

Sample Information

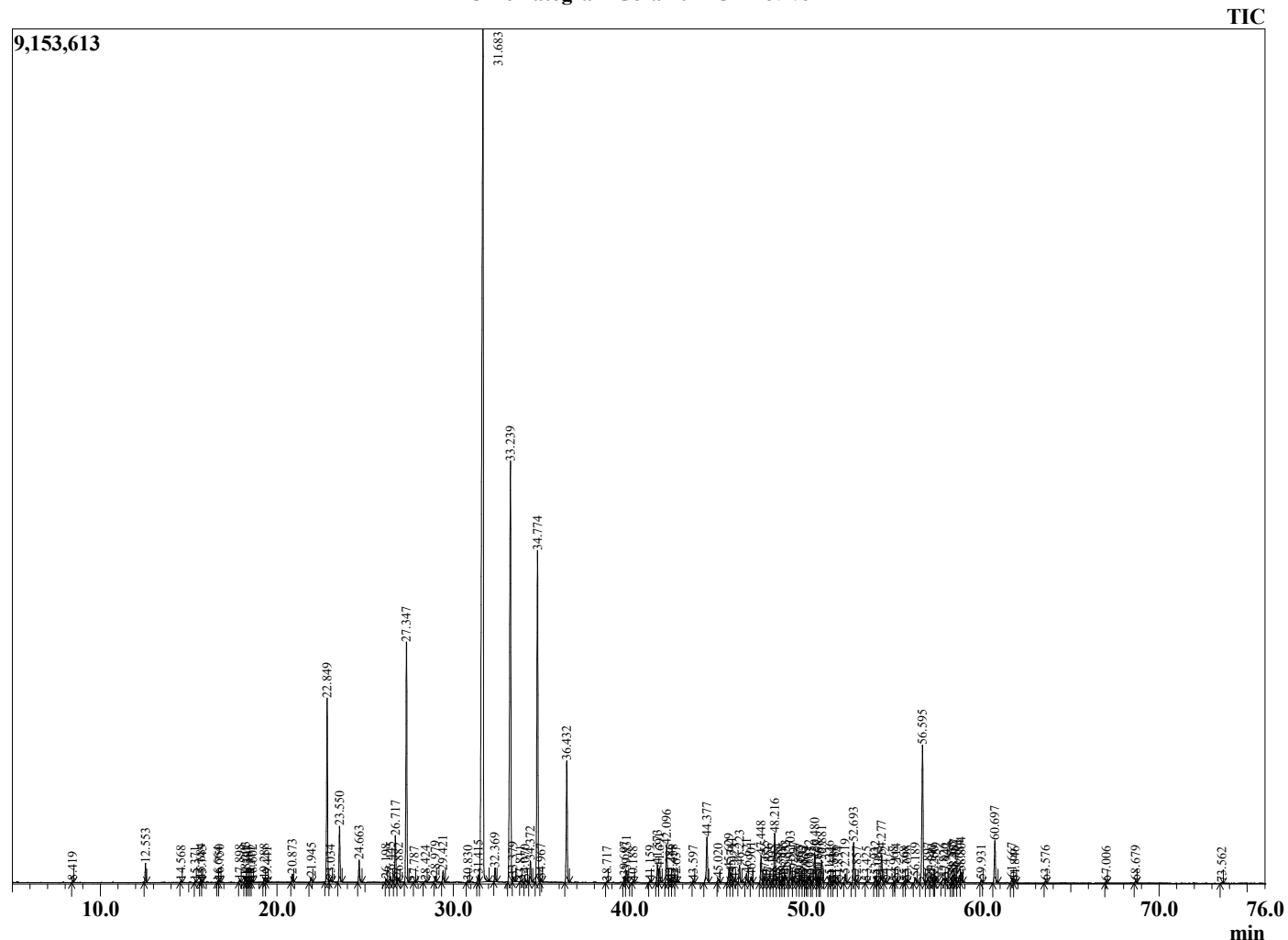
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 6/28/2023 6:38:53 PM
 Sample Type : Essential Oil
 Sample Name : Geranium Oil Revive
 Sample ID : 0G
 Injection Volume : 0.10
 Instrument ID: : GC-3



