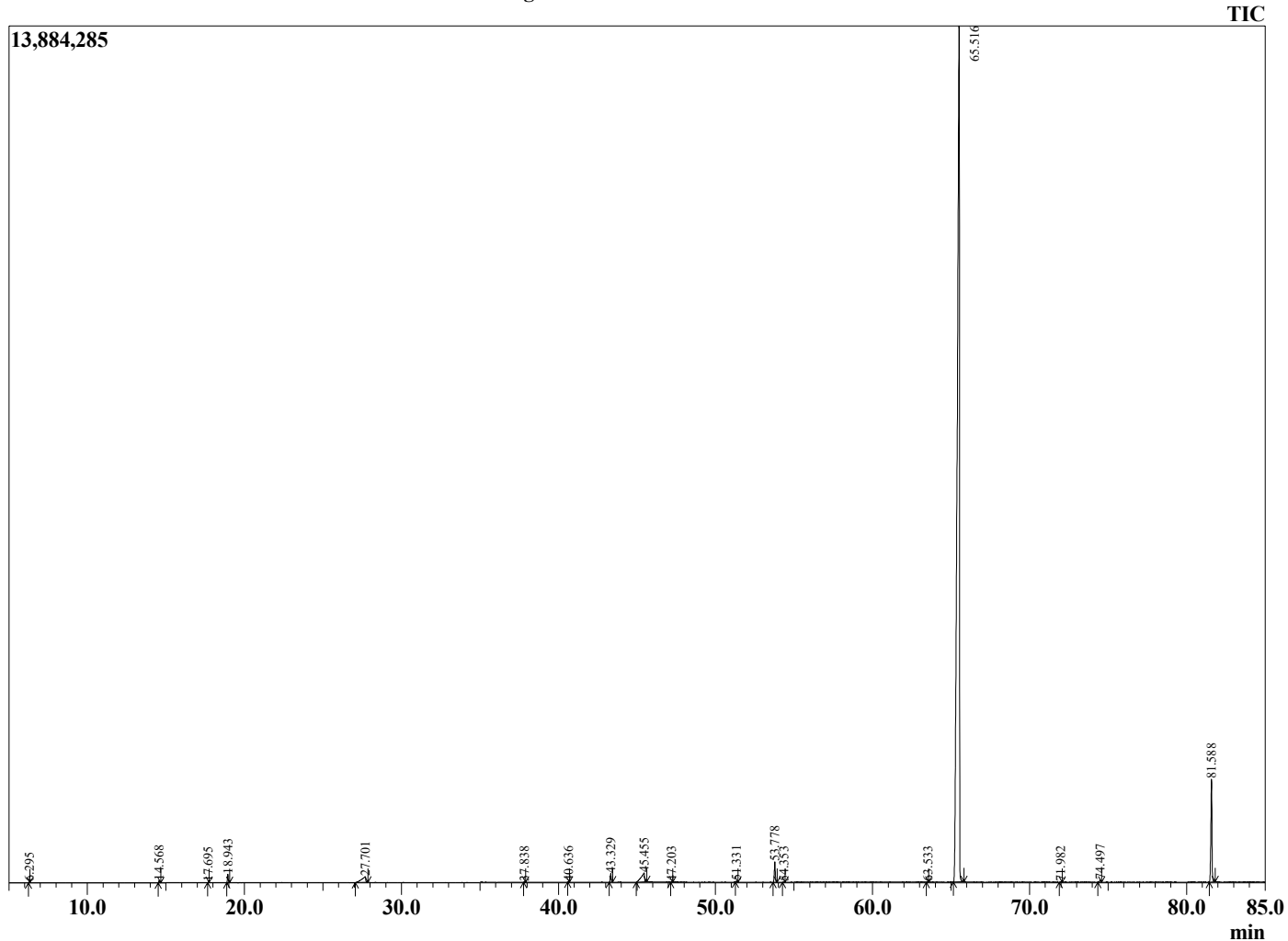
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 7/12/2020 8:04:25 AM
 Sample Type : Essential Oil
 Sample Name : Peru Balsam - Edens Garden
 Sample ID : BA18FAQ
 Injection Volume : 0.10
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
6.295	Toluene	0.03
14.568	Benzaldehyde	0.09
17.695	Limonene	0.01
18.943	Benzyl alcohol	0.33
27.701	Benzoic acid	1.13
37.838	4-vinyl-Guaiacol	0.02
40.636	Eugenol	0.02
43.329	Vanillin	0.39
45.455	(E)-Cinnamic acid	1.42
47.203	(E)-beta-Farnesene	0.02
51.331	Guaiacyl acetone	0.05
53.778	trans-Nerolidol	0.96
54.353	Unidentified	0.02
63.533	Unidentified	0.03
65.516	Benzyl benzoate	90.03
71.982	Benzyl 4-methylbenzoate	0.02
74.497	(Z)-Benzyl cinnamate	0.11
81.588	(E)-Benzyl cinnamate	5.32
		100.00

Chromatogram Peru Balsam - Edens Garden



Comments:

The analysis of this Peru Baslumbatch sample meets the expected chemical profile for authentic essential oil of *Myroxylon pereirae*. 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.

Sample Information

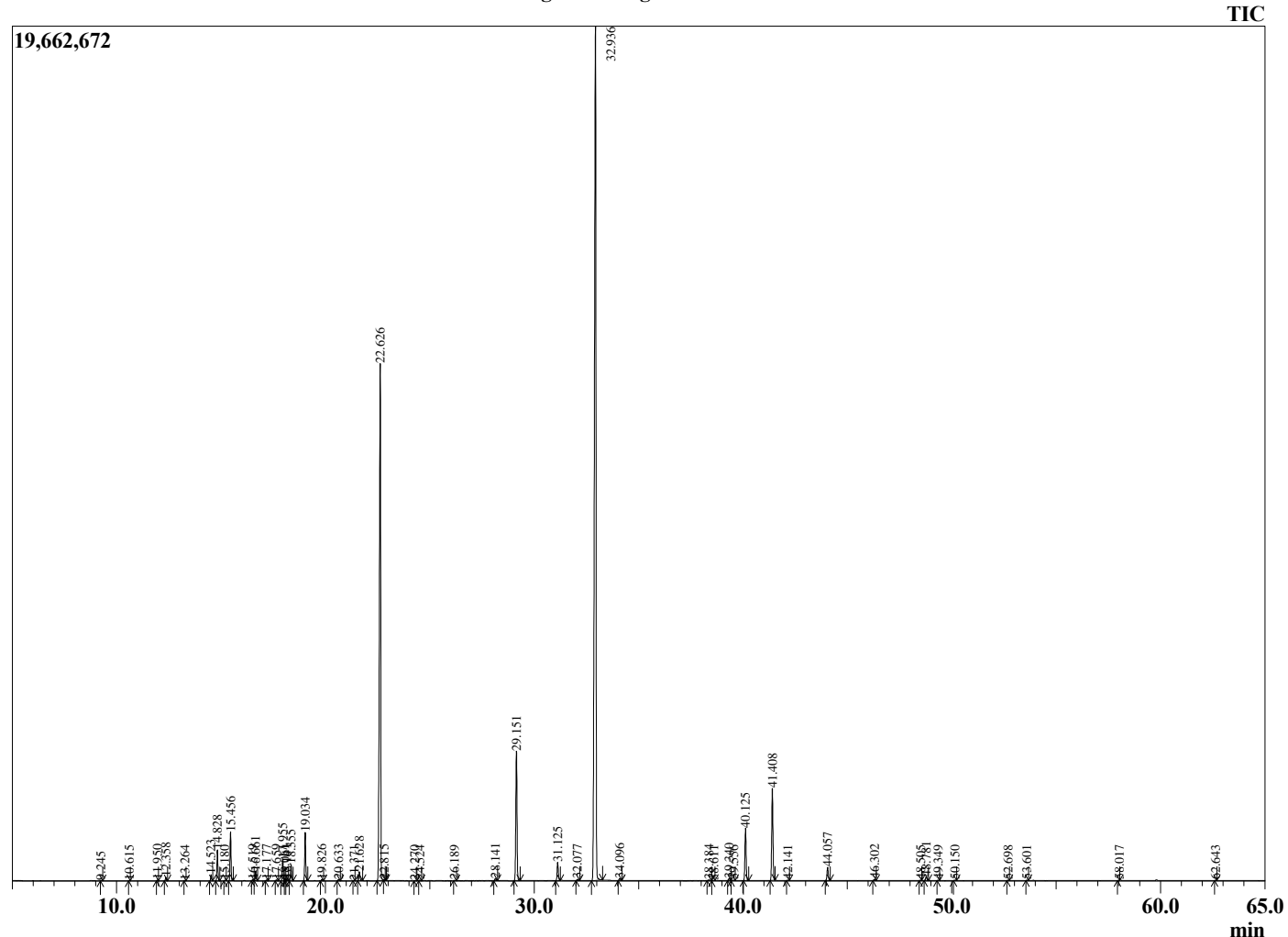
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 3/16/2021 1:42:43 AM
 Sample Type : Essential Oil
 Sample Name : Petitgrain -
 Sample ID : BIOAROMA : BB22AU
 Injection Volume : 0.10
 Instrument ID : GC-4



