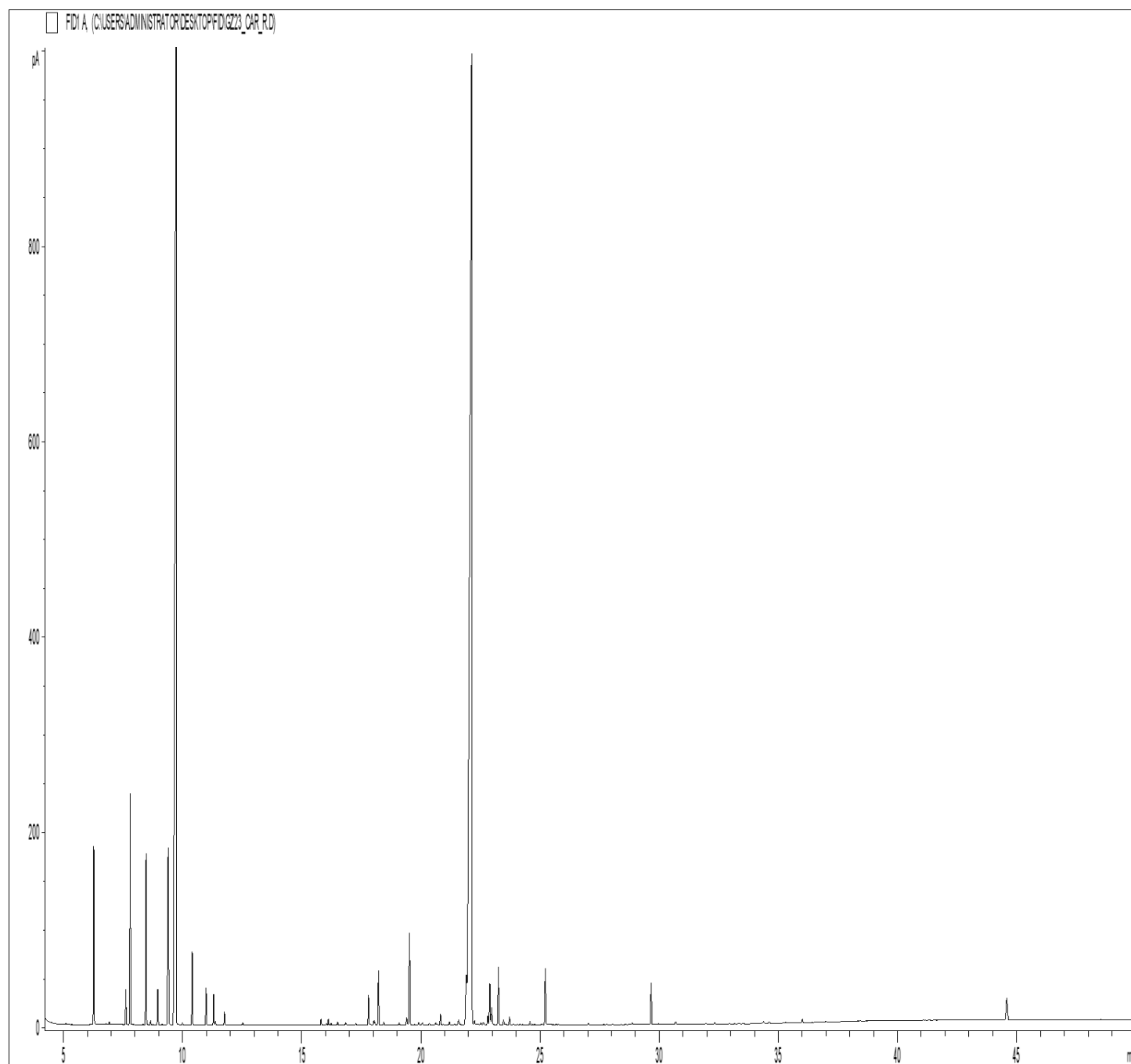


## GCMS ANALYSIS

PRODUCT NAME: CARDAMOM ESSENTIAL OIL – 11020

DATE: March 02, 2022



*Due to volume turnover, this report is not lot specific, It is representative of the quality of this oil produced by the manufacturer of this product, Specific lots may vary slightly as is the case in natural products,*

GCMS ANALYSIS (cont'd,)

PRODUCT NAME: CARDAMOM ESSENTIAL OIL – 11020

Peak	RT (min)	Compound name	%
1	5,11	ISOVALERALDEHYDE	0,02
2	6,28	<b>alpha-PINENE</b>	<b>2,16</b>
3		alpha-THUYENE	
4	6,93	CAMPHENE	0,03
5	7,62	beta-PINENE	0,46
6	7,81	<b>SABINENE</b>	<b>2,96</b>
7	8,34	delta3-CARENE	0,02
8	8,47	<b>beta-MYRCENE</b>	<b>2,27</b>
9	8,66	alpha-PHELLANDRENE	0,06
10	8,96	alpha-TERPINENE	0,52
11	9,40	<b>LIMONENE</b>	<b>3,69</b>
12	9,73	<b>1,8-CINEOLE</b>	<b>31,17</b>
13	9,99	cis-beta-OCIMENE	0,03
14	10,41	gamma-TERPINENE	0,93
15	10,45	trans-beta-OCIMENE	0,07
16	10,99	p-CYMENE	0,51
17	11,30	TERPINOLENE	0,43
18	11,38	OCTANAL	0,05
19	11,76	1,3,7-NONATRIENE, 4,8-DIMETHYL-	0,18
20	12,53	5-HEPTEN-2-ONE, 6-METHYL-	0,04
21	14,44	ALIPHATIC ALCOHOL	0,01
22	15,81	trans-THUYANOL	0,09
23	16,04	KETONIC COMPOUND	0,03
24	16,12	OCTYL ACETATE	0,10
25	16,23	BICYCLOELEMENE	0,03
26	16,50	ALIPHATIC ESTER	0,06
27	16,84	trans-METHYL-2-OCTENOATE	0,05
28	17,28	ALIPHATIC ESTER	0,03
29	17,80	<b>LINALOOL</b>	<b>0,46</b>
30	18,02	cis-THUYANOL	0,08

