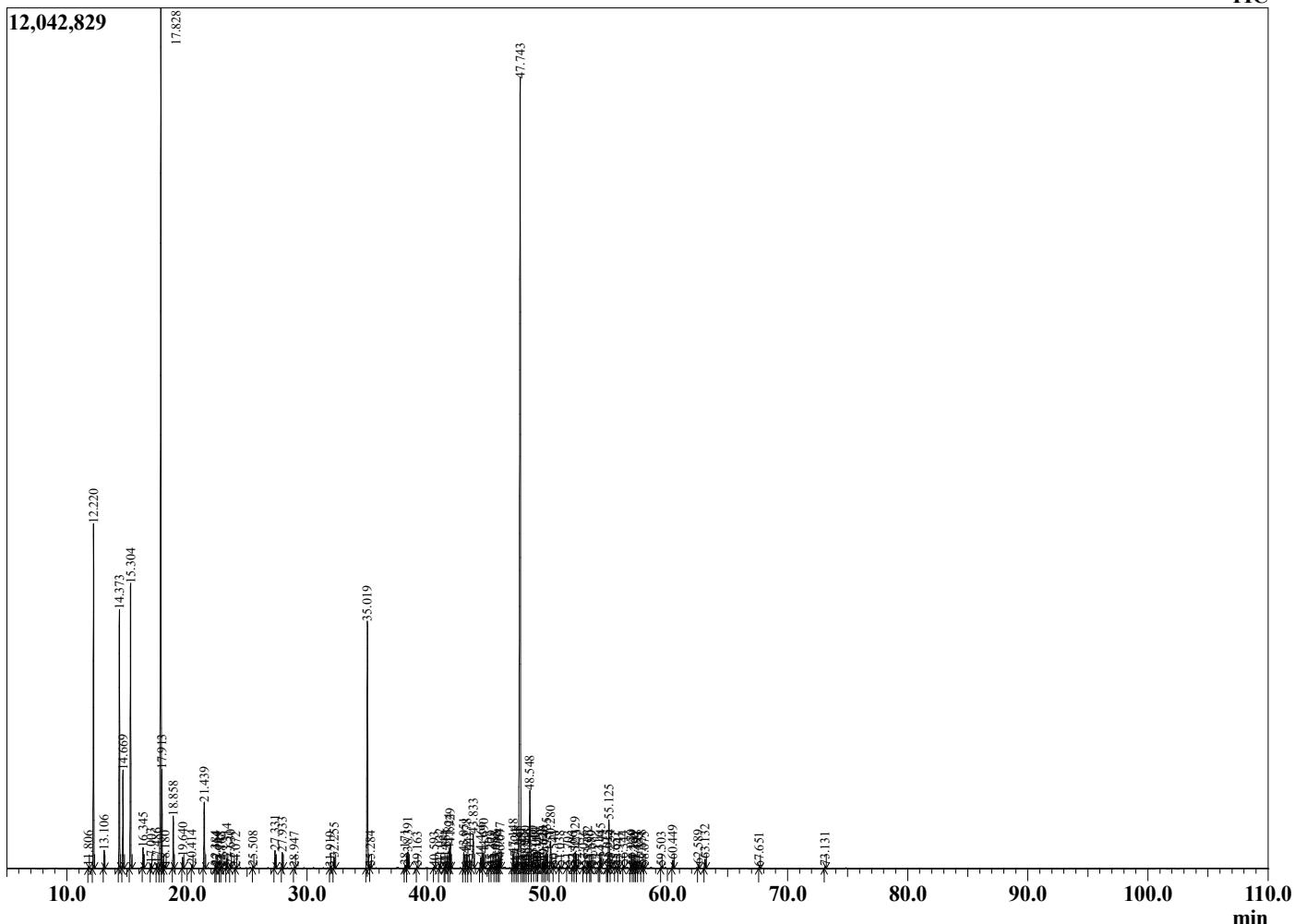


Sample Information

Analyzed by : Dr. Robert S. Pappas
Analyzed : 6/8/2023 4:57:38 PM
Sample Type : Essential Oil
Sample Name : Goldenrod Oil Revive
Sample ID : 2A
Injection Volume : 0.10
Instrument ID: : GC-4



Chromatogram Goldenrod Oil Revive



Comments:

The analysis of this Goldenrod batch sample meets the expected chemical profile for authentic essential oil of *Solidago canadensis*. 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.

