



## Sample:

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Client: | Nature's Gift  
 Sample: | Cistus (Cistus ladanifer)  
 Batch # | SP-0020408  
 CAS Number | 8016-26-0  
 Type: | Essential Oil

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## Conclusion:

- No adulterants, diluents, or contaminants were detected via this method.



X *Adam Christen*

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Validated By:

Essential Validation Services

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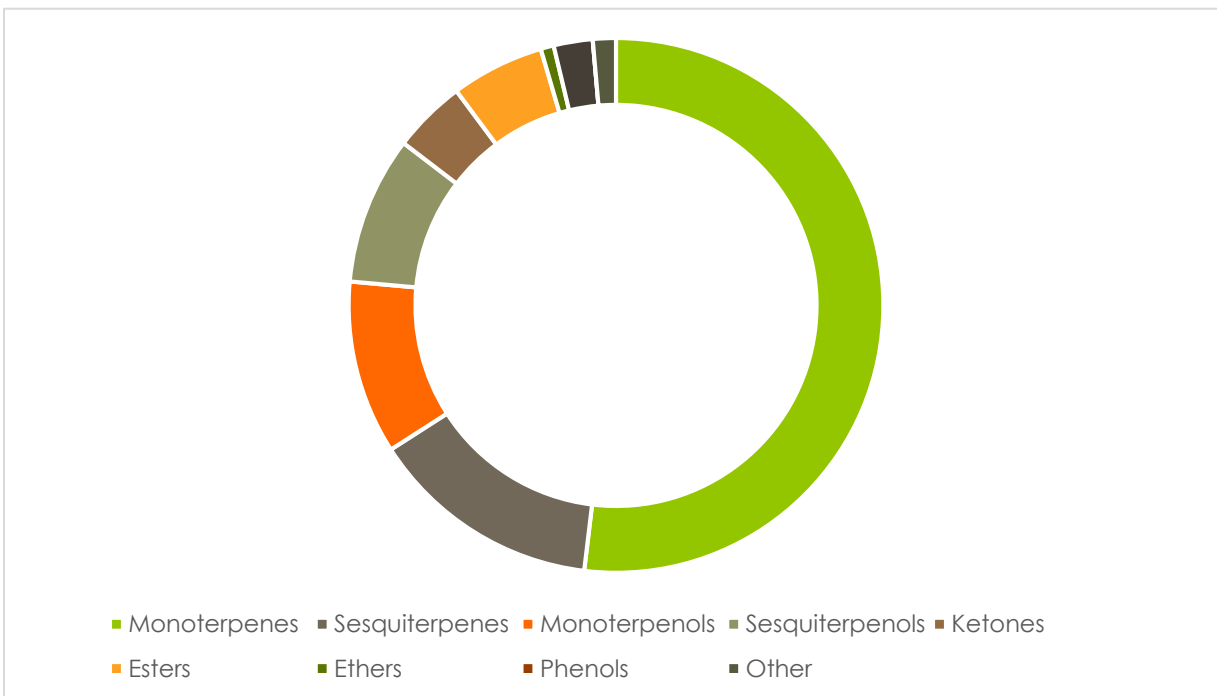
## Summary of Analyses

