



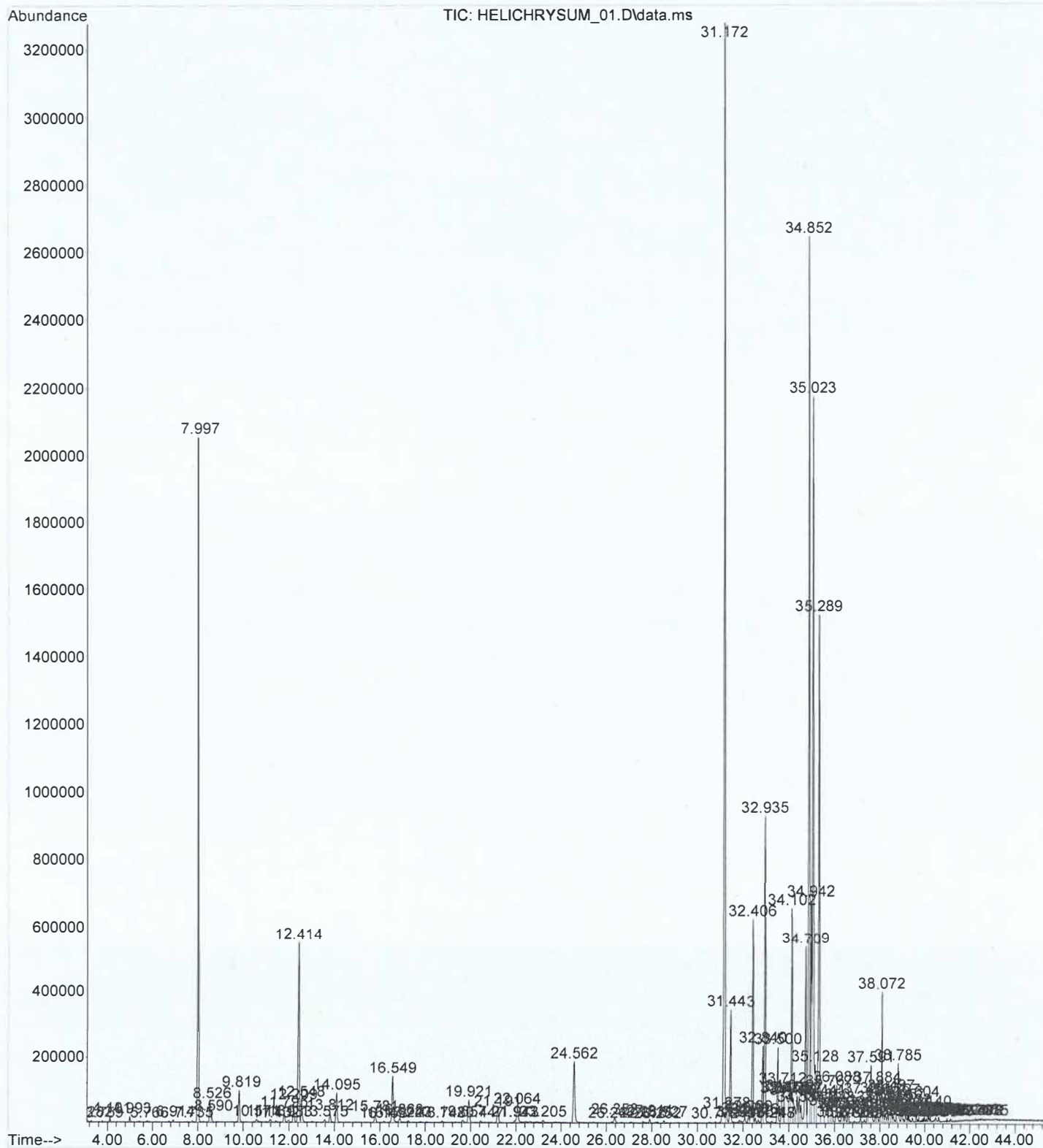
## HELICHRYSUM OIL

### CHEMICAL COMPOSITION (GC-MS)

LOT NO. 13170

| PEAK RT | COMPOUND           | CONTENT (%) | SPECIFICATION |
|---------|--------------------|-------------|---------------|
| 7.997   | ALPHA PINENE       | 9.05        | 20 – 40 %     |
| 12.414  | D-LIMONENE         | 3.02        | 1 – 4 %       |
| 32.935  | BETA CARYOPHYLLENE | 4.21        | 2 – 9 %       |
| 31.172  | NERYL ACETATE      | 15.60       | 8 – 30 %      |
| 16.547  | LINALOOL           | 0.87        | MAX 4 %       |

