LSC Area Percent Report

Data Path : Z:\HPCHEM1\BNA G\DATA\BG041516\
Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

Signal : TIC

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.232 | 62 | 67 | 81 | rVB | 32541 | 63702 | 1.79% | 0.095% |
| 2 | 4.695 | 311 | 316 | 324 | rVB | 111524 | 171678 | 4.83% | 0.255% |
| 3 | 5.094 | 380 | 384 | 391 | rVB | 26973 | 44623 | 1.26% | 0.066% |
| 4 | 5.705 | 480 | 488 | 493 | rBV | 243742 | 424485 | 11.95% | 0.630% |
| 5 | 5.764 | 493 | 498 | 506 | rVV | 226369 | 400259 | 11.27% | 0.594% |
| 6 | 5.858 | 506 | 514 | 521 | rVB | 56970 | 109511 | 3.08% | 0.163% |
| 7 | 6.087 | 546 | 553 | 563 | rVB3 | 37061 | 80936 | 2.28% | 0.120% |
| 8 | 6.416 | 590 | 609 | 613 | rBV | 87048 | 309990 | 8.73% | 0.460% |
| 9 | 6.469 | 614 | 618 | 626 | rVB | 67110 | 116348 | 3.28% | 0.173% |
| 10 | 6.692 | 652 | 656 | 668 | rVB6 | 25865 | 67520 | 1.90% | 0.100% |
| 11 | 6.957 | 695 | 701 | 708 | rVB | 39418 | 76544 | 2.15% | 0.114% |
| 12 | 7.068 | 708 | 720 | 725 | rBV2 | 32230 | 84583 | 2.38% | 0.126% |
| 13 | 7.192 | 734 | 741 | 744 | rBV3 | 30041 | 60131 | 1.69% | 0.089% |
| 14 | 7.256 | 745 | 752 | 756 | rVV4 | 34363 | 80213 | 2.26% | 0.119% |
| 15 | 7.292 | 756 | 758 | 764 | rVB3 | 42447 | 59927 | 1.69% | 0.089% |
| 16 | 7.374 | 764 | 772 | 777 | rBV | 161752 | 325200 | 9.15% | 0.483% |
| 17 | 7.474 | 784 | 789 | 798 | rVB | 73644 | 126085 | 3.55% | 0.187% |
| 18 | 7.609 | 798 | 812 | 817 | rBV3 | 112898 | 283304 | 7.97% | 0.421% |
| 19 | 7.691 | 817 | 826 | 828 | rVV5 | 109377 | 299301 | 8.42% | 0.444% |
| 20 | 7.744 | 829 | 835 | 849 | rVB3 | 447540 | 991021 | 27.90% | 1.471% |
| 21 | 7.856 | 849 | 854 | 863 | rVB | 43973 | 77429 | 2.18% | 0.115% |
| 22 | 7.950 | 863 | 870 | 874 | rBV | 30655 | 54591 | 1.54% | 0.081% |
| 23 | 8.096 | 891 | 895 | 901 | rVB3 | 42331 | 73858 | 2.08% | 0.110% |
| 24 | 8.167 | 901 | 907 | 909 | rBV3 | 54938 | 91094 | 2.56% | 0.135% |
| 25 | 8.214 | 910 | 915 | 919 | rVV3 | 87440 | 172408 | 4.85% | 0.256% |
| 26 | 8.261 | 919 | 923 | 928 | rVB3 | 60335 | 107421 | 3.02% | 0.159% |
| 27 | 8.543 | 959 | 971 | 975 | rBV | 421578 | 941177 | 26.49% | 1.397% |
| 28 | 8.766 | 1002 | 1009 | 1019 | rVB10 | 25836 | 95655 | 2.69% | 0.142% |
| 29 | 8.878 | 1019 | 1028 | 1033 | rBV3 | 97732 | 224119 | 6.31% | 0.333% |
| 30 | 9.154 | 1039 | 1075 | 1076 | rBV4 | 528309 | 3552570 | 100.00% | 5.274% |
| 31 | 9.389 | 1108 | 1115 | 1119 | rBV | 381137 | 820393 | 23.09% | 1.218% |
| 32 | 9.577 | 1139 | 1147 | 1151 | rBV4 | 450175 | 1226142 | 34.51% | 1.820% |
| 33 | 9.636 | 1154 | 1157 | 1159 | rBV | 97453 | 129882 | 3.66% | 0.193% |
| 34 | 9.753 | 1164 | 1177 | 1181 | rVB4 | 710767 | 2835566 | 79.82% | 4.209% |

LSC Area Percent Report

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Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 9.871 | 1184 | 1197 | 1203 | rBV5 | 516362 | 1788011 | 50.33% | 2.654% |
| 36 | 10.030 | 1205 | 1224 | 1226 | rBV2 | 547409 | 2022815 | 56.94% | 3.003% |
| 37 | 10.129 | 1237 | 1241 | 1244 | rVB | 334989 | 471720 | 13.28% | 0.700% |
| 38 | 10.176 | 1244 | 1249 | 1256 | rVB2 | 414060 | 679930 | 19.14% | 1.009% |
| 39 | 10.265 | 1256 | 1264 | 1273 | rVB6 | 134625 | 391122 | 11.01% | 0.581% |
| 40 | 10.382 | 1277 | 1284 | 1289 | rBV4 | 194089 | 493513 | 13.89% | 0.733% |
| 41 | 10.464 | 1295 | 1298 | 1303 | rVB6 | 95649 | 156534 | 4.41% | 0.232% |
| 42 | 10.582 | 1312 | 1318 | 1323 | rBV6 | 149371 | 316627 | 8.91% | 0.470% |
| 43 | 10.699 | 1328 | 1338 | 1345 | rVV4 | 287382 | 916868 | 25.81% | 1.361% |
| 44 | 10.764 | 1345 | 1349 | 1354 | rVB2 | 115984 | 174850 | 4.92% | 0.260% |
| 45 | 10.829 | 1354 | 1360 | 1363 | rBV4 | 86005 | 181704 | 5.11% | 0.270% |
| 46 | 10.899 | 1364 | 1372 | 1386 | rVB7 | 366740 | 1259724 | 35.46% | 1.870% |
| 47 | 11.034 | 1388 | 1395 | 1399 | rBV | 371132 | 695974 | 19.59% | 1.033% |
| 48 | 11.081 | 1399 | 1403 | 1411 | rVB3 | 236642 | 557761 | 15.70% | 0.828% |
| 49 | 11.163 | 1411 | 1417 | 1423 | rBV6 | 64927 | 132179 | 3.72% | 0.196% |
| 50 | 11.293 | 1430 | 1439 | 1451 | rBV6 | 410406 | 1376285 | 38.74% | 2.043% |
| 51 | 11.410 | 1451 | 1459 | 1464 | rBV3 | 243091 | 754640 | 21.24% | 1.120% |
| 52 | 11.545 | 1477 | 1482 | 1486 | rVB4 | 112982 | 194625 | 5.48% | 0.289% |
| 53 | 11.639 | 1486 | 1498 | 1503 | rBV6 | 664644 | 1848583 | 52.04% | 2.744% |
| 54 | 11.710 | 1504 | 1510 | 1517 | rVB8 | 121594 | 321278 | 9.04% | 0.477% |
| 55 | 11.980 | 1544 | 1556 | 1558 | rBV6 | 486181 | 1591008 | 44.78% | 2.362% |
| 56 | 12.104 | 1570 | 1577 | 1580 | rVB3 | 429180 | 947833 | 26.68% | 1.407% |
| 57 | 12.186 | 1587 | 1591 | 1595 | rVB2 | 311739 | 529994 | 14.92% | 0.787% |
| 58 | 12.250 | 1595 | 1602 | 1605 | rVV3 | 434259 | 885474 | 24.92% | 1.315% |
| 59 | 12.280 | 1605 | 1607 | 1611 | rVB2 | 247339 | 279617 | 7.87% | 0.415% |
| 60 | 12.321 | 1611 | 1614 | 1619 | rVB4 | 206376 | 332043 | 9.35% | 0.493% |
| 61 | 12.438 | 1623 | 1634 | 1637 | rBV2 | 487628 | 1382258 | 38.91% | 2.052% |
| 62 | 12.503 | 1637 | 1645 | 1652 | rBV7 | 338895 | 882850 | 24.85% | 1.311% |
| 63 | 12.609 | 1655 | 1663 | 1666 | rVV3 | 299881 | 780415 | 21.97% | 1.159% |
| 64 | 12.644 | 1666 | 1669 | 1676 | rVB5 | 398104 | 843046 | 23.73% | 1.252% |
| 65 | 12.732 | 1677 | 1684 | 1693 | rBV4 | 579271 | 1497961 | 42.17% | 2.224% |
| 66 | 12.826 | 1694 | 1700 | 1704 | rBV2 | 685729 | 1177449 | 33.14% | 1.748% |
| 67 | 12.885 | 1704 | 1710 | 1714 | rBV5 | 169380 | 364367 | 10.26% | 0.541% |
| 68 | 12.932 | 1715 | 1718 | 1726 | rVB6 | 331453 | 616016 | 17.34% | 0.914% |
| 69 | 13.014 | 1726 | 1732 | 1739 | rBV4 | 283622 | 736874 | 20.74% | 1.094% |
| 70 | 13.108 | 1740 | 1748 | 1757 | rVB10 | 339540 | 1206534 | 33.96% | 1.791% |
| 71 | 13.191 | 1757 | 1762 | 1768 | rVB4 | 277740 | 576108 | 16.22% | 0.855% |

LSC Area Percent Report

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Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 72 | 13.261 | 1769 | 1774 | 1777 | rBV3 | 280787 | 558194 | 15.71% | 0.829% |
| 73 | 13.314 | 1778 | 1783 | 1791 | rVB6 | 643654 | 1823763 | 51.34% | 2.707% |
| 74 | 13.384 | 1791 | 1795 | 1799 | rBV3 | 204718 | 299386 | 8.43% | 0.444% |
| 75 | 13.455 | 1802 | 1807 | 1814 | rVB | 1152409 | 2028613 | 57.10% | 3.012% |
| 76 | 13.543 | 1814 | 1822 | 1833 | rBV7 | 378446 | 1215732 | 34.22% | 1.805% |
| 77 | 13.655 | 1835 | 1841 | 1847 | rVB4 | 420209 | 830688 | 23.38% | 1.233% |
| 78 | 13.766 | 1855 | 1860 | 1864 | rBV3 | 448691 | 868275 | 24.44% | 1.289% |
| 79 | 13.866 | 1873 | 1877 | 1881 | rVB | 250358 | 356354 | 10.03% | 0.529% |
| 80 | 14.001 | 1897 | 1900 | 1903 | rBV3 | 94033 | 110607 | 3.11% | 0.164% |
| 81 | 14.048 | 1904 | 1908 | 1913 | rVB6 | 195558 | 378224 | 10.65% | 0.561% |
| 82 | 14.131 | 1918 | 1922 | 1925 | rBV2 | 338808 | 515990 | 14.52% | 0.766% |
| 83 | 14.448 | 1971 | 1976 | 1983 | rBV7 | 279911 | 781775 | 22.01% | 1.161% |
| 84 | 14.536 | 1988 | 1991 | 1999 | rVB4 | 391776 | 741722 | 20.88% | 1.101% |
| 85 | 14.607 | 2000 | 2003 | 2005 | rBV2 | 164769 | 225745 | 6.35% | 0.335% |
| 86 | 14.730 | 2019 | 2024 | 2032 | rVB4 | 403072 | 917517 | 25.83% | 1.362% |
| 87 | 14.812 | 2033 | 2038 | 2048 | rVB4 | 424168 | 1127873 | 31.75% | 1.674% |
| 88 | 14.977 | 2060 | 2066 | 2073 | rBV4 | 504078 | 1092154 | 30.74% | 1.621% |
| 89 | 15.288 | 2115 | 2119 | 2124 | rVB | 245403 | 377448 | 10.62% | 0.560% |
| 90 | 15.370 | 2130 | 2133 | 2136 | rBV | 241267 | 299207 | 8.42% | 0.444% |
| 91 | 15.464 | 2141 | 2149 | 2154 | rVV6 | 827870 | 2315693 | 65.18% | 3.438% |
| 92 | 15.523 | 2154 | 2159 | 2164 | rVB5 | 607430 | 1216881 | 34.25% | 1.806% |
| 93 | 15.658 | 2178 | 2182 | 2185 | rBV5 | 149128 | 207970 | 5.85% | 0.309% |
| 94 | 16.310 | 2290 | 2293 | 2298 | rVB | 749415 | 1116669 | 31.43% | 1.658% |
| 95 | 16.363 | 2299 | 2302 | 2306 | rBV4 | 95919 | 138013 | 3.88% | 0.205% |
| 96 | 17.356 | 2467 | 2471 | 2475 | rVB3 | 174434 | 259921 | 7.32% | 0.386% |
| 97 | 17.562 | 2502 | 2506 | 2511 | rVB2 | 335952 | 505375 | 14.23% | 0.750% |
| 98 | 20.147 | 2941 | 2946 | 2950 | rVB | 1422972 | 1886399 | 53.10% | 2.800% |
| 99 | 21.833 | 3228 | 3233 | 3240 | rVB | 375683 | 607431 | 17.10% | 0.902% |
| 100 | 25.165 | 3793 | 3800 | 3812 | rVB2 | 210169 | 616110 | 17.34% | 0.915% |

