

Sample Information

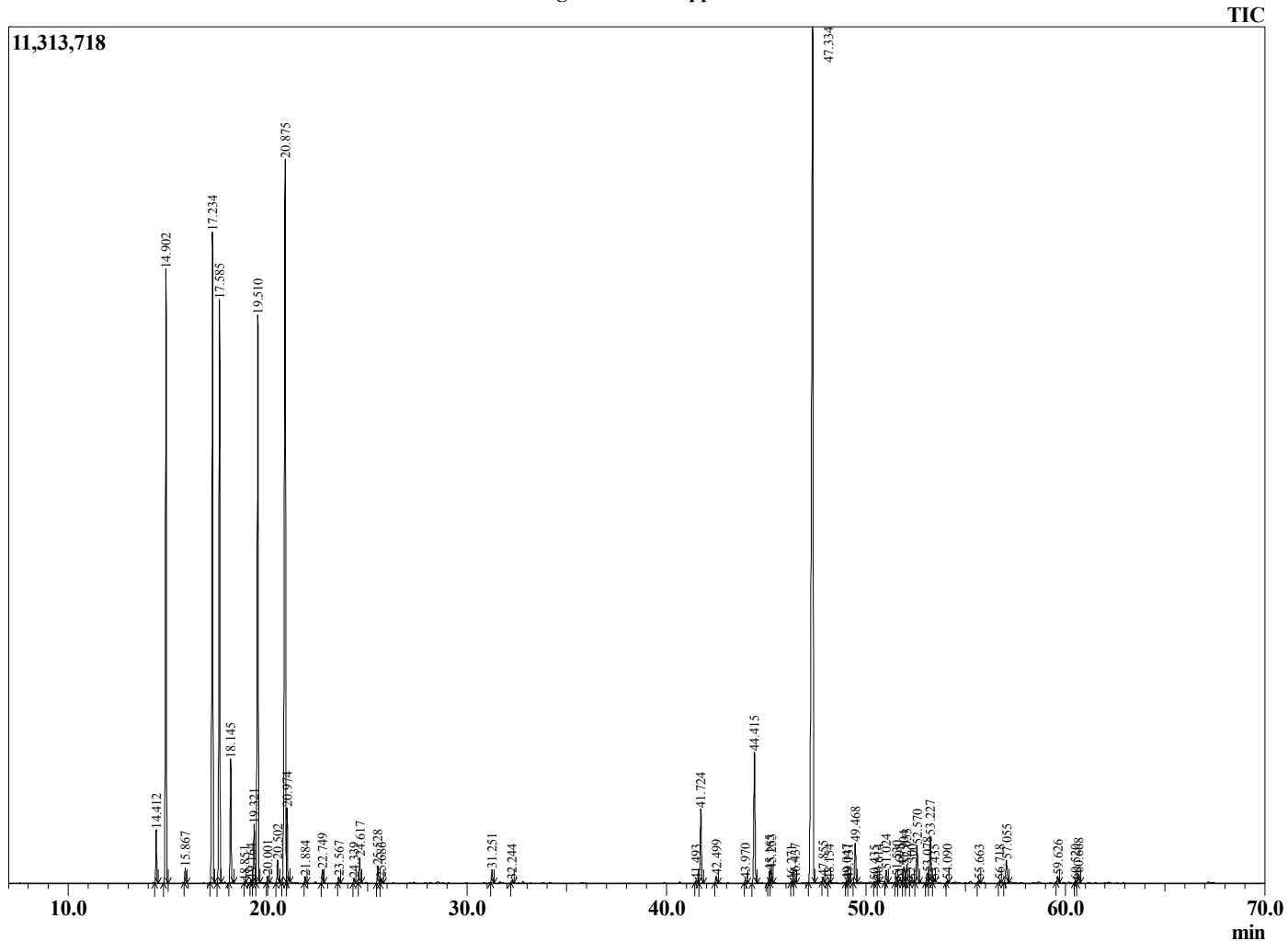
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 11/24/2020 1:56:13 AM  
 Sample Type : Essential Oil  
 Sample Name : Black Pepper - Revive  
 Sample ID : 8635  
 Injection Volume : 0.10  
 Instrument ID : GC-2



Peak Report TIC

R.Time	Name	Area%
14.412	alpha-Thujene	0.82
14.902	alpha-Pinene	10.06
15.867	Camphene	0.23
17.234	Sabinene	11.54
17.585	beta-Pinene	10.01
18.145	Myrcene	2.04
18.851	alpha-Terpinene	0.01
19.164	Pseudolimonene	0.05
19.321	alpha-Phellandrene	1.07
19.510	3-Carene	10.36
20.001	alpha-Terpinene	0.12
20.502	para-Cymene	0.42
20.875	Limonene	15.16
20.974	beta-Phellandrene	1.16
21.884	trans-beta-Ocimene	0.10
22.749	gamma-Terpinene	0.24
23.567	trans-Sabinene hydrate	0.10
24.339	Isoterpinolene	0.08
24.617	Terpinolene	0.46
25.528	Linalool	0.31
25.686	cis-Sabinene hydrate	0.08
31.251	Terpinen-4-ol	0.26
32.244	alpha-Terpineol	0.05
41.493	Bicycloelemene	0.05
41.724	delta-Elemene	1.50
42.499	alpha-Cubebene	0.14
43.970	Cyclosativene	0.07
44.415	alpha-Copaene	2.75
45.165	beta-Cubebene	0.25
45.253	trans-beta-Elemene	0.25
46.271	cis-beta-Caryophyllene	0.02
46.437	alpha-Gurjunene	0.06
47.334	trans-beta-Caryophyllene	24.64
47.855	beta-Copaene	0.10
48.154	alpha-Guaiene	0.04
49.047	trans-Muurola-3,5-diene	0.04
49.131	(E)-beta-Farnesene	0.06
49.468	alpha-Humulene	0.86
50.435	cis-Muurola-4(14),5-diene	0.03
50.614	trans-Cadina-1(6),4-diene	0.04
51.024	Germacrene D	0.24
51.530	beta-Selinene	0.13
51.695	Unidentified	0.09
51.904	Bicyclogermacrene	0.40
52.053	alpha-Murolene	0.40
52.300	(E,E)-alpha-Farnesene	0.04
52.570	beta-Bisabolene	0.79
53.078	Cubebol <epi>	0.20
53.227	delta-Cadinene	0.98
53.435	cis-Calamenene	0.03
54.090	trans-Cadina-1,4-diene	0.04
55.663	trans-Nerolidol	0.06
56.718	Spathulenol	0.04
57.055	Caryophyllene oxide	0.56
59.626	Unidentified	0.12
60.520	tau-Cadinol	0.03
60.668	tau-Muurolol	0.18
		100.00

Chromatogram Black Pepper - Revive



Comments:

The analysis of this Black Pepper batch sample meets the expected chemical profile for authentic essential oil of *Piper nigrum*. 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.