Peak Report TIC

R.Time	Name	Area%
9.245	Hexanol	0.01
10.615	Nonane	0.00
11.950	alpha-Thujene	0.02
12.358	alpha-Pinene	0.12
13.264	Camphene	0.01
14.523	Sabinene	0.21
14.828	beta-Pinene	1.12
15.180	6-Methyl hept-5-en-2-one	0.02
15.456	Myrcene	1.80
16.519	alpha-Phellandrene	0.03
16.661	delta-3-Carene	0.37
17.177	alpha-Terpinene	0.03
17.659	para-Cymene	0.04
17.955	Limonene	0.88
18.061	beta-Phellandrene	0.04
18.141	1,8-Cineole	0.07
18.355	(Z)-beta-Ocimene	0.63
19.034	(E)-beta-Ocimene	1.89
19.826	gamma-Terpinene	0.04
20.633	cis-Linalool oxide (furanoid)	0.05
21.371	Isoterpinolene	0.01
21.628	Terpinolene	0.41
22.626	Linalool	25.60
22.815	Hotrienol	0.01
24.270	Unidentified	0.01
24.524	allo-Ocimene	0.03
26.189	Citronellal	0.01
28.141	Terpinen-4-ol	0.11
29.151	alpha-Terpineol	5.97
31.125	Nerol	0.85
32.077	Neral	0.06
32.936	Linalyl acetate	51.48
34.096	Geranial	0.10
38.384	delta-Elemene	0.05
38.611	Unidentified	0.01
39.340	alpha-Terpinyl acetate	0.10
39.556	Citronellyl acetate	0.02
40.125	Neryl acetate	2.42
41.408	Geranyl acetate	4.34
42.141	beta-Elemene	0.02
44.057	trans-beta-Caryophyllene	0.65
46.302	alpha-Humulene	0.07
48.505	Viridiflorene	0.02
48.781	Bicyclogermacrene	0.19
49.349	(E,E)-alpha-Farnesene	0.01
50.150	delta-Cadinene	0.02
52.698	(E)-Nerolidol	0.02
53.601	Unidentified	0.01
58.017	Valerianol	0.02
62.643	Unidentified	0.01
		100.00

Chromatogram Petitgrain - BIOAROMA



Comments:

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

Sample Information

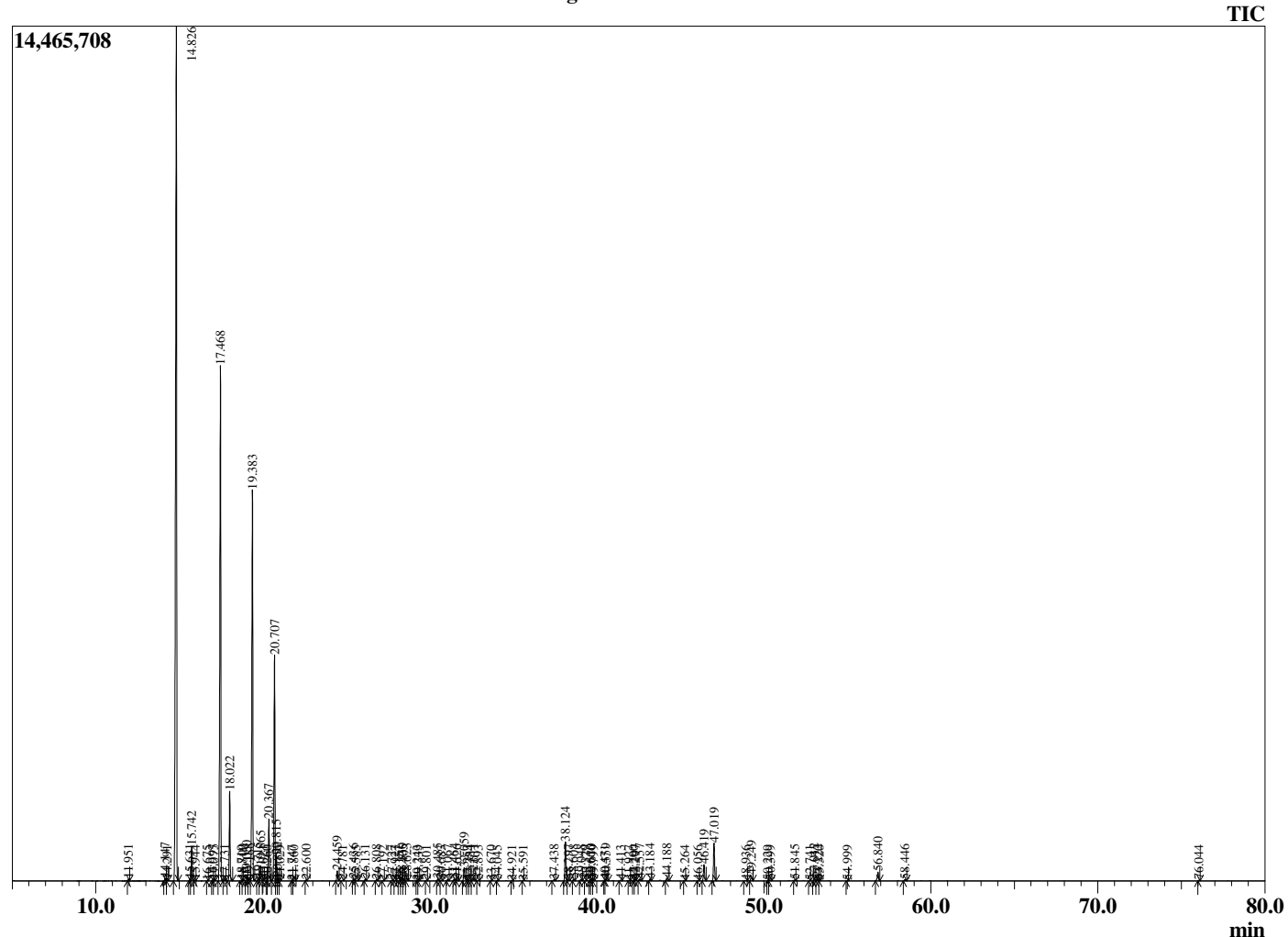
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 3/7/2021 4:46:44 PM
 Sample Type : Essential Oil
 Sample Name : Pine - BIOAROMA :
 Sample ID : BB22AV
 Injection Volume : 0.10
 Instrument ID : GC-2



Peak Report TIC

R.Time	Name	Area%
11.951	Santene	0.04
14.147	Tricyclene	0.09
14.291	alpha-Thujene	0.02
14.826	alpha-Pinene	38.91
15.631	alpha-Fenchene	0.05
15.742	Camphene	1.10
15.944	Thuja-2,4(10)diene	0.02
16.675	Unidentified	0.01
16.997	Unidentified	0.04
17.075	Sabinene	0.04
17.468	beta-Pinene	20.64
17.731	Unidentified	0.05
18.022	Myrcene	3.02
18.719	Unidentified	0.02
18.800	Unidentified	0.03
19.030	Pseudolimonene	0.16
19.188	alpha-Phellandrene	0.08
19.383	delta-3-Carene	15.49
19.715	1,4-Cineole	0.11
19.865	alpha-Terpinene	0.51
20.021	meta-Cymene	0.02
20.260	Unidentified	0.02
20.367	para-Cymene	2.23
20.707	Limonene	8.52
20.815	beta-Phellandrene	0.85
20.892	1,8-Cineole	0.10
21.029	(Z)-beta-Ocimene	0.02
21.747	(E)-beta-Ocimene	0.01
21.860	Unidentified	0.01
22.600	gamma-Terpinene	0.03
24.459	Terpinolene	0.37
24.781	para-Cymenene	0.02
25.436	alpha-Pinene oxide	0.06
25.585	Unidentified	0.02
26.131	Unidentified	0.06
26.808	alpha-Fenchol	0.05
27.192	Unidentified	0.01
27.727	cis-Limonene oxide	0.02
27.927	Terpin-3-en-1-ol	0.01
28.157	Nopinone	0.01
28.330	trans-Pinocarveol	0.12
28.405	Epoxyterpinolene	0.04
28.623	trans-Verbenol	0.12
29.243	Unidentified	0.01
29.339	trans-beta-Terpineol	0.01
29.801	Pinocarvone	0.02
30.485	Borneol	0.08
30.683	Unidentified	0.03
31.067	Terpinen-4-ol	0.04
31.464	para-Cymen-8-ol	0.08
31.626	Unidentified	0.04
32.059	alpha-Terpineol	0.61
32.253	Estragole	0.02
32.384	Unidentified	0.02
32.611	Unidentified	0.11
32.893	Verbenone	0.02
33.670	trans-Carveol	0.01
34.045	Unidentified	0.02
34.921	Unidentified	0.02
35.591	Unidentified	0.01
37.438	cis-Ascrinol glycol	0.05
38.124	Bornyl acetate	1.58

Chromatogram Pine - BIOAROMA



Comments:

The analysis of this Pine batch sample meets the expected chemical profile for authentic essential oil of *Pinus sylvestris*. 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%
38.297	Isobornyl acetate	0.04
38.608	trans-Ascrinol glycol	0.06
39.048	Unidentified	0.06
39.329	Unidentified	0.02
39.610	Unidentified	0.03
39.670	Unidentified	0.05
39.799	Unidentified	0.02
40.471	Unidentified	0.01
40.559	Unidentified	0.07
41.413	Unidentified	0.03
41.927	Unidentified	0.01
42.200	alpha-Terpinyl acetate	0.02
42.297	alpha-Cubebene	0.03
42.557	alpha-Longipinene	0.08
43.184	Unidentified	0.08
44.188	alpha-Copaene	0.12
45.264	Sativene	0.01
46.056	cis-beta-Caryophyllene	0.01
46.419	Junipene	0.70
47.019	trans-beta-Caryophyllene	1.61
48.936	(E)-beta-Farnesene	0.02
49.249	alpha-Humulene	0.22
50.229	10-beta-H-Cadina-1(6),4-diene	0.01
50.399	trans-Cadina-1(6),4-diene	0.02
51.845	alpha-Murolene	0.03
52.741	gamma-Cadinene	0.01
53.012	delta-Cadinene	0.12
53.222	trans-Calamenene	0.05
53.320	Zonarene	0.01
54.999	Unidentified	0.02
56.840	Caryophyllene oxide	0.46
58.446	Humulene epoxide II	0.05
76.044	Myrcene dimer I	0.02
		100.00