Sum of corrected areas: 67361985

Data Path : Z:\HPCHEM1\BNA G\DATA\BG041516\
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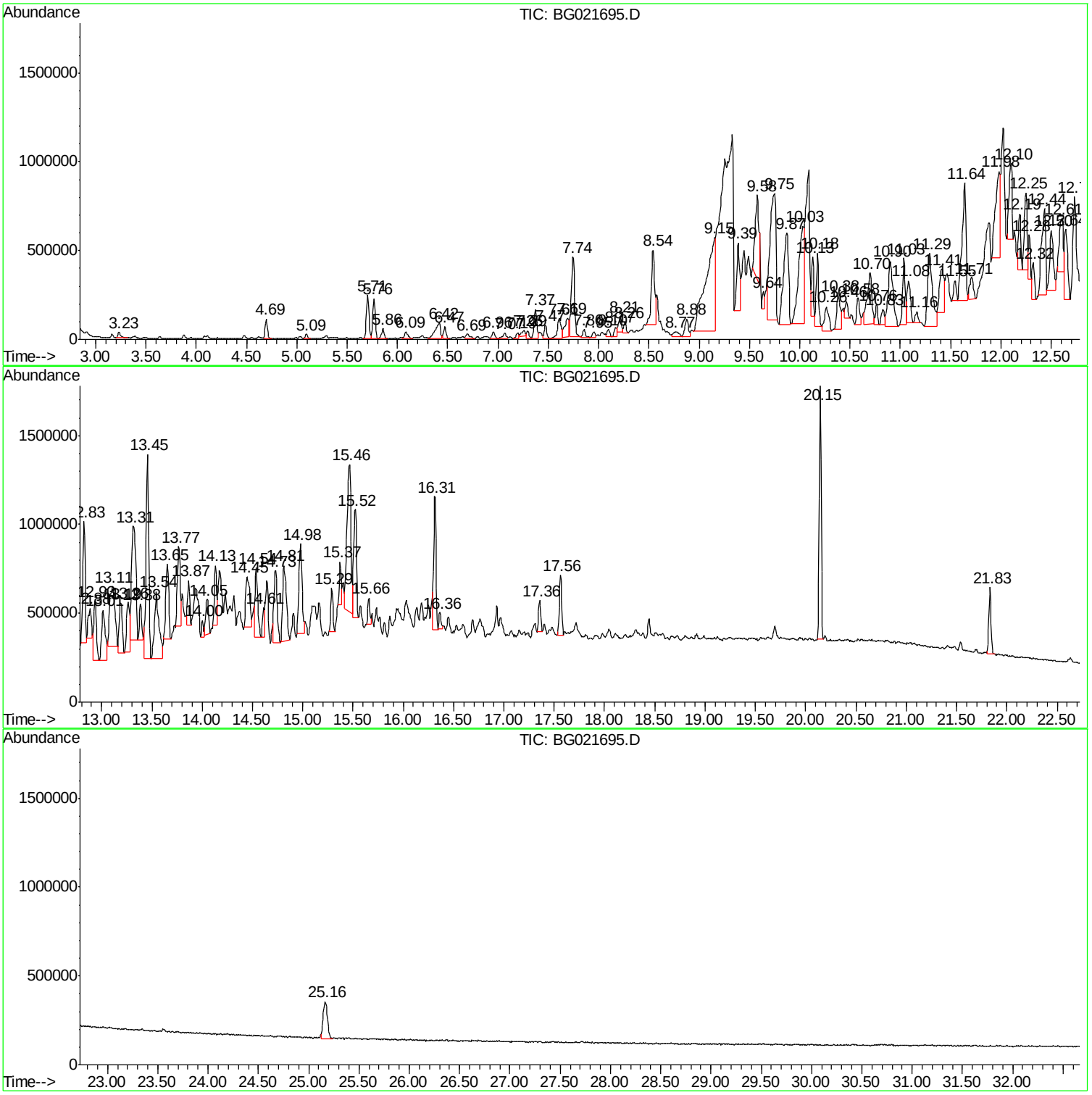
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Data Path : Z:\HPCHEM1\BNA G\DATA\BG041516\
Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
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Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

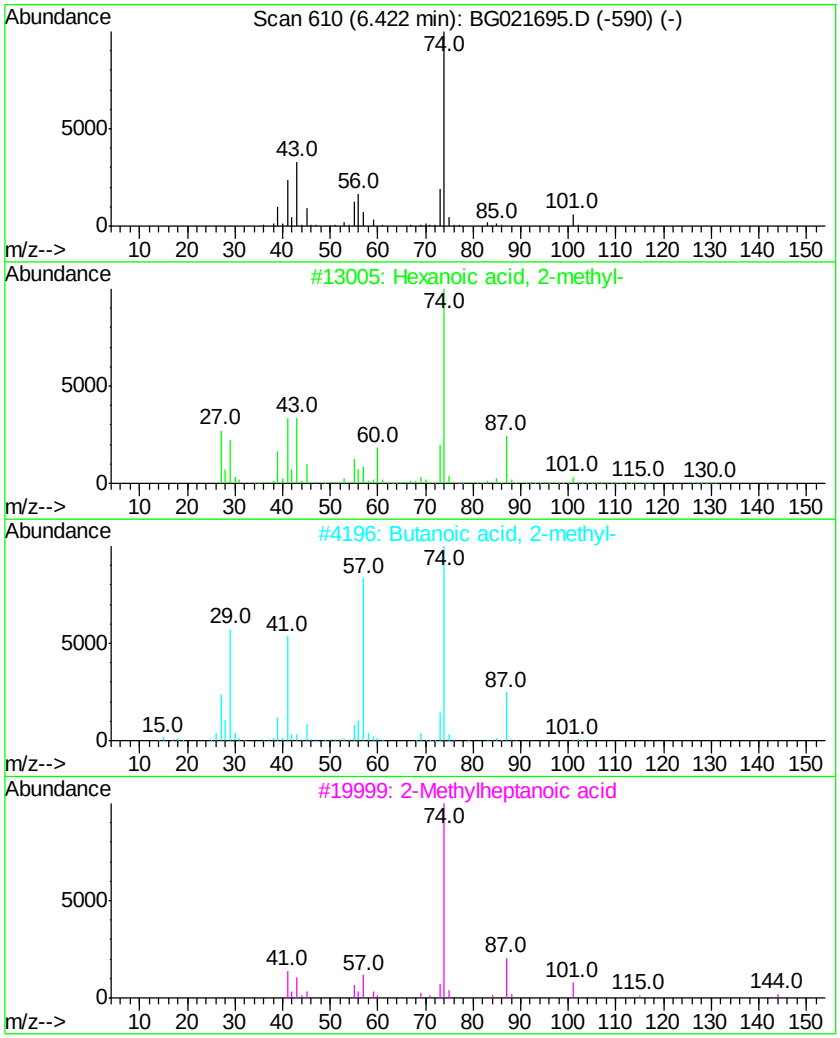
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

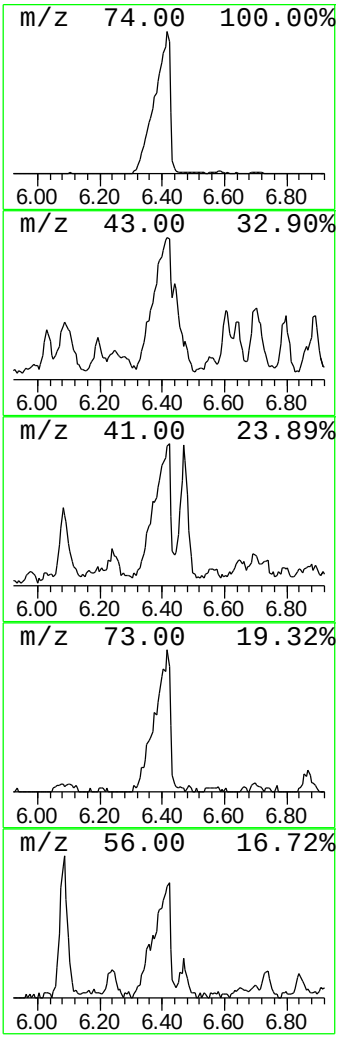
**********

Peak Number 2 Hexanoic acid, 2-methyl- Concentration Rank 16

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 6.42 | 35.96 ng | 309990 | 1,4-Dichlorobenzene-d4 | 8.21 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Hexanoic acid, 2-methyl- | 130 | C7H14O2 | 004536-23-6 | 78 |
| 2 | Butanoic acid, 2-methyl- | 102 | C5H10O2 | 000116-53-0 | 50 |
| 3 | 2-Methylheptanoic acid | 144 | C8H16O2 | 001188-02-9 | 33 |
| 4 | Propanoic acid | 74 | C3H6O2 | 000079-09-4 | 9 |
| 5 | Isobutylamine | 73 | C4H11N | 000078-81-9 | 9 |



Data Path : Z:\HPCHEM1\BNA G\DATA\BG041516\
Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

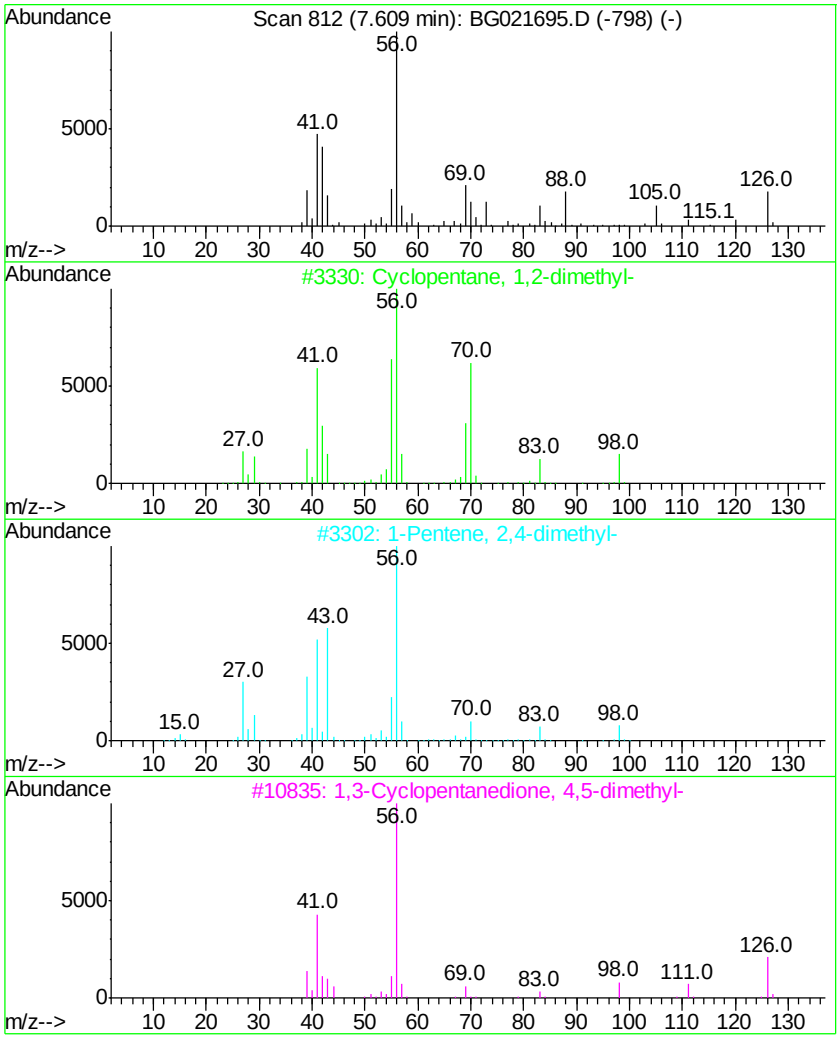
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

