Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00469.d  Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 20:15  Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  Sublist used: all
Calibration date and time: 23-SEP-2015 09:08
Date, time and analyst ID of latest file update: 23-Sep-2015 09:08 jbs01304

Sample Name: VSTD070  Lab Sample ID: VSTD070

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 76) o-Xylene | (3) | 17.269 | 91 | 22094200 | 79.324 |
| 78) Styrene | (3) | 17.312 | 104 | 18375570 | 82.486 |
| 79) Bromoform | (3) | 17.659 | 173 | 13734737 | 78.067 |
| 80) Cumene | (3) | 18.279 | 105 | 22785954 | 73.330 |
| 81) Bromobenzene | (3) | 18.900 | 156 | 10556849 | 88.931 |
| 82) 1,1,2,2-Tetrachloroethane | (3) | 19.076 | 83 | 19266087 | 63.914 |
| 83) 1,2,3-Trichloropropane | (3) | 19.113 | 110 | 5815611 | 76.071 |
| 84) n-Propylbenzene | (3) | 19.374 | 120 | 9693696 | 107.172 |
| 85) 2-Chlorotoluene | (3) | 19.490 | 126 | 9082782 | 93.220 |
| 86) 4-Ethyltoluene | (3) | 19.697 | 105 | 22445198 | 66.625 |
| 87) 1,3,5-Trimethylbenzene | (3) | 19.897 | 105 | 20631029 | 73.573 |
| 88) Alpha Methyl Styrene | (3) | 20.475 | 118 | 13516440 | 98.114 |
| 89) tert-Butylbenzene | (3) | 20.737 | 119 | 20388817 | 80.833 |
| 90) 1,2,4-Trimethylbenzene | (3) | 20.877 | 105 | 20995913 | 68.958 |
| 91) sec-Butylbenzene | (3) | 21.382 | 105 | 26225619 | 65.257 |
| 92) 1,3-Dichlorobenzene | (3) | 21.546 | 146 | 17481889 | 77.088 |
| 93) 1,4-Dichlorobenzene | (3) | 21.832 | 146 | 18313270 | 79.470 |
| 94) p-Isopropyltoluene | (3) | 21.887 | 119 | 24651420 | 74.907 |
| 95) Benzyl Chloride | (3) | 22.331 | 91 | 20672584 | 59.840 |
| 96) 1,2-Dichlorobenzene | (3) | 22.994 | 146 | 15782992 | 75.237 |
| 97) n-Butylbenzene | (3) | 23.201 | 91 | 21563743 | 59.689 |
| 98) Hexachloroethane | (3) | 23.651 | 117 | 13629225 | 87.502 |
| 99) 1,2-Dibromo-3-chloropropane | (3) | 24.722 | 157 | 7585781 | 76.023 |
| 100) 1,2,4-Trichlorobenzene | (3) | 26.005 | 180 | 5476181 | 51.545 |
| 101) Hexachlorobutadiene | (3) | 26.291 | 225 | 6082819 | 58.705 |
| 102) Naphthalene | (3) | 26.303 | 128 | 10632153 | 35.290 |



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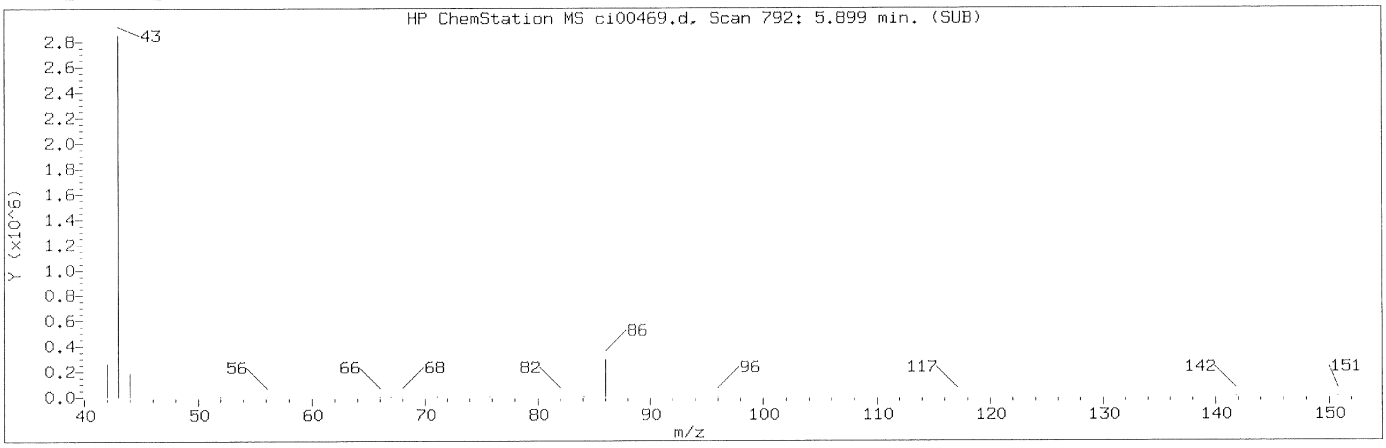
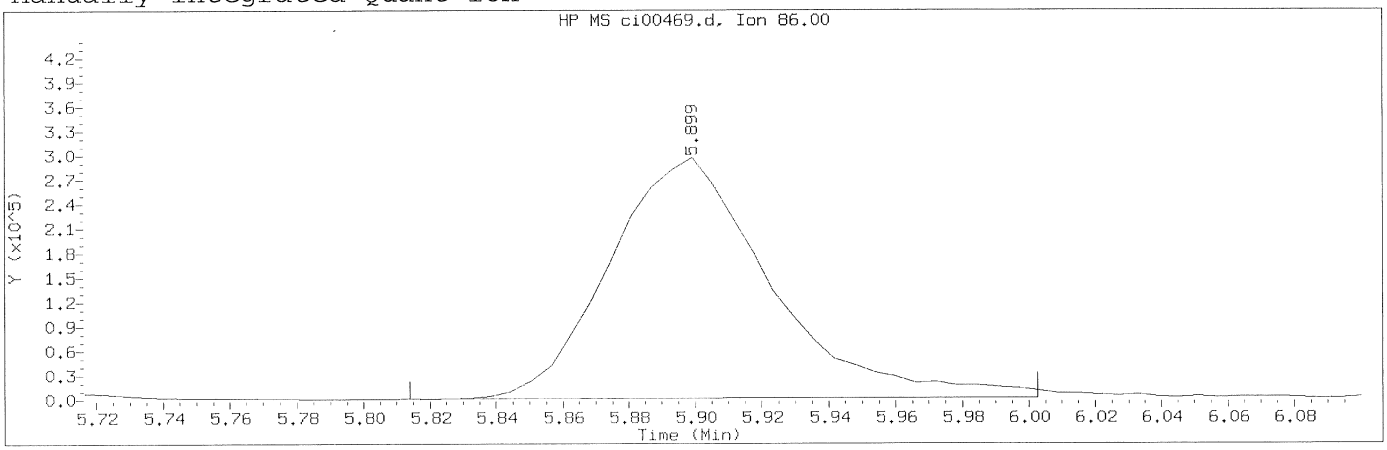
on 09/23/2015 at 09:32.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00469.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 20:15 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 09:08
Date, time and analyst ID of latest file update: 23-Sep-2015 09:08 jbs01304

Sample Name: VSTD070 Lab Sample ID: VSTD070

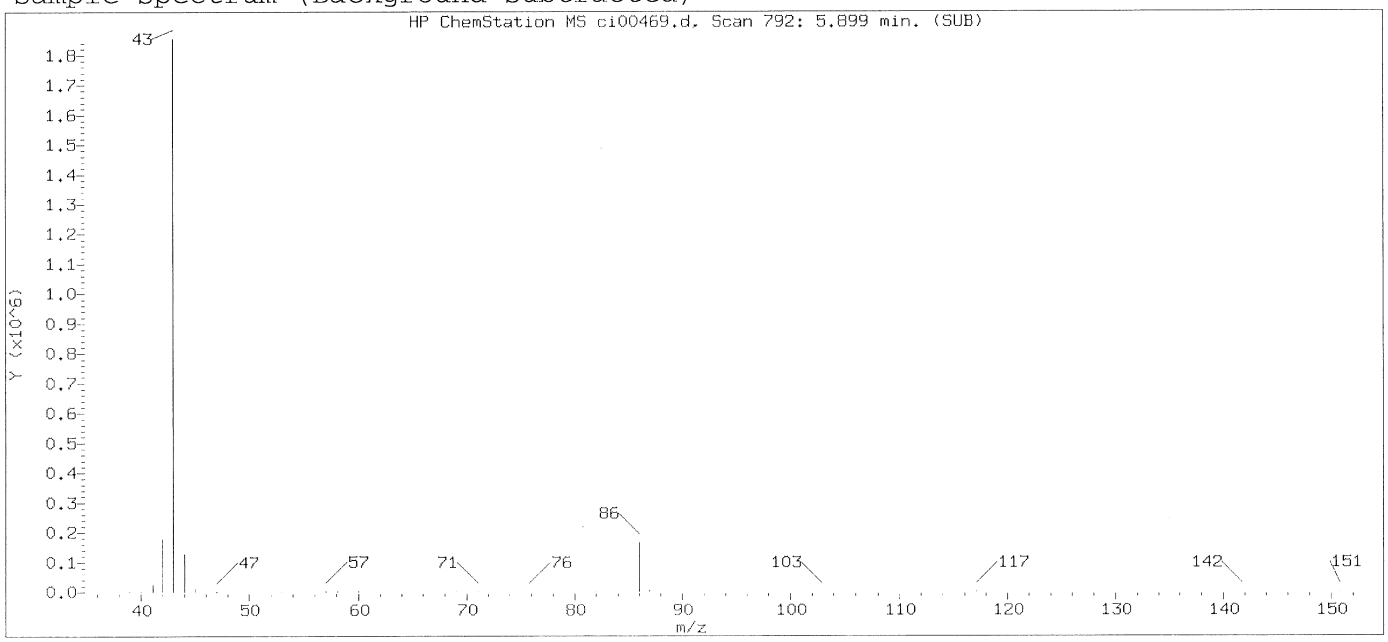
Compound Number : 32
Compound Name : Vinyl Acetate
Scan Number : 792
Retention Time (minutes): 5.899
Quant Ion : 86.00
Area (flag) : 993622M
Concentration (ppb(v)) : 72.7754
Integration start scan : 777 Integration stop scan: 808
Y at integration start : 1777 Y at integration end: 1939

Reason for manual integration: improper integration

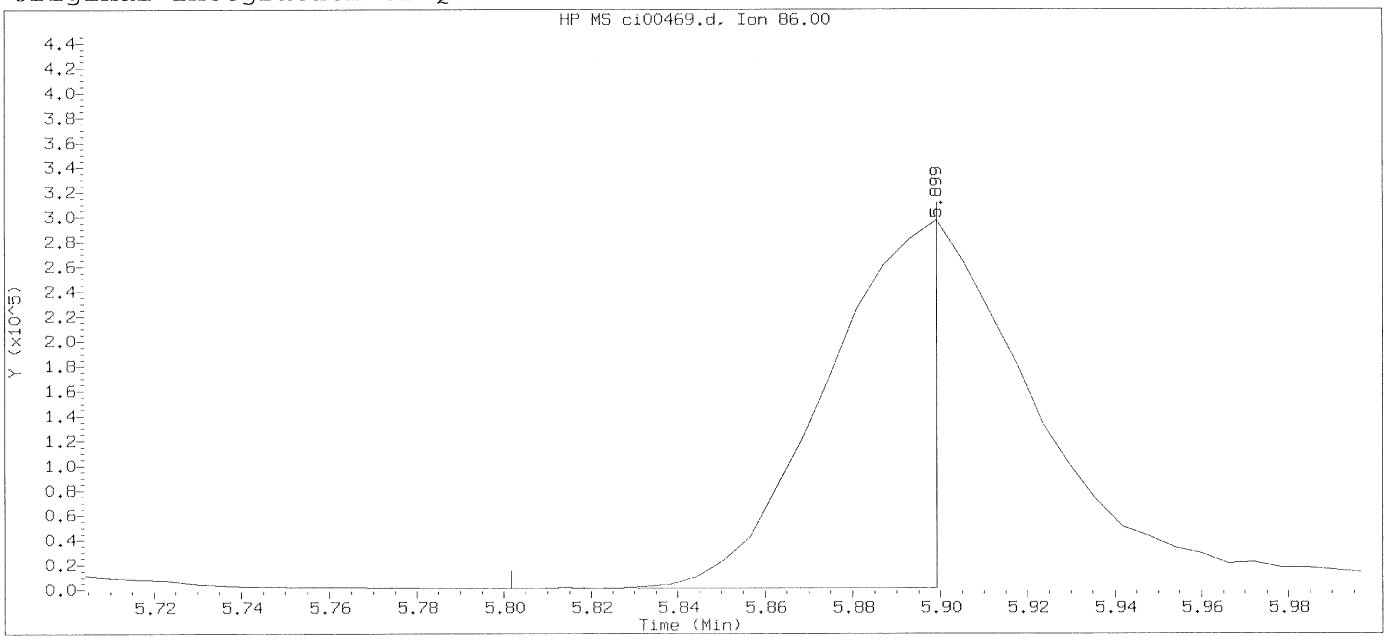
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 09/23/2015 at 09:32.
Target 3.5 esignature user ID: jbs01304

GC/MS audit/management approval: Mark A. Ratcliff
Senior Specialist
SEP 25 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00469.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 20:15 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 22-SEP-2015 20:17
Date, time and analyst ID of latest file update: 22-Sep-2015 20:54 Automation

Sample Name: VSTD070 Lab Sample ID: VSTD070

| | | | |
|---|---|---|---|
| Compound Number | : 32 | | |
| Compound Name | : Vinyl Acetate | | |
| Scan Number | : 792 | | |
| Retention Time (minutes) | : 5.899 | | |
| Quant Ion | : 86.00 | | |
| Area | : 499125 | | |
| Concentration (ppb(v)) | : 39.4612 | | |
| Integration start scan | : 775 | Integration stop scan: | 791 |
| Y at integration start | : 825 | Y at integration end: | 825 |

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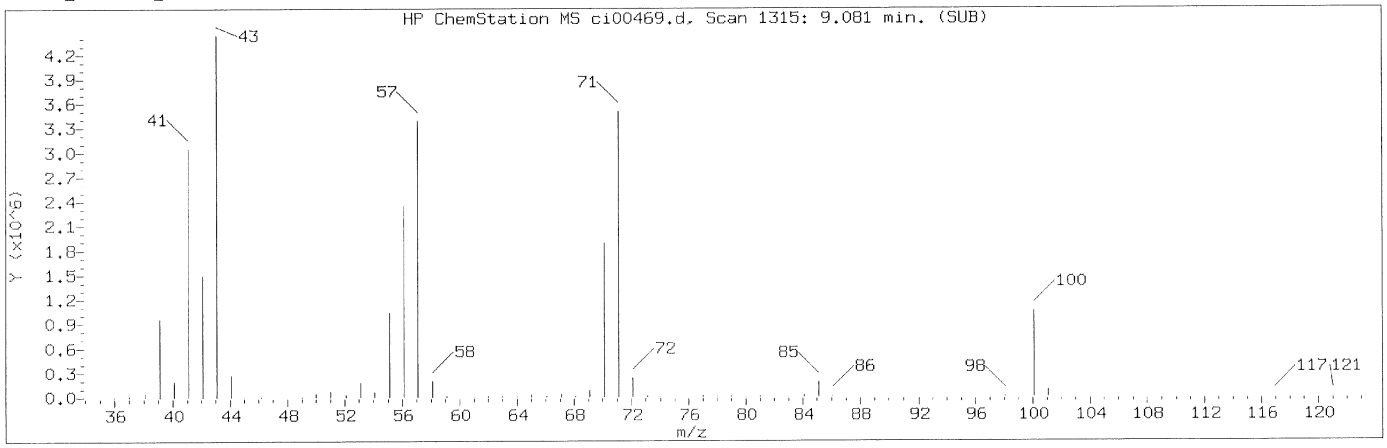
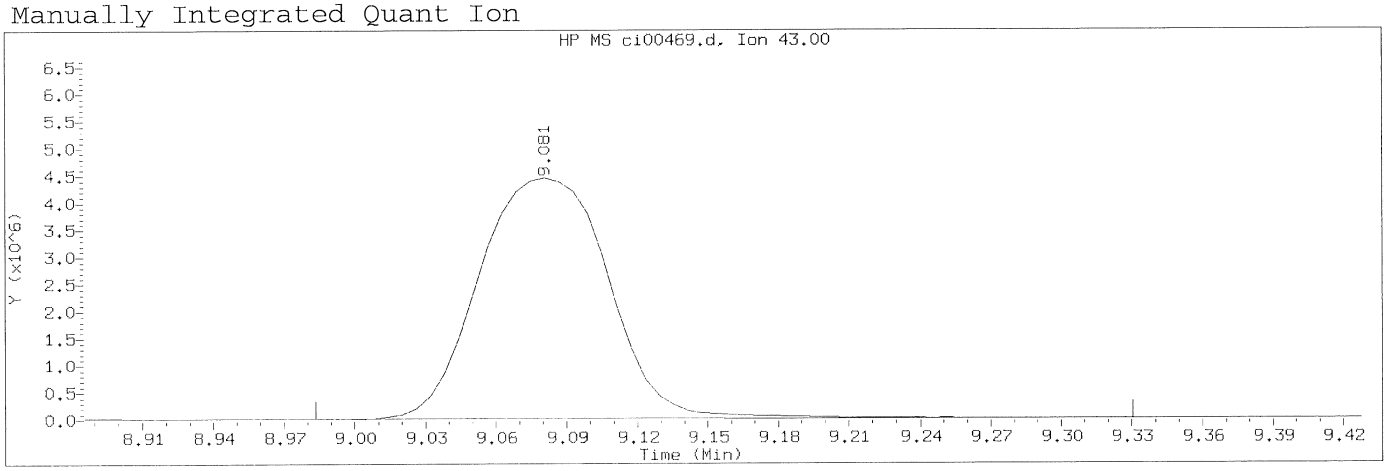
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00469.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 20:15 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 09:08
Date, time and analyst ID of latest file update: 23-Sep-2015 09:08 jbs01304

Sample Name: VSTD070 Lab Sample ID: VSTD070

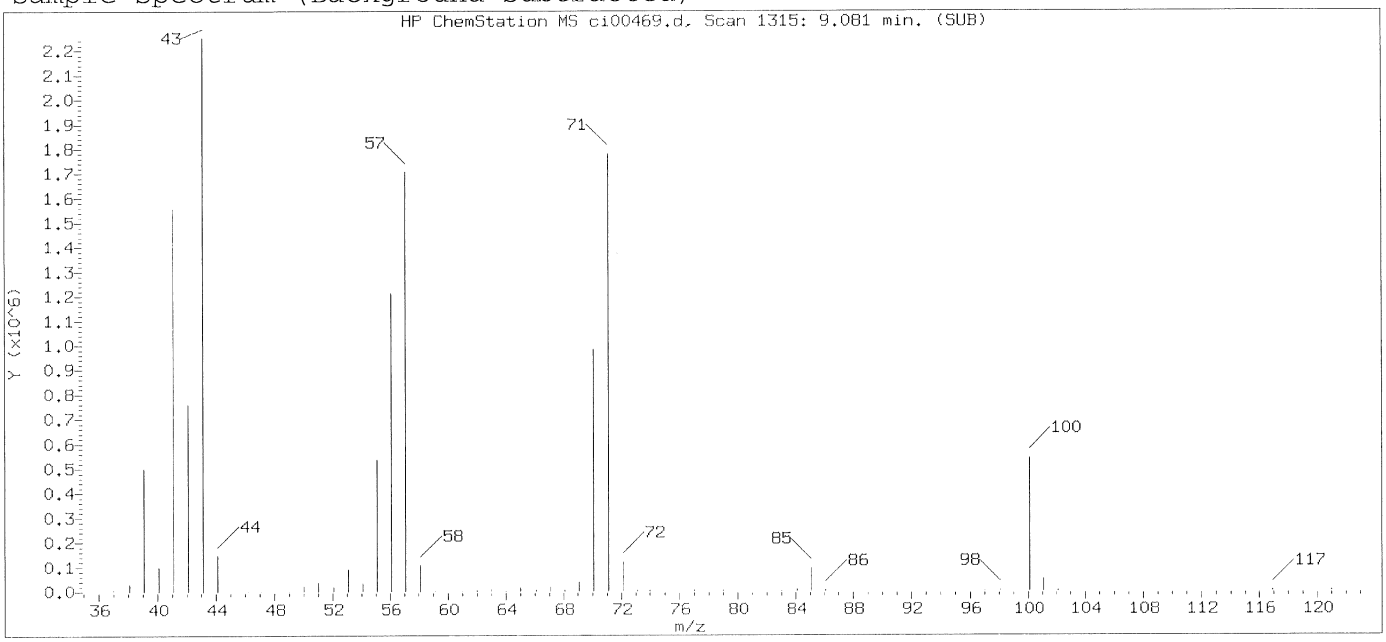
Compound Number : 50
Compound Name : Heptane
Scan Number : 1315
Retention Time (minutes): 9.081
Quant Ion : 43.00
Area (flag) : 16961203M
Concentration (ppb(v)) : 61.3252
Integration start scan : 1298 Integration stop scan: 1355
Y at integration start : 16448 Y at integration end: 14359

Reason for manual integration: improper integration

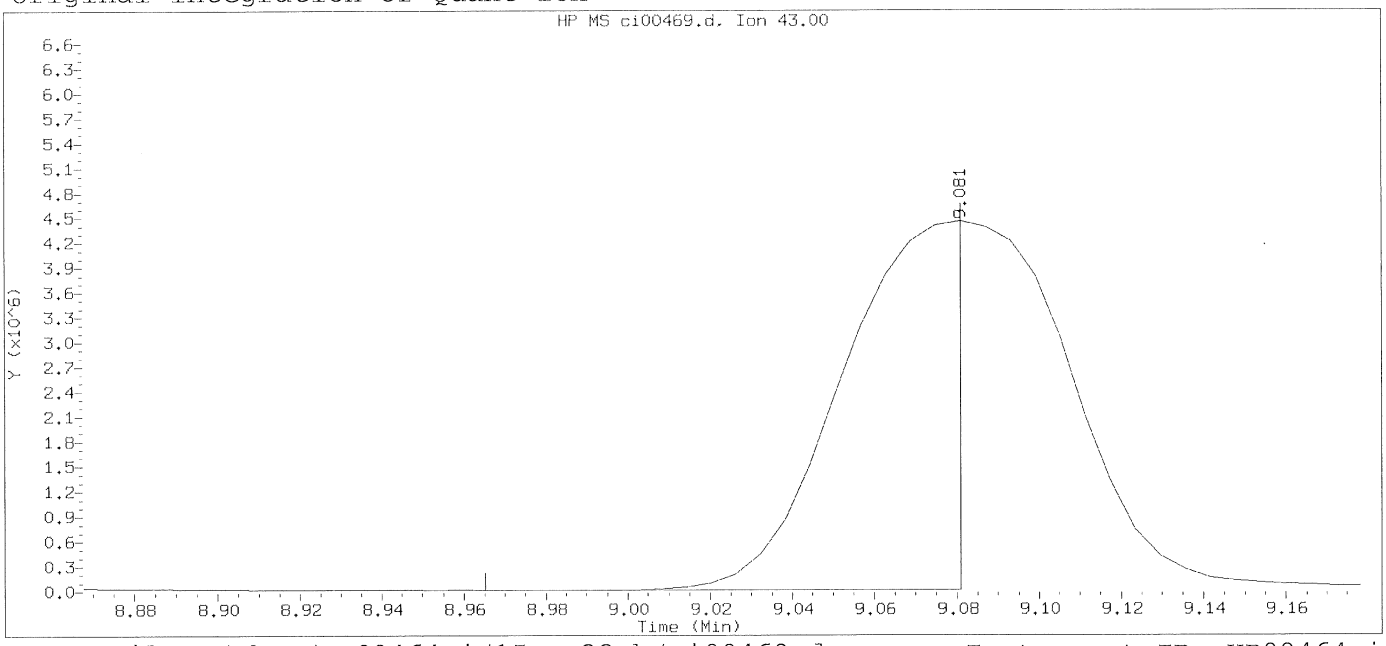
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 09/23/2015 at 09:32. Target 3.5 esignature user ID: jbs01304

GC/MS audit/management approval: Mark A. Ratcliff Senior Specialist SEP 25 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00469.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 20:15 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 22-SEP-2015 20:17
Date, time and analyst ID of latest file update: 22-Sep-2015 20:54 Automation

Sample Name: VSTD070 Lab Sample ID: VSTD070

| | |
|---|---|
| Compound Number | : 50 |
| Compound Name | : Heptane |
| Scan Number | : 1315 |
| Retention Time (minutes) | : 9.081 |
| Quant Ion | : 43.00 |
| Area | : 8466792 |
| Concentration (ppb(v)) | : 29.6310 |
| Integration start scan | : 1295 |
| Integration stop scan | : 1314 |
| Y at integration start | : 16106 |
| Y at integration end | : 16106 |

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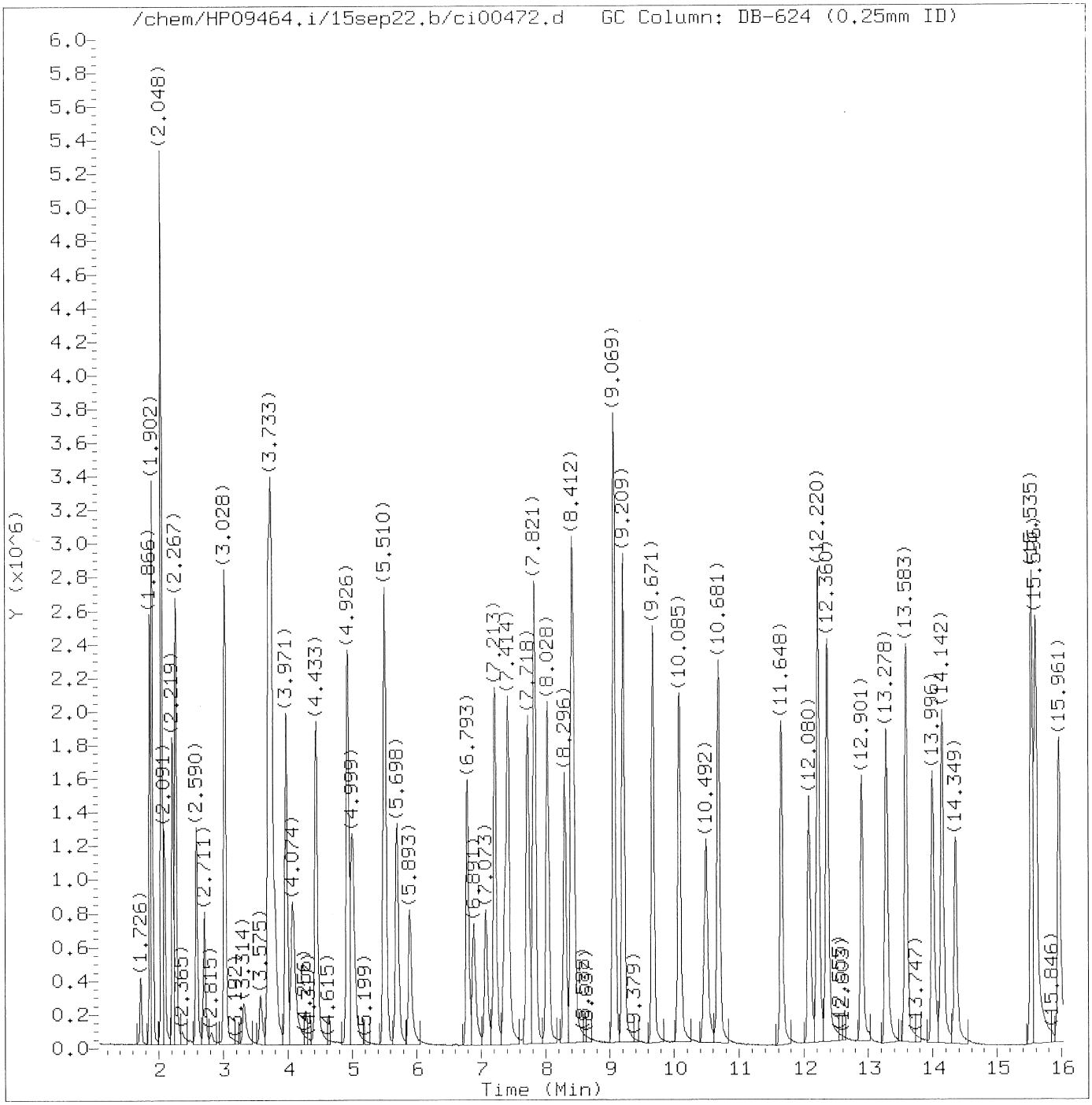
Target 3.5 esignature user ID: jbs01304




Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00472.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 22:35 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 09:11
Date, time and analyst ID of latest file update: 23-Sep-2015 09:19 jbs01304

Sample Name: LCSC75 Lab Sample ID: LCSC75

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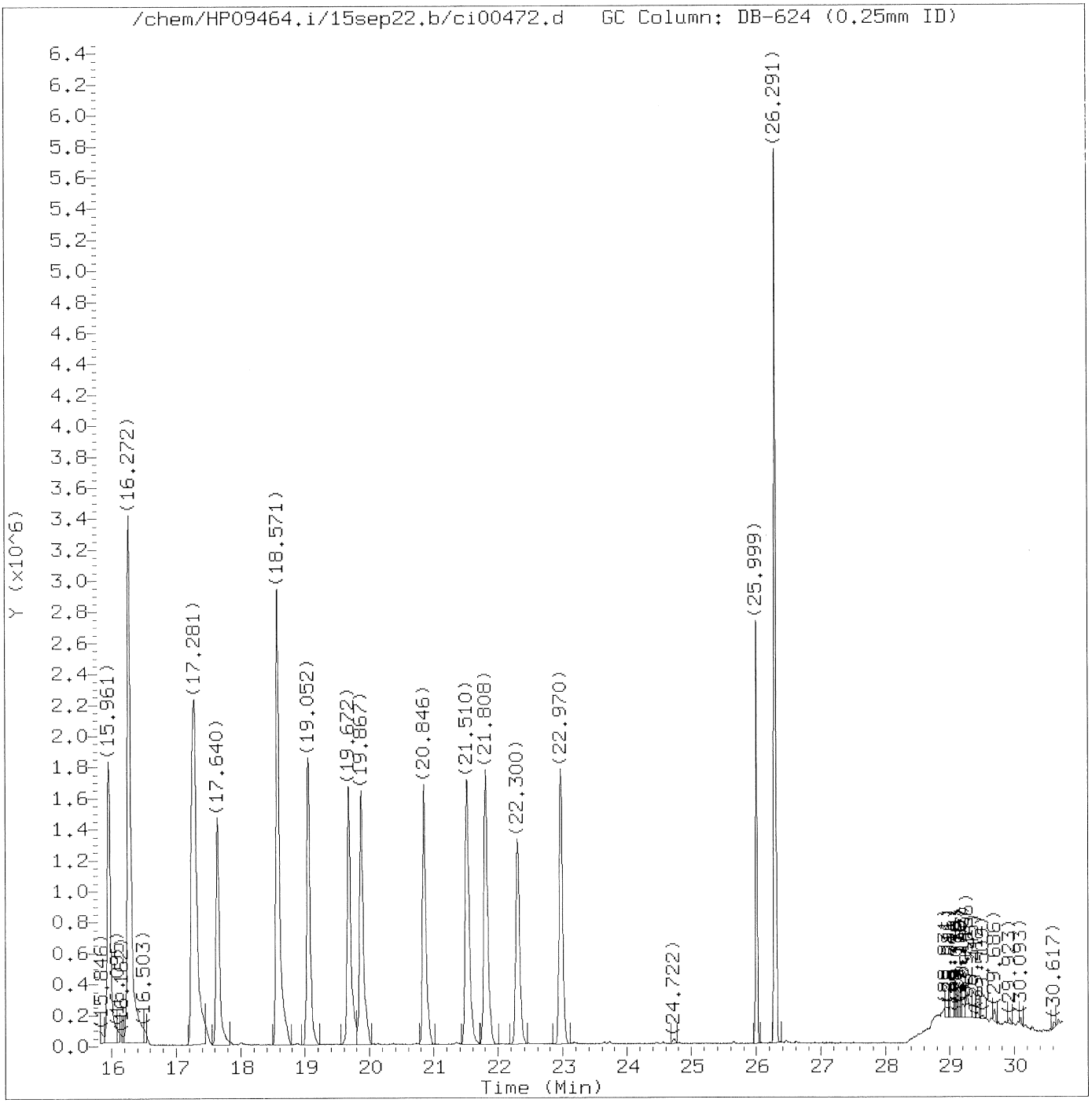
on 09/23/2015 at 09:32.
Target 3.5 esignature user ID: jbs01304




Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00472.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 22:35 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 09:11
Date, time and analyst ID of latest file update: 23-Sep-2015 09:19 jbs01304

Sample Name: LCSC75 Lab Sample ID: LCSC75

Digitally signed by Jeffrey B. Smith
on 09/23/2015 at 09:32.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00472.d  Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 22:35  Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  Sublist used: all
Calibration date and time: 23-SEP-2015 09:11
Date, time and analyst ID of latest file update: 23-Sep-2015 09:19 jbs01304

Sample Name: LCSC75  Lab Sample ID: LCSC75

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 1) Propene | (1) | 1.866 | 41 | 1422538 | 10.943 |
| 2) Dichlorodifluoromethane | (1) | 1.902 | 85 | 3028728 | 9.144 |
| 4) Freon 114 | (1) | 2.048 | 85 | 2814207 | 9.471 |
| 5) Chloromethane | (1) | 2.097 | 52 | 500186 | 8.371 |
| 6) Vinyl Chloride | (1) | 2.219 | 62 | 1545680 | 10.267 |
| 7) 1,3-Butadiene | (1) | 2.267 | 54 | 1287142 | 10.152 |
| 8) Bromomethane | (1) | 2.590 | 94 | 1028560 | 8.639 |
| 9) Chloroethane | (1) | 2.711 | 64 | 839686 | 8.796 |
| 12) Trichlorofluoromethane | (1) | 3.028 | 101 | 2974739 | 8.620 |
| 14) Ethanol | (1) | 3.314 | 45 | 610107M | 7.731 |
| 16) Acrolein | (1) | 3.575 | 56 | 434439 | 10.568 |
| 17) 1,1-Dichloroethene | (1) | 3.697 | 61 | 2674661 | 10.164 |
| 18) Freon 113 | (1) | 3.739 | 103 | 1439957 | 8.728 |
| 19) Acetone | (1) | 3.800 | 43 | 1541883 | 9.755 |
| 21) Carbon Disulfide | (1) | 3.971 | 76 | 3911182 | 9.235 |
| 22) Isopropanol | (1) | 4.074 | 45 | 2377125M | 10.228 |
| 25) Methylene Chloride | (1) | 4.433 | 84 | 1200558 | 10.219 |
| 28) trans-1,2-Dichloroethene | (1) | 4.926 | 61 | 2728940 | 9.181 |
| 29) Methyl t-Butyl Ether | (1) | 5.011 | 73 | 2161717 | 9.922 |
| 30) Hexane | (1) | 5.510 | 57 | 2092884 | 11.102 |
| 31) 1,1-Dichloroethane | (1) | 5.698 | 63 | 2386054 | 9.820 |
| 32) Vinyl Acetate | (1) | 5.899 | 86 | 133128 | 11.761 |
| 36) 1,2-Dichloroethene (total) | (1) | | 61 | 4518797 | 19.264 |
| 35) cis-1,2-Dichloroethene | (1) | 6.787 | 61 | 1789857 | 10.083 |
| 37) 2-Butanone | (1) | 6.891 | 72 | 317281 | 10.692 |
| 38) Ethyl Acetate | (1) | 7.079 | 70 | 141215 | 8.272 |
| 40)*Bromochloromethane | (1) | 7.219 | 130 | 771766 | 10.000 |
| 41) Tetrahydrofuran | (1) | 7.365 | 42 | 1089390 | 10.505 |
| 42) Chloroform | (1) | 7.414 | 83 | 2293550 | 9.527 |
| 43) 1,1,1-Trichloroethane | (1) | 7.718 | 97 | 2006828 | 9.460 |
| 44) Cyclohexane | (1) | 7.821 | 56 | 2202566 | 10.495 |
| 45) Carbon Tetrachloride | (1) | 8.034 | 117 | 1983380 | 9.354 |
| 46) Benzene | (2) | 8.406 | 78 | 3184815 | 9.905 |
| 47) 1,2-Dichloroethane | (2) | 8.442 | 62 | 1967271 | 9.469 |
| 50) Heptane | (2) | 9.069 | 43 | 2872153 | 11.091 |
| 51)*1,4-Difluorobenzene | (2) | 9.209 | 114 | 2890563 | 10.000 |
| 52) Trichloroethene | (2) | 9.671 | 130 | 1037251 | 8.637 |
| 54) 1,2-Dichloropropane | (2) | 10.085 | 63 | 1341840 | 9.766 |

M = Compound was manually integrated.
* = Compound is an internal standard.



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on 09/23/2015 at 09:32.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00472.d  Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 22:35  Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  Sublist used: all
Calibration date and time: 23-SEP-2015 09:11
Date, time and analyst ID of latest file update: 23-Sep-2015 09:19 jbs01304

Sample Name: LCSC75  Lab Sample ID: LCSC75

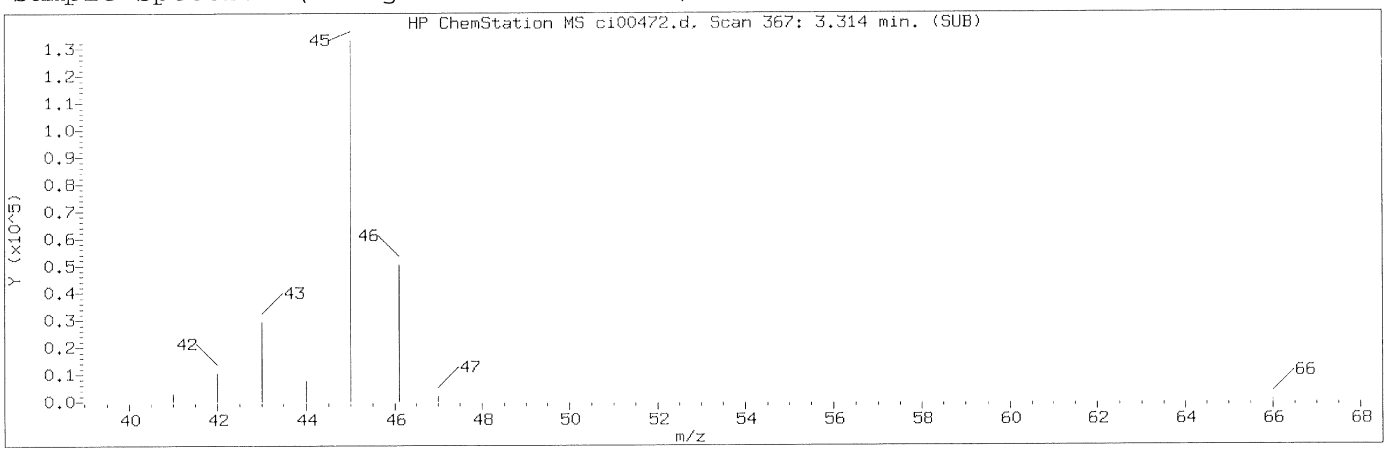
| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 56) 1,4-Dioxane | (2) | 10.456 | 88 | 488649M | 11.232 |
| 57) Methyl Methacrylate | (2) | 10.492 | 69 | 674928 | 8.848 |
| 58) Bromodichloromethane | (2) | 10.681 | 83 | 2435765 | 8.965 |
| 59) cis-1,3-Dichloropropene | (2) | 11.648 | 75 | 1803235 | 11.974 |
| 60) 4-Methyl-2-Pentanone | (2) | 12.080 | 43 | 2343313 | 10.758 |
| 61) Toluene | (3) | 12.360 | 91 | 2766455 | 11.583 |
| 64) 1,3-Dichloropropene (total) | (3) | | 75 | 3312072 | 21.998 |
| 63) trans-1,3-Dichloropropene | (3) | 12.901 | 75 | 1508837 | 10.023 |
| 66) 1,1,2-Trichloroethane | (3) | 13.278 | 97 | 995975 | 9.498 |
| 67) Tetrachloroethene | (3) | 13.589 | 166 | 961261 | 9.396 |
| 68) 2-Hexanone | (3) | 14.002 | 43 | 2489281 | 12.569 |
| 69) Dibromochloromethane | (3) | 14.148 | 127 | 1352796 | 9.114 |
| 70) 1,2-Dibromoethane | (3) | 14.349 | 107 | 1589254 | 11.120 |
| 71)*Chlorobenzene-d5 | (3) | 15.535 | 117 | 2441369 | 10.000 |
| 72) Chlorobenzene | (3) | 15.602 | 112 | 2014878 | 10.478 |
| 74) Ethylbenzene | (3) | 15.961 | 91 | 2632555 | 10.280 |
| 75) m/p-Xylene | (3) | 16.272 | 91 | 4050748 | 19.907 |
| 77) Xylene (total) | (3) | | 91 | 6245438 | 30.045 |
| 76) o-Xylene | (3) | 17.245 | 91 | 2194690 | 10.138 |
| 78) Styrene | (3) | 17.288 | 104 | 1668444 | 9.636 |
| 79) Bromoform | (3) | 17.640 | 173 | 1181904 | 8.644 |
| 82) 1,1,2,2-Tetrachloroethane | (3) | 19.052 | 83 | 2032026 | 8.674 |
| 86) 4-Ethyltoluene | (3) | 19.672 | 105 | 2333470 | 8.912 |
| 87) 1,3,5-Trimethylbenzene | (3) | 19.873 | 105 | 2010383 | 9.225 |
| 90) 1,2,4-Trimethylbenzene | (3) | 20.846 | 105 | 1982391 | 8.377 |
| 92) 1,3-Dichlorobenzene | (3) | 21.510 | 146 | 1377372 | 7.815 |
| 93) 1,4-Dichlorobenzene | (3) | 21.808 | 146 | 1374736 | 7.676 |
| 95) Benzyl Chloride | (3) | 22.300 | 91 | 2200976 | 8.197 |
| 96) 1,2-Dichlorobenzene | (3) | 22.970 | 146 | 1233199 | 7.564 |
| 100) 1,2,4-Trichlorobenzene | (3) | 26.005 | 180 | 589735 | 7.142 |
| 101) Hexachlorobutadiene | (3) | 26.285 | 225 | 563233 | 6.994 |
| 102) Naphthalene | (3) | 26.297 | 128 | 1876956 | 8.016 |

M = Compound was manually integrated.
* = Compound is an internal standard.

