PATHOGENIA
WE MAKE FOOD SAFER

Tel: +15144466500
samples@pathogenia.com

CERTIFICATE OF ANALYSIS

Client information

Amani Craft Cannabis Ltd.
Kelowna, Canada, V4V 1S5

COA information

COA number	**230517_58189_PAR16001**
COA Date	**17-May-2023**
Analysis Request ID	**PAR16001**

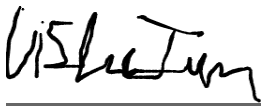
Sample information

Sample Name	**Shockwave**	Sample Receiving Date	**11-May-2023**
Sample ID	**002ACF**	Receiving Temperature	**20°C**
Laboratory ID	**PAT49398**	Analysis Date	**16-May-2023**
Method Ref.	**PAT-AM-020 (USP 233 Modified)**		

Results Information

Heavy Metals	Results	Unit	LOQ	Specification
Arsenic	**<0.025**	ppm	0.025	<0.2ppm
Cadmium	**<0.020**	ppm	0.02	<0.3ppm
Lead	**<0.010**	ppm	0.01	<0.5ppm
Mercury	**<0.005**	ppm	0.005	<0.1ppm

Authorized by: Laboratory Manager

Signature: 

Details of testing

1. *LOQ- Limit of quantification*
2. *Results only apply to the items tested and to the sample(s) as received.*
3. *This report may not be distributed or reproduced except in full.*

This COA can be verified by scanning the QR code

PATHOGENIA
WE MAKE FOOD SAFER

Tel: +15144466500
samples@pathogenia.com

Sample information

Sample Name	**Shockwave**	Sample Receiving Date	**11-May-2023**
Sample ID	**002ACF**	Receiving Temperature	**20°C**
Laboratory ID	**PAT49398**	Analysis Date	**15-May-2023**
Method Ref.	**PAT-AM-024**		

Results Information

Aflatoxins	Results	Unit	LOQ
Aflatoxin B1	**<0.002**	ppm	0.002
Aflatoxin B2	**<0.002**	ppm	0.002
Aflatoxin G1	**<0.002**	ppm	0.002
Aflatoxin G2	**<0.002**	ppm	0.002
Total Aflatoxins (B1,B2,G1,G2)	**<0.002**	ppm	0.002

Authorized by: Laboratory Manager

Signature:

Details of testing

1. *LOQ- Limit of quantification*
2. *Results only apply to the items tested and to the sample(s) as received.*
3. *This report may not be distributed or reproduced except in full.*

This COA can be verified by scanning the QR code

PATHOGENIA
WE MAKE FOOD SAFER

Tel: +15144466500
samples@pathogenia.com

Sample information

Sample Name	**Shockwave**	Sample Receiving Date	**11-May-2023**
Sample ID	**002ACF**	Receiving Temperature	**20°C**
Laboratory ID	**PAT49398**	Analysis Date	**12-May-2023**
Method Ref.	**PAT-AM-026(USP <561>)**		

Results Information

Foreign Material	Results	Unit	LOQ
Foreign elements	0	/g	N/A
Foreign organs	0	/g	N/A
Other Foreign elements	0	/g	N/A
Total Foreign matter	0	/g	N/A

Authorized by: Laboratory Manager

Signature:

Details of testing

1. *LOQ- Limit of quantification*
2. *Results only apply to the items tested and to the sample(s) as received.*
3. *This report may not be distributed or reproduced except in full.*

This COA can be verified by scanning the QR code

PATHOGENIA
WE MAKE FOOD SAFER

Tel: +15144466500
samples@pathogenia.com

Sample information

Sample Name	**Shockwave**	Sample Receiving Date	**11-May-2023**
Sample ID	**002ACF**	Receiving Temperature	**20°C**
Laboratory ID	**PAT49398**	Analysis Date	**15-May-2023**
Method Ref.	**PAT-AM-024**		

Pesticides Dried Cannabis Results Information

Compound Detected	Results (ppm)	Canada	RDL
No Compounds Detected			

Compounds Not Detected	Results (ppm)	Canada	RDL
Abamectin	ND	0.1	0.02
Acephate	ND	0.02	0.02
Acequinocyl	ND	0.03	0.02
Acetamiprid	ND	0.1	0.02
Aldicarb	ND	1	0.02
Allethrin	ND	0.2	0.02
Azadirachtin	ND	1	0.02
Azoxystrobin	ND	0.02	0.01
Benzovindiflupyr	ND	0.02	0.01
Bifenazate	ND	0.02	0.02
Bifenthrin	ND	1	0.02
Boscalid	ND	0.02	0.01
Buprofezin	ND	0.02	0.01
Carbaryl	ND	0.05	0.02
Carbofuran	ND	0.02	0.01
Chlorantraniliprole	ND	0.02	0.01
Chlorphenapyr	ND	0.05	0.05
Chlorpyrifos	ND	0.04	0.01
Clofentezine	ND	0.02	0.01
Clothianidin	ND	0.05	0.02
Coumaphos	ND	0.02	0.01
Cyantraniliprole	ND	0.02	0.01
Cyfluthrin	ND	0.2	0.1
Cypermethrin	ND	0.3	0.02
Cyprodinil	ND	0.25	0.02
Daminozide	ND	0.1	0.05
Deltamethrin	ND	0.5	0.02
Diazinon	ND	0.02	0.01
Dichlorvos	ND	0.1	0.02
Dimethoate	ND	0.02	0.01
Dimethomorph	ND	0.05	0.02
Dinotefuran	ND	0.1	0.02
Dodemorph	ND	0.05	0.02
Endosulfan sulfate	ND	0.05	0.02
Endosulfan-alpha	ND	0.2	0.1
Endosulfan-beta	ND	0.05	0.01
Ethoprophos	ND	0.02	0.01
Etofenprox	ND	0.05	0.01

