

Laboratory Test Report

SAMPLE NAME : Longoza
CLIENT NAME : Makaaina LLC
CLIENT LOT # : 23335142L
APRC LOT# : MAK240314H

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 Longoza sample meets the standard chemical profile of *Aframomum augustifolium* essential oil.

Analyzed by : Dr Prabodh Satyal
Reviewed by : Ambika Poudel

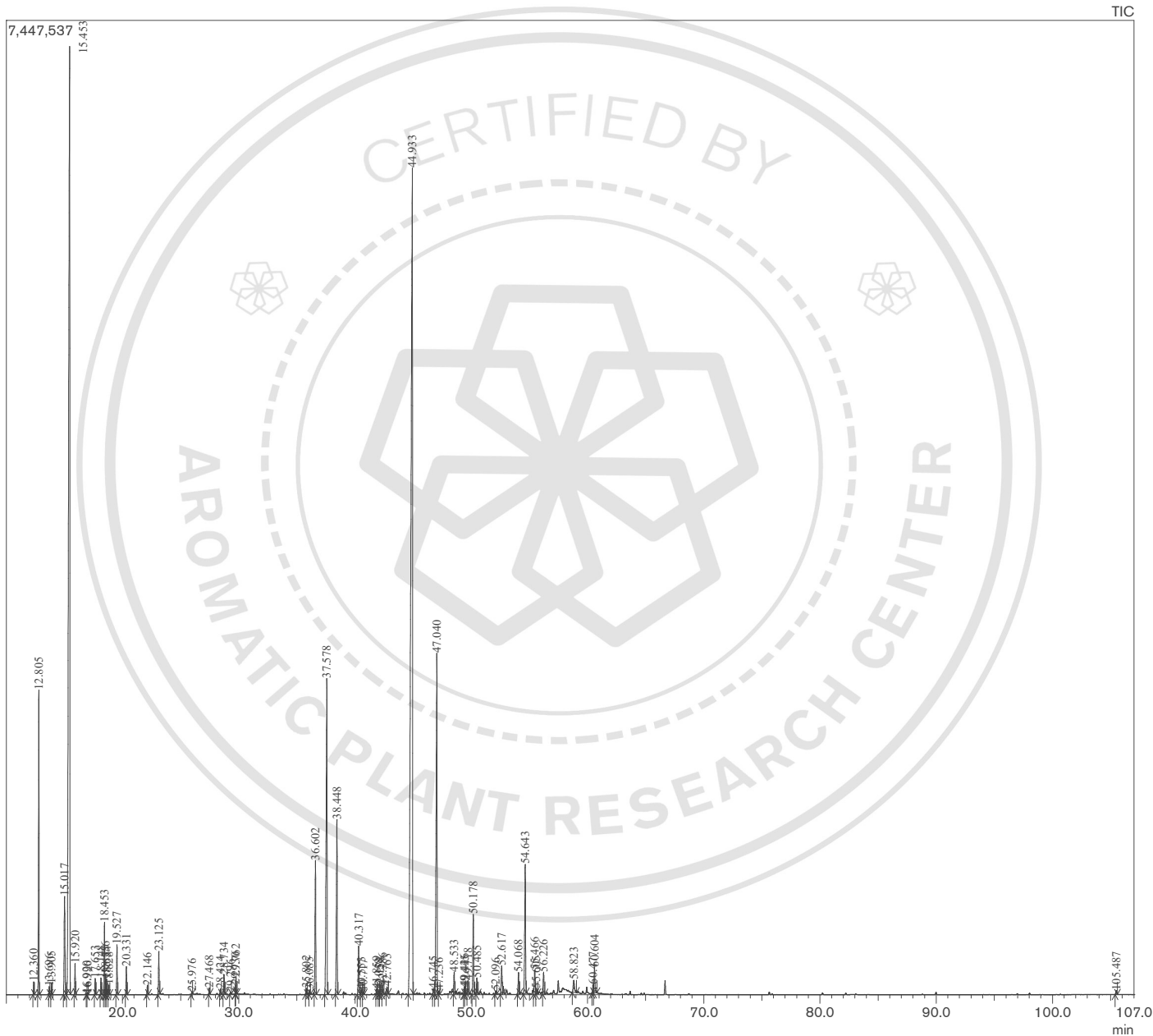
Issued Date : 3/15/2024

GCMS Analysis

Sample Information

Analyzed by : Dr. Prabodh Satyal
Analyzed : 3/15/2024 6:49:40 PM
Sample Type : Essential Oil
Sample Name : Longoza
Client Name : Makaaina LLC
Client Lot# : 23335142L
APRC Lot# : MAK240314H
Injection Volume : 0.30

Chromatogram



Peak Report

Peak#	R.Time	Name	Area%
1	12.360	alpha-Thujene	0.14
2	12.805	alpha-Pinene	3.85
3	13.696	Camphene	0.09
4	13.905	Thuja-2,4(10)-diene	0.13
5	15.017	Sabinene	1.96
6	15.453	beta-Pinene	26.96
7	15.920	Myrcene	0.38
8	16.920	3-Ethenyl-1,2-dimethyl-1,4-cyclohexadiene	0.01
9	16.996	alpha-Phellandrene	0.02
10	17.653	alpha-Terpinene	0.21
11	18.148	para-Cymene	0.22
12	18.453	Limonene	0.97
13	18.556	beta-Phellandrene	0.27
14	18.634	1,8-Cineole	0.19
15	18.828	cis-beta-Ocimene	0.13
16	19.527	trans-beta-Ocimene	0.67
17	20.331	gamma-Terpinene	0.38
18	22.146	Terpinolene	0.13
19	23.125	Linalool	0.61
20	25.976	trans-Pinocarveol	0.03