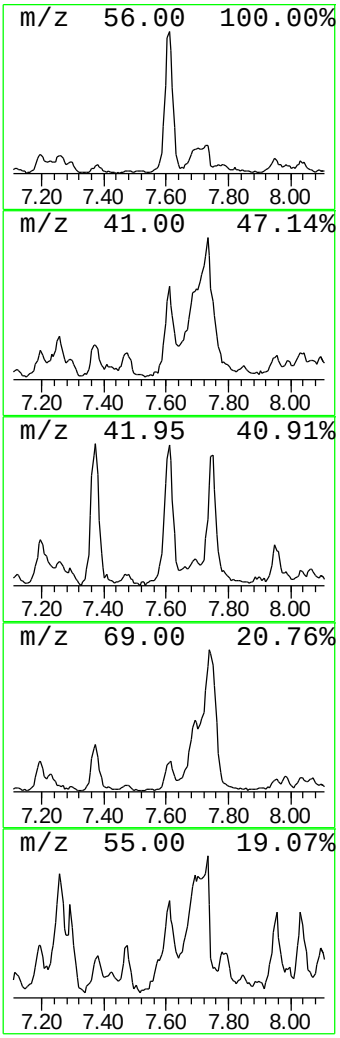
**********

Peak Number 3 unknown7.61 Concentration Rank 19

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 7.61 | 32.86 ng | 283304 | 1,4-Dichlorobenzene-d4 | 8.21 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclopentane, 1,2-dimethyl- | 98 | C7H14 | 002452-99-5 | 47 |
| 2 | 1-Pentene, 2,4-dimethyl- | 98 | C7H14 | 002213-32-3 | 43 |
| 3 | 1,3-Cyclopentanedione, 4,5-dimet... | 126 | C7H10O2 | 035029-05-1 | 43 |
| 4 | 1-Octene, 2-methyl- | 126 | C9H18 | 004588-18-5 | 43 |
| 5 | Oxirane, (1-methylbutyl)- | 114 | C7H14O | 053229-39-3 | 42 |



Data Path : Z:\HPCHEM1\BNA G\DATA\BG041516\
Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

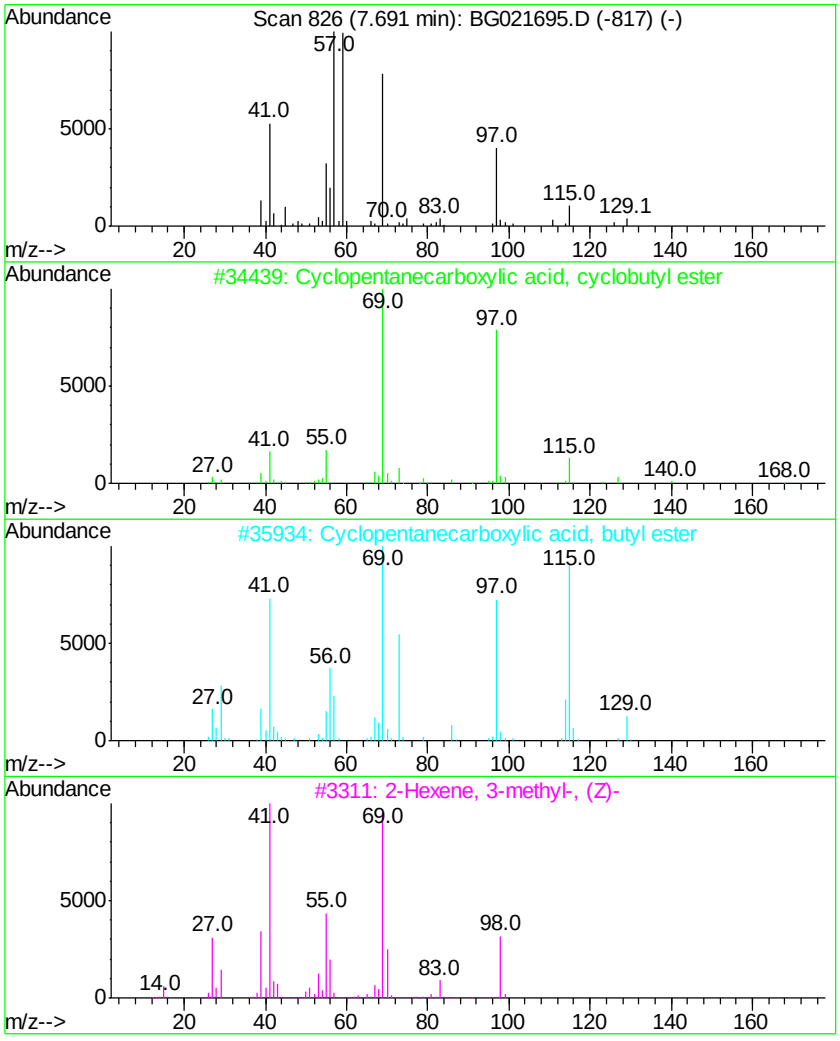
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

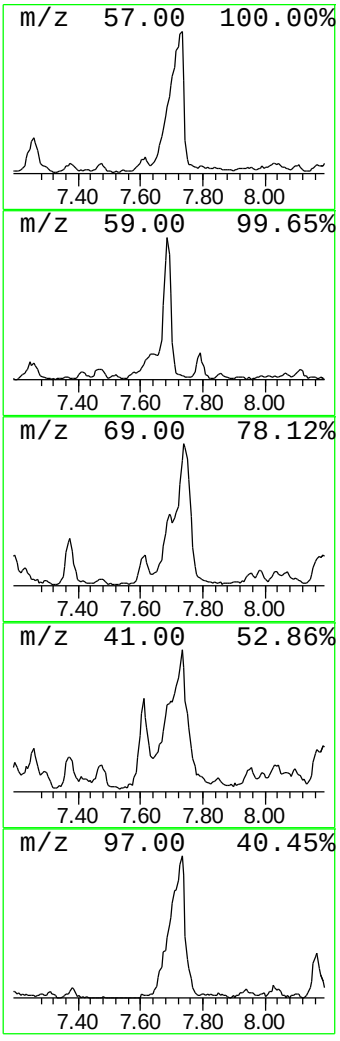
**********

Peak Number 4 unknown7.69 Concentration Rank 17

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 7.69 | 34.72 ng | 299301 | 1,4-Dichlorobenzene-d4 | 8.21 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclopentanecarboxylic acid, cyc... | 168 | C10H16O2 | 1000282-76-8 | 38 |
| 2 | Cyclopentanecarboxylic acid, but... | 170 | C10H18O2 | 099978-03-7 | 37 |
| 3 | 2-Hexene, 3-methyl-, (Z)- | 98 | C7H14 | 010574-36-4 | 27 |
| 4 | Carbamic acid, (1-cyanoethyl)-, ... | 170 | C8H14N2O2 | 100927-09-1 | 23 |
| 5 | 3-Pentanol, 2,2-dimethyl- | 116 | C7H16O | 003970-62-5 | 17 |



Data Path : Z:\HPCHEM1\BNA G\DATA\BG041516\
Data File : BG021695.D
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Operator : UM/SJ
Sample : H2549-01
Misc :
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**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

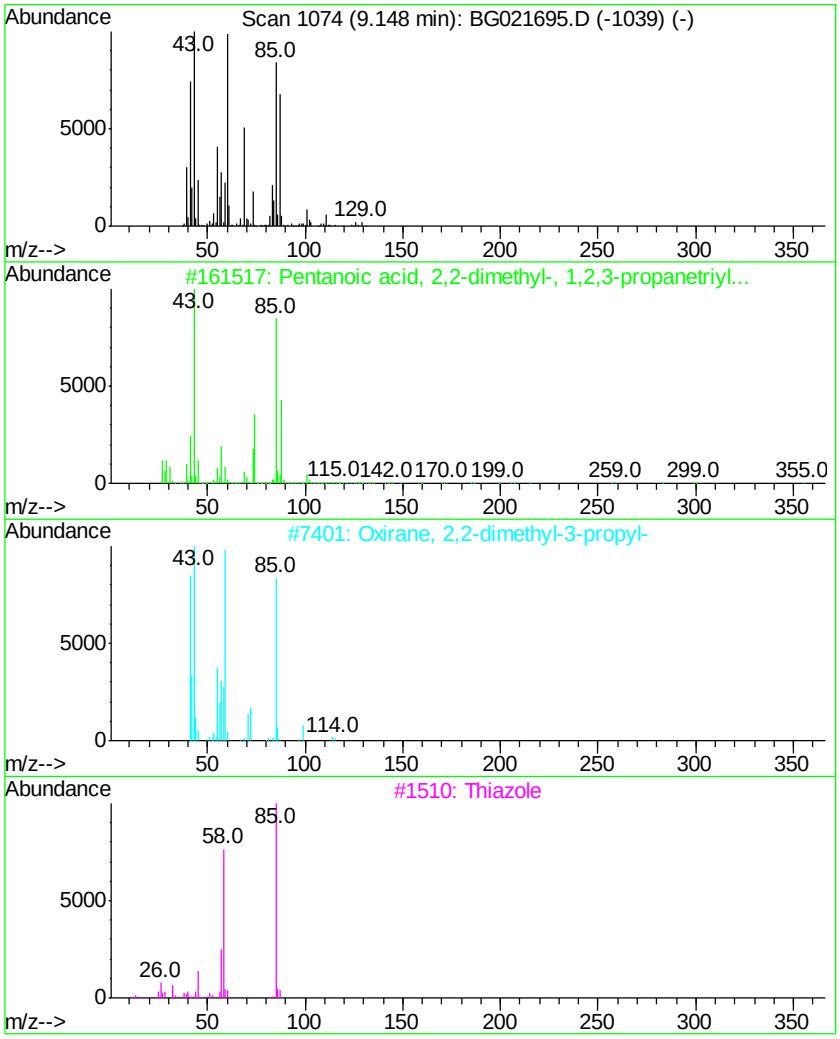
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

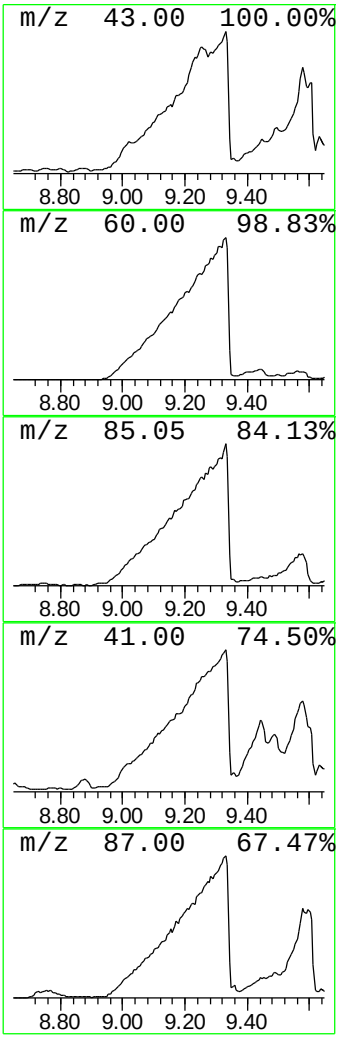
**********

Peak Number 7 unknown9.15 Concentration Rank 1

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 9.15 | 412.11 ng | 3552570 | 1,4-Dichlorobenzene-d4 | 8.21 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Pentanoic acid, 2,2-dimethyl-, 1... | 428 | C24H44O6 | 057346-62-0 | 27 |
| 2 | Oxirane, 2,2-dimethyl-3-propyl- | 114 | C7H14O | 017612-35-0 | 27 |
| 3 | Thiazole | 85 | C3H3NS | 000288-47-1 | 14 |
| 4 | 2-Butenoic acid, 4-hydroxy-, met... | 116 | C5H8O3 | 004508-99-0 | 14 |
| 5 | Heptane, 2-(hexyloxy)- | 200 | C13H28O | 074663-79-9 | 14 |