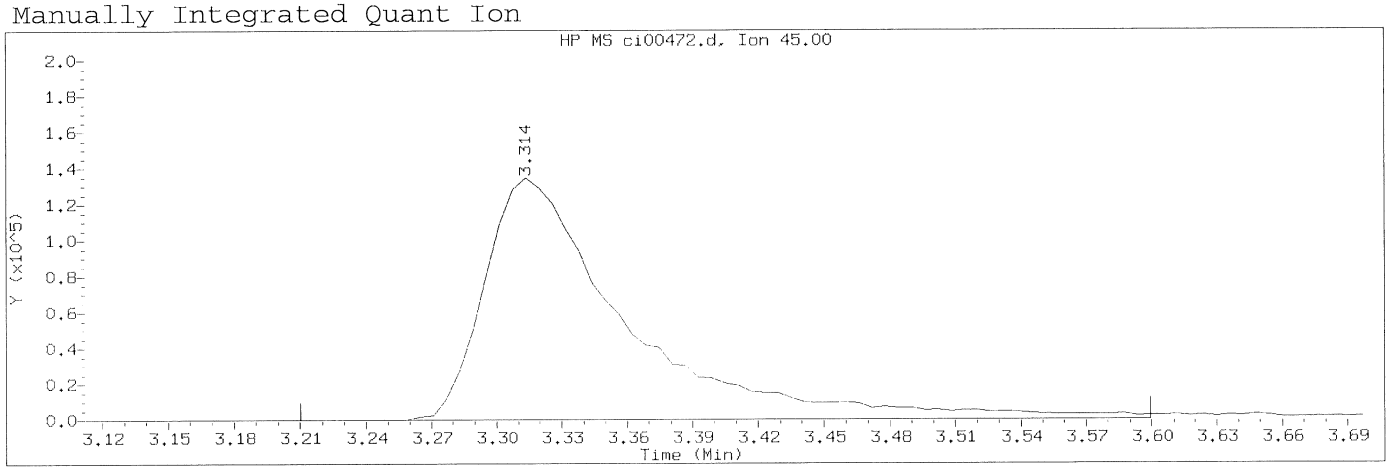


Digitally signed by Jeffrey B. Smith
on 09/23/2015 at 09:32.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00472.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 22:35 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 09:11
Date, time and analyst ID of latest file update: 23-Sep-2015 09:19 jbs01304

Sample Name: LCSC75 Lab Sample ID: LCSC75

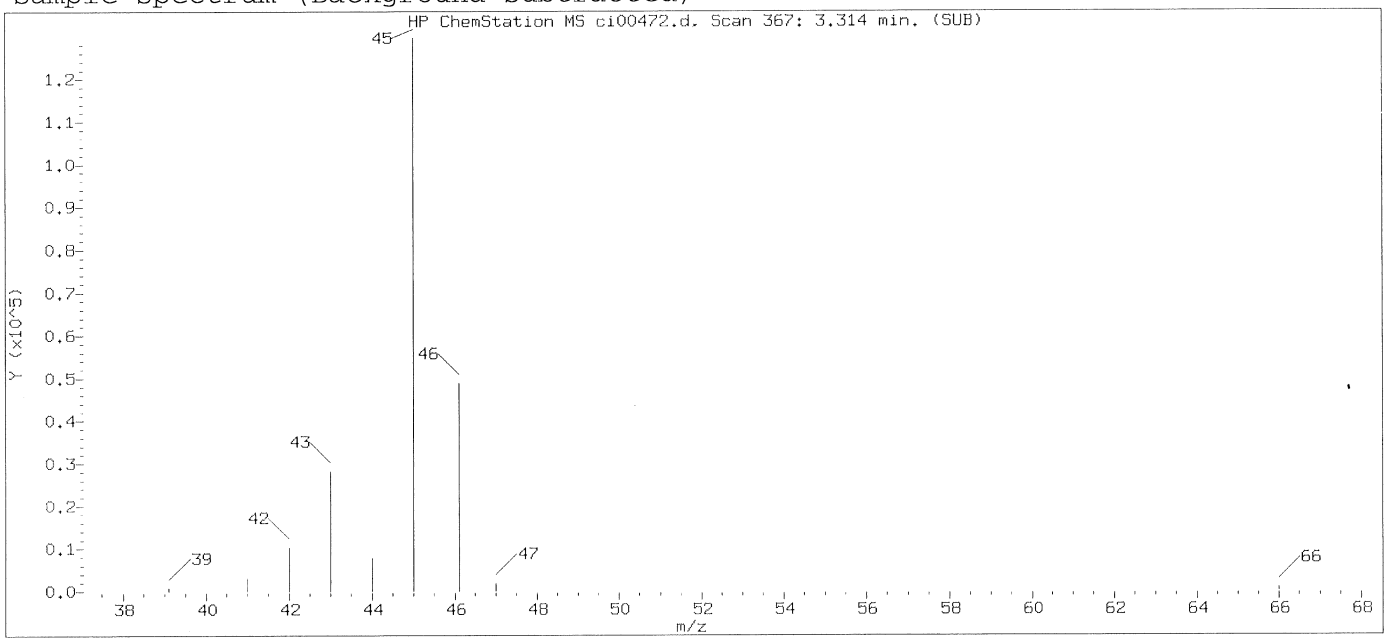
Compound Number : 14
Compound Name : Ethanol
Scan Number : 367
Retention Time (minutes): 3.314
Quant Ion : 45.00
Area (flag) : 610107M
Concentration (ppb(v)) : 7.7312
Integration start scan : 349 Integration stop scan: 413
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

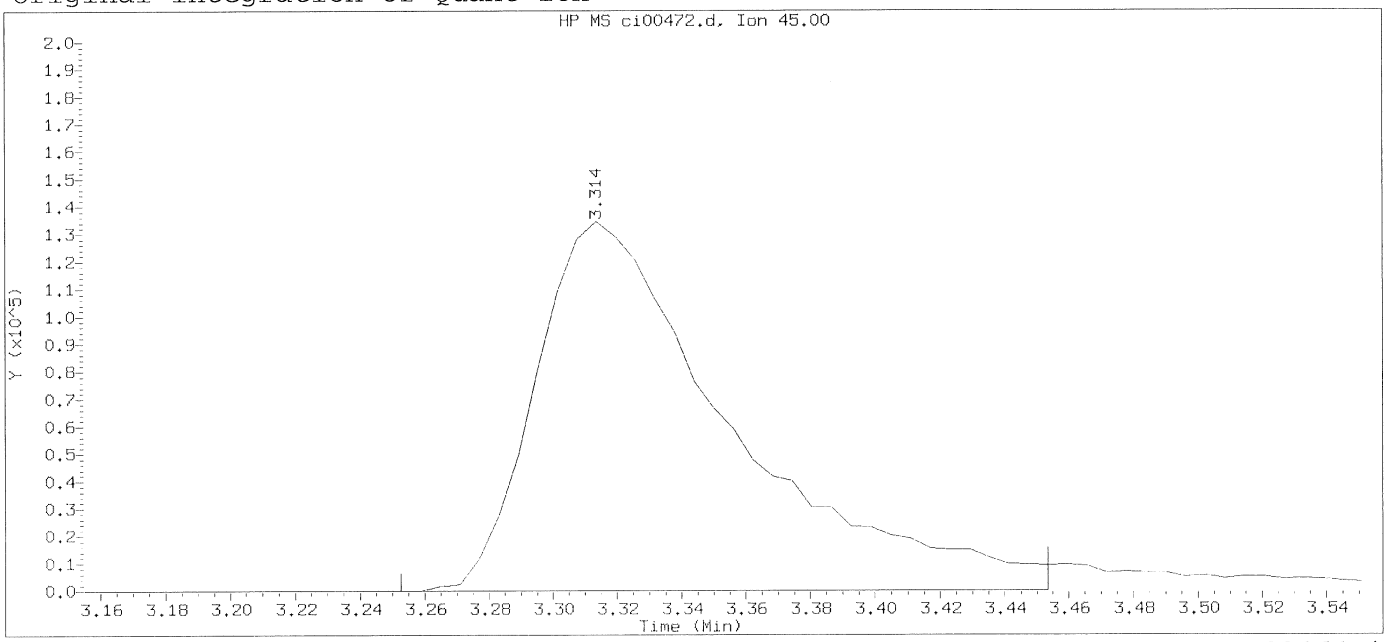
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 09/23/2015 at 09:32. Target 3.5 esignature user ID: jbs01304

GC/MS audit/management approval: Mark A. Ratcliff Senior Specialist SEP 25 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00472.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 22:35 Analyst ID: jeb07445

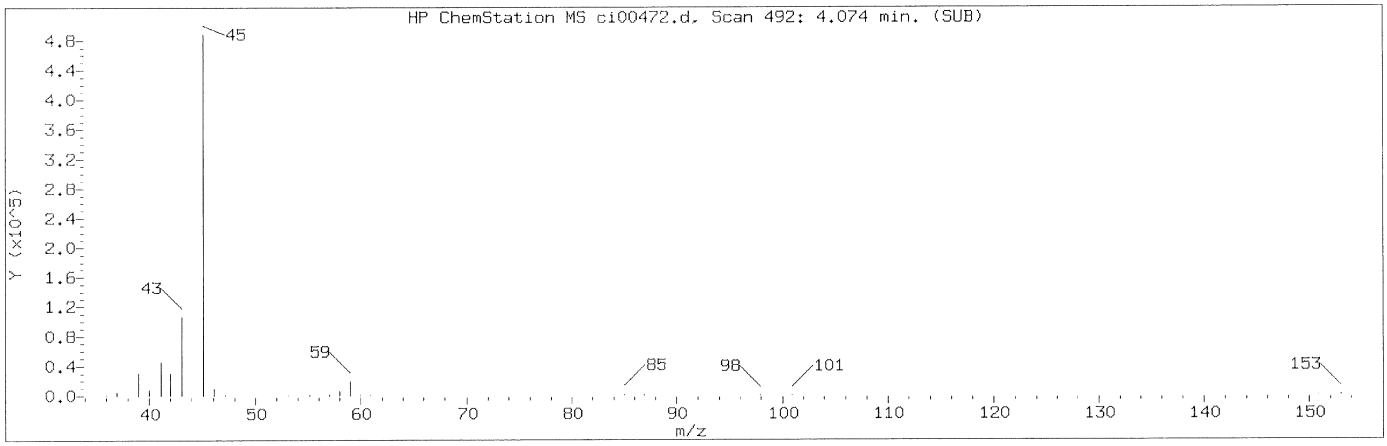
Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 22-SEP-2015 22:35
Date, time and analyst ID of latest file update: 22-Sep-2015 23:15 Automation

Sample Name: LCSC75 Lab Sample ID: LCSC75

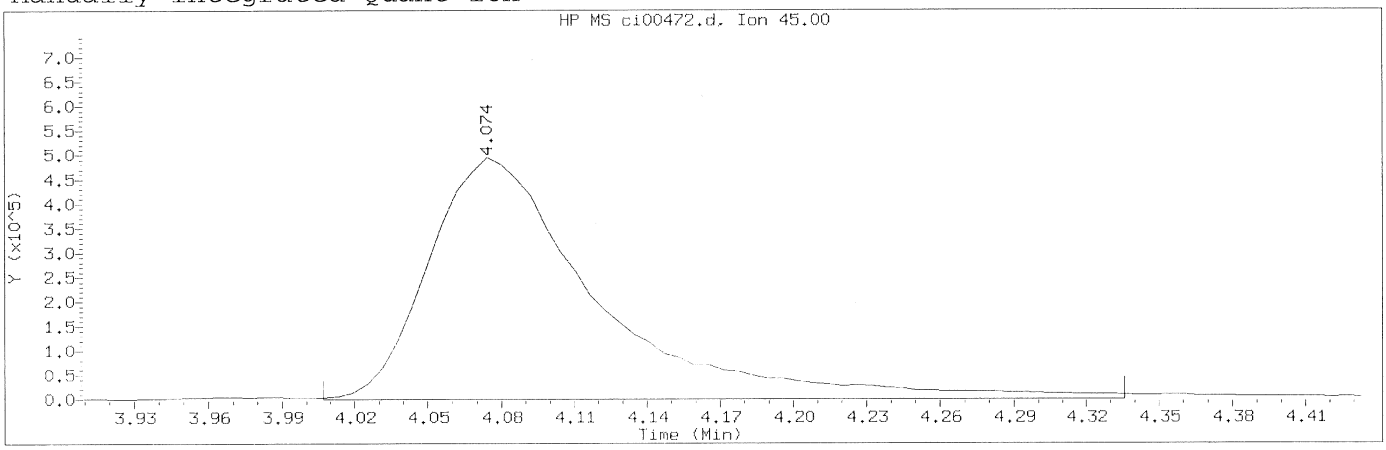
| | | | |
|---|---|---|---|
| Compound Number | : 14 | | |
| Compound Name | : Ethanol | | |
| Scan Number | : 367 | | |
| Retention Time (minutes) | : 3.314 | | |
| Quant Ion | : 45.00 | | |
| Area | : 567524 | | |
| Concentration (ppb(v)) | : 6.9694 | | |
| Integration start scan | : 356 | Integration stop scan: | 389 |
| Y at integration start | : 0 | Y at integration end: | 0 |

Digitally signed by Jeffrey B. Smith on 09/23/2015 at 09:32.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00472.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 22:35 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 09:11
Date, time and analyst ID of latest file update: 23-Sep-2015 09:19 jbs01304

Sample Name: LCSC75 Lab Sample ID: LCSC75

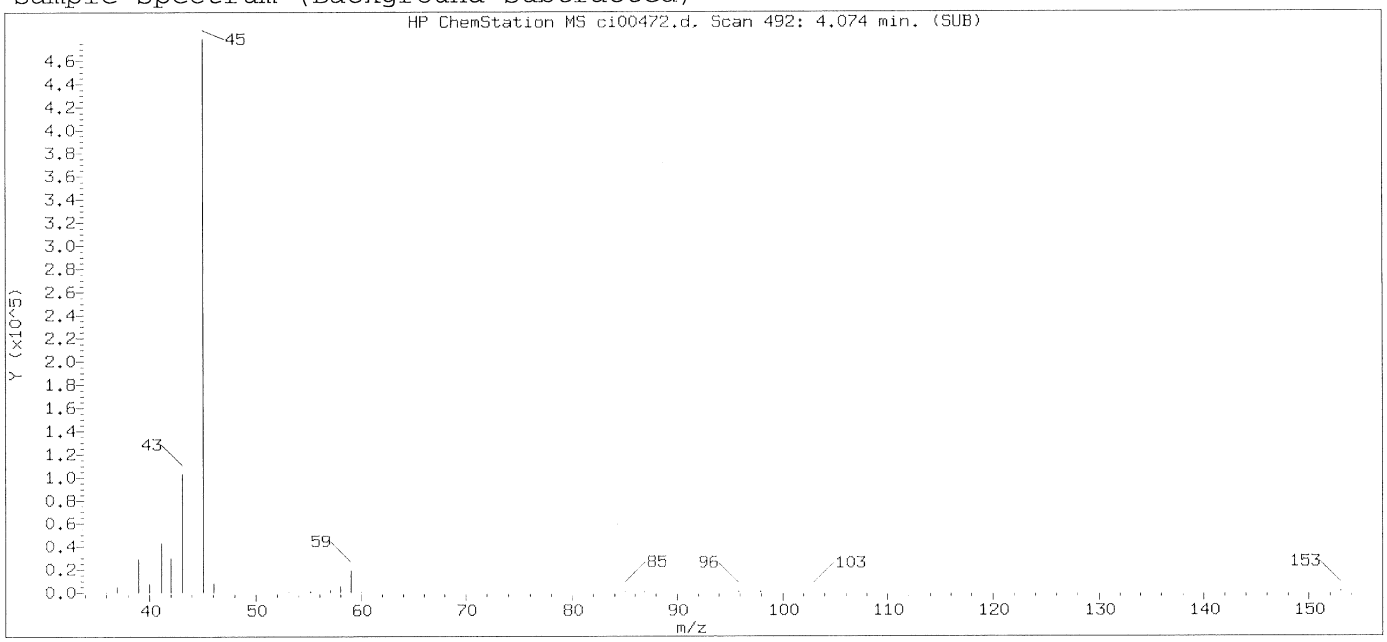
| | | | |
|---|---|---|---|
| Compound Number | : 22 | | |
| Compound Name | : Isopropanol | | |
| Scan Number | : 492 | | |
| Retention Time (minutes) | : 4.074 | | |
| Quant Ion | : 45.00 | | |
| Area (flag) | : 2377125M | | |
| Concentration (ppb(v)) | : 10.2280 | | |
| Integration start scan | : 480 | Integration stop scan: | 534 |
| Y at integration start | : 0 | Y at integration end: | 0 |

Reason for manual integration: improper integration

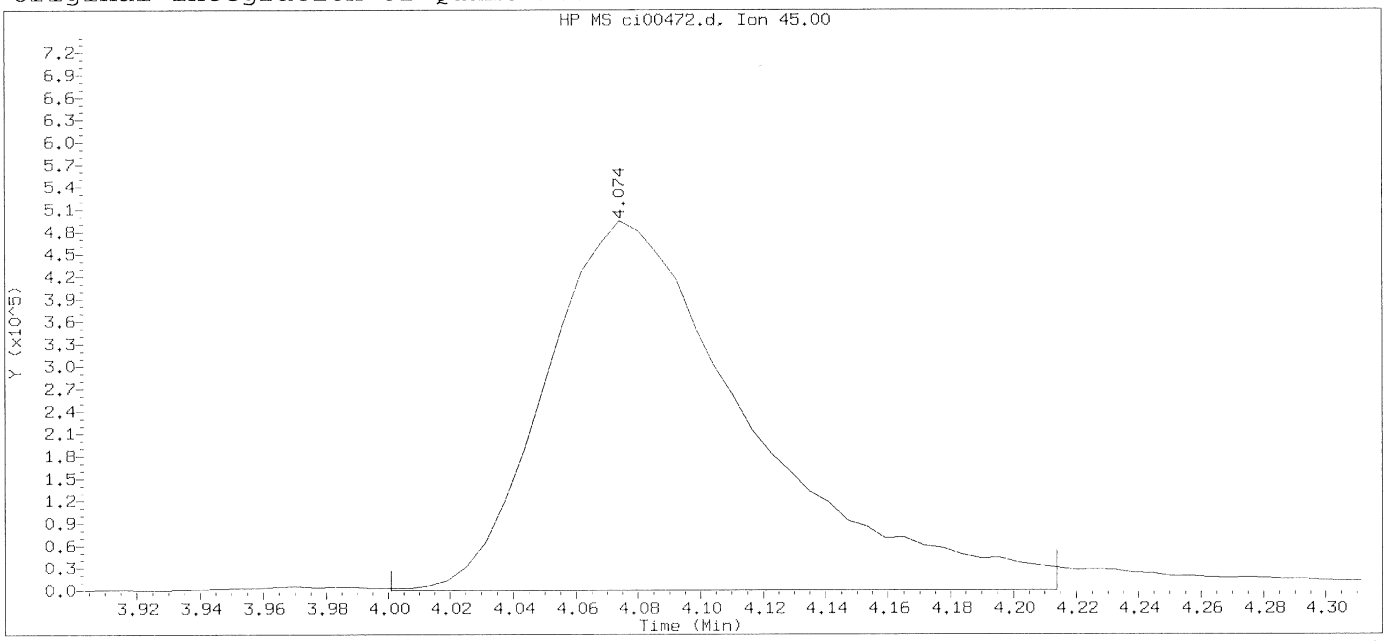
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 09/23/2015 at 09:32. Target 3.5 esignature user ID: jbs01304

GC/MS audit/management approval: Mark A. Ratcliff Senior Specialist SEP 25 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00472.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 22:35 Analyst ID: jeb07445

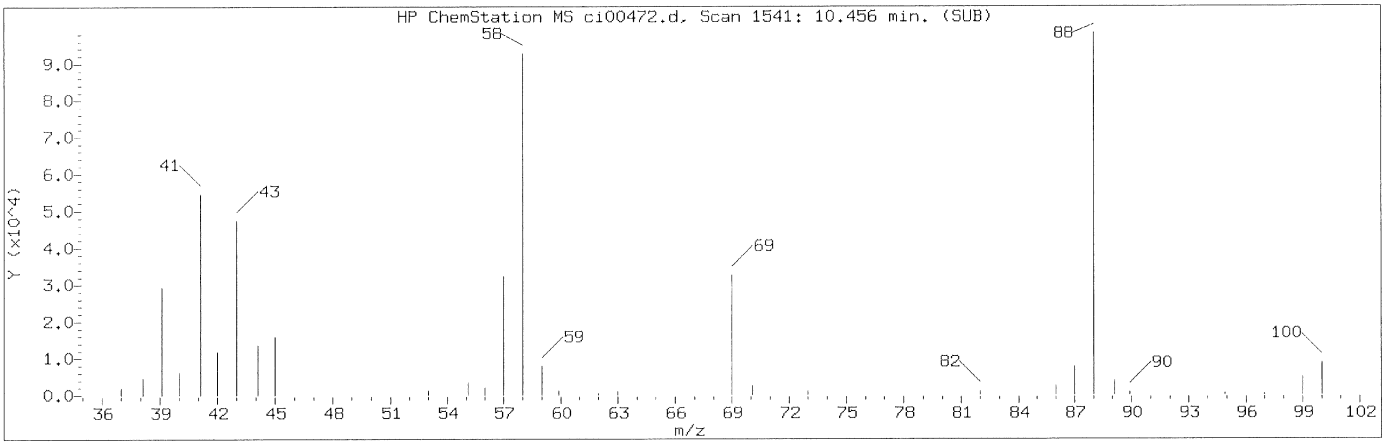
Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 22-SEP-2015 22:35
Date, time and analyst ID of latest file update: 22-Sep-2015 23:15 Automation

Sample Name: LCSC75 Lab Sample ID: LCSC75

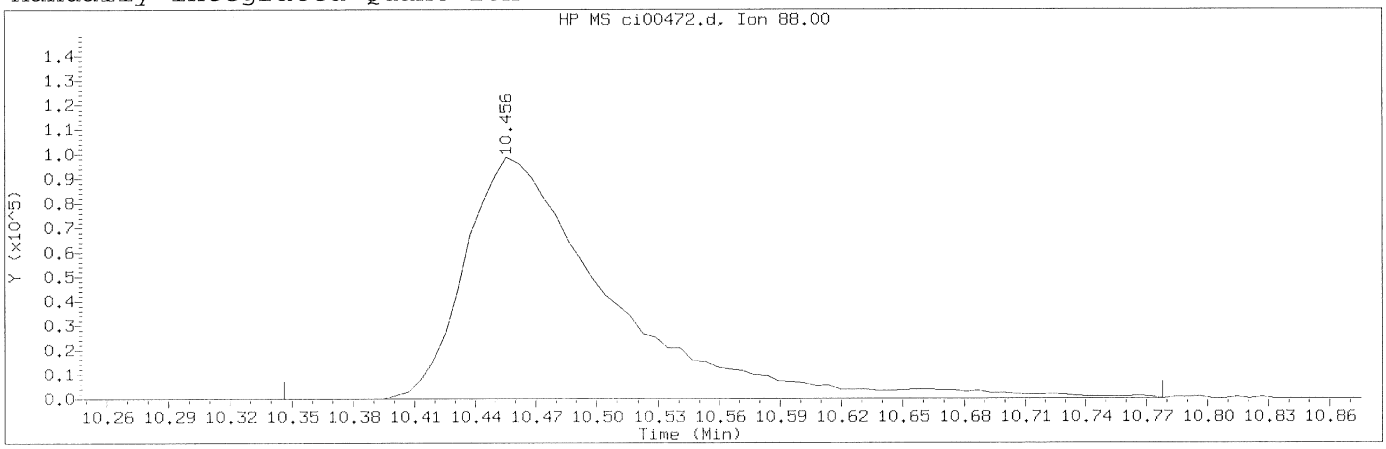
| | | | |
|---|---|---|---|
| Compound Number | : 22 | | |
| Compound Name | : Isopropanol | | |
| Scan Number | : 492 | | |
| Retention Time (minutes) | : 4.074 | | |
| Quant Ion | : 45.00 | | |
| Area | : 2248611 | | |
| Concentration (ppb(v)) | : 9.4321 | | |
| Integration start scan | : 479 | Integration stop scan: | 514 |
| Y at integration start | : 0 | Y at integration end: | 0 |

Digitally signed by Jeffrey B. Smith on 09/23/2015 at 09:32.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00472.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 22:35 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 09:11
Date, time and analyst ID of latest file update: 23-Sep-2015 09:19 jbs01304

Sample Name: LCSC75 Lab Sample ID: LCSC75

Compound Number : 56
Compound Name : 1,4-Dioxane
Scan Number : 1541
Retention Time (minutes): 10.456
Quant Ion : 88.00
Area (flag) : 488649M
Concentration (ppb(v)) : 11.2318
Integration start scan : 1522 Integration stop scan: 1593
Y at integration start : 0 Y at integration end: 0

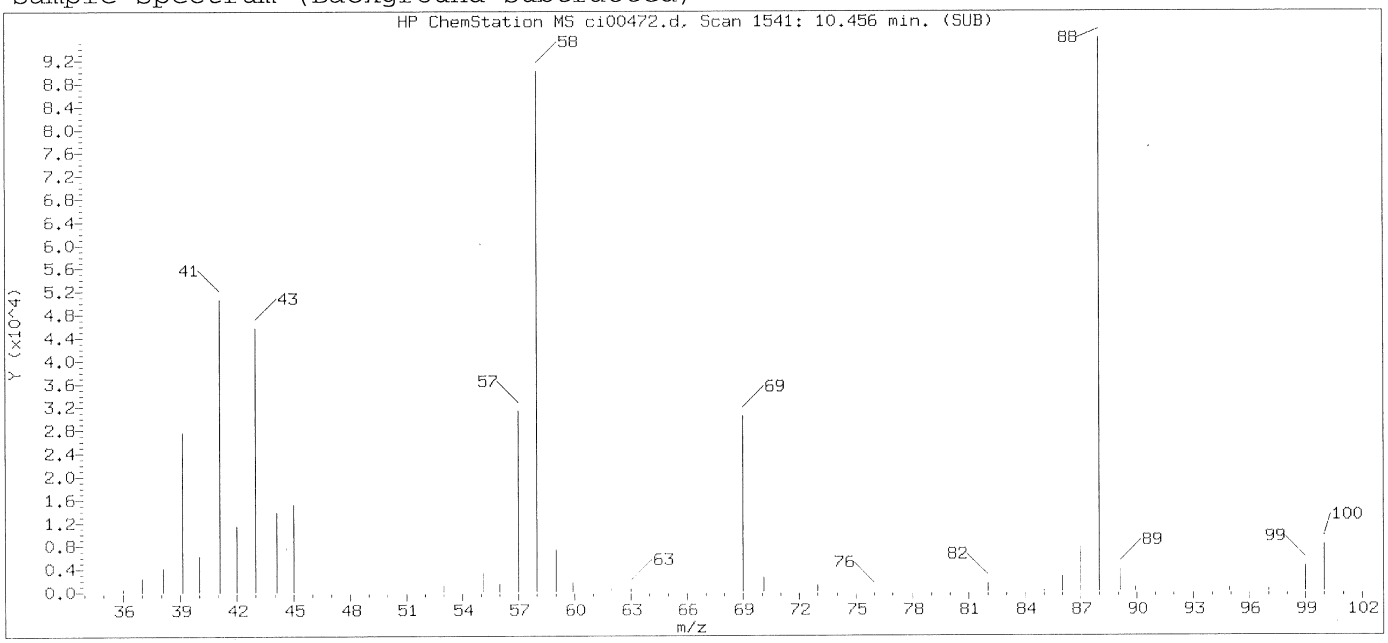
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 09/23/2015 at 09:32. Target 3.5 esignature user ID: jbs01304

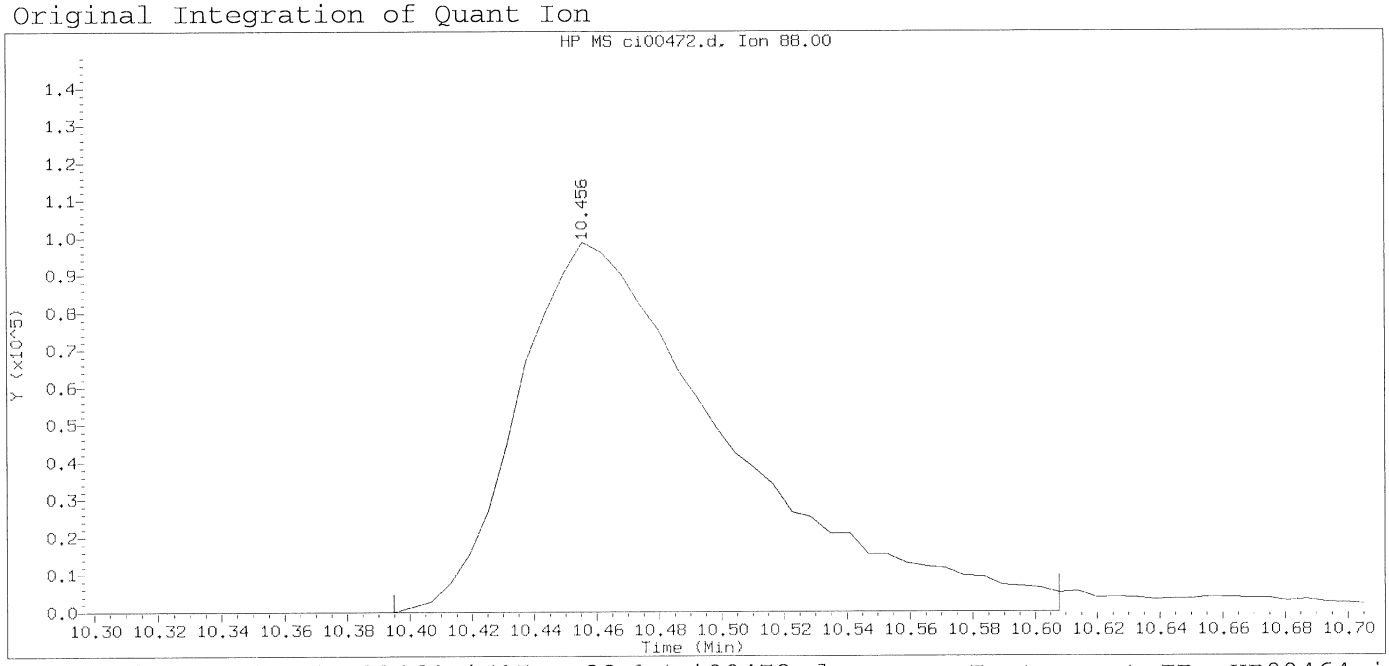
Mark A. Ratcliff
Senior Specialist
SEP 25 2015

GC/MS audit/management approval:_____

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion



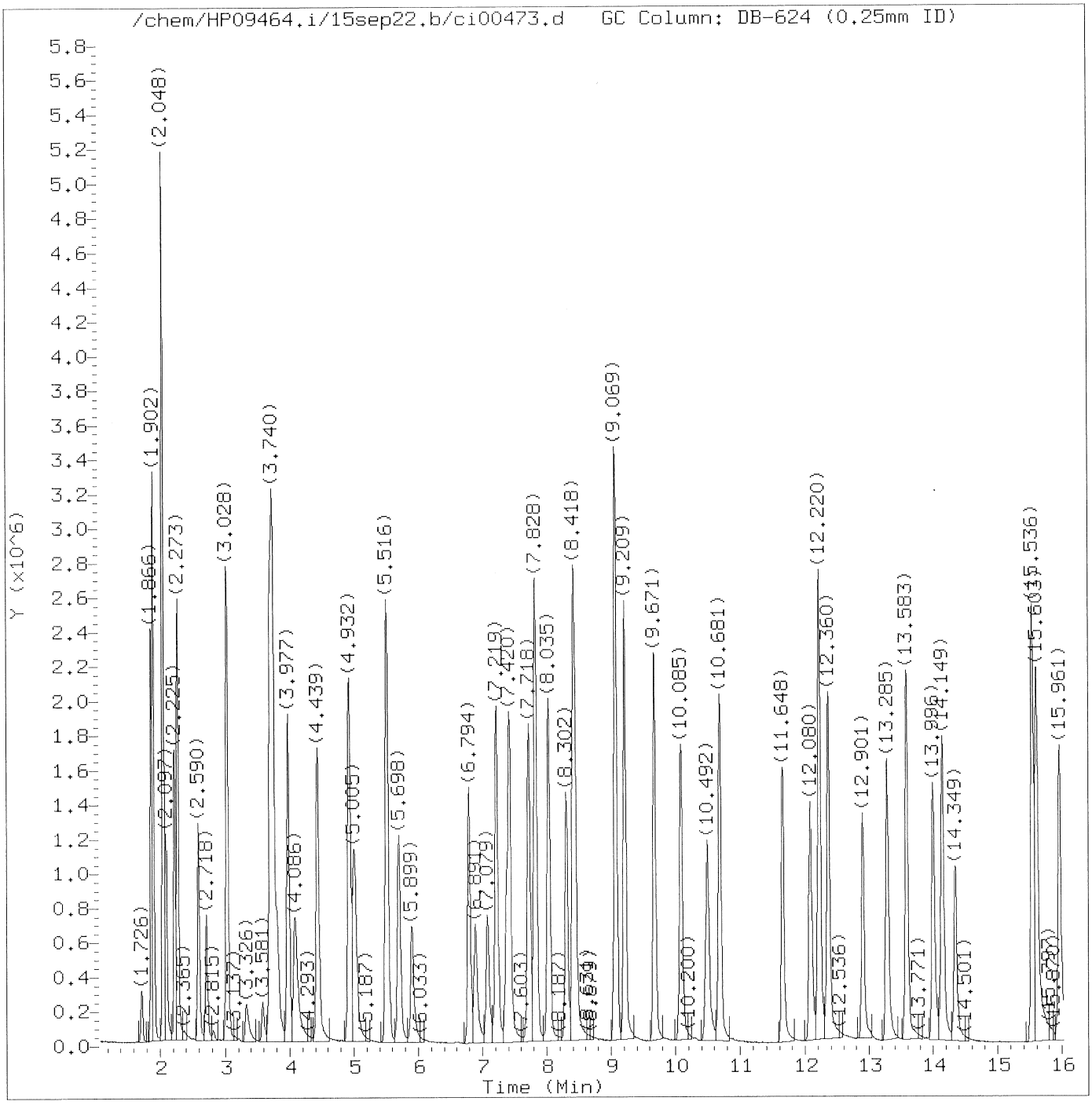

Data File: /chem/HP09464.i/15sep22.b/ci00472.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 22:35 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 22-SEP-2015 22:35
Date, time and analyst ID of latest file update: 22-Sep-2015 23:15 Automation

Sample Name: LCSC75 Lab Sample ID: LCSC75

| | |
|---|---|
| Compound Number | : 56 |
| Compound Name | : 1,4-Dioxane |
| Scan Number | : 1541 |
| Retention Time (minutes) | : 10.456 |
| Quant Ion | : 88.00 |
| Area | : 462753 |
| Concentration (ppb(v)) | : 10.6366 |
| Integration start scan | : 1530 Integration stop scan: 1565 |
| Y at integration start | : 0 Y at integration end: 0 |

Digitally signed by Jeffrey B. Smith on 09/23/2015 at 09:32.
Target 3.5 esignature user ID: jbs01304




Total Ion Chromatogram (TIC)

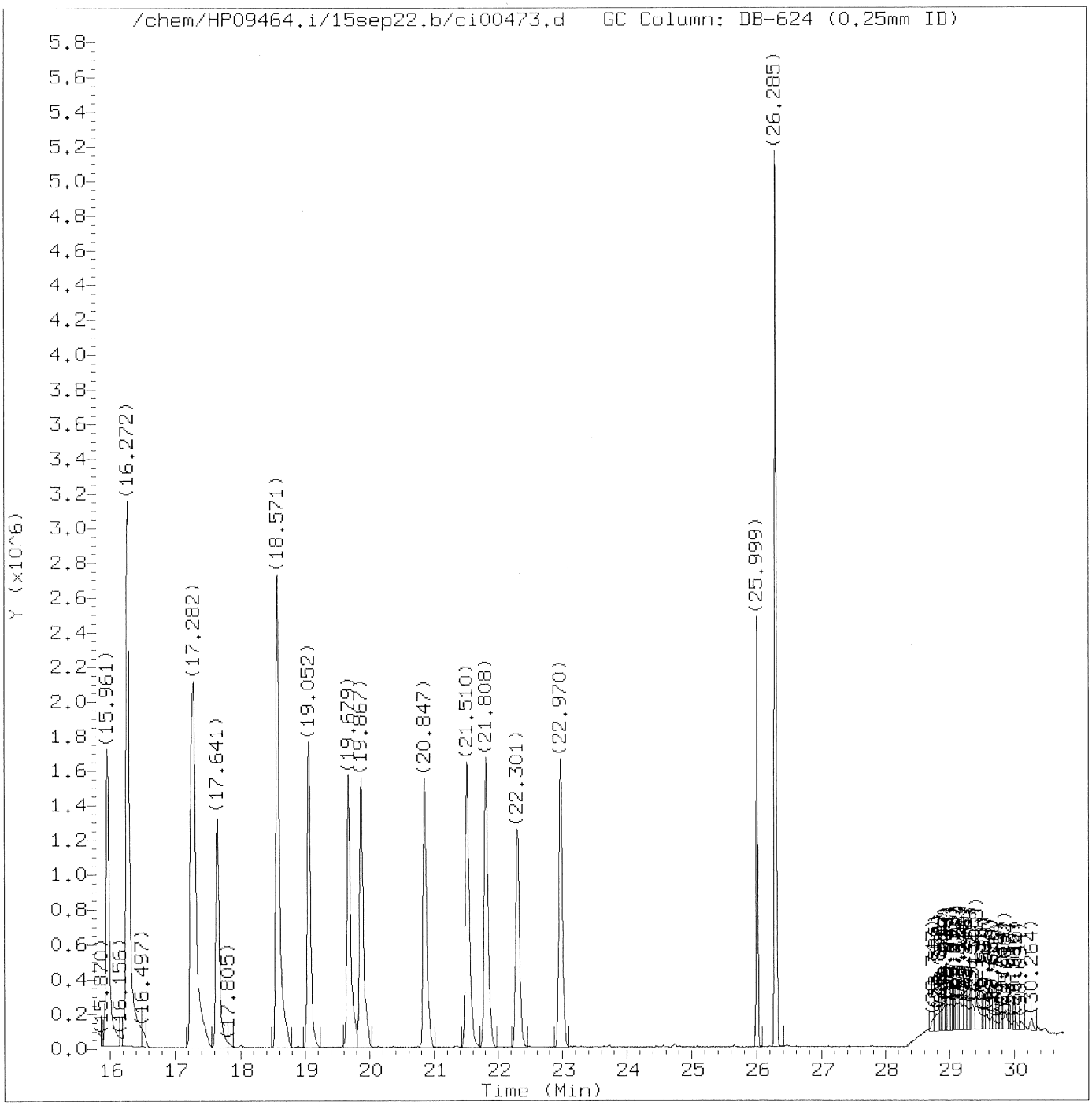
Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00473.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 23:20 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 09:11
Date, time and analyst ID of latest file update: 23-Sep-2015 09:19 jbs01304

Sample Name: LCSDC75 Lab Sample ID: LCSDC75

Digitally signed by Jeffrey B. Smith
on 09/23/2015 at 09:32.
Target 3.5 esignature user ID: jbs01304




Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00473.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 23:20 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 09:11
Date, time and analyst ID of latest file update: 23-Sep-2015 09:19 jbs01304

Sample Name: LCSDC75 Lab Sample ID: LCSDC75

Digitally signed by Jeffrey B. Smith
on 09/23/2015 at 09:32.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00473.d  Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 23:20  Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  Sublist used: all
Calibration date and time: 23-SEP-2015 09:11
Date, time and analyst ID of latest file update: 23-Sep-2015 09:19 jbs01304

Sample Name: LCSDC75  Lab Sample ID: LCSDC75

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 1) Propene | (1) | 1.872 | 41 | 1379361 | 11.222 |
| 2) Dichlorodifluoromethane | (1) | 1.902 | 85 | 3033036 | 9.684 |
| 4) Freon 114 | (1) | 2.048 | 85 | 2797655 | 9.957 |
| 5) Chloromethane | (1) | 2.097 | 52 | 498313 | 8.820 |
| 6) Vinyl Chloride | (1) | 2.219 | 62 | 1504365 | 10.568 |
| 7) 1,3-Butadiene | (1) | 2.273 | 54 | 1253560 | 10.456 |
| 8) Bromomethane | (1) | 2.590 | 94 | 1017266 | 9.036 |
| 9) Chloroethane | (1) | 2.718 | 64 | 814142 | 9.020 |
| 12) Trichlorofluoromethane | (1) | 3.028 | 101 | 2923871 | 8.960 |
| 14) Ethanol | (1) | 3.320 | 45 | 570513M | 7.646 |
| 16) Acrolein | (1) | 3.581 | 56 | 348211 | 8.958 |
| 17) 1,1-Dichloroethene | (1) | 3.703 | 61 | 2525897 | 10.151 |
| 18) Freon 113 | (1) | 3.746 | 103 | 1362693 | 8.735 |
| 19) Acetone | (1) | 3.806 | 43 | 1429646 | 9.566 |
| 21) Carbon Disulfide | (1) | 3.977 | 76 | 3729896 | 9.314 |
| 22) Isopropanol | (1) | 4.086 | 45 | 2130241M | 9.693 |
| 25) Methylene Chloride | (1) | 4.439 | 84 | 1087675 | 9.791 |
| 28) trans-1,2-Dichloroethene | (1) | 4.932 | 61 | 2478115 | 8.817 |
| 29) Methyl t-Butyl Ether | (1) | 5.011 | 73 | 1846459 | 8.963 |
| 30) Hexane | (1) | 5.516 | 57 | 1977724 | 11.095 |
| 31) 1,1-Dichloroethane | (1) | 5.698 | 63 | 2222982 | 9.675 |
| 32) Vinyl Acetate | (1) | 5.899 | 86 | 117582 | 10.986 |
| 36) 1,2-Dichloroethene (total) | (1) | | 61 | 4142984 | 18.736 |
| 35) cis-1,2-Dichloroethene | (1) | 6.794 | 61 | 1664869 | 9.919 |
| 37) 2-Butanone | (1) | 6.897 | 72 | 303691 | 10.823 |
| 38) Ethyl Acetate | (1) | 7.086 | 70 | 132282 | 8.194 |
| 40)*Bromochloromethane | (1) | 7.219 | 130 | 729760 | 10.000 |
| 41) Tetrahydrofuran | (1) | 7.371 | 42 | 1036653 | 10.572 |
| 42) Chloroform | (1) | 7.420 | 83 | 2128394 | 9.350 |
| 43) 1,1,1-Trichloroethane | (1) | 7.724 | 97 | 1911595 | 9.530 |
| 44) Cyclohexane | (1) | 7.822 | 56 | 2162346 | 10.897 |
| 45) Carbon Tetrachloride | (1) | 8.035 | 117 | 1928975 | 9.621 |
| 46) Benzene | (2) | 8.412 | 78 | 2917937 | 10.233 |
| 47) 1,2-Dichloroethane | (2) | 8.442 | 62 | 1782992 | 9.677 |
| 50) Heptane | (2) | 9.069 | 43 | 2597939 | 11.312 |
| 51)*1,4-Difluorobenzene | (2) | 9.209 | 114 | 2563463 | 10.000 |
| 52) Trichloroethene | (2) | 9.677 | 130 | 956476 | 8.981 |
| 54) 1,2-Dichloropropane | (2) | 10.085 | 63 | 1115258 | 9.153 |

M = Compound was manually integrated.
* = Compound is an internal standard.



Digitally signed by Jeffrey B. Smith
on 09/23/2015 at 09:32.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00473.d  Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 23:20  Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  Sublist used: all
Calibration date and time: 23-SEP-2015 09:11
Date, time and analyst ID of latest file update: 23-Sep-2015 09:19 jbs01304

Sample Name: LCSDC75  Lab Sample ID: LCSDC75

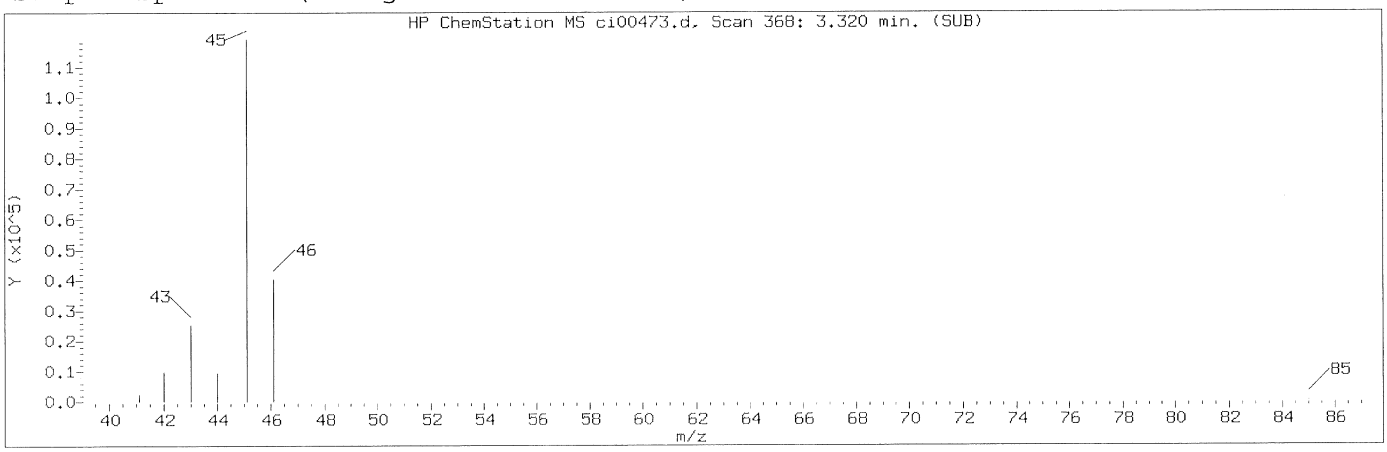
| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 56) 1,4-Dioxane | (2) | 10.462 | 88 | 457094M | 11.847 |
| 57) Methyl Methacrylate | (2) | 10.498 | 69 | 641180 | 9.478 |
| 58) Bromodichloromethane | (2) | 10.681 | 83 | 2180589 | 9.050 |
| 59) cis-1,3-Dichloropropene | (2) | 11.654 | 75 | 1512106 | 11.322 |
| 60) 4-Methyl-2-Pentanone | (2) | 12.080 | 43 | 2181065 | 11.291 |
| 61) Toluene | (3) | 12.360 | 91 | 2300365 | 10.226 |
| 64) 1,3-Dichloropropene (total) | (3) | | 75 | 2794927 | 20.371 |
| 63) trans-1,3-Dichloropropene | (3) | 12.901 | 75 | 1282821 | 9.048 |
| 66) 1,1,2-Trichloroethane | (3) | 13.285 | 97 | 863344 | 8.741 |
| 67) Tetrachloroethene | (3) | 13.589 | 166 | 864071 | 8.967 |
| 68) 2-Hexanone | (3) | 13.996 | 43 | 2318109 | 12.427 |
| 69) Dibromochloromethane | (3) | 14.149 | 127 | 1210584 | 8.660 |
| 70) 1,2-Dibromoethane | (3) | 14.355 | 107 | 1321071 | 9.814 |
| 71)*Chlorobenzene-d5 | (3) | 15.536 | 117 | 2299397 | 10.000 |
| 72) Chlorobenzene | (3) | 15.603 | 112 | 1723071 | 9.514 |
| 74) Ethylbenzene | (3) | 15.961 | 91 | 2454166 | 10.175 |
| 75) m/p-Xylene | (3) | 16.278 | 91 | 3755150 | 19.593 |
| 77) Xylene (total) | (3) | | 91 | 5795831 | 29.602 |
| 76) o-Xylene | (3) | 17.245 | 91 | 2040681 | 10.009 |
| 78) Styrene | (3) | 17.288 | 104 | 1569560 | 9.625 |
| 79) Bromoform | (3) | 17.641 | 173 | 1104001 | 8.572 |
| 82) 1,1,2,2-Tetrachloroethane | (3) | 19.052 | 83 | 1964504 | 8.903 |
| 86) 4-Ethyltoluene | (3) | 19.679 | 105 | 2227087 | 9.031 |
| 87) 1,3,5-Trimethylbenzene | (3) | 19.867 | 105 | 1926685 | 9.386 |
| 90) 1,2,4-Trimethylbenzene | (3) | 20.847 | 105 | 1879626 | 8.434 |
| 92) 1,3-Dichlorobenzene | (3) | 21.510 | 146 | 1304752 | 7.860 |
| 93) 1,4-Dichlorobenzene | (3) | 21.808 | 146 | 1292678 | 7.663 |
| 95) Benzyl Chloride | (3) | 22.301 | 91 | 2078191 | 8.218 |
| 96) 1,2-Dichlorobenzene | (3) | 22.970 | 146 | 1177362 | 7.667 |
| 100) 1,2,4-Trichlorobenzene | (3) | 25.999 | 180 | 521145 | 6.701 |
| 101) Hexachlorobutadiene | (3) | 26.285 | 225 | 499876 | 6.590 |
| 102) Naphthalene | (3) | 26.297 | 128 | 1681897 | 7.626 |

M = Compound was manually integrated.
* = Compound is an internal standard.