Tel: +15144466500
samples@pathogenia.com

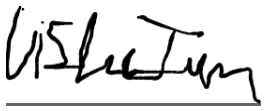
Compounds Not Detected	Results (ppm)	Canada	RDL
Etoxazole	ND	0.02	0.01
Etridiazole	ND	0.03	0.01
Fenoxycarb	ND	0.02	0.01
Fenpyroximate	ND	0.02	0.02
Fensulfothion	ND	0.02	0.01
Fenthion	ND	0.02	0.01
Fenvalerate	ND	0.1	0.05
Fipronil	ND	0.06	0.01
Flonicamid	ND	0.05	0.02
Fludioxonil	ND	0.02	0.01
Fluopyram	ND	0.02	0.01
Hexythiazox	ND	0.01	0.01
Imazalil	ND	0.05	0.01
Imidacloprid	ND	0.02	0.01
Iprodione	ND	1	0.5
Kinoprene	ND	0.5	0.05
Kresoxim-methyl	ND	0.02	0.01
Malathion	ND	0.02	0.01
Metalaxyl	ND	0.02	0.01
Methiocarb	ND	0.02	0.01
Methomyl	ND	0.05	0.02
Methoprene	ND	2	0.5
Mevinphos	ND	0.05	0.02
MGK-264	ND	0.05	0.02
Myclobutanil	ND	0.02	0.01
Naled	ND	0.1	0.02
Novaluron	ND	0.05	0.02
Oxamyl	ND	3	0.02
Paclobutrazol	ND	0.02	0.01
Parathion-methyl	ND	0.05	0.02
Permethrin	ND	0.5	0.1
Phenothrin	ND	0.05	0.02
Phosmet	ND	0.02	0.01
Piperonyl butoxide	ND	0.2	0.02
Pirimicarb	ND	0.02	0.01
Prallethrin	ND	0.05	0.02
Propiconazole	ND	0.1	0.01
Propoxur	ND	0.02	0.01
Pyraclostrobin	ND	0.02	0.01
Pyrethrins	ND	0.05	0.025
Pyridaben	ND	0.05	0.02
Quintozene	ND	0.02	0.01
Resmethrin	ND	0.1	0.02
Spinetoram	ND	0.02	0.01
Spinosad	ND	0.1	0.01
Spirodiclofen	ND	0.25	0.02
Spiromesifen	ND	3	0.02
Spirotetramat	ND	0.02	0.02
Spiroxamine	ND	0.1	0.01
Tebuconazole	ND	0.05	0.01
Tebufenozide	ND	0.02	0.01

PATHOGENIA
WE MAKE FOOD SAFER

Tel: +15144466500
samples@pathogenia.com

Compounds Not Detected	Results (ppm)	Canada	RDL
Teflubenzuron	ND	0.05	0.02
Tetrachlorvinphos	ND	0.02	0.01
Tetramethrin	ND	0.1	0.02
Thiacloprid	ND	0.02	0.01
Thiamethoxam	ND	0.02	0.01
Thiophanate-methyl	ND	0.05	0.02
Trifloxystrobin	ND	0.02	0.01

Authorized by: Laboratory Manager

Signature: 

Details of testing

1. *ppm (w/w): parts per million by weight, MRL: Maximum residue limits, RDL: Reporting detection limits*
2. *The compounds are ND (not detected) at or above the RDL*
3. *Health Canada and/or United States MRL are taken from Health Canada & Global MRL Database (where applicable) on the date of COA preparation*
4. *Results only apply to the items tested and to the sample(s) as received.*
5. *This report may not be distributed or reproduced except in full*

This COA can be verified by scanning the QR code

********** **This is end of the Certificate of Analysis** **********

PATHOGENIA
—WE MAKE FOOD SAFER—

Tel: +15144466500
samples@pathogenia.com

CERTIFICATE OF ANALYSIS

Client information

Amani Craft Cannabis Ltd.