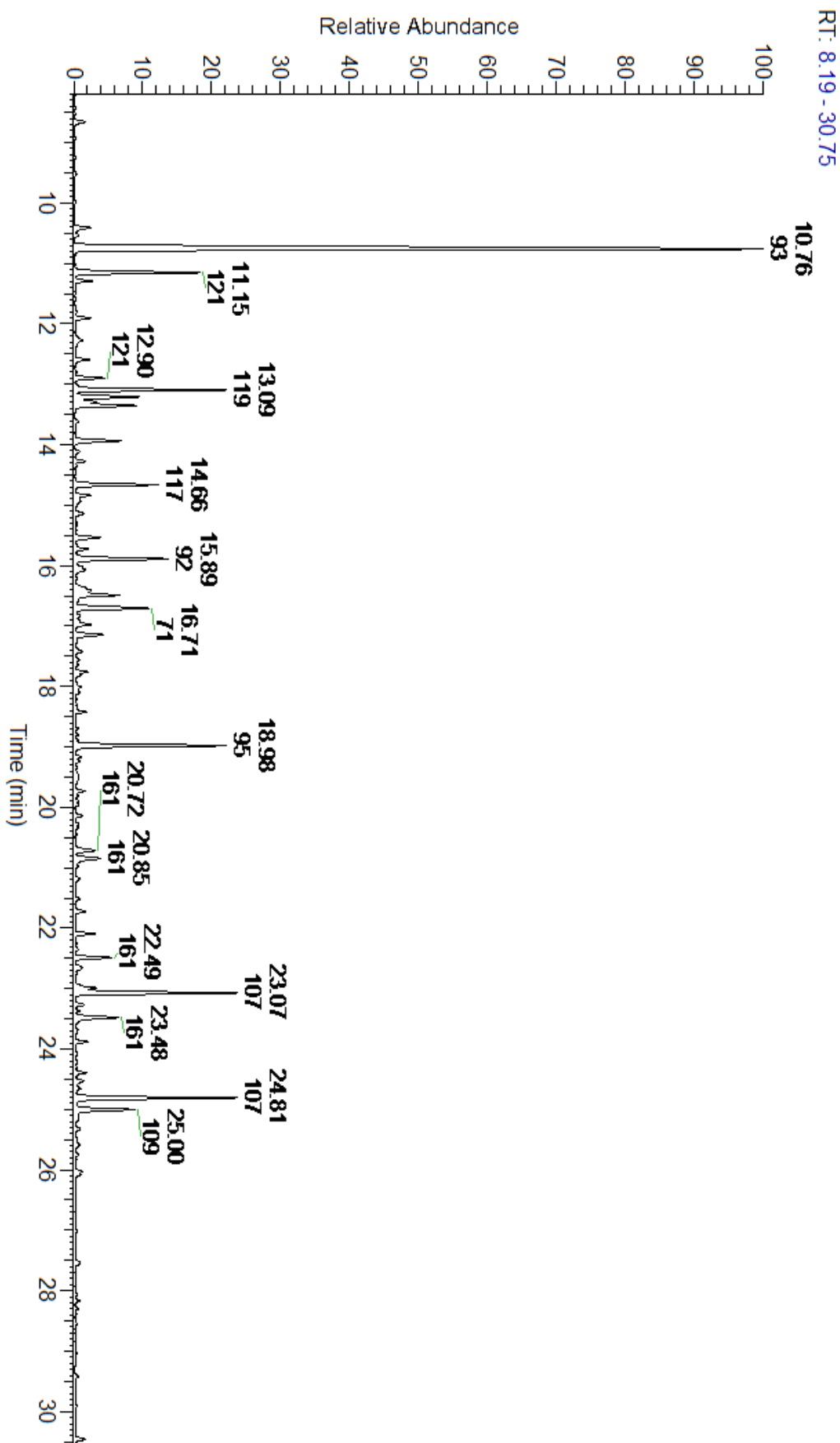
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A fresh sample of Cistus (Cistus ladanifer) Essential Oil (10 uL in .5to.5 mL Hexane + ETOH) was prepared and analyzed via split injection GC/EI-MS.

Main Compounds	Percentages
alpha-Pinene	30.02%
Bornyl acetate	4.98%
para-Cymene	4.97%
Camphene	4.32%
trans-Pinocarveol	3.32%
Terpinen-4-ol	2.86%
para-Cymenene	2.71%
Limonene	2.29%
2,2,6-Trimethylcyclohexa	2.05%
Borneol	1.66%
gamma-Terpinene	1.49%
Myrtenal	1.07%
alpha-Terpinene	0.89%

Monoterpenes	Sesquiterpenes	Monoterpenols	Sesquiterpenols	Ketones
49.26%	13.32%	9.96%	8.50%	4.21%
Esters	Ethers	Aldehydes	Phenols	Other
5.35%	0.75%	2.24%	0.37%	1.32%