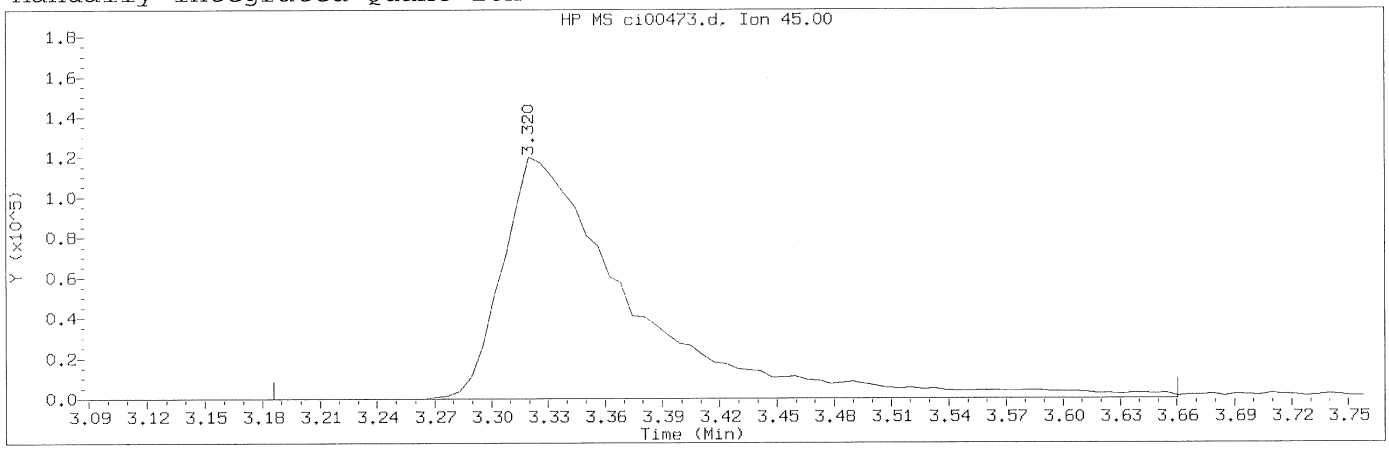


Digitally signed by Jeffrey B. Smith
on 09/23/2015 at 09:32.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00473.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 23:20 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 09:11
Date, time and analyst ID of latest file update: 23-Sep-2015 09:19 jbs01304

Sample Name: LCSDC75 Lab Sample ID: LCSDC75

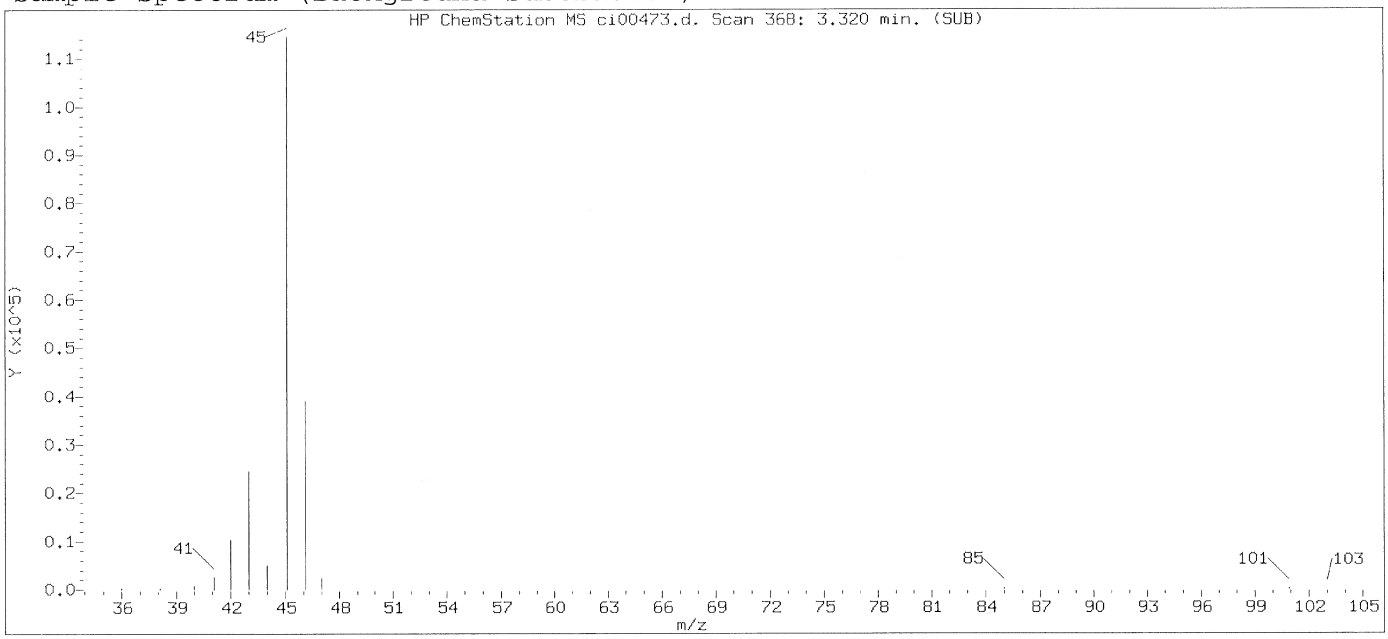
| | | | |
|---|---|---|---|
| Compound Number | : 14 | | |
| Compound Name | : Ethanol | | |
| Scan Number | : 368 | | |
| Retention Time (minutes) | : 3.320 | | |
| Quant Ion | : 45.00 | | |
| Area (flag) | : 570513M | | |
| Concentration (ppb(v)) | : 7.6456 | | |
| Integration start scan | : 345 | Integration stop scan: | 423 |
| Y at integration start | : 0 | Y at integration end: | 0 |

Reason for manual integration: improper integration

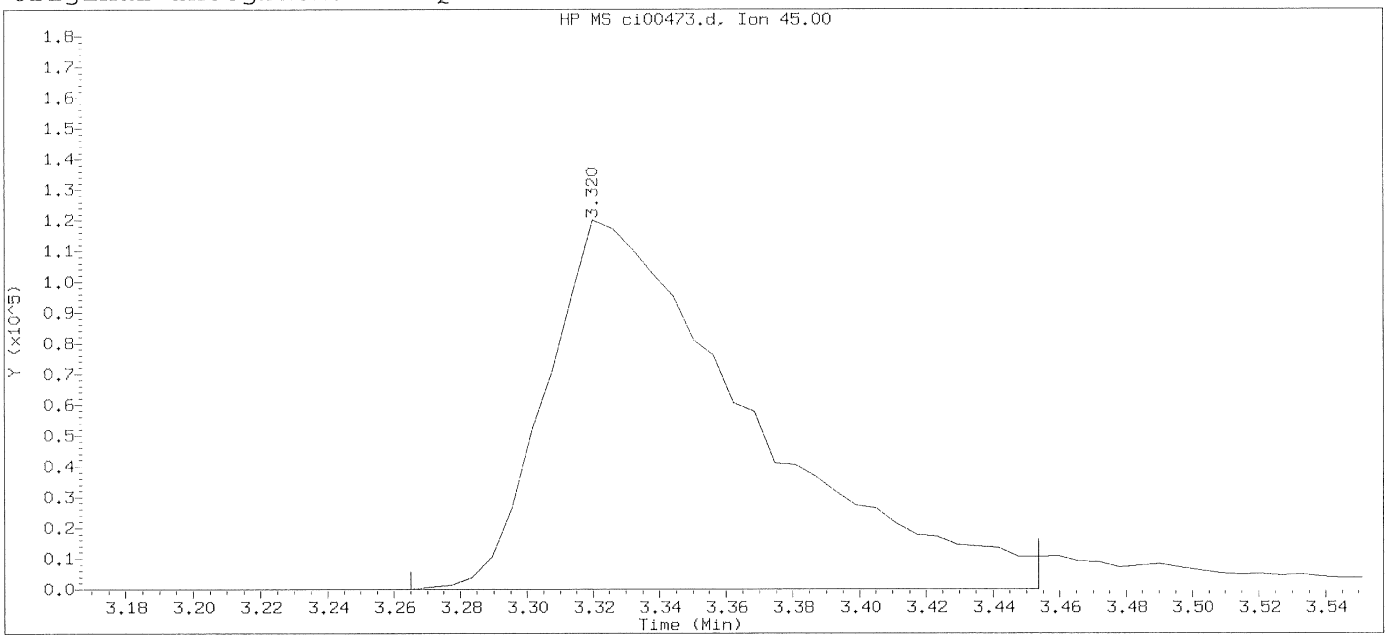
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 09/23/2015 at 09:32. Target 3.5 esignature user ID: jbs01304

GC/MS audit/management approval: Mark A. Ratcliff Senior Specialist SEP 25 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00473.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 23:20 Analyst ID: jeb07445

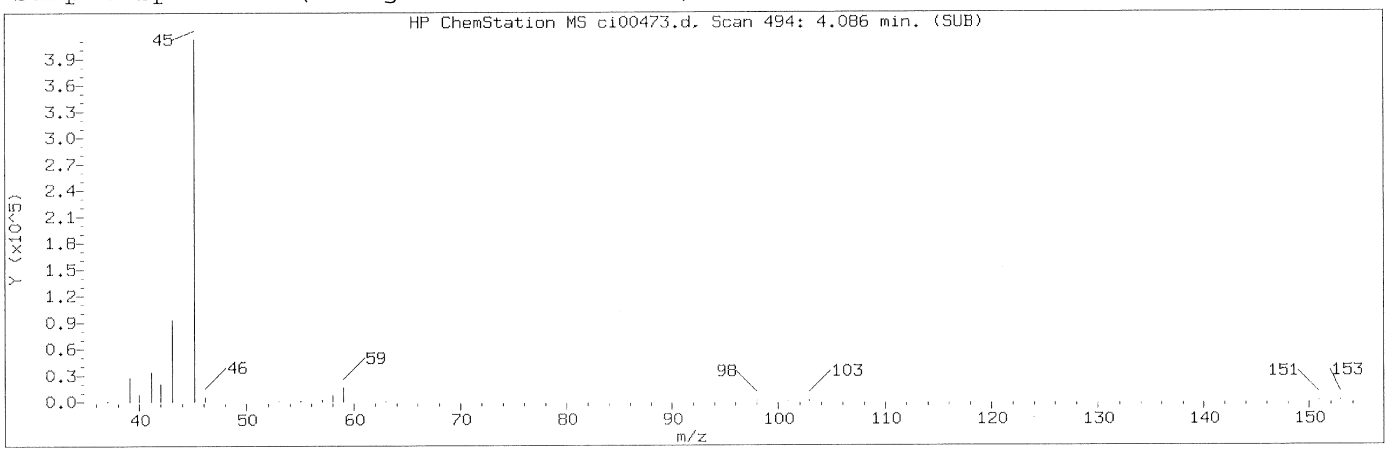
Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 22-SEP-2015 22:35
Date, time and analyst ID of latest file update: 23-Sep-2015 00:00 Automation

Sample Name: LCSDC75 Lab Sample ID: LCSDC75

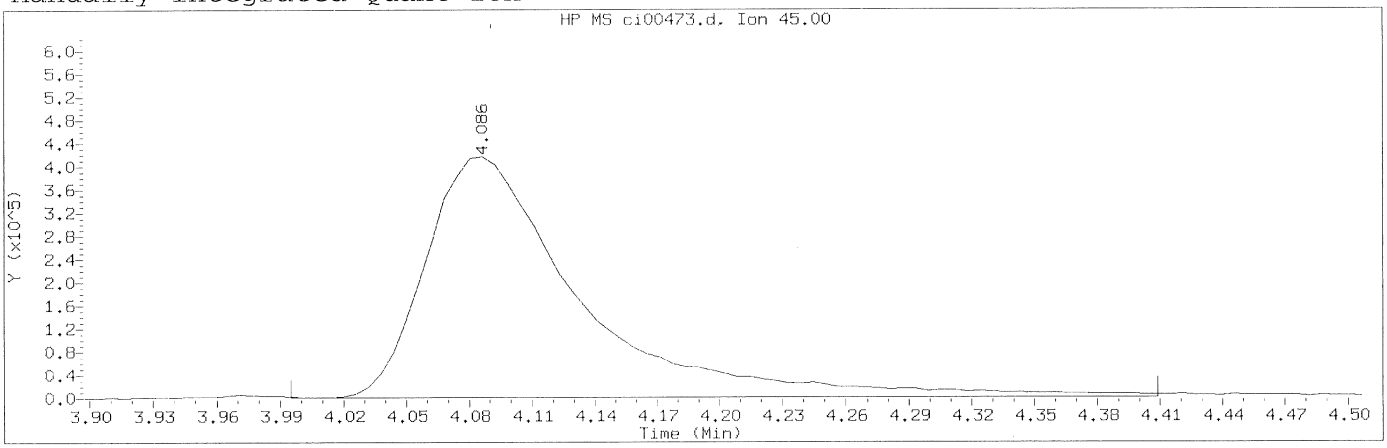
| | | | |
|---|---|---|---|
| Compound Number | : 14 | | |
| Compound Name | : Ethanol | | |
| Scan Number | : 368 | | |
| Retention Time (minutes) | : 3.320 | | |
| Quant Ion | : 45.00 | | |
| Area | : 511227 | | |
| Concentration (ppb(v)) | : 6.6394 | | |
| Integration start scan | : 358 | Integration stop scan: | 389 |
| Y at integration start | : 0 | Y at integration end: | 0 |

Digitally signed by Jeffrey B. Smith on 09/23/2015 at 09:32.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00473.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 23:20 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 09:11
Date, time and analyst ID of latest file update: 23-Sep-2015 09:19 jbs01304

Sample Name: LCSDC75 Lab Sample ID: LCSDC75

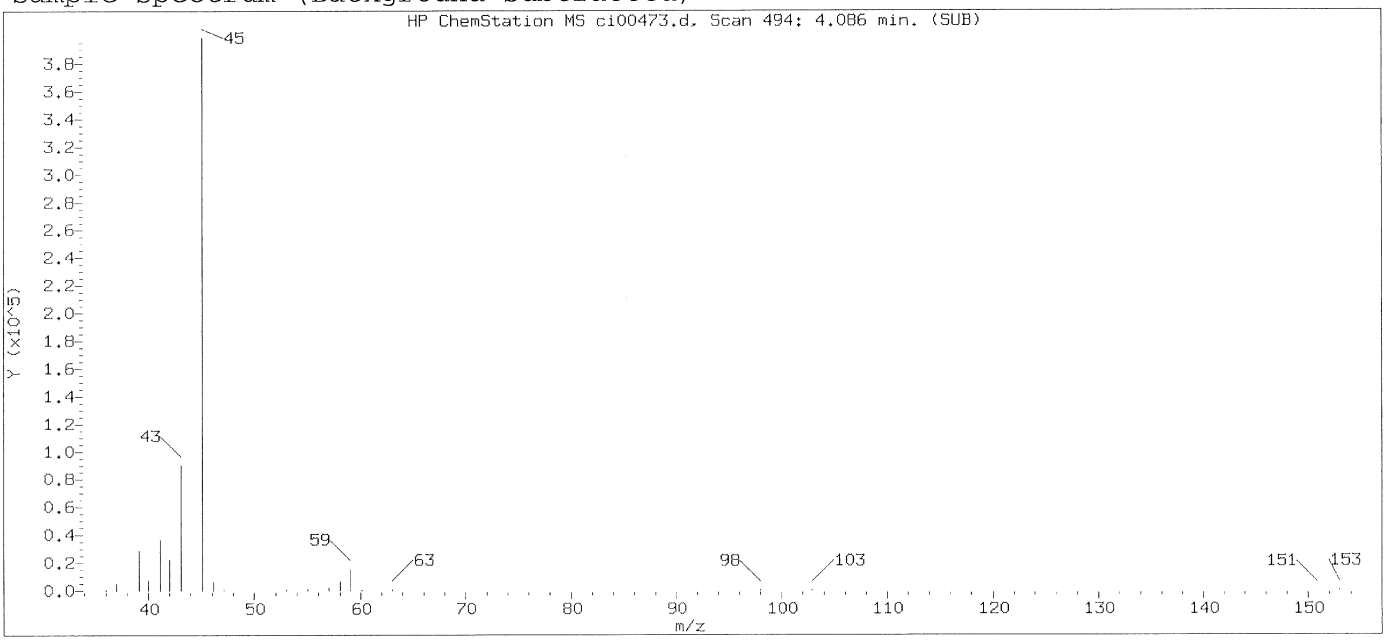
Compound Number : 22
Compound Name : Isopropanol
Scan Number : 494
Retention Time (minutes): 4.086
Quant Ion : 45.00
Area (flag) : 2130241M
Concentration (ppb(v)) : 9.6933
Integration start scan : 478 Integration stop scan: 546
Y at integration start : 1081 Y at integration end: 1081

Reason for manual integration: improper integration

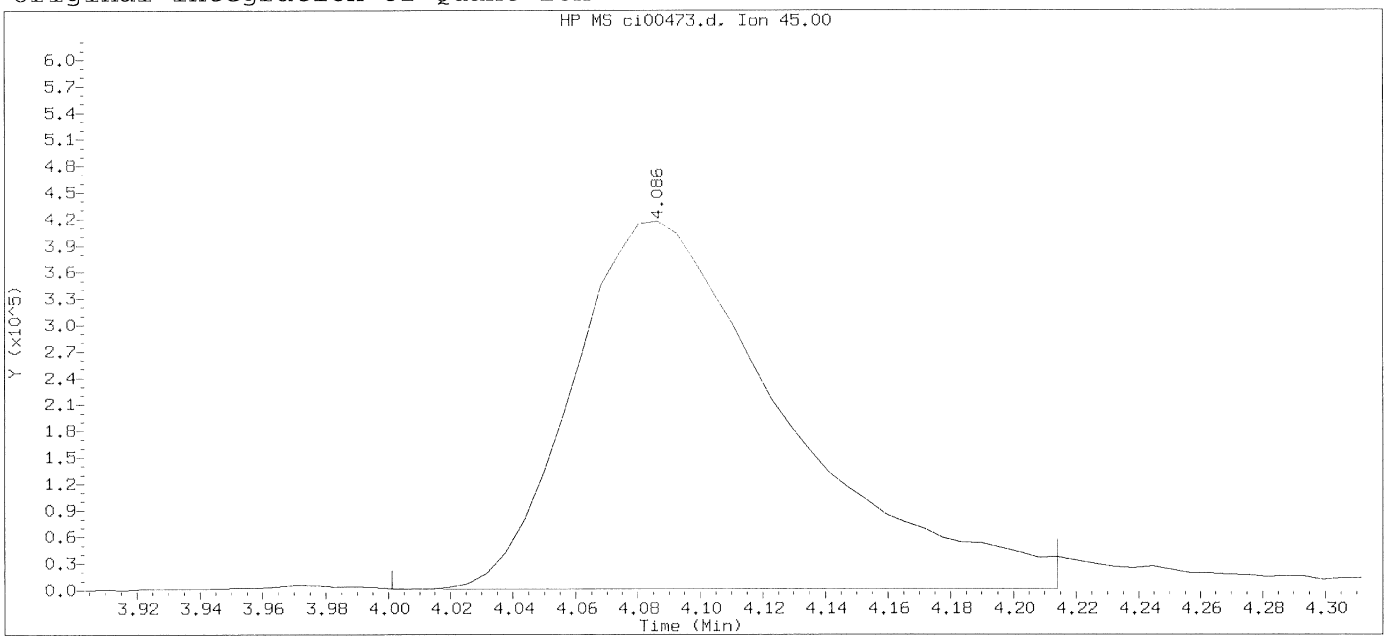
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 09/23/2015 at 09:32. Target 3.5 esignature user ID: jbs01304

GC/MS audit/management approval: Mark A. Ratcliff Senior Specialist SEP 25 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00473.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 23:20 Analyst ID: jeb07445

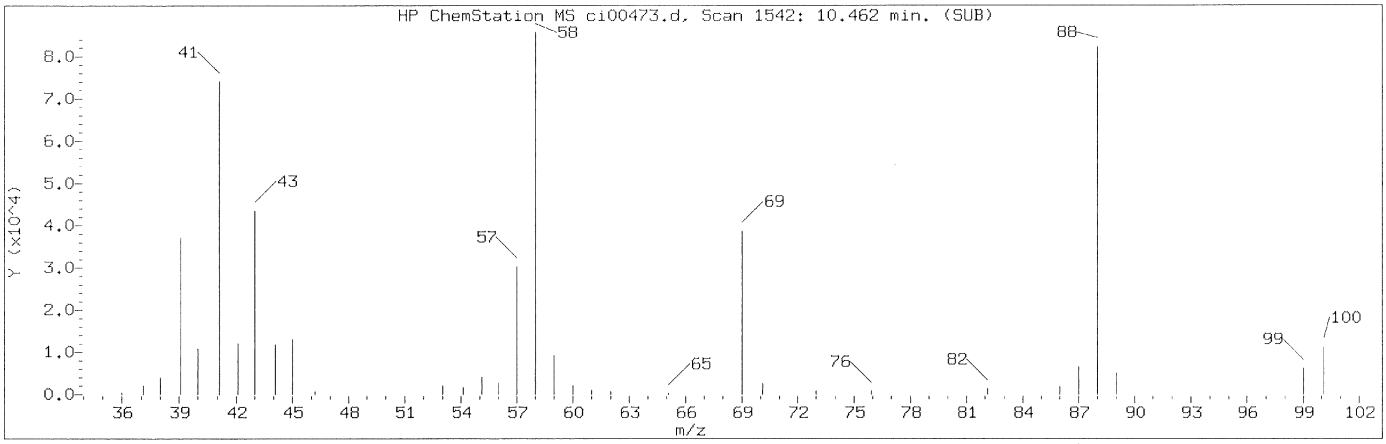
Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 22-SEP-2015 22:35
Date, time and analyst ID of latest file update: 23-Sep-2015 00:00 Automation

Sample Name: LCSDC75 Lab Sample ID: LCSDC75

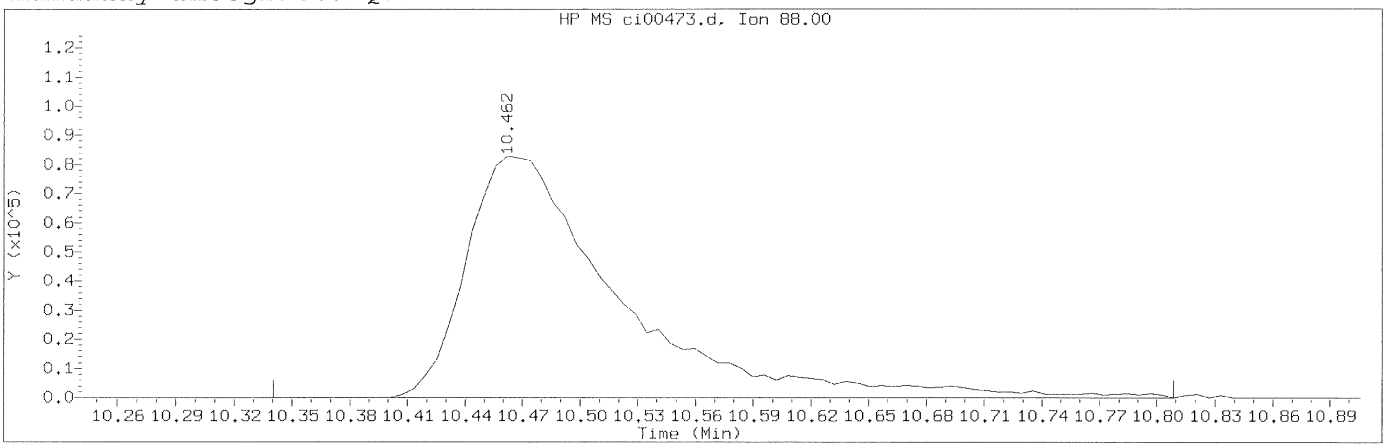
| | | | |
|---|---|---|---|
| Compound Number | : 22 | | |
| Compound Name | : Isopropanol | | |
| Scan Number | : 494 | | |
| Retention Time (minutes) | : 4.086 | | |
| Quant Ion | : 45.00 | | |
| Area | : 1968278 | | |
| Concentration (ppb(v)) | : 8.7315 | | |
| Integration start scan | : 479 | Integration stop scan: | 514 |
| Y at integration start | : 1024 | Y at integration end: | 1024 |

Digitally signed by Jeffrey B. Smith on 09/23/2015 at 09:32.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00473.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 23:20 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 09:11
Date, time and analyst ID of latest file update: 23-Sep-2015 09:19 jbs01304

Sample Name: LCSDC75 Lab Sample ID: LCSDC75

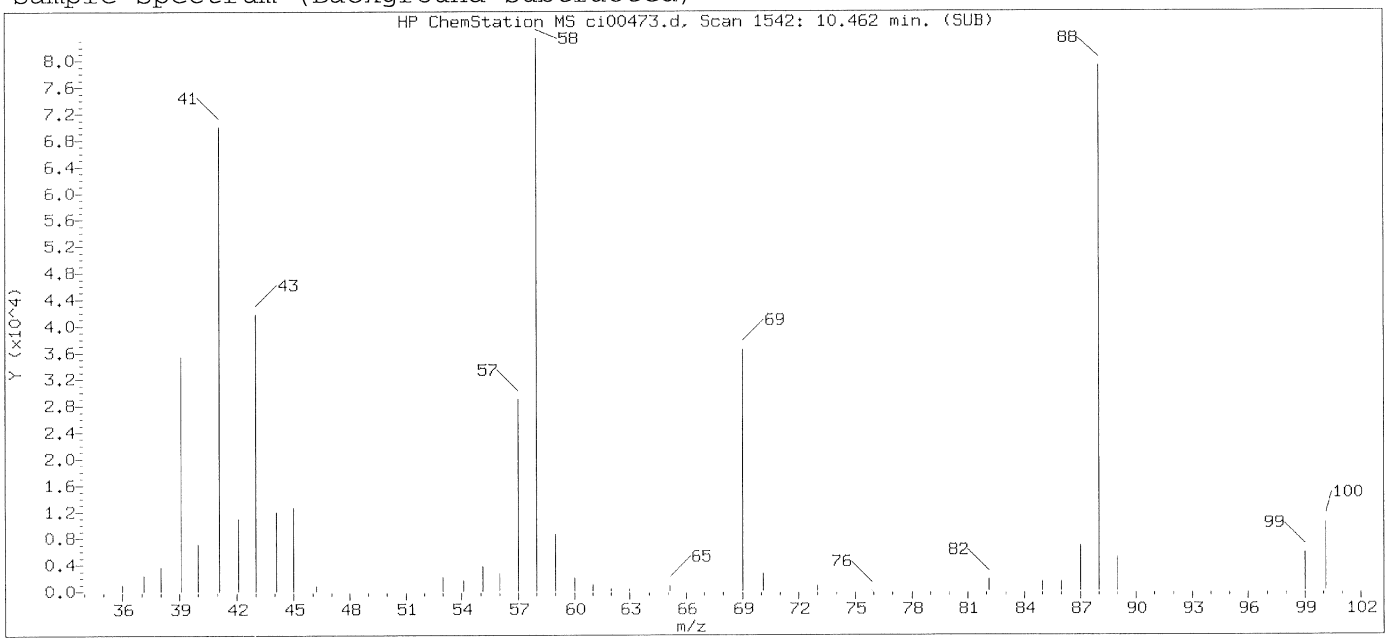
Compound Number : 56
Compound Name : 1,4-Dioxane
Scan Number : 1542
Retention Time (minutes): 10.462
Quant Ion : 88.00
Area (flag) : 457094M
Concentration (ppb(v)) : 11.8471
Integration start scan : 1521 Integration stop scan: 1598
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

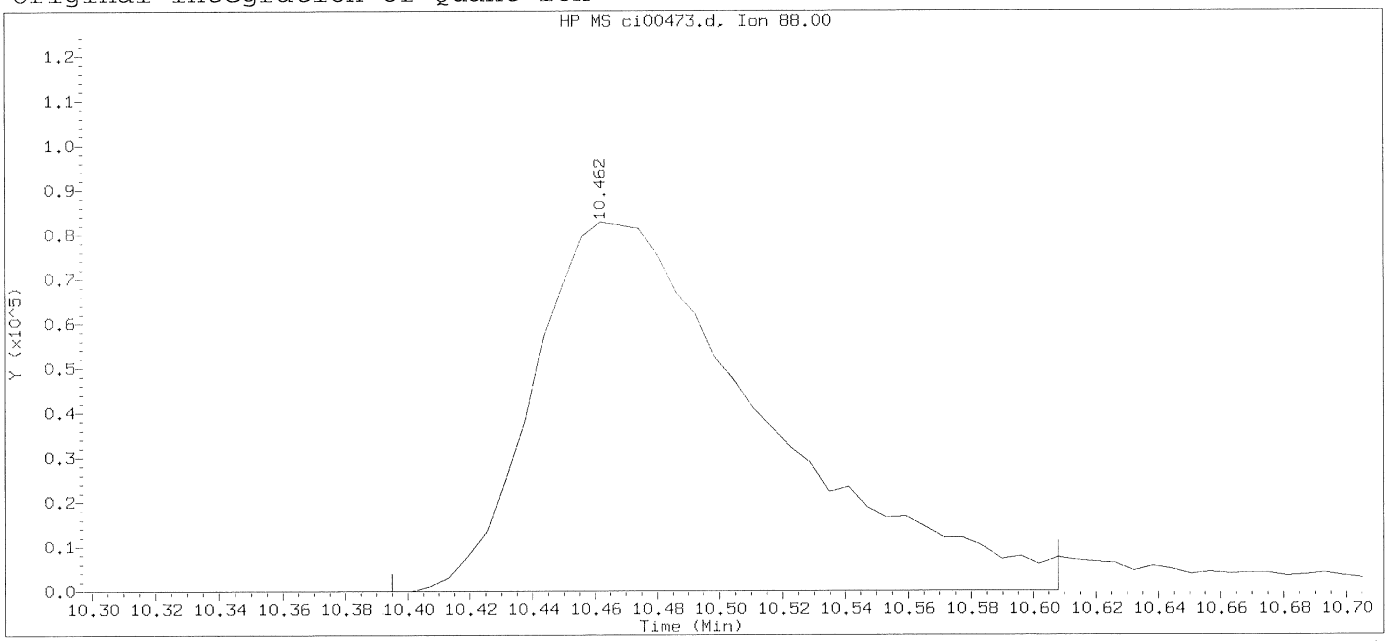
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 09/23/2015 at 09:32. Target 3.5 esignature user ID: jbs01304

GC/MS audit/management approval: Mark A. Ratcliff Senior Specialist SEP 25 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00473.d Instrument ID: HP09464.i
Injection date and time: 22-SEP-2015 23:20 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 22-SEP-2015 22:35
Date, time and analyst ID of latest file update: 23-Sep-2015 00:00 Automation

Sample Name: LCSDC75 Lab Sample ID: LCSDC75

| | | | |
|---|---|---|---|
| Compound Number | : 56 | | |
| Compound Name | : 1,4-Dioxane | | |
| Scan Number | : 1542 | | |
| Retention Time (minutes) | : 10.462 | | |
| Quant Ion | : 88.00 | | |
| Area | : 420801 | | |
| Concentration (ppb(v)) | : 10.9065 | | |
| Integration start scan | : 1530 | Integration stop scan: | 1565 |
| Y at integration start | : 0 | Y at integration end: | 0 |

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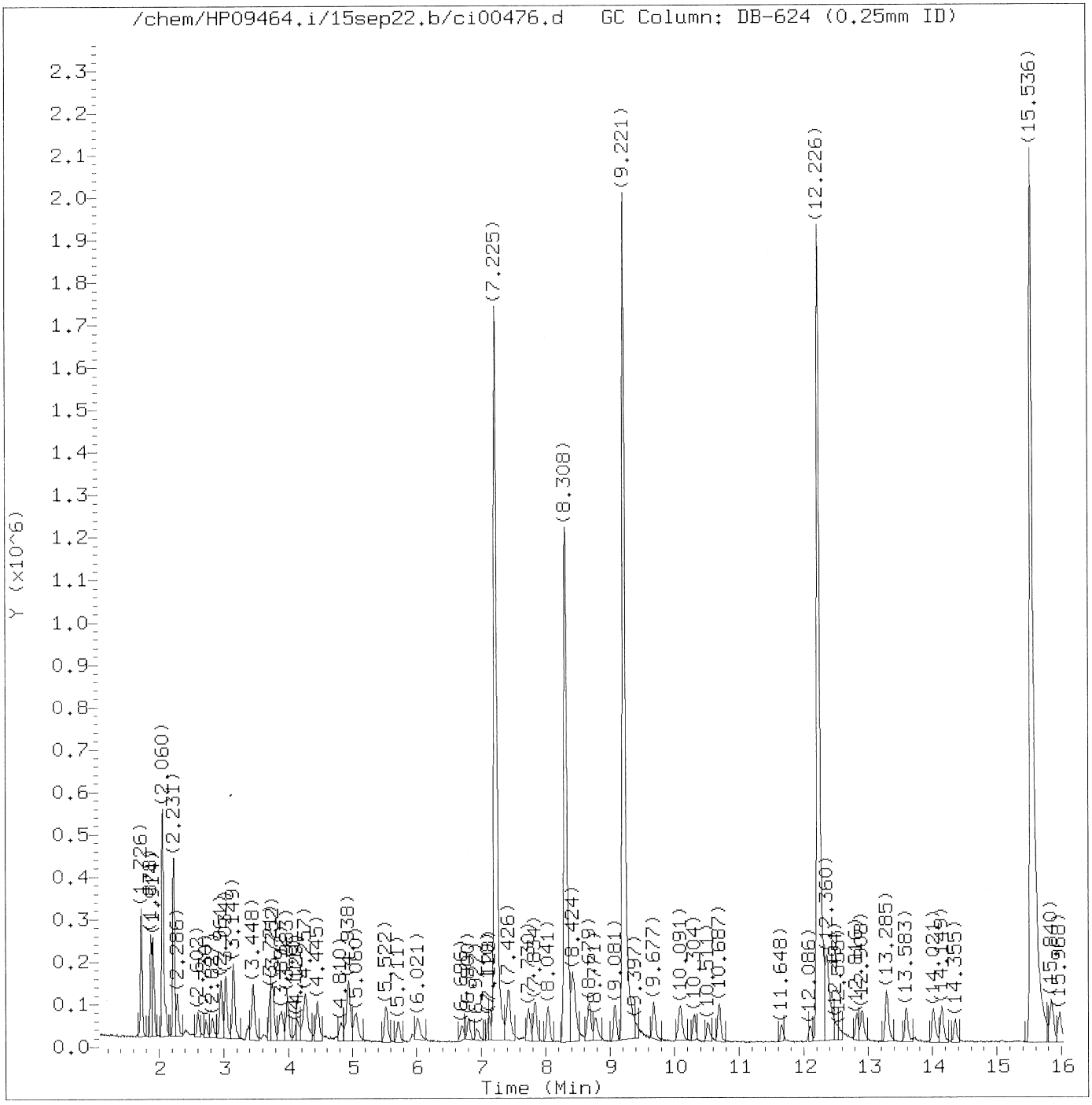
Target 3.5 esignature user ID: jbs01304




Total Ion Chromatogram (TIC)

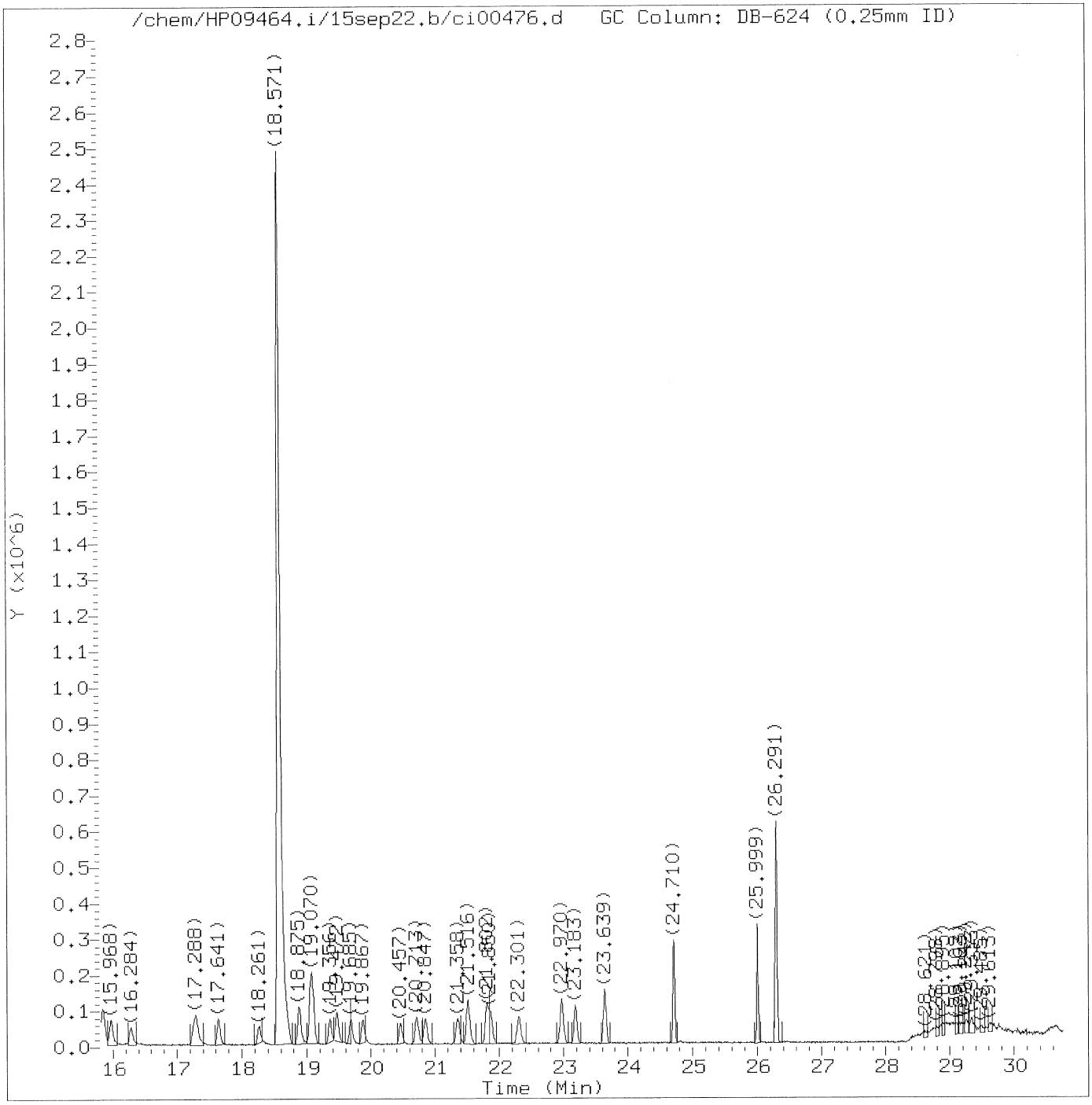
Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00476.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 01:36 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Digitally signed by Jacob E. Bailey
on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445




Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00476.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 01:36 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Digitally signed by Jacob E. Bailey
on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00476.d  Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 01:36  Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.5  Lab Sample ID: mdlv0.5

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 1) Propene | (1) | 1.878 | 41 | 62397 | 0.551 |
| 2) Dichlorodifluoromethane | (1) | 1.908 | 85 | 153827 | 0.533 |
| 3) Chlorodifluoromethane | (1) | 1.921 | 51 | 139528 | 0.569 |
| 4) Freon 114 | (1) | 2.054 | 85 | 131233 | 0.507 |
| 5) Chloromethane | (1) | 2.097 | 52 | 26866 | 0.516 |
| 6) Vinyl Chloride | (1) | 2.231 | 62 | 66368 | 0.506 |
| 7) 1,3-Butadiene | (1) | 2.286 | 54 | 46557 | 0.422 |
| 8) Bromomethane | (1) | 2.596 | 94 | 48331 | 0.466 |
| 9) Chloroethane | (1) | 2.724 | 64 | 38008 | 0.457 |
| 10) Bromoethene | (1) | 2.943 | 106 | 39086 | 0.448 |
| 11) Dichlorofluoromethane | (1) | 2.967 | 67 | 155768 | 0.485 |
| 12) Trichlorofluoromethane | (1) | 3.034 | 101 | 150214 | 0.500 |
| 13) Pentane | (1) | 3.149 | 43 | 145338 | 0.532 |
| 14) Ethanol | (1) | 3.375 | 45 | 71821 | 1.045 |
| 15) Freon123a | (1) | 3.448 | 67 | 132715 | 0.504 |
| 16) Acrolein | (1) | 3.630 | 56 | 18172M | 0.508 |
| 17) 1,1-Dichloroethene | (1) | 3.709 | 61 | 103839 | 0.453 |
| 18) Freon 113 | (1) | 3.752 | 103 | 59801 | 0.416 |
| 19) Acetone | (1) | 3.861 | 43 | 110544A | 0.803 |
| 20) Methyl Iodide | (1) | 3.898 | 142 | 75337 | 0.450 |
| 21) Carbon Disulfide | (1) | 3.983 | 76 | 202238 | 0.548 |
| 22) Isopropanol | (1) | 4.135 | 45 | 126890 | 0.627 |
| 23) Acetonitrile | (1) | 4.244 | 40 | 73080 | 1.236 |
| 24) 3-Chloropropene | (1) | 4.269 | 76 | 28286 | 0.491 |
| 25) Methylene Chloride | (1) | 4.445 | 84 | 52247 | 0.511 |
| 26) tert-Butyl Alcohol | (1) | 4.822 | 59 | 82734 | 0.469 |
| 27) Acrylonitrile | (1) | 4.914 | 53 | 76440 | 0.716 |
| 28) trans-1,2-Dichloroethene | (1) | 4.938 | 61 | 122850 | 0.475 |
| 29) Methyl t-Butyl Ether | (1) | 5.054 | 73 | 83818 | 0.442 |
| 30) Hexane | (1) | 5.522 | 57 | 51819 | 0.316 |
| 31) 1,1-Dichloroethane | (1) | 5.717 | 63 | 93691 | 0.443 |
| 33) Di-Isopropyl Ether | (1) | 6.021 | 45 | 83408 | 0.367 |
| 36) 1,2-Dichloroethene (total) | (1) | | 61 | 184847 | 0.876 |
| 34) Ethyl Tert-Butyl Ether | (1) | 6.696 | 59 | 53160 | 0.348 |
| 35) cis-1,2-Dichloroethene | (1) | 6.806 | 61 | 61997 | 0.401 |
| 37) 2-Butanone | (1) | 6.921 | 72 | 14167 | 0.548 |
| 38) Ethyl Acetate | (1) | 7.116 | 70 | 6403 | 0.431 |
| 39) Methyl Acrylate | (1) | 7.128 | 55 | 60102 | 0.521 |

M = Compound was manually integrated.
A = User selected an alternate hit.