File : C:\msdchem\1\data\2024\04-04-24B\HELICHRYSUM\_01.D  
Operator : DMW  
Acquired : 4 Apr 2024 20:38 using AcqMethod METHOD\_7.M  
Instrument : GCMS  
Sample Name: HELICHRYSUM OIL  
Misc Info : LOT# 13170  
Vial Number: 51



## Area Percent Report

Data Path : C:\msdchem\1\data\2024\04-04-24B\  
Data File : HELICHRYSUM\_01.D  
Acq On : 4 Apr 2024 20:38  
Operator : DMW  
Sample : HELICHRYSUM OIL  
Misc : LOT# 13170  
ALS Vial : 51 Sample Multiplier: 1

Integration Parameters: autoint1.e  
Integrator: ChemStation

Method : C:\msdchem\1\methods\METHOD\_7.M  
Title : Eoil Qualitative

Signal : TIC: HELICHRYSUM\_01.D\data.ms

| peak<br># | R.T.<br>min | first<br>scan | max<br>scan | last<br>scan | PK<br>TY | peak<br>height | corr.<br>area | corr.<br>% max. | % of<br>total |
|-----------|-------------|---------------|-------------|--------------|----------|----------------|---------------|-----------------|---------------|
| 1         | 3.282       | 28            | 35          | 44           | PV       | 4155           | 93712         | 0.09%           | 0.014%        |
| 2         | 3.759       | 104           | 119         | 124          | PV 6     | 3066           | 45365         | 0.04%           | 0.007%        |
| 3         | 4.101       | 172           | 178         | 189          | VV 2     | 16545          | 314468        | 0.30%           | 0.047%        |
| 4         | 4.993       | 329           | 334         | 345          | PV       | 16035          | 357815        | 0.34%           | 0.054%        |
| 5         | 5.766       | 464           | 469         | 483          | VV 3     | 3625           | 112888        | 0.11%           | 0.017%        |
| 6         | 6.914       | 662           | 670         | 681          | BV 5     | 6840           | 176963        | 0.17%           | 0.027%        |
| 7         | 7.735       | 806           | 813         | 815          | BV 4     | 1318           | 6067          | 0.01%           | 0.001%        |
| 8         | 7.997       | 842           | 859         | 879          | BV       | 2039919        | 60407133      | 58.04%          | 9.053%        |
| 9         | 8.526       | 939           | 952         | 960          | VV 5     | 61545          | 2003951       | 1.93%           | 0.300%        |
| 10        | 8.590       | 960           | 963         | 975          | VV 4     | 23927          | 654070        | 0.63%           | 0.098%        |
| 11        | 9.819       | 1164          | 1178        | 1192         | VV 2     | 95297          | 3178389       | 3.05%           | 0.476%        |
| 12        | 10.571      | 1297          | 1309        | 1319         | VV 7     | 8596           | 345148        | 0.33%           | 0.052%        |
| 13        | 11.181      | 1397          | 1416        | 1445         | VV 8     | 8917           | 449244        | 0.43%           | 0.067%        |
| 14        | 11.432      | 1445          | 1459        | 1470         | PV 8     | 4093           | 177566        | 0.17%           | 0.027%        |
| 15        | 11.795      | 1501          | 1523        | 1536         | PV 4     | 35873          | 1340986       | 1.29%           | 0.201%        |
| 16        | 11.983      | 1541          | 1556        | 1569         | VV 5     | 6983           | 306348        | 0.29%           | 0.046%        |
| 17        | 12.209      | 1583          | 1595        | 1614         | VV 2     | 58049          | 2119940       | 2.04%           | 0.318%        |
