Date : July 24, 2019

Certificate of Analysis – GC Profiling

Sample identification

Internal code : 19G11-ZAA01-1-SCC
Customer identification : Black Spruce - Picea mariana - CA27019E
Type : Essential oil
Source : *Picea mariana*
Customer : ZAYAT AROMA

Analysis

Method: PC-PA-014 - Analysis of the composition of an essential oil, or other volatile liquid, by FAST GC-FID (in French); identifications validated by GC-MS.
Analyst : Alexis St-Gelais, M. Sc., chimiste
Analysis date : July 23, 2019

Checked and approved by :

Alexis St-Gelais, M. Sc., chimiste 2013-174

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PHYSICOCHEMICAL DATA

Physical aspect: Clear liquid
Refractive index: 1.4711 ± 0.0003 (20 °C)

CONCLUSION

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

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Analysis summary – Consolidated contents

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

Identification	%	Classe
Isovaleral	0.01	Aliphatic aldehyde
2-Methylbutyral	tr	Aliphatic aldehyde
2-Ethylfuran	tr	Furan
Toluene	0.02	Simple phenolic
Hexanal	0.02	Aliphatic aldehyde
Unknown	tr	Alkene
(2*E*)-Hexenal	0.01	Aliphatic aldehyde
(3*Z*)-Hexenol	0.03	Aliphatic alcohol
Hexanol	0.04	Aliphatic alcohol
Santene	2.96	Monoterpene
Unknown	0.07	Normonoterpene
Bornylene	0.01	Monoterpene
Tricyclene	1.77	Monoterpene
α-Thujene	0.17	Monoterpene
α-Pinene	17.53	Monoterpene
Camphene	16.18	Monoterpene
α-Fenchene	0.12	Monoterpene
Thuja-2,4(10)-diene	0.05	Monoterpene
Benzaldehyde	0.01	Simple phenolic
meta-Cymene	0.05	Monoterpene
β-Pinene	6.88	Monoterpene
Sabinene	0.09	Monoterpene
6-Methyl-5-hepten-2-one	0.01	Aliphatic ketone
Dehydro-1,8-cineole	0.02	Monoterpenic ether
Myrcene	3.26	Monoterpene
2-Pentylfuran	0.01	Furan
2-Carene	0.04	Monoterpene
α-Phellandrene	0.35	Monoterpene
Pseudolimonene	0.01	Monoterpene
Δ3-Carene	7.73	Monoterpene
α-Terpinene	0.30	Monoterpene
ortho-Cymene	0.01	Monoterpene
Carvomenthene	0.01	Aliphatic alcohol
para-Cymene	0.28	Monoterpene
Limonene	3.87	Monoterpene
β-Phellandrene	1.45	Monoterpene
1,8-Cineole	0.28	Monoterpenic ether
(*Z*)-β-Ocimene	0.02	Monoterpene
(*E*)-β-Ocimene	0.01	Monoterpene
γ-Terpinene	0.30	Monoterpene
Unknown	0.06	Oxygenated monoterpene
Unknown	0.01	Unknown
meta-Cymenene	0.02	Monoterpene
Fenchone	0.04	Aliphatic alcohol
γ-Campholenal	0.07	Aliphatic alcohol
Isoterpinolene	0.04	Monoterpene
Terpinolene	1.01	Monoterpene

