

Date : 2024-07-29

CERTIFICATE OF ANALYSIS - GC PROFILING

SAMPLE IDENTIFICATION

**Internal code :** 24G16-PTH02

**Customer Identification :** Spearmint - USA - S30114R

**Type :** Essential Oil

**Source :** *Mentha spicata*

**Customer :** Plant Therapy

Checked and approved by:

---

Alexis St-Gelais, Ph. D., Chimiste 2013-174

*Notes: This report may not be published, including online, without the written consent from Laboratoire PhytoChemia. This report is digitally signed, it is only considered valid if the digital signature is intact. The results only describe the samples that were submitted to the assays.*

## GAS CHROMATOGRAPHIC ANALYSIS

**Method :** PC-MAT-014 - Analysis of the composition of an essential oil or other volatile liquide by FAST GC-FID

**✖ISO**

**Results :** See analysis summary (next page)

**Analyst :** Alexis St-Gelais, Ph. D., Chimiste 2013-174

**Date :** 2024-07-29

## PHYSICOCHEMICAL DATA

**Refractive index :**  $1.4887 \pm 0.0003$  (20 °C)

**Method :** PC-MAT-016 - Measure of the refractive index of a liquid.

**Analyst :** Cindy Caron B. Sc.

**Date :** 2024-07-17

## CONCLUSION

No adulterant, contaminant or diluent has been detected using this method.

## ANALYSIS SUMMARY - CONSOLIDATED CONTENTS

New readers of similar reports are encouraged to read table footnotes at least once.

Identification	%	Class
Ethanol	0.02	Aliphatic alcohol
Dimethylsulfide	0.01	Aliphatic sulfide
Isobutyral	0.02	Aliphatic aldehyde
Isobutanol	0.01	Aliphatic alcohol
Isovaleral	0.07	Aliphatic aldehyde
2-Methylbutyral	0.05	Aliphatic aldehyde
1-Penten-3-ol	tr	Aliphatic alcohol
Valeral	tr	Aliphatic aldehyde
2-Ethylfuran	0.01	Furan
Isoamyl alcohol	0.03	Aliphatic alcohol
2-Methylbutanol	0.02	Aliphatic alcohol
Methyl 2-methylbutyrate	0.02	Aliphatic ester
Hexanal	tr	Aliphatic aldehyde
Ethyl 2-methylbutyrate	0.01	Aliphatic ester
(2E)-Hexenal	0.04	Aliphatic aldehyde
(3Z)-Hexenol	0.04	Aliphatic alcohol
(2E)-Hexenol	0.03	Aliphatic alcohol
Hexanol	0.02	Aliphatic alcohol
<i>trans</i> -2,5-Diethyltetrahydrofuran	0.08	Furan
Hashishene	0.11	Monoterpene
$\alpha$ -Thujene	0.06	Monoterpene
$\alpha$ -Pinene	0.75	Monoterpene
<i>trans</i> -3-Methylcyclohexanol	tr	Aliphatic alcohol
3-Methylcyclohexanone	0.01	Aliphatic ketone
Camphene	0.02	Monoterpene
Thuja-2,4(10)-diene	0.01	Monoterpene
Benzaldehyde	0.01	Simple phenolic
$\beta$ -Pinene	0.90	Monoterpene
Sabinene	0.48	Monoterpene
Octen-3-ol	0.02	Aliphatic alcohol
Octan-3-one	0.10	Aliphatic ketone
Myrcene	2.07	Monoterpene
Octan-3-ol	1.04	Aliphatic alcohol
Pseudolimonene	0.06	Monoterpene
Octanal	0.03	Aliphatic aldehyde
$\alpha$ -Phellandrene	0.02	Monoterpene
$\Delta^3$ -Carene	0.03	Monoterpene
$\alpha$ -Terpinene	0.52	Monoterpene
<i>para</i> -Cymene	0.21	Monoterpene
1,8-Cineole	1.68	Monoterpenic ether