Sample Information

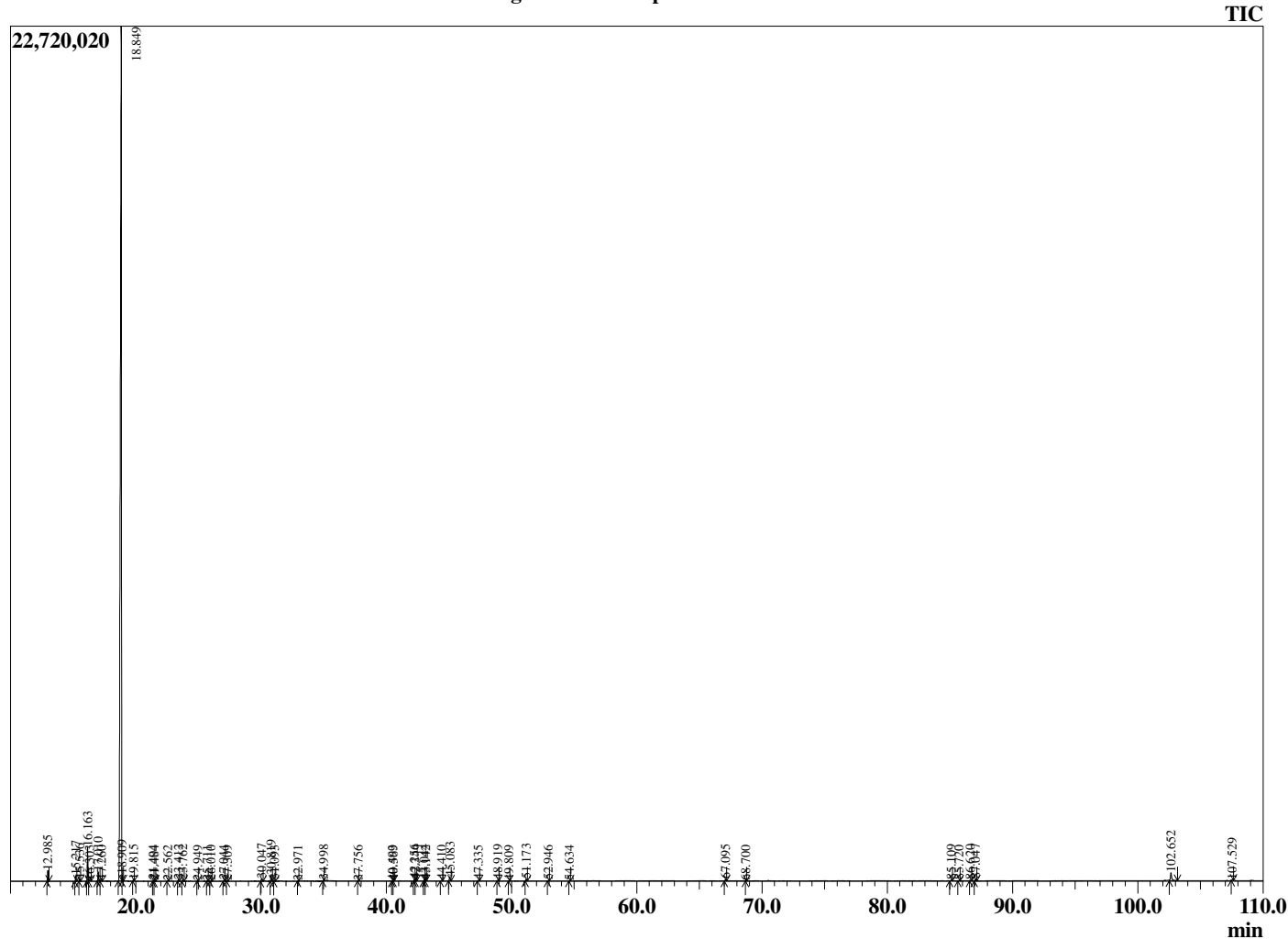
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 10/19/2020 11:07:23 PM
 Sample Type : Essential Oil
 Sample Name : Pink Grapefruit -
 Sample ID : BIOAROMA : BA29IW
 Injection Volume : 0.10
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
12.985	alpha-Pinene	0.55
15.217	Sabinene	0.30
15.536	beta-Pinene	0.12
16.163	Myrcene	1.93
16.303	Unidentified	0.06
17.010	Octanal	0.51
17.260	alpha-Phellandrene	0.06
18.849	Limonene	92.62
18.909	Unidentified	0.17
19.815	(E)-beta-Ocimene	0.08
21.404	1-Octanol	0.05
21.484	cis-Linalool oxide (furanoid)	0.03
22.562	trans-Linalool oxide (furanoid)	0.03
23.412	Linalool	0.08
23.762	Nonanal	0.08
24.949	trans-para-Mentha-2,8-dien-1-ol	0.01
25.711	cis-Limonene oxide	0.02
26.010	trans-Limonene oxide	0.02
27.044	Citronellal	0.05
27.309	Unidentified	0.01
30.047	alpha-Terpineol	0.15
30.819	Decanal	0.42
31.093	Octyl acetate	0.05
32.971	Neral	0.02
34.998	Geranial	0.04
37.756	Undecenal	0.01
40.493	Unidentified	0.02
40.569	Eugenol	0.02
42.256	alpha-Copaene	0.13
42.344	Geranyl acetate	0.06
43.044	beta-Cubebene	0.09
43.142	beta-Elemene	0.02
44.410	Dodecanol	0.05
45.083	beta-Caryophyllene	0.31
47.335	alpha-Humulene	0.05
48.919	Germacrene D	0.07
49.809	Bicyclogermacrene	0.02
51.173	delta-Cadinene	0.12
52.946	Elemol	0.04
54.634	Unidentified	0.01
67.095	Nootkatone	0.12
68.700	Unidentified	0.01
85.109	Unidentified furocoumarin	0.08
85.720	Unidentified	0.04
86.620	Unidentified furocoumarin	0.08
87.047	Unidentified	0.15
102.652	Aurapten	0.99
107.529	Unidentified	0.05
		100.00

Chromatogram Pink Grapefruit - BIOAROMA



Comments:

The analysis of this Pink Grapefruit batch sample meets the expected chemical profile for authentic essential oil of *Citrus paradisi*. 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.

Sample Information

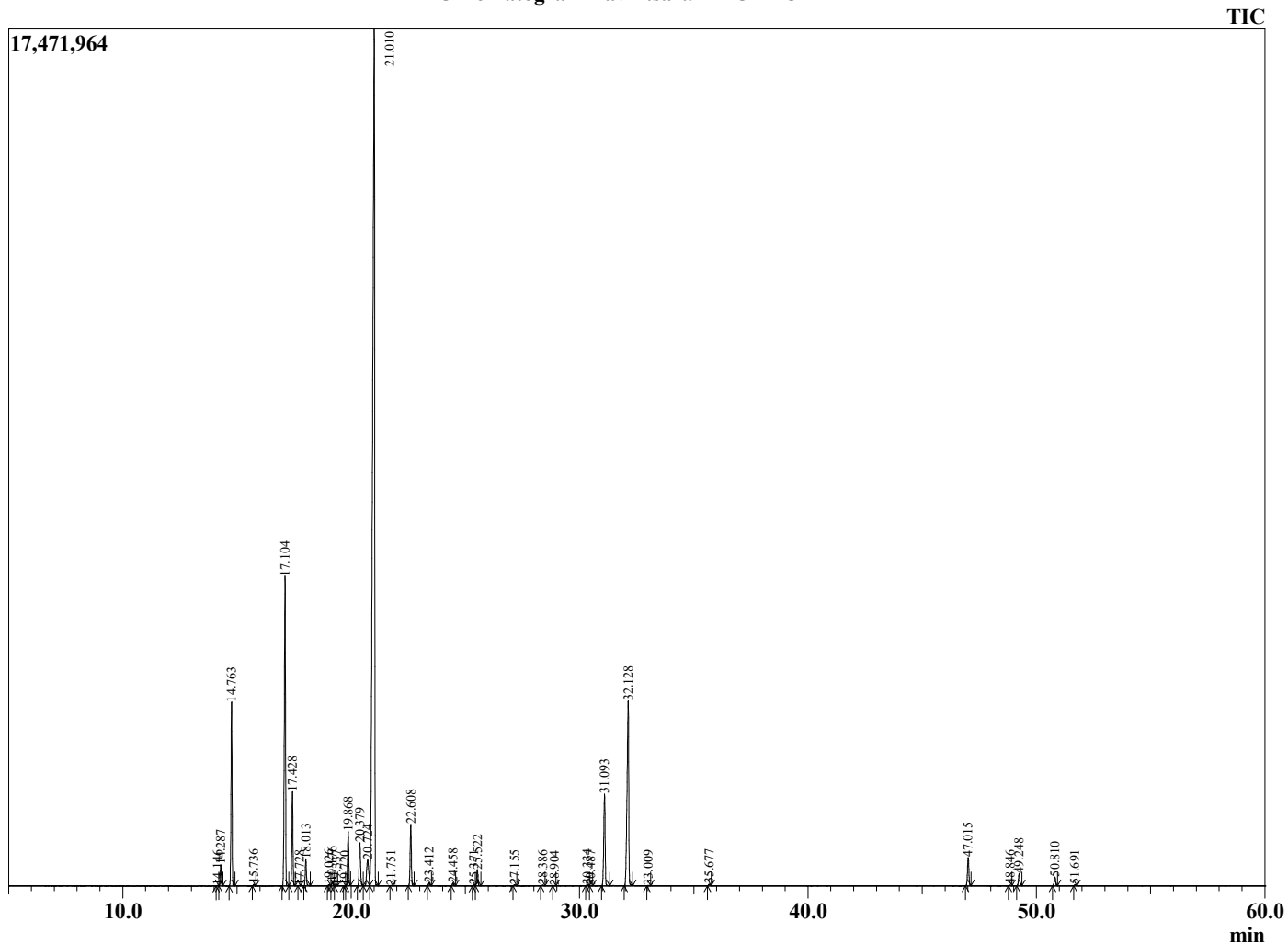
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 3/7/2021 1:49:49 PM
 Sample Type : Essential Oil
 Sample Name : Ravintsara -
 Sample ID : BIOAROMA : BB22AW
 Injection Volume : 0.10
 Instrument ID : GC-2