para-Cymenene	0.17	Monoterpene
Linalool	0.27	Monoterpenic alcohol
Nonanal	0.02	Aliphatic aldehyde
endo-Fenchol	0.11	Monoterpenic alcohol
3-Methyl-3-butenyl isovalerate	0.03	Aliphatic ester
α-Campholenal	0.14	Monoterpenic aldehyde
Cosmene isomer I	0.01	Monoterpene
trans-Pinocarveol	0.15	Monoterpenic alcohol
Camphor	0.20	Monoterpenic ketone
Camphene hydrate	0.24	Monoterpenic alcohol
Isoborneol	0.12	Monoterpenic alcohol
Citronellal	0.06	Monoterpenic aldehyde
Pinocamphone	0.03	Monoterpenic ketone
Pinocarvone	0.01	Monoterpenic ketone
Borneol	1.09	Monoterpenic alcohol
Unknown	0.05	Unknown
Isopinocamphone	0.06	Monoterpenic ketone
Terpinen-4-ol	0.36	Monoterpenic alcohol
Cryptone	0.03	Normonoterpenic ketone
para-Cymen-8-ol	0.04	Monoterpenic alcohol
α-Terpineol	0.92	Monoterpenic alcohol
Myrtenal	0.05	Monoterpenic aldehyde
Myrtenol	0.09	Monoterpenic alcohol
Verbenone	0.07	Monoterpenic ketone
Unknown	0.04	Unknown
endo-Fenchyl acetate	0.26	Monoterpenic ester
trans-Carveol	0.01	Monoterpenic alcohol
Citronellol	0.08	Monoterpenic alcohol
Thymol methyl ether	0.04	Monoterpenic ether
Unknown	0.01	Oxygenated monoterpene
Carvone	0.02	Monoterpenic ketone
Piperitone	0.04	Monoterpenic ketone
Geraniol	0.03	Monoterpenic alcohol
Unknown	0.01	Unknown
trans-Verbenyl acetate	0.03	Monoterpenic ester
cis-Verbenyl acetate	0.07	Monoterpenic ester
Bornyl acetate	19.86	Monoterpenic ester
Isobornyl acetate	0.54	Monoterpenic ester
Unknown	0.19	Unknown
Unknown	0.12	Monoterpenic ester
trans-Pinocarvyl acetate	0.11	Monoterpenic ester
Myrtenyl acetate	0.01	Monoterpenic ester
Terpinyl acetate analog	0.06	Monoterpenic ester
trans-Carvyl acetate	0.03	Monoterpenic ester
exo-2-Hydroxycineole acetate	0.02	Monoterpenic ester
Unknown	0.03	Unknown
α-Terpinyl acetate	0.06	Monoterpenic ester
α-Cubebene	0.02	Sesquiterpene
Citronellyl acetate	0.16	Monoterpenic ester
Unknown	0.03	Oxygenated monoterpene
Longicyclene	0.02	Sesquiterpene
α-Copaene	0.04	Sesquiterpene

β-Bourbonene	0.01	Sesquiterpene
Geranyl acetate	0.24	Monoterpenic ester
β-Elemene	0.10	Sesquiterpene
Longifolene	0.19	Sesquiterpene
β-Caryophyllene	0.27	Sesquiterpene
β-Copaene	0.02	Sesquiterpene
Aromadendrene	0.02	Sesquiterpene
trans-Muurola-3,5-diene	0.04	Sesquiterpene
α-Humulene	0.06	Sesquiterpene
(*E*)-β-Farnesene	0.01	Sesquiterpene
cis-Muurola-4(15),5-diene	0.01	Sesquiterpene
trans-Cadina-1(6),4-diene	0.14	Sesquiterpene
γ-Muurolene	0.19	Sesquiterpene
Dodecanol	0.04	Aliphatic alcohol
Germacrene D	0.08	Sesquiterpene
β-Selinene	0.13	Sesquiterpene
Epizonarene	0.15	Sesquiterpene
Germacrene A	0.05	Sesquiterpene
α-Muurolene	0.37	Sesquiterpene
γ-Cadinene	0.47	Sesquiterpene
Cubebol	0.01	Sesquiterpenic alcohol
(3*E*,6*E*)-α-Farnesene	0.03	Sesquiterpene
endo-1-Bourbonanol	0.03	Sesquiterpenic alcohol
trans-Calamenene	0.09	Sesquiterpene
δ-Cadinene	1.49	Sesquiterpene
trans-Cadina-1,4-diene	0.08	Sesquiterpene
α-Cadinene	0.12	Sesquiterpene
α-Calacorene	0.05	Sesquiterpene
(*E*)-α-Bisabolene	0.18	Sesquiterpene
Unknown	0.02	Oxygenated sesquiterpene
Germacrene B	0.01	Sesquiterpene
(*E*)-Nerolidol	0.01	Sesquiterpenic alcohol
Spathulenol	0.01	Sesquiterpenic alcohol
Globulol	0.02	Sesquiterpenic alcohol
Unknown	0.04	Oxygenated sesquiterpene
Unknown	0.05	Unknown
10-epi-Cubenol	0.07	Sesquiterpenic alcohol
τ-Muurolol	0.19	Sesquiterpenic alcohol
τ-Cadinol	0.25	Sesquiterpenic alcohol
α-Muurolol	0.24	Sesquiterpenic alcohol
α-Cadinol	0.38	Sesquiterpenic alcohol
cis-Calamenen-10-ol	0.07	Sesquiterpenic alcohol
trans-Calamenen-10-ol	0.05	Sesquiterpenic alcohol
(1,8*Z*,11*Z*,14*Z*)-Heptadecatetraene	0.03	Alkene
Amorpha-4,9-dien-2-ol	0.03	Sesquiterpenic alcohol
(5*Z*)-Tetradecen-14-olide?	0.03	Aliphatic lactone
Unknown	0.04	Oxygenated sesquiterpene
Unknown	0.02	Oxygenated sesquiterpene
(*E*,*E*)-Geranyllinalool	0.02	Diterpenic alcohol
Manool	0.06	Diterpenic alcohol
7,13-Abietadiene	0.01	Diterpene
(*Z*)-Abienol	0.04	Diterpenic alcohol