| 18        | 12.414      | 1614          | 1631        | 1647         | VV 2     | 549661         | 20155011      | 19.36%          | 3.020%        |
| 19        | 12.548      | 1647          | 1654        | 1682         | VV 5     | 65867          | 2653091       | 2.55%           | 0.398%        |
| 20        | 13.575      | 1821          | 1834        | 1850         | VV 8     | 7696           | 316950        | 0.30%           | 0.047%        |
| 21        | 13.812      | 1862          | 1875        | 1893         | PV 2     | 26776          | 1010645       | 0.97%           | 0.151%        |
| 22        | 14.095      | 1907          | 1925        | 1942         | BV 4     | 88953          | 3478005       | 3.34%           | 0.521%        |
| 23        | 15.781      | 2206          | 2220        | 2245         | VV 6     | 23418          | 1087871       | 1.05%           | 0.163%        |
| 24        | 16.158      | 2280          | 2285        | 2307         | VV 10    | 3716           | 158271        | 0.15%           | 0.024%        |
| 25        | 16.457      | 2328          | 2338        | 2339         | VV 7     | 3746           | 66904         | 0.06%           | 0.010%        |
| 26        | 16.549      | 2339          | 2354        | 2374         | VV 4     | 138955         | 5779570       | 5.55%           | 0.866%        |
| 27        | 16.868      | 2393          | 2409        | 2422         | PV 10    | 12654          | 591894        | 0.57%           | 0.089%        |
| 28        | 17.227      | 2465          | 2472        | 2473         | VV 4     | 4786           | 84321         | 0.08%           | 0.013%        |
| 29        | 17.243      | 2473          | 2475        | 2486         | VV 7     | 4710           | 101539        | 0.10%           | 0.015%        |
| 30        | 18.748      | 2721          | 2738        | 2751         | PV 8     | 5014           | 185279        | 0.18%           | 0.028%        |
| 31        | 19.657      | 2886          | 2897        | 2911         | VV 8     | 7437           | 345281        | 0.33%           | 0.052%        |
| 32        | 19.921      | 2922          | 2943        | 2964         | PV 5     | 68038          | 3093435       | 2.97%           | 0.464%        |
| 33        | 20.447      | 3016          | 3035        | 3042         | PV 5     | 4220           | 157172        | 0.15%           | 0.024%        |
| 34        | 21.191      | 3150          | 3165        | 3185         | BV 6     | 39752          | 1825288       | 1.75%           | 0.274%        |
| 35        | 21.942      | 3285          | 3296        | 3300         | PV 5     | 6091           | 182272        | 0.18%           | 0.027%        |
| 36        | 21.973      | 3300          | 3302        | 3303         | VV 2     | 6200           | 54540         | 0.05%           | 0.008%        |
| 37        | 22.064      | 3303          | 3318        | 3340         | VV 7     | 44864          | 2304941       | 2.21%           | 0.345%        |
| 38        | 23.205      | 3501          | 3517        | 3533         | BV 7     | 6938           | 315375        | 0.30%           | 0.047%        |
| 39        | 24.562      | 3731          | 3754        | 3787         | BV 3     | 184211         | 8633454       | 8.29%           | 1.294%        |
| 40        | 26.242      | 4046          | 4048        | 4056         | VV 8     | 3867           | 96112         | 0.09%           | 0.014%        |