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Peak Number	RT	Area %	Compound Name	RI	Chemical Family
1	5.78	0.13%	Dimethyl, 1, 3-hexadiene<Z>	760.00	Other
2	8.66	0.42%	2,6-Dimethyl-1,5-heptadiene	855.00	Other
3	10.41	0.69%	Tricyclene	923.20	Monoterpene
4	10.53	0.15%	alpha-Thujene	927.80	Monoterpene
5	10.76	30.02%	alpha-Pinene	936.10	Monoterpene
6	11.15	4.32%	Camphene	950.30	Monoterpene
7	11.29	0.61%	Thuja-2,4(10)-diene	952.00	Monoterpene
8	11.80	0.09%	Sabinene	973.00	Monoterpene
9	11.90	0.53%	beta-Pinene	977.70	Monoterpene
10	12.27	0.43%	Methyl heptenone (unknown struct	990.00	Monoterpene Ketone
11	12.59	0.50%	1,4-Cyclohexadiene, 3-ethyl-1,2-di	1001.00	Monoterpene
12	12.80	0.06%	UK	#N/A	#N/A
13	12.90	0.89%	alpha-Terpinene	1017.10	Monoterpene
14	13.09	4.97%	para-Cymene	1024.30	Monoterpene
15	13.21	2.29%	Limonene	1029.50	Monoterpene
16	13.21	Co-Eluting	beta-Phellandrene	1030.00	Monoterpene
17	13.29	0.63%	1,8-Cineole	1031.80	Monoterpene Ether
18	13.35	2.05%	2,2,6-Trimethylcyclohexanone	1037.90	Monoterpene Ketone
19	13.94	1.49%	gamma-Terpinene	1063.71	Monoterpene
20	14.11	0.14%	Acetophenone	1066.00	Simple Phenolic
21	14.66	2.71%	para-Cymenene	1092.43	Monoterpene
22	14.84	0.48%	Linalool	1099.00	Monoterpenol
23	14.94	0.31%	Nonanal	1104.00	Aliphatic Aldehyde
24	15.54	0.86%	alpha-Campholenal	1125.29	Monoterpene Aldehyde
25	15.73	0.42%	3-Nonen-2-one	1137.86	Monoterpenol
26	15.89	3.32%	trans-Pinocarveol	1144.10	Monoterpenol
27	16.07	0.63%	Camphor	1153.86	Monoterpene Ketone
28	16.41	0.88%	Pinocarpone	1161.43	Monoterpene Ketone
29	16.49	1.66%	Borneol	1168.71	Monoterpenol
30	16.71	2.86%	Terpinen-4-ol	1180.57	Monoterpenol
31	16.82	0.14%	para-Methylacetophenone	1186.50	Simple Phenolic
32	16.98	0.66%	alpha-Terpineol	1191.71	Monoterpenol
33	17.15	1.07%	Myrtenal	1200.43	Monoterpene Aldehyde
34	17.42	0.22%	trans-Carveol	1223.14	Monoterpenol
35	17.76	0.35%	Verbenone isomer	#N/A	#N/A
36	17.82	0.14%	cis-Carveol	1232.25	Monoterpenol
37	18.01	0.22%	Carvotanacetone	1245.50	Monoterpene Ketone
38	18.98	4.98%	Bornyl acetate	1288.29	Monoterpene Ester
39	19.17	0.20%	Carvacrol	1304.40	Monoterpenol
40	19.24	0.12%	trans-Pinocarvyl acetate	1305.00	Monoterpene Ether
41	19.73	0.29%	Myrtenyl acetate	1329.00	Monoterpene Ester
42	19.90	0.08%	trans-Carvyl acetate	1342.50	Monoterpene Ester



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43	20.27	0.08%	alpha-Cubebene	1355.71	Sesquiterpene
44	20.34	0.09%	Eugenol	1365.89	Phenylpropanoid
45	20.72	0.79%	alpha-Ylangene	1371.33	Sesquiterpene
46	20.85	1.09%	alpha-Copaene	1379.00	Sesquiterpene
47	20.98	0.09%	UK Sesquiterpene	#N/A	#N/A
48	21.19	0.17%	beta- Elemene	1388.30	Sesquiterpene
49	21.51	0.17%	alpha-Gurjunene	1412.00	Sesquiterpene
50	21.72	0.35%	beta-Caryophyllene	1427.14	Sesquiterpene
51	22.10	0.63%	9-epi-B-Caryophyllene	1449.00	Sesquiterpene
52	22.36	0.11%	alpha-Humulene	1461.43	Sesquiterpene
53	22.49	1.15%	allo-Aromadendrene	1471.00	Sesquiterpene
54	22.64	0.36%	gamma-Murolene	1478.86	Sesquiterpene
55	22.99	0.77%	alpha-Amorphene	1485.80	Sesquiterpene
56	23.07	5.46%	Viridiflorene	1494.14	Sesquiterpene
57	23.27	0.27%	UK	#N/A	#N/A
58	23.37	0.10%	gamma-Cadinene	1515.29	Sesquiterpene
59	23.48	1.71%	delta-Cadinene	1524.14	Sesquiterpene
60	23.88	0.38%	beta-Calacorene	1555.50	Sesquiterpene
61	24.40	0.36%	Palustrol	1581.50	Sesquiterpenol
62	24.53	0.36%	Spathulenol	1587.00	Sesquiterpenol
63	24.81	5.51%	Viridiflorol	1596.00	Sesquiterpenol
64	25.00	2.11%	Guaiol	1603.86	Sesquiterpenol
65	25.32	0.16%	Cubenol	1642.14	Sesquiterpenol