

Laboratory Test Report

SAMPLE NAME : Mandarin
CLIENT NAME : Plant Therapy
CLIENT LOT # : M10111R
APRC LOT# : PT250606B

Column : ZB5 (60 m length × 0.25 mm inner diameter × 0.25 µm film thickness)
Instrument : Shimadzu GCMS-QP2010 Ultra
Carrier gas : Helium 80 psi
Temperature ramp : 2 degrees Celsius per minute up to 260-degree Celsius
Split ratio : 30:1
Sample preparation : 5% w/v solution with Dichloromethane

Interpretation on this sample

The analysis of Mandarin sample meets the standard chemical profile of Citrus reticulata essential oil.

Analyzed by : Dr Prabodh Satyal
Reviewed by : Ambika Poudel

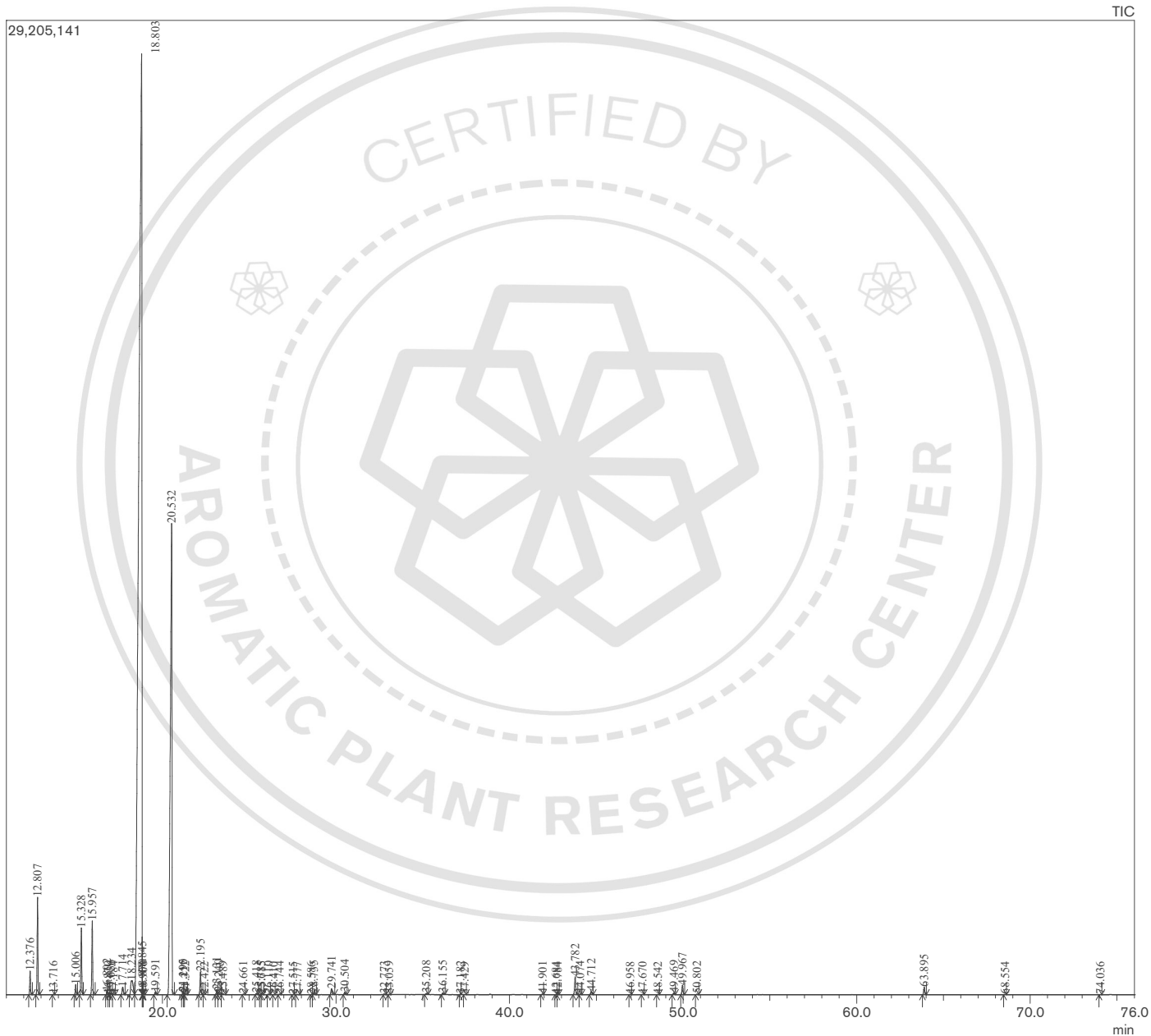
Issued Date : 6/7/2025

GCMS Analysis

Sample Information

Analyzed by : Dr. Prabodh Satyal
Analyzed : 6/7/2025 5:26:44 AM
Sample Type : Essential Oil
Sample Name : Mandarin
Client Name : Plant Therapy
Client Lot# : M10111R
APRC Lot# : PT250606B
Injection Volume : 0.30

Chromatogram



Peak Report

Peak#	R.Time	Name	Area%
1	12.376	alpha-Thujene	0.44
2	12.807	alpha-Pinene	1.83
3	13.716	Camphene	0.01
4	15.006	Sabinene	0.21
5	15.328	beta-Pinene	1.40
6	15.957	Myrcene	1.60
7	16.802	n-Octanal	0.07
8	16.870	para-Mentha-1(7),8-diene	0.01
9	17.036	alpha-Phellandrene	0.05
10	17.184	delta-3-Carene	0.02
11	17.714	alpha-Terpinene	0.22
12	18.234	para-Cymene	0.82
13	18.803	Limonene	71.69
14	18.845	beta-Phellandrene	0.08
15	18.870	1,8-Cineole	0.01
16	18.900	cis-beta-Ocimene	0.01