Palustral	0.02	Diterpenic aldehyde
Abietal	0.01	Diterpenic aldehyde
Consolidated total	**97.94%**	

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

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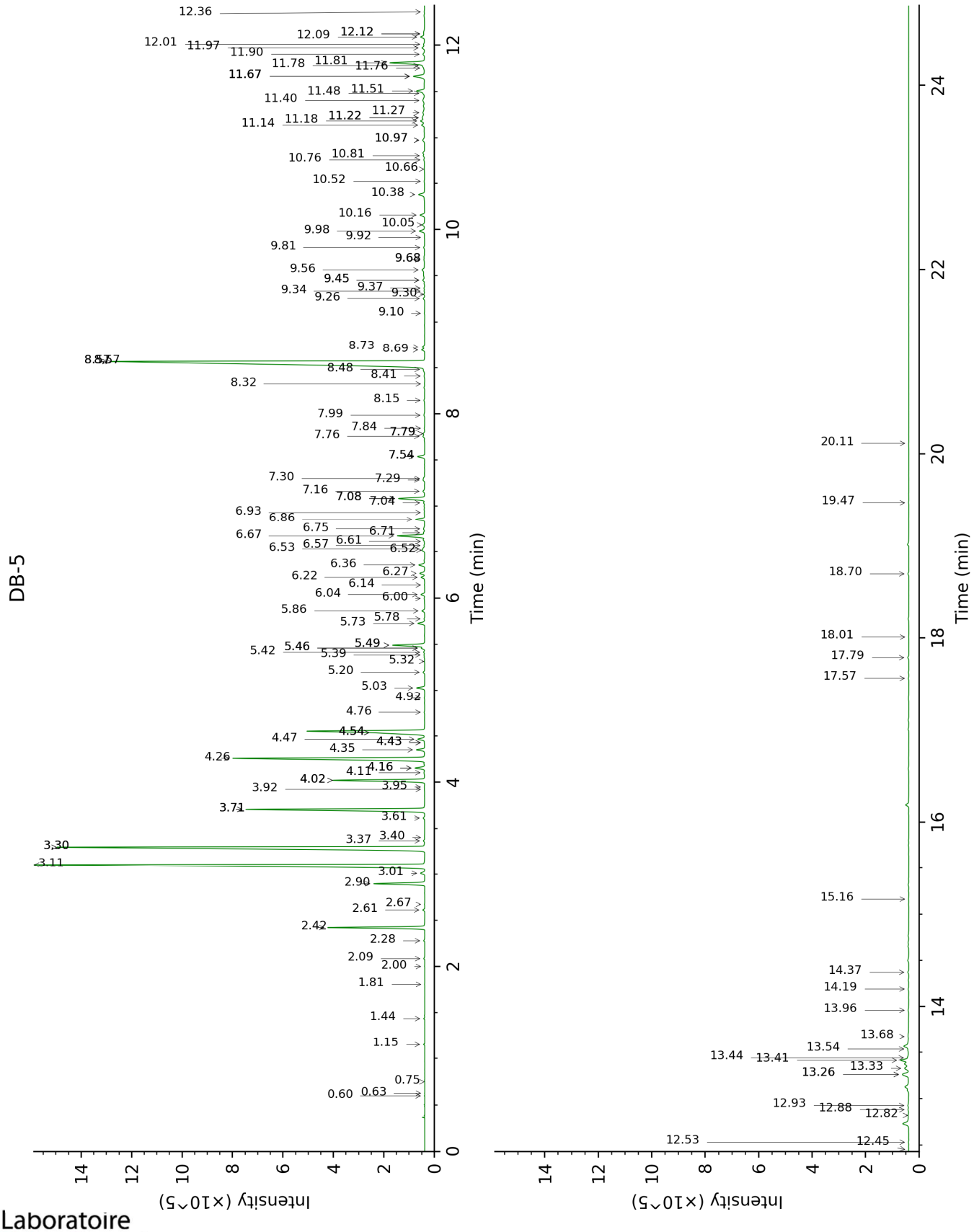
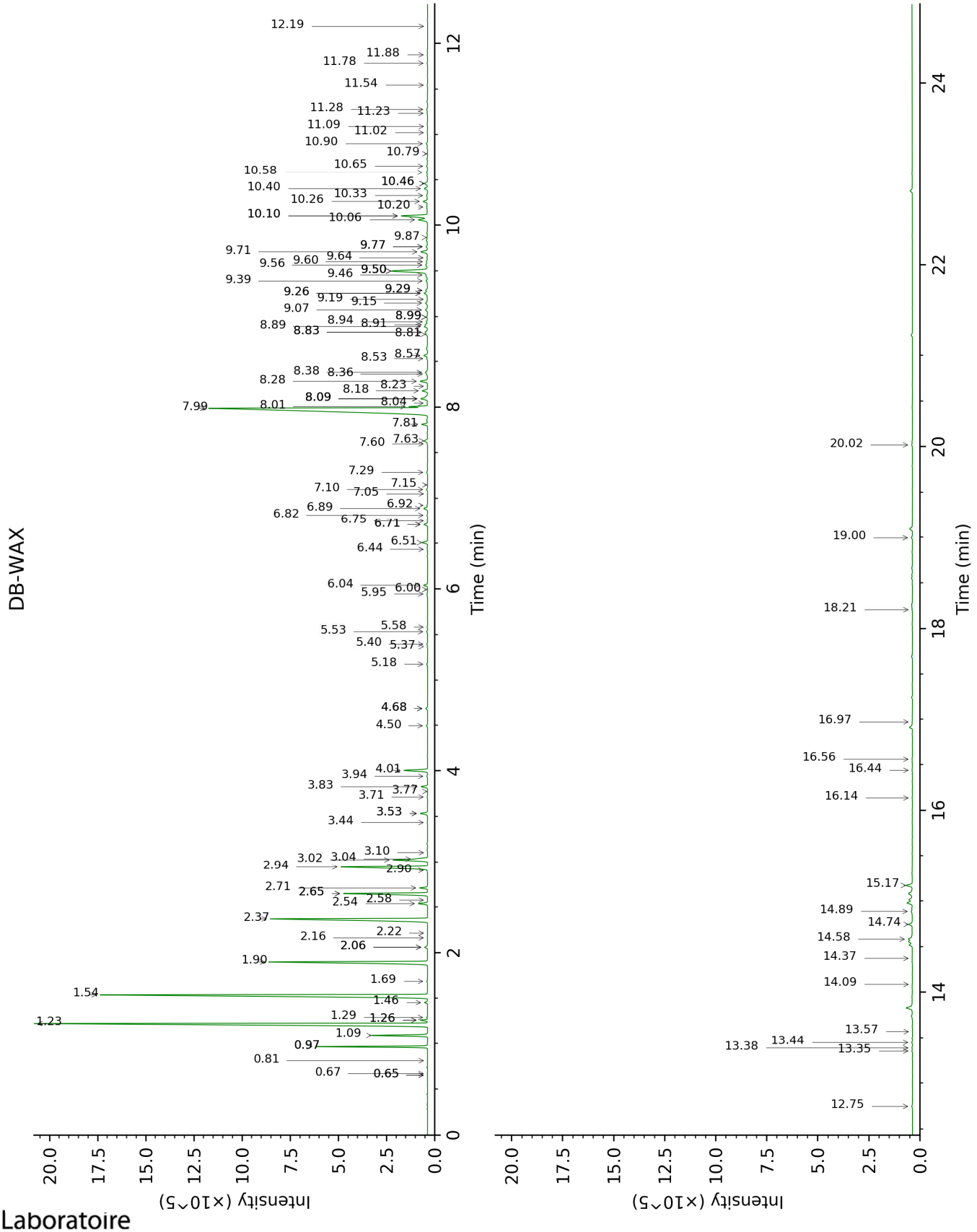

