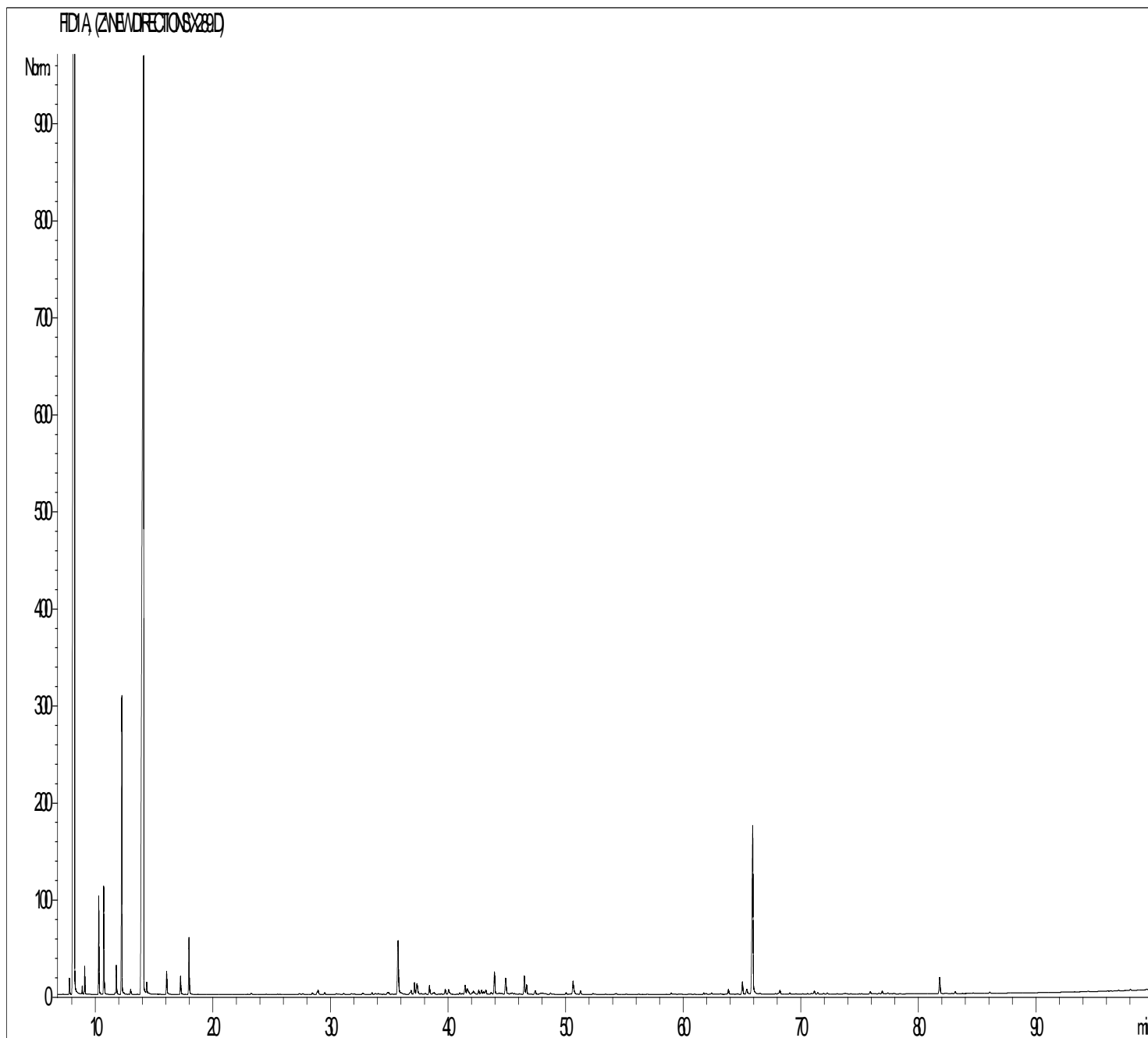


GCMS ANALYSIS

PRODUCT NAME: JUNIPER BERRY ESSENTIAL OIL (INDIA) - 11072

DATE: May 10, 2019



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: JUNIPER BERRY ESSENTIAL OIL (INDIA) - 11072