Limonene	12.32	Monoterpene
2-Ethylhexanol	0.01	Aliphatic alcohol
(Z)- $\beta$ -Ocimene	0.13	Monoterpene
Butyl isovalerate	0.05	Aliphatic ester
(E)- $\beta$ -Ocimene	0.06	Monoterpene
$\gamma$ -Terpinene	0.66	Monoterpene
<i>cis</i> -Sabinene hydrate	0.57	Monoterpenic alcohol
<i>para</i> -Mentha-3,8-diene	0.02	Monoterpene
<i>cis</i> -Linalool oxide (fur.)	0.01	Monoterpenic alcohol
Octanol	0.02	Aliphatic alcohol
<i>para</i> -Cymenene	0.04	Monoterpene
Terpinolene	0.15	Monoterpene
<i>trans</i> -Sabinene hydrate	0.06	Monoterpenic alcohol
Nonan-3-ol	0.01	Aliphatic alcohol
Linalool	0.07	Monoterpenic alcohol
2-Methylbutyl 2-methylbutyrate	0.02	Aliphatic ester
Nonanal	0.02	Aliphatic aldehyde
Isoamyl isovalerate	0.01	Aliphatic ester
Octen-3-yl acetate	0.01	Aliphatic ester
<i>trans-para</i> -Mentha-2,8-dien-1-ol	0.06	Monoterpenic alcohol
Unknown	0.01	Unknown
Octan-3-yl acetate	0.23	Aliphatic ester
<i>cis</i> -Limonene oxide	0.02	Monoterpenic ether
<i>cis-para</i> -Mentha-2,8-dien-1-ol	0.03	Monoterpenic alcohol
<i>trans</i> -Pinocarveol	0.06	Monoterpenic alcohol
<i>trans-para</i> -Menth-2-en-1-ol	0.01	Monoterpenic alcohol
<i>trans</i> -Limonene oxide	0.03	Monoterpenic ether
Isopulegol	0.03	Monoterpenic alcohol
Menthone	0.27	Monoterpenic ketone
Pinocarvone	0.01	Monoterpenic ketone
Isomenthone	0.07	Monoterpenic ketone
Unknown	0.05	Unknown
Menthofuran	0.05	Monoterpenic ether
Borneol	0.03	Monoterpenic alcohol
neo-Menthol	0.07	Monoterpenic alcohol
Menthol	0.52	Monoterpenic alcohol
Terpinen-4-ol	1.35	Monoterpenic alcohol
$\alpha$ -Terpineol	0.27	Monoterpenic alcohol
<i>cis</i> -Dihydrocarvone	0.97	Monoterpenic ketone
neo-Dihydrocarveol	0.42	Monoterpenic alcohol
Dihydrocarveol	0.41	Monoterpenic alcohol
<i>trans</i> -Dihydrocarvone	0.14	Monoterpenic ketone
<i>trans</i> -Piperitol	tr	Monoterpenic alcohol
iso-Dihydrocarveol ?	0.01	Monoterpenic alcohol
<i>trans</i> -Carveol	0.30	Monoterpenic alcohol

Pulegone	0.03	Monoterpenic ketone
<i>cis</i> -Carveol	0.20	Monoterpenic alcohol
Carvone	63.92	Monoterpenic ketone
Piperitone	0.52	Monoterpenic ketone
<i>cis</i> -Carvone oxide	0.02	Monoterpenic ketone
Isopiperitenone	0.04	Monoterpenic ketone
<i>trans</i> -Carvone oxide	0.06	Monoterpenic ketone
Decanol	0.13	Aliphatic alcohol
2-Ethylmenthone?	0.04	Aliphatic ketone
Dihydroedulan I	0.06	Terpenic ether
Menthyl acetate	0.06	Monoterpenic ester
Dihydroedulan II	0.01	Terpenic ether
Thymol	0.01	Monoterpenic alcohol
Isomenthyl acetate	0.03	Monoterpenic alcohol
Dihydrocarvyl acetate	0.30	Monoterpenic ester
Bicycloelemene	0.05	Sesquiterpene
<i>trans</i> -Carvyl acetate	0.02	Monoterpenic ester
$\alpha$ -Cubebene	0.02	Sesquiterpene
iso-Dihydrocarvyl acetate	0.05	Monoterpenic ester
<i>cis</i> -Carvyl acetate	0.34	Monoterpenic ester
$\alpha$ -Ylangene	0.01	Sesquiterpene
$\alpha$ -Copaene	0.07	Sesquiterpene
$\beta$ -Bourbonene	1.10	Sesquiterpene
1,5-diepi- $\beta$ -Bourbonene	0.06	Sesquiterpene
$\beta$ -Elemene	0.12	Sesquiterpene
( <i>Z</i> )-Jasmone	0.24	Jasmonate
Longifolene	0.02	Sesquiterpene
Unknown	0.04	Sesquiterpene
Isocaryophyllene	0.03	Sesquiterpene
$\beta$ -Caryophyllene	0.99	Sesquiterpene
$\beta$ -Ylangene	0.27	Sesquiterpene
$\beta$ -Copaene	0.17	Sesquiterpene
Aromadendrene	0.04	Sesquiterpene
Isogermacrene D	0.13	Sesquiterpene
$\alpha$ -Humulene	0.11	Sesquiterpene
$\epsilon$ -Murolene?	0.07	Sesquiterpene
allo-Aromadendrene	0.02	Sesquiterpene
( <i>E</i> )- $\beta$ -Farnesene	0.49	Sesquiterpene
Unknown	0.08	Sesquiterpene
$\gamma$ -Murolene	0.04	Sesquiterpene
Germacrene D	0.66	Sesquiterpene
$\beta$ -Selinene	0.01	Sesquiterpene
Viridiflorene	0.04	Sesquiterpene
Bicyclogermacrene	0.07	Sesquiterpene
$\alpha$ -Murolene	0.03	Sesquiterpene