Peak Report TIC

R.Time	Name	Area%
8.419	3-Methyl pentanol	0.03
12.553	alpha-Pinene	0.37
14.568	Bois de Rose oxide	0.04
15.371	6-Methyl hept-5-en-2-one	0.03
15.684	Myrcene	0.08
15.745	Unidentified	0.02
16.664	cis-Dihydrolinalool oxide	0.02
16.750	alpha-Phellandrene	0.05
17.898	para-Cymene	0.06
18.203	Limonene	0.13
18.307	beta-Phellandrene	0.04
18.387	Unidentified	0.04
18.511	Dihydromyrcenol	0.03
18.602	cis-beta-Ocimene	0.05
19.288	trans-beta-Ocimene	0.08
19.441	Unidentified	0.02
20.873	cis-Linalool oxide (furanoid)	0.20
21.945	trans-Linalool oxide (furanoid)	0.13
22.849	Linalool	4.28
23.034	6-Methyl heptadi-3,5-en-2-one	0.07
23.550	cis-Rose oxide	1.32
24.663	trans-Rose oxide	0.55
26.198	Isopulegol	0.08
26.445	Citronellal	0.14
26.717	Menthone	1.18
26.882	Unidentified	0.11
27.347	Isomenthone	6.22
27.787	Unidentified	0.03
28.424	Terpinen-4-ol	0.05
28.979	Isomenthol	0.15
29.421	alpha-Terpineol	0.31
30.830	Unidentified	0.06
31.415	Nerol	0.20
31.683	Citronellol	33.99
32.369	Neral	0.34
33.239	Geraniol	12.92
33.379	Unidentified	0.17
33.811	Unidentified	0.02
34.070	Isogeraniol	0.06
34.372	Geranial	0.56
34.774	Citronellyl formate	8.89
34.967	Neryl formate	0.07
36.432	Geranyl formate	3.18
38.717	Unidentified	0.04
39.697	alpha-Cubebene	0.17
39.831	Citronellyl acetate	0.32
40.188	Unidentified	0.03
41.159	alpha-Ylangene	0.05
41.573	alpha-Copaene	0.49
41.691	Geranyl acetate	0.40
42.096	beta-Bourbonene	1.04
42.286	alpha-Bourbonene	0.09
42.458	beta-Elementene	0.09
42.637	Phenethyl isobutyrate	0.03
43.597	alpha-Gurjunene	0.05
44.377	beta-Caryophyllene	1.40
45.020	beta-Copaene	0.12
45.629	Citronellyl propionate	0.41
45.741	6,9-Guaiadiene	0.28
45.923	Isogermacrene D	0.09
46.223	Guanidiene isomer	0.47
46.621	alpha-Humulene	0.26

Chromatogram Geranium Oil Revive



Comments:

The analysis of this Geranium batch sample meets the expected chemical profile for authentic essential oil of *Pelargonium 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%
46.901	Alloaromodendrene	0.19
47.448	Geranyl propanoate	0.74
47.655	trans-Cadina-1(6),4-diene	0.23
47.856	Unidentified	0.17
48.105	Unidentified	0.05
48.216	Germacrene D	1.40
48.384	Selina-4,11-diene	0.15
48.582	delta-Selinene	0.04
48.706	beta-Selinene	0.16
48.833	Viridiflorene	0.34
49.103	Bicyclogermacrene	0.54
49.297	alpha-Murolene	0.18
49.565	Unidentified	0.07
49.677	2beta-Dihydroagarofuran	0.18
49.832	Geranyl isobutyrate	0.08
49.969	Dihydroagarofuran isomer	0.02
50.172	gamma-Cadinene	0.22
50.295	Cubebol	0.03
50.480	delta-Cadinene	0.85
50.668	cis-Calamenene	0.22
50.751	Zonarene	0.16
50.881	Citronellyl butyrate	0.63
51.326	trans-Cadina-1,4-diene	0.20
51.444	Unidentified	0.03
51.586	Selina-4(15),7(11)-diene	0.07
51.834	alpha-Calacorene	0.05
52.219	alpha-Agarofuran	0.26
52.693	Geranyl butyrate	1.09
52.857	1-nor-Bourbonanone	0.06
53.425	Citronellyl valerate	0.03
53.932	Spathulenol	0.21
54.063	Unidentified	0.03
54.277	Phenethyl tiglate	0.83
54.472	Globulol	0.07
54.968	Viridiflorol	0.04
55.114	Neryl (S)-2-methylbutanoate	0.10
55.568	Unidentified	0.03
55.698	Eudesm-5-en-11-ol	0.05
56.189	1,10-Epicubenol	0.15
56.595	10-epi-gamma-Eudesmol	4.20
56.897	1-Epicubenol	0.15
57.140	gamma-Eudesmol	0.11
57.260	Unidentified	0.02
57.359	Hinesol	0.16
57.826	Unidentified	0.23
57.942	Unidentified	0.13
58.265	Geranyl valerate	0.12
58.352	Valerianol	0.22
58.407	alpha-Eudesmol	0.30
58.684	Dihydro agarofuran isomer	0.23
58.804	Citronellyl tiglate	0.29
59.931	Citronellyl hexanoate	0.08
60.697	Geranyl tiglate	1.20
61.667	Neryl hexanoate	0.15
61.846	Citronellyl hexanoate	0.05
63.576	Geraniol hexanoate	0.06
67.006	Unidentified	0.05
68.679	Unidentified	0.06
73.562	Geranyl octanoate	0.02
		100.00