Digitally signed by Jacob E. Bailey
on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00476.d  Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 01:36  Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.5  Lab Sample ID: mdlv0.5

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 40)*Bromochloromethane | (1) | 7.225 | 130 | 672159 | 10.000 |
| 41) Tetrahydrofuran | (1) | 7.402 | 42 | 42613 | 0.472 |
| 42) Chloroform | (1) | 7.426 | 83 | 99219 | 0.473 |
| 43) 1,1,1-Trichloroethane | (1) | 7.730 | 97 | 83697 | 0.453 |
| 44) Cyclohexane | (1) | 7.834 | 56 | 55986 | 0.306 |
| 45) Carbon Tetrachloride | (1) | 8.035 | 117 | 87221 | 0.472 |
| 46) Benzene | (2) | 8.424 | 78 | 123663 | 0.498 |
| 47) 1,2-Dichloroethane | (2) | 8.454 | 62 | 87146 | 0.543 |
| 48) Isooctane | (2) | 8.685 | 57 | 129930 | 0.310 |
| 49) Tert-Amyl Methyl Ether | (2) | 8.783 | 73 | 50666 | 0.423 |
| 50) Heptane | (2) | 9.075 | 43 | 56977 | 0.285 |
| 51)*1,4-Difluorobenzene | (2) | 9.221 | 114 | 2233343 | 10.000 |
| 52) Trichloroethene | (2) | 9.683 | 130 | 38562 | 0.416 |
| 53) Ethyl Acrylate | (2) | 10.060 | 55 | 59728 | 0.499 |
| 54) 1,2-Dichloropropane | (2) | 10.103 | 63 | 53400 | 0.503 |
| 55) Dibromomethane | (2) | 10.304 | 174 | 30148 | 0.474 |
| 56) 1,4-Dioxane | (2) | 10.511 | 88 | 14739 | 0.438 |
| 57) Methyl Methacrylate | (2) | 10.511 | 69 | 24615 | 0.418 |
| 58) Bromodichloromethane | (2) | 10.687 | 83 | 104792 | 0.499 |
| 59) cis-1,3-Dichloropropene | (2) | 11.660 | 75 | 43604 | 0.375 |
| 60) 4-Methyl-2-Pentanone | (2) | 12.098 | 43 | 62516 | 0.371 |
| 61) Toluene | (3) | 12.372 | 91 | 111689 | 0.537 |
| 64) 1,3-Dichloropropene (total) | (3) | | 75 | 116399 | 0.930 |
| 62) Octane | (3) | 12.828 | 43 | 55436 | 0.236 |
| 63) trans-1,3-Dichloropropene | (3) | 12.908 | 75 | 72795 | 0.555 |
| 66) 1,1,2-Trichloroethane | (3) | 13.285 | 97 | 49591 | 0.543 |
| 65) Ethyl Methacrylate | (3) | 13.291 | 69 | 35764 | 0.369 |
| 67) Tetrachloroethene | (3) | 13.583 | 166 | 36800M | 0.413 |
| 68) 2-Hexanone | (3) | 14.021 | 43 | 131361 | 0.761 |
| 69) Dibromochloromethane | (3) | 14.149 | 127 | 58064 | 0.449 |
| 70) 1,2-Dibromoethane | (3) | 14.355 | 107 | 70084 | 0.563 |
| 71)*Chlorobenzene-d5 | (3) | 15.536 | 117 | 2127843 | 10.000 |
| 72) Chlorobenzene | (3) | 15.609 | 112 | 98210 | 0.586 |
| 73) 1,1,1,2-Tetrachloroethane | (3) | 15.840 | 131 | 44030 | 0.496 |
| 74) Ethylbenzene | (3) | 15.974 | 91 | 107954 | 0.484 |
| 75) m/p-Xylene | (3) | 16.272 | 91 | 68862 | 0.388 |
| 77) Xylene (total) | (3) | | 91 | 150075 | 0.819 |
| 76) o-Xylene | (3) | 17.257 | 91 | 81213 | 0.430 |

M = Compound was manually integrated.
* = Compound is an internal standard.



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on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00476.d  Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 01:36  Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.5  Lab Sample ID: mdlv0.5

| | Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|---|
| 78) | Styrene | (3) | 17.300 | 104 | 66141 | 0.438 |
| 79) | Bromoform | (3) | 17.641 | 173 | 57183 | 0.480 |
| 80) | Cumene | (3) | 18.267 | 105 | 77837 | 0.370 |
| 81) | Bromobenzene | (3) | 18.875 | 156 | 43541 | 0.541 |
| 82) | 1,1,2,2-Tetrachloroethane | (3) | 19.052 | 83 | 154053 | 0.754 |
| 83) | 1,2,3-Trichloropropane | (3) | 19.082 | 110 | 29401 | 0.568 |
| 84) | n-Propylbenzene | (3) | 19.356 | 120 | 25298 | 0.413 |
| 85) | 2-Chlorotoluene | (3) | 19.472 | 126 | 30584 | 0.463 |
| 86) | 4-Ethyltoluene | (3) | 19.685 | 105 | 101695 | 0.446 |
| 87) | 1,3,5-Trimethylbenzene | (3) | 19.873 | 105 | 89479 | 0.471 |
| 88) | Alpha Methyl Styrene | (3) | 20.475 | 118 | 37678 | 0.404 |
| 89) | tert-Butylbenzene | (3) | 20.719 | 119 | 67812 | 0.397 |
| 90) | 1,2,4-Trimethylbenzene | (3) | 20.853 | 105 | 95017 | 0.461 |
| 91) | sec-Butylbenzene | (3) | 21.358 | 105 | 114413 | 0.420 |
| 92) | 1,3-Dichlorobenzene | (3) | 21.516 | 146 | 93948 | 0.612 |
| 93) | 1,4-Dichlorobenzene | (3) | 21.808 | 146 | 88459 | 0.567 |
| 94) | p-Isopropyltoluene | (3) | 21.881 | 119 | 88684 | 0.398 |
| 95) | Benzyl Chloride | (3) | 22.301 | 91 | 135169 | 0.578 |
| 96) | 1,2-Dichlorobenzene | (3) | 22.970 | 146 | 84615 | 0.595 |
| 97) | n-Butylbenzene | (3) | 23.189 | 91 | 120255 | 0.491 |
| 98) | Hexachloroethane | (3) | 23.639 | 117 | 59350 | 0.563 |
| 99) | 1,2-Dibromo-3-chloropropane | (3) | 24.716 | 157 | 61120 | 0.904 |
| 100) | 1,2,4-Trichlorobenzene | (3) | 26.005 | 180 | 72911 | 1.013 |
| 101) | Hexachlorobutadiene | (3) | 26.285 | 225 | 53363 | 0.760 |
| 102) | Naphthalene | (3) | 26.297 | 128 | 262902 | 1.288 |



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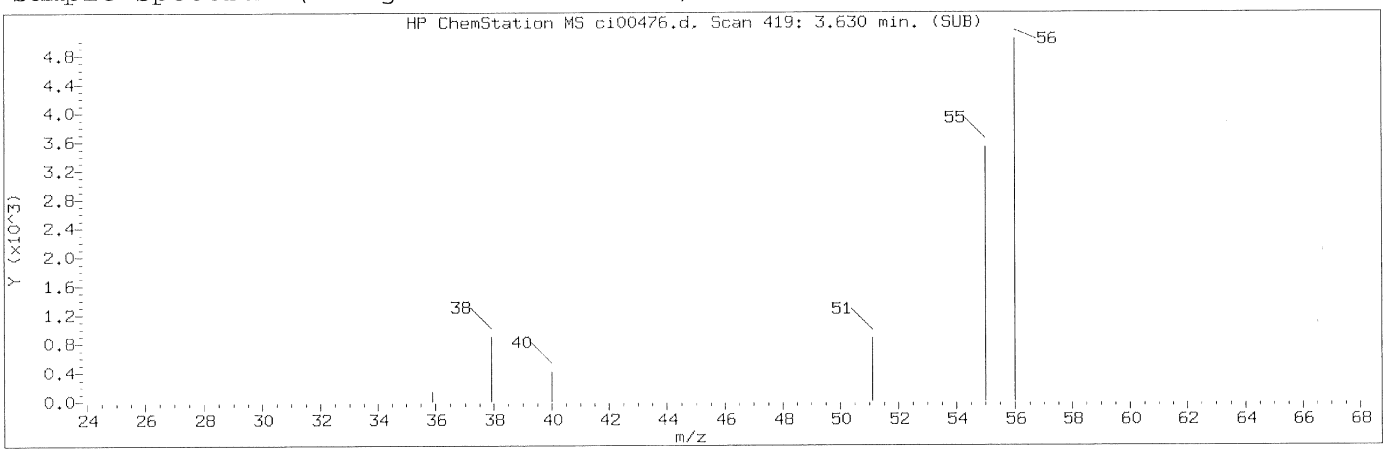
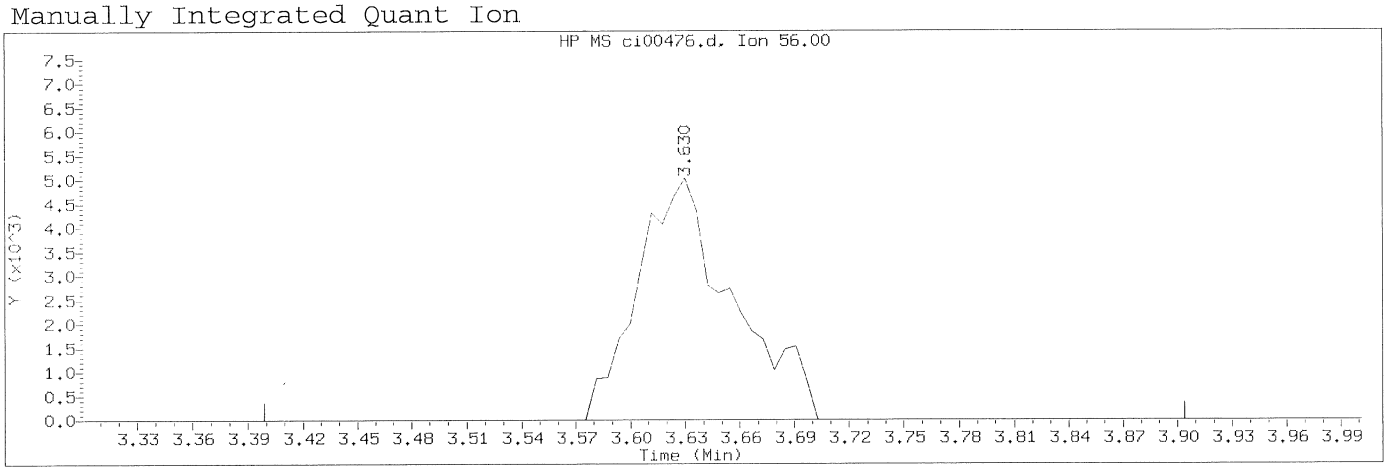
on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00476.d  Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 01:36  Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.5  Lab Sample ID: mdlv0.5

| | | | |
|---|---|---|---|
| Compound Number | : 16 | | |
| Compound Name | : Acrolein | | |
| Scan Number | : 419 | | |
| Retention Time (minutes) | : 3.630 | | |
| Quant Ion | : 56.00 | | |
| Area (flag) | : 18172M | | |
| Concentration (ppb(v)) | : 0.5076 | | |
| Integration start scan | : 380 | Integration stop scan: | 463 |
| Y at integration start | : 0 | Y at integration end: | 0 |

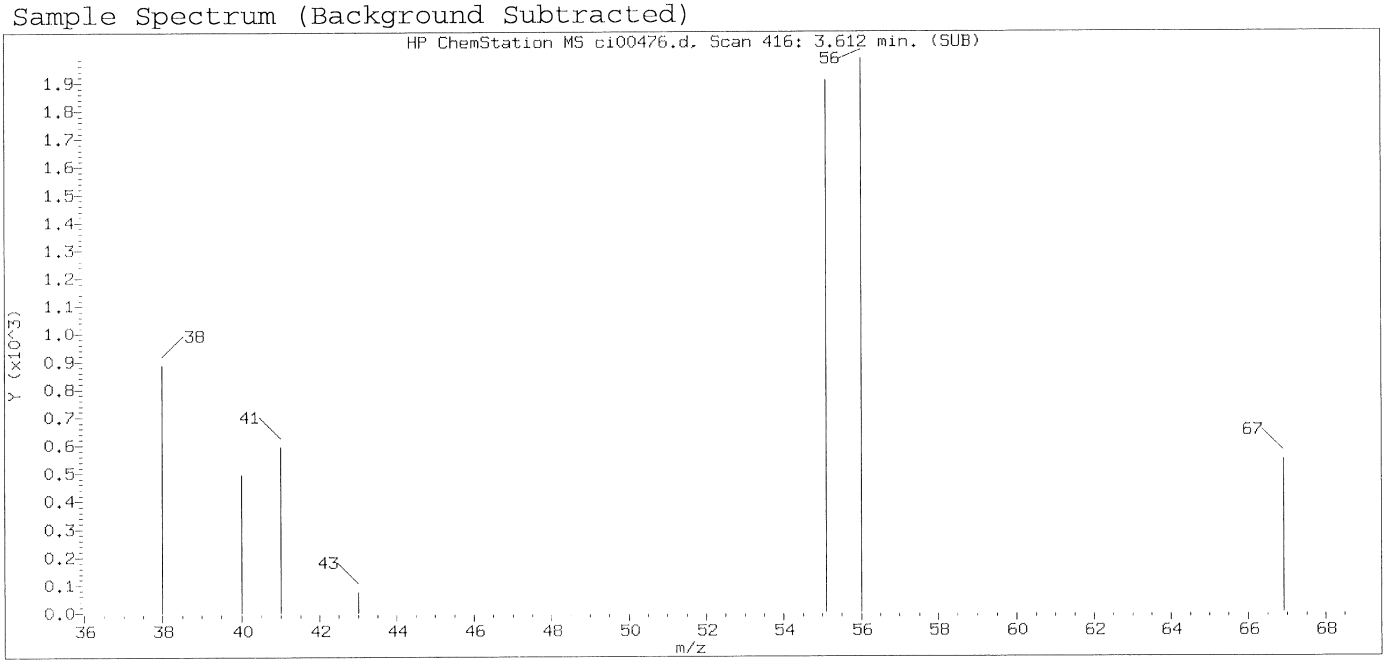
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Jacob E. Bailey on 09/23/2015 at 14:30. Target 3.5 esignature user ID: jeb07445

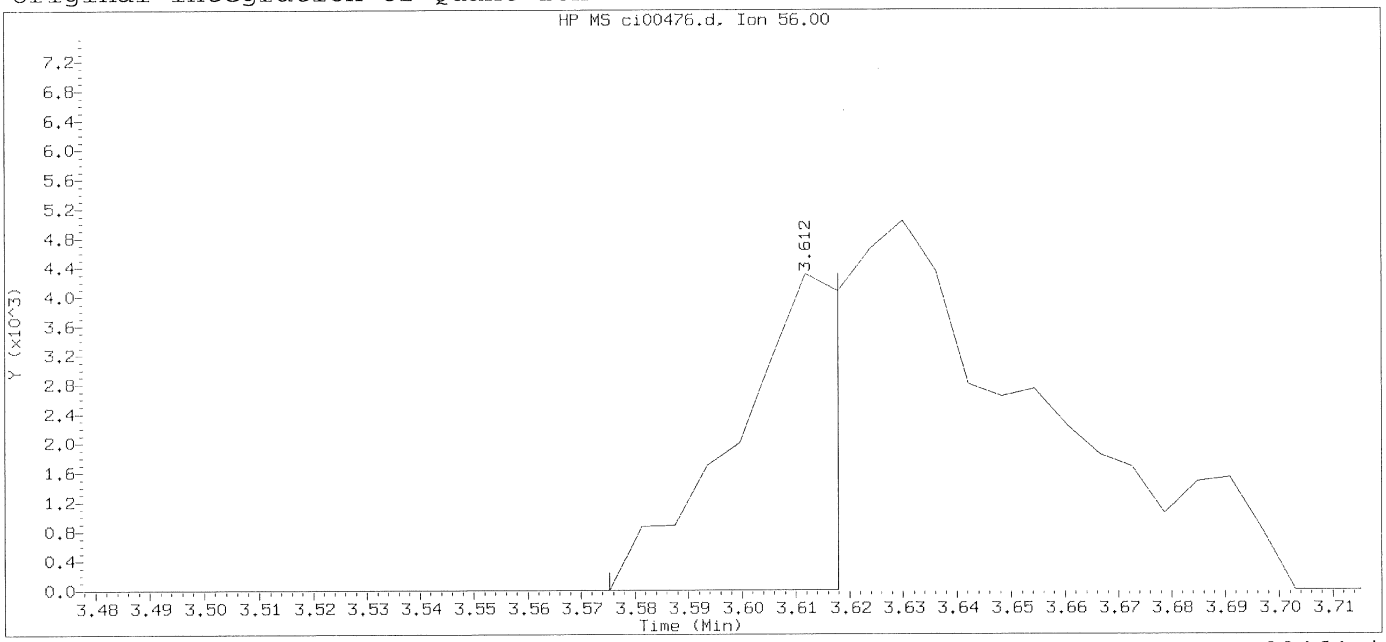
Mark A. Ratcliff
Senior Specialist

GC/MS audit/management approval: _____ SEP 25 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00476.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 01:36 Analyst ID: jeb07445

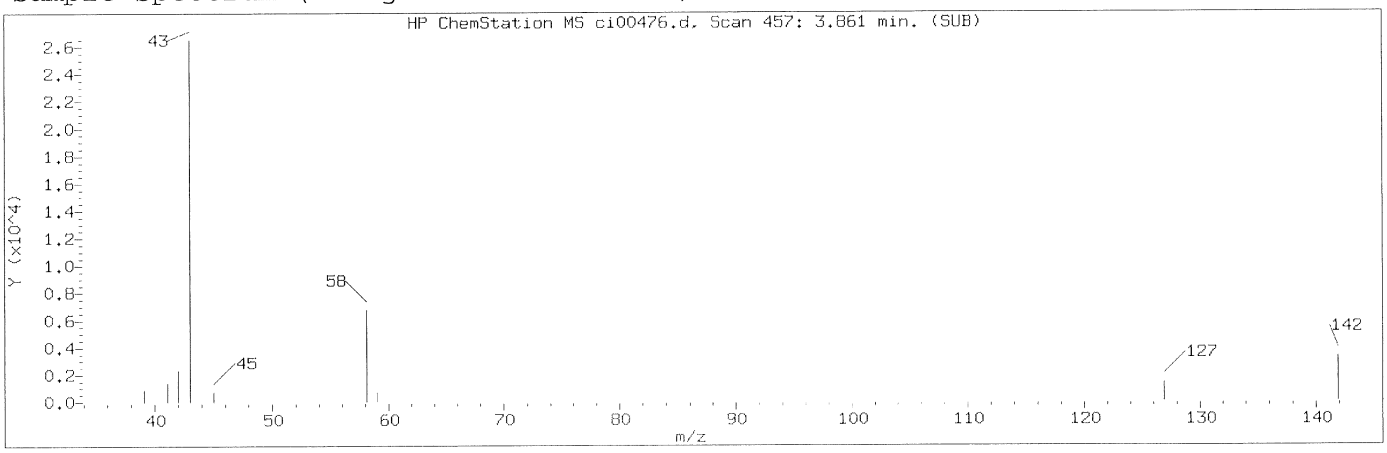
Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 22-SEP-2015 22:35
Date, time and analyst ID of latest file update: 23-Sep-2015 02:15 Automation

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

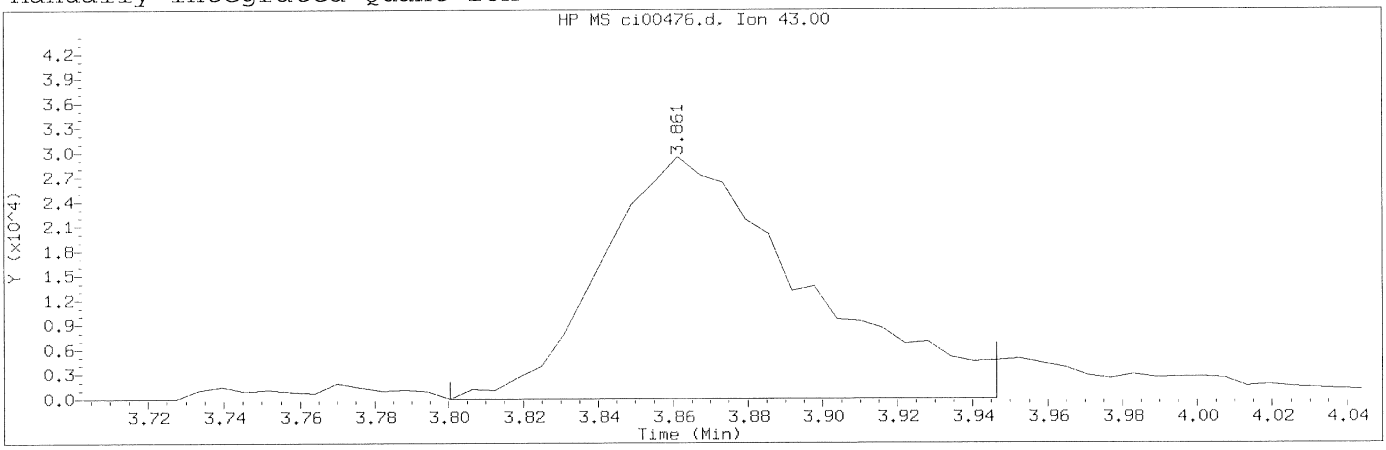
| | | | |
|---|---|---|---|
| Compound Number | : 16 | | |
| Compound Name | : Acrolein | | |
| Scan Number | : 416 | | |
| Retention Time (minutes) | : 3.612 | | |
| Quant Ion | : 56.00 | | |
| Area | : 5462 | | |
| Concentration (ppb(v)) | : 0.1619 | | |
| Integration start scan | : 409 | Integration stop scan: | 416 |
| Y at integration start | : 0 | Y at integration end: | 0 |

Digitally signed by Jacob E. Bailey on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00476.d  Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 01:36  Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.5  Lab Sample ID: mdlv0.5

| | | | |
|---|---|---|---|
| Compound Number | : 19 | | |
| Compound Name | : Acetone | | |
| Scan Number | : 457 | | |
| Retention Time (minutes) | : 3.861 | | |
| Quant Ion | : 43.00 | | |
| Area (flag) | : 110544A | | |
| Concentration (ppb(v)) | : 0.8030 | | |
| Integration start scan | : 446 | Integration stop scan: | 470 |
| Y at integration start | : 0 | Y at integration end: | 0 |

Reason for manual integration: improper integration

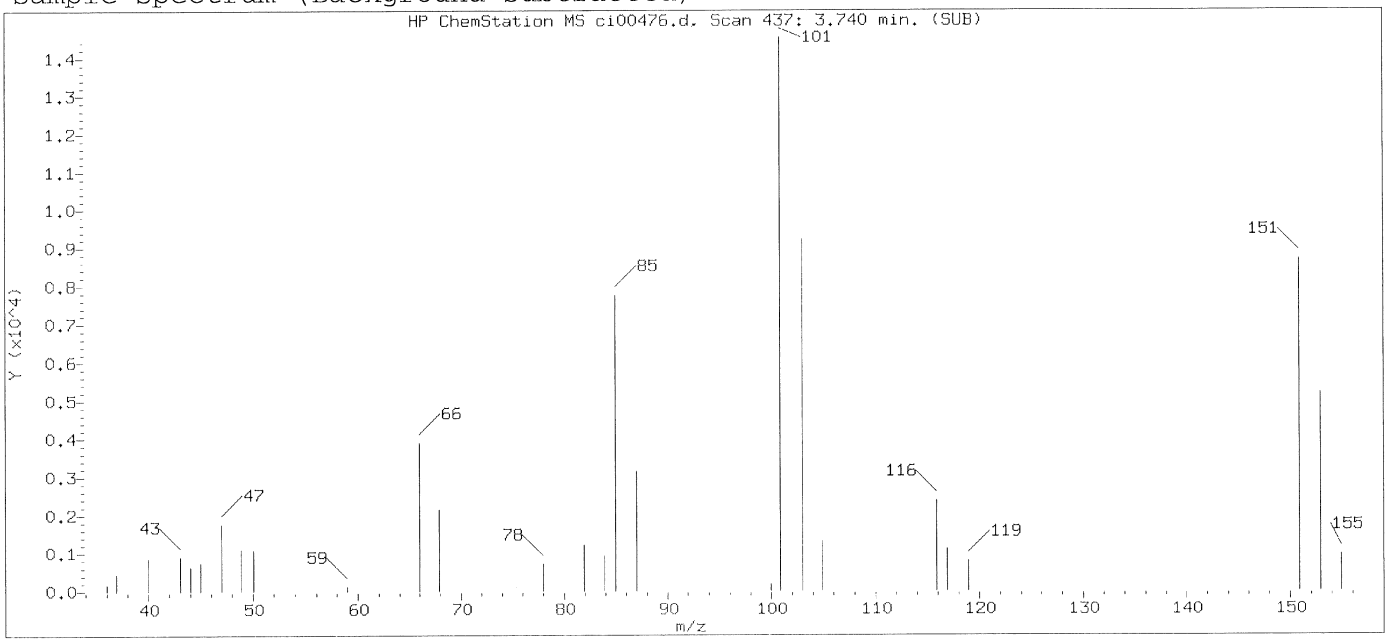
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 09/23/2015 at 14:30. Target 3.5 esignature user ID: jeb07445

Mark A. Ratcliff
Senior Specialist

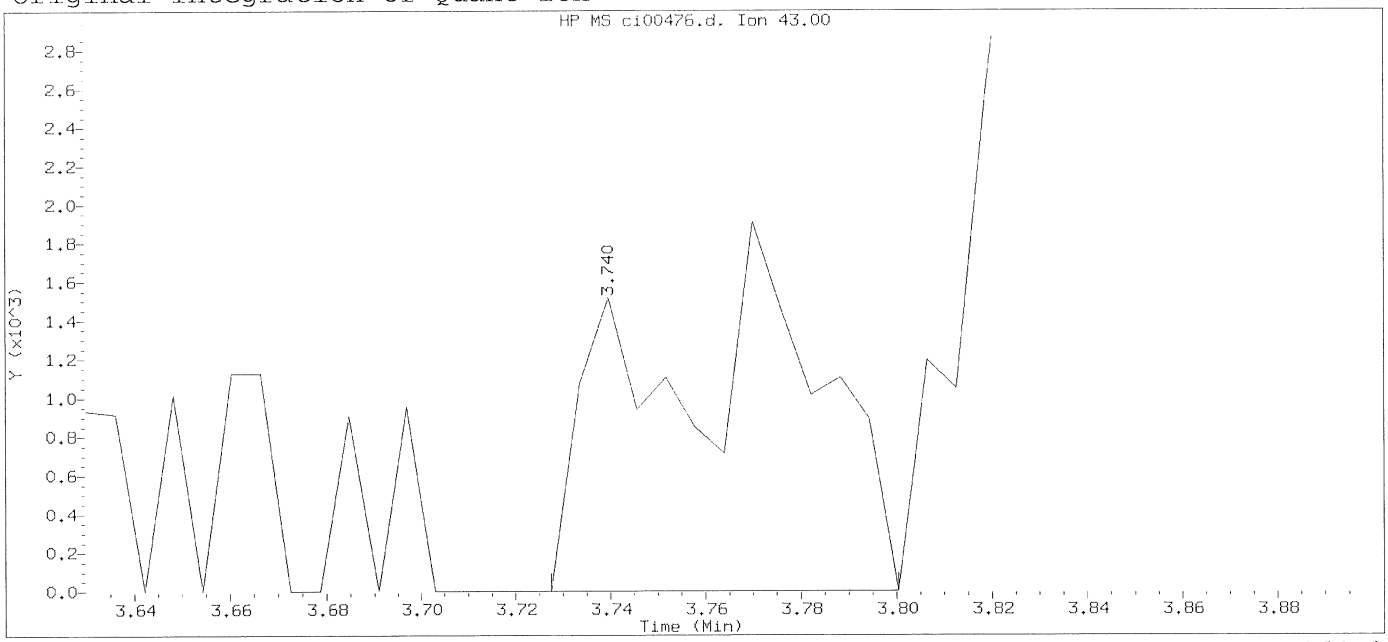
SEP 25 2015

GC/MS audit/management approval:_____

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00476.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 01:36 Analyst ID: jeb07445

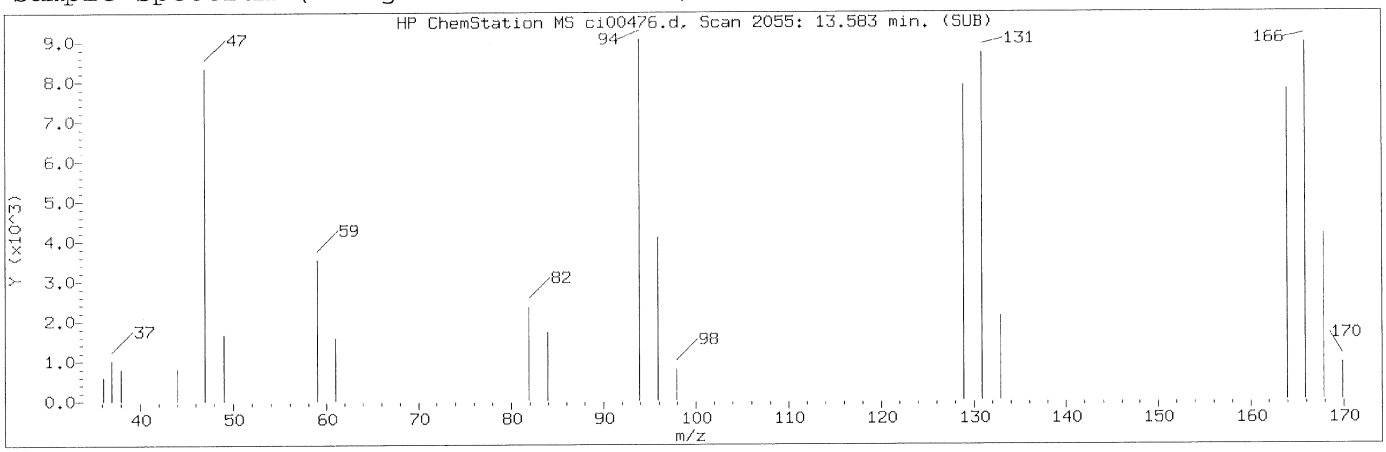
Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 22-SEP-2015 22:35
Date, time and analyst ID of latest file update: 23-Sep-2015 02:15 Automation

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

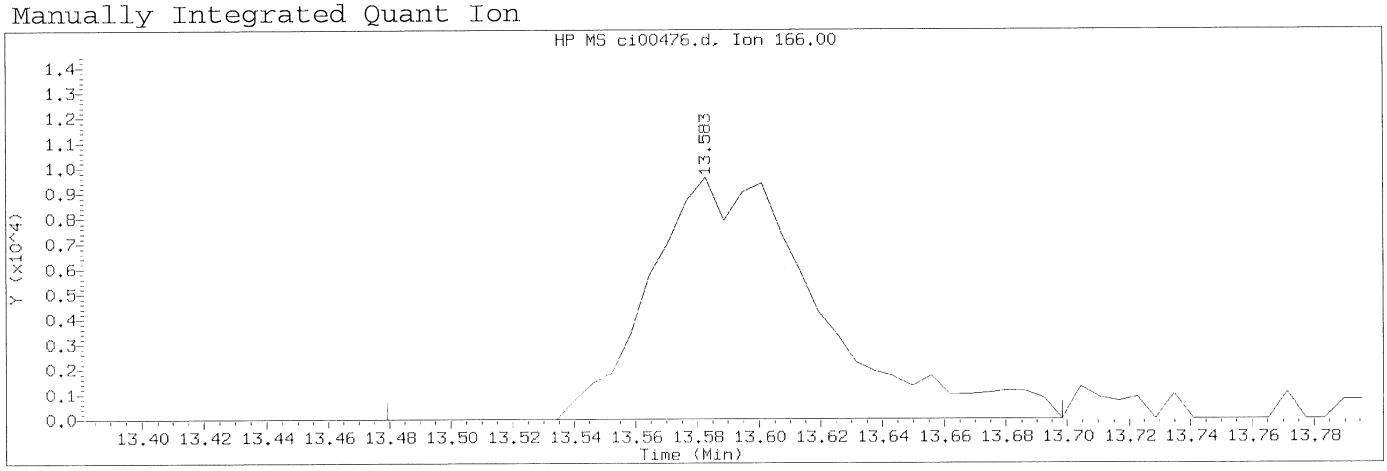
| | | | |
|---|---|---|---|
| Compound Number | : 19 | | |
| Compound Name | : Acetone | | |
| Scan Number | : 437 | | |
| Retention Time (minutes) | : 3.740 | | |
| Quant Ion | : 43.00 | | |
| Area | : 4585 | | |
| Concentration (ppb(v)) | : 0.0340 | | |
| Integration start scan | : 434 | Integration stop scan: | 446 |
| Y at integration start | : 0 | Y at integration end: | 0 |

Digitally signed by Jacob E. Bailey on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00476.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 01:36 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Compound Number : 67
Compound Name : Tetrachloroethene
Scan Number : 2055
Retention Time (minutes): 13.583
Quant Ion : 166.00
Area (flag) : 36800M
Concentration (ppb(v)) : 0.4127
Integration start scan : 2037 Integration stop scan: 2073
Y at integration start : 0 Y at integration end: 0

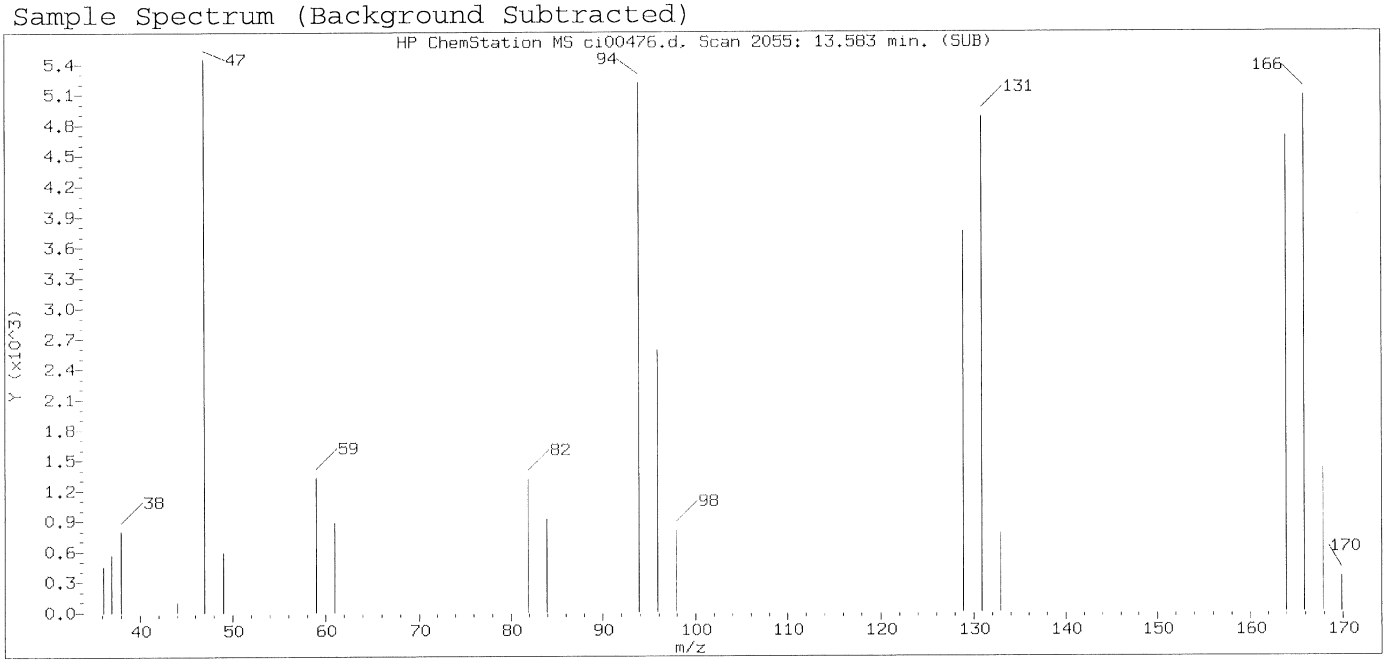
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445

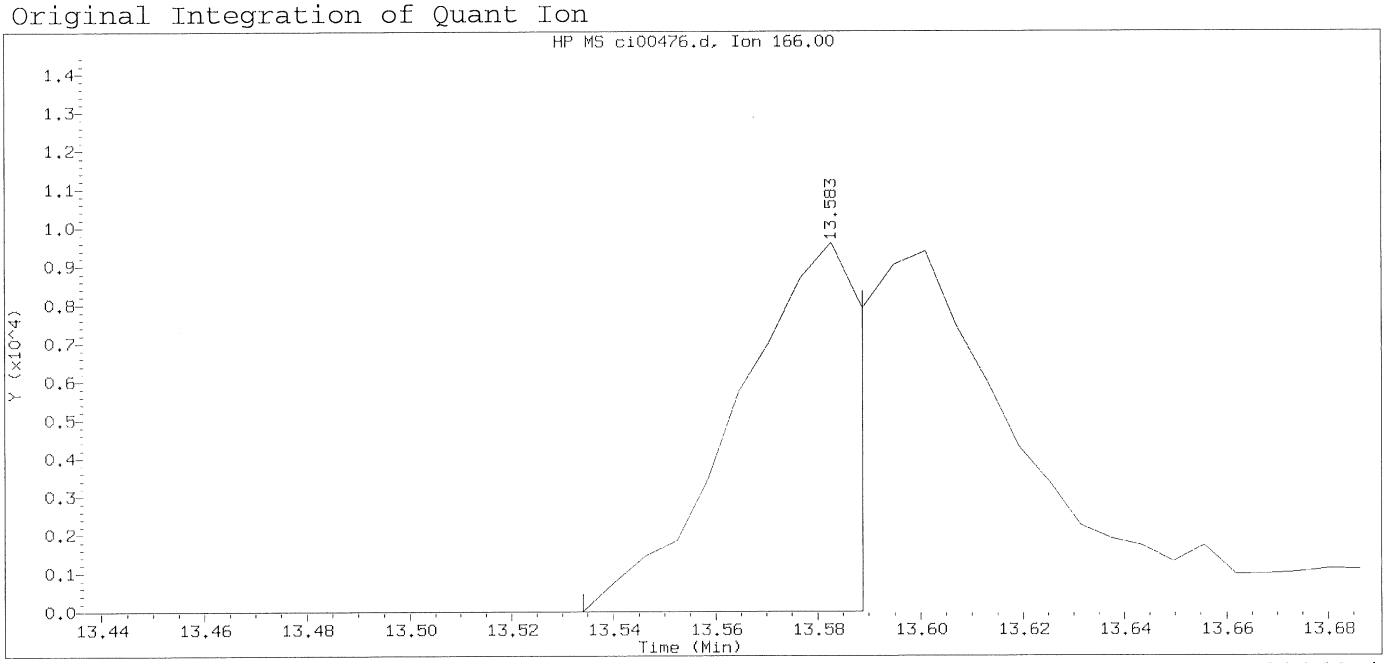
Mark A. Ratcliff
Senior Specialist
SEP 25 2015

GC/MS audit/management approval:_____

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00476.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 01:36 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 22-SEP-2015 22:35
Date, time and analyst ID of latest file update: 23-Sep-2015 02:15 Automation

Sample Name: mdlv0.5 Lab Sample ID: mdlv0.5

Compound Number : 67
Compound Name : Tetrachloroethene
Scan Number : 2055
Retention Time (minutes): 13.583
Quant Ion : 166.00
Area : 15503
Concentration (ppb(v)) : 0.1739
Integration start scan : 2046 Integration stop scan: 2055
Y at integration start : 0 Y at integration end: 0

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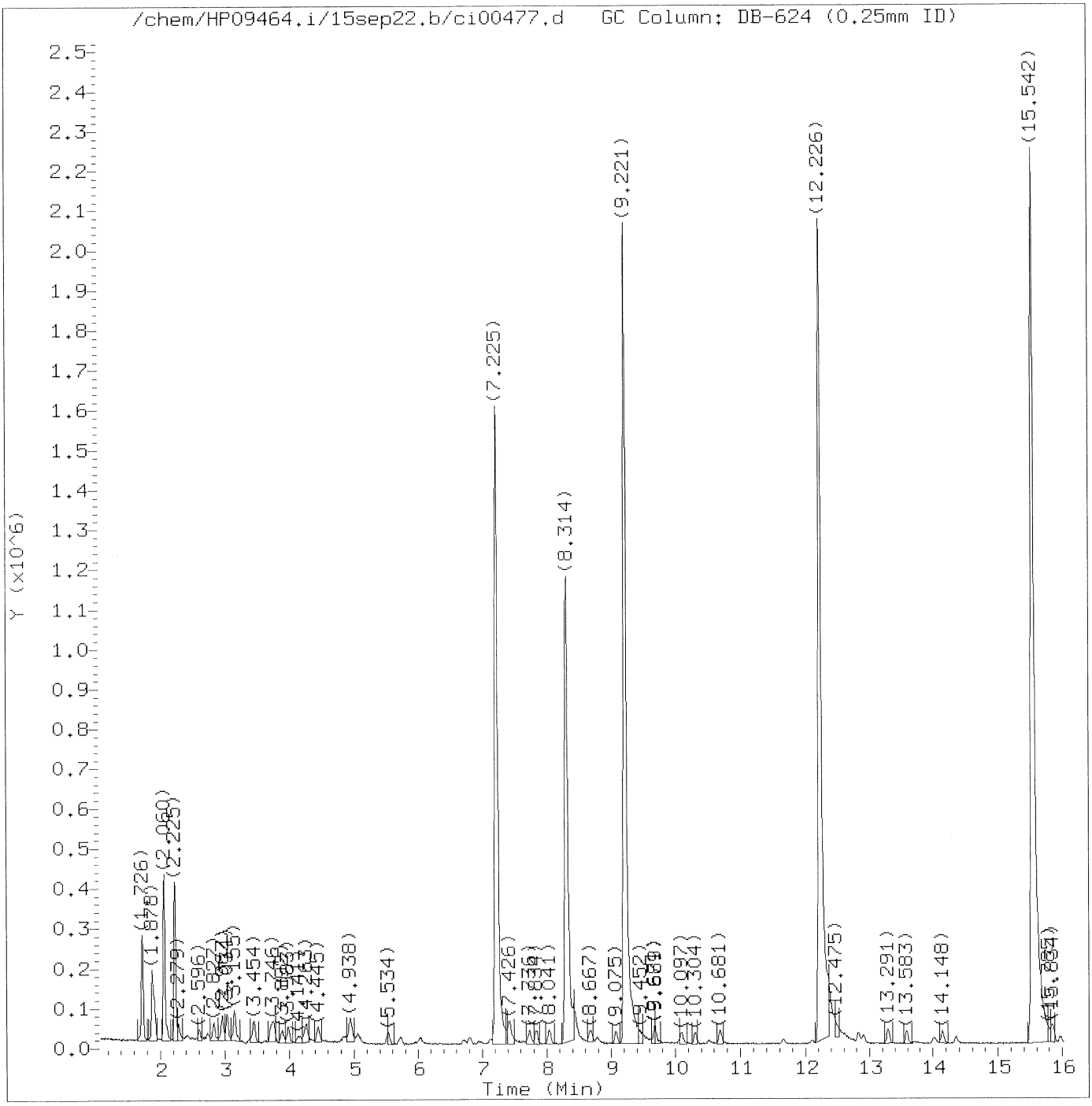
Target 3.5 esignature user ID: jeb07445




Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00477.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 02:19 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

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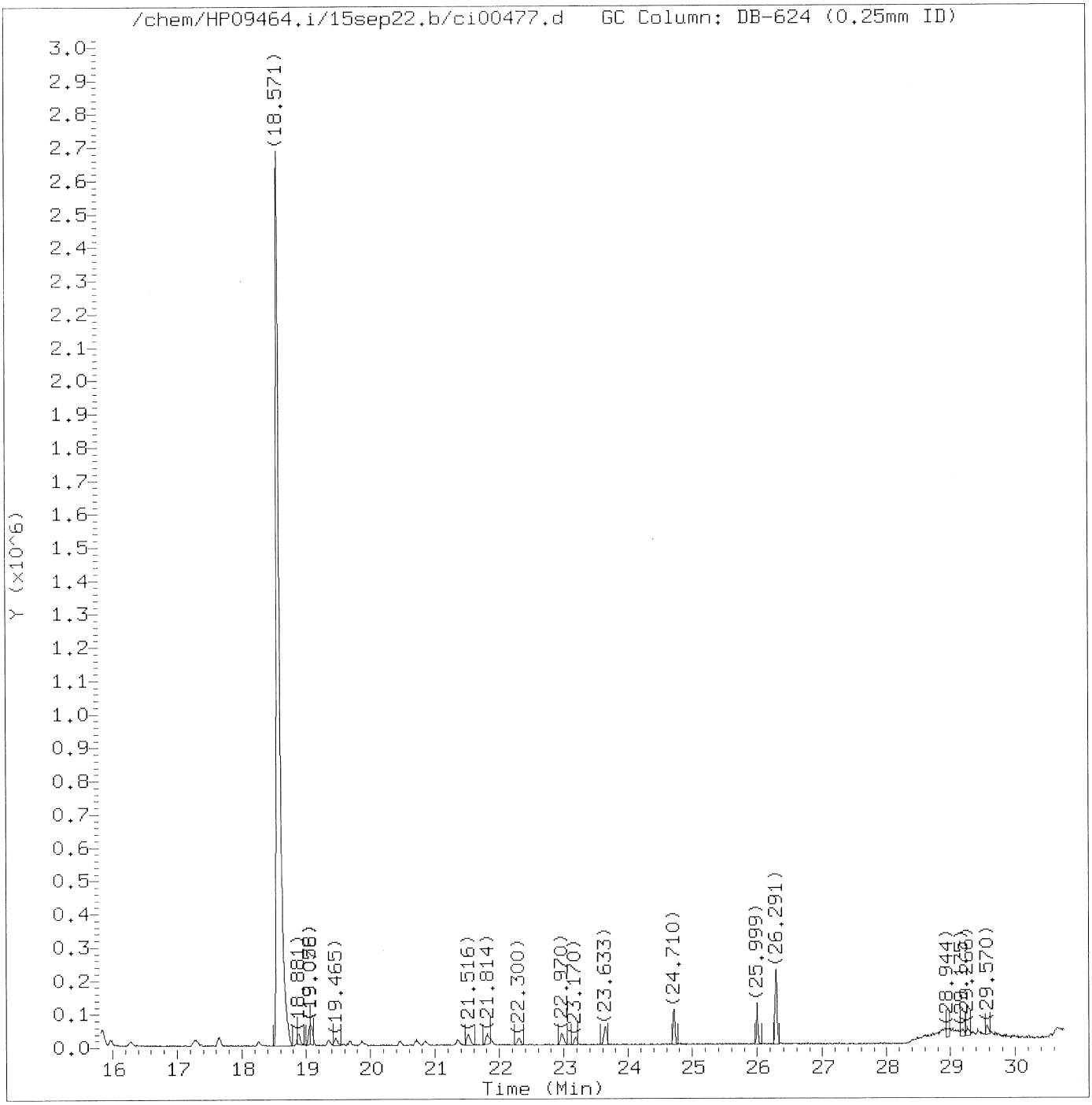
on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445




Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00477.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 02:19 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Digitally signed by Jacob E. Bailey
on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00477.d  Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 02:19  Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.2  Lab Sample ID: mdlv0.2

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 1) Propene | (1) | 1.872 | 41 | 30280 | 0.284 |
| 2) Dichlorodifluoromethane | (1) | 1.908 | 85 | 66798 | 0.246 |
| 3) Chlorodifluoromethane | (1) | 1.920 | 51 | 59551 | 0.258 |
| 4) Freon 114 | (1) | 2.054 | 85 | 54161 | 0.222 |
| 5) Chloromethane | (1) | 2.103 | 52 | 12627 | 0.258 |
| 6) Vinyl Chloride | (1) | 2.237 | 62 | 28424 | 0.230 |
| 7) 1,3-Butadiene | (1) | 2.279 | 54 | 18119 | 0.174 |
| 8) Bromomethane | (1) | 2.602 | 94 | 18999 | 0.195 |
| 9) Chloroethane | (1) | 2.717 | 64 | 5261 | 0.067 |
| 10) Bromoethene | (1) | 2.942 | 106 | 16015 | 0.195 |
| 11) Dichlorofluoromethane | (1) | 2.967 | 67 | 69729 | 0.231 |
| 12) Trichlorofluoromethane | (1) | 3.034 | 101 | 61051 | 0.216 |
| 13) Pentane | (1) | 3.155 | 43 | 58646 | 0.228 |
| 14) Ethanol | (1) | 3.399 | 45 | 18792 | 0.290 |
| 15) Freon123a | (1) | 3.447 | 67 | 55064 | 0.222 |
| 16) Acrolein | (1) | 3.630 | 56 | 4029M | 0.119 |
| 17) 1,1-Dichloroethene | (1) | 3.709 | 61 | 44644 | 0.207 |
| 18) Freon 113 | (1) | 3.758 | 103 | 24389 | 0.180 |
| 19) Acetone | (1) | 3.879 | 43 | 36579 | 0.282 |
| 20) Methyl Iodide | (1) | 3.892 | 142 | 29357 | 0.186 |
| 21) Carbon Disulfide | (1) | 3.977 | 76 | 76999 | 0.222 |
| 22) Isopropanol | (1) | 4.171 | 45 | 62018M | 0.325 |
| 23) Acetonitrile | (1) | 4.257 | 40 | 42647A | 0.766 |
| 24) 3-Chloropropene | (1) | 4.275 | 76 | 9839 | 0.181 |
| 25) Methylene Chloride | (1) | 4.445 | 84 | 23899 | 0.248 |
| 26) tert-Butyl Alcohol | (1) | 4.853 | 59 | 33898M | 0.204 |
| 27) Acrylonitrile | (1) | 4.926 | 53 | 25146 | 0.250 |
| 28) trans-1,2-Dichloroethene | (1) | 4.944 | 61 | 51712M | 0.212 |
| 29) Methyl t-Butyl Ether | (1) | 5.060 | 73 | 23701 | 0.133 |
| 30) Hexane | (1) | 5.510 | 57 | 17818 | 0.115 |
| 31) 1,1-Dichloroethane | (1) | 5.723 | 63 | 38275 | 0.192 |
| 33) Di-Isopropyl Ether | (1) | 6.039 | 45 | 22460M | 0.105 |
| 36) 1,2-Dichloroethene (total) | (1) | | 61 | 71493 | 0.348 |
| 34) Ethyl Tert-Butyl Ether | (1) | 6.714 | 59 | 11935 | 0.083 |
| 35) cis-1,2-Dichloroethene | (1) | 6.799 | 61 | 19781 | 0.136 |
| 37) 2-Butanone | (1) | 6.952 | 72 | 1431 | 0.059 |
| 39) Methyl Acrylate | (1) | 7.158 | 55 | 13636 | 0.126 |
| 40)*Bromochloromethane | (1) | 7.231 | 130 | 633001 | 10.000 |

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.