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GCMS ANALYSIS (cont'd,)

PRODUCT NAME: CARDAMOM ESSENTIAL OIL – 11020

Peak	RT (min)	Compound name	%
31	18,07	TERPENIC COMPOUND	0,05
32	18,22	<b>LINALYL ACETATE</b>	<b>0,84</b>
33	18,44	trans-p-MENTH-2-EN-1-OL	0,05
34	19,09	BORNYL ACETATE	0,04
35	19,40	beta-ELEMENE	0,15
36	19,52	<b>TERPINENE-4-OL</b>	<b>1,57</b>
37	19,75	SESQUITERPENE	0,02
38	19,90	SESQUITERPENE	0,05
39	20,06	ALIPHATIC ESTER	0,02
40	20,10	cis-p-MENTH-2-EN-1-OL	0,04
41	20,35	SESQUITERPENE	0,04
42	20,62	GERMACRENE A	0,06
43	20,69	SESQUITERPENE	0,01
44	20,82	delta-TERPENYL ACETATE	0,20
45	21,20	delta-TERPINEOL	0,06
46	21,40	cis-PIPERITOL	0,02
47	21,58	NERAL	0,11
48	21,91	<b>alpha-TERPINEOL</b>	<b>1,41</b>
49	22,13	<b>TERPENYL ACETATE</b>	<b>43,07</b>
50	22,25	METHYL-2-DECENOATE	0,06
51	22,40	SESQUITERPENE	0,01
52	22,52	GERMACRENE D	0,04
53	22,63	NERYL ACETATE	0,06
54	22,81	GERANIAL	0,16
55	22,89	beta-SELINENE	0,72
56	22,97	alpha-SELINENE	0,31
57	23,25	GERANYL ACETATE	0,95
58	23,47	delta-CADINENE	0,08
59	23,53	SESQUITERPENE	0,01
60	23,57	SESQUITERPENE	0,02

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GCMS ANALYSIS (cont'd,)

PRODUCT NAME: CARDAMOM ESSENTIAL OIL – 11020

Peak	RT (min)	Compound name	%
61	23,72	gamma-CADINENE	0,14
62	23,88	SELINA-3,7-DIENE	0,03
63	24,05	SESQUITERPENE	0,02
64	24,16	SESQUITERPENE	0,02
65	24,57	TERPENIC COMPOUND	0,06
66	24,77	GERANYL PROPIONATE	0,01
67	25,06	SESQUITERPENE	0,01
68	25,22	GERANIOL	0,98
69	25,35	ALIPHATIC ESTER	0,02
70	25,48	E-GERANYL ACETONE	0,02
71	25,68	cis-CARVEOL	0,02
72	27,02	ALIPHATIC ALCOHOL	0,03
73	28,03	EPOXY-6,7-HUMULENE	0,01
74	28,86	SESQUITERPENOL	0,04
75	29,66	<b>NEROLIDOL</b>	<b>0,71</b>
76	29,96	CAPRYLIC ACID	0,02
77	30,58	SESQUITERPENOL	0,01
78	30,69	METHYL CINNAMATE	0,07
79	30,77	SESQUITERPENOL	0,02
80	31,11	1-METHYL-4-ACETOXY-1-METHYLETHYL-CYCLOHEX-2-ENOL	0,01
81	31,95	cis-1,2-DIHYDROXY-p-MENTH-2-ENE	0,02
82	32,33	SORBIC ACID	0,03
83	32,94	4-VINYL-GUAIACOL	0,02
84	33,38	E,E,E-alpha-SPRINGENE	0,01
85	34,33	CAPRIC ACID	0,02
86	34,38	FARNESYL ACETATE	0,03
87	34,61	FARNESAL	0,05
88	35,21	KETONIC COMPOUND	0,01
89	35,31	KETONIC COMPOUND	0,01
90	35,37	NERIC ACID	0,01

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GCMS ANALYSIS (cont'd,)

PRODUCT NAME: CARDAMOM ESSENTIAL OIL – 11020

Peak	RT (min)	Compound name	%
91	35,60	TRICOSANE	0,01
92	36,01	FARNESOL	0,07
93	39,08	ALIPHATIC ALCOHOL	0,01
94	41,08	AROMATIC COMPOUND Mw=284	0,01
95	41,32	PHYTOL	0,02
96	44,58	AROMATIC COMPOUND Mw=284	0,64
97	48,54	PALMITIC ACID	0,02
		<b>TOTAL</b>	<b>99,99</b>

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