|    |        |      |      |      |       |         |           |         |         |
|----|--------|------|------|------|-------|---------|-----------|---------|---------|
| 41 | 26.358 | 4056 | 4068 | 4087 | VV 8  | 14989   | 751383    | 0.72%   | 0.113%  |
| 42 | 27.616 | 4275 | 4288 | 4296 | PV 10 | 5062    | 189830    | 0.18%   | 0.028%  |
| 43 | 27.911 | 4326 | 4339 | 4355 | VV 3  | 11540   | 405348    | 0.39%   | 0.061%  |
| 44 | 28.252 | 4390 | 4399 | 4415 | VV 7  | 3632    | 139197    | 0.13%   | 0.021%  |
| 45 | 28.527 | 4435 | 4447 | 4461 | VV 8  | 7536    | 275468    | 0.26%   | 0.041%  |
| 46 | 30.772 | 4831 | 4839 | 4843 | PV 6  | 3518    | 66136     | 0.06%   | 0.010%  |
| 47 | 31.172 | 4872 | 4909 | 4921 | VV    | 3256557 | 104086403 | 100.00% | 15.599% |
| 48 | 31.278 | 4921 | 4928 | 4943 | VV 9  | 33980   | 1206559   | 1.16%   | 0.181%  |
| 49 | 31.443 | 4943 | 4957 | 4975 | VV 2  | 339126  | 10961710  | 10.53%  | 1.643%  |
| 50 | 31.841 | 5017 | 5026 | 5034 | VV 7  | 7935    | 267502    | 0.26%   | 0.040%  |
| 51 | 31.916 | 5034 | 5039 | 5048 | VV 9  | 6374    | 188120    | 0.18%   | 0.028%  |
| 52 | 32.078 | 5052 | 5068 | 5079 | VV 7  | 17105   | 697287    | 0.67%   | 0.104%  |
| 53 | 32.239 | 5079 | 5096 | 5103 | VV 4  | 24102   | 847112    | 0.81%   | 0.127%  |
| 54 | 32.406 | 5103 | 5125 | 5139 | VV 2  | 615731  | 20050099  | 19.26%  | 3.005%  |
| 55 | 32.526 | 5139 | 5146 | 5158 | VV 7  | 15133   | 507268    | 0.49%   | 0.076%  |
| 56 | 32.664 | 5158 | 5170 | 5179 | VV 9  | 8678    | 323299    | 0.31%   | 0.048%  |
| 57 | 32.840 | 5188 | 5201 | 5207 | VV 2  | 229405  | 6734734   | 6.47%   | 1.009%  |
| 58 | 32.935 | 5207 | 5217 | 5239 | VV 2  | 918630  | 28110324  | 27.01%  | 4.213%  |
| 59 | 33.218 | 5262 | 5267 | 5269 | VV 3  | 3863    | 55637     | 0.05%   | 0.008%  |
| 60 | 33.247 | 5269 | 5272 | 5274 | VV 4  | 4659    | 63435     | 0.06%   | 0.010%  |
| 61 | 33.500 | 5304 | 5316 | 5336 | VV 2  | 224970  | 6693834   | 6.43%   | 1.003%  |
| 62 | 33.712 | 5336 | 5353 | 5363 | VV 7  | 107836  | 5933814   | 5.70%   | 0.889%  |
| 63 | 33.775 | 5363 | 5364 | 5369 | VV 5  | 78899   | 1762592   | 1.69%   | 0.264%  |
| 64 | 33.863 | 5369 | 5380 | 5398 | VV 5  | 80528   | 7212174   | 6.93%   | 1.081%  |
| 65 | 34.019 | 5398 | 5407 | 5412 | VV 4  | 86350   | 3364323   | 3.23%   | 0.504%  |
| 66 | 34.102 | 5412 | 5421 | 5431 | VV    | 645039  | 19019040  | 18.27%  | 2.850%  |
| 67 | 34.183 | 5431 | 5435 | 5445 | VV 8  | 71956   | 2805480   | 2.70%   | 0.420%  |