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on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00477.d  Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 02:19  Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.2  Lab Sample ID: mdlv0.2

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 41) Tetrahydrofuran | (1) | 7.420 | 42 | 10244 | 0.120 |
| 42) Chloroform | (1) | 7.438 | 83 | 40903 | 0.207 |
| 43) 1,1,1-Trichloroethane | (1) | 7.742 | 97 | 33286 | 0.191 |
| 44) Cyclohexane | (1) | 7.828 | 56 | 20196 | 0.117 |
| 45) Carbon Tetrachloride | (1) | 8.041 | 117 | 37863 | 0.218 |
| 46) Benzene | (2) | 8.418 | 78 | 46447 | 0.188 |
| 47) 1,2-Dichloroethane | (2) | 8.442 | 62 | 32617 | 0.205 |
| 48) Isooctane | (2) | 8.673 | 57 | 45423 | 0.109 |
| 49) Tert-Amyl Methyl Ether | (2) | 8.777 | 73 | 12531 | 0.105 |
| 50) Heptane | (2) | 9.087 | 43 | 18672 | 0.094 |
| 51)*1,4-Difluorobenzene | (2) | 9.221 | 114 | 2217619 | 10.000 |
| 52) Trichloroethene | (2) | 9.689 | 130 | 16548 | 0.180 |
| 53) Ethyl Acrylate | (2) | 10.060 | 55 | 16020 | 0.135 |
| 54) 1,2-Dichloropropane | (2) | 10.097 | 63 | 19168 | 0.182 |
| 55) Dibromomethane | (2) | 10.304 | 174 | 13134 | 0.208 |
| 57) Methyl Methacrylate | (2) | 10.510 | 69 | 4916 | 0.084 |
| 56) 1,4-Dioxane | (2) | 10.577 | 88 | 1140M | 0.034 |
| 58) Bromodichloromethane | (2) | 10.681 | 83 | 43983 | 0.211 |
| 59) cis-1,3-Dichloropropene | (2) | 11.666 | 75 | 13598 | 0.118 |
| 60) 4-Methyl-2-Pentanone | (2) | 12.104 | 43 | 16459 | 0.098 |
| 61) Toluene | (3) | 12.366 | 91 | 42984 | 0.197 |
| 64) 1,3-Dichloropropene (total) | (3) | | 75 | 35021 | 0.274 |
| 62) Octane | (3) | 12.840 | 43 | 19032 | 0.078 |
| 63) trans-1,3-Dichloropropene | (3) | 12.913 | 75 | 21423 | 0.156 |
| 65) Ethyl Methacrylate | (3) | 13.278 | 69 | 8164 | 0.081 |
| 66) 1,1,2-Trichloroethane | (3) | 13.291 | 97 | 17433 | 0.182 |
| 67) Tetrachloroethene | (3) | 13.589 | 166 | 11715 | 0.126 |
| 68) 2-Hexanone | (3) | 14.015 | 43 | 31993 | 0.177 |
| 69) Dibromochloromethane | (3) | 14.155 | 127 | 23746 | 0.175 |
| 70) 1,2-Dibromoethane | (3) | 14.355 | 107 | 24253 | 0.186 |
| 71)*Chlorobenzene-d5 | (3) | 15.542 | 117 | 2226304 | 10.000 |
| 72) Chlorobenzene | (3) | 15.608 | 112 | 23064 | 0.132 |
| 73) 1,1,1,2-Tetrachloroethane | (3) | 15.846 | 131 | 17680 | 0.190 |
| 74) Ethylbenzene | (3) | 15.967 | 91 | 33673 | 0.144 |
| 75) m/p-Xylene | (3) | 16.278 | 91 | 22778 | 0.123 |
| 77) Xylene (total) | (3) | | 91 | 43070 | 0.226 |
| 76) o-Xylene | (3) | 17.239 | 91 | 20292 | 0.103 |
| 78) Styrene | (3) | 17.281 | 104 | 16453 | 0.104 |

M = Compound was manually integrated.
* = Compound is an internal standard.



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on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00477.d  Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 02:19  Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.2  Lab Sample ID: mdlv0.2

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 79) Bromoform | (3) | 17.646 | 173 | 20938 | 0.168 |
| 80) Cumene | (3) | 18.261 | 105 | 20591 | 0.093 |
| 81) Bromobenzene | (3) | 18.869 | 156 | 13602 | 0.162 |
| 82) 1,1,2,2-Tetrachloroethane | (3) | 19.058 | 83 | 52137 | 0.244 |
| 83) 1,2,3-Trichloropropane | (3) | 19.076 | 110 | 8668 | 0.160 |
| 84) n-Propylbenzene | (3) | 19.362 | 120 | 6057 | 0.094 |
| 85) 2-Chlorotoluene | (3) | 19.465 | 126 | 6755 | 0.098 |
| 86) 4-Ethyltoluene | (3) | 19.691 | 105 | 22933 | 0.096 |
| 87) 1,3,5-Trimethylbenzene | (3) | 19.879 | 105 | 19539 | 0.098 |
| 88) Alpha Methyl Styrene | (3) | 20.445 | 118 | 8351 | 0.086 |
| 89) tert-Butylbenzene | (3) | 20.713 | 119 | 17121 | 0.096 |
| 90) 1,2,4-Trimethylbenzene | (3) | 20.859 | 105 | 20661 | 0.096 |
| 91) sec-Butylbenzene | (3) | 21.351 | 105 | 27695 | 0.097 |
| 92) 1,3-Dichlorobenzene | (3) | 21.516 | 146 | 30065 | 0.187 |
| 93) 1,4-Dichlorobenzene | (3) | 21.808 | 146 | 26840 | 0.164 |
| 94) p-Isopropyltoluene | (3) | 21.869 | 119 | 19985 | 0.086 |
| 95) Benzyl Chloride | (3) | 22.300 | 91 | 37252 | 0.152 |
| 96) 1,2-Dichlorobenzene | (3) | 22.964 | 146 | 26532 | 0.178 |
| 97) n-Butylbenzene | (3) | 23.189 | 91 | 29744 | 0.116 |
| 98) Hexachloroethane | (3) | 23.633 | 117 | 22589 | 0.205 |
| 99) 1,2-Dibromo-3-chloropropane | (3) | 24.716 | 157 | 23144 | 0.327 |
| 100) 1,2,4-Trichlorobenzene | (3) | 26.005 | 180 | 30244 | 0.402 |
| 101) Hexachlorobutadiene | (3) | 26.285 | 225 | 22137 | 0.301 |
| 102) Naphthalene | (3) | 26.303 | 128 | 90434 | 0.424 |



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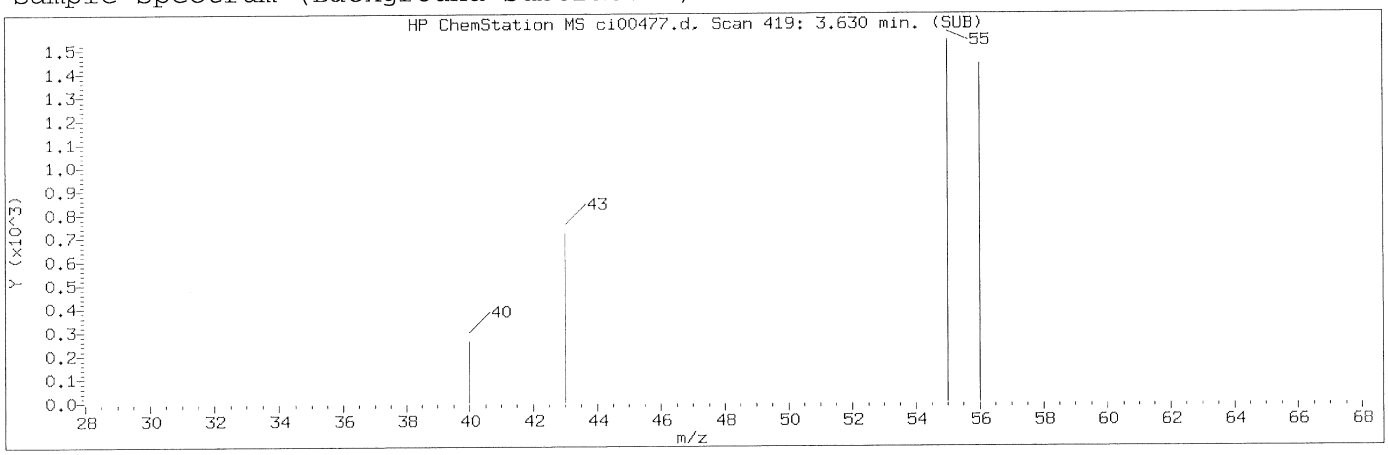
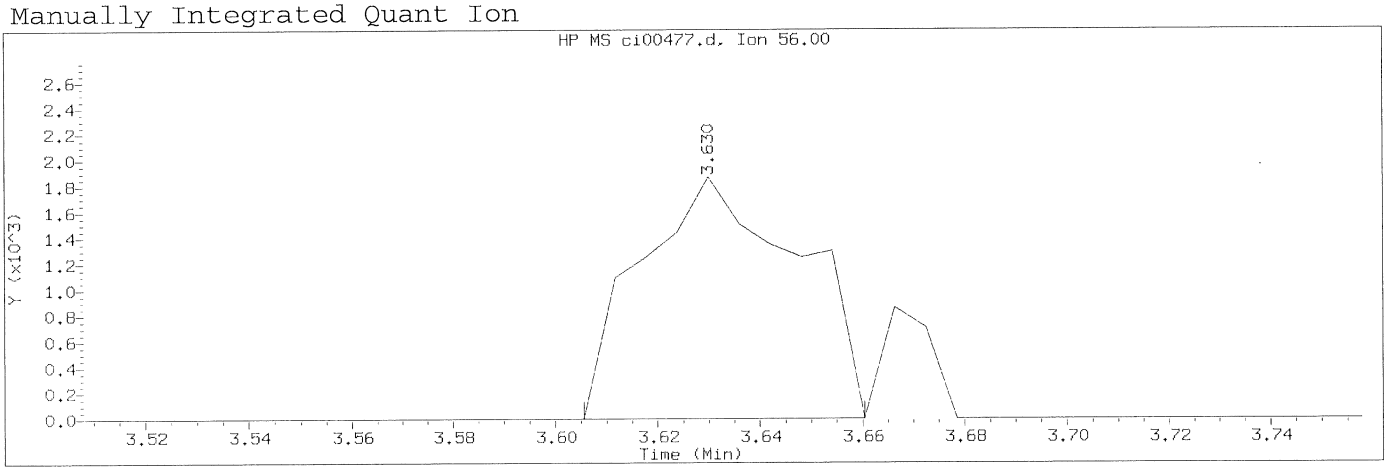
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00477.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 02:19 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

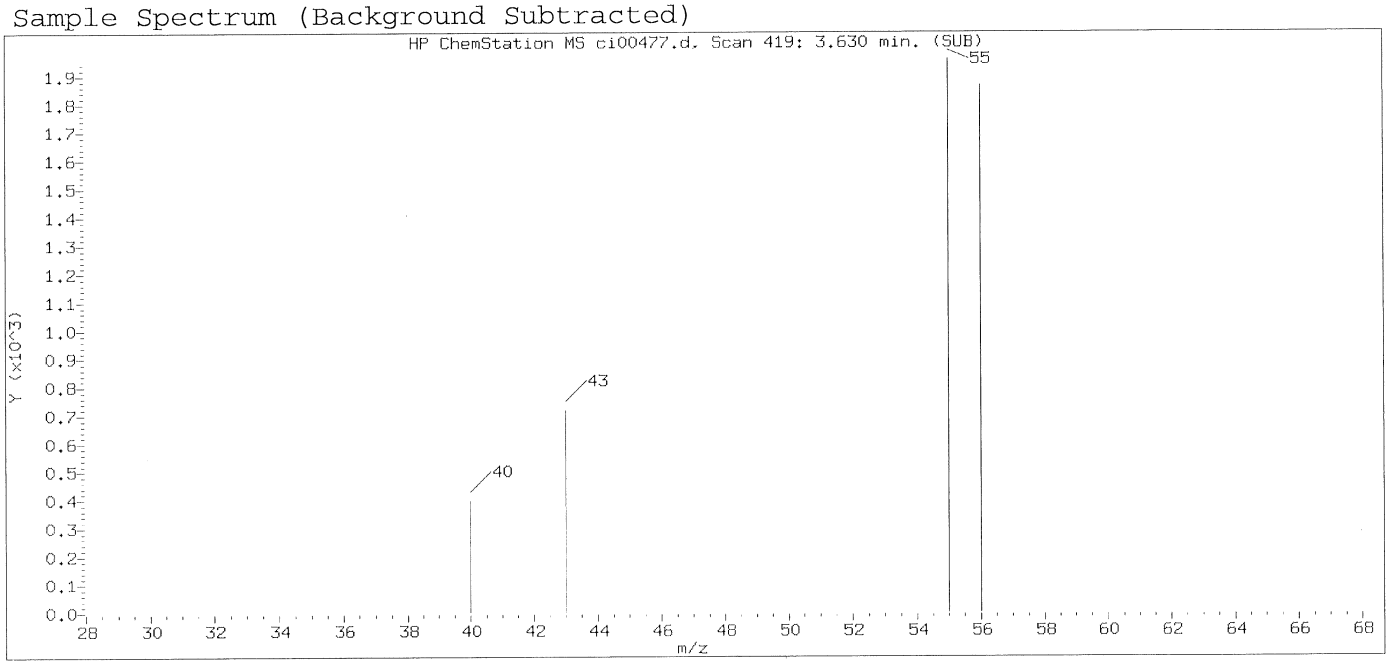
| | | | |
|---|---|---|---|
| Compound Number | : 16 | | |
| Compound Name | : Acrolein | | |
| Scan Number | : 419 | | |
| Retention Time (minutes) | : 3.630 | | |
| Quant Ion | : 56.00 | | |
| Area (flag) | : 4029M | | |
| Concentration (ppb(v)) | : 0.1195 | | |
| Integration start scan | : 414 | Integration stop scan: | 423 |
| Y at integration start | : 0 | Y at integration end: | 0 |

Reason for manual integration: improper integration

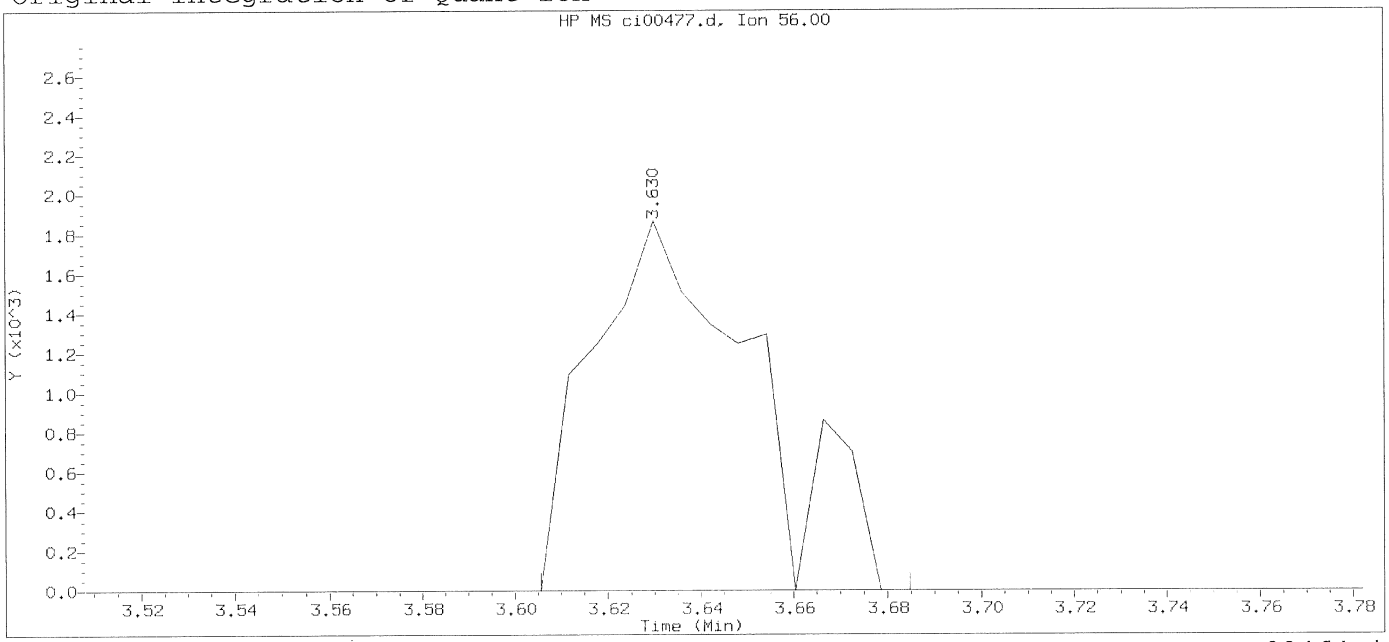
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 09/23/2015 at 14:30. Target 3.5 esignature user ID: jeb07445

GC/MS audit/management approval: Mark A. Ratcliff Senior Specialist SEP 25 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00477.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 02:19 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 22-SEP-2015 22:35
Date, time and analyst ID of latest file update: 23-Sep-2015 02:58 Automation

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

| | | | |
|---|---|---|---|
| Compound Number | : 16 | | |
| Compound Name | : Acrolein | | |
| Scan Number | : 419 | | |
| Retention Time (minutes) | : 3.630 | | |
| Quant Ion | : 56.00 | | |
| Area | : 4599 | | |
| Concentration (ppb(v)) | : 0.1447 | | |
| Integration start scan | : 414 | Integration stop scan: | 427 |
| Y at integration start | : 0 | Y at integration end: | 0 |

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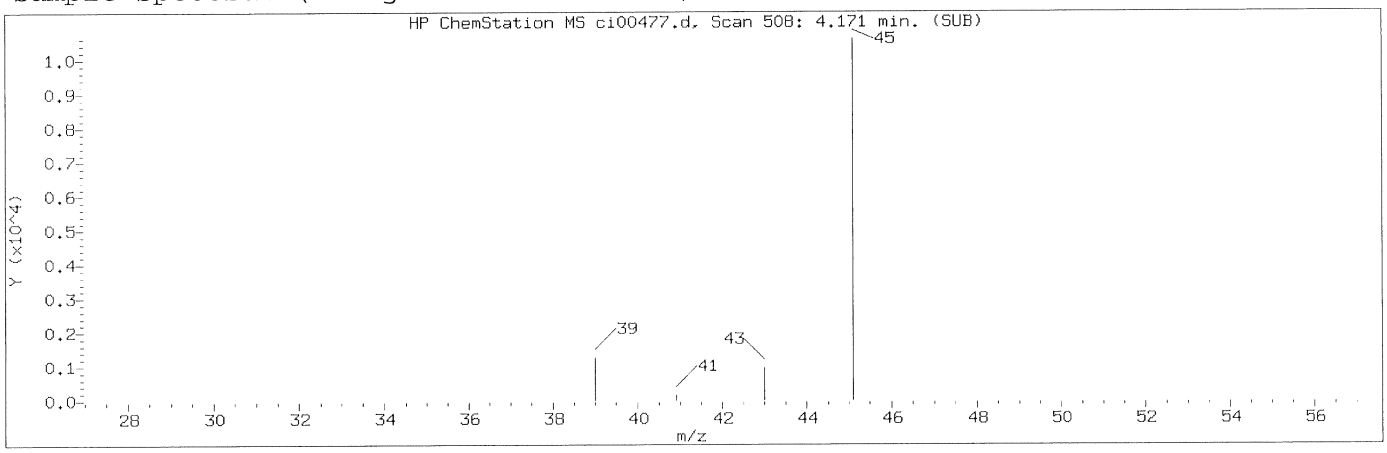
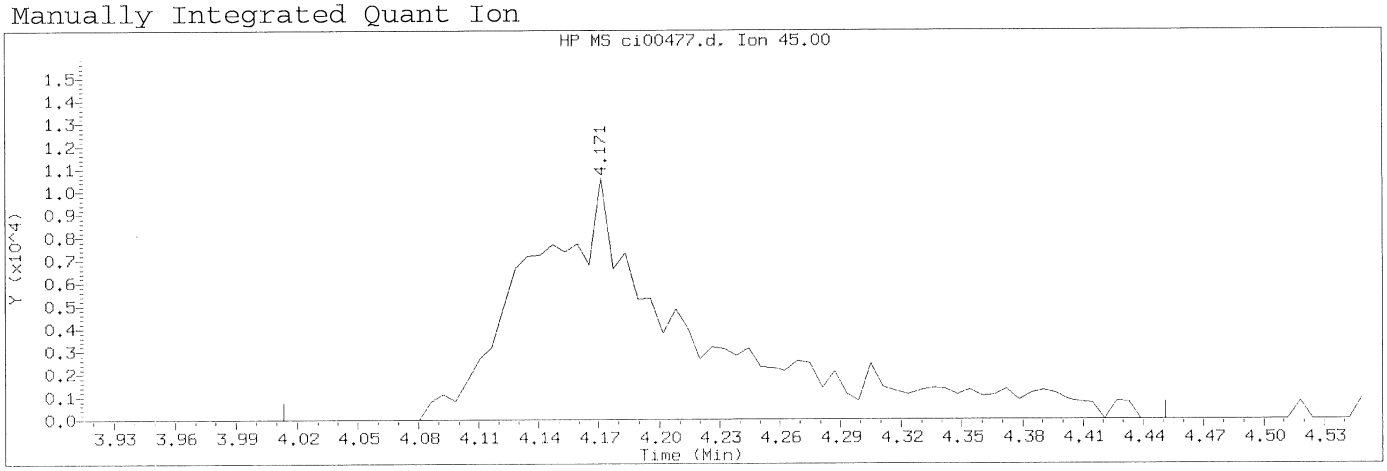
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00477.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 02:19 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Compound Number : 22
Compound Name : Isopropanol
Scan Number : 508
Retention Time (minutes): 4.171
Quant Ion : 45.00
Area (flag) : 62018M
Concentration (ppb(v)) : 0.3253
Integration start scan : 481 Integration stop scan: 553
Y at integration start : 0 Y at integration end: 0

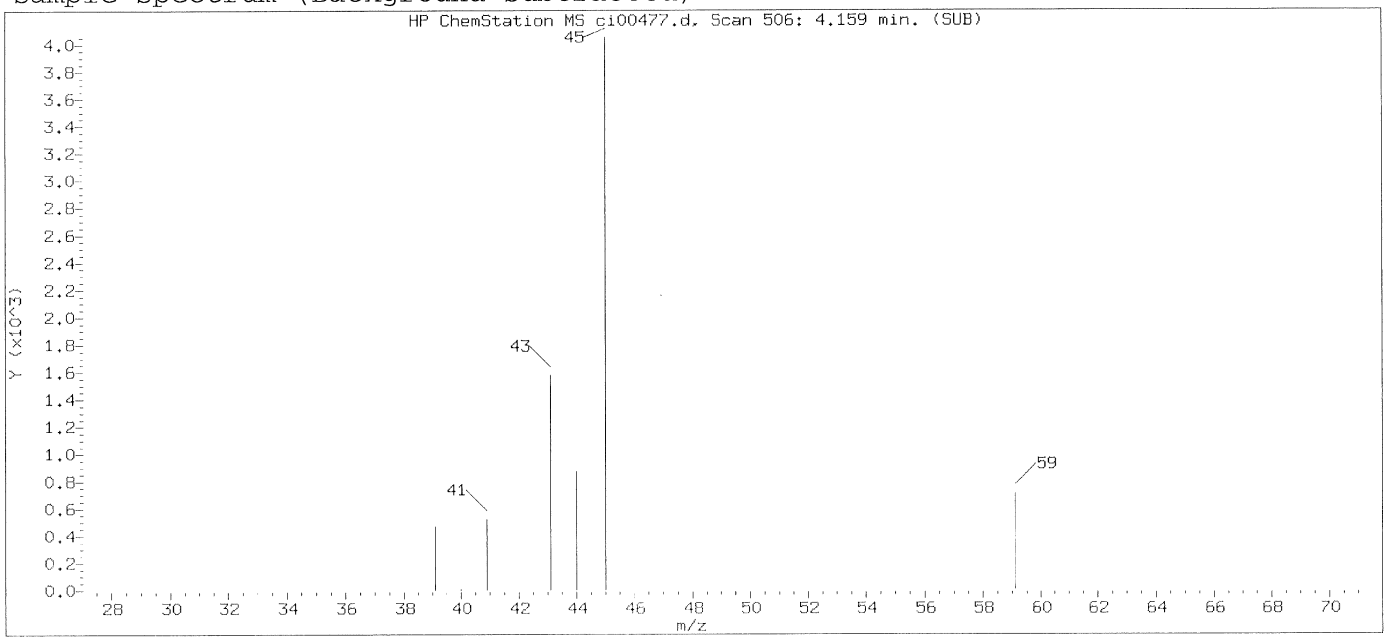
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445

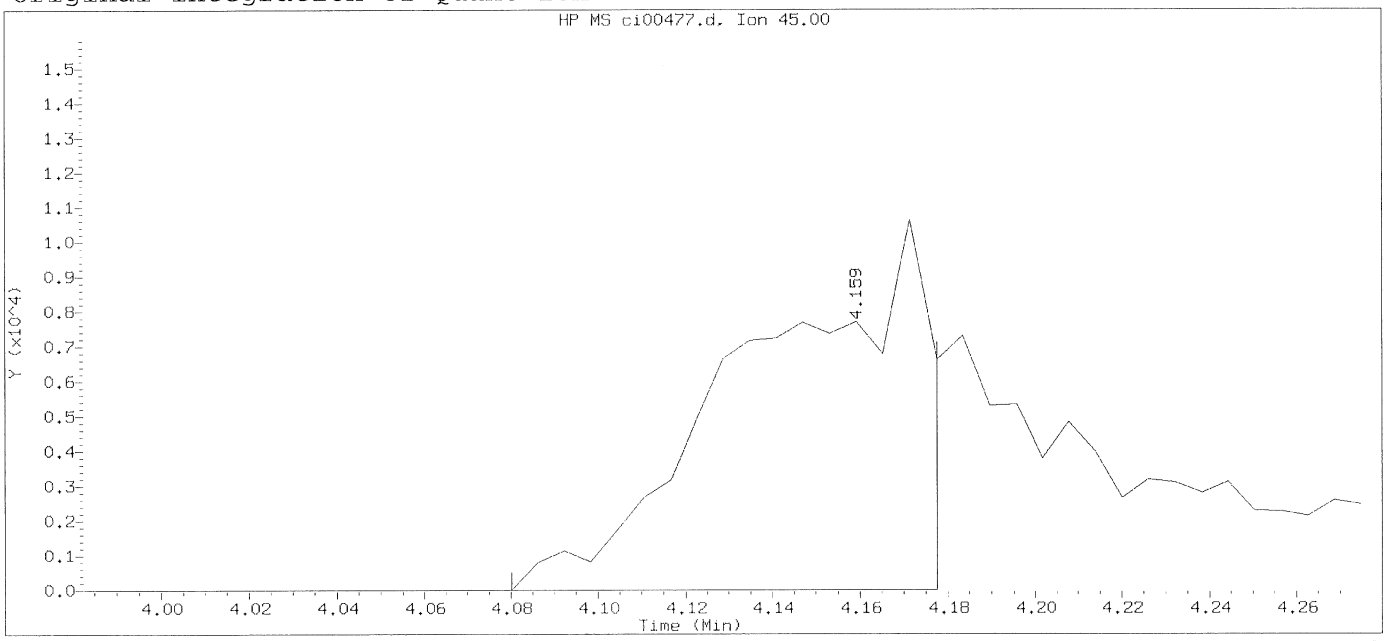
Mark A. Ratcliff
Senior Specialist
SEP 25 2015

GC/MS audit/management approval:_____

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00477.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 02:19 Analyst ID: jeb07445

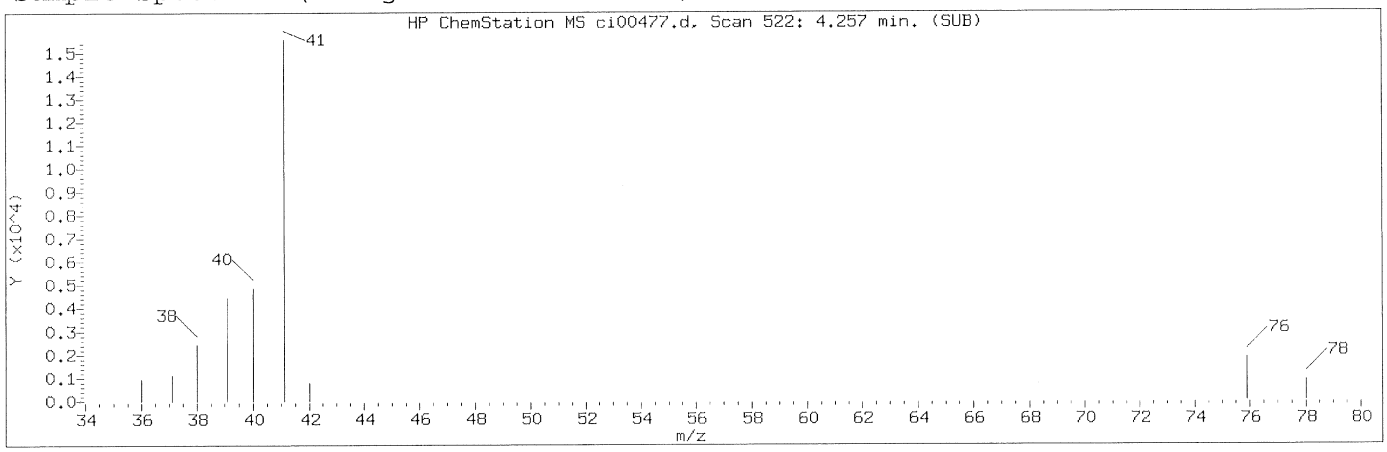
Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 22-SEP-2015 22:35
Date, time and analyst ID of latest file update: 23-Sep-2015 02:58 Automation

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

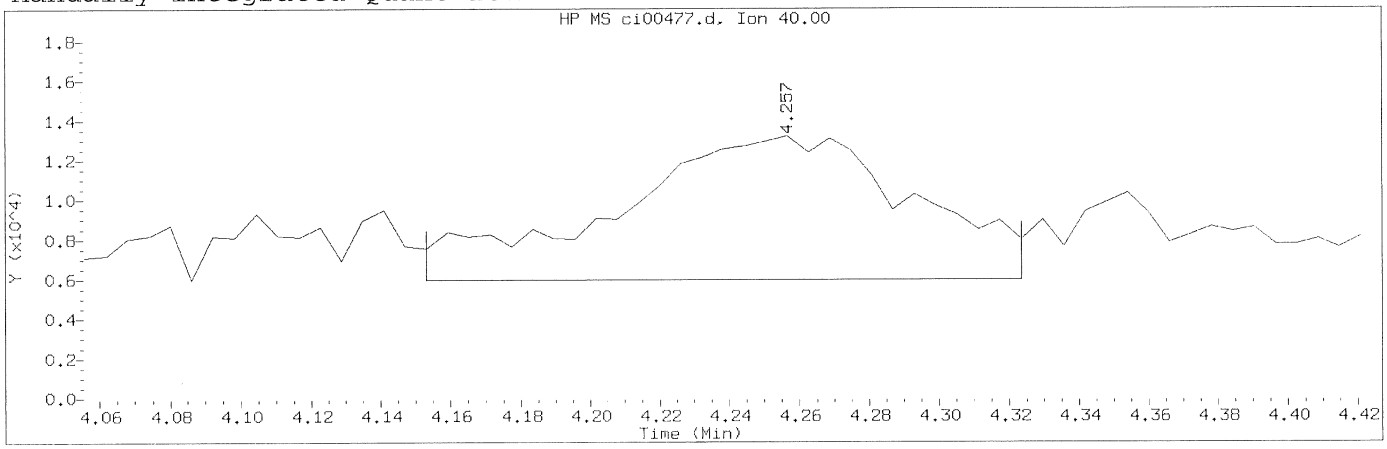
| | | | |
|---|---|---|---|
| Compound Number | : 22 | | |
| Compound Name | : Isopropanol | | |
| Scan Number | : 506 | | |
| Retention Time (minutes) | : 4.159 | | |
| Quant Ion | : 45.00 | | |
| Area | : 29111 | | |
| Concentration (ppb(v)) | : 0.1489 | | |
| Integration start scan | : 492 | Integration stop scan: | 508 |
| Y at integration start | : 0 | Y at integration end: | 0 |

Digitally signed by Jacob E. Bailey on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00477.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 02:19 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

| | | | |
|---|---|---|---|
| Compound Number | : 23 | | |
| Compound Name | : Acetonitrile | | |
| Scan Number | : 522 | | |
| Retention Time (minutes) | : 4.257 | | |
| Quant Ion | : 40.00 | | |
| Area (flag) | : 42647A | | |
| Concentration (ppb(v)) | : 0.7660 | | |
| Integration start scan | : 504 | Integration stop scan: | 532 |
| Y at integration start | : 5971 | Y at integration end: | 5971 |

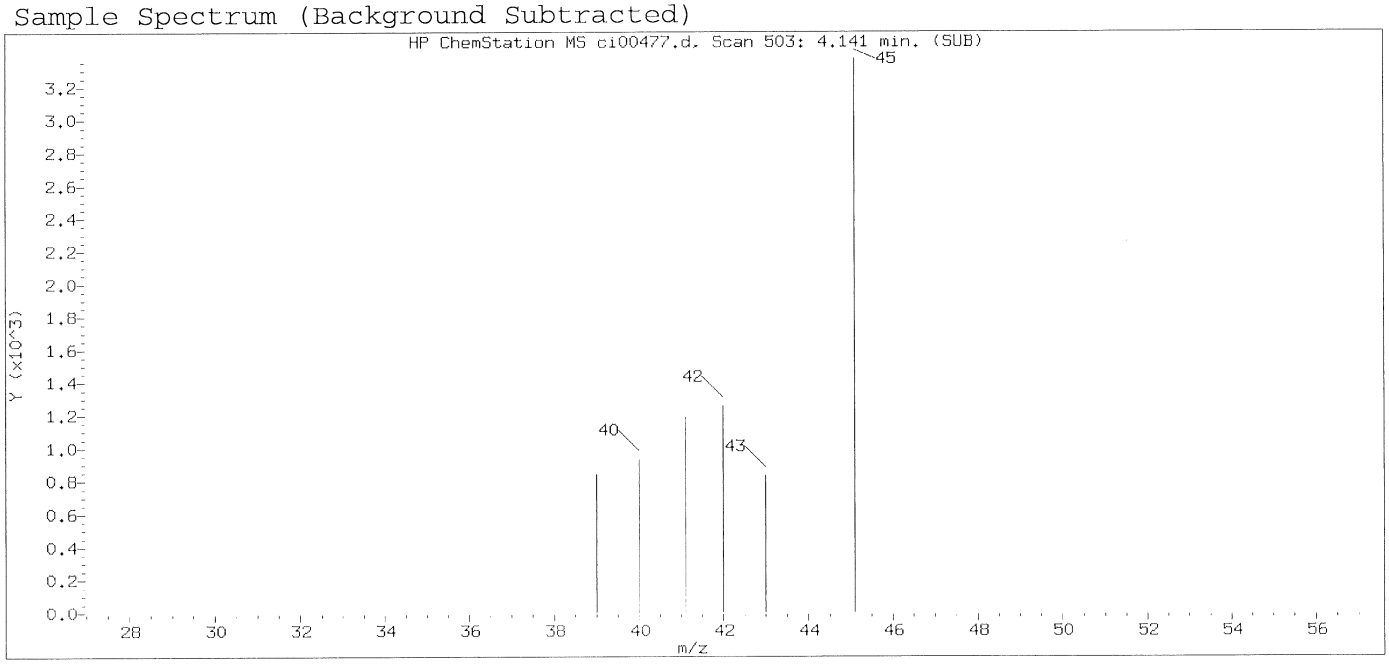
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Jacob E. Bailey on 09/23/2015 at 14:30. Target 3.5 esignature user ID: jeb07445

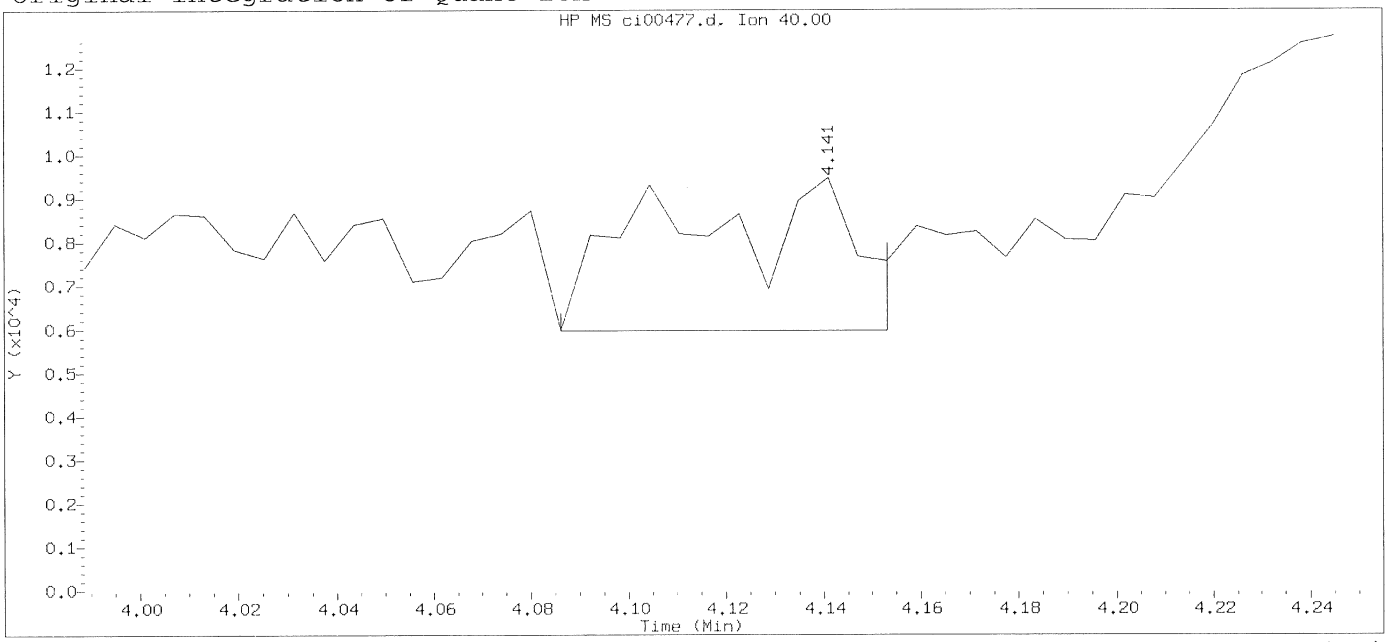
Mark A. Ratcliff
Senior Specialist

GC/MS audit/management approval: SEP 25 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00477.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 02:19 Analyst ID: jeb07445

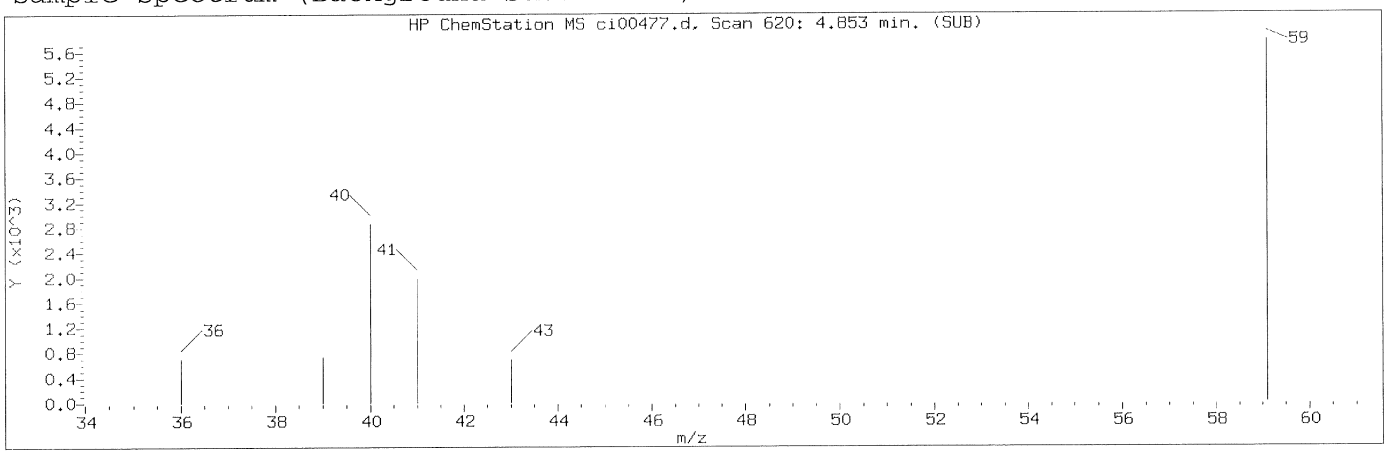
Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 22-SEP-2015 22:35
Date, time and analyst ID of latest file update: 23-Sep-2015 02:58 Automation