DB-5
Time (min)
Intensity (×10^5)
12.36
12.09
12.12
12.01
11.97
11.90
11.78
11.81
11.76
11.67
11.40
11.48
11.51
11.14
11.18
11.22
11.27
10.97
10.76
10.81
10.66
10.52
10.38
10.16
10.05
9.98
9.92
9.81
9.68
9.56
9.45
9.37
9.34
9.30
9.26
9.10
8.73
8.69
8.48
8.41
8.32
8.15
7.99
7.84
7.79
7.76
7.54
7.30
7.29
7.16
7.08
7.04
6.93
6.86
6.75
6.71
6.67
6.57
6.61
6.53
6.52
6.36
6.27
6.22
6.14
6.04
6.00
5.86
5.78
5.73
5.49
5.46
5.42
5.39
5.32
5.20
5.03
4.92
4.76
4.54
4.47
4.43
4.35
4.26
4.16
4.11
4.02
3.95
3.92
3.71
3.61
3.40
3.37
3.30
3.11
3.01
2.90
2.67
2.61
2.42
2.28
2.09
2.00
1.81
1.44
1.15
0.75
0.63
0.60
20.11
19.47
18.70
18.01
17.79
17.57
15.16
14.37
14.19
13.96
13.68
13.54
13.44
13.41
13.33
13.26
12.93
12.88
12.82
12.53
12.45


DB-WAX
Time (min)
Intensity (×10^5)
12.19
11.88
11.78
11.54
11.28
11.23
11.09
11.02
10.90
10.79
10.65
10.58
10.46
10.40
10.33
10.26
10.20
10.10
10.06
9.87
9.77
9.71
9.64
9.60
9.56
9.50
9.46
9.39
9.29
9.26
9.19
9.15
9.07
8.99
8.94
8.91
8.89
8.83
8.81
8.57
8.53
8.38
8.36
8.28
8.23
8.18
8.09
8.04
8.01
7.99
7.81
7.63
7.60
7.29
7.15
7.10
7.05
6.92
6.89
6.82
6.75
6.71
6.51
6.44
6.04
6.00
5.95
5.58
5.53
5.40
5.37
5.18
4.68
4.50
4.01
3.94
3.83
3.77
3.71
3.53
3.44
3.10
3.04
3.02
2.94
2.90
2.71
2.65
2.58
2.54
2.37
2.22
2.16
2.06
1.90
1.69
1.54
1.46
1.29
1.26
1.23
1.09
0.97
0.81
0.67
0.65
20.02
19.00
18.21
16.97
16.56
16.44
16.14
15.17
14.89
14.74
14.58
14.37
14.09
13.57
13.44
13.38
13.35
12.75