Kelowna, Canada, V4V 1S5

COA information

COA number	**230517_58273_PAR16001**
COA Date	**17-May-2023**
Analysis Request ID	**PAR16001**

Sample information

Sample Name	**Shockwave**	Sample Receiving Date	**11-May-2023**
Sample ID	**002ACF**	Receiving Temperature	**20°C**
Laboratory ID	**PAT49398**		

Results information

Analysis Date	Test	Method Ref.	Results	Units	Specifications (EP 5.1.8. Microbiology)
14-May-2023	**Escherichia coli**	EP 2.6.13	**Negative**	/g	Neagtive
15-May-2023	**Yeast and Mold Count**	EP 2.6.12	**5120**	CFU/g	<=50000
14-May-2023	**Salmonella spp.**	EP 2.6.13	**Negative**	/25g	Negative
13-May-2023	**Bile-Tolerant Gram Negative Bacteria**	EP 2.6.13	**<10**	MPN/g	<=10000
13-May-2023	**Aerobic Microbial Count**	EP 2.6.12	**<10**	CFU/g	<=500000

Authorized by: Laboratory Manager

Signature: 

Details of testing

1. *Results only apply to the items tested and to the sample(s) as received.*
2. *This report may not be distributed or reproduced except in full.*

This COA can be verified by scanning the QR code

********** **This is end of the Certificate of Analysis** **********

PATHOGENIA
WE MAKE FOOD SAFER

Tel: +15144466500
samples@pathogenia.com

CERTIFICATE OF ANALYSIS

Client information

Amani Craft Cannabis Ltd.
Kelowna, Canada, V4V 1S5

COA information

COA number	**230524_59051_PAR16293**
COA Date	**24-May-2023**
Analysis Request ID	**PAR16293**

Sample information

Sample Name	**Shockwave**	Sample Receiving Date	**18-May-2023**
Sample ID	**002ACF**	Receiving Temperature	**21°C**
Laboratory ID	**PAT50220**	Analysis Date	**22-May-2023**
Method Ref.	**PAT-AM-019**		

Cannabinoids Profile

Compounds	Results (%w/w)	Results (mg/g)	LOQ(%)
CBC	<0.010	<0.100	0.010
CBD	<0.010	<0.100	0.010
CBDA	0.092	0.920	0.010
CBDV	<0.010	<0.100	0.010
CBG	0.145	1.450	0.010
CBGA	1.868	18.680	0.010
CBN	<0.010	<0.100	0.010
D8-THC	<0.010	<0.100	0.010
D9-THC	0.428	4.280	0.010
THCA-A	32.232	322.320	0.010
THCV	<0.010	<0.100	0.010
Total THC	**28.695**	**286.955**	
Total CBD	**0.081**	**0.807**	

28.695%
Total THC

0.081%
Total CBD

Total THC = THC + (THCA*0.877), Total CBD = CBD + (CBDA*0.877)
Total THC/CBD is calculated using the formulas to take into account the loss of carboxyl group during decarboxylation step.

Authorized by: Laboratory Manager

Signature: 

Tel: +15144466500
samples@pathogenia.com

Details of testing

1. *LOQ- Limit of quantification*
2. *% w/w: percent (weight of analyte/ weight of product)*
3. *Results only apply to the items tested and to the sample(s) as received.*
4. *This report may not be distributed or reproduced except in full*

This COA can be verified by scanning the QR code

********** This is end of the Certificate of Analysis **********

PATHOGENIA
WE MAKE FOOD SAFER

Tel: +15144466500
samples@pathogenia.com

CERTIFICATE OF ANALYSIS

Client information

Amani Craft Cannabis Ltd.
Kelowna, Canada, V4V 1S5

COA information

COA number	**230525_59119_PAR16293**
COA Date	**25-May-2023**
Analysis Request ID	**PAR16293**

Sample information

Sample Name	**Shockwave**	Sample Receiving Date	**18-May-2023**
Sample ID	**002ACF**	Receiving Temperature	**21°C**
Laboratory ID	**PAT50220**		

Results information

Analysis Date	Test	Method Ref.	Results	Units
24-May-2023	**Moisture**	PAT-AM-023(USP <731>)	**13.19**	%

Authorized by: Laboratory Manager

Signature:

Details of testing

1. *Results only apply to the items tested and to the sample(s) as received.*
2. *This report may not be distributed or reproduced except in full.*

This COA can be verified by scanning the QR code

********** This is end of the Certificate of Analysis **********

Date : May 24, 2023

Certificate of Analysis – GC Profiling (Main Terpenes)

Sample identification

Internal code : 23E19-ACC01
Customer identification : Shockwave - 002ACF
Type : Plant material
Source : *Cannabis sativa*
Customer : AMANI CRAFT CANNABIS LTD

Analysis

Method: Extraction of plant material with pentane, and addition of a methyl octanoate internal standard for quantitation. Application of a correction factor[1]. Analysis with PC-MAT-004 - Terpenes and volatiles profiling by response factor (in French); identifications validated by GC-MS.
Analyst : Amélie Simard, Analyste
Analysis date : May 24, 2023

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.

Reference

(1) Cachet, T.; Brevard, H.; Chaintreau, A.; Demyttenaere, J.; French, L.; Gassenmeier, K.; Joulain, D.; Koenig, T.; Leijs, H.; Liddle, P.; et al. IOFI Recommended Practice for the Use of Predicted Relative-Response Factors for the Rapid Quantification of Volatile Flavouring *Compounds by GC-FID. Flavour Fragr. J. 2016, 31 (3), 191–194.*

Laboratoire PhytoChemia
628 Boulevard du Saguenay Ouest, Saguenay (Qc) G7J 1H4 | www.phytochemia.com

PHYSICOCHEMICAL DATA

Moisture content: 14.9% (method PC-MAT-024)

Anhydrous (dry) concentration is reported by taking into account the loss of mass of the plant dried at 105°C for several hours, giving results that are independent of the sample's residual moisture.