Data Path : Z:\HPCHEM1\BNA G\DATA\BG041516\
Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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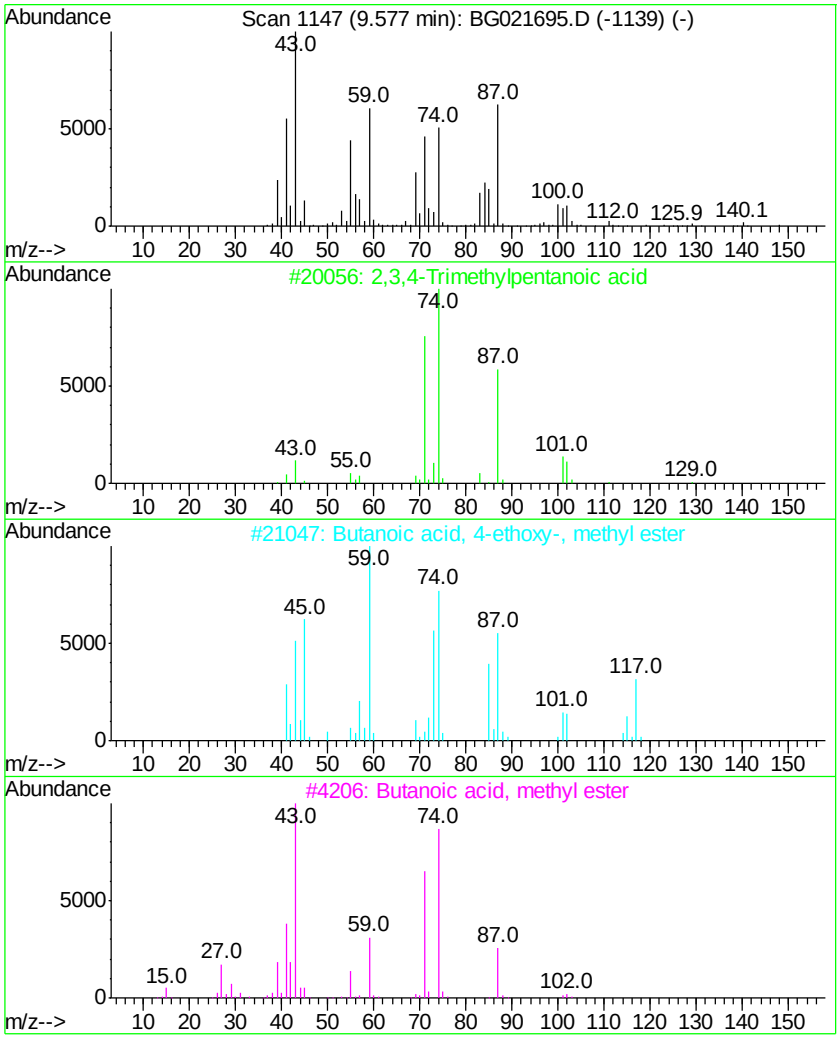
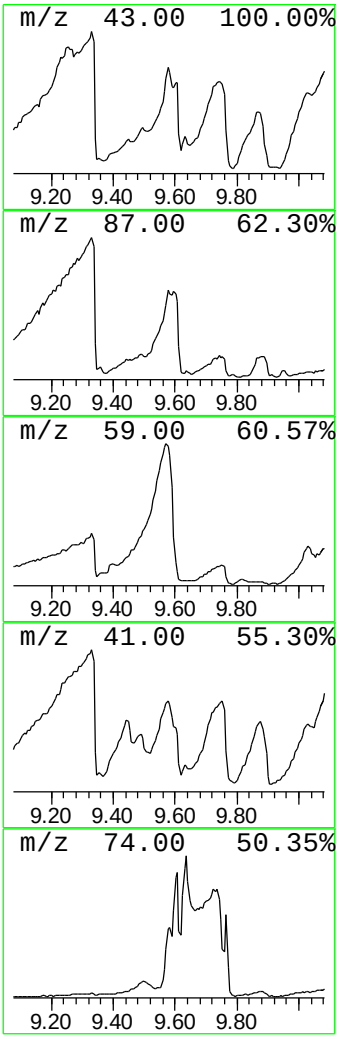
Peak Number 8 unknown9.58 Concentration Rank 2

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 9.58 | 142.24 ng | 1226140 | 1,4-Dichlorobenzene-d4 | 8.21 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2,3,4-Trimethylpentanoic acid | 144 | C8H16O2 | 090435-18-0 | 38 |
| 2 | Butanoic acid, 4-ethoxy-, methyl... | 146 | C7H14O3 | 029006-04-0 | 38 |
| 3 | Butanoic acid, methyl ester | 102 | C5H10O2 | 000623-42-7 | 35 |
| 4 | Silane, methyltripropyl- | 172 | C10H24Si | 000995-24-4 | 22 |
| 5 | Butanoic acid, 3-methyl-, methyl... | 116 | C6H12O2 | 000556-24-1 | 22 |



Data Path : Z:\HPCHEM1\BNA G\DATA\BG041516\
Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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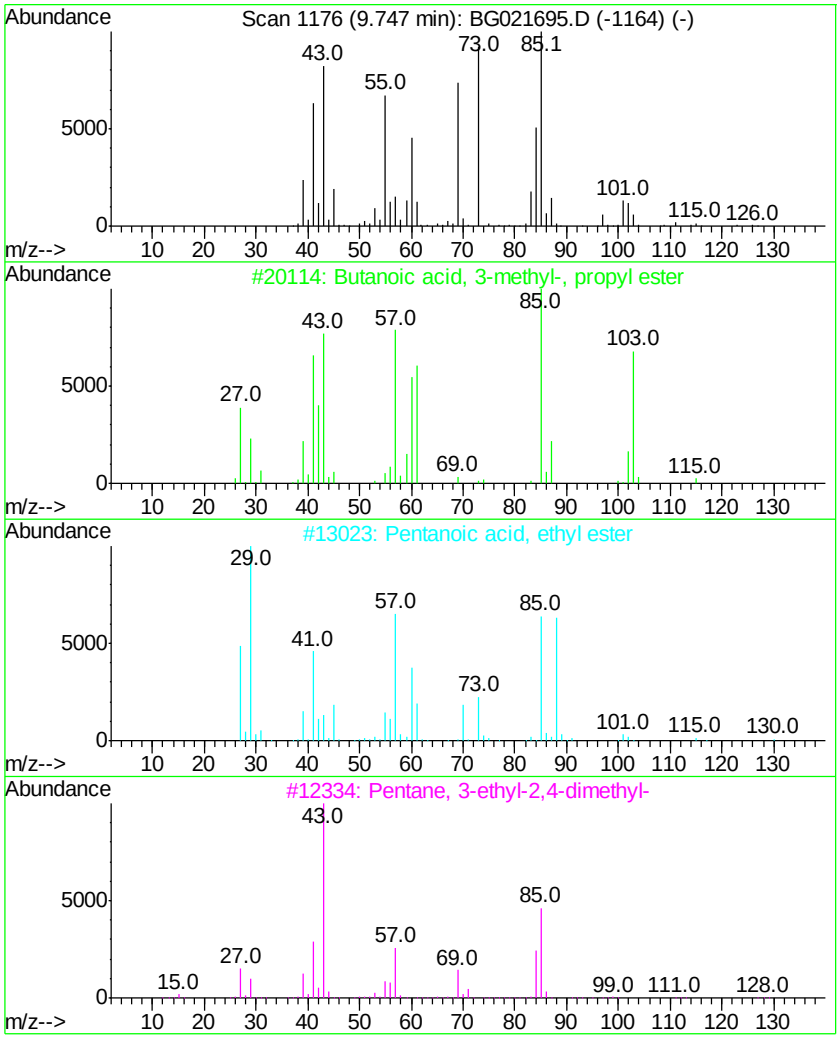
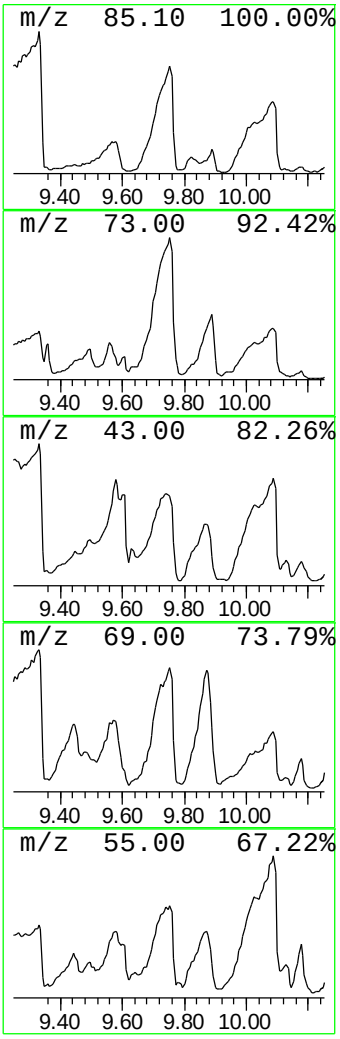
Peak Number 9 unknown9.75 Concentration Rank 5

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 9.75 | 81.48 ng | 2835570 | Naphthalene-d8 | 11.03 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Butanoic acid, 3-methyl-, propyl... | 144 | C8H16O2 | 000557-00-6 | 47 |
| 2 | Pentanoic acid, ethyl ester | 130 | C7H14O2 | 000539-82-2 | 47 |
| 3 | Pentane, 3-ethyl-2,4-dimethyl- | 128 | C9H20 | 001068-87-7 | 38 |
| 4 | N-(5-Oxo-tetrahydro-furan-2-ylme... | 157 | C7H11NO3 | 1000188-71-2 | 38 |
| 5 | Butanoic acid, 3-methyl-, hexyl ... | 186 | C11H22O2 | 010032-13-0 | 38 |



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Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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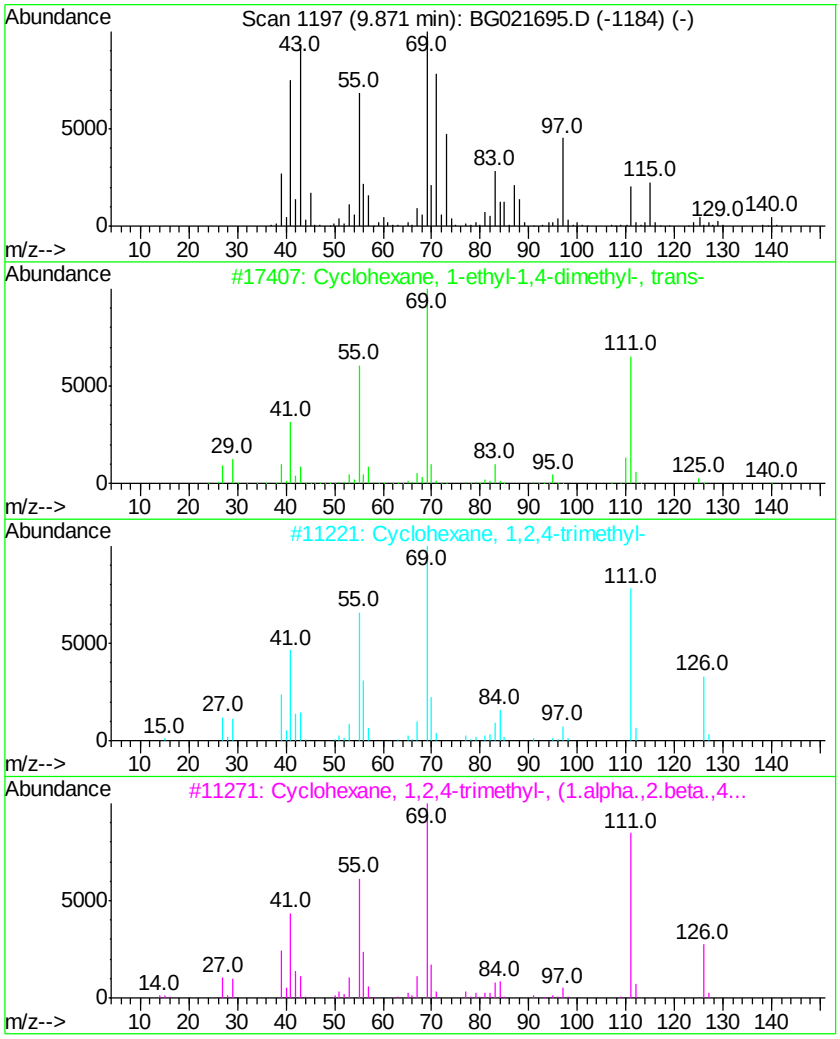
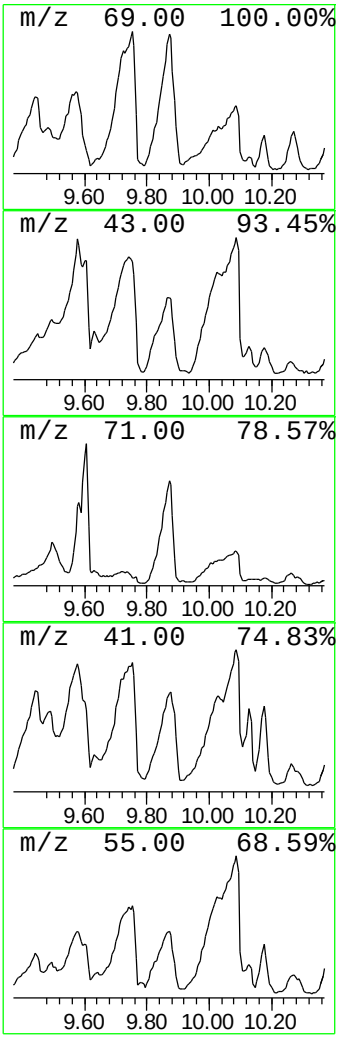
Peak Number 10 unknown9.87 Concentration Rank 8

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 9.87 | 51.38 ng | 1788010 | Naphthalene-d8 | 11.03 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclohexane, 1-ethyl-1,4-dimethy... | 140 | C10H20 | 062238-32-8 | 22 |
| 2 | Cyclohexane, 1,2,4-trimethyl- | 126 | C9H18 | 002234-75-5 | 22 |
| 3 | Cyclohexane, 1,2,4-trimethyl-, (... | 126 | C9H18 | 007667-60-9 | 22 |
| 4 | 3-Ethyl-4-octene | 140 | C10H20 | 019781-32-9 | 22 |
| 5 | 4,4-Dimethyl-1-hexene | 112 | C8H16 | 001647-08-1 | 22 |



