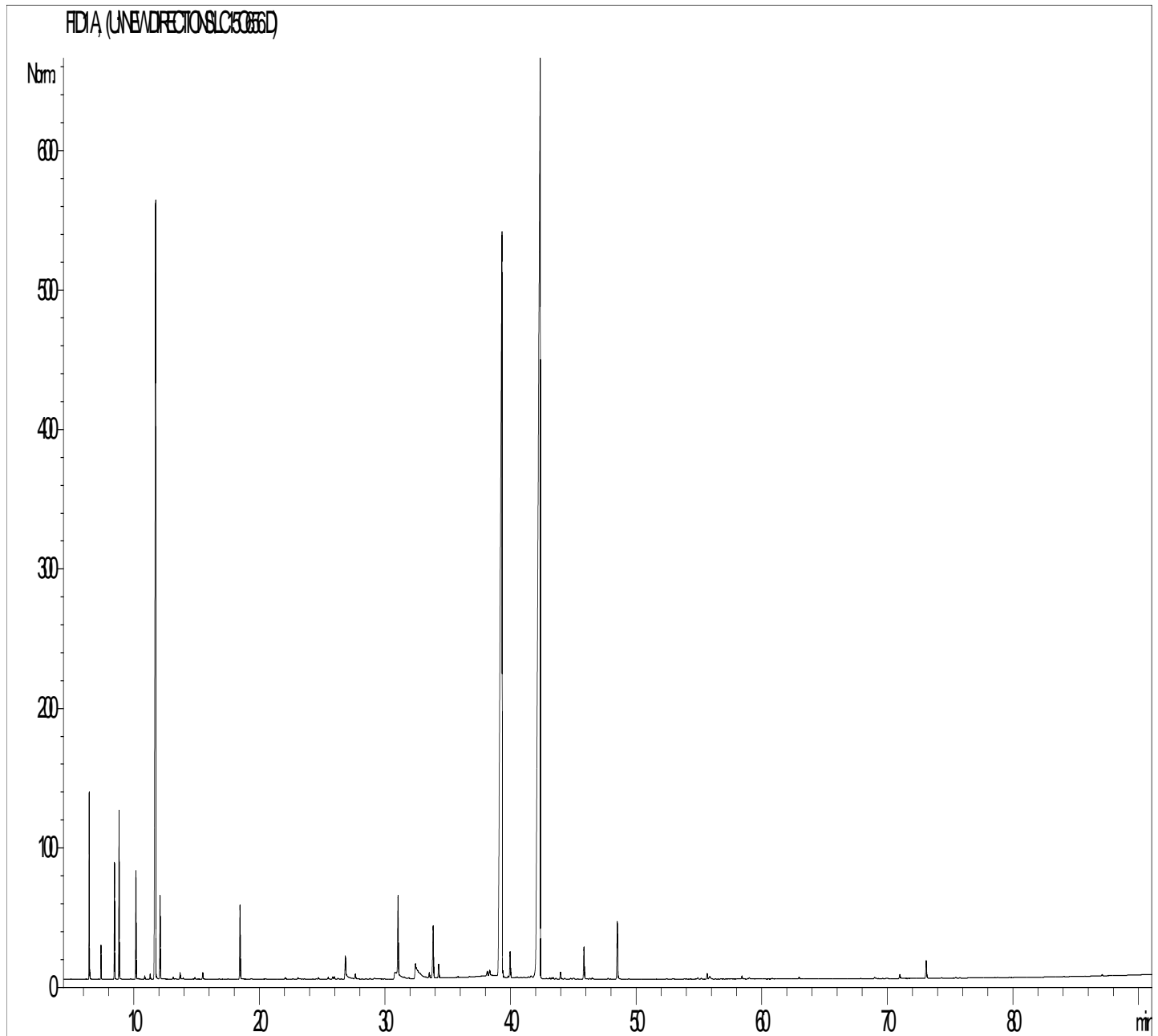




GCMS ANALYSIS

PRODUCT NAME: LITSEA CUBEBA ORGANIC ESSENTIAL OIL - 50048

DATE: December 6, 2017



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: LITSEA CUBEBA ORGANIC ESSENTIAL OIL - 50048