'As is' concentration stands for the directly measured concentration in the sample without correction for its moisture content.

ANALYSIS SUMMARY

Identification	Anhydrous (mg/g)	As is (mg/g)	Classe
Hexanol	0.01	0.01	Aliphatic alcohol
Hashishene	0.01	0.01	Monoterpene
α-Thujene	0.09	0.08	Monoterpene
α-Pinene	1.37	1.17	Monoterpene
Camphene	0.25	0.21	Monoterpene
α-Fenchene	0.02	0.01	Monoterpene
Sabinene	0.01	0.01	Monoterpene
β-Pinene	1.63	1.39	Monoterpene
Myrcene	2.48	2.11	Monoterpene
Δ3-Carene	0.01	0.01	Monoterpene
α-Terpinene	0.02	0.02	Monoterpene
para-Cymene	tr	tr	Monoterpene
Limonene	10.81	9.20	Monoterpene
β-Phellandrene	0.02	0.02	Monoterpene
1,8-Cineole	0.08	0.06	Monoterpenic ether
(*Z*)-β-Ocimene	0.04	0.03	Monoterpene
(*E*)-β-Ocimene	1.29	1.10	Monoterpene
γ-Terpinene	0.02	0.02	Monoterpene
cis-Sabinene hydrate	0.04	0.03	Monoterpenic alcohol
Octanol	0.01	0.01	Aliphatic alcohol
Fenchone	0.14	0.12	Monoterpenic ketone
Terpinolene	0.12	0.10	Monoterpene
trans-Sabinene hydrate	0.02	0.01	Monoterpenic alcohol
Linalool	1.45	1.24	Monoterpenic alcohol
endo-Fenchol	0.77	0.66	Monoterpenic alcohol
trans-Pinene hydrate	0.59	0.50	Monoterpenic alcohol
cis-Pinene hydrate	0.10	0.09	Monoterpenic alcohol
Camphene hydrate	0.04	0.03	Monoterpenic alcohol
Ipsdienol	0.02	0.02	Monoterpenic alcohol
Borneol	0.18	0.15	Monoterpenic alcohol
Terpinen-4-ol	0.03	0.02	Monoterpenic alcohol
α-Terpineol	0.57	0.48	Monoterpenic alcohol
Hexyl butyrate	tr	tr	Aliphatic ester

