

### Sample Information

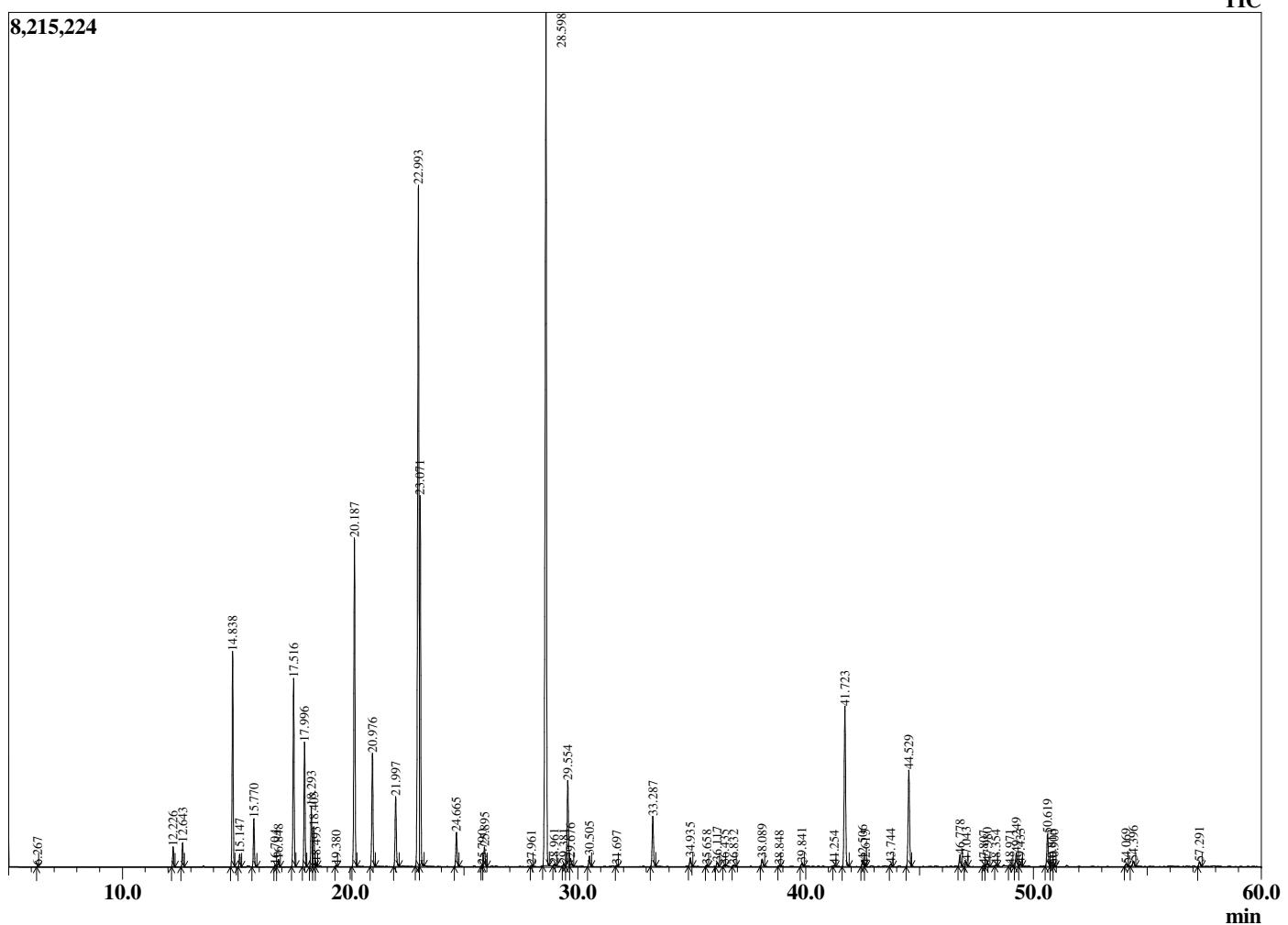
**Analyzed by** : Dr. Robert S. Pappas  
**Analyzed** : 2/18/2019 11:14:17 PM  
**Sample Type** : Essential Oil  
**Sample Name** : Marjoram - Revive EO  
**Sample ID** : C1B1219F  
**Injection Volume** : 0.10  
**Instrument ID:** : GC-4



### Peak Report TIC

R.Time	Name	Area%
6.267		0.02
12.226	Methyl 2-methylbutyrate	0.40
12.226	alpha-Thujene	0.50
12.643	alpha-Pinene	4.67
14.838	Sabinene	0.28
15.147	beta-Pinene	1.06
15.770	Myrcene	0.04
16.704	Pseudolimonene	0.17
16.848	alpha-Phellandrene	4.40
17.516	alpha-Terpinene	2.87
17.996	para-Cymene	1.41
18.293	Limonene	0.96
18.403	beta-Phellandrene	0.09
18.493	1,8-Cineole	0.03
19.380	trans-beta-Ocimene	7.89
20.187	gamma-Terpinene	2.88
20.976	trans-Sabinene hydrate	1.83
21.993	Terpinolene	18.80
22.993	Linalool	8.94
23.071	trans-Sabinene hydrate	0.90
24.665	cis-para-Menth-2-en-1-ol	0.02
25.790	trans-Pinocarveol	0.52
25.895	trans-para-Menth-2-en-1-ol	0.03
27.961	Borneol	0.28
28.598	Terpinen-4-ol	25.28
28.961	para-Cymen-8-ol	0.06
29.381	Unidentified	0.06
29.554	alpha-Terpineol	2.35
29.676	cis-Piperitol	0.23
30.505	trans-Piperitol	0.28
31.697	Citronellol	0.03
33.287	Linalyl acetate	1.41
34.935	cis-Ascidrol glycol	0.24
35.658	Bornyl acetate	0.04
36.117	trans-Ascidrol glycol	0.13
36.435	Unidentified	0.04
36.832	Unidentified	0.04
38.089	Unidentified	0.21
38.848	delta-Elemene	0.03
39.841	alpha-Cubebene	0.10
41.254	Cyclosativene	0.03
41.723	alpha-Copaene	4.79
42.506	beta-Cubebene	0.19
42.615	beta-Elemene	0.03
43.744	alpha-Gurjunene	0.08
44.529	beta-Caryophyllene	2.90
46.778	alpha-Humulene	0.34
47.043	Alloaromadendrene	0.13
47.807	10-beta-H-Cadina-1(6),4-diene	0.03
47.980	trans-Cadina-1(6),4-diene	0.13
48.354	Germacrene D	0.04
48.971	Viridiflorene (Ledene)	0.06
49.249	Bicyclogermacrene	0.43
49.433	alpha-Muurolene	0.07
50.619	delta-Cadinene	0.96
50.813	cis-Calamenene	0.05
50.900	Zonarene	0.06
54.069	Spathulenol	0.08
54.396	Caryophyllene oxide	0.18
57.291	Spathulenol	0.14
		100.00

### Chromatogram Marjoram - Revive EO



#### Comments:

The analysis of this Marjoram Oil batch sample meets the expected chemical profile for authentic essential oil of *Origanum majorana*. 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.