Peak Report TIC

R.Time	Name	Area%
14.146	Tricyclene	0.01
14.287	alpha-Thujene	0.65
14.763	alpha-Pinene	5.96
15.736	Camphene	0.05
17.104	Sabinene	11.66
17.428	beta-Pinene	3.13
17.728	Unidentified	0.01
18.013	Myrcene	0.93
19.026	Pseudolimonene	0.05
19.176	alpha-Phellandrene	0.14
19.337	delta-3-Carene	0.01
19.720	1,4-Cineole	0.00
19.868	alpha-Terpinene	1.94
20.379	para-Cymene	1.83
20.724	Limonene	1.61
21.010	1,8-Cineole	53.10
21.751	trans-beta-Ocimene	0.01
22.608	gamma-Terpinene	2.26
23.412	trans-Sabinene hydrate	0.11
24.458	Terpinolene	0.11
25.371	Linalool	0.04
25.522	cis-Sabinene hydrate	0.63
27.155	cis-para-Menth-2-en-1-ol	0.04
28.386	trans-para-Menth-2-en-1-ol	0.03
28.904	Unidentified	0.01
30.334	delta-Terpineol	0.05
30.487	Borneol	0.01
31.093	Terpinen-4-ol	3.84
32.128	alpha-Terpineol	9.49
33.009	cis-Piperitol	0.01
35.677	Linalyl acetate	0.06
47.015	beta-Caryophyllene	1.23
48.846	Humulen-(v1)	0.03
49.248	alpha-Humulene	0.53
50.810	Germacrene D	0.39
51.691	Bicyclogermacrene	0.03
		100.00

Chromatogram Ravintsara - BIOAROMA



Comments:

The analysis of this Ravintsara batch sample meets the expected chemical profile for authentic essential oil of *Cinnamomum camphora*. 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.

Sample Information

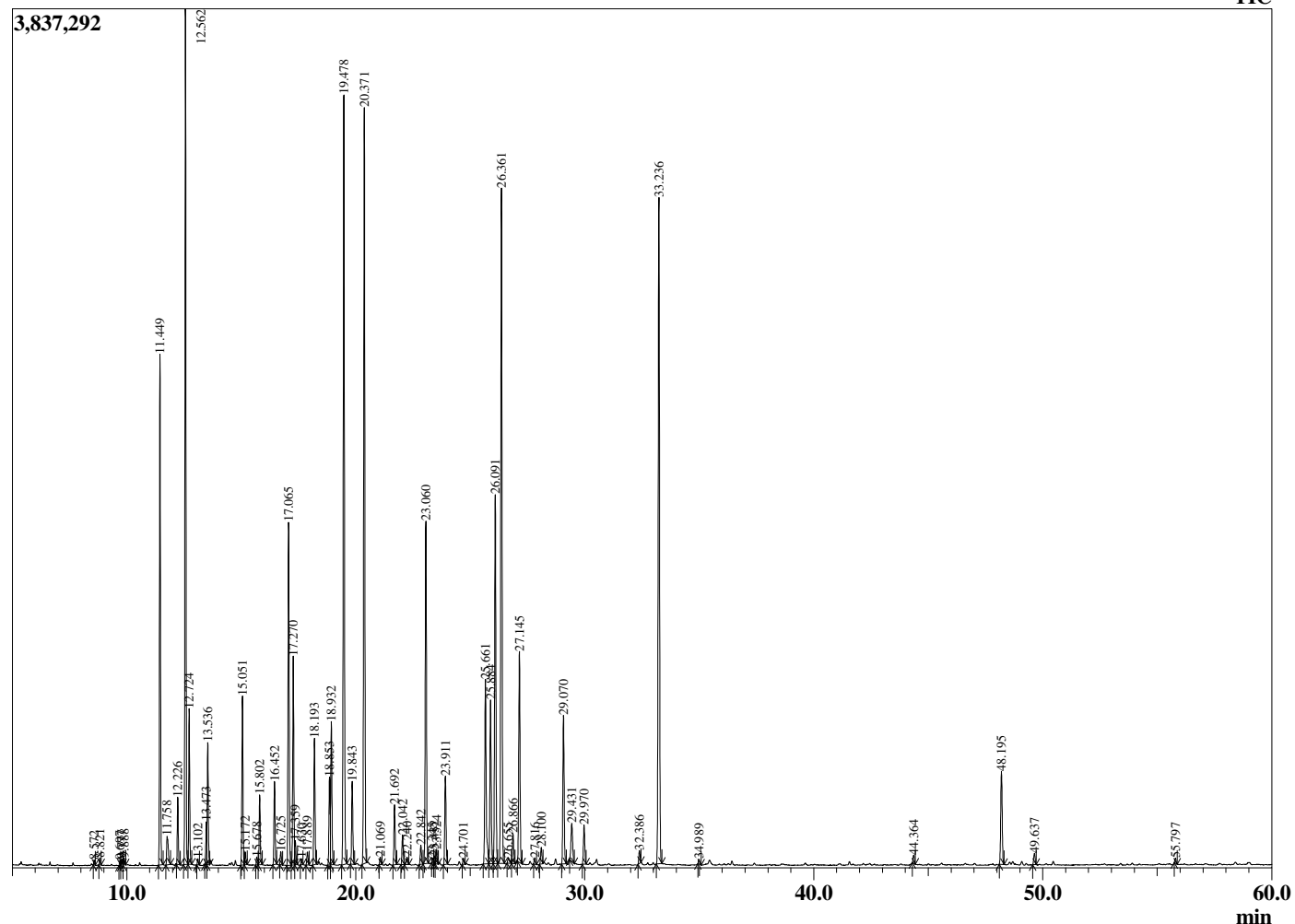
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 7/10/2020 9:16:40 PM
 Sample Type : Essential Oil
 Sample Name : Roman Chamomile -BIOAROMA
 Sample ID : BA18FL
 Injection Volume : 0.10
 Instrument ID : GC-4



Peak Report TIC

R.Time	Name	Area%
8.572	Ethyl 2-methylbutyrate	0.04
8.821	Propyl isobutyrate	0.06
9.697	Isopentyl acetate	0.05
9.777	2-Methylbutyl acetate	0.06
9.888	Propyl methacrylate	0.06
11.449	Isobutyl isobutyrate	5.15
11.758	Prenyl acetate	0.50
12.226	2,5,8-Trimethyl nonane	0.69
12.562	alpha-Pinene	9.16
12.724	Isobutyl methacrylate	1.62
13.102	Propyl 2-methylbutyrate	0.07
13.473	Camphene	0.43
13.536	3-Methylcyclohexanone	1.34
15.051	beta-Pinene	1.95
15.172	Unidentified	0.15
15.678	Myrcene	0.11
15.802	Ethyl tiglate isomer	0.79
16.452	Isobutyl 2-methylbutyrate	0.98
16.725	Isobutyl isovalerate	0.16
17.065	Isoamyl isobutyrate	4.03
17.270	2-Methylbutyl isobutyrate	2.50
17.359	Unidentified Roman Chamomile isomer	0.26
17.630	Unidentified Roman Chamomile isomer	0.07
17.889	para-Cymene	0.17
18.193	Limonene	1.57
18.853	Pentyl methacrylate	1.07
18.932	Isopentyl methacrylate	1.75
19.478	Isobutyl angelate	9.57
19.843	Prenyl isobutyrate	1.02
20.371	Methylallyl angelate	9.31
21.069	Hexyl propionate	0.09
21.692	Camphenilone	0.76
22.042	Butyl angelate	0.39
22.240	Isobutyl tiglate	0.11
22.842	Isopentyl 2-methylbutyrate	0.26
23.060	2-Methylbutyl-2-methylbutyrate	4.63
23.345	Unidentified	0.07
23.432	2-Methylbutyl isovalerate	0.08
23.524	Isobutyl hexanoate	0.18
23.911	Hexyl isobutyrate	1.20
24.701	alpha-Campholenal	0.08
25.661	trans-Pinocarveol	2.78
25.884	Butanoic Acid Ester	2.27
26.091	Isoamyl angelate	5.08
26.361	Isoamyl tiglate	9.04
26.655	trans-beta-Terpineol	0.11
26.866	Amyl angelate isomer	0.41
27.145	Pinocarpone	2.84
27.816	Borneol	0.08
28.100	Isopinocampnone	0.22
29.070	2-Methyl-2-butene angelate	2.01
29.431	Myrtenal	0.66
29.970	3-Methyl-3-methylpentyl butyrate	0.55
32.386	2-Hydroxy-2-methyl-but-3-enyl 2-methyl-2-ci	0.17
33.236	4-Methyl amyl angelate	9.38
34.989	Hex-(3Z)-enyl angelate	0.06
44.364	beta-Caryophyllene	0.11
48.195	Germacrene D	1.47
49.637	(E,E)-alpha-Farnesene	0.17
55.797	Unidentified	0.06
		100.00

Chromatogram Roman Chamomile - BIOAROMA



Comments:

The analysis of this Roman Chamomile batch sample meets the expected chemical profile for authentic essential oil of *Anthemis nobillis*. 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.