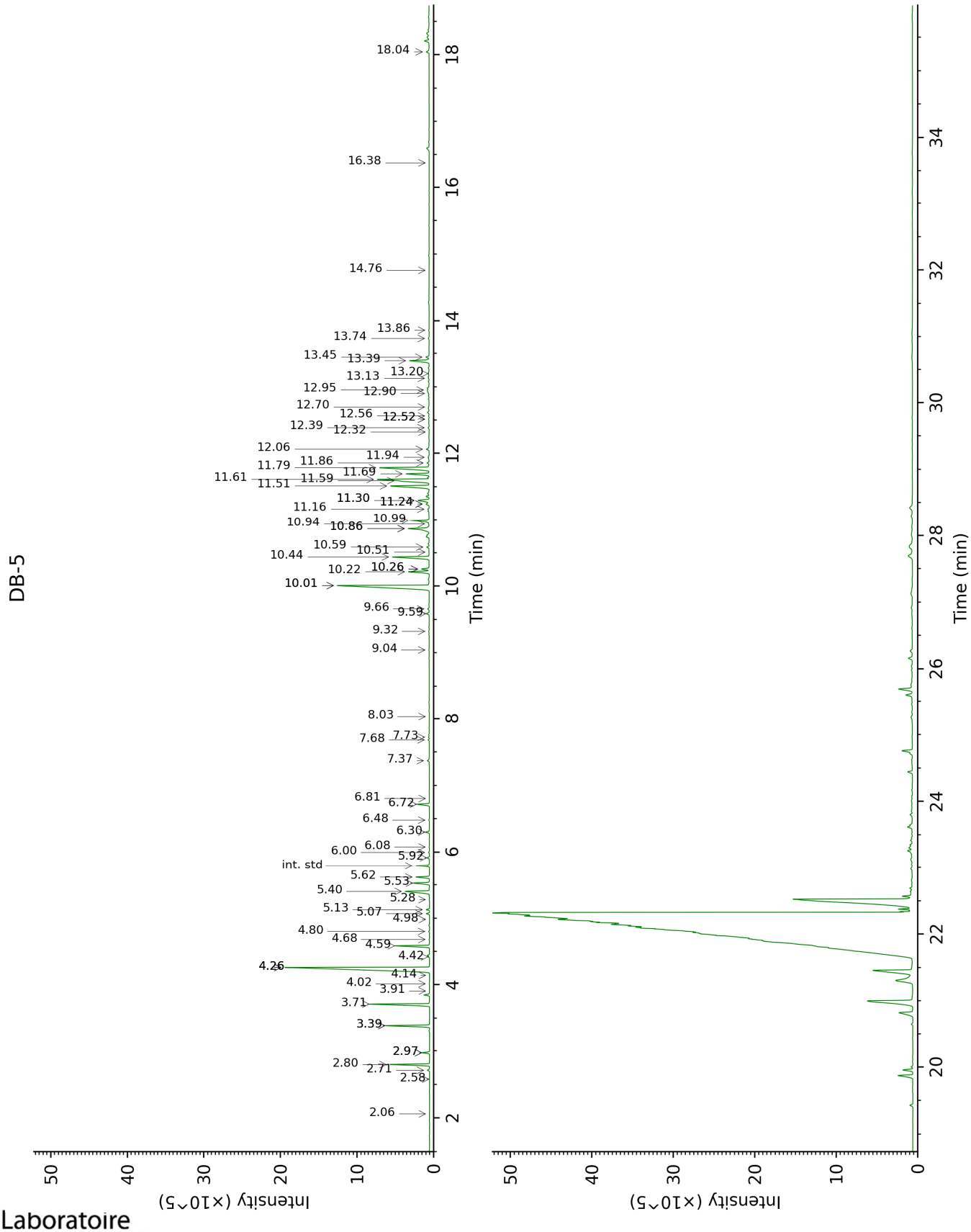
Citronellol	0.11	0.10	Monoterpenic alcohol
(4*Z*)-Decenol	0.05	0.04	Aliphatic alcohol
Geraniol	0.04	0.03	Monoterpenic alcohol
Decanol	0.01	0.01	Aliphatic alcohol
α-Cubebene	0.02	0.01	Sesquiterpene
α-Ylangene	0.02	0.02	Sesquiterpene
Unknown	0.18	0.15	Sesquiterpene
Hexyl hexanoate	0.09	0.07	Aliphatic ester
α-Santalene	0.05	0.05	Sesquiterpene
β-Caryophyllene	6.67	5.67	Sesquiterpene
γ-Elemene	0.91	0.77	Sesquiterpene
α-Guaiene	0.34	0.29	Sesquiterpene
trans-α-Bergamotene	[0.34]	[0.29]	Sesquiterpene
α-Humulene	1.79	1.53	Sesquiterpene
allo-Aromadendrene	0.02	0.02	Sesquiterpene
(*E*)-β-Farnesene	0.11	0.09	Sesquiterpene
β-Selinene	0.90	0.77	Sesquiterpene
Unknown	0.42	0.36	Sesquiterpene
Valencene	0.03	0.03	Sesquiterpene
α-Selinene	0.94	0.80	Sesquiterpene
δ-Guaiene	0.06	0.05	Sesquiterpene
(3*E*,6*E*)-α-Farnesene	0.06	0.05	Sesquiterpene
β-Bisabolene	0.12	0.10	Sesquiterpene
Spirovetiva-1(10),7(11)-diene	0.61	0.52	Sesquiterpene
Eremophila-1(10),7(11)-diene	[0.61]	[0.52]	Sesquiterpene
Selina-4(15),7(11)-diene	2.09	1.78	Sesquiterpene
Selina-4,7(11)-diene?	0.63	0.53	Sesquiterpene
Selina-3,7(11)-diene	2.70	2.30	Sesquiterpene
(*E*)-α-Bisabolene	0.95	0.81	Sesquiterpene
Germacrene B	2.75	2.34	Sesquiterpene
Eudesma-5,7(11)-diene	0.10	0.08	Sesquiterpene
(*E*)-Nerolidol	0.06	0.05	Sesquiterpenic alcohol
Caryophyllene oxide	0.16	0.13	Sesquiterpenic ether
Guaiol	0.01	0.01	Sesquiterpenic alcohol
Humulene epoxide II	0.05	0.04	Sesquiterpenic ether
Selin-6-en-4α-ol isomer	0.02	0.02	Sesquiterpenic alcohol
10-epi-γ-Eudesmol	0.01	0.01	Sesquiterpenic alcohol
Selin-6-en-4α-ol	0.04	0.03	Sesquiterpenic alcohol
γ-Eudesmol	0.03	0.03	Sesquiterpenic alcohol
β-Eudesmol	0.03	0.02	Sesquiterpenic alcohol
α-Eudesmol	0.12	0.10	Sesquiterpenic alcohol
Bulnesol	0.04	0.03	Sesquiterpenic alcohol
(3*Z*)-Caryophylla-3,8(13)-dien-5β-ol	0.03	0.03	Sesquiterpenic alcohol
α-Bisabolol	1.08	0.92	Sesquiterpenic alcohol
Juniper camphor	0.16	0.14	Sesquiterpenic alcohol
Aromadendrane-4,10-diol	0.05	0.04	Sesquiterpenic alcohol
(2*E*,6*E*)-Farnesol	0.02	0.02	Sesquiterpenic alcohol
Cryptomeridiol	0.01	0.01	Sesquiterpenic alcohol
meta-Camphorene	tr	tr	Diterpene
Phytol	0.17	0.15	Diterpenic alcohol
α-Phellandrene	0.01	tr	Monoterpene
Consolidated total	**47.07 mg/g**	**40.06 mg/g**	