FULL ANALYSIS DATA

Identification	Column DB-5			Column DB-WAX		
	R.T	R.I	%	R.T	R.I	%
Isovaleral	0.60	640	0.01	0.67	891	0.01
2-Methylbutyral	0.63	651	tr	0.65*	884	0.01
2-Ethylfuran	0.75	698	tr	0.81	922	tr
Toluene	1.15	760	0.02	1.29	1005	0.03
Hexanal	1.44	800	0.02	1.69	1046	0.03
Unknown [m/z 109, 67 (32), 81 (14), 41 (12), 124 (10)]	1.81	832	tr	0.65*	884	[0.01]
(2*E*)-Hexenal	2.00	848	0.01	3.10	1173	tr
(3*Z*)-Hexenol	2.09	855	0.03	5.53	1354	0.04
Hexanol	2.28	871	0.04	5.18	1328	0.04
Santene	2.42	883	2.96	0.97*	950	3.01
Unknown [m/z 79, 93 (66), 94 (52), 91 (39), 77 (37), 122 (31)]	2.61	898	0.07	1.26*	1002	0.25
Bornylene	2.67	903	0.01	0.97*	950	[3.01]
Tricyclene	2.90	918	1.77	1.10	973	1.80
α-Thujene	3.01	925	0.17	1.26*	1002	[0.25]
α-Pinene	3.11	932	17.53	1.22	997	17.83
Camphene	3.30*	944	16.03	1.54	1031	16.18
α-Fenchene	3.30*	944	[16.03]	1.46	1022	0.12
Thuja-2,4(10)-diene	3.37	949	0.05	2.06*	1086	0.13
Benzaldehyde	3.40	951	0.01	7.05	1466	0.01
meta-Cymene	3.61	965	0.05	2.65*	1136	3.36
β-Pinene	3.71*	971	6.85	1.90	1069	6.88
Sabinene	3.71*	971	[6.85]	2.06*	1086	[0.13]
6-Methyl-5-hepten-2-one	3.92	986	0.01	4.68*	1294	0.09
Dehydro-1,8-cineole	3.95	987	0.02	2.90	1157	0.02
Myrcene	4.02*	992	3.27	2.65*	1136	[3.36]
2-Pentylfuran	4.02*	992	[3.27]	3.44	1200	0.01
2-Carene	4.10	998	0.04	2.16	1097	0.01
α-Phellandrene	4.16*	1001	0.37	2.54	1128	0.35
Pseudolimonene	4.16*	1001	[0.37]	2.58	1131	0.01
Δ3-Carene	4.26	1008	7.73	2.37	1114	7.81
α-Terpinene	4.35	1013	0.30	2.71	1142	0.30
ortho-Cymene	4.43*	1018	0.01	3.78	1226	0.01
Carvomenthene	4.43*	1018	[0.01]	2.22	1101	0.01
para-Cymene	4.47	1020	0.28	3.83	1230	0.28
Limonene	4.54*†	1025	5.56	2.94	1160	3.87
β-Phellandrene	4.54*†	1025	[5.56]	3.02	1167	1.45
1,8-Cineole	4.54*†	1025	[5.56]	3.04	1168	0.28
(*Z*)-β-Ocimene	4.76	1039	0.02	3.53*	1208	0.32
(*E*)-β-Ocimene	4.92	1049	0.01	3.72	1221	0.02

γ-Terpinene	5.03	1056	0.30	3.53*	1208	[0.32]
Unknown [m/z 79, 93 (60), 43 (40), 94 (35), 137 (33), 77 (26), 91 (20), 152 (18)]	5.20	1067	0.06	4.50	1280	0.06
Unknown [m/z 94, 79 (74), 67 (33), 41 (22), 95 (21)...]	5.32	1074	0.01			
meta-Cymenene	5.39	1078	0.02	5.95	1384	0.04
Fenchone	5.42	1080	0.04	5.40	1344	0.04
γ-Campholenal	5.46*	1083	0.11	4.68*	1294	[0.09]
Isoterpinolene	5.46*	1083	[0.11]	3.94	1238	0.04
Terpinolene	5.49*	1085	1.21	4.01	1243	1.01
para-Cymenene	5.49*	1085	[1.21]	6.04	1391	0.17
Linalool	5.73	1100	0.27	7.81	1524	0.25
Nonanal	5.78	1103	0.02	5.58	1358	0.02
endo-Fenchol	5.86	1109	0.11	8.09*	1545	0.43
3-Methyl-3-butenyl isovalerate	6.00	1118	0.03	5.37	1342	0.01
α-Campholenal	6.04	1120	0.14	6.71*	1440	0.17
Cosmene isomer I	6.14	1127	0.01	6.00	1387	0.01
trans-Pinocarveol	6.22	1132	0.15	8.89	1608	0.15
Camphor	6.27	1135	0.20	6.89	1454	0.19
Camphene hydrate	6.36	1141	0.24	8.18	1552	0.26
Isoborneol	6.52	1152	0.12	9.07	1623	0.11
Citronellal	6.53	1152	0.06	6.71*	1440	[0.17]
Pinocamphone	6.57	1155	0.03	6.92	1456	0.03
Pinocarvone	6.61	1158	0.01	7.60	1507	0.02
Borneol	6.67	1162	1.09	9.50*	1657	2.15
Unknown [m/z 109, 108 (48), 67 (41), 81 (40), 41 (28)...]	6.71	1164	0.05	7.10	1469	0.05
Isopinocamphone	6.75	1167	0.06	7.29	1483	0.05
Terpinen-4-ol	6.86	1174	0.36	8.28	1560	0.37
Cryptone	6.93	1179	0.03	8.83*	1603	0.13
para-Cymen-8-ol	7.04	1186	0.04	11.24	1803	0.04
α-Terpineol	7.08*	1189	1.04	9.50*	1657	[2.15]
Myrtenal	7.08*	1189	[1.04]	8.36	1566	0.05
Myrtenol	7.16	1194	0.09	10.58	1748	0.06
Verbenone	7.29	1202	0.07	9.26*	1638	0.19
Unknown [m/z 95, 93 (32), 121 (24), 79 (22), 91 (21), 105 (16)... 154 (2)]	7.30	1203	0.04	10.66	1754	0.04
endo-Fenchyl acetate	7.54*	1219	0.28	6.51	1425	0.26
trans-Carveol	7.54*	1219	[0.28]	11.09	1791	0.01
Citronellol	7.76	1234	0.08	10.46*	1737	0.17
Thymol methyl ether	7.79*	1236	0.06			

