



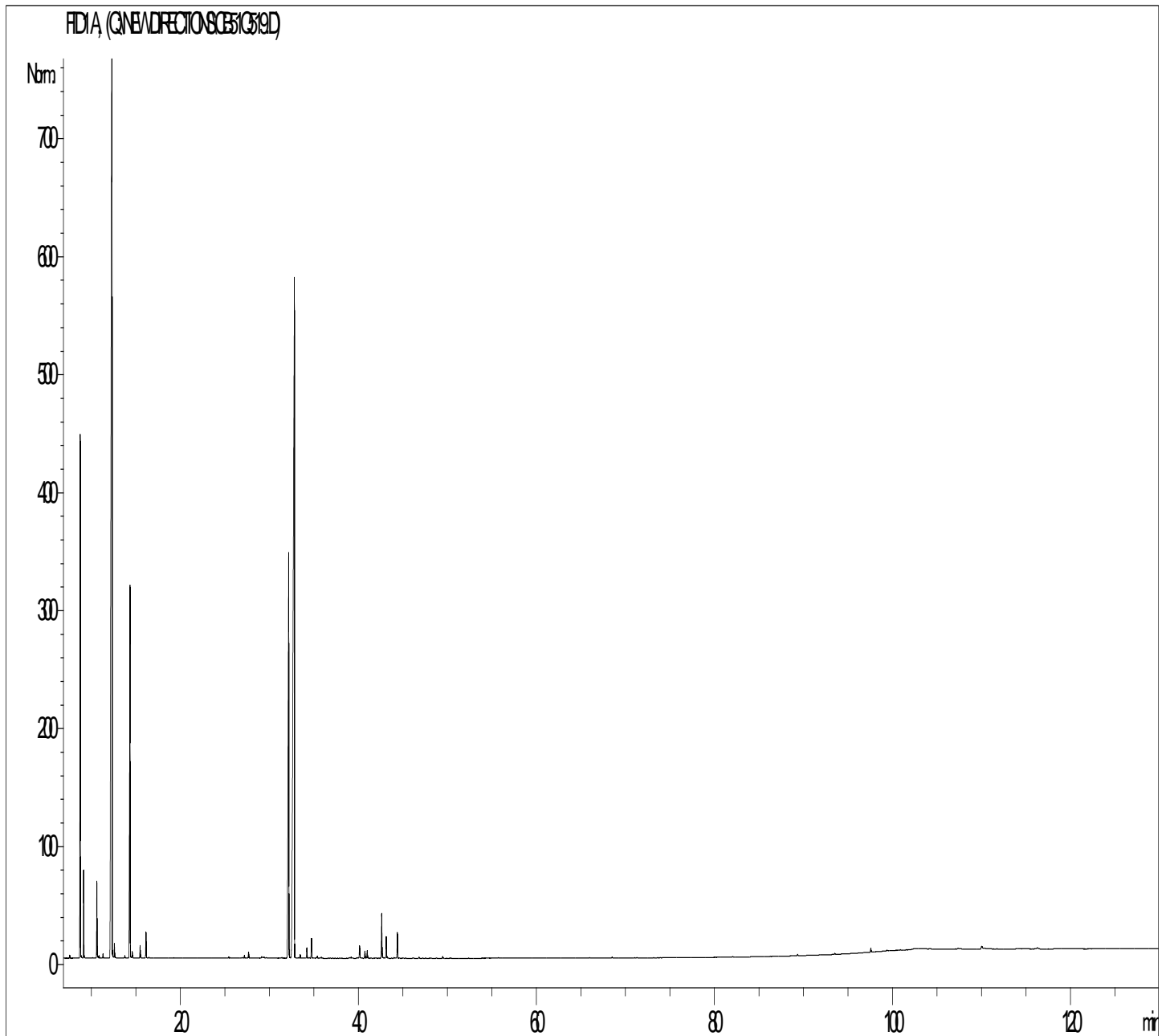
**NEW DIRECTIONS**  
A R O M A T I C S

## GCMS ANALYSIS

PRODUCT NAME: BERGAMOT (CALABRIAN) ESSENTIAL OIL

DATE: April 6, 2018

Lot#: 11009C57



*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: BERGAMOT (CALABRIAN) ESSENTIAL OIL