$\gamma$ -Cadinene	0.02	Sesquiterpene
$\delta$ -Cadinene	0.08	Sesquiterpene
1,5-Epoxyalsvial-4(14)-ene	0.01	Sesquiterpenic ether
( <i>E</i> )-Nerolidol	0.01	Sesquiterpenic alcohol
Spathulenol	0.01	Sesquiterpenic alcohol
Caryophyllene oxide	0.04	Sesquiterpenic ether
Viridiflorol	0.15	Sesquiterpenic alcohol
$\tau$ -Cadinol	0.01	Sesquiterpenic alcohol
$\alpha$ -Cadinol	tr	Sesquiterpenic alcohol
Phytone	tr	Terpenic ketone
<i>meta</i> -Camphorene	0.01	Diterpene
<i>para</i> -Camphorene	tr	Diterpene
Phytol	0.01	Diterpenic alcohol
<b>Consolidated total</b>	<b>99.46</b>	

tr: The compound has been detected below 0.005% of the total signal

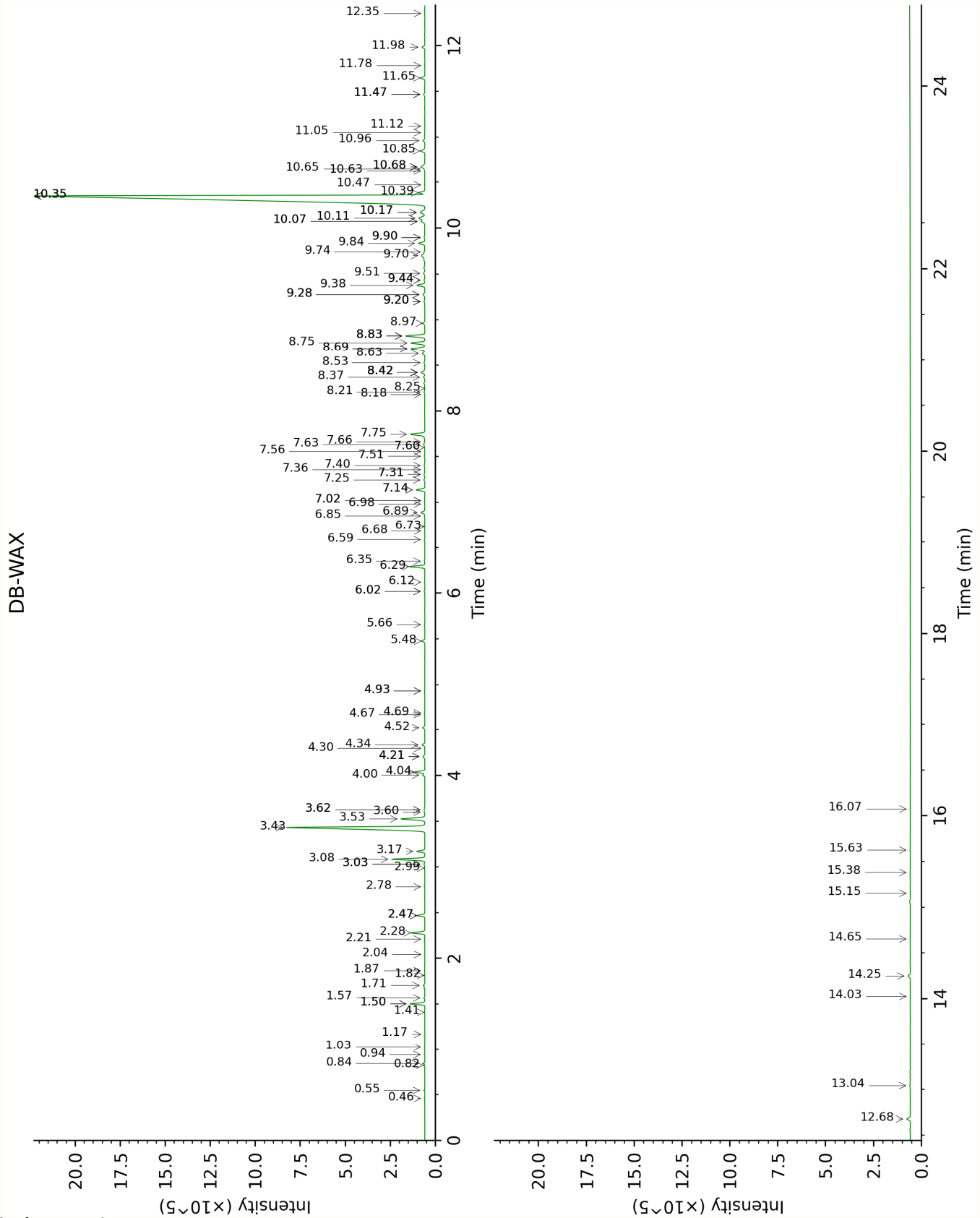
Note: no correction factor was applied

**About "consolidated" data:** The table above presents the breakdown of the sample volatile constituents after applying an algorithm to collapse data acquired from the multi-columns system of PhytoChemia into a single set of consolidated contents. In case of discrepancies between columns, the algorithm is set to prioritize data from the most standard DB-5 column, and smallest values so as to avoid overestimating individual content. This process is semi-automatic. Advanced users are invited to consult the "Full analysis data" table after the chromatograms in this report to access the full untreated data and perform their own calculations if needed.