17	19.591	trans-beta-Ocimene	0.06
18	20.532	gamma-Terpinene	18.98
19	21.195	cis-Sabinene hydrate	0.04
20	21.210	cis-Linalool oxide (furanoid)	0.02
21	21.322	Pinol	0.02
22	22.195	Terpinolene	0.52
23	22.422	Fenchone	0.00
24	23.131	Linalool	0.12
25	23.240	trans-Sabinene hydrate	0.06
26	23.489	n-Nonanal	0.02
27	24.661	trans-para-Mentha-2,8-dien-1-ol	0.01
28	25.418	cis-Limonene oxide	0.03
29	25.685	cis-para-Mentha-2,8-dien-1-ol	0.01
30	25.715	trans-Limonene oxide	0.02
31	26.110	Epoxy terpinolene	0.01
32	26.410	Camphor	0.00
33	26.744	Citronellal	0.01
34	27.515	trans-trans-2,6-Dimethyl-3,5,7-octatriene-2-ol	0.01
35	27.777	Menthol	0.01
36	28.586	para-1,8-Menthadien-4-ol	0.01
37	28.735	Terpinen-4-ol	0.04
38	29.741	alpha-Terpineol	0.18
39	30.504	n-Decanal	0.06
40	32.773	cis-Ascaridole	0.01
41	33.059	Carvone	0.01
42	35.208	Perilla aldehyde	0.03
43	36.155	Thymol	0.05
44	37.182	trans-Ascaridole	0.01
45	37.429	Undecanal	0.01
46	41.901	alpha-Copaene	0.01
47	42.684	beta-Cubebene	0.01
48	42.784	beta-Elemene	0.01
49	43.782	Methyl N-methyl anthranilate	0.46
50	44.074	Dodecanal	0.02
51	44.712	beta-Caryophyllene	0.09
52	46.958	alpha-Humulene	0.01
53	47.670	2-trans-Dodecanal	0.01
54	48.542	Germacrene D	0.01
55	49.469	alpha-Selinene	0.05
56	49.967	trans-trans-alpha-Farnesene	0.26
57	50.802	delta-Cadinene	0.01
58	63.895	alpha-Sinensal	0.21
59	68.554	Neophytadiene	0.01
60	74.036	Dimyrcene A	0.01
			100.00