| 68 | 34.352 | 5455 | 5465 | 5473 | VV 4  | 78694   | 2939200   | 2.82%   | 0.440%  |
| 69 | 34.437 | 5473 | 5480 | 5487 | VV 3  | 77559   | 2610952   | 2.51%   | 0.391%  |
| 70 | 34.514 | 5487 | 5493 | 5504 | VV 6  | 52073   | 1878538   | 1.80%   | 0.282%  |
| 71 | 34.709 | 5504 | 5527 | 5540 | VV 2  | 530930  | 17280900  | 16.60%  | 2.590%  |
| 72 | 34.852 | 5540 | 5552 | 5561 | VV    | 2626015 | 75008897  | 72.06%  | 11.241% |
| 73 | 34.942 | 5561 | 5568 | 5573 | VV    | 672705  | 18809106  | 18.07%  | 2.819%  |
| 74 | 35.023 | 5573 | 5582 | 5596 | VV    | 2152850 | 69747383  | 67.01%  | 10.452% |
| 75 | 35.128 | 5596 | 5601 | 5612 | VV 3  | 174726  | 8162161   | 7.84%   | 1.223%  |
| 76 | 35.289 | 5612 | 5629 | 5645 | VV    | 1525938 | 51445464  | 49.43%  | 7.710%  |
| 77 | 35.441 | 5645 | 5655 | 5675 | VV 9  | 69414   | 4103320   | 3.94%   | 0.615%  |
| 78 | 35.653 | 5675 | 5692 | 5704 | VV 8  | 59130   | 3384324   | 3.25%   | 0.507%  |
| 79 | 35.767 | 5704 | 5712 | 5719 | VV 3  | 98639   | 2916174   | 2.80%   | 0.437%  |
| 80 | 35.828 | 5719 | 5723 | 5733 | VV 7  | 51404   | 1907585   | 1.83%   | 0.286%  |
| 81 | 35.913 | 5733 | 5738 | 5749 | VV 4  | 40690   | 1280052   | 1.23%   | 0.192%  |
| 82 | 36.088 | 5753 | 5768 | 5787 | VV 3  | 111285  | 3736725   | 3.59%   | 0.560%  |
| 83 | 36.244 | 5787 | 5796 | 5800 | VV 9  | 7258    | 243102    | 0.23%   | 0.036%  |
| 84 | 36.319 | 5800 | 5809 | 5814 | VV 5  | 30272   | 958590    | 0.92%   | 0.144%  |
| 85 | 36.374 | 5814 | 5818 | 5827 | VV 7  | 33067   | 933814    | 0.90%   | 0.140%  |
| 86 | 36.472 | 5827 | 5836 | 5848 | VV 4  | 22933   | 791729    | 0.76%   | 0.119%  |
| 87 | 36.606 | 5848 | 5859 | 5870 | VV 4  | 34792   | 1090284   | 1.05%   | 0.163%  |
| 88 | 36.866 | 5894 | 5904 | 5909 | PV 7  | 4609    | 124209    | 0.12%   | 0.019%  |
| 89 | 37.089 | 5928 | 5943 | 5945 | PV 7  | 3568    | 81267     | 0.08%   | 0.012%  |
| 90 | 37.141 | 5945 | 5953 | 5968 | VV 7  | 15309   | 439956    | 0.42%   | 0.066%  |
| 91 | 37.309 | 5968 | 5982 | 5991 | VV 9  | 8815    | 290136    | 0.28%   | 0.043%  |
| 92 | 37.454 | 5991 | 6007 | 6010 | VV 5  | 76110   | 1990518   | 1.91%   | 0.298%  |
| 93 | 37.591 | 6010 | 6031 | 6053 | VV 9  | 171250  | 11199403  | 10.76%  | 1.678%  |
| 94 | 37.806 | 6053 | 6069 | 6075 | VV 8  | 24141   | 795737    | 0.76%   | 0.119%  |
| 95 | 37.884 | 6075 | 6082 | 6091 | VV 2  | 108287  | 2453719   | 2.36%   | 0.368%  |
| 96 | 38.005 | 6096 | 6103 | 6108 | VV 5  | 49440   | 1100666   | 1.06%   | 0.165%  |