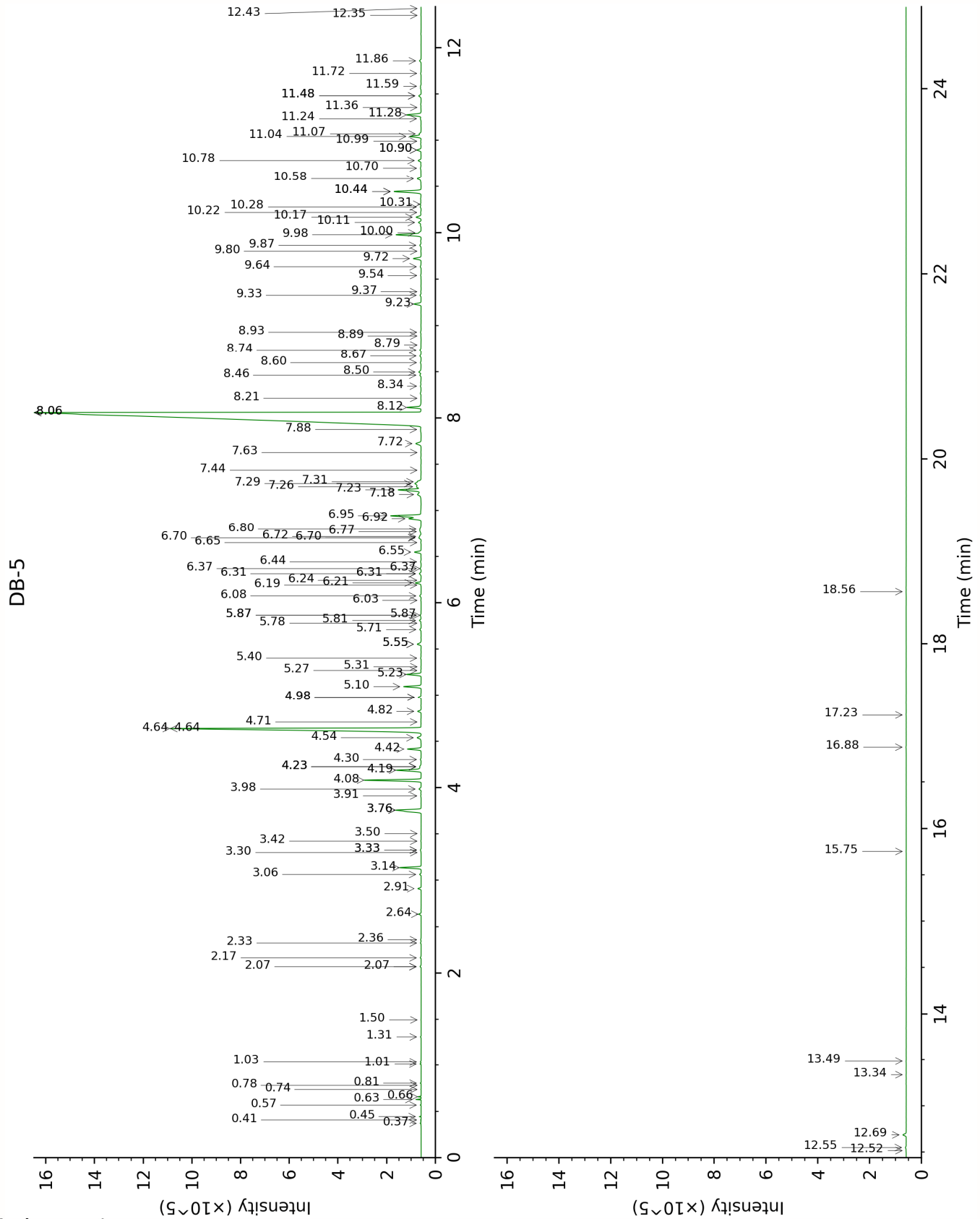
**Unknowns:** Unknown compounds' mass spectral data is presented in the "Full analysis data" table. The occurrence of unknown compounds is to be expected in many samples, and does not denote particular problems unless noted otherwise in the conclusion.

**Bracketed value ([xx]):** A bracketed percent value indicate that two or more compound percentage could not be solved due to coelution.

This page was intentionally left blank. The following pages present the complete data of the analysis.