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

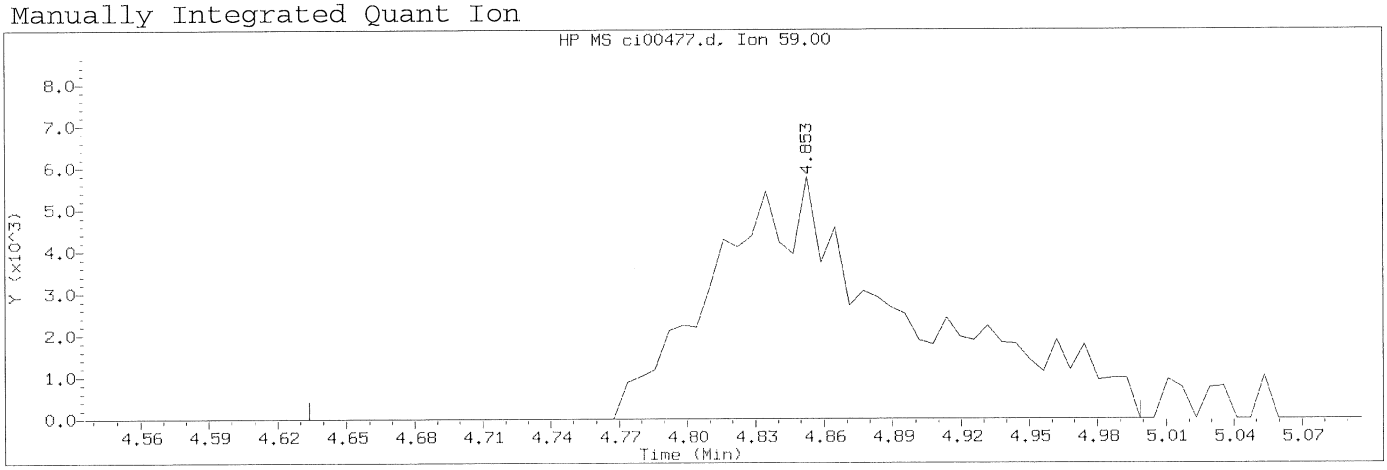
| | | | |
|---|---|---|---|
| Compound Number | : 23 | | |
| Compound Name | : Acetonitrile | | |
| Scan Number | : 503 | | |
| Retention Time (minutes) | : 4.141 | | |
| Quant Ion | : 40.00 | | |
| Area | : 8999 | | |
| Concentration (ppb(v)) | : 0.1616 | | |
| Integration start scan | : 493 | Integration stop scan: | 504 |
| Y at integration start | : 5971 | Y at integration end: | 5971 |

Digitally signed by Jacob E. Bailey on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00477.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 02:19 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Compound Number : 26
Compound Name : tert-Butyl Alcohol
Scan Number : 620
Retention Time (minutes): 4.853
Quant Ion : 59.00
Area (flag) : 33898M
Concentration (ppb(v)) : 0.2042
Integration start scan : 583 Integration stop scan: 643
Y at integration start : 0 Y at integration end: 0

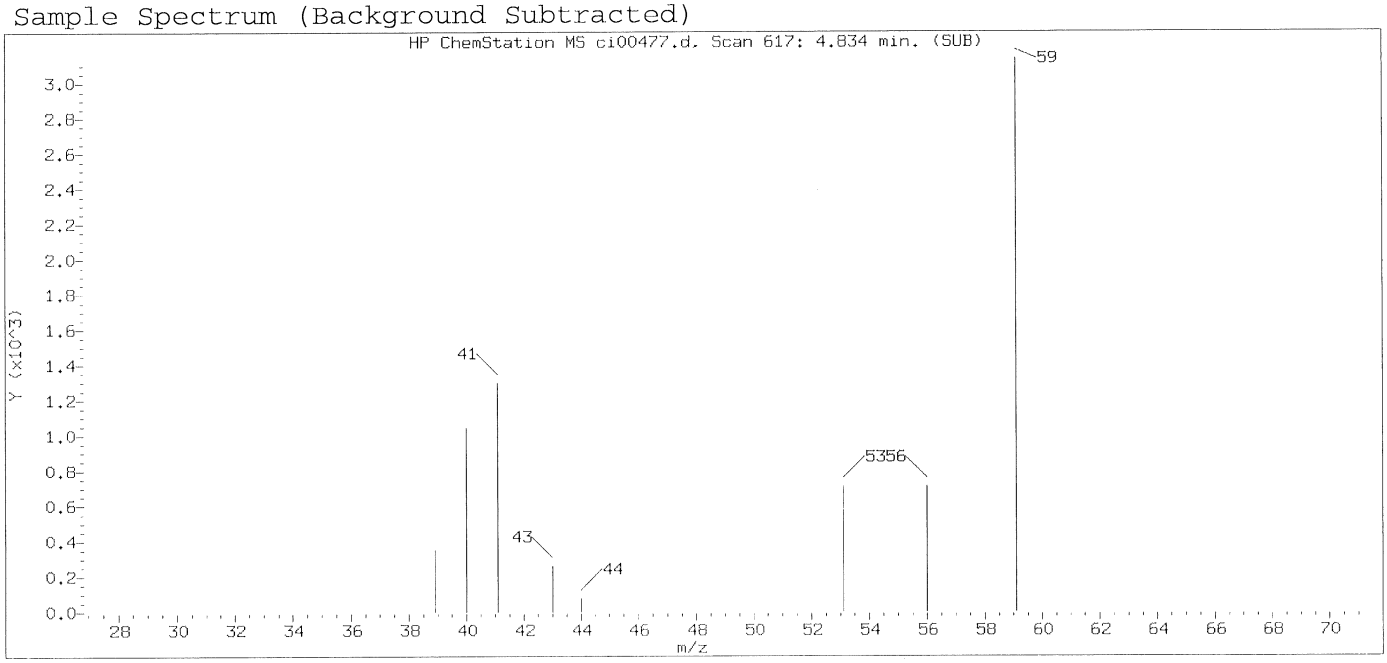
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445

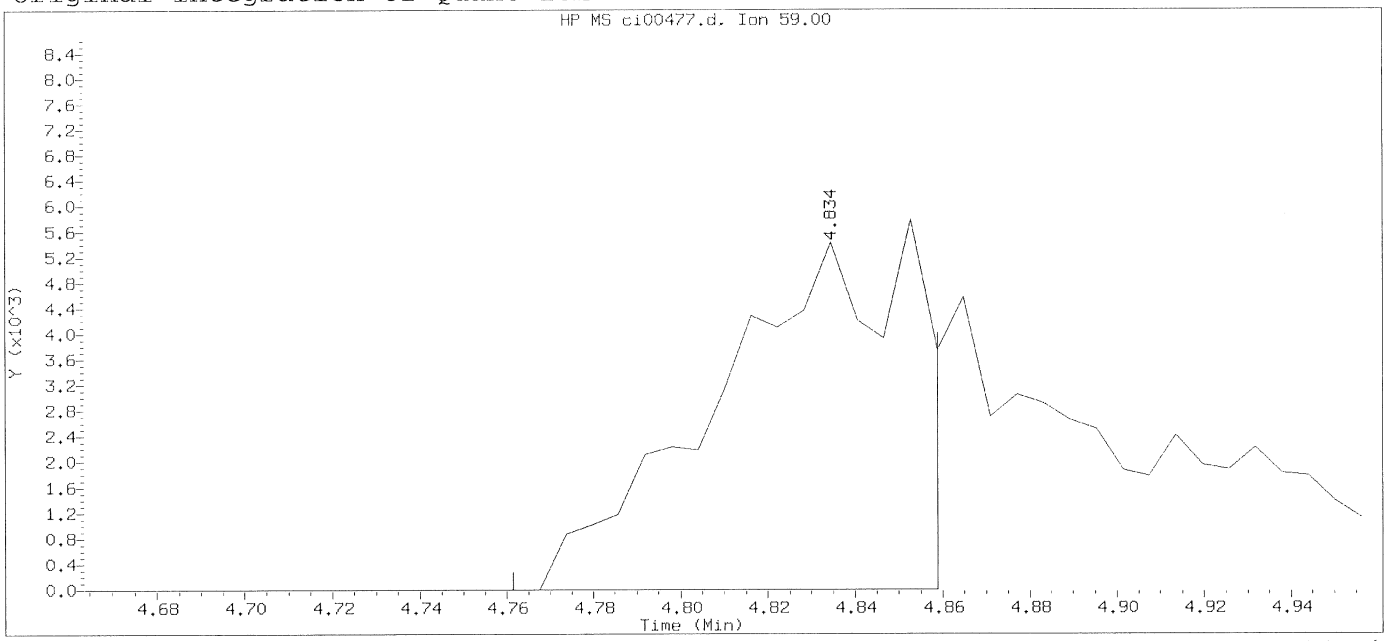
Mark A. Ratcliff
Senior Specialist
SEP 25 2015

GC/MS audit/management approval:_____

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00477.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 02:19 Analyst ID: jeb07445

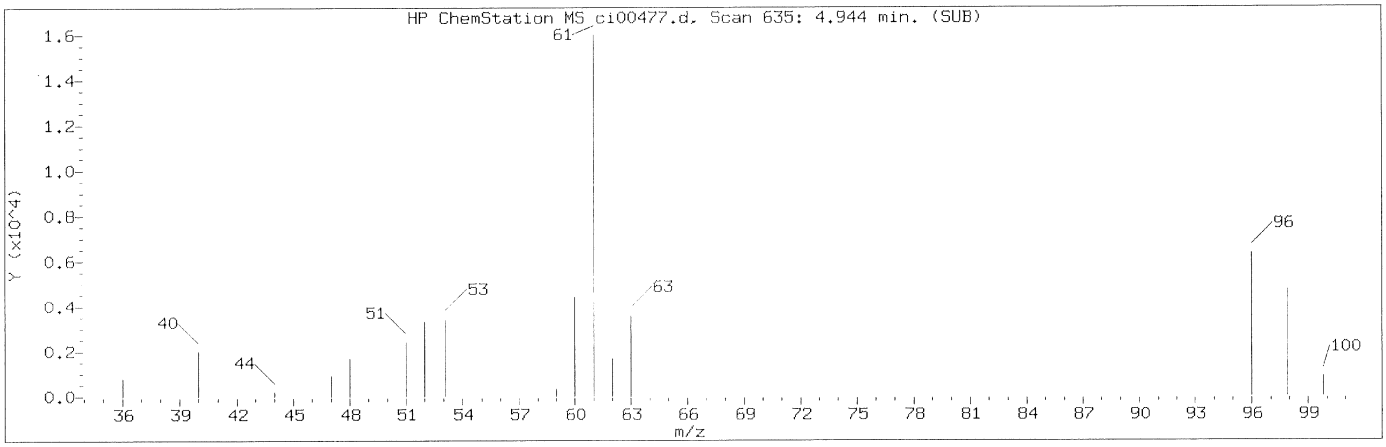
Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 22-SEP-2015 22:35
Date, time and analyst ID of latest file update: 23-Sep-2015 02:58 Automation

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

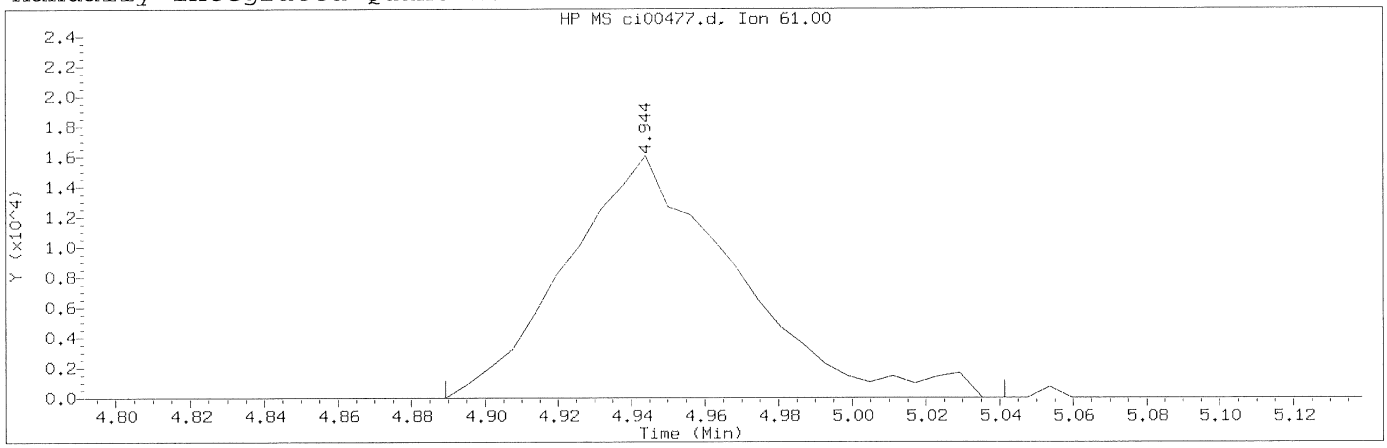
| | | | |
|---|---|---|---|
| Compound Number | : 26 | | |
| Compound Name | : tert-Butyl Alcohol | | |
| Scan Number | : 617 | | |
| Retention Time (minutes) | : 4.834 | | |
| Quant Ion | : 59.00 | | |
| Area | : 17036 | | |
| Concentration (ppb(v)) | : 0.1028 | | |
| Integration start scan | : 604 | Integration stop scan: | 620 |
| Y at integration start | : 0 | Y at integration end: | 0 |

Digitally signed by Jacob E. Bailey on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00477.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 02:19 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

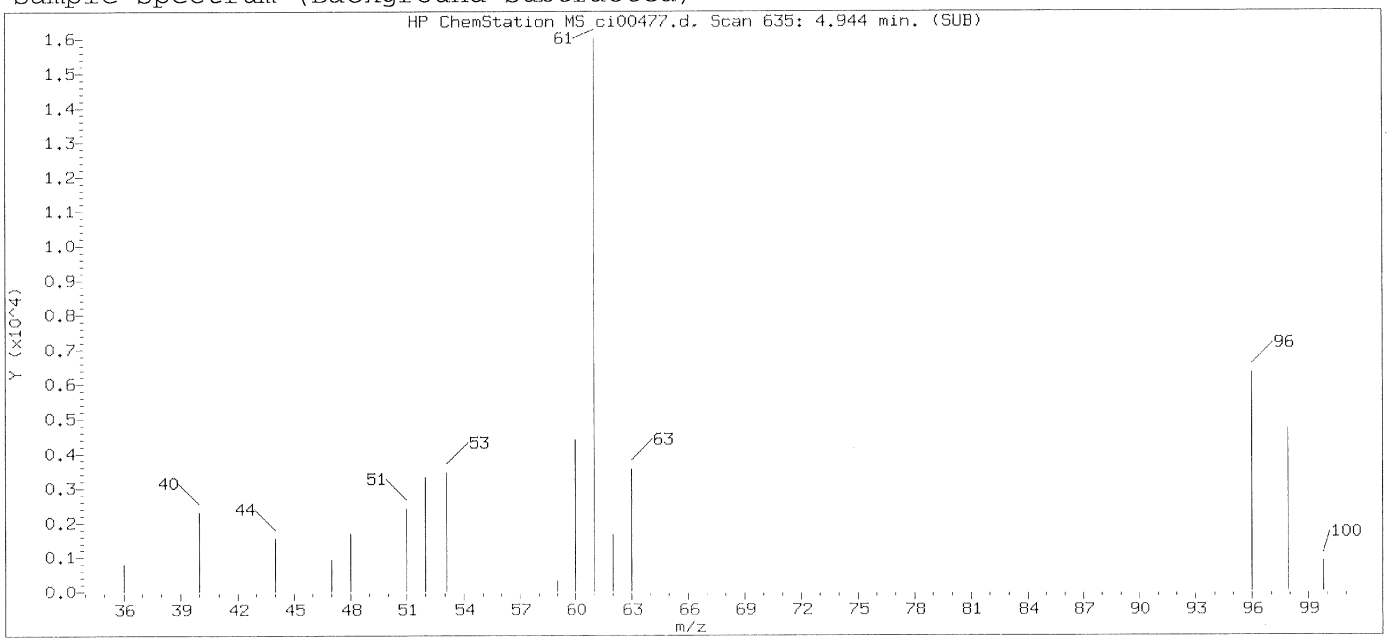
| | | | |
|---|---|---|---|
| Compound Number | : 28 | | |
| Compound Name | : trans-1,2-Dichloroethene | | |
| Scan Number | : 635 | | |
| Retention Time (minutes) | : 4.944 | | |
| Quant Ion | : 61.00 | | |
| Area (flag) | : 51712M | | |
| Concentration (ppb(v)) | : 0.2121 | | |
| Integration start scan | : 625 | Integration stop scan: | 650 |
| Y at integration start | : 0 | Y at integration end: | 0 |

Reason for manual integration: improper integration

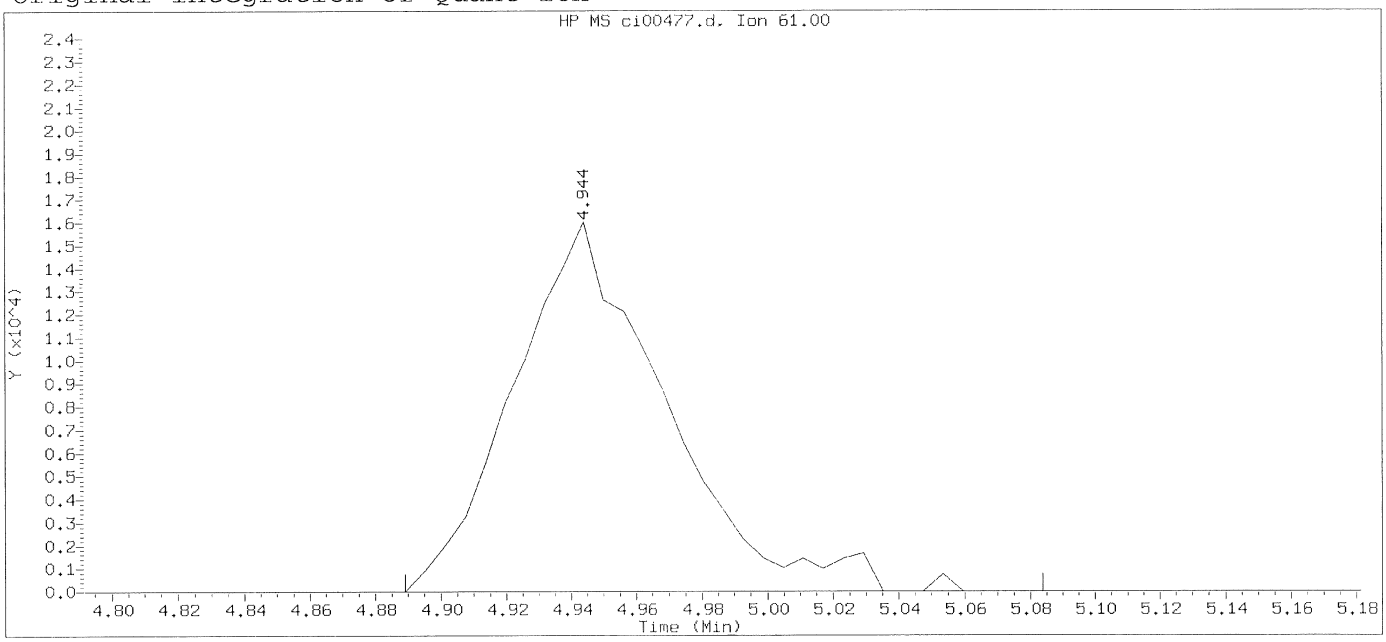
Analyst responsible for change: Digitally signed by Jacob E. Bailey on 09/23/2015 at 14:30. Target 3.5 esignature user ID: jeb07445

GC/MS audit/management approval: Mark A. Ratcliff Senior Specialist SEP 25 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00477.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 02:19 Analyst ID: jeb07445

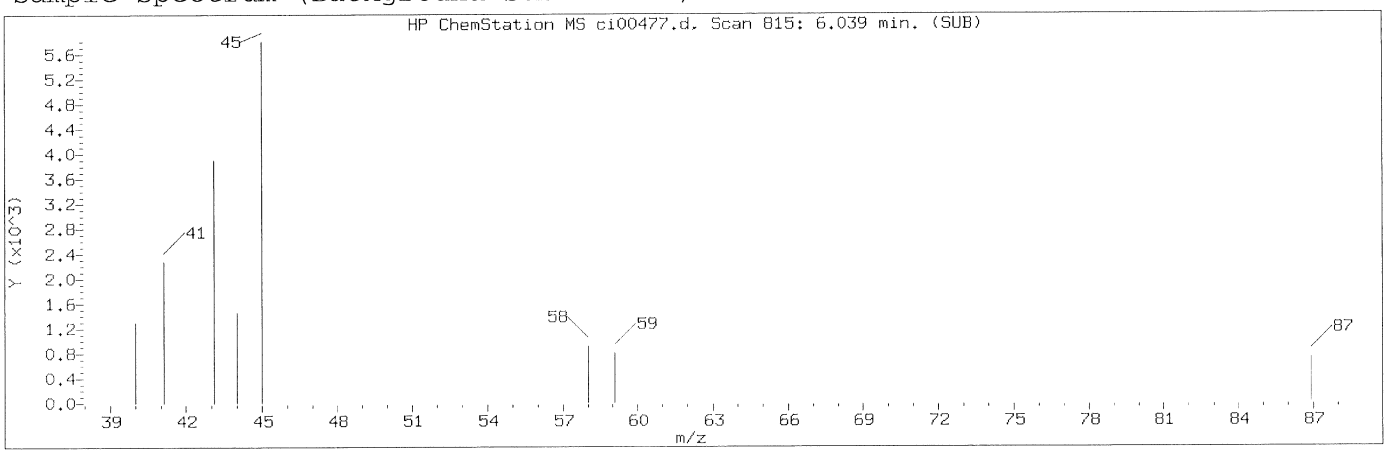
Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 22-SEP-2015 22:35
Date, time and analyst ID of latest file update: 23-Sep-2015 02:58 Automation

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

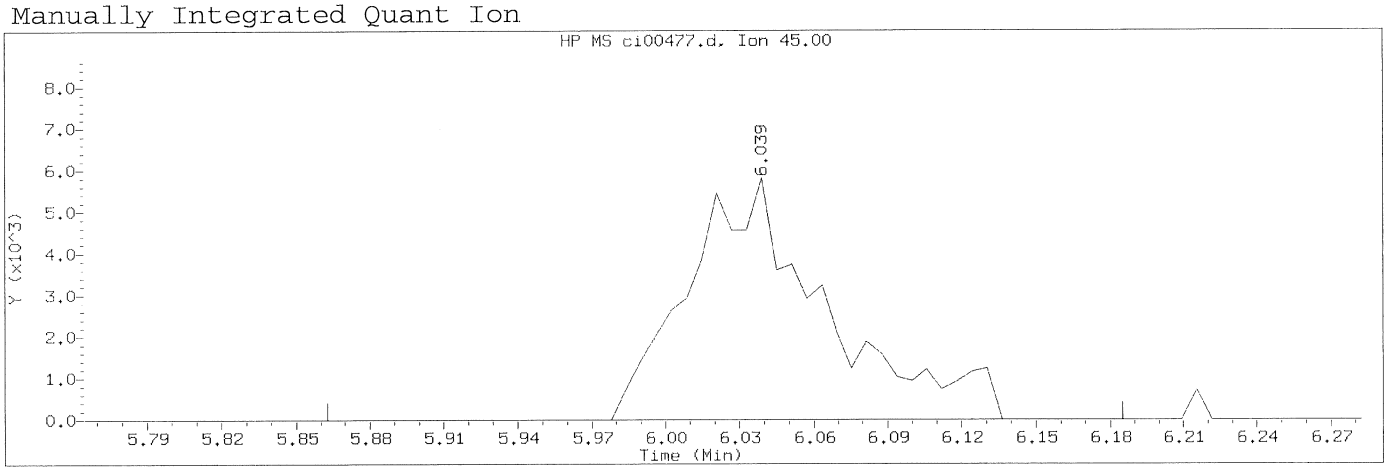
| | | | |
|---|---|---|---|
| Compound Number | : 28 | | |
| Compound Name | : trans-1,2-Dichloroethene | | |
| Scan Number | : 635 | | |
| Retention Time (minutes) | : 4.944 | | |
| Quant Ion | : 61.00 | | |
| Area | : 51981 | | |
| Concentration (ppb(v)) | : 0.1986 | | |
| Integration start scan | : 625 | Integration stop scan: | 657 |
| Y at integration start | : 0 | Y at integration end: | 0 |

Digitally signed by Jacob E. Bailey on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00477.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 02:19 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

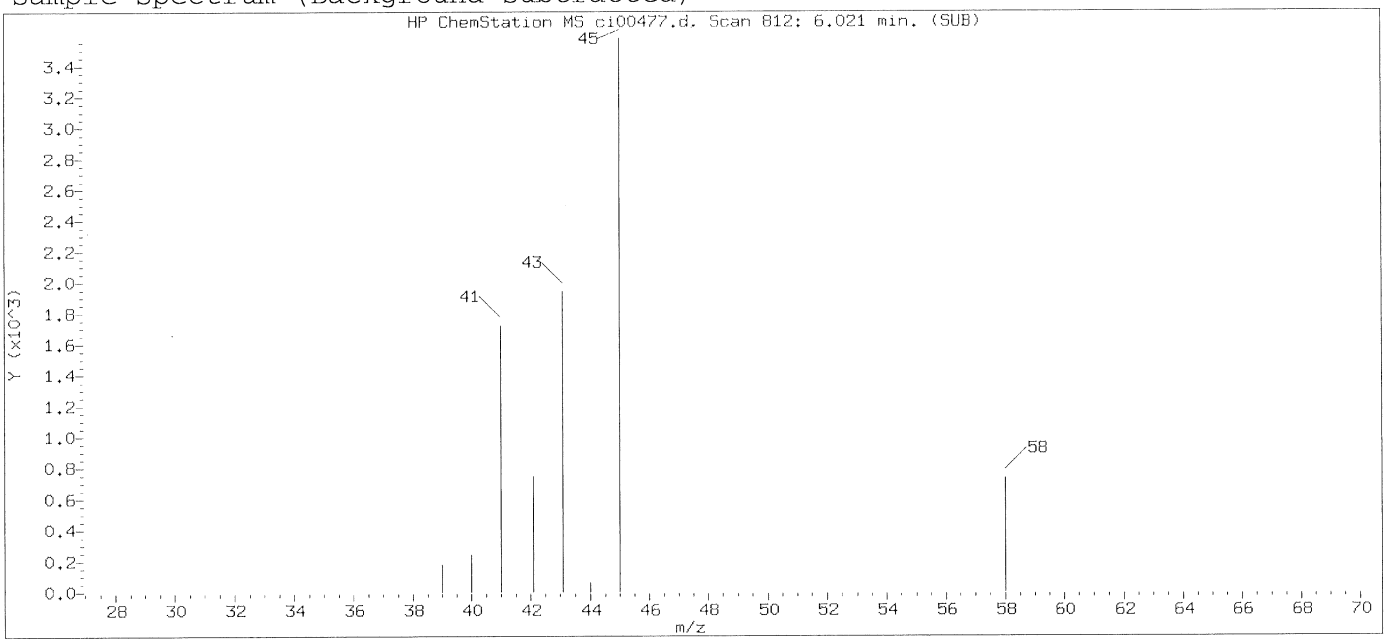
Compound Number : 33
Compound Name : Di-Isopropyl Ether
Scan Number : 815
Retention Time (minutes): 6.039
Quant Ion : 45.00
Area (flag) : 22460M
Concentration (ppb(v)) : 0.1050
Integration start scan : 785 Integration stop scan: 838
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

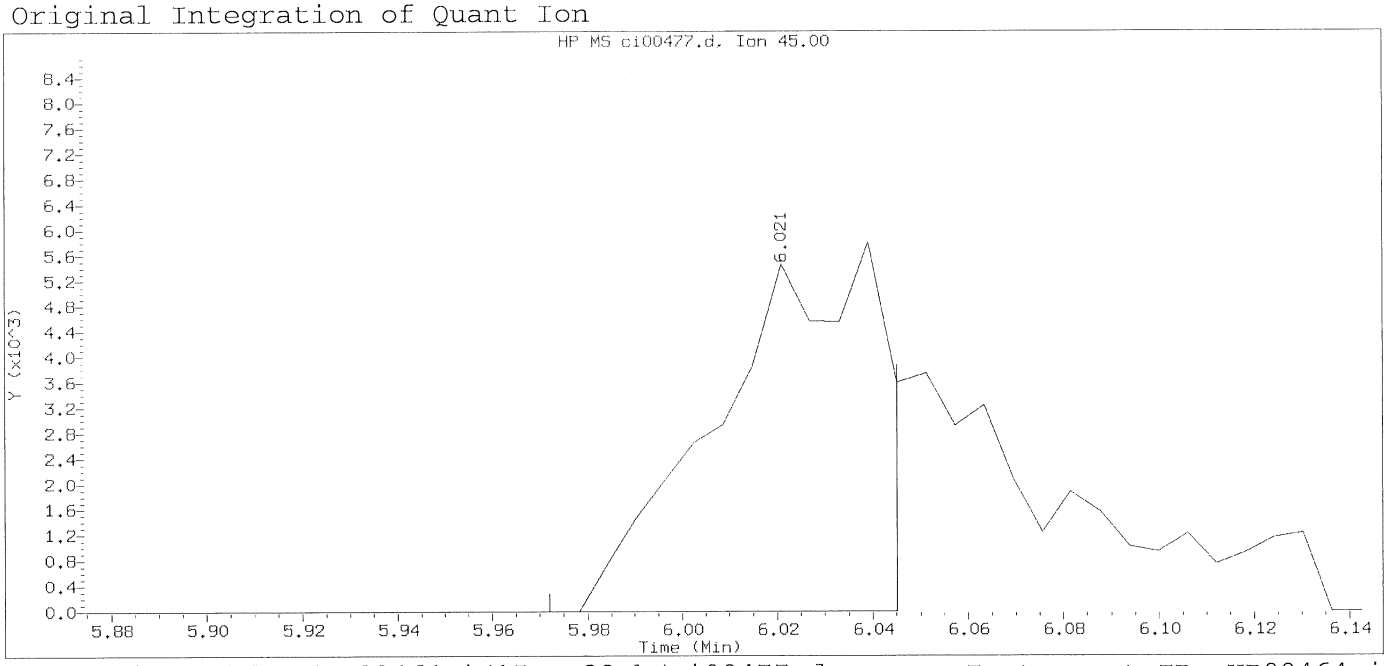
Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445

GC/MS audit/management approval: Mark A. Ratcliff
Senior Specialist
SEP 25 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00477.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 02:19 Analyst ID: jeb07445

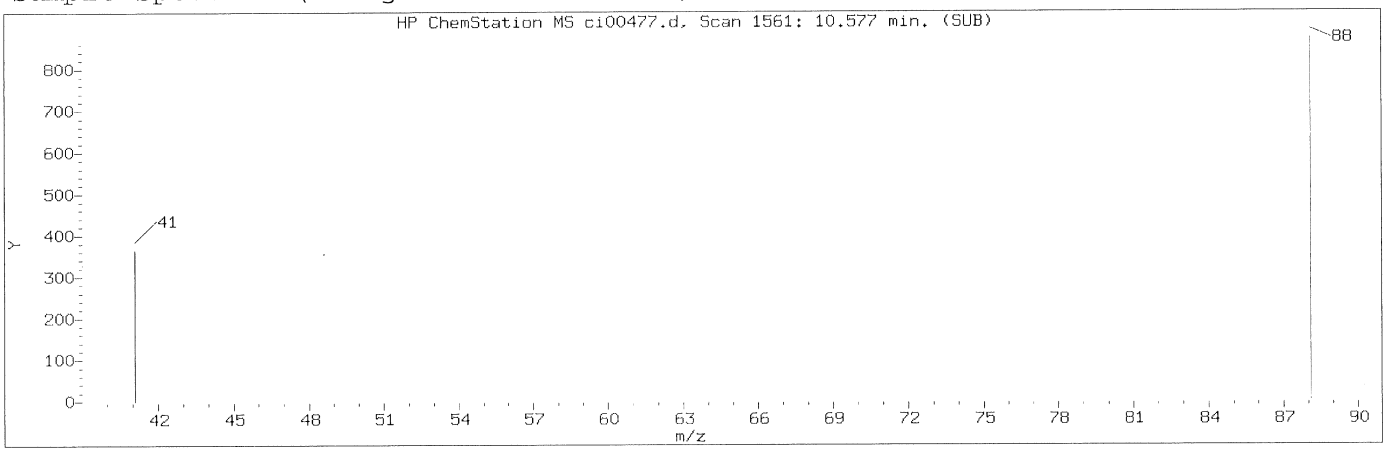
Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 22-SEP-2015 22:35
Date, time and analyst ID of latest file update: 23-Sep-2015 02:58 Automation

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

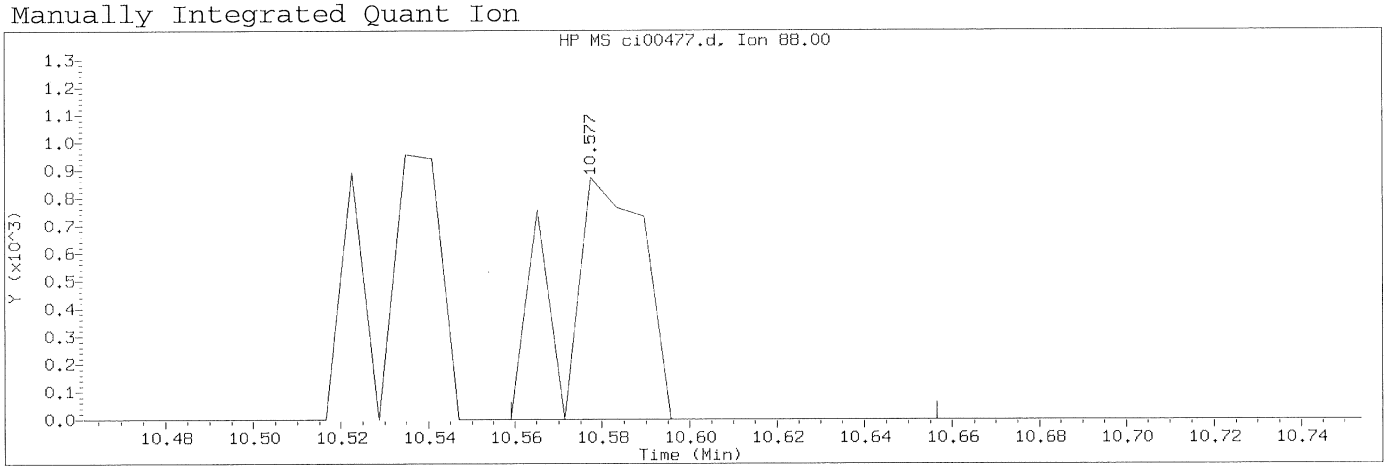
| | | | |
|---|---|---|---|
| Compound Number | : 33 | | |
| Compound Name | : Di-Isopropyl Ether | | |
| Scan Number | : 812 | | |
| Retention Time (minutes) | : 6.021 | | |
| Quant Ion | : 45.00 | | |
| Area | : 13090 | | |
| Concentration (ppb(v)) | : 0.0612 | | |
| Integration start scan | : 803 | Integration stop scan: | 815 |
| Y at integration start | : 0 | Y at integration end: | 0 |

Digitally signed by Jacob E. Bailey on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00477.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 02:19 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 23-SEP-2015 14:29
Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Compound Number : 56
Compound Name : 1,4-Dioxane
Scan Number : 1561
Retention Time (minutes): 10.577
Quant Ion : 88.00
Area (flag) : 1140M
Concentration (ppb(v)) : 0.0342
Integration start scan : 1557 Integration stop scan: 1573
Y at integration start : 0 Y at integration end: 0

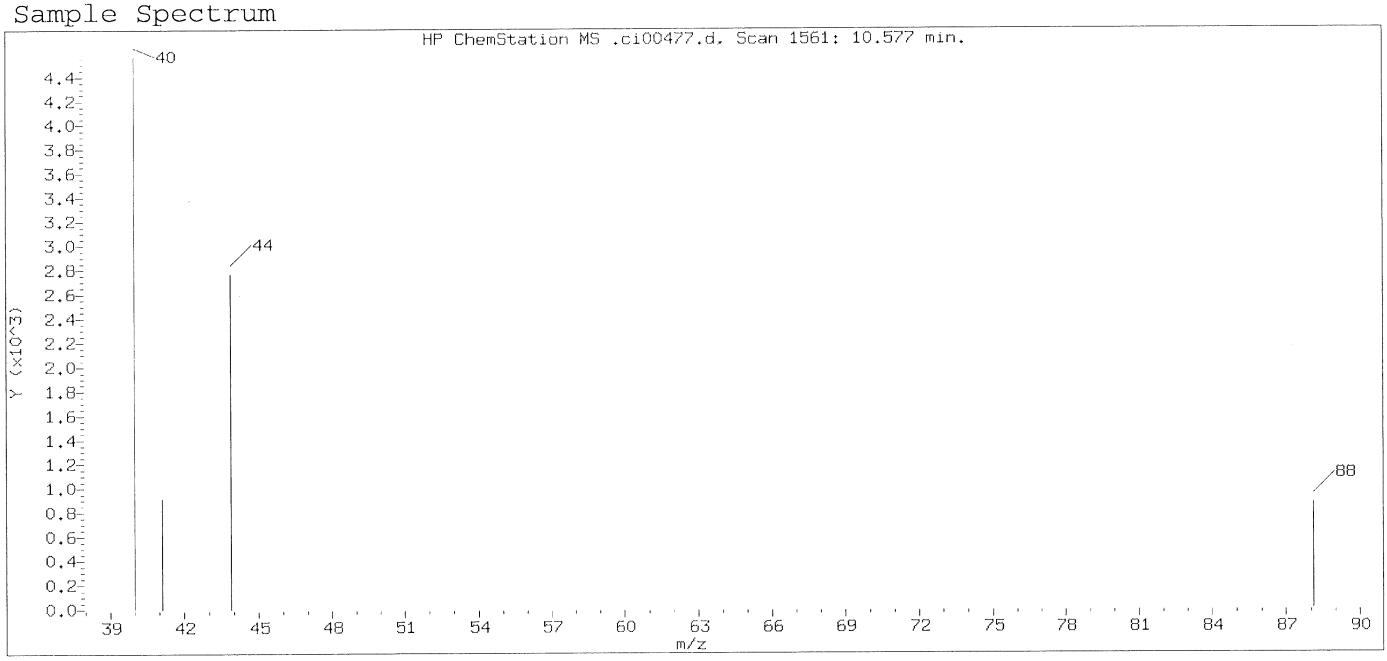
Reason for manual integration: missed peak

Analyst responsible for change: Digitally signed by Jacob E. Bailey
on 09/23/2015 at 14:30.
Target 3.5 signature user ID: jeb07445

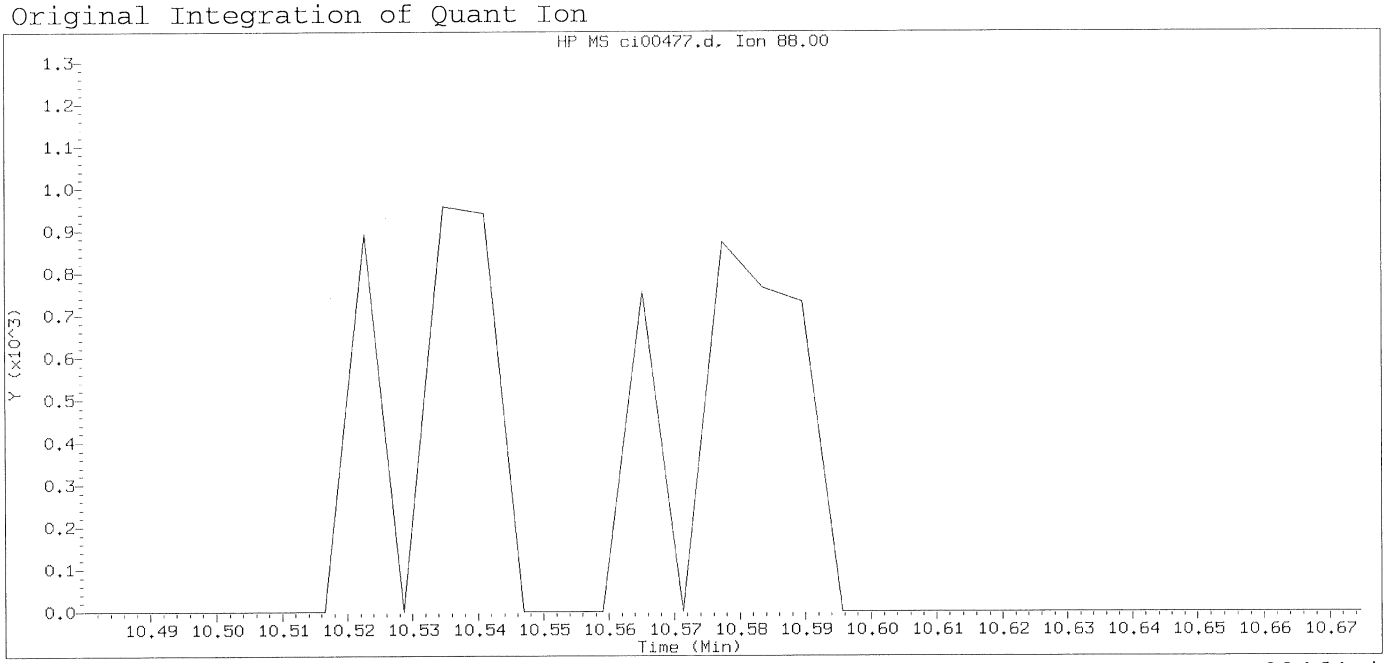
Mark A. Ratcliff
Senior Specialist
SEP 25 2015

GC/MS audit/management approval:_____

Sample Spectrum




Original Integration of Quant Ion




Data File: /chem/HP09464.i/15sep22.b/ci00477.d Instrument ID: HP09464.i
Injection date and time: 23-SEP-2015 02:19 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all
Calibration date and time: 22-SEP-2015 22:35
Date, time and analyst ID of latest file update: 23-Sep-2015 02:58 Automation

Sample Name: mdlv0.2 Lab Sample ID: mdlv0.2

Compound Number : 56
Compound Name : 1,4-Dioxane
Expected RT (minutes) : 10.577
Quant Ion : 88.00

Digitally signed by Jacob E. Bailey on 09/23/2015 at 14:30.
Target 3.5 esignature user ID: jeb07445

Lancaster Laboratories
Volatiles in Air
Runlog for Agilent GC/MS System HP09464 **HP #03**

Data Directory Path is - C:\msdchem\1\data\15oct01\

| OPERATOR | FILE | LLI# | DATE | TIME | BATCH | DILUTION FACTOR |
|---|---|---|---|---|---|---|
| jeb07445 | CJ00000.D | 50NGBFB | 10/01/2015 | 14:53 | | |
| jeb07445 | CJ00001.D | VSTD010 | 10/01/2015 | 15:19 | | |
| jeb07445 | CJ00002.D | VBLKC81 | 10/01/2015 | 16:10 | C1527430AA | |
| jeb07445 | CJ00003.D | VBLKC81 | 10/01/2015 | 16:53 | C1527430AA | |
| jeb07445 | CJ00004.D | LCSC81 | 10/01/2015 | 17:43 | C1527430AA | |
| jeb07445 | CJ00005.D | LCSDC81 | 10/01/2015 | 18:26 | C1527430AA | |
| jeb07445 | CJ00006.D | 8057139 | 10/01/2015 | 19:23 | C1527430AA | |
| jeb07445 | CJ00007.D | 8057141DL | 10/01/2015 | 20:06 | C1527430AA | |
| jeb07445 | CJ00008.D | 8056374 | 10/01/2015 | 20:53 | C1527430AA | 100 |
| jeb07445 | CJ00009.D | 8056375 | 10/01/2015 | 21:35 | C1527430AA | |
| jeb07445 | CJ00010.D | 8056376 | 10/01/2015 | 22:19 | C1527430AA | |
| jeb07445 | CJ00011.D | 8056377 | 10/01/2015 | 23:01 | C1527430AA | |
| jeb07445 | CJ00012.D | 8057514 | 10/01/2015 | 23:44 | C1527430AA | 100 |
| jeb07445 | CJ00013.D | 8057515 | 10/02/2015 | 00:31 | C1527430AA | |
| jeb07445 | CJ00014.D | 8057516 | 10/02/2015 | 01:13 | C1527430AA | 100 |
| jeb07445 | CJ00015.D | 8057518 | 10/02/2015 | 01:59 | C1527430AA | |
| jeb07445 | CJ00016.D | 8057519 | 10/02/2015 | 02:46 | C1527430AA | 100 |
| jeb07445 | CJ00017.D | 8057520 | 10/02/2015 | 03:28 | C1527430AA | 100 |
| jeb07445 | CJ00018.D | 8051719 | 10/02/2015 | 04:15 | C1527430AA | 2 |
| jeb07445 | CJ00019.D | 8054259 | 10/02/2015 | 05:02 | C1527430AA | |
| jeb07445 | CJ00020.D | 8054260 | 10/02/2015 | 05:49 | C1527430AA | |
| jeb07445 | CJ00021.D | 8054261 | 10/02/2015 | 06:34 | C1527430AA | |
| jeb07445 | CJ00022.D | 8058998 | 10/02/2015 | 07:20 | C1527430AA | |
| jeb07445 | CJ00023.D | fc1 | 10/02/2015 | 09:20 | C1527430AA | |
| jeb07445 | CJ00024.D | fc2 | 10/02/2015 | 10:05 | C1527430AA | |
| jeb07445 | CJ00024.D | fc3 | 10/02/2015 | 10:54 | C1527430AA | |
| jeb07445 | CJ00025.D | fc4 | 10/02/2015 | 11:37 | C1527430AA | |
| jeb07445 | CJ00026.D | 8057520 | 10/02/2015 | 12:20 | C1527430AA | |
| jeb07445 | CJ00027.D | 8057514 | 10/02/2015 | 13:33 | C1527430AA | 100 |
| jeb07445 | CJ00028.D | 8058998 | 10/02/2015 | 14:19 | C1527430AA | |

eurofins | Lancaster Laboratories Environmental

FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKC81 |
| Canister ID: | N/A | Lab File ID: | cj00003.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 10/01/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 16:53 |
| Instrument ID: | 09464 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 115-07-1 | Propene | 0.50 | U |
| 75-71-8 | Dichlorodifluoromethane | 0.20 | U |
| 75-45-6 | Chlorodifluoromethane | 0.20 | U |
| 76-14-2 | Freon 114 | 0.20 | U |
| 74-87-3 | Chloromethane | 0.20 | U |
| 75-01-4 | Vinyl Chloride | 0.20 | U |
| 106-99-0 | 1,3-Butadiene | 0.40 | U |
| 74-83-9 | Bromomethane | 0.20 | U |
| 75-00-3 | Chloroethane | 0.20 | U |
| 593-60-2 | Bromoethene | 0.40 | U |
| 75-43-4 | Dichlorofluoromethane | 0.20 | U |
| 75-69-4 | Trichlorofluoromethane | 0.20 | U |
| 109-66-0 | Pentane | 0.50 | U |
| 64-17-5 | Ethanol | 0.50 | U |
| 107-02-8 | Acrolein | 1.0 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.20 | U |
| 76-13-1 | Freon 113 | 0.50 | U |
| 67-64-1 | Acetone | 0.50 | U |
| 74-88-4 | Methyl Iodide | 0.20 | U |
| 75-15-0 | Carbon Disulfide | 0.50 | U |
| 67-63-0 | Isopropanol | 0.50 | U |
| 75-05-8 | Acetonitrile | 0.50 | U |
| 107-05-1 | 3-Chloropropene | 0.20 | U |
| 75-09-2 | Methylene Chloride | 0.20 | U |