Peak	RT (min)	Compound name	%
1	7,8	TRICYCLENE	0,17
2	8,2	alpha-PINENE	57,50
3	8,3	alpha-THUYENE	0,09
4	8,9	alpha-FENCHENE	0,08
5	9,1	CAMPHENE	0,24
6	10,2	beta-PINENE	0,91
7	10,7	SABINENE	0,95
8	10,8	PINADIENE	0,09
9	11,7	MENTHATRIENE ISOMER	0,01
10	11,8	delta3-CARENE	0,33
11	12,2	beta-MYRCENE	3,03
12	12,4	alpha-PHELLANDRENE	0,03
13	13,0	alpha-TERPINENE	0,06
14	14,1	LIMONENE	24,65
15	14,4	beta-PHELLANDRENE	0,17
16	14,6	MENTHATRIENE ISOMER	0,06
17	15,5	Cis-beta-OCIMENE	0,01
18	16,0	gamma-TERPINENE	0,29
19	16,3	Trans-beta-OCIMENE	0,01
20	17,2	p-CYMENE	0,24
21	18,0	TERPINOLENE	0,69
22	23,3	alpha-PINENE OXIDE	0,03
23	24,5	FENCHONE	0,01
24	25,5	PERILLENE	0,01
25	27,3	alpha,p-DIMETHYLSTYRENE	0,03
26	27,6	LIMONENE OXIDE, cis	0,02
27	28,4	LIMONENE OXIDE, trans	0,04
28	28,8	EPOXY-4,8-TERPINOLENE	0,03
29	28,9	Trans-THUYANOL + FENCHYL ACETATE	0,07
30	29,5	delta-ELEMENE	0,03

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GCMS ANALYSIS (cont'd.)

PRODUCT NAME: JUNIPER BERRY ESSENTIAL OIL (INDIA) - 11072

Peak	RT (min)	Compound name	%
31	30,5	alpha-CAMPHOLENAL	0,04
32	31,1	alpha-COPAENE	0,02
33	31,7	CAMPHOR	0,02
34	32,0	alpha-PINOCAMPHONE	0,01
35	32,7	CEDRENE ISOMER	0,03
36	32,8	E-SOLANONE	0,01
37	33,5	BERGAMOTENE ISOMER	0,03
38	33,8	beta1-CUBEBENE	0,02
39	34,0	LINALOOL	0,02
40	34,2	Trans-p-MENTH-2-EN-1-OL	0,01
41	34,5	PINOCARVONE	0,01
42	34,8	BERGAMOTENE ISOMER	0,04
43	34,9	METHYL CITRONELLATE	0,03
44	35,2	CEDRENE ISOMER	0,01
45	35,4	SESQUITERPENE	0,01
46	35,6	alpha-CEDRENE	0,66
47	35,7	BORNYL ACETATE	0,39
48	35,9	ISOBORNYL ACETATE	0,04
49	36,1	SESQUITERPENE	0,04
50	36,7	beta-ELEMENE	0,07
51	36,8	beta-CUBEBENE	0,03
52	37,1	beta-CARYOPHYLLENE	0,19
53	37,3	beta-CEDRENE	0,10
54	37,5	TERPINENE-4-OL	0,17
55	37,7	SESQUITERPENE	0,02
56	38,1	SESQUITERPENE	0,02
57	38,4	THUJOPSENE	0,15
58	38,7	MYRTENAL	0,02
59	38,8	Cis-2,8-MENTHADIEN-1-OL	0,04
60	39,4	CADINA-3,5-DIENE	0,01

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GCMS ANALYSIS (cont'd.)