FULL ANALYSIS DATA

Ethanol	Column DB-WAX			Column DB-5		
	0.94	906.4	0.02	0.37	500.0	0.02
Dimethylsulfide	0.46	709.9	0.01	0.41	506.2	0.01
Isobutylal	0.55	777.8	0.03	0.44	537.3	0.02
Isobutanol	2.21	1060.7	0.02	0.57	620.0	0.01
Isovaleral	0.84	887.4	0.08	0.63	641.0	0.07
2-Methylbutylal	0.82	880.6	0.05	0.66	651.1	0.05
1-Penten-3-ol	3.03*	1130.0	[0.06]	0.74	678.2	tr
Valeral	1.17	941.4	tr	0.78	693.8	tr
2-Ethylfuran	1.03	919.2	0.02	0.81	701.8	0.01
Isoamyl alcohol	3.62*	1175.3	[0.06]	1.01	732.1	0.03
2-Methylbutanol	3.62*	1175.3	[0.06]	1.04	735.3	0.02
Methyl 2-methylbutyrate	1.41	978.3	0.02	1.31	774.1	0.02
Hexanal	2.04	1044.7	tr	1.50	799.8	tr
Ethyl 2-methylbutyrate	1.82	1023.0	0.01	2.07*	849.0	[0.04]
(2E)-Hexenal	3.60	1173.4	0.04	2.07*	849.0	[0.04]
(3Z)-Hexenol	6.02*	1347.7	[0.05]	2.16	856.8	0.04
(2E)-Hexenol	6.35	1371.2	0.04	2.32	870.1	0.03
Hexanol	5.66	1321.8	0.03	2.36	873.0	0.02
trans-2,5-Diethyltetrahydrofuran	1.71	1012.5	0.09	2.64	895.8	0.08
Hashishene	1.50*	992.5	[0.87]	2.91	915.6	0.11
α-Thujene	1.57	999.5	0.06	3.06	925.6	0.06
α-Pinene	1.50*	992.5	[0.87]	3.14	930.5	0.75
trans-3-Methylcyclohexanol	7.02*	1419.7	[0.02]	3.30	941.2	tr
3-Methylcyclohexanone	4.93*	1270.0	[0.03]	3.33*	943.0	[0.03]
Camphene	1.87	1027.7	0.02	3.33*	943.0	[0.03]
Thuja-2,4(10)-diene	2.47*	1085.2	[0.48]	3.42	949.3	0.01
Benzaldehyde	7.56	1459.2	tr	3.50	954.7	0.01
β-Pinene	2.28	1067.2	0.90	3.76*	971.4	[1.38]
Sabinene	2.47*	1085.2	[0.48]	3.76*	971.4	[1.38]
Octen-3-ol	7.02*	1419.7	[0.02]	3.91	981.5	0.02
Octan-3-one	4.21*	1218.3	[0.16]	3.98	986.4	0.10
Myrcene	3.08	1134.1	2.06	4.08	992.7	2.07
Octan-3-ol	6.29	1367.0	0.97	4.19	999.8	1.04
Pseudolimonene	3.03*	1130.0	[0.06]	4.23*	1002.3	[0.08]
Octanal	4.67	1250.9	0.03	4.23*	1002.3	[0.08]
α-Phellandrene	2.99	1126.7	0.02	4.23*	1002.3	[0.08]
Δ <sup>3</sup> -Carene	2.78	1111.1	0.03	4.30	1007.2	0.03
α-Terpinene	3.17	1140.7	0.51	4.42	1014.2	0.52
para-Cymene	4.34	1227.4	0.19	4.54	1021.9	0.21

1,8-Cineole	3.53	1167.8	1.68	4.64*	1028.1	[14.02]