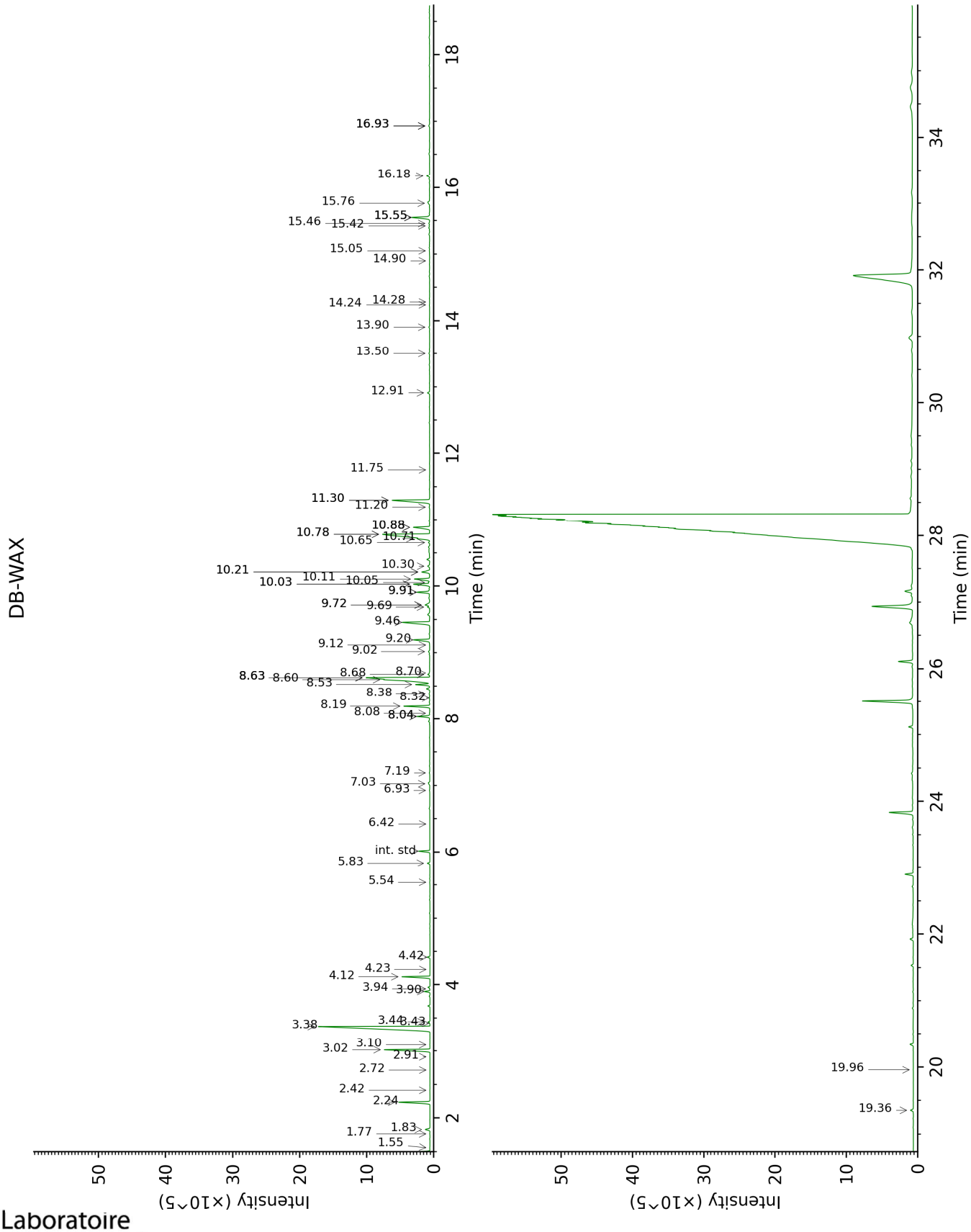
*: Individual compounds concentration could not be found due to overlapping coelutions on columns considered
[xx]: Duplicate percentage due to coelutions, not taken into account in the consolidated total
tr: < 0.01 mg/g

Individual compounds contents were corrected following the method of Cachet et al., 2016 (Flavour and Fragrance Journal guidelines).
Unknown compounds are expressed in equivalents of internal standard without correction.

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.


DB-5
Time (min)
Intensity (×10^5)
18.04
16.38
14.76
13.74
13.86
13.45
13.39
13.13
13.20
12.95
12.90
12.70
12.56
12.52
12.39
12.32
12.06
11.94
11.79
11.86
11.61
11.69
11.51
11.59
11.30
11.24
11.16
10.94
10.86
10.99
10.59
10.51
10.44
10.22
10.26
10.01
9.66
9.59
9.32
9.04
8.03
7.68
7.73
7.37
6.81
6.72
6.48
6.30
6.00
6.08
5.92
int. std
5.62
5.53
5.40
5.28
5.13
5.07
4.98
4.80
4.68
4.59
4.42
4.26
4.14
4.02
3.91
3.71
3.39
2.97
2.80
2.71
2.58
2.06


