



Essential Oil University

GC/MS Report

Item	Lot
NOP Vetiver EO <i>Vetiveria zizanioides</i>	1P
Date	Analyst
11/18/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, NOP Vetiver EO, meets the expected chemical profile for authentic essential oil of *Vetiveria zizanioides*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.



Sample Information

Company: Revive
Sample Name: NOP Vetiver EO
Botanical Name: Vetiveria zizanioides
Lot Number: 1P
Production Method: Steam distilled

Sample Type: EO - Certified Organics
Country of Origin: India
Analysis Date: 11/18/2025
Manufacture Date: August 2021

GC/MS

Inst. ID: Shimadzu GCMS-QP2010Ultra
Injection Type: Split
Split Ratio: 24.4

Column Type: ZB-5
Injection Volume: 0.1 µL
Temperature Program: 2C/min

Physical Data

ANALYSIS

Optical Rotation @20°C
Refractive Index @20°C
Specific Gravity @20°C

METHOD

USP[781]
USP[831]
USP[841]

RESULTS

+22.08
1.52626
1.00028



Ret. Time	Component	Ret. Idx.	Conc. %	
22.118	Linalool	1097	0.01%	ALLERGEN IFRA
27.447	Menthol	1175	0.02%	ALLERGEN
38.995	Unidentified	1346	0.04%	
40.230	Cyclosativene	1365	0.08%	
40.262	Isodene	1366	0.22%	
40.987	Unidentified	1377	0.04%	
41.100	2-epi-alpha-Funebrene	1379	0.09%	
41.380	Unidentified	1383	0.13%	
41.596	beta-Elemene	1386	0.02%	
41.714	Unidentified	1388	0.01%	
41.932	Nigritene	1391	0.17%	
42.913	Acora-3,7(14)-diene	1407	0.09%	
43.215	alpha-Cedrene	1411	0.13%	IFRA
43.250	Unidentified	1412	0.04%	
43.420	beta-Maaliene	1415	0.1%	
43.465	Unidentified	1415	0.03%	
43.730	beta-Copaene	1420	0.07%	
43.753	beta-Cedrene	1420	0.09%	IFRA
43.861	Unidentified	1422	0.09%	
44.202	cis-Cadina-1(6),4-diene	1427	0.2%	
44.534	Unidentified	1433	0.08%	
44.867	6,9-Guaiadiene	1438	0.21%	
45.032	Acora-2,4(15)-diene	1441	0.03%	
45.197	trans-Isoeugenol	1443	0.03%	ALLERGEN IFRA
45.470	Prezizaene	1448	0.6%	
45.756	Khusimene	1452	0.83%	
45.893	Guaiene isomer	1454	0.33%	
46.126	Unidentified	1458	0.03%	
46.274	Unidentified	1460	0.33%	
46.396	Unidentified	1462	0.12%	
46.405	11,12,13-tri-nor-cis-Eudesm-5-en-7-one isomer	1463	0.14%	
46.647	trans-Eremophila-1(10),7(11)-dien-12-yl acetate	1466	0.2%	
46.783	Unidentified	1469	0.05%	
46.810	Unidentified	1469	0.03%	
46.981	Unidentified	1472	0.11%	
47.218	alpha-Amorphene	1476	2.04%	
47.300	Unidentified	1477	0.13%	
47.465	Vetispiene analogue	1480	0.99%	
47.680	trans-Cadina-1(6),4-diene	1483	1.09%	
47.817	beta-Vetispiene	1485	2.2%	



Ret. Time	Component	Ret. Idx.	Conc. %
48.034	Valencene	1489	0.54%
48.419	trans-Murrola-4(14),5-diene	1495	0.16%
48.576	Spirovetiva-3,7(11)-dien-12-yl methyl ether	1497	0.31%
48.679	delta-Amorphene	1499	1.03%
48.781	Unidentified	1501	0.35%
48.941	Unidentified	1503	0.08%
49.082	beta-Himachalene	1506	0.1%
49.309	Nootkatene	1510	0.67%
49.370	Unidentified	1511	0.17%
49.646	Unidentified	1515	0.9%
49.867	Zonarene	1519	0.1%
50.112	gamma-Vetivenene	1523	0.98%
50.240	Unidentified	1525	0.07%
50.433	Unidentified	1529	0.09%
50.540	Unidentified	1530	0.05%
50.700	Selina-4(15),7(11)-diene	1533	0.12%
50.822	Unidentified	1535	0.23%
50.946	alpha-Calacorene	1537	0.37%
51.335	Unidentified	1544	0.34%
51.365	Elemol	1544	0.53%
51.690	beta-Vetivenene	1550	5.43%
51.934	Unidentified	1554	0.1%
52.000	Unidentified	1555	0.02%
52.124	Unidentified	1557	1.03%
52.222	cis-Eudesm-6-en-11-ol	1559	1.08%
52.389	Unidentified	1562	0.04%
52.669	13-nor-Eudesm-5-en-11-one	1566	0.09%
52.892	Unidentified	1570	0.12%
52.962	Unidentified	1571	0.09%
53.355	Unidentified	1578	0.23%
53.503	3,5,11-Eudesmatriene isomer	1581	0.39%
53.592	Unidentified	1582	0.11%
53.771	Unidentified	1585	0.15%
54.013	Unidentified	1589	0.45%
54.235	Unidentified	1593	0.19%
54.506	Unidentified	1597	0.12%
54.673	Khusimone	1600	0.63%
54.864	Unidentified	1604	0.47%
54.975	Unidentified	1606	0.04%
55.114	Unidentified	1608	0.13%