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKC81 |
| Canister ID: | N/A | Lab File ID: | cj00003.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 10/01/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 16:53 |
| Instrument ID: | 09464 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 75-65-0 | tert-Butyl Alcohol | 0.50 | U |
| 107-13-1 | Acrylonitrile | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.20 | U |
| 1634-04-4 | Methyl t-Butyl Ether | 0.20 | U |
| 110-54-3 | Hexane | 0.20 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.20 | U |
| 108-05-4 | Vinyl Acetate | 1.0 | U |
| 108-20-3 | Di-Isopropyl Ether | 0.20 | U |
| 637-92-3 | Ethyl Tert-Butyl Ether | 0.20 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.20 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 0.20 | U |
| 78-93-3 | 2-Butanone | 0.50 | U |
| 141-78-6 | Ethyl Acetate | 0.50 | U |
| 96-33-3 | Methyl Acrylate | 0.20 | U |
| 109-99-9 | Tetrahydrofuran | 0.50 | U |
| 67-66-3 | Chloroform | 0.20 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.20 | U |
| 110-82-7 | Cyclohexane | 0.20 | U |
| 56-23-5 | Carbon Tetrachloride | 0.20 | U |
| 71-43-2 | Benzene | 0.20 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.20 | U |
| 540-84-1 | Isooctane | 0.20 | U |
| 994-05-8 | Tert-Amyl Methyl Ether | 0.20 | U |
| 142-82-5 | Heptane | 0.50 | U |

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKC81 |
| Canister ID: | N/A | Lab File ID: | cj00003.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 10/01/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 16:53 |
| Instrument ID: | 09464 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 79-01-6 | Trichloroethene | 0.20 | U |
| 140-88-5 | Ethyl Acrylate | 0.20 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.20 | U |
| 74-95-3 | Dibromomethane | 0.20 | U |
| 123-91-1 | 1,4-Dioxane | 0.50 | U |
| 80-62-6 | Methyl Methacrylate | 0.20 | U |
| 75-27-4 | Bromodichloromethane | 0.20 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.20 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 0.50 | U |
| 108-88-3 | Toluene | 0.20 | U |
| 111-65-9 | Octane | 0.50 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.20 | U |
| 542-75-6 | 1,3-Dichloropropene (total) | 0.20 | U |
| 97-63-2 | Ethyl Methacrylate | 0.20 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.20 | U |
| 127-18-4 | Tetrachloroethene | 0.20 | U |
| 591-78-6 | 2-Hexanone | 0.50 | U |
| 124-48-1 | Dibromochloromethane | 0.20 | U |
| 106-93-4 | 1,2-Dibromoethane | 0.20 | U |
| 108-90-7 | Chlorobenzene | 0.20 | U |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.20 | U |
| 100-41-4 | Ethylbenzene | 0.20 | U |
| 179601-23-1 | m/p-Xylene | 0.20 | U |
| 95-47-6 | o-Xylene | 0.20 | U |

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKC81 |
| Canister ID: | N/A | Lab File ID: | cj00003.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 10/01/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 16:53 |
| Instrument ID: | 09464 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 1330-20-7 | Xylene (total) | 0.20 | U |
| 100-42-5 | Styrene | 0.20 | U |
| 75-25-2 | Bromoform | 0.20 | U |
| 98-82-8 | Cumene | 0.20 | U |
| 108-86-1 | Bromobenzene | 0.20 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.20 | U |
| 96-18-4 | 1,2,3-Trichloropropane | 0.20 | U |
| 103-65-1 | n-Propylbenzene | 0.50 | U |
| 95-49-8 | 2-Chlorotoluene | 0.20 | U |
| 622-96-8 | 4-Ethyltoluene | 0.20 | U |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.20 | U |
| 98-83-9 | Alpha Methyl Styrene | 0.20 | U |
| 98-06-6 | tert-Butylbenzene | 0.20 | U |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.20 | U |
| 135-98-8 | sec-Butylbenzene | 0.20 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.20 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.20 | U |
| 99-87-6 | p-Isopropyltoluene | 0.20 | U |
| 100-44-7 | Benzyl Chloride | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.20 | U |
| 104-51-8 | n-Butylbenzene | 0.20 | U |
| 67-72-1 | Hexachloroethane | 0.50 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 0.20 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKC81 |
| Canister ID: | N/A | Lab File ID: | cj00003.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 10/01/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 16:53 |
| Instrument ID: | 09464 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 87-68-3 | Hexachlorobutadiene | 0.40 | U |
| 91-20-3 | Naphthalene | 0.40 | U |

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 09464 LCS File ID: cj00004.d LCSD File ID: cj00005.d

Batch: C1527430AA LCS Injected: 10/01/2015 LCSD Injected: 10/01/2015

Method: EPA TO-15 LCS Client ID: LCSC81 LCSD Client ID: LCSDC81

Dilution Factor: 1

| COMPOUND | SPIKE LEVEL | LCS CONC. (ppb(v)) | LCSD CONC. (ppb(v)) | LCS %REC | LCSD %REC | RANGE | %RPD | RPD MAX | IN SPEC |
|---|---|---|---|---|---|---|---|---|---|
| Propene | 11.00 | 9.72 | 9.40 | 88 | 85 | 41-129 | 3 | 25 | YES |
| Dichlorodifluoromethane | 10.00 | 9.77 | 9.36 | 98 | 94 | 61-149 | 4 | 25 | YES |
| Freon 114 | 10.20 | 10.03 | 9.62 | 98 | 94 | 63-123 | 4 | 25 | YES |
| Chloromethane | 10.30 | 8.43 | 8.00 | 82 | 78 | 54-118 | 5 | 25 | YES |
| Vinyl Chloride | 10.20 | 10.43 | 10.19 | 102 | 100 | 70-130 | 2 | 25 | YES |
| 1,3-Butadiene | 10.50 | 10.34 | 9.96 | 98 | 95 | 57-138 | 4 | 25 | YES |
| Bromomethane | 10.10 | 9.54 | 8.88 | 94 | 88 | 70-130 | 7 | 25 | YES |
| Chloroethane | 10.00 | 9.29 | 9.03 | 93 | 90 | 63-119 | 3 | 25 | YES |
| Trichlorofluoromethane | 10.00 | 9.56 | 9.20 | 96 | 92 | 70-130 | 4 | 25 | YES |
| Ethanol | 10.60 | 7.27 | 7.20 | 69 | 68 | 10-175 | 1 | 25 | YES |
| Acrolein | 10.90 | 11.36 | 11.60 | 104 | 106 | 43-141 | 2 | 25 | YES |
| 1,1-Dichloroethene | 10.60 | 10.30 | 10.03 | 97 | 95 | 61-128 | 3 | 25 | YES |
| Freon 113 | 10.50 | 9.59 | 9.38 | 91 | 89 | 63-114 | 2 | 25 | YES |
| Acetone | 10.70 | 10.48 | 10.27 | 98 | 96 | 61-134 | 2 | 25 | YES |
| Carbon Disulfide | 10.20 | 10.20 | 9.96 | 100 | 98 | 55-121 | 2 | 25 | YES |
| Isopropanol | 11.00 | 8.67 | 8.39 | 79 | 76 | 55-152 | 3 | 25 | YES |
| Methylene Chloride | 10.60 | 11.08 | 10.80 | 104 | 102 | 70-130 | 3 | 25 | YES |
| trans-1,2-Dichloroethene | 10.50 | 8.73 | 8.55 | 83 | 81 | 66-121 | 2 | 25 | YES |
| Methyl t-Butyl Ether | 10.70 | 11.74 | 11.81 | 110 | 110 | 52-129 | 1 | 25 | YES |
| Hexane | 10.80 | 10.70 | 10.37 | 99 | 96 | 63-117 | 3 | 25 | YES |
| 1,1-Dichloroethane | 10.50 | 9.49 | 9.20 | 90 | 88 | 67-124 | 3 | 25 | YES |
| Vinyl Acetate | 10.80 | 13.17 | 13.29 | 122 | 123 | 45-162 | 1 | 25 | YES |
| cis-1,2-Dichloroethene | 10.60 | 9.22 | 8.92 | 87 | 84 | 65-121 | 3 | 25 | YES |
| 2-Butanone | 10.80 | 12.40 | 12.23 | 115 | 113 | 60-135 | 1 | 25 | YES |
| Ethyl Acetate | 10.60 | 9.95 | 9.32 | 94 | 88 | 51-131 | 7 | 25 | YES |
| Tetrahydrofuran | 10.90 | 11.82 | 11.63 | 108 | 107 | 53-134 | 2 | 25 | YES |
| Chloroform | 10.60 | 9.64 | 9.47 | 91 | 89 | 70-130 | 2 | 25 | YES |
| 1,1,1-Trichloroethane | 10.50 | 9.76 | 9.46 | 93 | 90 | 70-130 | 3 | 25 | YES |
| Cyclohexane | 10.60 | 10.81 | 10.47 | 102 | 99 | 63-123 | 3 | 25 | YES |
| Carbon Tetrachloride | 10.40 | 10.02 | 9.61 | 96 | 92 | 70-130 | 4 | 25 | YES |
| Benzene | 10.50 | 10.09 | 9.90 | 96 | 94 | 70-130 | 2 | 25 | YES |
| 1,2-Dichloroethane | 10.50 | 9.15 | 8.95 | 87 | 85 | 70-130 | 2 | 25 | YES |
| Heptane | 10.70 | 9.99 | 9.85 | 93 | 92 | 56-123 | 1 | 25 | YES |
| Trichloroethene | 10.50 | 8.79 | 8.64 | 84 | 82 | 70-130 | 2 | 25 | YES |
| 1,2-Dichloropropane | 10.70 | 10.02 | 9.73 | 94 | 91 | 70-130 | 3 | 25 | YES |
| 1,4-Dioxane | 10.50 | 11.52 | 11.60 | 110 | 110 | 43-149 | 1 | 25 | YES |

COMMENTS:

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 09464 LCS File ID: cj00004.d LCSD File ID: cj00005.d

Batch: C1527430AA LCS Injected: 10/01/2015 LCSD Injected: 10/01/2015

Method: EPA TO-15 LCS Client ID: LCSC81 LCSD Client ID: LCSDC81

Dilution Factor: 1

| COMPOUND | SPIKE LEVEL | LCS CONC. (ppb(v)) | LCSD CONC. (ppb(v)) | LCS %REC | LCSD %REC | RANGE | %RPD | RPD MAX | IN SPEC |
|---|---|---|---|---|---|---|---|---|---|
| Methyl Methacrylate | 10.30 | 11.36 | 11.23 | 110 | 109 | 59-146 | 1 | 25 | YES |
| Bromodichloromethane | 10.50 | 9.14 | 8.97 | 87 | 85 | 62-129 | 2 | 25 | YES |
| cis-1,3-Dichloropropene | 10.90 | 11.88 | 11.53 | 109 | 106 | 64-136 | 3 | 25 | YES |
| 4-Methyl-2-Pentanone | 10.80 | 10.88 | 10.43 | 101 | 97 | 53-140 | 4 | 25 | YES |
| Toluene | 10.70 | 13.04 | 13.48 | 122 | 126 | 70-130 | 3 | 25 | YES |
| trans-1,3-Dichloropropene | 10.00 | 11.48 | 11.51 | 115 | 115 | 61-126 | 0 | 25 | YES |
| 1,1,2-Trichloroethane | 10.70 | 11.18 | 11.24 | 104 | 105 | 59-131 | 1 | 25 | YES |
| Tetrachloroethene | 10.40 | 10.43 | 10.88 | 100 | 105 | 70-130 | 4 | 25 | YES |
| 2-Hexanone | 11.00 | 13.52 | 13.55 | 123 | 123 | 47-150 | 0 | 25 | YES |
| Dibromochloromethane | 10.80 | 10.59 | 10.79 | 98 | 100 | 65-127 | 2 | 25 | YES |
| 1,2-Dibromoethane | 10.50 | 12.53 | 12.48 | 119 | 119 | 65-126 | 0 | 25 | YES |
| Chlorobenzene | 10.80 | 12.34 | 12.16 | 114 | 113 | 70-130 | 1 | 25 | YES |
| Ethylbenzene | 10.80 | 13.45 | 13.92 | 125 | 129 | 70-130 | 3 | 25 | YES |
| m/p-Xylene | 21.20 | 27.42 | 28.81 | 129 | 136* | 70-130 | 5 | 25 | NO |
| o-Xylene | 10.90 | 13.71 | 14.37 | 126 | 132* | 70-130 | 5 | 25 | NO |
| Xylene (total) | 32.10 | 41.13 | 43.19 | 128 | 135* | 70-130 | 5 | 25 | NO |
| Styrene | 10.80 | 13.28 | 13.84 | 123 | 128 | 64-130 | 4 | 25 | YES |
| Bromoform | 10.60 | 12.32 | 12.13 | 116 | 114 | 64-141 | 2 | 25 | YES |
| 1,1,2,2-Tetrachloroethane | 10.90 | 12.37 | 12.69 | 113 | 116 | 58-133 | 3 | 25 | YES |
| 4-Ethyltoluene | 10.70 | 12.40 | 13.11 | 116 | 122 | 59-126 | 6 | 25 | YES |
| 1,3,5-Trimethylbenzene | 10.70 | 12.89 | 13.55 | 120 | 127 | 61-132 | 5 | 25 | YES |
| 1,2,4-Trimethylbenzene | 10.80 | 11.82 | 12.36 | 109 | 114 | 60-128 | 4 | 25 | YES |
| 1,3-Dichlorobenzene | 10.90 | 11.33 | 11.73 | 104 | 108 | 63-125 | 3 | 25 | YES |
| 1,4-Dichlorobenzene | 10.70 | 11.16 | 11.46 | 104 | 107 | 63-127 | 3 | 25 | YES |
| Benzyl Chloride | 10.30 | 12.08 | 12.40 | 117 | 120 | 50-160 | 3 | 25 | YES |
| 1,2-Dichlorobenzene | 10.80 | 11.40 | 11.79 | 106 | 109 | 62-132 | 3 | 25 | YES |
| 1,2,4-Trichlorobenzene | 11.00 | 10.45 | 10.73 | 95 | 98 | 37-119 | 3 | 25 | YES |
| Hexachlorobutadiene | 11.00 | 10.70 | 11.11 | 97 | 101 | 43-120 | 4 | 25 | YES |
| Naphthalene | 10.40 | 10.65 | 11.12 | 102 | 107 | 35-153 | 4 | 25 | YES |

COMMENTS: ① ME [signature] 7445 10/1/15

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FORM 04
VOLATILE ORGANICS IN AIR
METHOD BLANK SUMMARY

SDG No.:

Lab Sample ID: VBLKC81

Lab File ID: cj00003.d

Instrument ID: 09464

Analyzed Date: 10/01/2015

Analyzed Time: 16:53

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS AND LCSD:

| LAB SAMPLE ID | LAB FILE ID | CANISTER ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| LCSC81 | cj00004.d | N/A | 10/01/2015 | 17:43 |
| LCSDC81 | cj00005.d | N/A | 10/01/2015 | 18:26 |
| 8057139 | cj00006.d | N/A | 10/01/2015 | 19:23 |
| 8057141DL | cj00007.d | N/A | 10/01/2015 | 20:06 |
| 8056374 | cj00008.d | 110 | 10/01/2015 | 20:53 |
| 8056375 | cj00009.d | 817 | 10/01/2015 | 21:35 |
| 8056376RE | cj00010.d | 844 | 10/01/2015 | 22:19 |
| 8056377RE | cj00011.d | 851 | 10/01/2015 | 23:01 |
| 8057515 | cj00013.d | 888 | 10/02/2015 | 00:31 |
| 8057516 | cj00014.d | 506 | 10/02/2015 | 01:13 |
| 8057518 | cj00015.d | 293 | 10/02/2015 | 01:59 |
| 8057519 | cj00016.d | 1117 | 10/02/2015 | 02:46 |
| 8051719 | cj00018.d | 1095 | 10/02/2015 | 04:15 |
| 8054259 | cj00019.d | 1178 | 10/02/2015 | 05:02 |
| 8054260 | cj00020.d | 1075 | 10/02/2015 | 05:49 |
| 8054261 | cj00021.d | 1126 | 10/02/2015 | 06:34 |
| 8057514 | cj00027.d | 1175 | 10/02/2015 | 13:33 |
| 8058998 | cj00028.d | 534 | 10/02/2015 | 14:19 |

COMMENTS:

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FORM 05
VOLATILE ORGANICS IN AIR
INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

SDG No.:

Lab File ID: cj00000.d

BFB Injection Date: 10/01/2015

Instrument ID: 09464

BFB Injection Time: 14:53

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 8.0% - 40.0% of mass 95 | 22.9 |
| 75 | 30.0% - 66.0% of mass 95 | 56.7 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0% - 9.0% of mass 95 | 6.5 |
| 173 | < 2.0% of mass 174 | 0.0 (0.0) |
| 174 | > 50.0% of mass 95 | 53.8 |
| 175 | 4.0% - 9.0% of mass 174 | 4.0 (7.4) |
| 176 | 93.0% - 101.0% of mass 174 | 51.0 (94.8) |
| 177 | 5.0% - 9.0% of mass 176 | 3.4 (6.7) |
| | | |

THIS CHECK APPLIES TO THE FOLLOWING:

| LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|
| VSTD010 | cj00001.d | 10/01/2015 | 15:19 |
| VBLKC81 | cj00003.d | 10/01/2015 | 16:53 |
| LCSC81 | cj00004.d | 10/01/2015 | 17:43 |
| LCSDC81 | cj00005.d | 10/01/2015 | 18:26 |
| 8057139 | cj00006.d | 10/01/2015 | 19:23 |
| 8057141DL | cj00007.d | 10/01/2015 | 20:06 |
| 8056374 | cj00008.d | 10/01/2015 | 20:53 |
| 8056375 | cj00009.d | 10/01/2015 | 21:35 |
| 8056376RE | cj00010.d | 10/01/2015 | 22:19 |
| 8056377RE | cj00011.d | 10/01/2015 | 23:01 |
| 8057515 | cj00013.d | 10/02/2015 | 00:31 |
| 8057516 | cj00014.d | 10/02/2015 | 01:13 |
| 8057518 | cj00015.d | 10/02/2015 | 01:59 |
| 8057519 | cj00016.d | 10/02/2015 | 02:46 |
| 8051719 | cj00018.d | 10/02/2015 | 04:15 |
| 8054259 | cj00019.d | 10/02/2015 | 05:02 |
| 8054260 | cj00020.d | 10/02/2015 | 05:49 |
| 8054261 | cj00021.d | 10/02/2015 | 06:34 |
| 8057514 | cj00027.d | 10/02/2015 | 13:33 |
| 8058998 | cj00028.d | 10/02/2015 | 14:19 |

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FORM 07
VOLATILE ORGANICS IN AIR
CONTINUING CALIBRATION CHECK

SDG No.:

Lab File ID: cj00001.d

Calibration Date: 10/01/2015

Instrument ID: 09464

Calibration Time: 15:19

Init. Calib. Date(s): 09/22/2015

| COMPOUND | $\overline{RRF}$ | RRF 10 | ACTUAL CONC. | TRUE CONC. | %DRIFT |
|---|---|---|---|---|---|
| Propene | 1.684 | 1.452 | 8.790 | 10.2 | -14 |
| Dichlorodifluoromethane | 4.292 | 3.703 | 8.714 | 10.1 | -14 |
| Chlorodifluoromethane | 3.651 | 2.831 | 8.297 | 10.7 | -22 |
| Freon 114 | 3.850 | 3.257 | 8.713 | 10.3 | -15 |
| Chloromethane | 0.774 | 0.633 | 8.417 | 10.3 | -18 |
| Vinyl Chloride | 1.951 | 1.766 | 9.142 | 10.1 | -9 |
| 1,3-Butadiene | 1.643 | 1.456 | 9.038 | 10.2 | -11 |
| Bromomethane | 1.543 | 1.271 | 8.076 | 9.8 | -18 |
| Chloroethane | 1.237 | 1.026 | 8.044 | 9.7 | -17 |
| Bromoethene | 1.297 | 1.137 | 9.294 | 10.6 | -12 |
| Dichlorofluoromethane | 4.779 | 3.799 | 8.347 | 10.5 | -21 |
| Trichlorofluoromethane | 4.472 | 3.662 | 8.272 | 10.1 | -18 |
| Pentane | 4.066 | 3.340 | 8.626 | 10.5 | -18 |
| Ethanol | 1.023 | 0.848 | 4.813 | 5.8 | -17 |
| Freon123a | 3.917 | 2.926 | 8.216 | 11 | -25 |
| Acrolein | 0.533 | 0.474 | 6.668 | 7.5 | -11 |
| 1,1-Dichloroethene | 3.410 | 2.948 | 8.647 | 10 | -14 |
| Freon 113 | 2.138 | 1.761 | 7.989 | 9.7 | -18 |
| Acetone | 2.048 | 1.623 | 8.477 | 10.7 | -21 |
| Methyl Iodide | 2.490 | 2.224 | 9.380 | 10.5 | -11 |
| Carbon Disulfide | 5.488 | 4.886 | 8.903 | 10 | -11 |
| Isopropanol | 3.011 | 2.114 | 6.740 | 9.6 | -30 |
| Acetonitrile * | 0.880 | 0.460 | 5.179 | 9.9 | -48 * |
| 3-Chloropropene | 0.857 | 0.705 | 9.041 | 11 | -18 |
| Methylene Chloride | 1.522 | 1.325 | 9.573 | 11 | -13 |
| tert-Butyl Alcohol | 2.623 | 2.182 | 9.153 | 11 | -17 |
| Acrylonitrile | 1.588 | 1.143 | 7.126 | 9.9 | -28 |
| trans-1,2-Dichloroethene | 3.851 | 2.911 | 7.557 | 10 | -24 |
| Methyl t-Butyl Ether | 2.823 | 2.659 | 9.607 | 10.2 | -6 |
| Hexane | 2.443 | 2.151 | 8.982 | 10.2 | -12 |
| 1,1-Dichloroethane | 3.148 | 2.465 | 7.828 | 10 | -22 |
| Vinyl Acetate | 0.147 | 0.141 | 7.321 | 7.6 | -4 |
| Di-Isopropyl Ether | 3.379 | 3.277 | 10.088 | 10.4 | -3 |
| Ethyl Tert-Butyl Ether | 2.271 | 2.264 | 10.072 | 10.1 | 0 |
| cis-1,2-Dichloroethene | 2.300 | 1.879 | 8.576 | 10.5 | -18 |
| 2-Butanone | 0.385 | 0.379 | 10.258 | 10.4 | -1 |
| Ethyl Acetate | 0.221 | 0.215 | 10.668 | 11 | -3 |
| Methyl Acrylate | 1.715 | 1.659 | 10.061 | 10.4 | -3 |
| Tetrahydrofuran | 1.344 | 1.182 | 8.797 | 10 | -12 |

* Maximum %DRIFT = 30%.
Average RRF for all compounds must be greater than 0.010.

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FORM 07
VOLATILE ORGANICS IN AIR
CONTINUING CALIBRATION CHECK

SDG No.:

Lab File ID: cj00001.d

Calibration Date: 10/01/2015

Instrument ID: 09464

Calibration Time: 15:19

Init. Calib. Date(s): 09/22/2015

| COMPOUND | $\overline{RRF}$ | RRF 10 | ACTUAL CONC. | TRUE CONC. | %DRIFT |
|---|---|---|---|---|---|
| Chloroform | 3.119 | 2.470 | 7.998 | 10.1 | -21 |
| 1,1,1-Trichloroethane | 2.749 | 2.225 | 8.336 | 10.3 | -19 |
| Cyclohexane | 2.719 | 2.466 | 9.340 | 10.3 | -9 |
| Carbon Tetrachloride | 2.747 | 2.281 | 8.636 | 10.4 | -17 |
| Benzene | 1.112 | 0.891 | 8.491 | 10.6 | -20 |
| 1,2-Dichloroethane | 0.719 | 0.525 | 7.600 | 10.4 | -27 |
| Isooctane | 1.879 | 1.695 | 9.474 | 10.5 | -10 |
| Tert-Amyl Methyl Ether | 0.537 | 0.522 | 10.405 | 10.7 | -3 |
| Heptane | 0.896 | 0.733 | 8.592 | 10.5 | -18 |
| Trichloroethene | 0.415 | 0.329 | 8.167 | 10.3 | -21 |
| Ethyl Acrylate | 0.536 | 0.475 | 9.564 | 10.8 | -11 |
| 1,2-Dichloropropane | 0.475 | 0.414 | 9.140 | 10.5 | -13 |
| Dibromomethane | 0.285 | 0.218 | 8.022 | 10.5 | -24 |
| 1,4-Dioxane | 0.151 | 0.135 | 9.227 | 10.3 | -10 |
| Methyl Methacrylate | 0.264 | 0.247 | 9.434 | 10.1 | -7 |
| Bromodichloromethane | 0.940 | 0.722 | 7.909 | 10.3 | -23 |
| cis-1,3-Dichloropropene | 0.521 | 0.481 | 8.778 | 9.5 | -8 |
| 4-Methyl-2-Pentanone | 0.754 | 0.687 | 9.300 | 10.2 | -9 |
| Toluene | 0.978 | 0.946 | 10.251 | 10.6 | -3 |
| Octane | 1.103 | 1.049 | 9.801 | 10.3 | -5 |
| trans-1,3-Dichloropropene | 0.617 | 0.580 | 9.509 | 10.1 | -6 |
| Ethyl Methacrylate | 0.455 | 0.424 | 9.416 | 10.1 | -7 |
| 1,1,2-Trichloroethane | 0.430 | 0.375 | 9.244 | 10.6 | -13 |
| Tetrachloroethene | 0.419 | 0.388 | 9.903 | 10.7 | -7 |
| 2-Hexanone | 0.811 | 0.807 | 10.843 | 10.9 | -1 |
| Dibromochloromethane | 0.608 | 0.497 | 8.012 | 9.8 | -18 |
| 1,2-Dibromoethane | 0.585 | 0.540 | 9.217 | 10 | -8 |
| Chlorobenzene | 0.788 | 0.722 | 9.719 | 10.6 | -8 |
| 1,1,1,2-Tetrachloroethane | 0.417 | 0.363 | 9.215 | 10.6 | -13 |
| Ethylbenzene | 1.049 | 1.038 | 10.484 | 10.6 | -1 |
| m/p-Xylene | 0.833 | 0.811 | 9.539 | 9.8 | -3 |
| o-Xylene | 0.887 | 0.874 | 10.548 | 10.7 | -1 |
| Styrene | 0.709 | 0.674 | 9.882 | 10.4 | -5 |
| Bromoform | 0.560 | 0.511 | 9.130 | 10 | -9 |
| Cumene | 0.989 | 0.994 | 10.446 | 10.4 | 0 |
| Bromobenzene | 0.378 | 0.353 | 9.912 | 10.6 | -6 |
| 1,1,2,2-Tetrachloroethane | 0.960 | 0.896 | 9.992 | 10.7 | -7 |
| 1,2,3-Trichloropropane | 0.243 | 0.218 | 9.118 | 10.2 | -11 |
| n-Propylbenzene | 0.288 | 0.293 | 10.171 | 10 | 2 |

* Maximum %DRIFT = 30%.
\# Average RRF for all compounds must be greater than 0.010.

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FORM 07
VOLATILE ORGANICS IN AIR
CONTINUING CALIBRATION CHECK

SDG No.:

Lab File ID: cj00001.d

Calibration Date: 10/01/2015

Instrument ID: 09464

Calibration Time: 15:19

Init. Calib. Date(s): 09/22/2015

| COMPOUND | $\overline{RRF}$ | RRF 10 | ACTUAL CONC. | TRUE CONC. | %DRIFT |
|---|---|---|---|---|---|
| 2-Chlorotoluene | 0.310 | 0.299 | 9.922 | 10.3 | -4 |
| 4-Ethyltoluene | 1.072 | 1.112 | 10.476 | 10.1 | 4 |
| 1,3,5-Trimethylbenzene | 0.893 | 0.927 | 10.697 | 10.3 | 4 |
| Alpha Methyl Styrene | 0.439 | 0.447 | 10.083 | 9.9 | 2 |
| tert-Butylbenzene | 0.803 | 0.798 | 10.133 | 10.2 | -1 |
| 1,2,4-Trimethylbenzene | 0.969 | 0.973 | 10.243 | 10.2 | 0 |
| sec-Butylbenzene | 1.279 | 1.323 | 10.444 | 10.1 | 3 |
| 1,3-Dichlorobenzene | 0.722 | 0.677 | 9.842 | 10.5 | -6 |
| 1,4-Dichlorobenzene | 0.734 | 0.692 | 9.618 | 10.2 | -6 |
| p-Isopropyltoluene | 1.048 | 1.061 | 10.228 | 10.1 | 1 |
| Benzyl Chloride | 1.100 | 1.072 | 8.288 | 8.5 | -2 |
| 1,2-Dichlorobenzene | 0.668 | 0.635 | 9.606 | 10.1 | -5 |
| n-Butylbenzene | 1.150 | 1.185 | 10.510 | 10.2 | 3 |
| Hexachloroethane | 0.496 | 0.364 | 8.011 | 10.9 | -27 |
| 1,2-Dibromo-3-chloropropane | 0.318 | 0.317 | 9.576 | 9.6 | 0 |
| 1,2,4-Trichlorobenzene | 0.338 | 0.394 | 11.172 | 9.6 | 16 |
| Hexachlorobutadiene | 0.330 | 0.383 | 11.485 | 9.9 | 16 |
| Naphthalene | 0.959 | 0.990 | 10.731 | 10.4 | 3 |

* Maximum %DRIFT = 30%.
\# Average RRF for all compounds must be greater than 0.010.

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FORM 08
VOLATILE ORGANICS IN AIR
INSTRUMENT STANDARD AREA AND RETENTION TIME SUMMARY

SDG No.:

Lab Sample ID: VSTD010 Analyzed Date: 10/01/2015

Lab File ID: cj00001.d Analyzed Time: 15:19

Instrument ID: 09464

| | Bromochloromethane | | 1,4-Difluorobenzene | | Chlorobenzene-d5 | |
|---|---|---|---|---|---|---|
| | Area | R.T. | Area | R.T. | Area | R.T. |
| 24 HOUR STANDARD | 637889 | 7.21 | 2323066 | 9.20 | 2080284 | 15.53 |
| UPPER LIMIT | 893045 | 7.54 | 3252292 | 9.53 | 2912398 | 15.86 |
| LOWER LIMIT | 382733 | 6.88 | 1393840 | 8.87 | 1248170 | 15.20 |
| LAB SAMPLE ID | | | | | | |
| VBLKC81 | 512148 | 7.23 | 1547533 | 9.22 | 1410330 | 15.54 |
| LCSC81 | 534232 | 7.21 | 1952166 | 9.20 | 1595483 | 15.53 |
| LCSDC81 | 574734 | 7.21 | 2086304 | 9.21 | 1640118 | 15.53 |
| 8057139 | 525537 | 7.21 | 1554173 | 9.21 | 1394149 | 15.53 |
| 8057141DL | 496145 | 7.21 | 1725672 | 9.21 | 1574918 | 15.53 |
| 8056374 | 536899 | 7.21 | 2297574 | 9.20 | 2560324 | 15.54 |
| 8056375 | 708056 | 7.21 | 2293058 | 9.21 | 2808831 | 15.54 |
| 8056376RE | 917310 * | 7.21 | 2940619 | 9.21 | 3012399 * | 15.53 |
| 8056377RE | 931653 * | 7.21 | 3180149 | 9.21 | 3334981 * | 15.55 |
| 8057515 | 887789 | 7.21 | 2818827 | 9.21 | 2382102 | 15.53 |
| 8057516 | 764467 | 7.21 | 2650911 | 9.21 | 2531105 | 15.53 |
| 8057518 | 846651 | 7.21 | 2625391 | 9.20 | 2405851 | 15.53 |
| 8057519 | 813843 | 7.21 | 2800867 | 9.20 | 2744683 | 15.53 |
| 8051719 | 813649 | 7.21 | 2953652 | 9.21 | 2592817 | 15.53 |
| 8054259 | 699294 | 7.21 | 2715211 | 9.21 | 2679683 | 15.54 |
| 8054260 | 861721 | 7.21 | 3160518 | 9.20 | 2397067 | 15.53 |
| 8054261 | 854485 | 7.21 | 3354314 * | 9.21 | 3210427 * | 15.54 |
| 8057514 | 528427 | 7.21 | 1947396 | 9.21 | 2019430 | 15.53 |
| 8058998 | 600168 | 7.21 | 2223835 | 9.21 | 2551679 | 15.54 |

* = Outside of the QC Limits.

AREA: Upper limit: +40% of the internal standard area.
Lower Limit: -40% of the internal standard area.
R.T.: Upper limit: +0.33 of the internal standard R.T.
Lower limit: -0.33 of the internal standard R.T.

Data File: /chem/HP09464.i/15oct01.b/cj00000.d



Date : 01-OCT-2015 14:53

Client ID: 50NGBFB

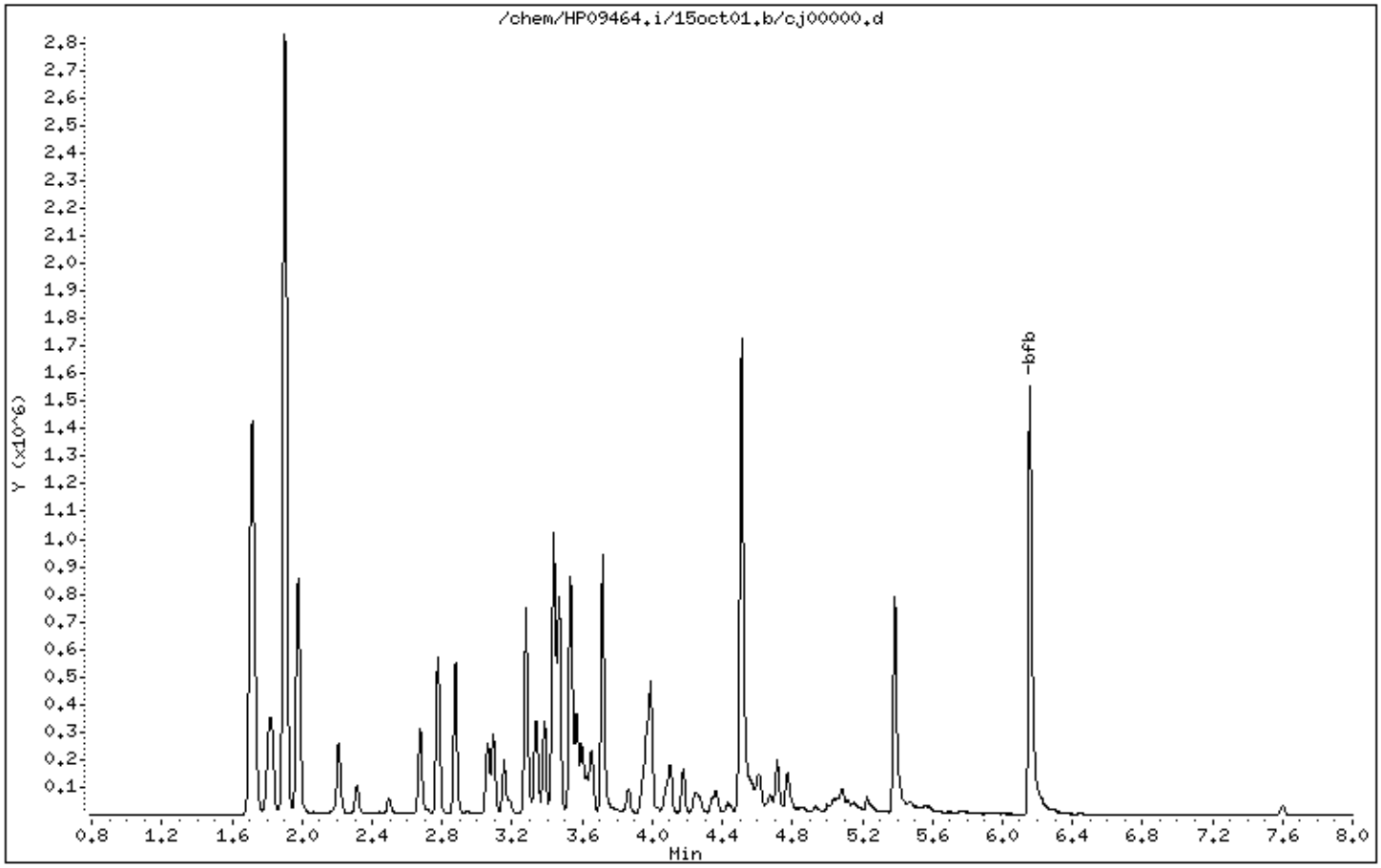
Instrument: HP09464.i

Sample Info: 50NGBFB;;;BFB;0;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25




Digitally signed by Jacob E. Bailey on 10/01/2015 at 17:37.
Target 3.5 esignature user ID: jeb07445

Data File: /chem/HP09464.i/15oct01.b/cj00000.d

Page 2

Date : 01-OCT-2015 14:53

Client ID: 50NGBFB

Instrument: HP09464.i

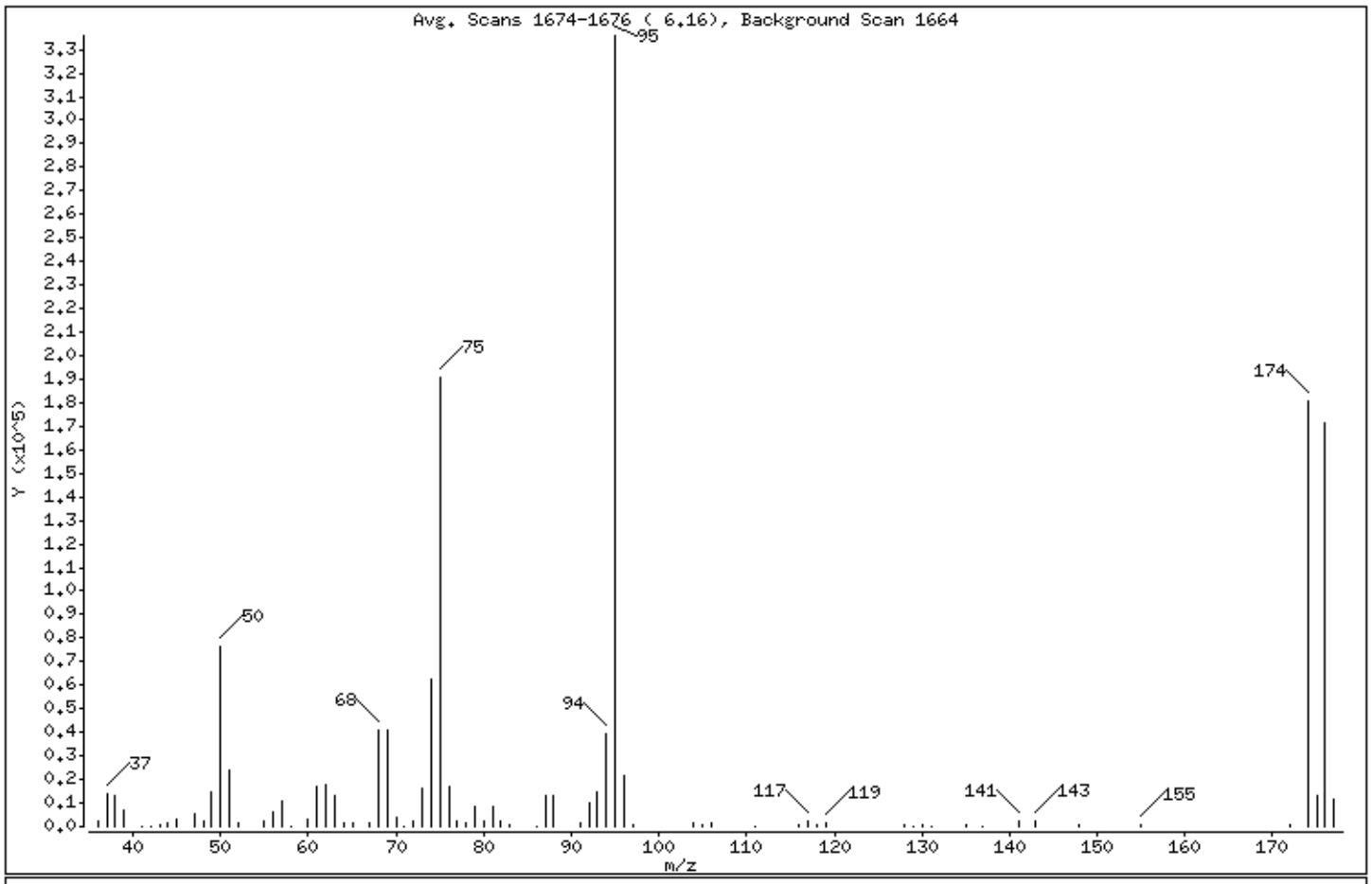
Sample Info: 50NGBFB;;;BFB;0;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 8.00 - 40.00% of mass 95 | 22.87 |
| 75 | 30.00 - 66.00% of mass 95 | 56.71 |
| 96 | 5.00 - 9.00% of mass 95 | 6.51 |
| 173 | Less than 2.00% of mass 174 | 0.00 ( 0.00) |
| 174 | 50.00 - 120.00% of mass 95 | 53.83 |
| 175 | 4.00 - 9.00% of mass 174 | 3.99 ( 7.42) |
| 176 | 93.00 - 101.00% of mass 174 | 51.01 ( 94.76) |
| 177 | 5.00 - 9.00% of mass 176 | 3.40 ( 6.66) |

Digitally signed by Jacob E. Bailey on 10/01/2015 at 17:37.
Target 3.5 esignature user ID: jeb07445

Date : 01-OCT-2015 14:53

Client ID: 50NGBFB Instrument: HP09464.i

Sample Info: 50NGBFB;;;BFB;0;;;

Operator: jeb07445

Column phase: DB-624 Column diameter: 0.25

Data File: cj00000.d
Spectrum: Avg. Scans 1674-1676 ( 6.16), Background Scan 1664
Location of Maximum: 95.00
Number of points: 75

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 2407 | 60.00 | 3041 | 80.00 | 2689 | 117.00 | 2048 |
| 37.00 | 14059 | 61.00 | 16696 | 81.00 | 8650 | 118.00 | 949 |
| 38.00 | 13176 | 62.00 | 17464 | 82.00 | 2182 | 119.00 | 1576 |
| 39.00 | 6647 | 63.00 | 13131 | 83.00 | 389 | 128.00 | 1067 |
| 41.00 | 358 | 64.00 | 1386 | 86.00 | 203 | 129.00 | 208 |
| 42.00 | 176 | 65.00 | 1366 | 87.00 | 13401 | 130.00 | 971 |
| 43.00 | 746 | 67.00 | 1536 | 88.00 | 12754 | 131.00 | 185 |
| 44.00 | 1794 | 68.00 | 41136 | 91.00 | 1166 | 135.00 | 407 |
| 45.00 | 3055 | 69.00 | 41000 | 92.00 | 9841 | 137.00 | 184 |
| 47.00 | 5419 | 70.00 | 3566 | 93.00 | 14715 | 141.00 | 2531 |
| 48.00 | 2184 | 71.00 | 206 | 94.00 | 39488 | 143.00 | 2689 |
| 49.00 | 14813 | 72.00 | 2277 | 95.00 | 335872 | 148.00 | 734 |
| 50.00 | 76816 | 73.00 | 16472 | 96.00 | 21880 | 155.00 | 705 |
| 51.00 | 24136 | 74.00 | 62512 | 97.00 | 845 | 172.00 | 972 |
| 52.00 | 1282 | 75.00 | 190464 | 104.00 | 1251 | 174.00 | 180800 |
| 55.00 | 1958 | 76.00 | 17032 | 105.00 | 734 | 175.00 | 13417 |
| 56.00 | 5861 | 77.00 | 2233 | 106.00 | 1180 | 176.00 | 171328 |
| 57.00 | 10984 | 78.00 | 1334 | 111.00 | 171 | 177.00 | 11410 |
| 58.00 | 204 | 79.00 | 8112 | 116.00 | 1003 | | |