PRODUCT NAME: JUNIPER BERRY ESSENTIAL OIL (INDIA) - 11072

Peak	RT (min)	Compound name	%
61	39,7	GERMACRENE A	0,09
62	40,0	Trans-PINOCARVEOL	0,08
63	40,1	cis-VERBENOL	0,03
64	40,7	MENTHADIENOL ISOMER	0,01
65	40,9	ZONARENE	0,03
66	41,1	MENTHADIENOL ISOMER	0,02
67	41,4	alpha-HUMULENE	0,19
68	41,6	E-beta-FARNESENE	0,10
69	41,7	trans-VERBENOL	0,06
70	42,0	SESQUITERPENE	0,03
71	42,1	gamma-CURCUMENE	0,05
72	42,2	NERAL	0,03
73	42,5	gamma-MUUROLENE	0,07
74	42,8	alpha-TERPINEOL	0,09
75	43,0	TERPENYL ACETATE + BORNEOL	0,05
76	43,2	LEDENE + gamma-TERPINEOL	0,09
77	43,6	SESQUITERPENE	0,04
78	43,9	GERMACRENE D	0,38
79	44,3	CADINADIENE ISOMER	0,04
80	44,4	beta-SELINENE	0,02
81	44,6	alpha-MUUROLENE	0,02
82	44,8	BICYCLOGERMACRENE	0,25
83	44,9	beta-BISABOLENE	0,07
84	45,2	SESQUITERPENE	0,02
85	45,4	beta-CURCUMENE	0,04
86	45,6	Trans-ISOPIPERITENOL	0,02
87	46,5	delta-CADINENE	0,31
88	46,6	gamma-CADIENENE	0,16
89	47,4	beta-SESQUIPELLANDRENE	0,06

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GCMS ANALYSIS (cont'd.)

PRODUCT NAME: JUNIPER BERRY ESSENTIAL OIL (INDIA) - 11072

Peak	RT (min)	Compound name	%
91	47,7	SELINADIENE ISOMER	0,02
92	47,8	SELINA-3,7-DIENE	0,03
93	48,0	CADINA-1,4-DIENE	0,03
94	48,2	MYRTENOL	0,03
95	48,6	alpha-AMORPHENE	0,03
96	50,0	CUPARENE	0,03
97	50,6	GERMACRENE B	0,27
98	50,7	Trans-CARVEOL + CALAMENENE	0,06
99	51,2	p-CYMENE-8-OL	0,06
100	52,3	Cis-CARVEOL	0,02
101	53,3	MENTHADIENOL ISOMER	0,01
102	54,3	Épi-CUBEBOL	0,03
103	56,9	CUBEBOL	0,01
104	59,0	CARYOPHYLLENE EPOXIDE	0,03
105	61,7	Époxy-6,7-HUMULENE	0,02
106	61,9	NEROLIDOL	0,02
107	62,4	GERMACRA-1,5-DIEN-4-OL	0,02
108	63,1	CUBENOL	0,01
109	63,8	ELEMOL	0,07
110	64,6	SESQUITERPENOL	0,01
111	65,0	SESQUITERPENOL	0,23
112	65,4	AROMATIC COMPONENT	0,13
113	65,9	CEDROL	3,23
114	66,5	SESQUITERPENOL	0,03
115	67,8	SESQUITERPENOL Mw=222	0,02
116	68,1	gamma-EUDESOL	0,02
117	68,2	CEDRYL ACETATE	0,04
118	68,3	T-CADINOL	0,03
119	69,1	alpha-MUUROLOL	0,02
120	69,6	delta-CADINOL	0,01

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GCMS ANALYSIS (cont'd.)

PRODUCT NAME: JUNIPER BERRY ESSENTIAL OIL (INDIA) - 11072

Peak	RT (min)	Compound name	%
121	70,2	CARVACROL	0,01
122	70,5	alpha-EUDESOL	0,01
123	70,8	beta-EUDESOL	0,02
124	71,1	alpha-CADINOL	0,06
125	71,4	CITRONELLIC ACID	0,03
126	72,2	beta-NOOTKATOL	0,02
127	75,9	SANDAROCOPIMARADIENE	0,05
128	76,6	DITERPENE Mw=272	0,02
129	76,9	MANOYL OXIDE	0,05
130	77,4	AROMATIC COMPONENT	0,02
131	77,9	DITERPENE Mw=272	0,01
132	81,8	BIFORMENE	0,28
133	83,1	ABIETATRIENE	0,03
134	86,0	AROMATIC COMPONENT	0,02
135	98,0	AROMATIC COMPONENT Mw=286	0,02
136	103,7	AROMATIC COMPONENT Mw=286	0,13
		TOTAL	99,96

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