Peak	RT (min)	Compound name	%
1	4,3	ACETONE	0,03
2	6,2	TRICYCLENE	0,01
3	6,4	α -PINENE	1,35
4	6,5	α -THUYENE	0,05
5	6,6	TOLUENE	0,01
6	7,4	CAMPHENE	0,28
7	8,5	β -PINENE	1,06
8	8,8	SABINENE	1,54
9	9,7	Δ 3-CARENE	0,01
10	10,1	β -MYRCENE	1,07
11	10,3	α -PHELLANDRENE	0,01
12	10,8	α -TERPINENE	0,03
13	11,3	2,3-DEHYDRO-1,8-CINEOLE	0,06
14	11,7	LIMONENE	13,27
15	12,0	1,8-CINEOLE	0,92
16	12,3	MENTHATRIENE ISOMER	0,01
17	13,1	Cis- β -OCIMENE	0,02
18	13,6	γ -TERPINENE	0,07
19	13,9	Trans- β -OCIMENE	0,01
20	14,8	p-CYMENE	0,02
21	15,5	TERPINOLENE	0,08
22	18,4	5-HEPTEN-2-ONE, 6-METHYL-	0,97
23	19,3	5-HEPTENAL,2,6-DIMETHYL-	0,01
24	22,0	ANISALDEHYDE TRIMETHYL	0,02
25	22,6	ALIPHATIC ESTER	0,01
26	23,0	COMPOUND Mw=152	0,03
27	24,7	LIMONENE Cis-1,2-EPOXIDE	0,02
28	25,5	LIMONENE trans-1,2-EPOXIDE	0,03
29	25,8	5-HEPTEN-2-OL,6-METHYL-	0,03
30	25,9	Trans-THUYANOL	0,03

Disclaimer & Caution:

Please refer to all relevant technical information specific to the product, prior to use. The information contained in this document is obtained from current and reliable sources. New Directions Aromatics Inc. provides the information contained herein, but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property rights of third parties. As the ordinary or otherwise use(s) of this product is outside the control of New Directions Aromatics Inc., no representation or warranty, expressed or implied, is made as to the effect(s) of such use(s), (including damage or injury), or the results obtained. The liability of New Directions Aromatics Inc. is limited to the value of the goods and does not include any consequential loss. New Directions Aromatics Inc. shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon. New Directions Aromatics Inc. shall not be responsible for any damages resulting from use of or reliance upon this information. In the event of any dispute, the Customer hereby agrees that Jurisdiction is limited to the province of Ontario.

GCMS ANALYSIS (cont'd.)
PRODUCT NAME: LITSEA CUBEBA ORGANIC ESSENTIAL OIL - 50048

Peak	RT (min)	Compound name	%
31	26,2	TERPINOLENE, 4,8-EPOXIDE	0,01
32	26,7	CITRONELLAL	0,58
33	27,6	α -COPAENE	0,09
34	28,5	ISONERAL	0,01
35	28,8	CAMPHOR	0,01
36	30,7	EPIPHOTOCITRAL A	0,81
37	31,0	LINALOOL	1,15
38	31,5	Trans-p-MENTH-2-EN-1-OL	0,03
39	31,9	NEOISOPULEGOL	0,03
40	32,4	EPIPHOTOCITRAL B + ISOPULEGOL	1,24
41	33,5	β -ELEMENE	0,17
42	33,8	β -CARYOPHYLLENE	1,11
43	34,2	TERPINENE-4-OL	0,30
44	35,8	Cis-p-MENTHA-2,8-DIEN-1-OL	0,02
45	36,7	Trans-2,8-MENTHADIEN-1-OL	0,01
46	38,1	α -HUMULENE	0,09
47	38,3	E, β -FARNESENE	0,10
48	38,4	SESQUITERPENE	0,02
49	39,3	NERAL	30,28
50	39,4	TERPENIC ALCOHOL	0,06
51	39,8	TERPENYL ACETATE	0,03
52	39,9	α -TERPINEOL + BORNEOL	0,43
53	40,5	GERMACRENE D	0,02
54	41,6	PIPERITONE	0,04
55	42,3	GERANIAL	39,65
56	42,8	ISOPIPERITENOL	0,01
57	43,1	Trans-ISOPIPERITENOL	0,02
58	43,3	δ -CADINENE	0,02
59	43,4	GERANYL ACETATE	0,02
60	43,6	α -PANASINSEN	0,01