Sample Information

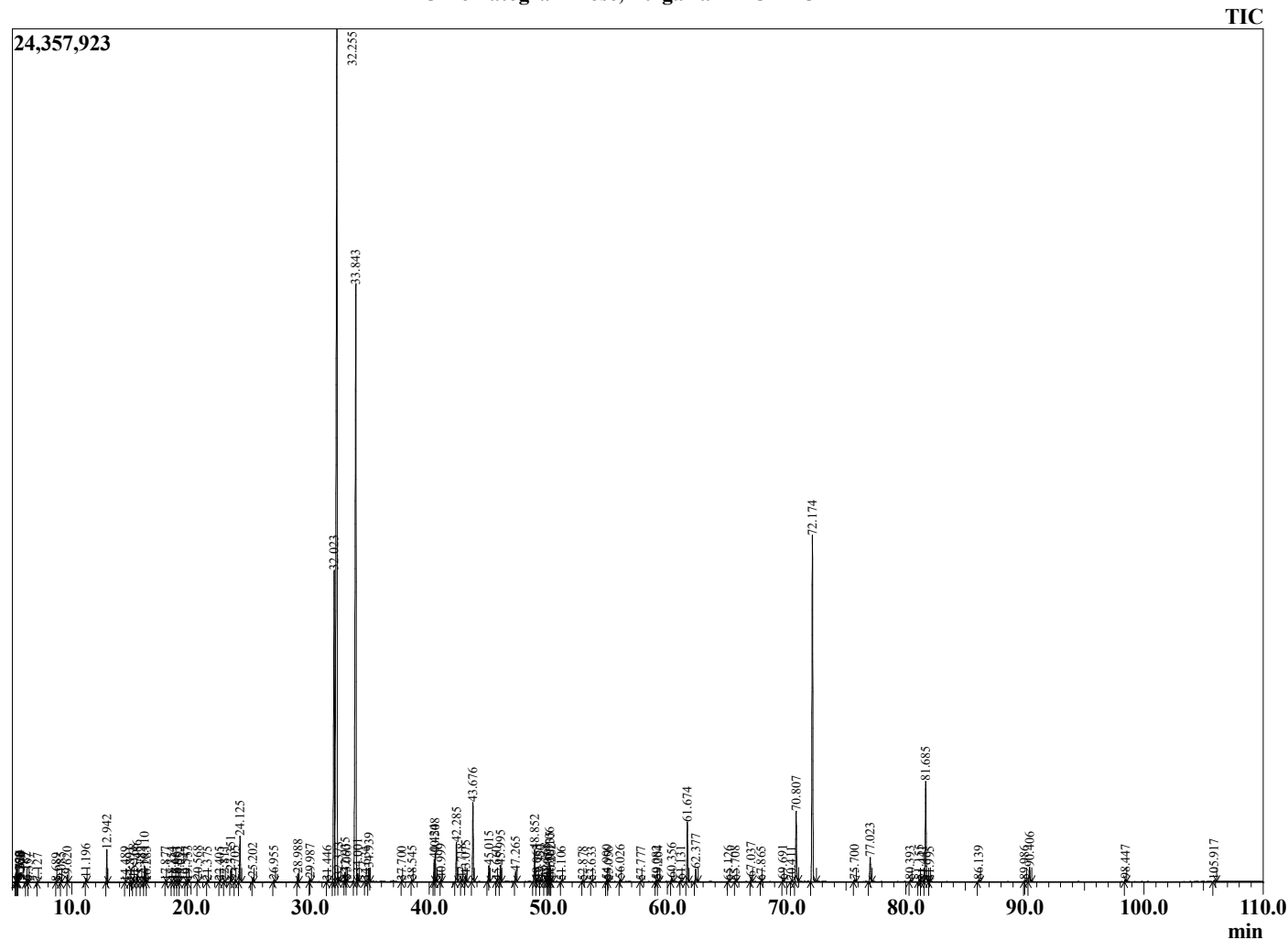
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 3/22/2021 4:36:03 PM
 Sample Type : Essential Oil
 Sample Name : Rose, Bulgaria -
 Sample ID : BIOAROMA : BB22AY
 Injection Volume : 0.10
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
3.052	Ethanol	1.52
3.691	Unidentified	0.01
3.905	Unidentified	0.01
4.785	Pentanal	0.03
5.280	1,1-Diethoxyethane	0.02
5.368	3-Isopentenyl alcohol	0.01
5.434	3-Methylbutanol	0.05
5.520	2-Methylbutanol	0.04
6.162	1-Pentanol	0.02
6.357	Prenol	0.01
7.127	Hexanal	0.01
8.689	3-Methyl pentanol	0.01
9.085	Hex-3(Z)-enol	0.03
9.620	n-Hexanol	0.12
11.196	Heptanal	0.06
12.942	alpha-Pinene	0.63
14.489	Benzaldehyde	0.01
14.891	Heptanol	0.01
15.168	Sabinene	0.07
15.486	beta-Pinene	0.15
15.782	6-Methylhept-5-en-2-one	0.01
16.110	Myrcene	0.32
16.283	Sulcatol	0.01
17.877	alpha-Terpinene	0.02
18.354	para-Cymene	0.01
18.661	Limonene	0.04
18.863	1,8-Cineole	0.02
19.052	(Z)-beta-Ocimene	0.01
19.547	Benzeneacetaldehyde	0.01
19.753	(E)-beta-Ocimene	0.02
20.568	gamma-Terpinene	0.04
21.375	trans-Sabinene hydrate	0.02
22.405	Terpinolene	0.02
22.811	Rosefuran	0.03
23.351	Linalool	0.25
23.705	Nonanal	0.04
24.125	Phenethyl alcohol	1.28
25.202	trans-Rose oxide	0.10
26.955	Unidentified	0.04
28.988	Terpinen-4-ol	0.21
29.987	alpha-Terpineol	0.09
31.446	Unidentified	0.02
32.023	Nerol	9.48
32.255	Citronellol	33.86
32.373	Isogeraniol isomer	0.13
32.935	Neral	0.23
33.060	Isogeraniol isomer	0.05
33.843	Geraniol	21.74
34.001	2-Phenethyl acetate	0.24
34.634	Isogeraniol isomer	0.01
34.939	Geranial	0.34
37.700	Undecenal	0.01
38.545	Methyl geranate	0.04
40.424	Citronellyl acetate	0.57
40.508	Eugenol	0.74
40.999	Neryl acetate	0.07
42.285	Geranyl acetate	1.05
42.718	beta-Bourbonene	0.08
43.075	beta-Elemene	0.17
43.676	Methyleugenol	2.04
45.015	trans-beta-Caryophyllene	0.47
45.660	beta-Copaene	0.02

Chromatogram Rose, Bulgaria - BIOAROMA



Comments:

The analysis of this Rose Oil, Bulgaria batch sample meets the expected chemical profile for authentic essential oil of *Rosa damascena*. 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%
45.995	alpha-Guaiene	0.46
47.265	alpha-Humulene	0.28
48.852	Germacrene D	0.94
49.063	Phenethyl-2-methylbutyrate	0.05
49.350	beta-Selinene	0.06
49.768	Aciphyllene	0.12
49.954	alpha-Selinene	0.03
50.106	Pentadecane	0.54
50.135	alpha-Bulnesene	0.13
50.262	(E,E)-alpha-Farnesene	0.09
51.106	delta-Cadinene	0.02
52.878	alpha-Elemol	0.02
53.633	trans-Nerolidol	0.02
54.900	2-Phenylethyl tiglate	0.05
55.056	Spathulenol	0.02
56.026	Hexadecane	0.06
57.777	gamma-Eudesmol	0.01
59.082	alpha-Eudesmol	0.06
59.204	Pogostol	0.04
60.356	(Z)-8-Heptadecene isomer	0.13
61.131	Farnesol isomer	0.03
61.674	Heptadecane	1.72
62.377	(2E,6E)-Farnesol	0.38
65.126	Benzyl benzoate	0.03
65.708	Unidentified	0.02
67.037	Octadecane	0.13
67.865	Hexadecanal	0.02
69.691	Phenethyl benzoate	0.05
70.411	Unidentified	0.02
70.807	(Z)-9-Nonadecene	2.19
72.174	Nonadecane	10.65
75.700	Unidentified	0.06
77.023	Eicosane	0.75
80.393	Unidentified	0.05
81.155	Unidentified	0.06
81.441	Unidentified	0.05
81.685	Heneicosane	3.23
81.995	Unidentified	0.02
86.139	Docosane	0.05
89.986	Tricosane isomer	0.04
90.406	Tricosane isomer	0.44
98.447	Pentacosane	0.07
105.917	Heptacosane	0.06
		100.00