Ret. Time	Component	Ret. Idx.	Conc. %	
55.228	3,5,11-Eudesmatriene isomer	1610	1.04%	
55.305	Unidentified	1612	0.44%	
55.635	Unidentified	1617	0.49%	
55.716	Selina-6-en-4-ol	1619	2.15%	
56.018	Unidentified	1624	1.19%	
56.125	Unidentified	1626	0.18%	
56.223	gamma-Eudesmol	1628	0.42%	
56.363	Unidentified	1630	0.75%	
56.460	Unidentified	1632	0.28%	
56.622	Unidentified	1635	0.15%	
56.860	Unidentified	1639	0.77%	
57.109	Unidentified	1644	0.81%	
57.193	epi-alpha-Cadinol	1645	0.57%	
57.451	13-Hydroxy valencene	1650	3.6%	
57.485	alpha-Cadinol	1650	1.95%	
57.635	Cyclocopacamphan-12-ol epimer A	1653	1.86%	
57.833	Cyclocopacamphan-12-ol epimer B	1657	1.55%	
58.115	Unidentified	1662	1.65%	
58.344	Zizanal	1666	1.68%	
58.472	epi-beta-Bisabolol	1668	0.87%	
58.746	2-epi-Ziza-6(13)-en-3-alpha-ol isomer	1673	2.35%	
58.881	2-epi-Ziza-6(13)-en-3-beta-ol	1675	0.44%	
59.123	Unidentified	1679	0.37%	
59.367	Khusian-2-ol	1684	2.1%	
59.518	Unidentified	1686	0.17%	
59.680	Zizanal isomer	1689	0.82%	
59.780	Unidentified	1691	0.1%	
59.907	Juniper camphor	1693	1.27%	ALLERGEN
60.031	2-epi-Ziza-6(13)-en-3-alpha-ol isomer	1696	0.96%	
60.302	Methyl ziza-6(13)-en-12-oate	1700	0.19%	
60.391	Unidentified	1702	0.18%	
60.568	13-nor-Eudesma-4,6-dien-11-one	1705	0.81%	
60.707	Unidentified	1708	0.61%	
60.989	Vetiselinol isomer	1713	0.27%	
61.162	trans-beta-Santalol	1717	0.14%	ALLERGEN
61.302	Vetiselinol	1719	3%	
61.640	Unidentified	1725	0.38%	
61.836	Oplopanone	1729	0.23%	
62.204	Zizanol isomer	1736	0.85%	
62.400	Unidentified	1740	0.74%	



Ret. Time	Component	Ret. Idx.	Conc. %	
62.550	Khusimol	1743	12.85%	
62.760	Unidentified	1746	0.5%	
63.010	Unidentified	1751	0.08%	
63.151	Unidentified	1754	0.15%	
63.244	Unidentified	1755	0.1%	
63.427	Unidentified	1759	0.23%	
63.511	13-Hydroxy valencene	1760	0.46%	
63.691	Unidentified	1764	0.23%	
63.800	Unidentified	1766	0.11%	
63.974	Unidentified	1769	0.14%	
64.203	Isovalencenol isomer	1773	0.44%	
64.406	Unidentified	1777	0.08%	
64.607	trans-Isovalencenol	1781	5.89%	
64.860	cis-Isovalencenol	1786	1.03%	
65.063	Unidentified	1790	0.14%	
65.243	Unidentified	1793	0.08%	
65.485	Nootkatone isomer	1797	0.86%	IFRA
65.550	Zizanoic acid	1799	0.82%	
65.830	cis-Isovalencenal	1804	0.98%	
65.966	beta-Vetivone	1807	2.39%	
66.152	Unidentified	1810	0.08%	
66.433	Unidentified	1816	0.08%	
66.637	trans-Isovalencenal	1820	1.1%	
66.740	Unidentified	1822	0.19%	
66.952	Unidentified	1826	0.05%	
67.097	Unidentified	1829	0.12%	
67.277	alpha-Vetivone	1833	2.01%	
67.481	Vetivenic acid isomer	1837	0.09%	
68.105	Unidentified	1849	0.1%	
68.737	Unidentified	1861	0.05%	
69.022	Unidentified	1867	0.06%	
69.670	Unidentified	1880	0.06%	
69.735	Unidentified	1881	0.07%	
69.772	Isovalencenyl formate isomer	1882	0.12%	
70.111	Unidentified	1888	0.07%	
70.336	Isovalencenyl formate isomer	1893	0.13%	
70.971	Unidentified	1905	0.09%	
71.680	Unidentified	1920	0.11%	
72.423	Unidentified	1935	0.09%	

Total Identified Compounds **80.8 %**



TIC
5,639,791