Unknown [m/z 137, 152 (28), 43 (25), 91 (24), 109 (23), 119 (19)]	7.79*	1236	[0.06]	11.02	1785	0.01
Carvone	7.84	1240	0.02	9.64	1669	0.02
Piperitone	7.99	1250	0.04	9.60	1666	0.06
Geraniol	8.15	1261	0.03	11.28	1807	0.06
Unknown [m/z 43, 119 (72), 81 (66), 54 (48), 41 (47), 58 (44)...]	8.32	1274	0.01			
trans-Verbenyl acetate	8.41	1279	0.03	8.99*	1616	0.05
cis-Verbenyl acetate	8.48	1284	0.07	8.38	1568	0.12
Bornyl acetate	8.57*	1290	20.89	7.99	1537	19.86
Isobornyl acetate	8.57*	1290	[20.89]	8.01	1539	0.54
Unknown [m/z 119, 43 (87), 91 (78), 92 (70), 134 (50)...]	8.57*	1290	[20.89]	8.57	1582	0.19
Unknown [m/z 107, 43 (76), 150 (42), 91 (28), 108 (23)]	8.69	1299	0.12	8.83*	1603	[0.13]
trans-Pinocarvyl acetate	8.73	1302	0.11	8.81	1601	0.09
Myrtenyl acetate	9.10	1322	0.01	9.29*	1640	0.08
Terpinyl acetate analog	9.26	1333	0.06	9.29*	1640	[0.08]
trans-Carvyl acetate	9.30	1336	0.03	9.87	1687	0.03
exo-2-Hydroxycineole acetate	9.34	1339	0.02	9.77*	1679	0.06
Unknown [m/z 133, 105 (45), 91 (38), 119 (36)... 150 (3)]	9.37	1341	0.03			
α-Terpinyl acetate	9.45*	1347	0.09	9.39	1648	0.06
α-Cubebene	9.45*	1347	[0.09]	6.44	1420	0.02
Citronellyl acetate	9.56	1355	0.16	9.15	1629	0.11
Unknown [m/z 93, 121 (68), 43 (67), 67 (44), 136 (36), 107 (34)... 180 (4)]	9.68*	1363	0.05	9.77*	1679	[0.06]
Longicyclene	9.68*	1363	[0.05]	6.75	1443	0.02
α-Copaene	9.81	1372	0.04	6.82	1448	0.03
β-Bourbonene	9.92	1380	0.01	7.15	1473	0.01
Geranyl acetate	9.98	1385	0.24	10.26	1720	0.19
β-Elemene	10.05	1390	0.10	8.09*	1545	[0.43]
Longifolene	10.16	1397	0.19	7.63	1510	0.19