Peak	RT (min)	Compound name	%
1	4,3	ACETONE	0,01
2	6,6	alpha-PINENE	0,97
3	6,7	alpha-THUYENE	0,15
4	7,6	CAMPHENE	0,03
5	8,7	<b>beta-PINENE</b>	<b>6,80</b>
6	9,1	SABINENE	1,02
7	10,1	delta-3-CARENE	0,01
8	10,6	beta-MYRCENE	1,01
9	10,7	alpha-PHELLANDRENE	0,03
10	10,9	psi-LIMONENE	0,04
11	11,3	alpha-TERPINENE	0,07
12	12,3	<b>LIMONENE</b>	<b>38,26</b>
13	12,6	beta-PHELLANDRENE + 1,8-CINEOLE	0,20
14	13,7	Cis-beta-OCIMENE	0,03
15	14,3	<b>gamma-TERPINENE</b>	<b>7,02</b>
16	14,6	Trans-beta-OCIMENE	0,09
17	15,5	p-CYMENE	0,19
18	16,1	TERPINOLENE	0,40
19	16,4	ISOTERPINOLENE	0,01
20	16,6	OCTANAL	0,01
21	17,2	TERPENIC EPOXIDE	0,01
22	18,3	PINOL	0,01
23	19,3	6-METHYL-5-HEPTEN-2-ONE	0,01
24	22,7	NONANAL	0,01
25	23,6	alpha-p-DIMETHYLSTYRENE	0,01
26	25,4	LINALOOL Cis-OXIDE	0,02
27	25,6	LIMONENE Cis-EPOXIDE	0,01
28	26,4	LIMONENE Trans-EPOXIDE	0,01
29	26,9	Trans-THUYANOL	0,02
30	27,2	LINALOOL Trans-OXIDE	0,05

**Disclaimer & Caution:**

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GCMS ANALYSIS (cont'd.)

PRODUCT NAME: BERGAMOT (CALABRIAN) ESSENTIAL OIL

Peak	RT (min)	Compound name	%
31	27,6	NONYLE ACETATE	0,10
32	29,1	DECANAL	0,05
33	29,4	CAMPHOR	0,04
34	31,4	ALIPHATIC METHYL ESTER	0,02
35	32,2	<b>LINALOOL</b>	<b>10,54</b>
36	32,8	<b>LINALYL ACETATE</b>	<b>29,17</b>
37	32,3	SESQUITERPENE	0,01
38	33,4	COMPOUND Mw=152	0,06
39	34,2	alpha,trans-BERGAMOTENE	0,19
40	34,5	beta-ELEMENE	0,01
41	34,7	beta-CARYOPHYLLENE	0,36
42	35,3	TERPINENE-4-OL	0,01
43	35,4	TERPENIC ALCOHOL	0,05
44	35,8	HOTRIENOL + BISABOLENE ISOMER	0,03
45	36,8	Cis-p-2,8-MENTHADIEN-1-OL	0,01
46	37,9	beta-SANTALENE	0,01
47	38,9	ESTRAGOLE	0,01
48	39,0	alpha-HUMULENE	0,01
49	39,2	E-beta-FARNESENE	0,03
50	39,3	Trans-p-2,8-MENTHADIEN-1-OL	0,01
51	39,8	Z-beta-FARNESENE	0,01
52	40,0	gamma-TERPINEOL	0,01
53	40,1	NERAL	0,24
54	40,7	TERPENYL ACETATE	0,13
55	41,0	alpha-TERPINEOL	0,15
56	41,4	GERMACRENE D	0,01
57	42,6	NERYL ACETATE	0,46
58	42,8	<b>beta-BISABOLENE</b>	<b>0,40</b>
59	43,1	<b>GERANIAL</b>	<b>0,42</b>
60	44,0	alpha-FARNESENE	0,02

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GCMS ANALYSIS (cont'd.)

PRODUCT NAME: BERGAMOT (CALABRIAN) ESSENTIAL OIL

Peak	RT (min)	Compound name	%
61	44,4	GERANYL ACETATE	0,46
62	46,8	PERILLIC ALCOHOL	0,02
63	49,5	NEROL	0,04
64	55,7	GERANIOL	0,01
65	66,0	3,7-OCTADIENE-2,6-DIOL, 2,6-DIMETHYL	0,01
66	68,5	HEXENYL ESTER	0,02
67	71,3	NEROLIDOL	0,01
68	89,3	alpha-BISABOLOL	0,03
69	93,5	SESQUITERPENOL	0,02
70	97,6	PALMITIC ACID	0,09
71	107,4	HERNIARIN	0,03
72	110,0	LIMETTIN	0,11
73	116,3	BERGAPTEN	0,06
		<b>TOTAL</b>	<b>99,99</b>

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