



Essential Validation Services





Sample:

Client: | Nature's Fusions
Sample: | Cedarwood Atlas (Cedrus atlantica)
Batch # | NF-CEDA-18-A
CAS Number | 8023-85-6
Type: | Essential Oil

Conclusion:

- No adulterants, diluents, or contaminants were detected via this method.
- This oil meets the expected profile for genuine essential oil of Cedarwood Atlas (Cedrus atlantica).



X 

Validated By:

Essential Validation Services

747 SW 2nd Ave, Gainesville, FL 32601

Phone: 317-361-5044 E-mail: Adam@essentialvalidationservices.com

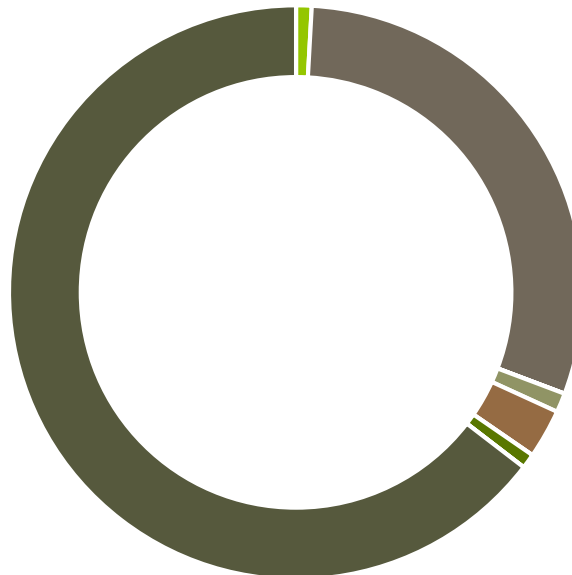
Summary of Analyses

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



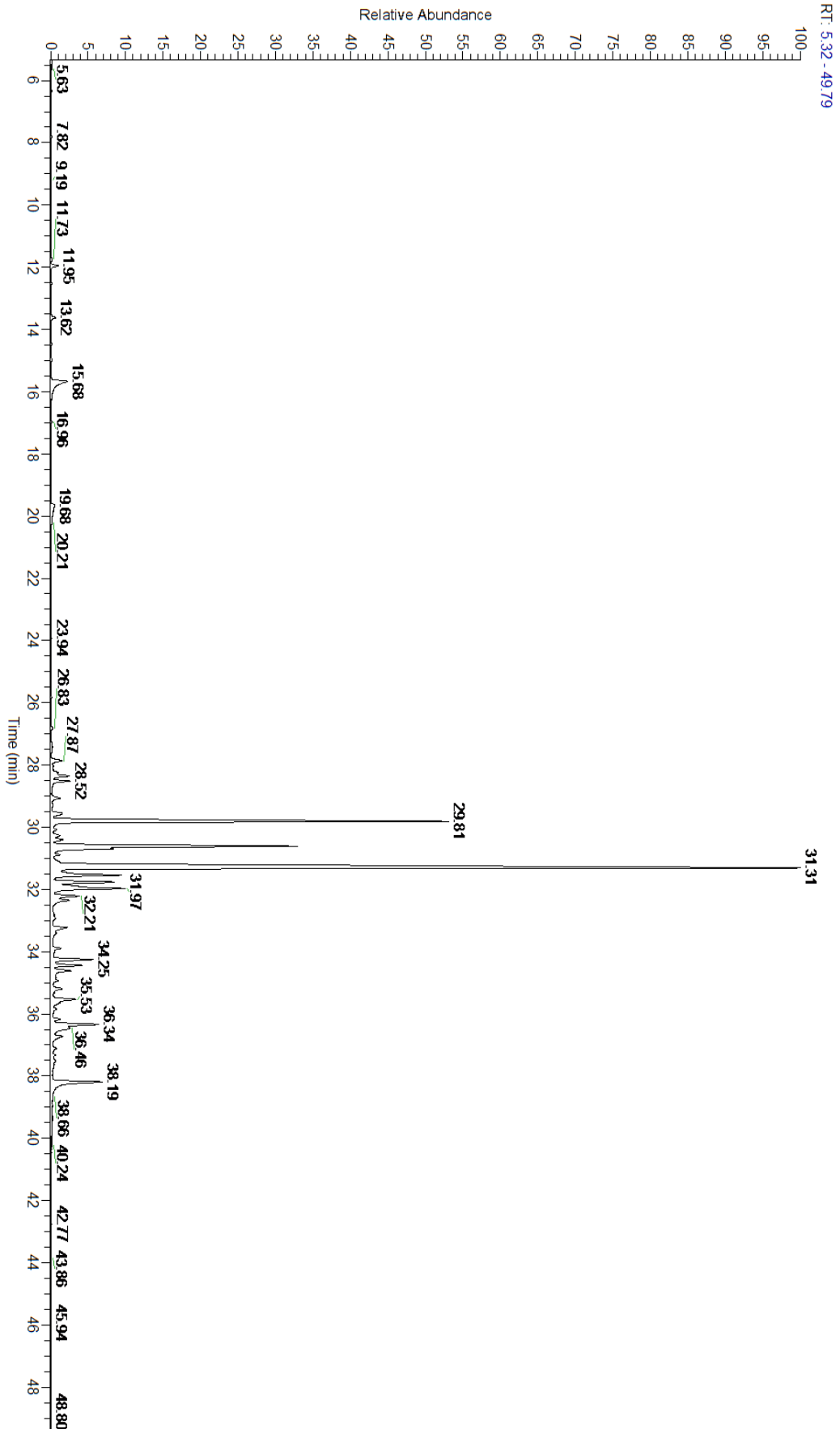
| Main Compounds | Percentages |
|--------------------------------|-------------|
| beta-Himachalene | 38.92% |
| alpha-Himachalene | 15.69% |
| gamma-Himachalene | 9.34% |
| gamma-Dehydro-ar-himachalene | 3.71% |
| alpha-Dehydro-ar-himachalene | 3.01% |
| (E)-alpha-Atlantone | 2.72% |
| delta-Cadinene | 2.29% |
| Deodarone | 2.13% |
| 11-alpha-H-Himachala-1,4-diene | 1.68% |
| beta-Himachalene oxide | 1.52% |
| Limonene | 1.41% |
| gamma-Vetivenene | 1.14% |
| Allohimachalol | 1.13% |

| Monoterpenes | Sesquiterpenes | Monoterpenols | Sesquiterpenols | Ketones |
|--------------|----------------|---------------|-----------------|---------|
| 2.35% | 80.24% | 0.01% | 2.91% | 7.44% |
| Esters | Ethers | Aldehydes | Phenols | Other |
| 0.00% | 2.23% | 0.00% | 0.35% | 4.47% |



- Monoterpenes
- Sesquiterpenes
- Monoterpenols
- Sesquiterpenols
- Ketones
- Esters
- Ethers
- Phenols
- Other