β-Caryophyllene	10.38	1414	0.27	8.09*	1545	[0.43]
β-Copaene	10.52	1424	0.02	8.04	1542	0.03
Aromadendrene	10.66	1435	0.02	8.23	1556	0.02
trans-Muurola-3,5-diene	10.76	1442	0.04	8.53	1580	0.04
α-Humulene	10.81	1446	0.06	8.94	1612	0.06
(*E*)-β-Farnesene	10.98*	1458	0.11	9.19	1632	0.01
cis-Muurola-4(15),5-diene	10.98*	1458	[0.11]	8.99*	1616	[0.05]
trans-Cadina-1(6),4-diene	11.14	1470	0.14	8.91	1609	0.09
γ-Muurolene	11.18	1474	0.19	9.26*	1638	[0.19]
Dodecanol	11.22*	1476	0.16	12.75	1939	0.04
Germacrene D	11.22*	1476	[0.16]	9.46	1654	0.08
β-Selinene	11.27	1480	0.13	9.56	1663	0.11
Epizonarene	11.40	1490	0.15	9.50*	1657	[2.15]
Germacrene A	11.48	1496	0.05	10.10*	1707	1.34
α-Muurolene	11.51	1498	0.37	9.71	1674	0.34
γ-Cadinene	11.67*	1510	0.56	10.06	1703	0.47
Cubebol	11.67*	1510	[0.56]	12.19	1888	0.01
(3*E*,6*E*)-α-Farnesene	11.67*	1510	[0.56]	10.20	1715	0.03
endo-1-Bourbonanol	11.76	1517	0.03			
trans-Calamenene	11.78	1519	0.09	10.90	1775	0.07
δ-Cadinene	11.81	1521	1.49	10.10*	1707	[1.34]
trans-Cadina-1,4-diene	11.90	1529	0.08	10.33	1726	0.04
α-Cadinene	11.97	1534	0.12	10.46*	1737	[0.17]
α-Calacorene	12.01	1537	0.05	11.78	1852	0.03
(*E*)-α-Bisabolene	12.09	1543	0.18	10.40	1732	0.16
Unknown [m/z 95, 81 (70), 109 (68), 93 (59), 67 (53), 41 (49), 139 (40)... 220 (3)]	12.12*	1546	0.03	11.88	1860	0.02
Germacrene B	12.12*	1546	[0.03]	10.79	1765	0.01
(*E*)-Nerolidol	12.36	1565	0.01	13.44	2004	0.04
Spathulenol	12.45	1572	0.01	14.09	2066	0.01
Globulol	12.53	1578	0.02	13.57	2016	0.01
Unknown [m/z 177, 43 (97), 109 (65), 67 (57), 96 (51)... 220 (13)]	12.82	1601	0.04	13.35	1995	0.03
Unknown0 [m/z 108, 43 (56), 109 (33), 93 (26), 119 (24)... 212 (2)]	12.88	1606	0.05	14.37	2094	0.02
10-epi-Cubenol	12.93	1610	0.07	13.38	1998	0.03
τ-Muurolol	13.26*	1637	0.39	14.74	2131	0.19
τ-Cadinol	13.26*	1637	[0.39]	14.58	2114	0.25
α-Muurolol	13.33	1643	0.24	14.89	2145	0.07

α-Cadinol	13.41	1650	0.38	15.17	2173	0.33
cis-Calamenen-10-ol	13.44	1652	0.07	16.14	2273	0.02
trans-Calamenen-10-ol	13.54	1660	0.05	16.44	2305	0.02
(1,8*Z*,11*Z*,14*Z*)-Heptadecatetraene	13.68	1671	0.03	11.54	1831	0.02
Amorpha-4,9-dien-2-ol	13.96	1695	0.03	16.56	2318	0.03
(5*Z*)-Tetradecen-14-olide?	14.19	1714	0.03			
Unknown [m/z 159, 132 (79), 135 (37), 91 (35), 177 (33)... 220 (16)]	14.37	1730	0.04			
Unknown [m/z 43, 162 (93), 119 (77), 159 (65), 93 (65), 147 (57)...220 (28)]	15.16	1799	0.02			
(*E*,*E*)-Geranyllinalool	17.57	2023	0.02	18.21	2500	0.02
Manool	17.79	2045	0.06	19.00	2591	0.06
7,13-Abietadiene	18.01	2067	0.01	16.97	2362	0.01
(*Z*)-Abienol	18.70	2136	0.04	20.02	2715	0.04
Palustral	19.47	2217	0.02			
Abietal	20.12	2286	0.01			
Total identified		**97.51%**			**96.75%**	
Total reported		**98.06%**			**97.18%**	

*: Two or more compounds are coeluting on this column
[xx]: Duplicate percentage due to coelutions, not 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