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Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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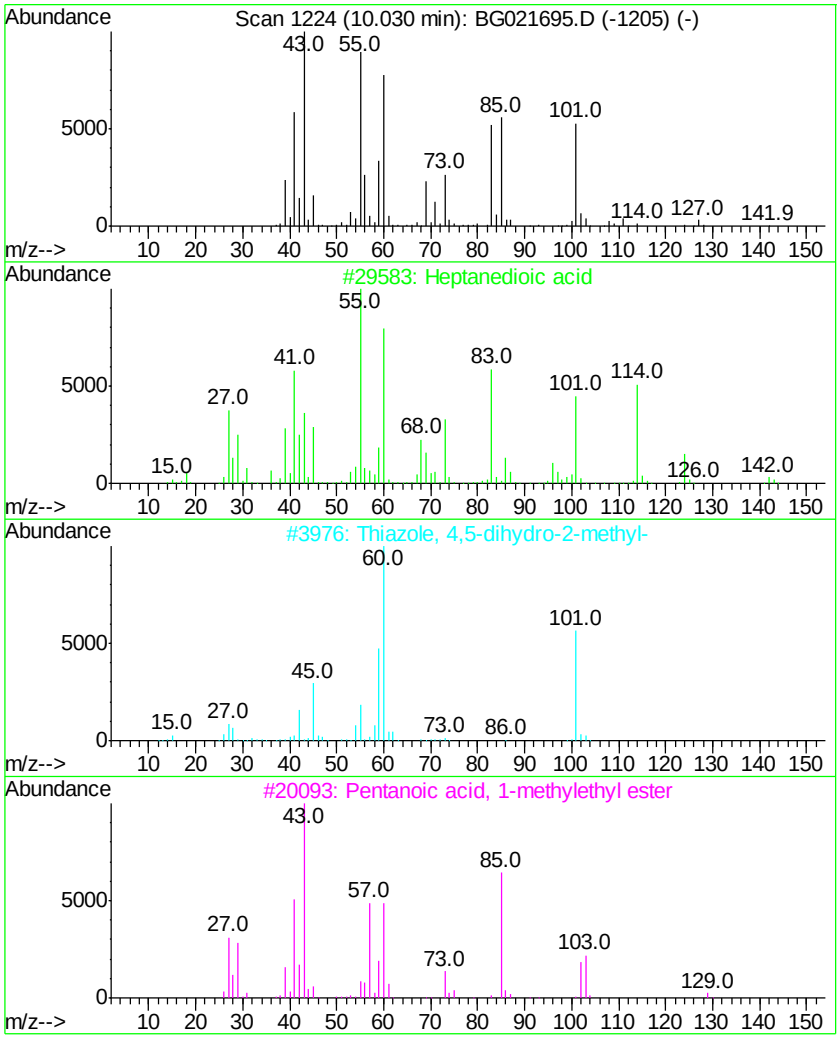
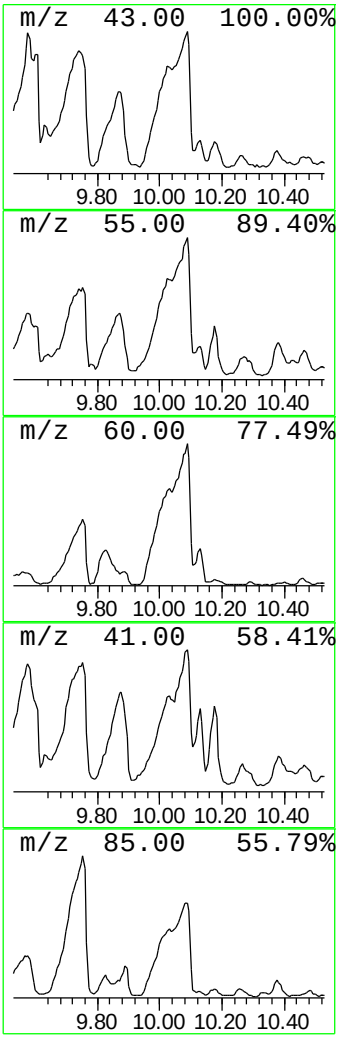
Peak Number 11 unknown10.03 Concentration Rank 6

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 10.03 | 58.13 ng | 2022820 | Naphthalene-d8 | 11.03 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Heptanedioic acid | 160 | C7H12O4 | 000111-16-0 | 40 |
| 2 | Thiazole, 4,5-dihydro-2-methyl- | 101 | C4H7NS | 002346-00-1 | 32 |
| 3 | Pentanoic acid, 1-methylethyl ester | 144 | C8H16O2 | 018362-97-5 | 32 |
| 4 | Cyclobutanecarboxylic acid, prop... | 142 | C8H14O2 | 1000280-40-0 | 25 |
| 5 | 2H-1,2-Oxazine,tetrahydro-2-methyl- | 101 | C5H11NO | 022445-43-8 | 25 |



Data Path : Z:\HPCHEM1\BNA G\DATA\BG041516\
Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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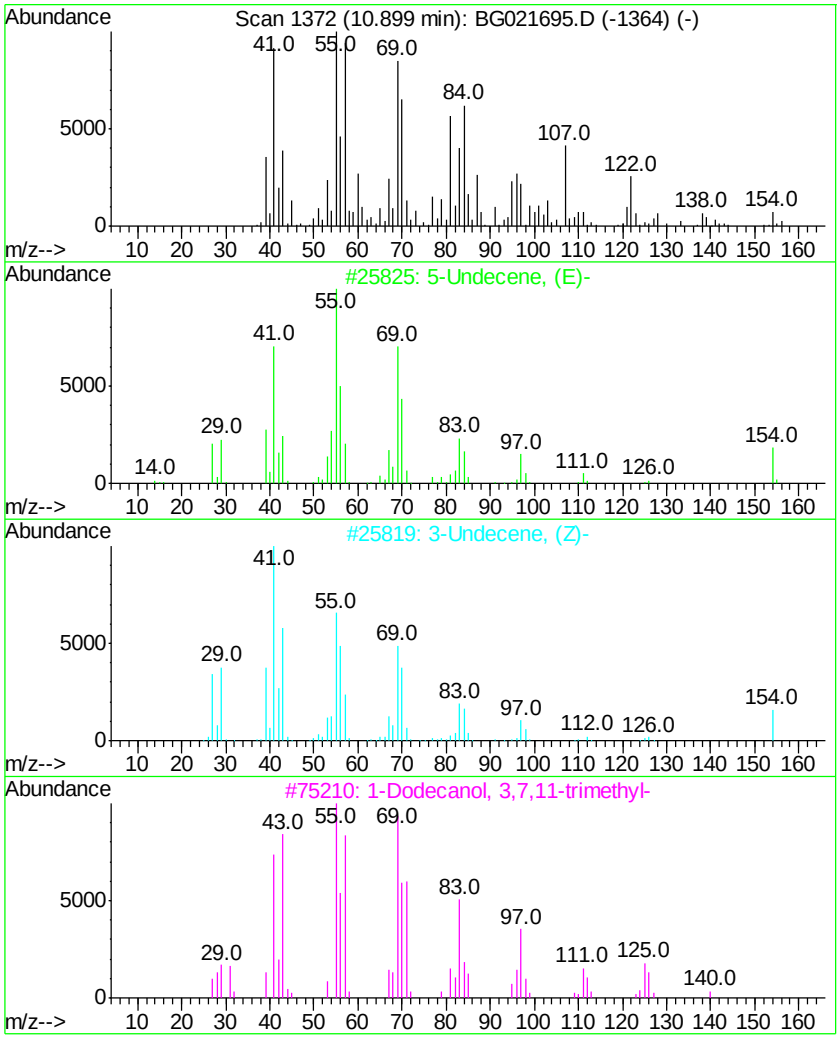
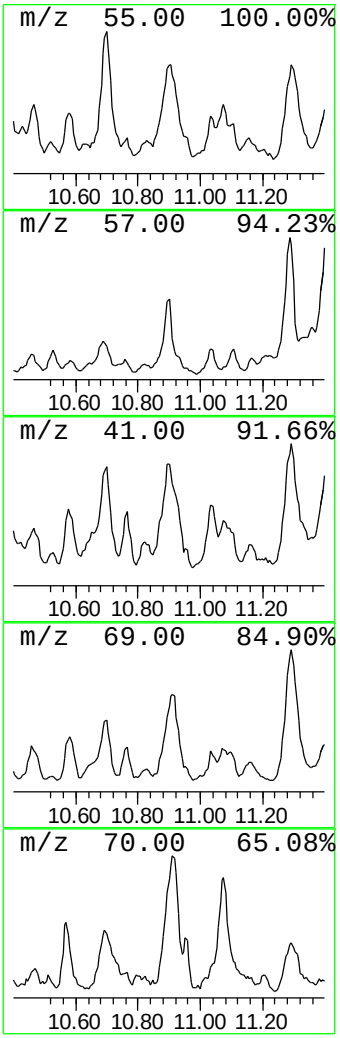
Peak Number 12 5-Undecene, (E)- Concentration Rank 15

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 10.90 | 36.20 ng | 1259720 | Naphthalene-d8 | 11.03 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 5-Undecene, (E)- | 154 | C11H22 | 000764-97-6 | 55 |
| 2 | 3-Undecene, (Z)- | 154 | C11H22 | 000821-97-6 | 49 |
| 3 | 1-Dodecanol, 3,7,11-trimethyl- | 228 | C15H32O | 006750-34-1 | 46 |
| 4 | Cyclohexane, 1,2,3-trimethyl- | 126 | C9H18 | 001678-97-3 | 46 |
| 5 | Cyclopentane, hexyl- | 154 | C11H22 | 004457-00-5 | 43 |



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Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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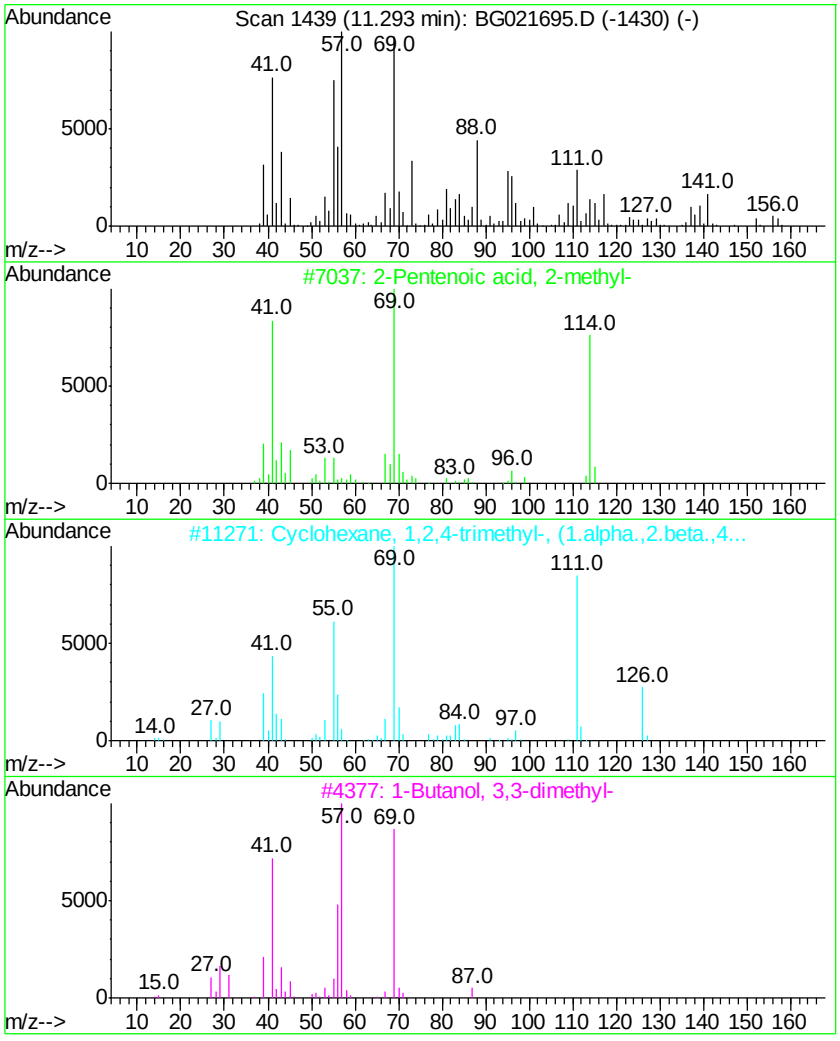
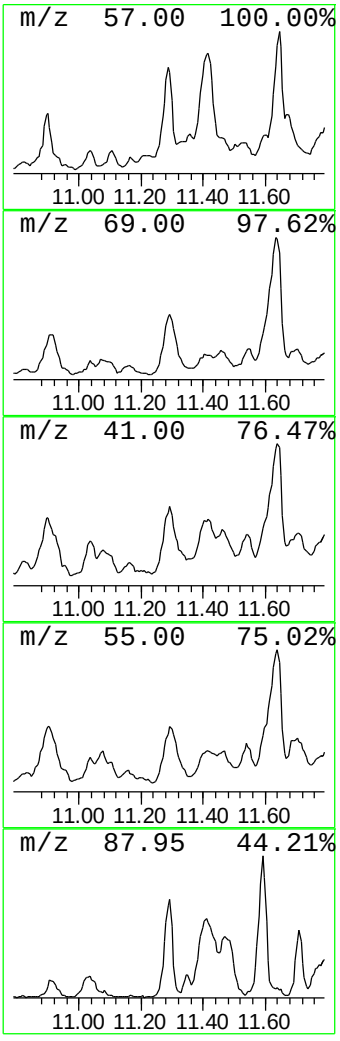
Peak Number 13 unknown11.29 Concentration Rank 14