DB-WAX
Intensity (×10^5)
Time (min)
16.93
16.18
15.76
15.55
15.46
15.42
15.05
14.90
14.24
14.28
13.90
13.50
12.91
11.75
11.30
11.20
10.78
10.88
10.65
10.71
10.30
10.21
10.03
10.11
10.05
9.91
9.72
9.69
9.46
9.20
9.12
9.02
8.68
8.70
8.63
8.60
8.53
8.38
8.32
8.19
8.08
8.04
7.19
7.03
6.93
6.42
int. std
5.83
5.54
4.42
4.23
4.12
3.94
3.90
3.44
3.43
3.38
3.10
3.02
2.91
2.72
2.42
2.24
1.83
1.77
1.55
19.96
19.36

FULL ANALYSIS DATA

Identification	Column DB-5				Column DB-WAX			
	R.T	R.I	Anhydrous (mg/g)	As is (mg/g)	R.T	R.I	Anhydrous (mg/g)	As is (mg/g)
Hexanol	2.06	875	0.01	0.01	5.54	1322	0.02	0.01
Hashishene	2.58	918	0.01	0.01	1.50*	998	1.36	1.15
α-Thujene	2.71	927	0.09	0.08	1.56	1005	0.01	0.01
α-Pinene	2.80	932	1.37	1.17	1.50*	998	[1.36]	[1.15]
Camphene	2.97*	944	0.27	0.23	1.83	1031	0.25	0.21
α-Fenchene	2.97*	944	[0.27]	[0.23]	1.77	1025	0.02	0.01
Sabinene	3.39*	973	1.65	1.40	2.42	1088	0.01	0.01
β-Pinene	3.39*	973	[1.65]	[1.40]	2.24	1071	1.63	1.39
Myrcene	3.71	995	2.48	2.11	3.02	1137	2.45	2.09
Δ3-Carene	3.91	1009	0.01	0.01	2.72	1114	tr	tr
α-Terpinene	4.02	1016	0.02	0.02	3.10	1143	0.01	0.01
para-Cymene	4.14	1024	tr	tr	4.23	1230	tr	tr
Limonene	4.26*	1031	11.01	9.37	3.38	1165	10.81	9.20
β-Phellandrene	4.26*	1031	[11.01]	[9.37]	3.43	1169	0.02	0.02
1,8-Cineole	4.26*	1031	[12.50]	[10.64]	3.44	1171	0.08	0.06
(*Z*)-β-Ocimene	4.42	1041	0.04	0.03	3.90	1206	0.25	0.21
(*E*)-β-Ocimene	4.59	1052	1.29	1.10	4.12	1222	1.28	1.09
γ-Terpinene	4.68	1058	0.02	0.02	3.94	1209	0.01	0.01
cis-Sabinene hydrate	4.80	1066	0.04	0.03	7.03	1430	0.04	0.03
Octanol	4.98	1077	0.01	0.01	8.32	1527	0.04	0.03
Fenchone	5.07	1083	0.14	0.12	5.83	1344	0.13	0.11
Terpinolene	5.13	1087	0.12	0.10	4.42	1244	0.11	0.09
trans-Sabinene hydrate	5.28	1096	0.02	0.01	8.08	1509	0.02	0.02
Linalool	5.40	1104	1.45	1.24	8.19	1517	1.42	1.21
endo-Fenchol	5.53	1112	0.77	0.66	8.52	1543	0.77	0.65
trans-Pinene hydrate	5.62	1118	0.59	0.50	8.04*	1506	0.71	0.60
cis-Pinene hydrate	5.92	1138	0.10	0.09	8.68	1555	0.10	0.09
Camphene hydrate	6.00	1143	0.04	0.03	8.63*†	1551	[8.16]	[6.94]
Ipsdienol	6.08	1148	0.02	0.02	9.72*	1638	0.40	0.34
Borneol	6.30	1163	0.18	0.15	9.91*	1653	0.79	0.67
Terpinen-4-ol	6.48	1174	0.03	0.02	8.70	1557	0.03	0.02
α-Terpineol	6.72	1190	0.57	0.48	9.91*	1653	[0.79]	[0.67]
Hexyl butyrate	6.81	1196	tr	tr	6.42	1386	0.01	0.01
Citronellol	7.37	1234	0.11	0.10	10.88*	1733	1.15	0.98
(4*Z*)-Decenol	7.68	1255	0.05	0.04	11.20	1760	0.04	0.04
Geraniol	7.73	1258	0.04	0.03	11.75	1808	0.01	0.01
Decanol	8.03	1279	0.01	0.01	10.88*	1733	[1.13]	[0.96]
α-Cubebene	9.04	1347	0.02	0.01	6.93	1423	0.02	0.02
α-Ylangene	9.32	1367	0.02	0.02	7.19	1442	0.02	0.02
Unknown [m/z 108, 91 (77), 93 (69), 107 (62),	9.59	1386	0.18	0.15	8.04*	1506	[0.81]	[0.69]