Sample Information

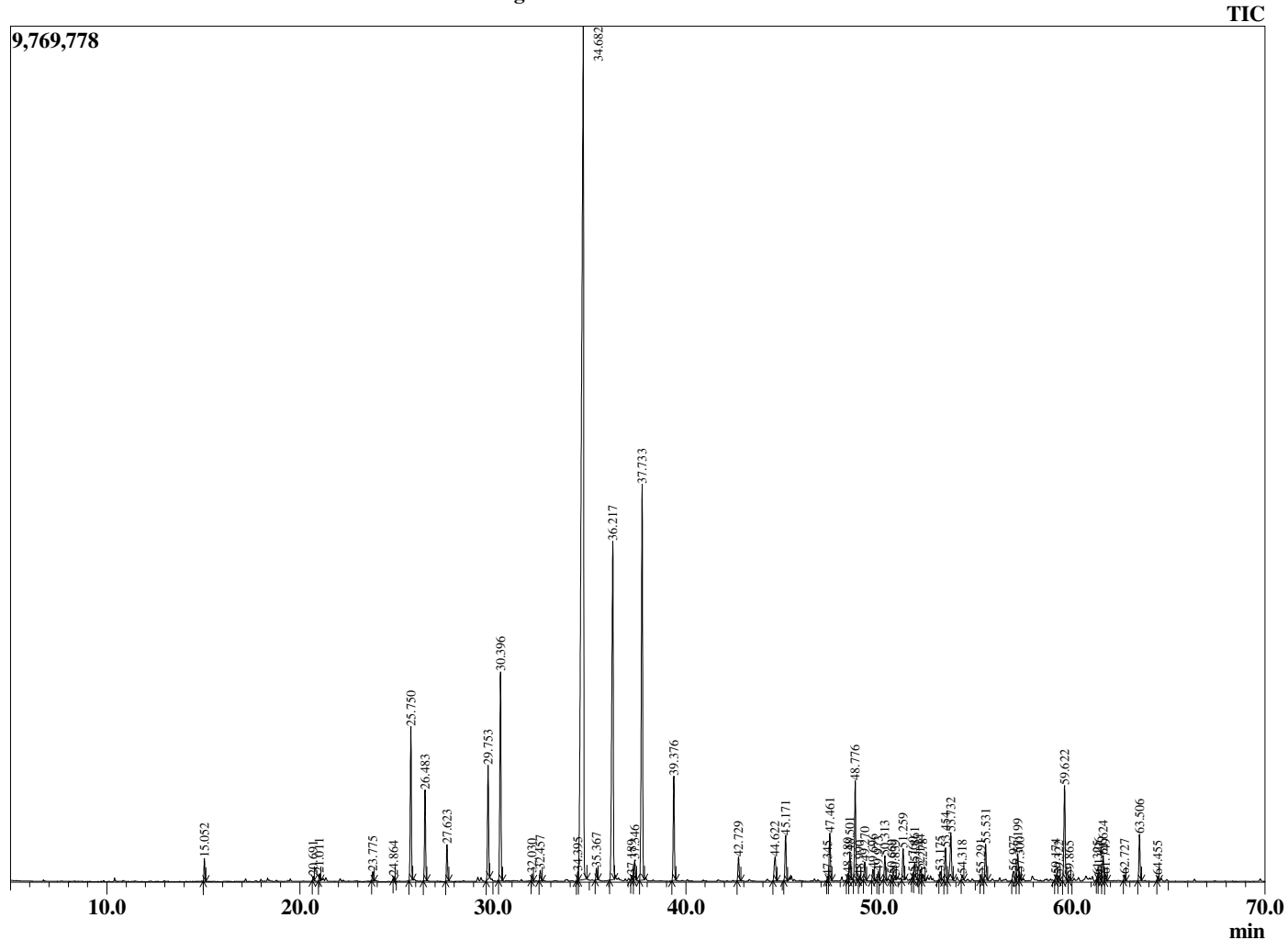
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 7/12/2020 5:33:20 PM
 Sample Type : Essential Oil
 Sample Name : Rose Geranium -BIOAROMA
 Sample ID : BA18FAT
 Injection Volume : 0.10
 Instrument ID : GC-2



Peak Report TIC

R.Time	Name	Area%
15.052	alpha-Pinene	0.42
20.691	para-Cymene	0.07
21.011	Limonene	0.14
23.775	cis-Linalool oxide (furanoid)	0.19
24.864	trans-Linalool oxide (furanoid)	0.07
25.750	Linalool	3.48
26.483	cis-Rose oxide	2.01
27.623	trans-Rose oxide	0.82
29.753	Menthone	2.61
30.396	Isomenthone	5.03
32.030	Isomenthol	0.14
32.457	alpha-Terpineol	0.26
34.395	Nerol	0.21
34.682	Citronellol	39.20
35.367	Neral	0.26
36.217	Geraniol	10.55
37.189	trans-Myrtonol	0.10
37.346	Geranial	0.47
37.733	Citronellyl formate	10.34
39.376	Geranyl formate	2.50
42.729	Citronellyl acetate	0.58
44.622	alpha-Copaene	0.79
45.171	beta-Bourbonene	1.15
47.345	beta-Ylangene	0.09
47.461	beta-Caryophyllene	1.19
48.380	alpha-Guaiene	0.15
48.501	Citronellyl propionate	0.67
48.776	6,9-Guaiadiene	2.55
48.990	Unidentified	0.09
49.270	Unidentified	0.43
49.696	alpha-Humulene	0.28
49.973	Alloaromadendrene	0.21
50.313	Geranyl propionate	0.56
50.669	10-beta-H-Cadina-1(6),4-diene	0.13
50.839	trans-Cadina-1(6),4-diene	0.12
51.259	Germacrene D	0.78
51.760	beta-Selinene	0.13
51.861	Viridiflorene (Ledene)	0.48
52.144	Bicyclogermacrene	0.30
52.278	alpha-Murolene	0.19
53.175	gamma-Cadinene	0.20
53.454	delta-Cadinene	0.83
53.732	Citronellyl isobutyrate	1.48
54.318	trans-Cadina-1,4-diene	0.12
55.291	Unidentified	0.12
55.531	Geranyl butyrate	0.91
56.977	Unidentified	0.33
57.199	Phenylethyl tiglate	0.70
57.300	Caryophyllene oxide	0.17
59.174	1,10-di-epi-Cubanol	0.13
59.322	Citronellyl valerate	0.10
59.622	10-epi-gamma-Eudesmol	2.55
59.865	1-epi-Cubanol	0.09
61.325	Valerianol	0.10
61.406	alpha-Eudesmol	0.21
61.624	(E)-Citronellyl tiglate	0.65
61.749	Unidentified	0.16
62.727	(Z)-Citronellyl tiglate	0.14
63.506	Geranyl tiglate	1.17
64.455	(2E,6E)-Farnesol	0.11
		100.00

Chromatogram Rose Geranium - BIOAROMA



Comments:

The analysis of this Rose Geranium batch sample meets the expected chemical profile for authentic essential oil of *Pelargonium roseum*. 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.