Peak Report TIC

R.Time	Name	Area%
11.806	alpha-Thujene	0.04
12.220	alpha-Pinene	6.48
13.106	Camphepane	0.36
14.373	Sabinene	5.29
14.669	beta-Pinene	2.00
15.304	Myrcene	6.09
16.345	alpha-Phellandrene	0.44
17.003	alpha-Terpinene	0.11
17.486	para-Cymene	0.11
17.828	Limonene	22.34
17.913	beta-Phellandrene	1.89
18.180	cis-beta-Ocimene	0.06
18.858	trans-beta-Ocimene	1.13
19.640	gamma-Terpinene	0.25
20.414	trans-Sabinene hydrate	0.09
21.439	Terpinolene	1.58
22.384	Linalool	0.05
22.464	cis-Sabinene hydrate	0.04
22.748	Nonanal	0.03
22.862	beta-Thujone	0.02
23.314	trans-4,8-dimethyl-Nona-1,3,7-triene	0.24
23.630	beta-Thujone	0.07
24.072	cis-para-Menth-2-en-1-ol	0.03
25.508	trans-Verbenol	0.04
27.331	Borneol	0.46
27.933	Terpinen-4-ol	0.42
28.947	beta-Fenchol	0.03
31.919	Methyl ester of alpha-Campholenic acid	0.03
32.255	Carvone	0.27
35.019	Bornyl acetate	6.76
35.284	trans-Sabinyl acetate	0.04
38.171	Elemene isomer	0.10
38.391	delta-Elemene	0.46
39.163	alpha-Cubebene	0.04
40.593	Cyclosativene	0.05
41.032	alpha-Copaene	0.13
41.444	Elemene isomer	0.02
41.551	beta-Bourbonene	0.12
41.824	cis-Cadina-1(6),4-diene	0.53
41.929	Elemene isomer	0.67
43.051	alpha-Gurjunene	0.43
43.278	beta-Cubebene	0.40
43.441	alpha-cis-Bergamotene	0.04
43.833	beta-Caryophyllene	1.32
44.466	gamma-Elemene	0.34
44.690	alpha-trans-Bergamotene	0.42
45.207	Guai-a-6,9-diene	0.03
45.379	Isogermacrene D	0.05
45.655	Cubebene isomer	0.06
45.796	trans-Murrola-3,5-diene	0.06
45.954	trans-beta-Farnesene	0.11
46.077	alpha-Humulene	0.30
47.148	gamma-Gurjunene	0.43
47.324	gamma-Murolene	0.14
47.488	gamma-Curcumene	0.19
47.743	Germacrene D	27.48
47.851	trans-beta-Farnesene	0.16
48.045	Unidentified	0.03
48.170	beta-Selinene	0.21
48.346	cis-Cadina-1(6),4-diene	0.19
48.548	7-epi-Sesquithujene	2.34
48.760	epsilonlon-Amorphene	0.20

R.Time	Name	Area%
49.014	delta-Cadinene	0.19
49.118	trans,trans-alpha-Farnesene	0.06
49.326	beta-Bisabolene	0.10
49.628	gamma-Cadinene	0.18
49.749	Cubebol	0.18
49.935	delta-Cadinene	0.44
50.280	Sesquisabinene	0.76
50.544	Unidentified	0.05
51.038	alpha-Amorphene	0.06
51.703	Hedycaryol	0.06
52.106	Unidentified	0.03
52.329	Germacrene B	0.48
52.473	cis-Nerolidol	0.07
53.036	Unidentified	0.08
53.372	(-)Spathulenol	0.20
53.590	Unidentified	0.05
53.689	Caryophyllene oxide	0.05
54.316	Unidentified	0.03
54.445	Unidentified	0.27
55.015	Unidentified	0.08
55.125	trans-alpha-trans-Bergamotol	1.43
55.254	Copaborneol	0.09
55.652	Unidentified	0.03
55.941	Cubedol	0.03
56.344	Spathulenol	0.06
56.970	Caryophyllene oxide	0.10
57.139	epi-alpha-Cadinol	0.05
57.260	Cadin-4-en-10-ol	0.02
57.394	delta-Cadinol	0.03
57.553	Unidentified	0.02
57.858	Cubenol	0.11
58.075	beta-Copaen-4-alpha-ol	0.03
59.503	14-Hydroxy-9-epi-Z-Caryophyllene	0.05
60.449	Curlone	0.23
62.589	Unidentified	0.10
63.132	epi-Cyclocorenone	0.26
67.651	Neophytadiene	0.03
73.131	beta-Springene	0.05
		100.00