21	27.468	Pinocarvone	0.09
22	28.424	cis-Pinocamphone	0.08
23	28.734	Terpinen-4-ol	0.31
24	29.296	cis-Pinocarveol	0.03
25	29.730	alpha-Terpineol	0.04
26	29.762	Myrtenal	0.24
27	35.802	Bornyl acetate	0.10
28	36.085	Dihydroedulan	0.06
29	36.602	Methyl myrtenate	2.27
30	37.578	cis-Pinocarvyl acetate	6.92
31	38.448	Myrtenyl acetate	3.18
32	40.317	Eugenol	0.85
33	40.553	Damascone isomer	0.08
34	40.717	Neryl acetate	0.04
35	41.859	alpha-Copaene	0.09
36	42.058	trans-beta-Damascenone	0.05
37	42.154	trans-Myrtanyl acetate	0.07
38	42.386	beta-Bourbonene	0.15
39	42.763	beta-Elemene	0.12
40	44.933	beta-Caryophyllene	31.78
41	46.745	trans-beta-Farnesene	0.13
42	47.040	alpha-Humulene	7.48
43	47.236	allo-Aromadendrene	0.05
44	48.533	Germacrene D	0.38
45	49.426	Bicyclogermacrene	0.10
46	49.445	alpha-Selinene+Drim-8(12)-ene	0.05
47	49.718	cis-alpha-Bisabolene	0.26
48	50.178	beta-Bisabolene	1.45
49	50.485	Sesquicineole	0.27
50	52.096	trans-alpha-Bisabolene	0.06
51	52.617	alpha-Elemol	0.62
52	54.068	Sesquirosefuran	0.39
53	54.643	Caryophyllene oxide	2.60
54	55.466	Guaiol	0.58
55	55.605	trans-Bisabol-11-ol	0.13
56	56.226	Humulene epoxide II	0.43
57	58.823	alpha-Eudesmol	0.36
58	60.477	epi-alpha-Bisabolol	0.15
59	60.604	alpha-Bisabolol	0.54
60	105.487	Heptacosane	0.08
			100.00