Sample Information

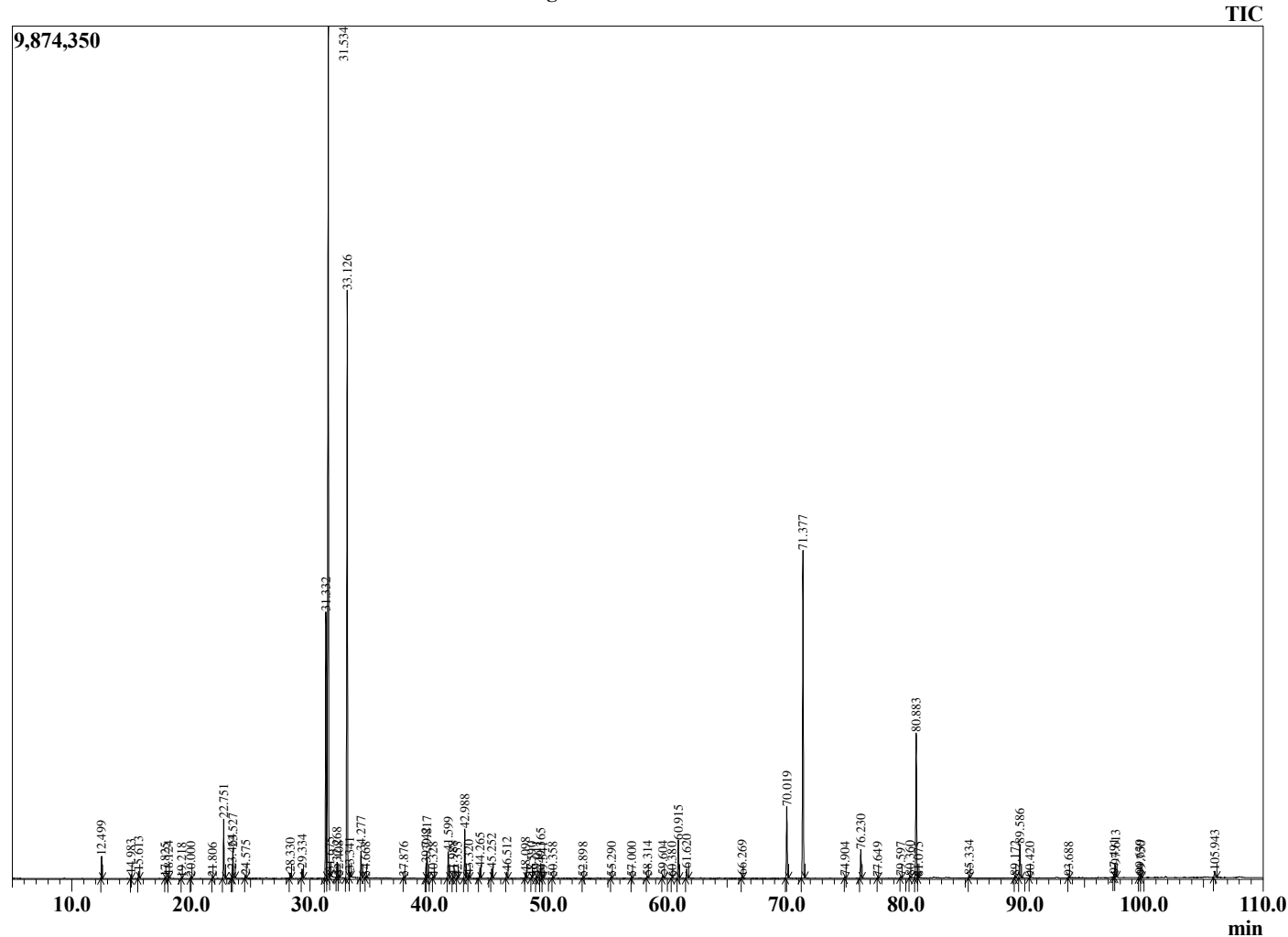
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 12/21/2020 9:40:40 PM
 Sample Type : Essential Oil
 Sample Name : Rose Oil-Eden's Garden
 Sample ID : BA08GU
 Injection Volume : 0.10
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
3.052	Ethanol	0.01
12.499	alpha-Pinene	0.51
14.983	beta-Pinene	0.10
15.613	Myrcene	0.18
17.825	para-Cymene	0.02
18.124	Limonene	0.07
19.218	(E)-beta-Ocimene	0.02
20.000	gamma-Terpinene	0.04
21.806	Terpinolene	0.02
22.751	Linalool	1.76
23.464	cis-Rose Oxide	0.19
23.527	Phenethyl alcohol	0.96
24.575	trans-Rose oxide	0.09
28.330	Terpinen-4-ol	0.18
29.334	alpha-Terpineol	0.30
31.332	Nerol	8.37
31.534	Citronellol	31.79
31.675	Isonerol	0.12
32.268	Neral	0.48
32.408	Isogeraniol	0.04
33.126	Geraniol	21.08
33.341	2-Phenethyl acetate	0.21
34.277	Geranial	0.85
34.668	Citronellyl formate	0.03
37.876	Methyl geranate	0.05
39.742	Citronellyl acetate	0.43
39.817	Eugenol	0.89
40.328	Neryl acetate	0.04
41.599	Geranyl acetate	0.87
41.988	beta-Bourbonene	0.07
42.353	beta-Elemene	0.04
42.988	Methyleugenol	1.58
43.320	cis-beta-Caryophyllene	0.10
44.265	trans-beta-Caryophyllene	0.35
45.252	alpha-Guaiene	0.32
46.512	alpha-Humulene	0.22
48.098	Germacrene D	0.19
48.590	beta-Selinene	0.03
49.011	Unidentified	0.07
49.365	Unidentified	0.52
49.541	(E,E)-alpha-Farnesene	0.04
50.358	delta-Cadinene	0.03
52.898	trans-Nerolidol	0.03
55.290	Hexadecane	0.04
57.000	gamma-Eudesmol	0.04
58.314	alpha-Eudesmol	0.08
59.604	Heptadecene	0.11
60.380	Unidentified	0.02
60.915	Heptadecane	1.35
61.620	(2E,6E)-Farnesol	0.36
66.269	Octadecane	0.12
70.019	(Z)-9-Nonadecene	2.69
71.377	Nonadecane	12.16
74.904	Nonadecene isomer	0.05
76.230	Eicosane	1.05
77.649	Unidentified	0.02
79.597	Unidentified	0.05
80.360	Unidentified	0.06
80.883	Heneicosane	5.73
81.075	Unidentified	0.03
85.334	Docosane	0.10
89.172	Unidentified	0.07

Chromatogram Rose Oil-Eden's Garden



Comments:

The analysis of this Rose batch sample meets the expected chemical profile for authentic essential oil of *Rosa damascena*. 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%
89.586	Tricosane	1.32
90.420	Unidentified	0.02
93.688	Unidentified	0.04
97.491	Unidentified	0.12
97.613	Pentacosane	0.51
99.639	Unidentified	0.16
99.750	Unidentified	0.06
105.943	Heptacosane	0.32
		100.00

Sample Information

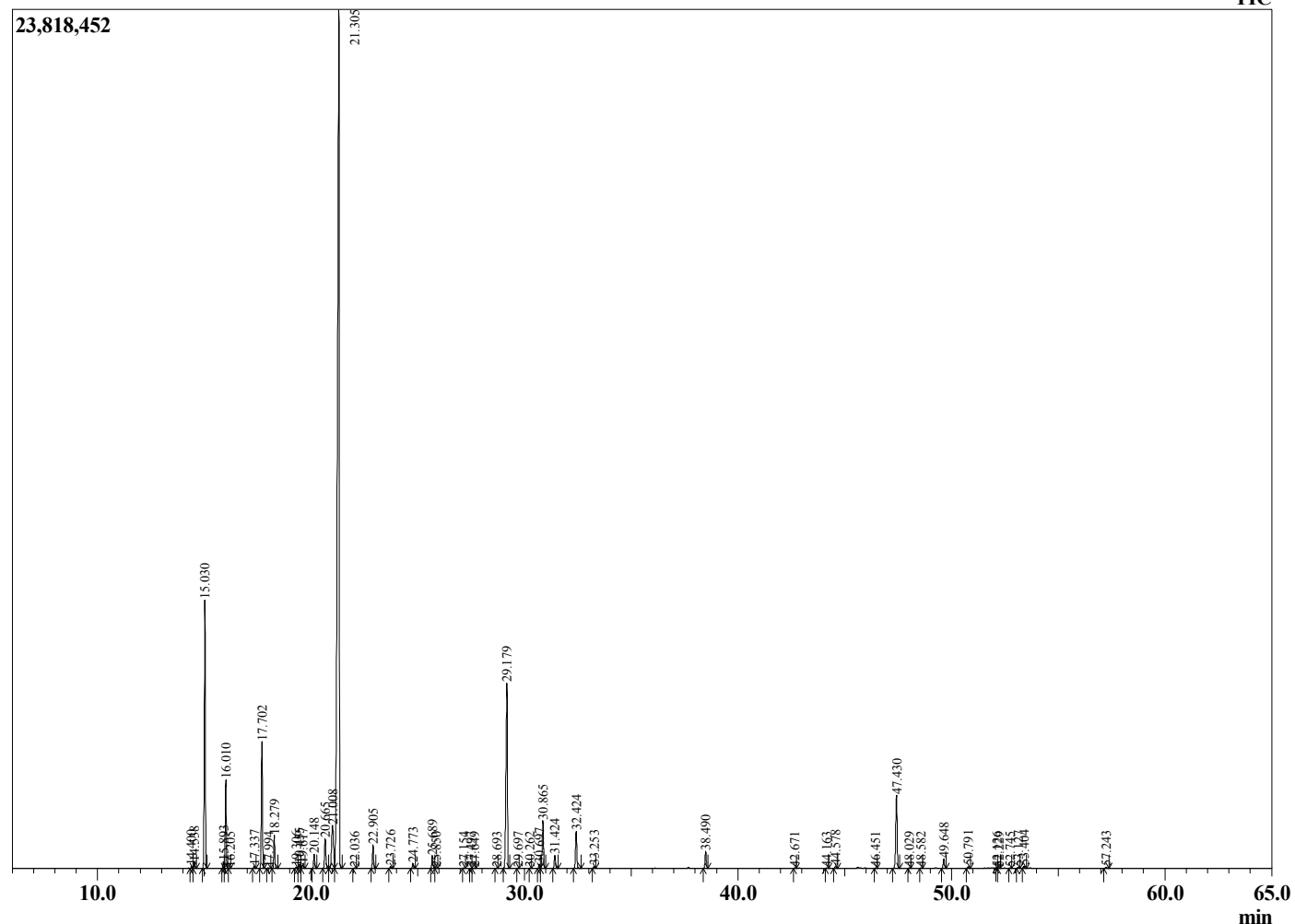
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 10/21/2020 7:32:10 PM
 Sample Type : Essential Oil
 Sample Name : Rosemary Morocco -
 Sample ID : BIOAROMA : BA29IAM
 Injection Volume : 0.10
 Instrument ID : GC-2