|     |        |      |      |      |       |        |         |       |        |
|-----|--------|------|------|------|-------|--------|---------|-------|--------|
| 97  | 38.072 | 6108 | 6115 | 6124 | VV    | 388341 | 8051406 | 7.74% | 1.207% |
| 98  | 38.161 | 6124 | 6131 | 6138 | VV 2  | 76035  | 1658632 | 1.59% | 0.249% |
| 99  | 38.238 | 6138 | 6144 | 6154 | VV 2  | 28035  | 895436  | 0.86% | 0.134% |
| 100 | 38.335 | 6154 | 6161 | 6168 | VV 2  | 52538  | 1111966 | 1.07% | 0.167% |
| 101 | 38.454 | 6168 | 6182 | 6185 | VV 7  | 53333  | 1672059 | 1.61% | 0.251% |
| 102 | 38.497 | 6185 | 6189 | 6199 | VV 2  | 83423  | 1938998 | 1.86% | 0.291% |
| 103 | 38.582 | 6199 | 6204 | 6213 | VV 7  | 18595  | 618281  | 0.59% | 0.093% |
| 104 | 38.727 | 6222 | 6230 | 6233 | VV 2  | 71361  | 1313986 | 1.26% | 0.197% |
| 105 | 38.785 | 6233 | 6240 | 6255 | VV 4  | 176831 | 4782648 | 4.59% | 0.717% |
| 106 | 38.957 | 6261 | 6270 | 6280 | VV 7  | 57963  | 1670373 | 1.60% | 0.250% |
| 107 | 39.037 | 6280 | 6284 | 6288 | VV 7  | 9103   | 181988  | 0.17% | 0.027% |
| 108 | 39.130 | 6294 | 6300 | 6311 | VV 7  | 30302  | 794979  | 0.76% | 0.119% |
| 109 | 39.222 | 6311 | 6316 | 6321 | VV    | 41365  | 630015  | 0.61% | 0.094% |
| 110 | 39.279 | 6321 | 6326 | 6334 | VV 5  | 31373  | 545779  | 0.52% | 0.082% |
| 111 | 39.342 | 6334 | 6337 | 6342 | VV 4  | 7801   | 127937  | 0.12% | 0.019% |
| 112 | 39.439 | 6347 | 6354 | 6367 | VV 4  | 12616  | 357482  | 0.34% | 0.054% |
| 113 | 39.604 | 6377 | 6383 | 6390 | PV 2  | 65802  | 1009833 | 0.97% | 0.151% |
| 114 | 39.669 | 6390 | 6394 | 6398 | VV 6  | 7976   | 133757  | 0.13% | 0.020% |
| 115 | 39.720 | 6398 | 6403 | 6410 | VV 2  | 18164  | 297085  | 0.29% | 0.045% |
| 116 | 39.804 | 6414 | 6418 | 6420 | VV 4  | 5702   | 80619   | 0.08% | 0.012% |
| 117 | 39.831 | 6420 | 6423 | 6427 | VV 4  | 5510   | 82878   | 0.08% | 0.012% |
| 118 | 39.882 | 6427 | 6431 | 6437 | VV 7  | 9998   | 153968  | 0.15% | 0.023% |
| 119 | 39.935 | 6437 | 6441 | 6445 | VV 4  | 12981  | 198799  | 0.19% | 0.030% |
| 120 | 39.984 | 6445 | 6449 | 6454 | VV 4  | 16587  | 250950  | 0.24% | 0.038% |
| 121 | 40.019 | 6454 | 6455 | 6457 | VV 2  | 4675   | 40956   | 0.04% | 0.006% |
| 122 | 40.039 | 6457 | 6459 | 6461 | VV 3  | 6976   | 69387   | 0.07% | 0.010% |
| 123 | 40.069 | 6461 | 6464 | 6472 | VV 9  | 11058  | 221167  | 0.21% | 0.033% |
| 124 | 40.140 | 6472 | 6477 | 6481 | VV 2  | 35211  | 546060  | 0.52% | 0.082% |
| 125 | 40.186 | 6481 | 6485 | 6491 | VV 5  | 15653  | 309122  | 0.30% | 0.046% |
| 126 | 40.247 | 6491 | 6495 | 6506 | VV 3  | 16239  | 279517  | 0.27% | 0.042% |
| 127 | 40.425 | 6515 | 6526 | 6531 | VV 3  | 6507   | 258113  | 0.25% | 0.039% |
| 128 | 40.477 | 6531 | 6535 | 6547 | VV 10 | 13164  | 430052  | 0.41% | 0.064% |
| 129 | 40.615 | 6555 | 6560 | 6571 | VV 8  | 14726  | 373047  | 0.36% | 0.056% |
| 130 | 40.986 | 6620 | 6625 | 6628 | PV 3  | 10113  | 124358  | 0.12% | 0.019% |
| 131 | 41.129 | 6638 | 6649 | 6652 | VV 3  | 7190   | 186774  | 0.18% | 0.028% |
| 132 | 41.176 | 6652 | 6658 | 6661 | VV 6  | 9281   | 188496  | 0.18% | 0.028% |
| 133 | 42.248 | 6839 | 6845 | 6853 | VV 9  | 7929   | 177342  | 0.17% | 0.027% |
| 134 | 42.388 | 6866 | 6870 | 6872 | VV 5  | 4804   | 70397   | 0.07% | 0.011% |
| 135 | 42.418 | 6872 | 6875 | 6881 | VV 8  | 5489   | 106512  | 0.10% | 0.016% |
| 136 | 42.472 | 6881 | 6884 | 6887 | VV 5  | 4513   | 60821   | 0.06% | 0.009% |
| 137 | 42.675 | 6916 | 6920 | 6931 | VV 10 | 3780   | 89969   | 0.09% | 0.013% |

Sum of corrected areas: 667281238

METHOD\_7.M Sun Apr 13 17:54:55 2025