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.29 | 39.55 ng | 1376290 | Naphthalene-d8 | 11.03 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 2-Pentenoic acid, 2-methyl- | 114 | C6H10O2 | 003142-72-1 | 38 |
| 2 | Cyclohexane, 1,2,4-trimethyl-, (... | 126 | C9H18 | 007667-60-9 | 35 |
| 3 | 1-Butanol, 3,3-dimethyl- | 102 | C6H14O | 000624-95-3 | 35 |
| 4 | 2-Propenoic acid, 2-methyl-, 1,1... | 142 | C8H14O2 | 000585-07-9 | 35 |
| 5 | Cyclopentane, 1,1,3,4-tetramethy... | 126 | C9H18 | 053907-60-1 | 30 |



Data Path : Z:\HPCHEM1\BNA G\DATA\BG041516\
Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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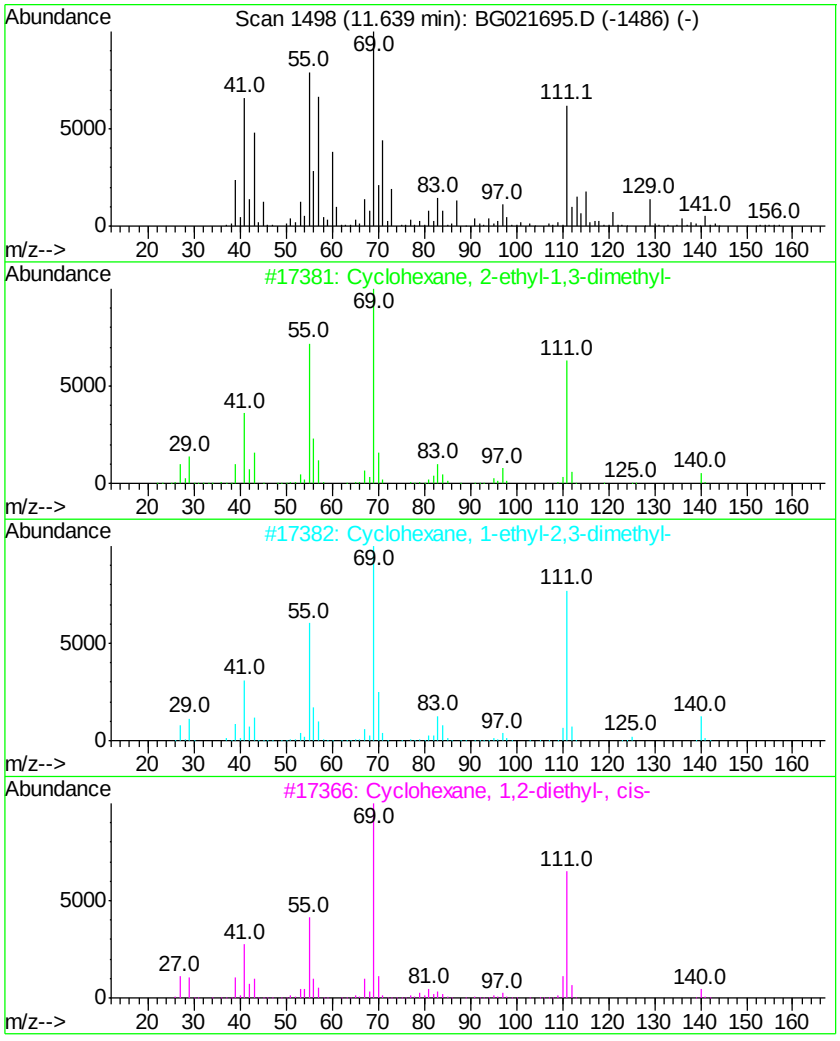
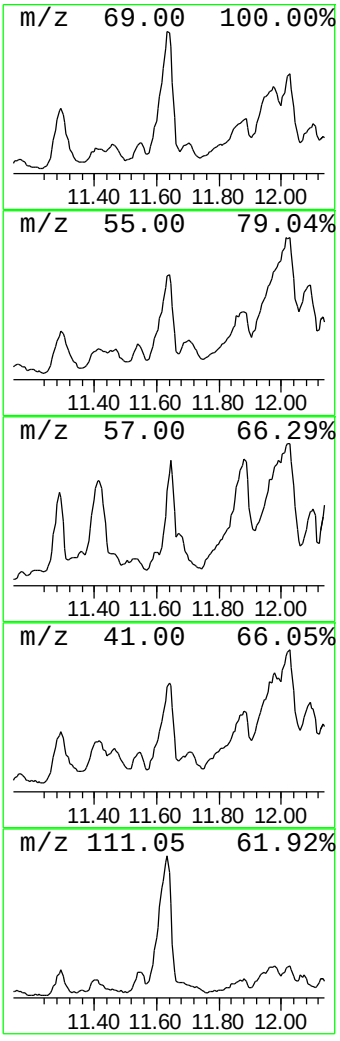
Peak Number 14 unknown11.64 Concentration Rank 7

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.64 | 53.12 ng | 1848580 | Naphthalene-d8 | 11.03 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Cyclohexane, 2-ethyl-1,3-dimethyl- | 140 | C10H20 | 007045-67-2 | 46 |
| 2 | Cyclohexane, 1-ethyl-2,3-dimethyl- | 140 | C10H20 | 007058-05-1 | 43 |
| 3 | Cyclohexane, 1,2-diethyl-, cis- | 140 | C10H20 | 000824-43-1 | 43 |
| 4 | 1-Hexene, 3,3-dimethyl- | 112 | C8H16 | 003404-77-1 | 38 |
| 5 | 2,3,4-Trimethyl-hex-3-enal | 140 | C9H16O | 1000193-72-9 | 38 |



Data Path : Z:\HPCHEM1\BNA G\DATA\BG041516\
Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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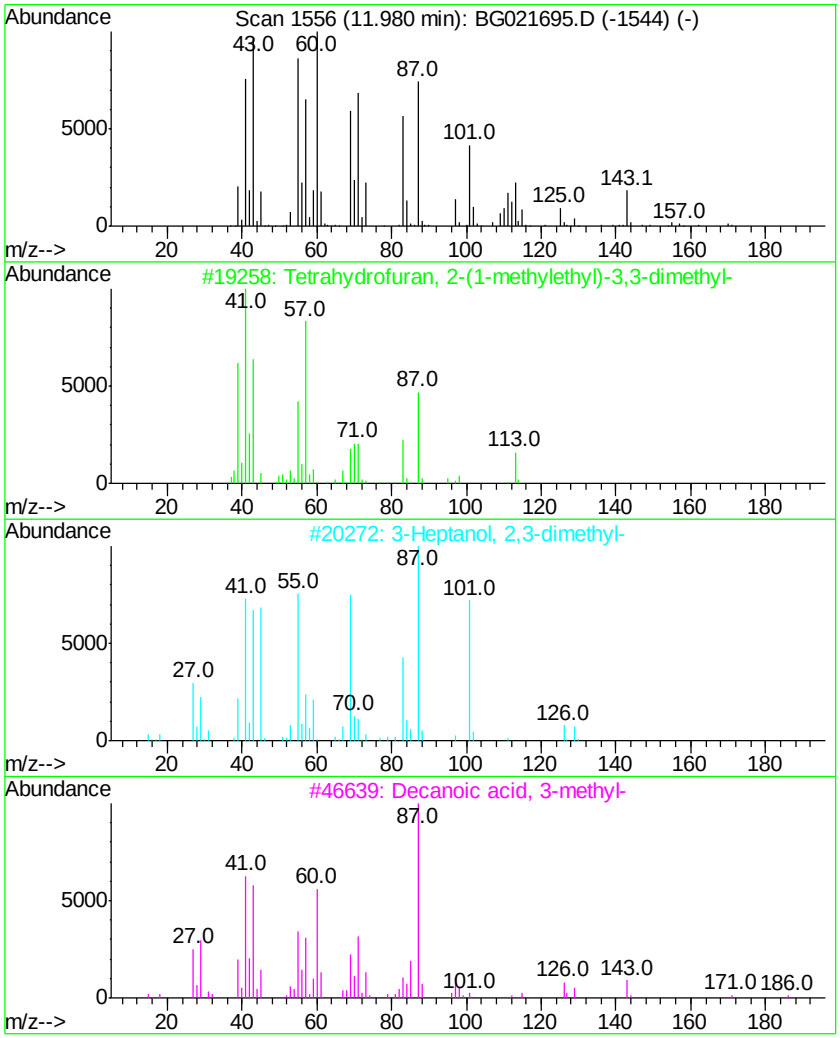
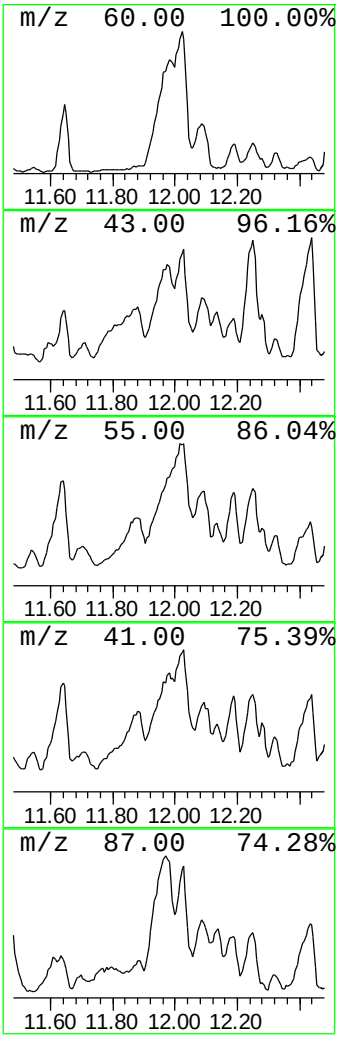
Peak Number 15 unknown11.98 Concentration Rank 10

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 11.98 | 45.72 ng | 1591010 | Naphthalene-d8 | 11.03 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Tetrahydrofuran, 2-(1-methylethy... | 142 | C9H18O | 1000292-98-8 | 27 |
| 2 | 3-Heptanol, 2,3-dimethyl- | 144 | C9H20O | 019549-71-4 | 27 |
| 3 | Decanoic acid, 3-methyl- | 186 | C11H22O2 | 060308-82-9 | 27 |
| 4 | Heptanoic acid | 130 | C7H14O2 | 000111-14-8 | 27 |
| 5 | Ether, butyl isopentyl | 144 | C9H20O | 017071-52-2 | 22 |