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| Total Percentage | | 95.53% | | | |
|------------------|-------|------------|--------------------------------|---------|---------------------|
| Peak Number | RT | Area % | Compound Name | RI | Chemical Family |
| 1 | 11.73 | 0.05% | alpha-Thujene | 927.80 | Monoterpene |
| 2 | 11.95 | 0.27% | alpha-Pinene | 936.10 | Monoterpene |
| 3 | 12.53 | 0.02% | Camphene | 950.30 | Monoterpene |
| 4 | 13.54 | Co-Eluting | Sabinene | 973.00 | Monoterpene |
| 5 | 13.62 | 0.20% | beta-Pinene | 974.00 | Monoterpene |
| 6 | 14.96 | 0.04% | delta-3-Carene | 1008.00 | Monoterpene |
| 7 | 15.68 | 1.41% | Limonene | 1029.50 | Monoterpene |
| 8 | 16.96 | 0.01% | gamma-Terpinene | 1054.00 | Monoterpene |
| 9 | 19.68 | 0.35% | Limona ketone | 1134.50 | Simple Phenolic |
| 10 | 20.75 | 0.01% | Borneol | 1168.71 | Monoterpenol |
| 11 | 26.83 | 0.08% | alpha-Longipinene | 1352.67 | Sesquiterpene |
| 12 | 27.42 | 0.06% | alpha-Ylangene | 1371.33 | Sesquiterpene |
| 13 | 27.57 | 0.04% | alpha-Copaene | 1379.00 | Sesquiterpene |
| 14 | 27.87 | 0.53% | Isolongifolene | 1389.00 | Sesquiterpene |
| 15 | 28.25 | 0.33% | UK Cedar | | |
| 16 | 28.35 | 0.73% | Sibirene | 1401.20 | Sesquiterpene |
| 17 | 28.52 | 0.79% | Longifolene | 1403.83 | Sesquiterpene |
| 18 | 29.07 | 0.43% | Himachala-2,4-diene | 1476.80 | Sesquiterpene |
| 19 | 29.56 | 0.65% | Vestitenone | 1457.50 | Terpenic Ketone |
| 20 | 29.81 | 15.69% | alpha-Himachalene | 1448.40 | Sesquiterpene |
| 21 | 30.09 | 0.12% | Thujopsadiene | 1465.00 | Sesquiterpene |
| 22 | 30.28 | 0.31% | Vestitenone isomer | | |
| 23 | 30.40 | 0.39% | beta-Chamigrene | 1477.00 | Sesquiterpene |
| 24 | 30.61 | 9.34% | gamma-Himachalene | 1476.50 | Sesquiterpene |
| 25 | 30.68 | 1.68% | 11-alpha-H-Himachala-1,4-diene | 1476.80 | Sesquiterpene |
| 26 | 30.73 | 0.53% | cis-4,10-epoxy-Amorphene? | | |
| 27 | 31.10 | 0.21% | beta-Guaiene | 1490.67 | Sesquiterpene |
| 28 | 31.31 | 38.92% | beta-Himachalene | 1497.75 | Sesquiterpene |
| 29 | 31.54 | 3.01% | alpha-Dehydro-ar-himachalene | 1516.00 | Sesquiterpene |
| 30 | 31.77 | 2.29% | delta-Cadinene | 1524.14 | Sesquiterpene |
| 31 | 31.97 | 3.71% | gamma-Dehydro-ar-himachalene | 1522.00 | Sesquiterpene |
| 32 | 32.21 | 1.14% | gamma-Vetivenene | 1532.00 | Sesquiterpene |
| 33 | 32.36 | 0.87% | alpha-Calacorene | 1537.14 | Sesquiterpene |
| 34 | 32.91 | 0.21% | beta-Calacorene | 1555.50 | Sesquiterpene |
| 35 | 33.23 | 0.71% | Himachalene oxide | 1578.00 | Sesquiterpene Ether |
| 36 | 33.41 | 0.09% | beta-Oplopenone? | | |
| 37 | 33.89 | 0.31% | Longiborneol | 1586.50 | Sesquiterpenol |
| 38 | 34.25 | 1.52% | beta-Himachalene oxide | 1595.95 | Sesquiterpene Ether |
| 39 | 34.44 | 1.07% | UK Cedar | | |
| 40 | 34.62 | 0.85% | 1-epi-Cubenol | 1628.00 | Sesquiterpenol |
| 41 | 34.83 | 0.12% | UK Cedar | | |
| 42 | 34.93 | 0.21% | Himachalol | 1648.50 | Sesquiterpenol |
| 43 | 35.19 | 0.41% | beta-Acorenol | 1641.00 | Sesquiterpenol |