Disclaimer & Caution:

Please refer to all relevant technical information specific to the product, prior to use. The information contained in this document is obtained from current and reliable sources. New Directions Aromatics Inc. provides the information contained herein, but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property rights of third parties. As the ordinary or otherwise use(s) of this product is outside the control of New Directions Aromatics Inc., no representation or warranty, expressed or implied, is made as to the effect(s) of such use(s), (including damage or injury), or the results obtained. The liability of New Directions Aromatics Inc. is limited to the value of the goods and does not include any consequential loss. New Directions Aromatics Inc. shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon. New Directions Aromatics Inc. shall not be responsible for any damages resulting from use of or reliance upon this information. In the event of any dispute, the Customer hereby agrees that Jurisdiction is limited to the province of Ontario.

GCMS ANALYSIS (cont'd.)
PRODUCT NAME: LITSEA CUBEBA ORGANIC ESSENTIAL OIL - 50048

Peak	RT (min)	Compound name	%
61	43,9	CITRONELLOL	0,11
62	44,3	β-SESQUIPELLANDRENE	0,02
63	44,8	PERILLALDEHYDE	0,02
64	44,9	γ-GERANIOL	0,03
65	45,8	NEROL	0,51
66	46,3	Cis-ISOGERANIOL	0,01
67	46,5	Trans-ISOGERANIOL	0,02
68	47,7	Trans-CARVEOL	0,02
69	48,5	GERANIOL	0,94
70	49,4	Cis-CARVEOL	0,01
71	54,9	FURANIC COMPOUND	0,02
72	55,2	ISOCARYOPHYLLENE EPOXIDE	0,01
73	55,6	CARYOPHYLLENE EPOXIDE	0,09
74	55,8	GERANYL ACETATE, 2,3-EPOXY	0,07
75	58,4	EPOXY ESTER COMPOUND	0,05
76	59,0	FURANIC COMPOUND	0,03
77	60,8	AROMATIC COMPOUND	0,01
78	62,9	SPATHULENOL	0,03
79	68,9	CITRONELIC ACID	0,04
80	71,0	NERIC ACID	0,07
81	73,0	GERANIC ACID	0,31
82	75,4	SESQUITERPENIC EPOXIDE	0,01
83	87,1	AROMATIC COMPOUND	0,02
84	91,2	AROMATIC COMPOUND	0,02
85	92,0	AROMATIC COMPOUND	0,02
		TOTAL	99,92

Disclaimer & Caution:

Please refer to all relevant technical information specific to the product, prior to use. The information contained in this document is obtained from current and reliable sources. New Directions Aromatics Inc. provides the information contained herein, but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property rights of third parties. As the ordinary or otherwise use(s) of this product is outside the control of New Directions Aromatics Inc., no representation or warranty, expressed or implied, is made as to the effect(s) of such use(s), (including damage or injury), or the results obtained. The liability of New Directions Aromatics Inc. is limited to the value of the goods and does not include any consequential loss. New Directions Aromatics Inc. shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon. New Directions Aromatics Inc. shall not be responsible for any damages resulting from use of or reliance upon this information. In the event of any dispute, the Customer hereby agrees that Jurisdiction is limited to the province of Ontario.