Peak Report TIC

R.Time	Name	Area%
14.400	Tricyclene	0.07
14.538	alpha-Thujene	0.20
15.030	alpha-Pinene	9.62
15.893	alpha-Fenchene	0.24
16.010	Camphene	3.11
16.205	Verbenene	0.01
17.337	Sabinene	0.09
17.702	beta-Pinene	4.76
17.994	3-Octanone	0.02
18.279	Myrcene	1.22
19.306	Pseudolimonene	0.05
19.455	alpha-Phellandrene	0.16
19.617	3-Carene	0.17
20.148	alpha-Terpinene	0.56
20.665	para-Cymene	1.37
21.008	Limonene	2.91
21.305	1,8-Cineole	54.52
22.036	(E)-beta-Ocimene	0.03
22.905	gamma-Terpinene	0.93
23.726	trans-Sabinene hydrate	0.06
24.773	Terpinolene	0.19
25.689	Linalool	0.52
25.850	cis-Sabinene hydrate	0.03
27.154	endo-Fenchol	0.02
27.497	cis-p-Menth-2-en-1-ol	0.01
27.649	alpha-Campholenal	0.02
28.693	trans-Pinocarveol	0.01
29.179	Camphor	9.30
29.697	trans-beta-Terpineol	0.01
30.262	Isoborneol	0.02
30.697	delta-Terpineol	0.16
30.865	Borneol	2.08
31.424	Terpinen-4-ol	0.56
32.424	alpha-Terpineol	1.65
33.253	Verbenone	0.07
38.490	Bornyl acetate	0.74
42.671	alpha-Cubebene	0.02
44.163	alpha-Ylangene	0.03
44.578	alpha-Copaene	0.10
46.451	Unidentified	0.01
47.430	trans-beta-Caryophyllene	3.58
48.029	beta-Copaene	0.02
48.582	Aromadendrene	0.02
49.648	alpha-Humulene	0.42
50.791	trans-Cadina-1(6),4-diene	0.07
52.126	alpha-Selinene	0.01
52.229	alpha-Muurolene	0.02
52.745	beta-Bisabolene	0.02
53.127	gamma-Cadinene	0.04
53.404	delta-Cadinene	0.09
57.243	Caryophyllene oxide	0.06
		100.00

Chromatogram Rosemary Morocco - BIOAROMA



Comments:

The analysis of this Rosemary, Morocco batch sample meets the expected chemical profile for authentic essential oil of *Rosmarinus officinalis*. 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.

Sample Information

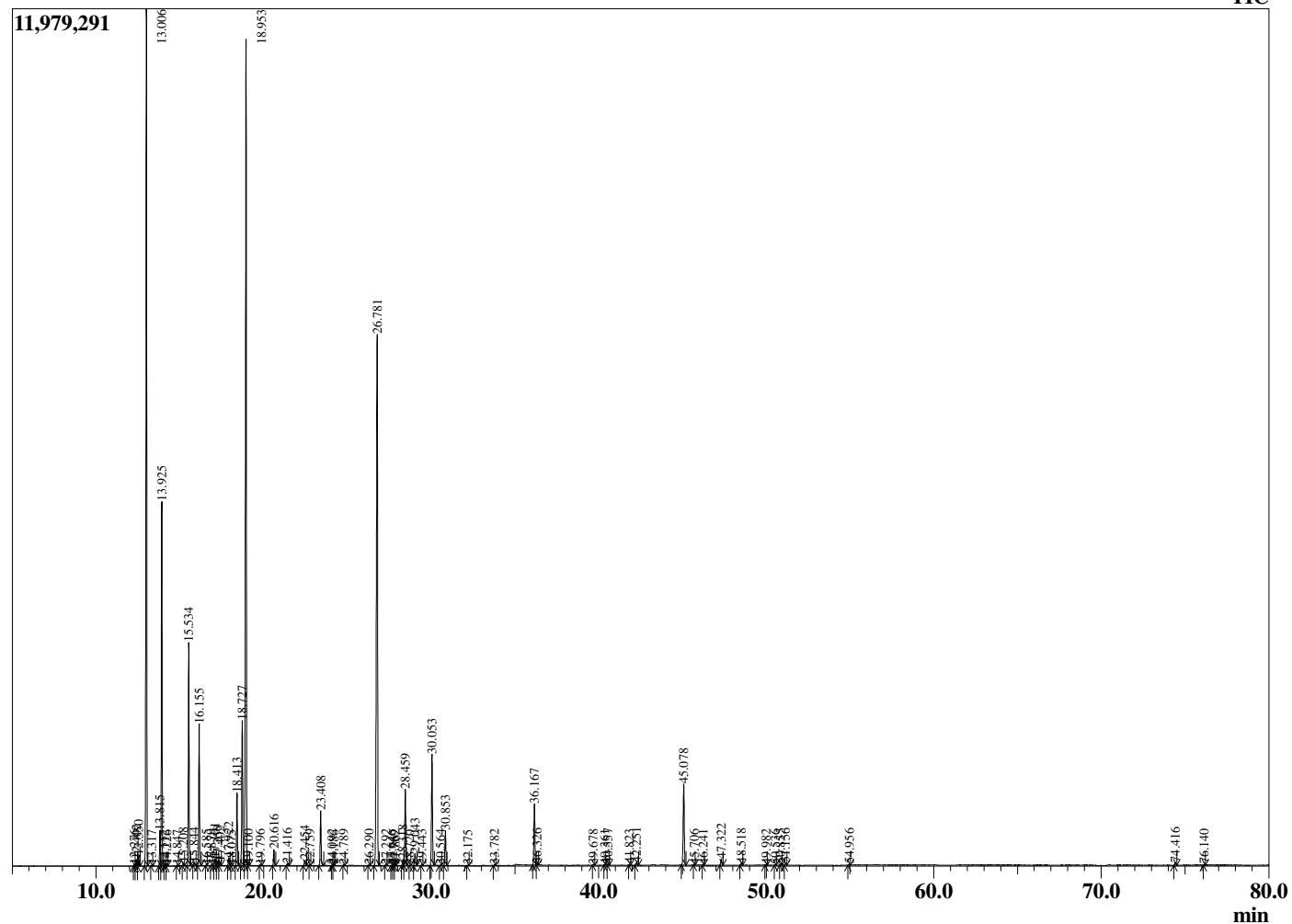
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 10/21/2020 10:28:23 AM
 Sample Type : Essential Oil
 Sample Name : Rosemary Oil Spain-
 Sample ID : BIOAROMA : BA29IAN
 Injection Volume : 0.10
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
12.276	Hashishene	0.03
12.402	Tricyclene	0.14
12.550	alpha-Thujene	0.22
13.006	alpha-Pinene	20.81
13.317	Unidentified	0.01
13.815	alpha-Fenchene	0.82
13.925	Camphene	8.03
14.112	Thuja-2,4(10)diene	0.01
14.226	Unidentified	0.02
14.847	Unidentified	0.02
15.208	Sabinene	0.07
15.534	beta-Pinene	5.19
15.844	Unidentified	0.08
16.155	Myrcene	3.28
16.585	Octan-3-ol	0.01
16.879	Unidentified	0.01
17.101	Pseudolimonene	0.17
17.250	alpha-Phellandrene	0.11
17.402	delta-3-Carene	0.09
17.922	alpha-Terpinene	0.19
18.075	Unidentified	0.01
18.413	para-Cymene	1.86
18.727	Limonene	4.01
18.953	1,8-cineole	22.50
19.100	(Z)-beta-Ocimene	0.02
19.796	(E)-beta-Ocimene	0.02
20.616	gamma-Terpinene	0.39
21.416	trans-Sabinene hydrate	0.06
22.454	Terpinolene	0.13
22.759	Dehydro-para-cymene	0.01
23.408	Linalool	1.49
24.092	Unidentified	0.01
24.186	Phenethyl alcohol	0.01
24.789	Fenchyl alcohol	0.02
26.290	trans-Pinocarveol	0.02
26.781	Camphor	18.06
27.292	trans-beta-Terpineol	0.02
27.646	Pinocamphone	0.01
27.769	Pinocarvone	0.01
27.862	Isoborneol	0.03
28.318	delta-Terpineol	0.16
28.459	Borneol	2.11
28.720	Isopinocamphone	0.01
29.043	Terpinen-4-ol	0.34
29.443	para-Cymen-8-ol	0.02
30.053	alpha-Terpineol	3.22
30.564	Unidentified	0.01
30.853	Verbenone	0.98
32.175	Citronellol	0.01
33.782	Geraniol	0.02
36.167	Bornyl acetate	1.83
36.326	Isobornyl acetate	0.04
39.678	Unidentified	0.01
40.361	alpha-Cubebene	0.01
40.557	Eugenol	0.03
41.823	alpha-Ylangene	0.02
42.251	alpha-Copaene	0.08
45.078	beta-Caryophyllene	2.56
45.706	beta-Copaene	0.01
46.241	Unidentified	0.02
47.322	alpha-Humulene	0.19
48.518	trans-Cadina-1(6),4-diene	0.05

Chromatogram Rosemary Oil Spain-BIOAROMA



Comments:

The analysis of this Rosemary, Spain batch sample meets the expected chemical profile for authentic essential oil of *Rosmarinus officinalis*. No contamination or adulteration was detected. The results provided in this GC/MS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.

R.Time	Name	Area%
49.982	alpha-Muurolene	0.01
50.536	beta-Bisabolene	0.01
50.855	gamma-Cadinene	0.03
51.156	delta-Cadinene	0.07
54.956	Caryophyllene oxide	0.04
74.416	Unidentified	0.09
76.140	Unidentified	0.03
		100.00