Limonene	3.43	1160.6	12.32	4.64*	1028.1	[14.02]
2-Ethylhexanol	7.51	1455.5	0.04	4.71	1032.5	0.01
(Z)- $\beta$ -Ocimene	4.00	1203.7	0.13	4.82	1039.7	0.13
Butyl isovalerate				4.98*	1049.4	[0.11]
(E)- $\beta$ -Ocimene	4.21*	1218.3	[0.16]	4.98*	1049.4	[0.11]
$\gamma$ -Terpinene	4.04	1206.1	0.68	5.10	1056.8	0.66
cis-Sabinene hydrate	7.14*	1428.5	[0.59]	5.23	1065.0	0.57
para-Mentha-3,8-diene	4.30	1224.6	0.01	5.27	1067.7	0.02
cis-Linalool oxide (fur.)	6.73	1398.3	0.01	5.31	1070.2	0.01
Octanol	8.42*	1524.3	[0.31]	5.40	1076.0	0.02
para-Cymenene	6.59	1388.0	0.04	5.55*	1085.4	[0.18]
Terpinolene	4.52	1240.7	0.15	5.55*	1085.4	[0.18]
trans-Sabinene hydrate	8.21	1507.7	0.06	5.71	1095.3	0.06
Nonan-3-ol	7.60	1462.5	0.03	5.78	1099.6	0.01
Linalool	8.37	1520.3	0.09	5.81	1101.4	0.07
2-Methylbutyl 2-methylbutyrate	4.69	1252.4	0.02	5.87*	1105.0	[0.05]
Nonanal	6.12	1354.8	0.02	5.87*	1105.0	[0.05]
Isoamyl isovalerate	4.93*	1270.0	[0.03]	5.87*	1105.0	[0.05]
Octen-3-yl acetate	6.02*	1347.7	[0.05]	6.03	1115.2	0.01
trans-para-Mentha-2,8-dien-1-ol	9.20*	1584.3	[0.08]	6.08	1118.3	0.06
Unknown MESP V [m/z 55, 67 (65), 93 (59), 69 (51), 119 (44), 83 (44)...]				6.19	1125.7	0.01
Octan-3-yl acetate	5.48	1309.0	0.22	6.22	1127.2	0.23
cis-Limonene oxide	6.68	1394.8	0.02	6.24	1129.0	0.02
cis-para-Mentha-2,8-dien-1-ol	9.74	1627.4	0.03	6.31*	1133.5	[0.09]
trans-Pinocarveol	9.44*	1602.7	[0.07]	6.31*	1133.5	[0.09]
trans-para-Menth-2-en-1-ol	9.20*	1584.3	[0.08]	6.37*	1137.0	[0.04]
trans-Limonene oxide	6.85	1407.4	0.03	6.37*	1137.0	[0.04]
Isopulegol	8.42*	1524.3	[0.31]	6.44	1141.7	0.03
Menthone	6.89	1410.2	0.27	6.55	1148.4	0.27
Pinocarvone	8.18	1505.7	0.01	6.65	1154.9	0.01
Isomenthone	7.25	1436.3	0.07	6.70*	1158.3	[0.12]
Unknown MESP I [m/z 93, 79 (83), 108 (61), 94 (58), 112 (56), 69 (51)...]				6.70*	1158.3	[0.12]
Menthofuran	7.14*	1428.5	[0.59]	6.72	1159.1	0.05
Borneol	10.07*	1654.1	[0.29]	6.77	1162.5	0.03
neo-Menthol	8.83*	1555.5	[1.33]	6.80	1164.3	0.07