Data Path : Z:\HPCHEM1\BNA G\DATA\BG041516\
Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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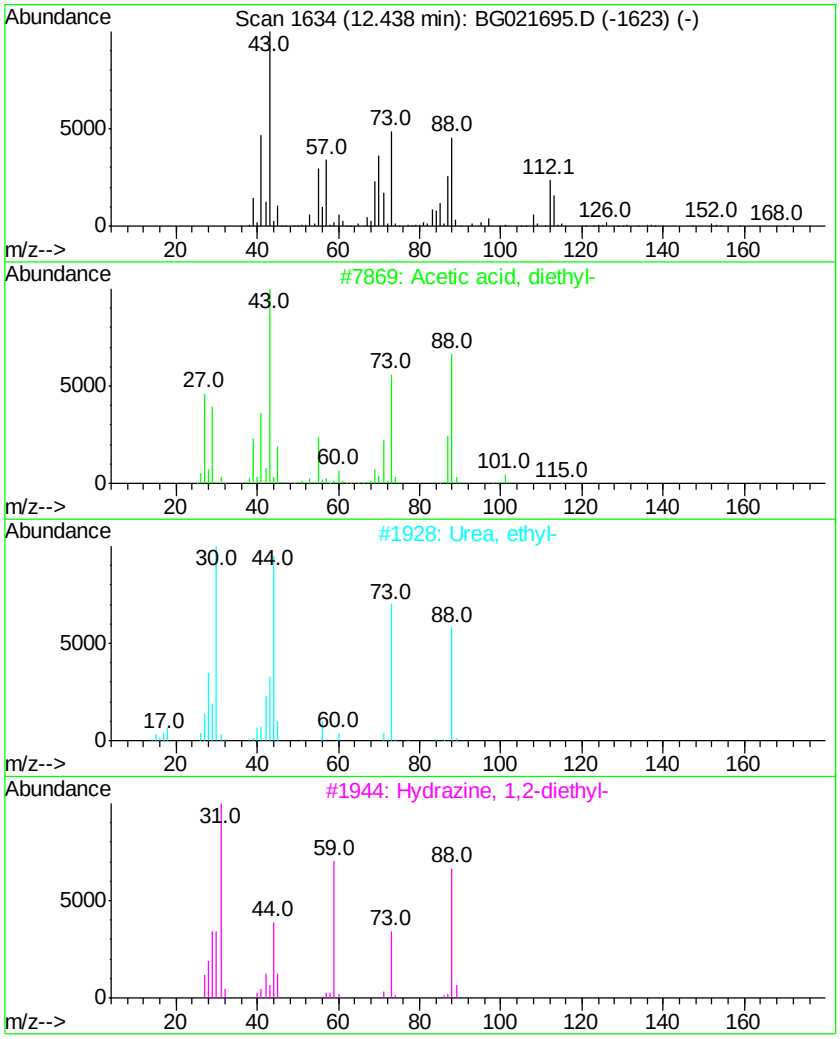
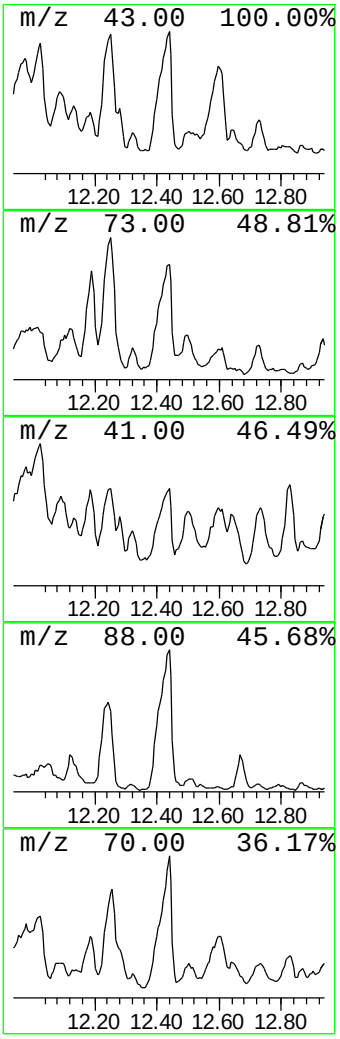
Peak Number 16 unknown12.44 Concentration Rank 13

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.44 | 39.72 ng | 1382260 | Naphthalene-d8 | 11.03 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Acetic acid, diethyl- | 116 | C6H12O2 | 000088-09-5 | 32 |
| 2 | Urea, ethyl- | 88 | C3H8N2O | 000625-52-5 | 22 |
| 3 | Hydrazine, 1,2-diethyl- | 88 | C4H12N2 | 001615-80-1 | 22 |
| 4 | Propane, 1-ethoxy- | 88 | C5H12O | 000628-32-0 | 14 |
| 5 | Pentane, 3-ethyl-2-methyl- | 114 | C8H18 | 000609-26-7 | 11 |



Data Path : Z:\HPCHEM1\BNA G\DATA\BG041516\
Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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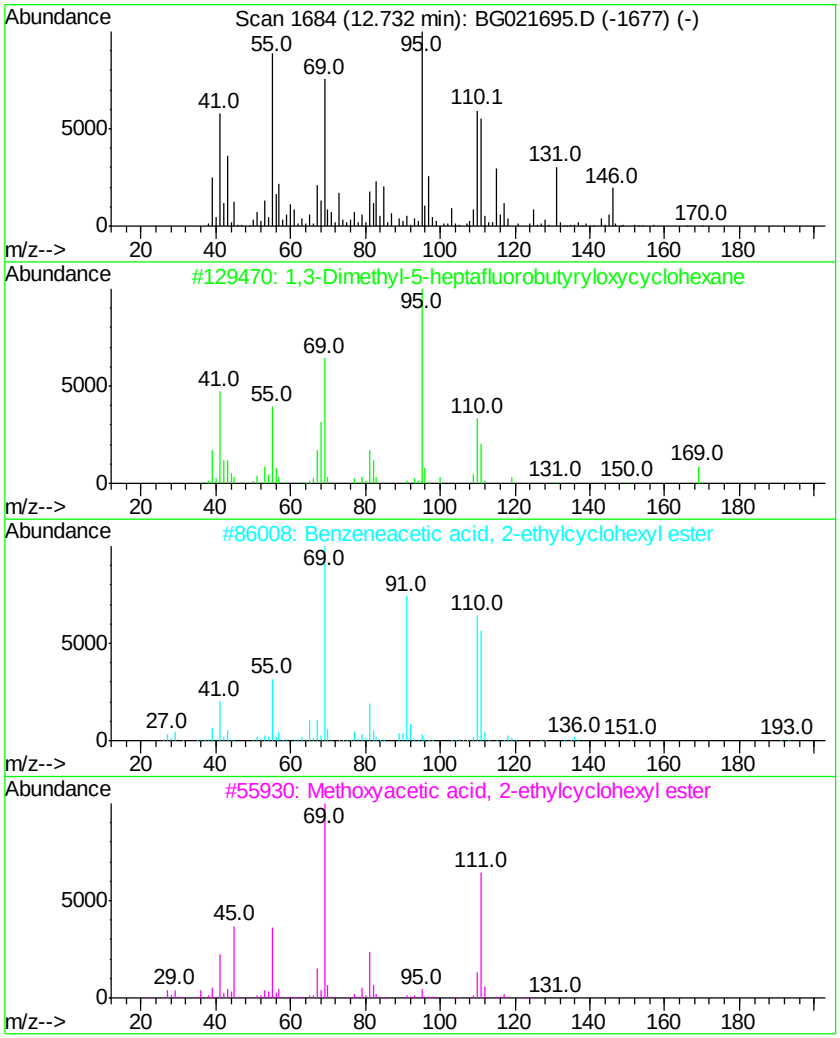
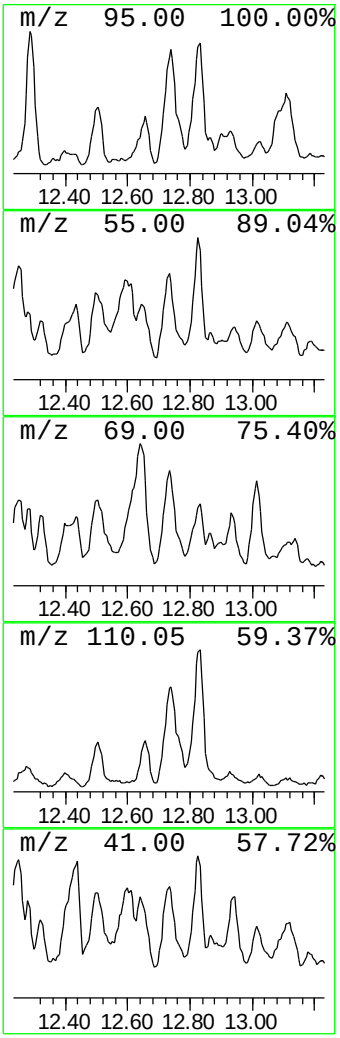
Peak Number 17 unknown12.73 Concentration Rank 11

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.73 | 43.05 ng | 1497960 | Naphthalene-d8 | 11.03 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1,3-Dimethyl-5-heptafluorobutyry... | 324 | C12H15F7O2 | 1000216-63-8 | 46 |
| 2 | Benzeneacetic acid, 2-ethylcyclo... | 246 | C16H22O2 | 1000282-63-9 | 35 |
| 3 | Methoxyacetic acid, 2-ethylcyclo... | 200 | C11H20O3 | 1000282-69-7 | 27 |
| 4 | Cyclopropane, 2-(1,1-dimethyl-2-... | 166 | C12H22 | 074663-76-6 | 27 |
| 5 | Cyclohexane, 1,1'-(1,2-dimethyl-... | 222 | C16H30 | 074663-71-1 | 27 |



Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA G\DATA\BG041516\
Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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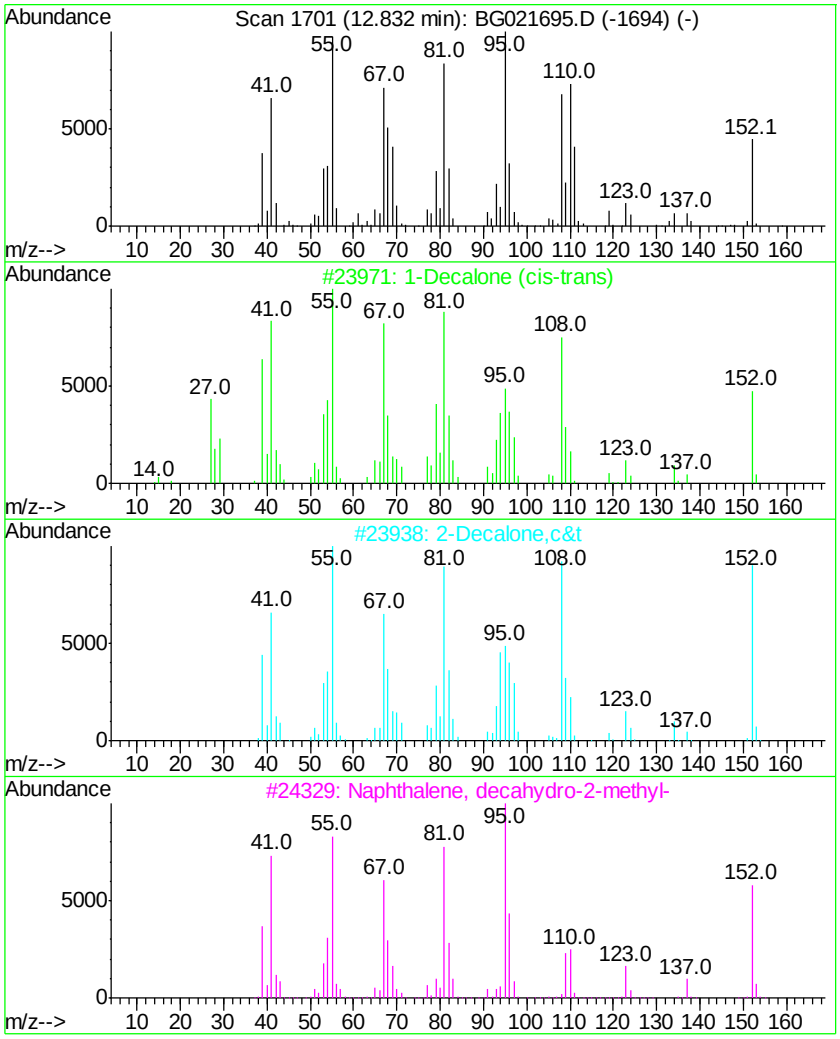
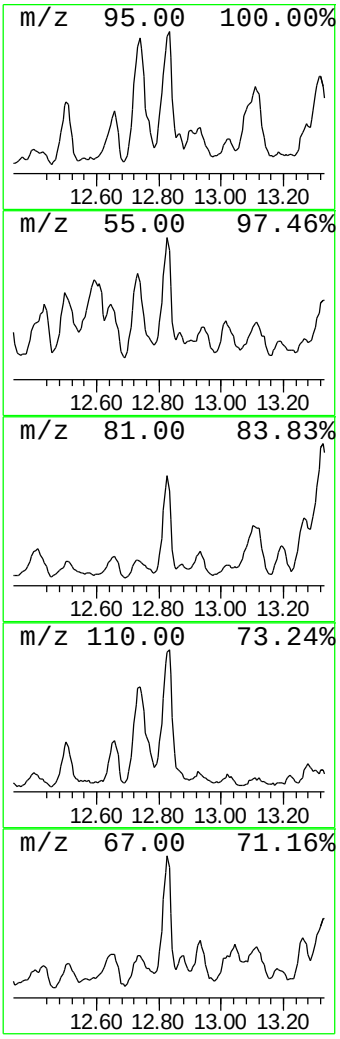
Peak Number 18 1-Decalone (cis-trans) Concentration Rank 18

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 12.83 | 33.84 ng | 1177450 | Naphthalene-d8 | 11.03 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1-Decalone (cis-trans) | 152 | C10H16O | 004832-16-0 | 90 |
| 2 | 2-Decalone,c&t | 152 | C10H16O | 004832-17-1 | 83 |
| 3 | Naphthalene, decahydro-2-methyl- | 152 | C11H20 | 002958-76-1 | 70 |
| 4 | cis-Decalin, 2-syn-methyl- | 152 | C11H20 | 1000155-85-6 | 70 |
| 5 | 2(1H)-Naphthalenone, octahydro-,... | 152 | C10H16O | 016021-08-2 | 70 |