105 (58), 79 (56)... 204 (26)]								
Hexyl hexanoate	9.66	1391	0.09	0.07	9.02	1582	0.10	0.08
α-Santalene	10.01*	1416	6.72	5.72	8.38	1532	0.05	0.05
β-Caryophyllene	10.01*	1416	[6.72]	[5.72]	8.60†	1549	7.05	6.00
γ-Elemene	10.22	1432	0.91	0.77	9.20	1595	0.96	0.82
α-Guaiene	10.26*	1435	0.34	0.29	8.63*†	1551	[7.05]	[6.00]
trans-α-Bergamotene	10.26*	1435	[0.34]	[0.29]	8.63*†	1551	[7.05]	[6.00]
α-Humulene	10.44	1448	1.79	1.53	9.46	1616	1.79	1.53
allo-Aromadendrene	10.51	1454	0.02	0.02	9.12	1589	0.01	0.01
(*E*)-β-Farnesene	10.59	1460	0.11	0.09	9.69	1635	0.10	0.08
β-Selinene	10.86*	1480	1.19	1.01	10.03*	1663	0.93	0.79
Unknown [m/z 189, 133 (75), 91 (71), 105 (69), 93 (44)... 204 (33)]	10.86*	1480	[1.59]	[1.35]	9.72*	1638	[0.45]	[0.38]
Valencene	10.94	1486	0.03	0.03	10.03*	1663	[0.93]	[0.79]
α-Selinene	10.99	1490	0.94	0.80	10.11	1669	0.85	0.73
δ-Guaiene	11.16	1503	0.06	0.05	10.06	1665	0.05	0.05
(3*E*,6*E*)-α-Farnesene	11.24*	1509	0.18	0.15	10.65†	1714	0.68	0.58
β-Bisabolene	11.24*	1509	[0.18]	[0.15]	10.30	1685	0.12	0.10
Spirovetiva-1(10),7(11)-diene	11.30*	1513	0.61	0.52	10.21*	1678	0.53	0.45
Eremophila-1(10),7(11)-diene	11.30*	1513	[0.61]	[0.52]	10.21*	1678	[0.53]	[0.45]
Selina-4(15),7(11)-diene	11.51	1531	2.09	1.78	10.78*	1724	4.80	4.08
Selina-4,7(11)-diene?	11.59†	1537	3.33	2.83	10.71†	1719	[0.68]	[0.58]
Selina-3,7(11)-diene	11.61†	1538	[3.33]	[2.83]	10.78*	1724	[4.80]	[4.08]
(*E*)-α-Bisabolene	11.69	1545	0.95	0.81	10.88*	1733	[1.01]	[0.86]
Germacrene B	11.79	1552	2.75	2.34	11.30*	1769	2.80	2.38
Eudesma-5,7(11)-diene	11.86	1558	0.10	0.08	11.30*	1769	[2.80]	[2.38]
(*E*)-Nerolidol	11.94	1565	0.06	0.05	13.90	2002	0.05	0.04
Caryophyllene oxide	12.06	1574	0.16	0.13	12.91	1910	0.13	0.11
Guaiol	12.32	1595	0.01	0.01	14.28	2039	0.01	0.01
Humulene epoxide II	12.39	1600	0.05	0.04	13.50	1965	0.05	0.04
Selin-6-en-4α-ol isomer	12.52*	1610	0.03	0.03	14.90	2098	0.02	0.02
10-epi-γ-Eudesmol	12.52*	1610	[0.03]	[0.03]	14.24	2034	0.01	0.01
Selin-6-en-4α-ol	12.56	1614	0.04	0.03	15.76	2184	0.05	0.05
γ-Eudesmol	12.70	1625	0.03	0.03	15.05	2113	0.02	0.02
β-Eudesmol	12.90	1642	0.03	0.02	15.55*	2163	1.15	0.98
α-Eudesmol	12.95	1646	0.12	0.10	15.46	2154	0.05	0.05

Bulnesol	13.13	1661	0.04	0.03	15.42	2150	0.03	0.02
(3*Z*)-Caryophylla-3,8(13)-dien-5β-ol	13.20	1667	0.03	0.03	16.93*	2306	0.08	0.07
α-Bisabolol	13.39	1683	1.08	0.92	15.55*	2163	[1.15]	[0.98]
Juniper camphor	13.44	1688	0.16	0.14	16.18	2227	0.16	0.14
Aromadendrane-4,10-diol	13.74	1712	0.05	0.04	16.93*	2306	[0.08]	[0.07]
(2*E*,6*E*)-Farnesol	13.86	1723	0.02	0.02	16.93*	2306	[0.08]	[0.06]
Cryptomeridiol	14.76	1801	0.01	0.01	19.96	2647	0.01	0.01
meta-Camphorene	16.38	1951	tr	tr	15.55*	2163	[1.05]	[0.89]
Phytol	18.04	2115	0.17	0.15	19.36	2576	0.16	0.14
	2.91	1129	0.01	tr				

*: 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.

Individual compounds contents were corrected following the method of Cachet et al., 2016 (Flavour and Fragrance Journal guidelines).
Unknown compounds are expressed in equivalents of internal standard without correction.
R.T.: Retention time (minutes)
R.I.: Retention index

628 Boulevard du Saguenay, Saguenay (Qc) G7J 1H4 | www.phytochemia.com