Menthol	9.38	1598.2	0.57	6.92	1171.8	0.52
Terpinen-4-ol	8.83*	1555.5	[1.33]	6.95	1173.8	1.35
$\alpha$ -Terpineol	10.07*	1654.1	[0.29]	7.18	1188.5	0.27
<i>cis</i> -Dihydrocarvone	8.75	1549.5	0.97	7.23*†	1191.6	[1.02]
neo-Dihydrocarveol	10.39	1679.3	0.42	7.26*†	1193.8	[0.26]
Dihydrocarveol	10.68*	1703.1	[0.37]	7.29	1196.0	0.41
<i>trans</i> -Dihydrocarvone	8.97	1566.1	0.15	7.31	1197.2	0.14
<i>trans</i> -Piperitol	10.63	1699.3	0.01	7.44	1205.3	tr
iso-Dihydrocarveol ?	11.05	1734.6	0.02	7.63	1218.0	0.01
<i>trans</i> -Carveol	11.65	1784.9	0.29	7.72	1224.5	0.30
Pulegone	9.20*	1584.3	[0.08]	7.88	1234.6	0.03
<i>cis</i> -Carveol	11.98	1814.3	0.20	8.06*	1246.8	[64.12]
Carvone	10.35*	1676.4	[63.85]	8.06*	1246.8	[64.12]
Piperitone	10.17*	1662.0	[0.47]	8.12	1250.5	0.52
<i>cis</i> -Carvone oxide	11.12	1740.5	0.01	8.21	1257.1	0.02
Isopiperitenone	11.47*	1769.8	[0.10]	8.34	1265.8	0.04
<i>trans</i> -Carvone oxide	11.47*	1769.8	[0.10]	8.46	1273.7	0.06
Decanol	10.96	1727.3	0.15	8.50	1276.0	0.13
2-Ethylmenthone?				8.60	1282.8	0.04
Dihydroedulan I	7.36	1444.6	0.03	8.67	1287.7	0.06
Menthyl acetate	8.42*	1524.3	[0.31]	8.74	1292.2	0.06
Dihydroedulan II	7.66	1467.1	0.02	8.79	1295.9	0.01
Thymol	15.38	2130.3	0.02	8.89	1302.4	0.01
Isomenthyl acetate	8.53	1532.5	0.07	8.93	1305.2	0.03
Dihydrocarvyl acetate	9.70	1624.3	0.42	9.24	1326.5	0.30
Bicycloelemene	7.31*	1440.9	[0.08]	9.33	1333.2	0.05
<i>trans</i> -Carvyl acetate	10.47	1686.1	0.01	9.37	1335.9	0.02
$\alpha$ -Cubebene	6.98	1416.9	0.01	9.54	1348.1	0.02
iso-Dihydrocarvyl acetate				9.64	1354.8	0.05
<i>cis</i> -Carvyl acetate	10.85	1717.8	0.36	9.72	1360.9	0.34
$\alpha$ -Ylangene	7.31*	1440.9	[0.08]	9.80	1366.5	0.01
$\alpha$ -Copaene	7.40	1448.0	0.05	9.87	1371.0	0.07
$\beta$ -Bourbonene	7.75	1473.2	1.09	9.98	1378.9	1.10
1,5-diepi- $\beta$ -Bourbonene	7.63	1464.9	0.11	10.00	1380.4	0.06
$\beta$ -Elemene	8.69*	1544.6	[1.11]	10.11	1388.2	0.12
( <i>Z</i> )-Jasmone	12.68	1875.3	0.24	10.17	1392.2	0.24
Longifolene	8.25	1510.8	0.01	10.22	1395.8	0.02
Unknown MEPI VIII [m/z 106, 119 (99), 43 (78), 91 (74), 105 (60), 134 (55)... 204 (19)]	11.78	1796.6	0.02	10.28	1399.9	0.04
Isocaryophyllene	8.42*	1524.3	[0.31]	10.31	1402.0	0.03
$\beta$ -Caryophyllene	8.69*	1544.6	[1.11]	10.44*	1412.1	[1.26]