Data Path : Z:\HPCHEM1\BNA G\DATA\BG041516\
Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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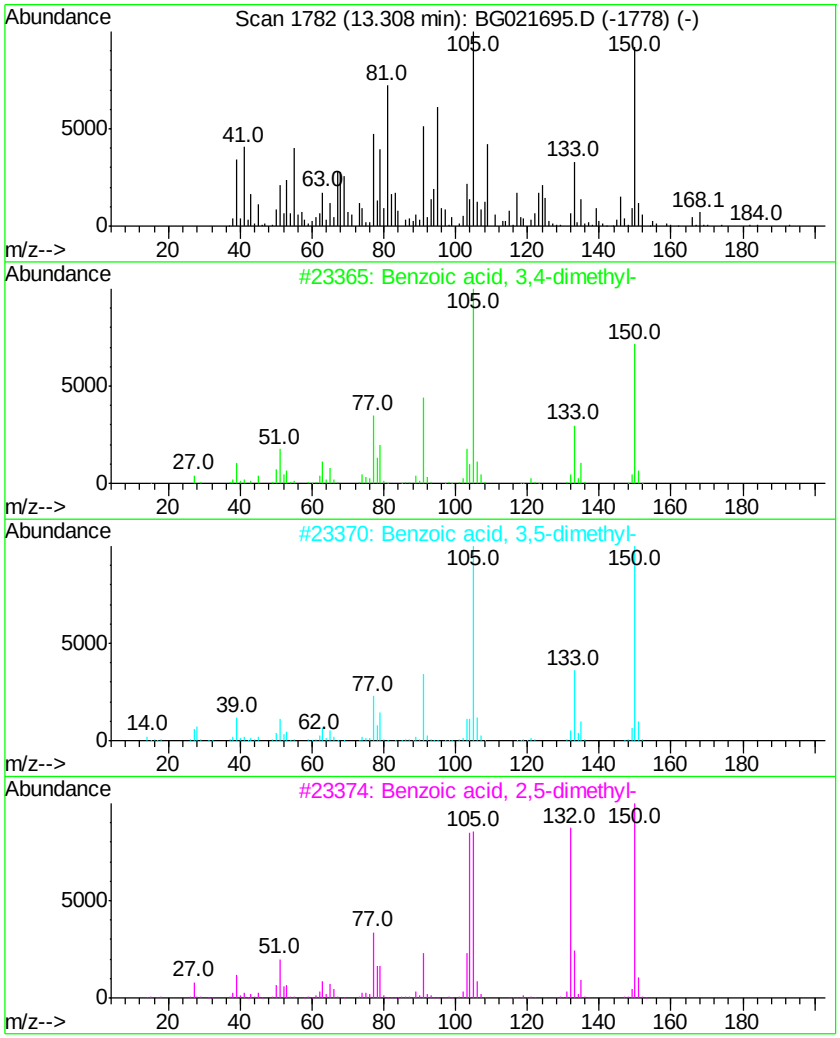
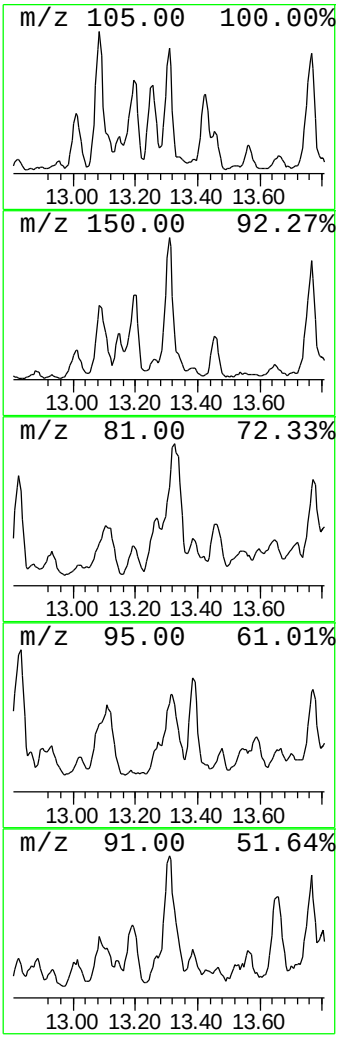
Peak Number 19 Benzoic acid, 3,4-dimethyl- Concentration Rank 20

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 13.31 | 32.34 ng | 1823760 | Acenaphthene-d10 | 14.82 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzoic acid, 3,4-dimethyl- | 150 | C9H10O2 | 000619-04-5 | 90 |
| 2 | Benzoic acid, 3,5-dimethyl- | 150 | C9H10O2 | 000499-06-9 | 59 |
| 3 | Benzoic acid, 2,5-dimethyl- | 150 | C9H10O2 | 000610-72-0 | 44 |
| 4 | Ethanone, 1-(1-cyclohexen-1-yl)- | 124 | C8H12O | 000932-66-1 | 41 |
| 5 | Cyclopentanone, 2-cyclopentylidene- | 150 | C10H14O | 000825-25-2 | 38 |



# Library Search Compound Report

Data Path : Z:\HPCHEM1\BNA G\DATA\BG041516\
Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

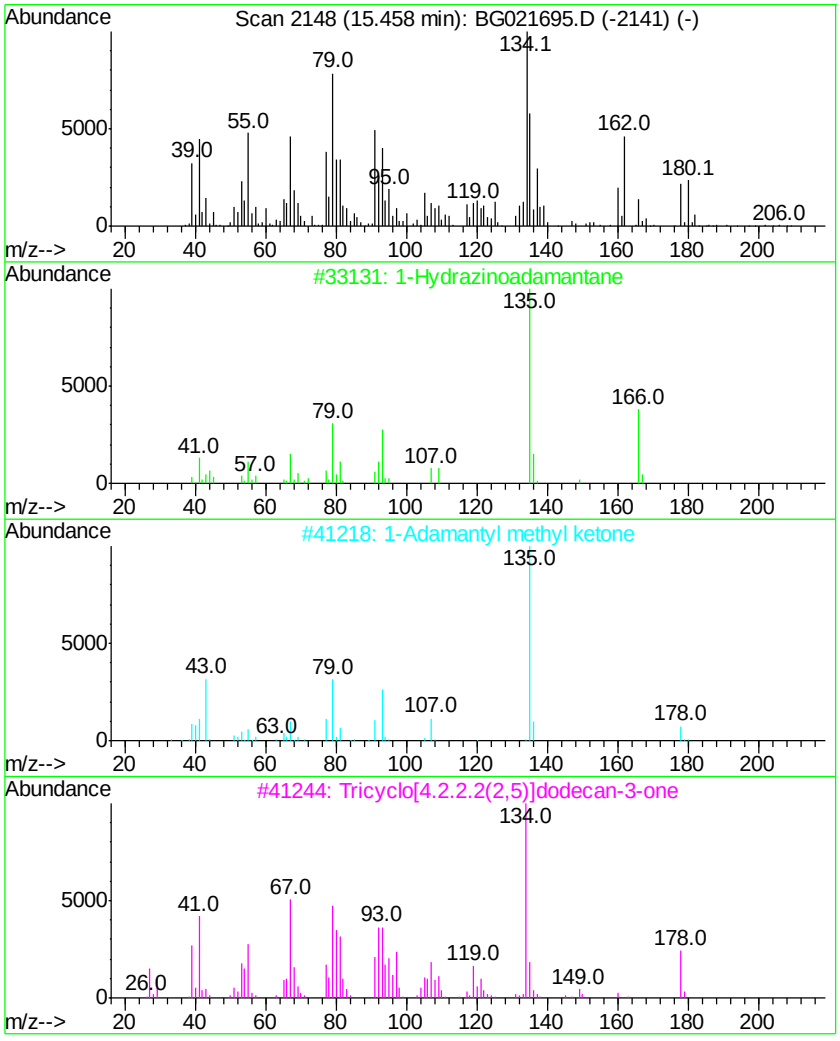
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

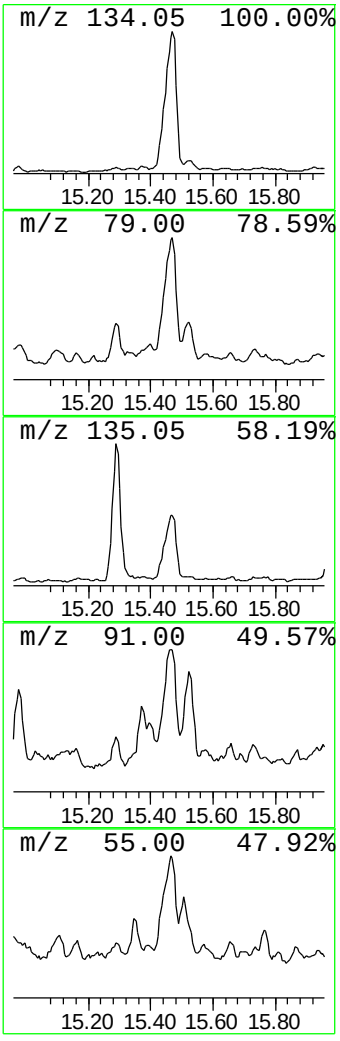
**********

Peak Number 20 unknown15.46 Concentration Rank 12

| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 15.46 | 41.06 ng | 2315690 | Acenaphthene-d10 | 14.82 |

| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | 1-Hydrazinoadamantane | 166 | C10H18N2 | 016782-38-0 | 45 |
| 2 | 1-Adamantyl methyl ketone | 178 | C12H18O | 001660-04-4 | 42 |
| 3 | Tricyclo[4.2.2.2(2,5)]dodecan-3-one | 178 | C12H18O | 068177-17-3 | 38 |
| 4 | 3-Oxabicyclo[5.3.0]decan-2-one, ... | 166 | C10H14O2 | 1000155-88-8 | 38 |
| 5 | 6-Butyl-1,4-cycloheptadiene | 150 | C11H18 | 022735-58-6 | 25 |



Tentatively Identified Compound (LSC) summary

Data Path : Z:\HPCHEM1\BNA_G\DATA\BG041516\
Data File : BG021695.D
Acq On : 15 Apr 2016 21:16
Operator : UM/SJ
Sample : H2549-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

**Instrument :** BNA_G
**ClientSampleId :** S8-0575

Quant Method : Z:\HPCHEM1\BNA_G\METHODS\8270-BG041316.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

| | | | | | Internal Standard | | | |
|---|---|---|---|---|---|---|---|---|
| TIC Top Hit name | RT | EstConc | Units | Response | # | RT | Resp | Conc |
| Hexanoic acid, 2-... | 6.42 | 36.0 | ng | 309990 | 1 | 8.21 | 172408 | 20.0 |
| unknown7.61 | 7.61 | 32.9 | ng | 283304 | 1 | 8.21 | 172408 | 20.0 |
| unknown7.69 | 7.69 | 34.7 | ng | 299301 | 1 | 8.21 | 172408 | 20.0 |
| unknown9.15 | 9.15 | 412.1 | ng | 3552570 | 1 | 8.21 | 172408 | 20.0 |
| unknown9.58 | 9.58 | 142.2 | ng | 1226140 | 1 | 8.21 | 172408 | 20.0 |
| unknown9.75 | 9.75 | 81.5 | ng | 2835570 | 2 | 11.03 | 695974 | 20.0 |
| unknown9.87 | 9.87 | 51.4 | ng | 1788010 | 2 | 11.03 | 695974 | 20.0 |
| unknown10.03 | 10.03 | 58.1 | ng | 2022820 | 2 | 11.03 | 695974 | 20.0 |
| 5-Undecene, (E)- | 10.90 | 36.2 | ng | 1259720 | 2 | 11.03 | 695974 | 20.0 |
| unknown11.29 | 11.29 | 39.5 | ng | 1376290 | 2 | 11.03 | 695974 | 20.0 |
| unknown11.64 | 11.64 | 53.1 | ng | 1848580 | 2 | 11.03 | 695974 | 20.0 |
| unknown11.98 | 11.98 | 45.7 | ng | 1591010 | 2 | 11.03 | 695974 | 20.0 |
| unknown12.44 | 12.44 | 39.7 | ng | 1382260 | 2 | 11.03 | 695974 | 20.0 |
| unknown12.73 | 12.73 | 43.0 | ng | 1497960 | 2 | 11.03 | 695974 | 20.0 |
| 1-Decalone (cis-t... | 12.83 | 33.8 | ng | 1177450 | 2 | 11.03 | 695974 | 20.0 |
| Benzoic acid, 3,4... | 13.31 | 32.3 | ng | 1823760 | 3 | 14.82 | 1127870 | 20.0 |
| unknown15.46 | 15.46 | 41.1 | ng | 2315690 | 3 | 14.82 | 1127870 | 20.0 |