β-Ylangene	8.42*	1524.3	[0.31]	10.44*	1412.1	[1.26]
β-Copaene	8.63	1540.4	0.21	10.58	1422.5	0.17
Aromadendrene	8.83*	1555.5	[1.33]	10.70	1431.3	0.04
Isogermacrene D	9.28*	1590.2	[0.17]	10.78	1437.5	0.13
α-Humulene	9.51	1608.7	0.11	10.90*	1445.9	[0.18]
ε-Muurolene?	9.44*	1602.7	[0.07]	10.90*	1445.9	[0.18]
allo-Aromadendrene	9.28*	1590.2	[0.17]	10.99	1452.9	0.02
(E)-β-Farnesene	9.84	1634.9	0.48	11.04	1456.8	0.49
Unknown MISC XLIX [m/z 161, 105 (56), 91 (50), 93 (36), 119 (33), 79 (31)...204 (5)]				11.07	1458.8	0.08
γ-Muurolene	9.90*	1640.0	[0.08]	11.24	1471.0	0.04
Germacrene D	10.11	1657.0	0.63	11.28	1474.1	0.66
β-Selinene	10.17*	1662.0	[0.47]	11.36	1480.0	0.01
Viridiflorene	9.90*	1640.0	[0.08]	11.48*	1489.3	[0.11]
Bicyclogermacrene	10.35*	1676.4	[63.85]	11.48*	1489.3	[0.11]
α-Muurolene	10.35*	1676.4	[63.85]	11.59	1497.0	0.03
γ-Cadinene	10.65	1701.2	0.04	11.72	1507.6	0.02
δ-Cadinene	10.68*	1703.1	[0.37]	11.86	1518.2	0.08
1,5-Epoxysalvial-4(14)- ene	12.35	1846.7	0.01	12.35	1556.6	0.01
(E)-Nerolidol	14.03	1999.0	0.01	12.42	1562.5	0.01
Spathulenol	14.66	2059.1	0.01	12.52	1569.8	0.01
Caryophyllene oxide	13.04	1908.2	0.04	12.55	1572.4	0.04
Viridiflorol	14.25	2020.3	0.16	12.69	1583.1	0.15
τ-Cadinol	15.15	2107.7	0.01	13.34	1635.8	0.01
α-Cadinol				13.49	1647.9	tr
Phytone				15.75	1843.5	tr
meta-Camphorene	15.63	2154.7	0.02	16.88	1947.4	0.01
para-Camphorene	16.08	2199.8	0.01	17.23	1980.4	tr
Phytol				18.56	2112.6	0.01
Total reported		98.79%			99.34%	

\*: Two or more compounds are coeluting on this column

[xx]: Duplicate percentage due to coelutions, only the first one is taken into account in the consolidated total

†: Peaks apexes were resolved, but peaks overlapped and were summed for analysis

tr: The compound has been detected below 0.005% of total signal.

Note: no correction factor was applied  
R.T.: Retention time (minutes)  
R.I.: Retention index