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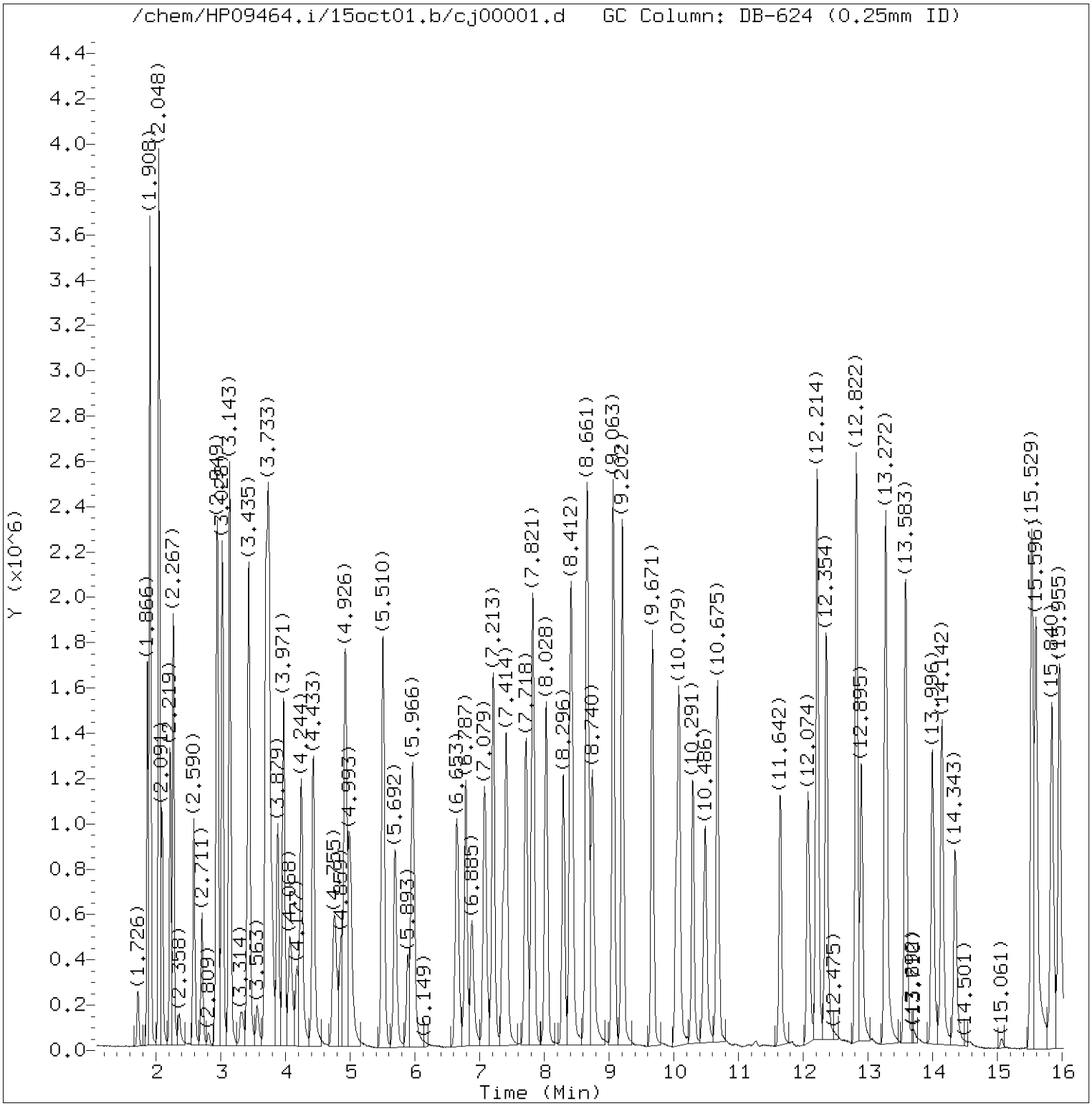
Target 3.5 esignature user ID: jeb07445




Total Ion Chromatogram (TIC)

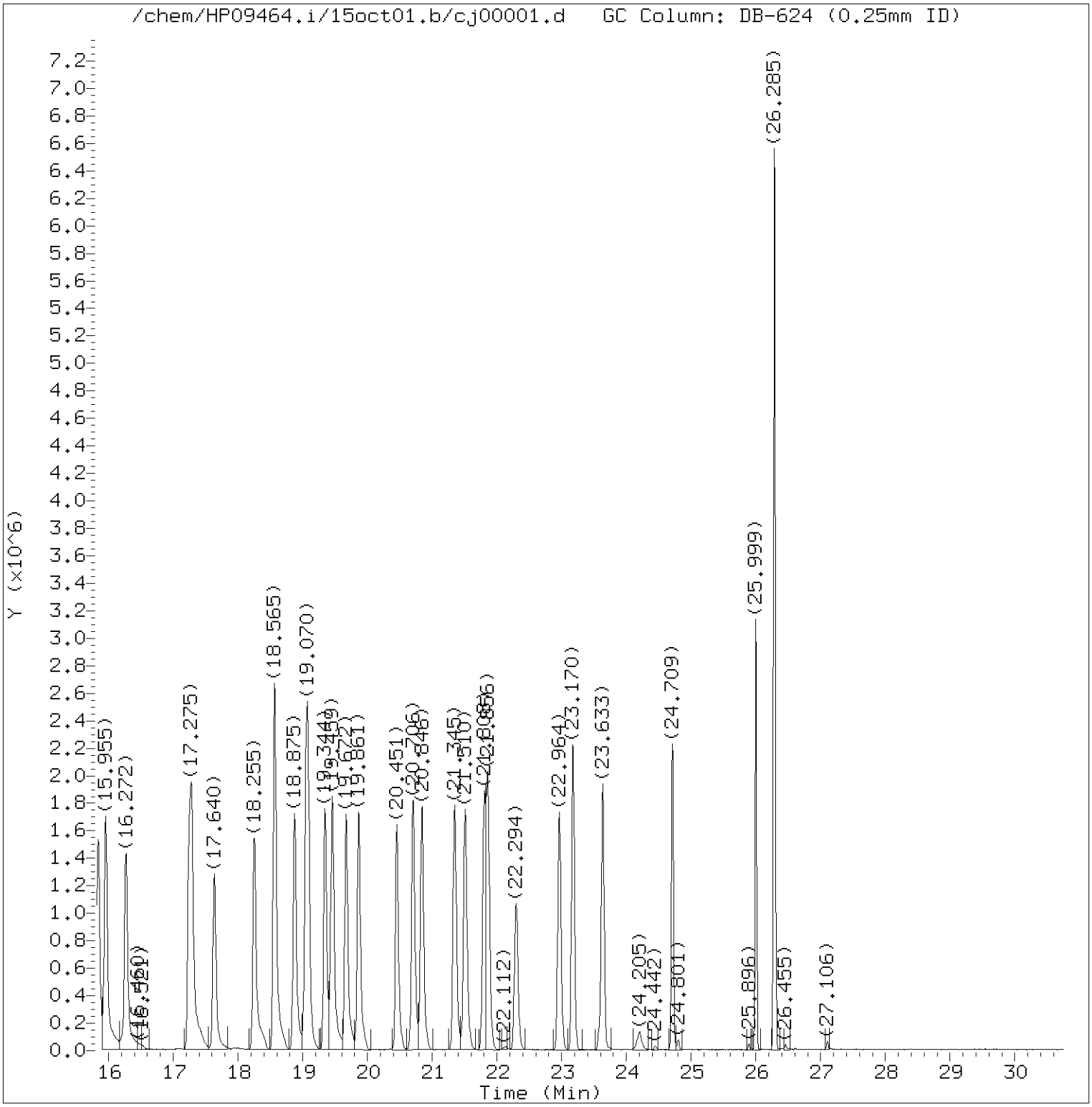
Target Revision 3.5

Data File: /chem/HP09464.i/15oct01.b/cj00001.d Instrument ID: HP09464.i
Injection date and time: 01-OCT-2015 15:19 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: all
Calibration date and time: 01-OCT-2015 15:59
Date, time and analyst ID of latest file update: 01-Oct-2015 15:59 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jacob E. Bailey
on 10/01/2015 at 17:38.
Target 3.5 esignature user ID: jeb07445




Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct01.b/cj00001.d Instrument ID: HP09464.i
Injection date and time: 01-OCT-2015 15:19 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: all
Calibration date and time: 01-OCT-2015 15:59
Date, time and analyst ID of latest file update: 01-Oct-2015 15:59 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jacob E. Bailey
on 10/01/2015 at 17:38.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct01.b/cj00001.d Instrument ID: HP09464.i
Injection date and time: 01-OCT-2015 15:19 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: all
Calibration date and time: 01-OCT-2015 15:59
Date, time and analyst ID of latest file update: 01-Oct-2015 15:59 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 1) Propene | (1) | 1.866 | 41 | 944461 | 8.790 |
| 2) Dichlorodifluoromethane | (1) | 1.902 | 85 | 2385731 | 8.714 |
| 3) Chlorodifluoromethane | (1) | 1.914 | 51 | 1931955 | 8.297 |
| 4) Freon 114 | (1) | 2.048 | 85 | 2139973 | 8.713 |
| 5) Chloromethane | (1) | 2.097 | 52 | 415669 | 8.417 |
| 6) Vinyl Chloride | (1) | 2.219 | 62 | 1137574 | 9.142 |
| 7) 1,3-Butadiene | (1) | 2.267 | 54 | 947158 | 9.038 |
| 8) Bromomethane | (1) | 2.590 | 94 | 794768 | 8.076 |
| 9) Chloroethane | (1) | 2.711 | 64 | 634700 | 8.044 |
| 10) Bromoethene | (1) | 2.930 | 106 | 769018 | 9.294 |
| 11) Dichlorofluoromethane | (1) | 2.949 | 67 | 2544547 | 8.347 |
| 12) Trichlorofluoromethane | (1) | 3.028 | 101 | 2359491 | 8.272 |
| 13) Pentane | (1) | 3.143 | 43 | 2237350 | 8.626 |
| 14) Ethanol | (1) | 3.314 | 45 | 313914 | 4.813 |
| 15) Freon123a | (1) | 3.435 | 67 | 2052999 | 8.216 |
| 16) Acrolein | (1) | 3.563 | 56 | 226547 | 6.668 |
| 17) 1,1-Dichloroethene | (1) | 3.697 | 61 | 1880735 | 8.647 |
| 18) Freon 113 | (1) | 3.739 | 103 | 1089462 | 7.989 |
| 19) Acetone | (1) | 3.794 | 43 | 1107513 | 8.477 |
| 20) Methyl Iodide | (1) | 3.879 | 142 | 1489732 | 9.380 |
| 21) Carbon Disulfide | (1) | 3.971 | 76 | 3116554 | 8.903 |
| 22) Isopropanol | (1) | 4.068 | 45 | 1294747 | 6.740 |
| 23) Acetonitrile | (1) | 4.177 | 40 | 290563 | 5.179 |
| 24) 3-Chloropropene | (1) | 4.250 | 76 | 494379 | 9.041 |
| 25) Methylene Chloride | (1) | 4.433 | 84 | 929498 | 9.573 |
| 26) tert-Butyl Alcohol | (1) | 4.768 | 59 | 1531098 | 9.153 |
| 27) Acrylonitrile | (1) | 4.859 | 53 | 721869 | 7.126 |
| 28) trans-1,2-Dichloroethene | (1) | 4.926 | 61 | 1856617 | 7.557 |
| 29) Methyl t-Butyl Ether | (1) | 4.993 | 73 | 1729925 | 9.607 |
| 30) Hexane | (1) | 5.510 | 57 | 1399496 | 8.982 |
| 31) 1,1-Dichloroethane | (1) | 5.692 | 63 | 1572088 | 7.828 |
| 32) Vinyl Acetate | (1) | 5.893 | 86 | 68497 | 7.321 |
| 33) Di-Isopropyl Ether | (1) | 5.966 | 45 | 2174004 | 10.088 |
| 36) 1,2-Dichloroethene (total) | (1) | | 61 | 3114841 | 16.133 |
| 34) Ethyl Tert-Butyl Ether | (1) | 6.647 | 59 | 1458938 | 10.072 |
| 35) cis-1,2-Dichloroethene | (1) | 6.787 | 61 | 1258224 | 8.576 |
| 37) 2-Butanone | (1) | 6.885 | 72 | 251589 | 10.258 |
| 38) Ethyl Acetate | (1) | 7.073 | 70 | 150533 | 10.668 |



Digitally signed by Jacob E. Bailey
on 10/01/2015 at 17:38.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct01.b/cj00001.d Instrument ID: HP09464.i
Injection date and time: 01-OCT-2015 15:19 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: all
Calibration date and time: 01-OCT-2015 15:59
Date, time and analyst ID of latest file update: 01-Oct-2015 15:59 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 39) Methyl Acrylate | (1) | 7.085 | 55 | 1100613 | 10.061 |
| 40)*Bromochloromethane | (1) | 7.213 | 130 | 637889 | 10.000 |
| 41) Tetrahydrofuran | (1) | 7.359 | 42 | 753981 | 8.797 |
| 42) Chloroform | (1) | 7.414 | 83 | 1591373 | 7.998 |
| 43) 1,1,1-Trichloroethane | (1) | 7.718 | 97 | 1461633 | 8.336 |
| 44) Cyclohexane | (1) | 7.821 | 56 | 1620018 | 9.340 |
| 45) Carbon Tetrachloride | (1) | 8.028 | 117 | 1513524 | 8.636 |
| 46) Benzene | (2) | 8.406 | 78 | 2194148 | 8.491 |
| 47) 1,2-Dichloroethane | (2) | 8.436 | 62 | 1268967 | 7.600 |
| 48) Isooctane | (2) | 8.661 | 57 | 4135140 | 9.474 |
| 49) Tert-Amyl Methyl Ether | (2) | 8.740 | 73 | 1297482 | 10.405 |
| 50) Heptane | (2) | 9.063 | 43 | 1788277 | 8.592 |
| 51)*1,4-Difluorobenzene | (2) | 9.202 | 114 | 2323066 | 10.000 |
| 52) Trichloroethene | (2) | 9.671 | 130 | 788200 | 8.167 |
| 53) Ethyl Acrylate | (2) | 10.030 | 55 | 1191789 | 9.564 |
| 54) 1,2-Dichloropropane | (2) | 10.079 | 63 | 1009318 | 9.140 |
| 55) Dibromomethane | (2) | 10.291 | 174 | 530607 | 8.022 |
| 56) 1,4-Dioxane | (2) | 10.456 | 88 | 322622 | 9.227 |
| 57) Methyl Methacrylate | (2) | 10.486 | 69 | 578369 | 9.434 |
| 58) Bromodichloromethane | (2) | 10.675 | 83 | 1726978 | 7.909 |
| 59) cis-1,3-Dichloropropene | (2) | 11.642 | 75 | 1062369 | 8.778 |
| 60) 4-Methyl-2-Pentanone | (2) | 12.074 | 43 | 1628049 | 9.300 |
| 61) Toluene | (3) | 12.354 | 91 | 2086261 | 10.251 |
| 64) 1,3-Dichloropropene (total) | (3) | | 75 | 2282030 | 18.287 |
| 62) Octane | (3) | 12.822 | 43 | 2248557 | 9.801 |
| 63) trans-1,3-Dichloropropene | (3) | 12.901 | 75 | 1219661 | 9.509 |
| 65) Ethyl Methacrylate | (3) | 13.266 | 69 | 891642 | 9.416 |
| 66) 1,1,2-Trichloroethane | (3) | 13.278 | 97 | 825981 | 9.244 |
| 67) Tetrachloroethene | (3) | 13.577 | 166 | 863348 | 9.903 |
| 68) 2-Hexanone | (3) | 13.996 | 43 | 1829851 | 10.843 |
| 69) Dibromochloromethane | (3) | 14.142 | 127 | 1013236 | 8.012 |
| 70) 1,2-Dibromoethane | (3) | 14.343 | 107 | 1122433 | 9.217 |
| 71)*Chlorobenzene-d5 | (3) | 15.529 | 117 | 2080284 | 10.000 |
| 72) Chlorobenzene | (3) | 15.596 | 112 | 1592484 | 9.719 |
| 73) 1,1,1,2-Tetrachloroethane | (3) | 15.840 | 131 | 800135 | 9.215 |
| 74) Ethylbenzene | (3) | 15.955 | 91 | 2287847 | 10.484 |
| 75) m/p-Xylene | (3) | 16.272 | 91 | 1653941 | 9.539 |
| 77) Xylene (total) | (3) | | 91 | 3599616 | 20.087 |

* = Compound is an internal standard.



Digitally signed by Jacob E. Bailey
on 10/01/2015 at 17:38.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct01.b/cj00001.d  Instrument ID: HP09464.i
Injection date and time: 01-OCT-2015 15:19  Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m  Sublist used: all
Calibration date and time: 01-OCT-2015 15:59
Date, time and analyst ID of latest file update: 01-Oct-2015 15:59 jeb07445

Sample Name: VSTD010  Lab Sample ID: VSTD010

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 76) o-Xylene | (3) | 17.239 | 91 | 1945675 | 10.548 |
| 78) Styrene | (3) | 17.288 | 104 | 1457915 | 9.882 |
| 79) Bromoform | (3) | 17.640 | 173 | 1063733 | 9.130 |
| 80) Cumene | (3) | 18.249 | 105 | 2149542 | 10.446 |
| 81) Bromobenzene | (3) | 18.875 | 156 | 779265 | 9.912 |
| 82) 1,1,2,2-Tetrachloroethane | (3) | 19.052 | 83 | 1994708 | 9.992 |
| 83) 1,2,3-Trichloropropane | (3) | 19.082 | 110 | 461637 | 9.118 |
| 84) n-Propylbenzene | (3) | 19.344 | 120 | 609276 | 10.171 |
| 85) 2-Chlorotoluene | (3) | 19.459 | 126 | 640212 | 9.922 |
| 86) 4-Ethyltoluene | (3) | 19.672 | 105 | 2337142 | 10.476 |
| 87) 1,3,5-Trimethylbenzene | (3) | 19.861 | 105 | 1986396 | 10.697 |
| 88) Alpha Methyl Styrene | (3) | 20.451 | 118 | 919895 | 10.083 |
| 89) tert-Butylbenzene | (3) | 20.706 | 119 | 1692633 | 10.133 |
| 90) 1,2,4-Trimethylbenzene | (3) | 20.846 | 105 | 2065324 | 10.243 |
| 91) sec-Butylbenzene | (3) | 21.345 | 105 | 2779500 | 10.444 |
| 92) 1,3-Dichlorobenzene | (3) | 21.510 | 146 | 1478084 | 9.842 |
| 93) 1,4-Dichlorobenzene | (3) | 21.802 | 146 | 1467797 | 9.618 |
| 94) p-Isopropyltoluene | (3) | 21.856 | 119 | 2229178 | 10.228 |
| 95) Benzyl Chloride | (3) | 22.300 | 91 | 1896112 | 8.288 |
| 96) 1,2-Dichlorobenzene | (3) | 22.964 | 146 | 1334581 | 9.606 |
| 97) n-Butylbenzene | (3) | 23.170 | 91 | 2514434 | 10.510 |
| 98) Hexachloroethane | (3) | 23.633 | 117 | 826338 | 8.011 |
| 99) 1,2-Dibromo-3-chloropropane | (3) | 24.716 | 157 | 632823 | 9.576 |
| 100) 1,2,4-Trichlorobenzene | (3) | 25.999 | 180 | 786045 | 11.172 |
| 101) Hexachlorobutadiene | (3) | 26.285 | 225 | 788126 | 11.485 |
| 102) Naphthalene | (3) | 26.297 | 128 | 2141040 | 10.731 |



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on 10/01/2015 at 17:38.
Target 3.5 esignature user ID: jeb07445

# Lancaster Laboratories, Inc.
## Analysis Summary for GC/MS Volatiles in Air

VBLKC81

Data file: /chem/HP09464.i/15oct01.b/cj00003.d  Injection date and time: **01-OCT-2015 16:53**
Data file Sample Info. Line: VBLKC81;;C1527430AA;VBLKC81;0;3;BLANK;  Instrument ID: **HP09464.i**  Batch: **C1527430AA**
Date, time and analyst ID of latest file update: 01-Oct-2015 17:33 jeb07445

Blank Data file reference: **/chem/HP09464.i/15oct01.b/cj00003.d**

Method used: /chem/HP09464.i/15oct01.b/to-15.m  Sublist used: **all**
Calibration date and time (Last Method Edit): 01-OCT-2015 15:59
Mid Level Daily Calibration Standard Reference: **/chem/HP09464.i/15oct01.b/cj00001.d**

Sampling Media: Summa Canister  Matrix: AIR  On-Column Amount units: ppb(v)  In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa)  Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia  Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 250 cc  Actual injection Volume (IVa): 250 cc

**Analysis Comments:**

| Internal Standards | RT (+/-RT) | Scan | QIon | Area(+/- %Change) | Conc. (on column) | QC Flag | QC Limits |
|---|---|---|---|---|---|---|---|
| 40) Bromochloromethane | 7.231(-0.018) | 1011 | 130 | 512148 ( -20) | 10.00 | | 382734 - 893044 |
| 51) 1,4-Difluorobenzene | 9.221(-0.018) | 1338 | 114 | 1547533 ( -33) | 10.00 | | 1393840 - 3252292 |
| 71) Chlorobenzene-d5 | 15.536(-0.006) | 2376 | 117 | 1410330 ( -32) | 10.00 | | 1248171 - 2912397 |

| Target Compounds | I.S. Ref. | RT (+/-RRT) | QIon | Area | Conc. (on-column) | Conc. (in sample) | Blank Conc. | Qual. | Reporting Limit (in sample) | LOQ |
|---|---|---|---|---|---|---|---|---|---|---|
| 1) Propene | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 2) Dichlorodifluoromethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 3) Chlorodifluoromethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 4) Freon 114 | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 5) Chloromethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 6) Vinyl Chloride | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 7) 1,3-Butadiene | (1) | | | Not Detected | | | | | 0.4 | 2 |
| 8) Bromomethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 9) Chloroethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 10) Bromoethene | (1) | | | Not Detected | | | | | 0.4 | 2 |
| 11) Dichlorofluoromethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 12) Trichlorofluoromethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 13) Pentane | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 14) Ethanol | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 15) Freon123a | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 16) Acrolein | (1) | | | Not Detected | | | | | 1 | 2 |
| 17) 1,1-Dichloroethene | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 18) Freon 113 | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 19) Acetone | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 20) Methyl Iodide | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 21) Carbon Disulfide | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 22) Isopropanol | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 23) Acetonitrile | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 24) 3-Chloropropene | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 25) Methylene Chloride | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 26) tert-Butyl Alcohol | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 27) Acrylonitrile | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 28) trans-1,2-Dichloroethene | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 29) Methyl t-Butyl Ether | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 30) Hexane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 31) 1,1-Dichloroethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 32) Vinyl Acetate | (1) | | | Not Detected | | | | | 1 | 1 |
| 33) Di-Isopropyl Ether | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 34) Ethyl Tert-Butyl Ether | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 35) cis-1,2-Dichloroethene | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 36) 1,2-Dichloroethene (total) | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 37) 2-Butanone | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 38) Ethyl Acetate | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 39) Methyl Acrylate | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 41) Tetrahydrofuran | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 42) Chloroform | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 43) 1,1,1-Trichloroethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 44) Cyclohexane | (1) | | | Not Detected | | | | | 0.2 | 1 |

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## Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP09464.i/15oct01.b/cj00003.d Injection date and time: **01-OCT-2015 16:53**
Data file Sample Info. Line: VBLKC81;;C1527430AA;VBLKC81;0;3;BLANK; Instrument ID: **HP09464.i** Batch: **C1527430AA**
Date, time and analyst ID of latest file update: 01-Oct-2015 17:33 jeb07445

Blank Data file reference: **/chem/HP09464.i/15oct01.b/cj00003.d**

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 01-OCT-2015 15:59
Mid Level Daily Calibration Standard Reference: **/chem/HP09464.i/15oct01.b/cj00001.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 250 cc Actual injection Volume (IVa): 250 cc

| Target Compounds | I.S. Ref. | RT | (+/-RRT) | QIon | Area | Conc. (on-column) | Conc. (in sample) | Blank Conc. | Qual. | Reporting Limit (in sample) | LOQ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 45) Carbon Tetrachloride | (1) | | | | Not Detected | | | | | 0.2 | 1 |
| 46) Benzene | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 47) 1,2-Dichloroethane | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 48) Isooctane | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 49) Tert-Amyl Methyl Ether | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 50) Heptane | (2) | | | | Not Detected | | | | | 0.5 | 1 |
| 52) Trichloroethene | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 53) Ethyl Acrylate | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 54) 1,2-Dichloropropane | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 55) Dibromomethane | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 56) 1,4-Dioxane | (2) | | | | Not Detected | | | | | 0.5 | 1 |
| 57) Methyl Methacrylate | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 58) Bromodichloromethane | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 59) cis-1,3-Dichloropropene | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 60) 4-Methyl-2-Pentanone | (2) | | | | Not Detected | | | | | 0.5 | 2 |
| 61) Toluene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 62) Octane | (3) | | | | Not Detected | | | | | 0.5 | 1 |
| 63) trans-1,3-Dichloropropene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 64) 1,3-Dichloropropene (total) | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 65) Ethyl Methacrylate | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 66) 1,1,2-Trichloroethane | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 67) Tetrachloroethene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 68) 2-Hexanone | (3) | | | | Not Detected | | | | | 0.5 | 2 |
| 69) Dibromochloromethane | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 70) 1,2-Dibromoethane | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 72) Chlorobenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 73) 1,1,1,2-Tetrachloroethane | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 74) Ethylbenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 75) m/p-Xylene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 76) o-Xylene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 77) Xylene (total) | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 78) Styrene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 79) Bromoform | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 80) Cumene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 81) Bromobenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 82) 1,1,2,2-Tetrachloroethane | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 83) 1,2,3-Trichloropropane | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 84) n-Propylbenzene | (3) | | | | Not Detected | | | | | 0.5 | 1 |
| 85) 2-Chlorotoluene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 86) 4-Ethyltoluene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 87) 1,3,5-Trimethylbenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 88) Alpha Methyl Styrene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 89) tert-Butylbenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 90) 1,2,4-Trimethylbenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 91) sec-Butylbenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 92) 1,3-Dichlorobenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 93) 1,4-Dichlorobenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 94) p-Isopropyltoluene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 95) Benzyl Chloride | (3) | | | | Not Detected | | | | | 0.5 | 1 |
| 96) 1,2-Dichlorobenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 97) n-Butylbenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 98) Hexachloroethane | (3) | | | | Not Detected | | | | | 0.5 | 2 |
| 99) 1,2-Dibromo-3-chloropropane | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 100) 1,2,4-Trichlorobenzene | (3) | | | | Not Detected | | | | | 0.5 | 2 |

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Data file: /chem/HP09464.i/15oct01.b/cj00003.d Injection date and time: **01-OCT-2015 16:53**
Data file Sample Info. Line: VBLKC81;;C1527430AA;VBLKC81;0;3;BLANK; Instrument ID: **HP09464.i** Batch: **C1527430AA**
Date, time and analyst ID of latest file update: 01-Oct-2015 17:33 jeb07445

Blank Data file reference: **/chem/HP09464.i/15oct01.b/cj00003.d**

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 01-OCT-2015 15:59
Mid Level Daily Calibration Standard Reference: **/chem/HP09464.i/15oct01.b/cj00001.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

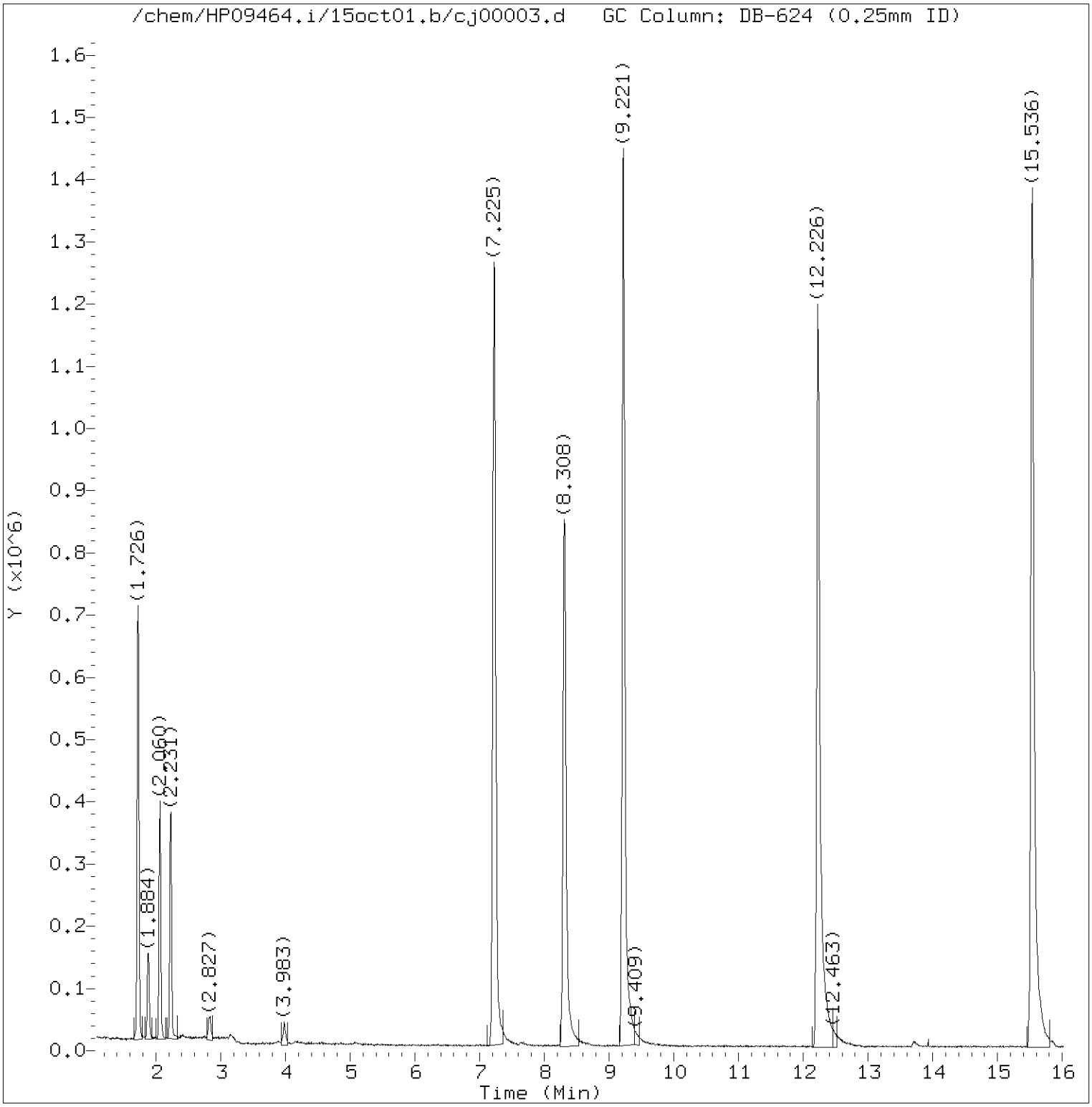
Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 250 cc Actual injection Volume (IVa): 250 cc

| Target Compounds | I.S. Ref. | RT | (+/-RRT) | QIon | Area | Conc. (on-column) | Conc. (in sample) | Blank Conc. | Qual. | Reporting Limit (in sample) | LOQ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 101) Hexachlorobutadiene | (3) | | | | Not Detected | | | | | 0.4 | 2 |
| 102) Naphthalene | (3) | | | | Not Detected | | | | | 0.4 | 1 |

Total number of targets = 99

Digitally signed by Jacob E. Bailey on 10/01/2015 at 17:38. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Michele J. Smith on 10/02/2015 at 16:50. Parallax ID: mjs00758




Total Ion Chromatogram (TIC)

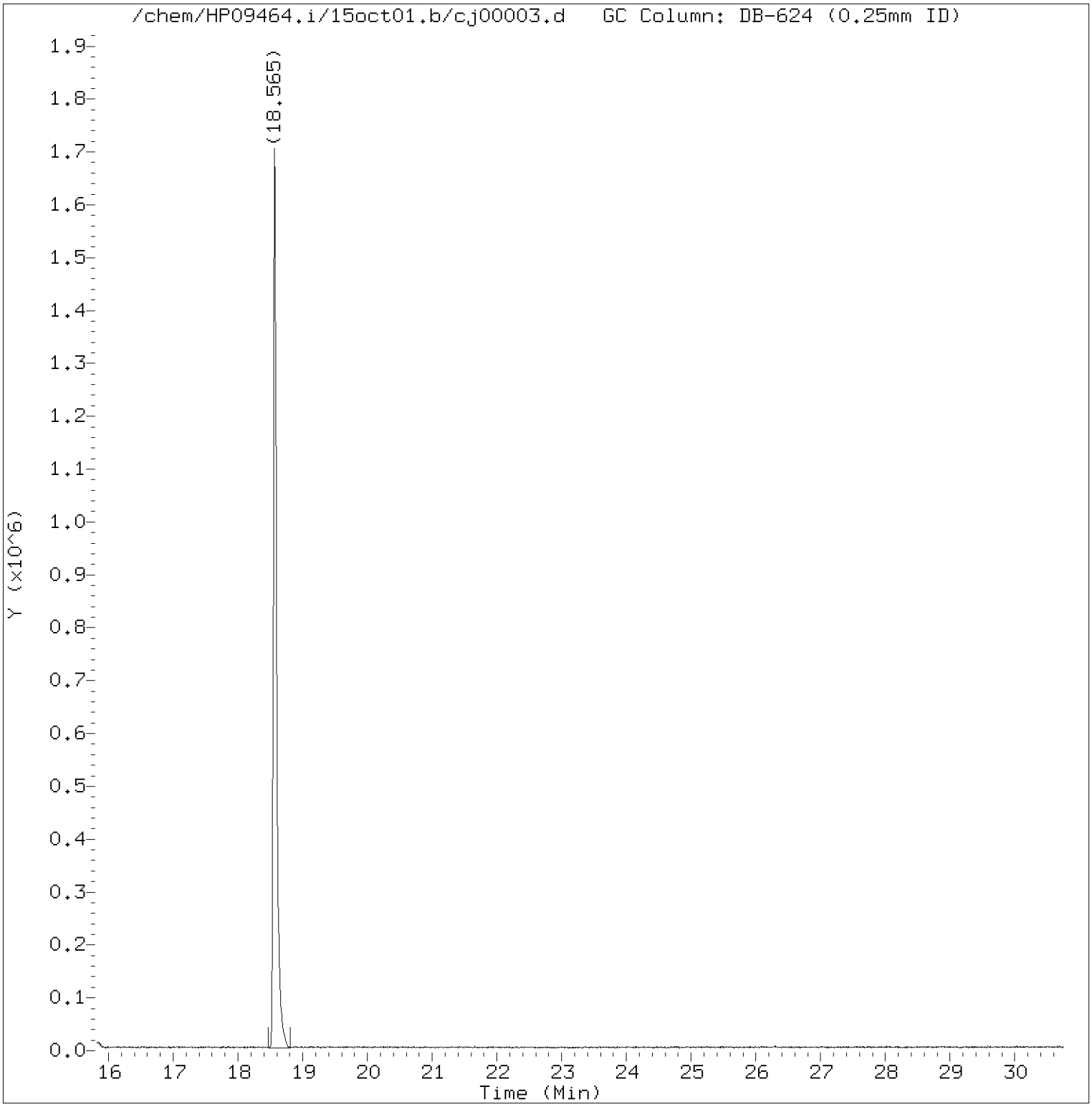
Target Revision 3.5

Data File: /chem/HP09464.i/15oct01.b/cj00003.d Instrument ID: HP09464.i
Injection date and time: 01-OCT-2015 16:53 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: all
Calibration date and time: 01-OCT-2015 15:59
Date, time and analyst ID of latest file update: 01-Oct-2015 17:33 jeb07445

Sample Name: VBLKC81 Lab Sample ID: VBLKC81

Digitally signed by Jacob E. Bailey
on 10/01/2015 at 17:38.
Target 3.5 esignature user ID: jeb07445




Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct01.b/cj00003.d Instrument ID: HP09464.i
Injection date and time: 01-OCT-2015 16:53 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: all
Calibration date and time: 01-OCT-2015 15:59
Date, time and analyst ID of latest file update: 01-Oct-2015 17:33 jeb07445

Sample Name: VBLKC81 Lab Sample ID: VBLKC81

Digitally signed by Jacob E. Bailey
on 10/01/2015 at 17:38.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct01.b/cj00003.d Instrument ID: HP09464.i
Injection date and time: 01-OCT-2015 16:53 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: all
Calibration date and time: 01-OCT-2015 15:59
Date, time and analyst ID of latest file update: 01-Oct-2015 17:33 jeb07445

Sample Name: VBLKC81 Lab Sample ID: VBLKC81

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 40)*Bromochloromethane | (1) | 7.231 | 130 | 512148 | 10.000 |
| 51)*1,4-Difluorobenzene | (2) | 9.221 | 114 | 1547533 | 10.000 |
| 71)*Chlorobenzene-d5 | (3) | 15.536 | 117 | 1410330 | 10.000 |

* = Compound is an internal standard.



Digitally signed by Jacob E. Bailey
on 10/01/2015 at 17:38.
Target 3.5 esignature user ID: jeb07445

# Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP09464.i/15oct01.b/cj00004.d Injection date and time: **01-OCT-2015 17:43**
Data file Sample Info. Line: LCSC81;250;C1527430AA;LCSC81;0;3;LCS; Instrument ID: **HP09464.i** Batch: **C1527430AA**
Date, time and analyst ID of latest file update: 02-Oct-2015 18:37 jeb07445

Blank Data file reference: **/chem/HP09464.i/15oct01.b/cj00003.d**

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 01-OCT-2015 15:59
Mid Level Daily Calibration Standard Reference: **/chem/HP09464.i/15oct01.b/cj00001.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 250 cc Actual injection Volume (IVa): 250 cc

**Analysis Comments:**

| Internal Standards | RT (+/-RT) | Scan | QIon | Area(+/- %Change) | Conc. (on column) | QC Flag | QC Limits |
|---|---|---|---|---|---|---|---|
| 40) Bromochloromethane | 7.213( 0.000) | 1008 | 130 | 534232 ( -16) | 10.00 | | 382734 - 893044 |
| 51) 1,4-Difluorobenzene | 9.203( 0.000) | 1335 | 114 | 1952166 ( -16) | 10.00 | | 1393840 - 3252292 |
| 71) Chlorobenzene-d5 | 15.530( 0.000) | 2375 | 117 | 1595483 ( -23) | 10.00 | | 1248171 - 2912397 |

| Target Compounds | I.S. Ref. | RT (+/-RRT) | QIon | Area | Conc. (on-column) | Conc. (in sample) | Blank Conc. | Qual. | Reporting Limit (in sample) | LOQ |
|---|---|---|---|---|---|---|---|---|---|---|
| 1) Propene | (1) | 1.866(-0.000) | 41 | 874880 | 9.722 | 9.72 | | | 0.5 | 1 |
| 2) Dichlorodifluoromethane | (1) | 1.902(-0.000) | 85 | 2240198 | 9.770 | 9.77 | | | 0.2 | 1 |
| 3) Chlorodifluoromethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 4) Freon 114 | (1) | 2.048(-0.000) | 85 | 2063076 | 10.030 | 10.03 | | | 0.2 | 1 |
| 5) Chloromethane | (1) | 2.097(-0.000) | 52 | 348526 | 8.426 | 8.43 | | | 0.2 | 1 |
| 6) Vinyl Chloride | (1) | 2.219(-0.000) | 62 | 1087309 | 10.434 | 10.43 | | | 0.2 | 1 |
| 7) 1,3-Butadiene | (1) | 2.267(-0.000) | 54 | 907290 | 10.337 | 10.34 | | | 0.4 | 2 |
| 8) Bromomethane | (1) | 2.584( 0.000) | 94 | 786050 | 9.538 | 9.54 | | | 0.2 | 1 |
| 9) Chloroethane | (1) | 2.711(-0.000) | 64 | 613982 | 9.292 | 9.29 | | | 0.2 | 1 |
| 10) Bromoethene | (1) | | | Not Detected | | | | | 0.4 | 2 |
| 11) Dichlorofluoromethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 12) Trichlorofluoromethane | (1) | 3.028(-0.000) | 101 | 2284896 | 9.565 | 9.56 | | | 0.2 | 1 |
| 13) Pentane | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 14) Ethanol | (1) | 3.314(-0.000) | 45 | 396862 | 7.265 | 7.27 | | | 0.5 | 2 |
| 15) Freon123a | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 16) Acrolein | (1) | 3.569(-0.000) | 56 | 323282 | 11.361 | 11.36 | | | 1 | 2 |
| 17) 1,1-Dichloroethene | (1) | 3.697(-0.000) | 61 | 1875839 | 10.298 | 10.30 | | | 0.2 | 1 |
| 18) Freon 113 | (1) | 3.740(-0.000) | 103 | 1095247 | 9.590 | 9.59 | | | 0.5 | 2 |
| 19) Acetone | (1) | 3.794(-0.000) | 43 | 1146538 | 10.479 | 10.48 | | | 0.5 | 2 |
| 20) Methyl Iodide | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 21) Carbon Disulfide | (1) | 3.971(-0.000) | 76 | 2991337 | 10.203 | 10.20 | | | 0.5 | 1 |
| 22) Isopropanol | (1) | 4.074(-0.000) | 45 | 1394371 | 8.667 | 8.67 | | | 0.5 | 2 |
| 23) Acetonitrile | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 24) 3-Chloropropene | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 25) Methylene Chloride | (1) | 4.433(-0.000) | 84 | 900698 | 11.076 | 11.08 | | | 0.2 | 1 |
| 26) tert-Butyl Alcohol | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 27) Acrylonitrile | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 28) trans-1,2-Dichloroethene | (1) | 4.926(-0.000) | 61 | 1797272 | 8.735 | 8.73 | | | 0.2 | 1 |
| 29) Methyl t-Butyl Ether | (1) | 4.999(-0.000) | 73 | 1770585 | 11.740 | 11.74 | | | 0.2 | 1 |
| 30) Hexane | (1) | 5.510(-0.000) | 57 | 1396379 | 10.701 | 10.70 | | | 0.2 | 1 |
| 31) 1,1-Dichloroethane | (1) | 5.692(-0.000) | 63 | 1595818 | 9.488 | 9.49 | | | 0.2 | 1 |
| 32) Vinyl Acetate | (1) | 5.887( 0.000) | 86 | 103157 | 13.165 | 13.17 | | | 1 | 1 |
| 33) Di-Isopropyl Ether | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 34) Ethyl Tert-Butyl Ether | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 35) cis-1,2-Dichloroethene | (1) | 6.787(-0.000) | 61 | 1132965 | 9.220 | 9.22 | | | 0.2 | 1 |
| 36) 1,2-Dichloroethene (total) | (1) | | 61 | 2930237 | 17.955 | 17.96 | | | 0.2 | 1 |
| 37) 2-Butanone | (1) | 6.885(-0.000) | 72 | 254710 | 12.400 | 12.40 | | | 0.5 | 2 |
| 38) Ethyl Acetate | (1) | 7.073( 0.000) | 70 | 117550 | 9.947 | 9.95 | | | 0.5 | 1 |
| 39) Methyl Acrylate | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 41) Tetrahydrofuran | (1) | 7.359( 0.000) | 42 | 848309 | 11.818 | 11.82 | | | 0.5 | 1 |
| 42) Chloroform | (1) | 7.414( 0.000) | 83 | 1606766 | 9.642 | 9.64 | | | 0.2 | 1 |
| 43) 1,1,1-Trichloroethane | (1) | 7.718( 0.000) | 97 | 1433821 | 9.764 | 9.76 | | | 0.2 | 1 |
| 44) Cyclohexane | (1) | 7.822( 0.000) | 56 | 1569647 | 10.805 | 10.81 | | | 0.2 | 1 |

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# Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP09464.i/15oct01.b/cj00004.d Injection date and time: **01-OCT-2015 17:43**
Data file Sample Info. Line: LCSC81;250;C1527430AA;LCSC81;0;3;LCS; Instrument ID: **HP09464.i** Batch: **C1527430AA**
Date, time and analyst ID of latest file update: 02-Oct-2015 18:37 jeb07445

Blank Data file reference: **/chem/HP09464.i/15oct01.b/cj00003.d**

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 01-OCT-2015 15:59
Mid Level Daily Calibration Standard Reference: **/chem/HP09464.i/15oct01.b/cj00001.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 250 cc Actual injection Volume (IVa): 250 cc

| Target Compounds | I.S. Ref. | RT (+/-RRT) | QIon | Area | Conc. (on-column) | Conc. (in sample) | Blank Conc. | Qual. | Reporting Limit (in sample) | LOQ |
|---|---|---|---|---|---|---|---|---|---|---|
| 45) Carbon Tetrachloride | (1) | 8.028( 0.000) | 117 | 1469987 | 10.015 | 10.02 | | | 0.2 | 1 |
| 46) Benzene | (2) | 8.406(-0.000) | 78 | 2190173 | 10.086 | 10.09 | | | 0.2 | 1 |
| 47) 1,2-Dichloroethane | (2) | 8.436(-0.000) | 62 | 1283681 | 9.149 | 9.15 | | | 0.2 | 1 |
| 48) Isooctane | (2) | | | Not Detected | | | | | 0.2 | 1 |
| 49) Tert-Amyl Methyl Ether | (2) | | | Not Detected | | | | | 0.2 | 1 |
| 50) Heptane | (2) | 9.063(-0.000) | 43 | 1746828 | 9.988 | 9.99 | | | 0.5 | 1 |
| 52) Trichloroethene | (2) | 9.671( 0.000) | 130 | 712906 | 8.790 | 8.79 | | | 0.2 | 1 |
| 53) Ethyl Acrylate | (2) | | | Not Detected | | | | | 0.2 | 1 |
| 54) 1,2-Dichloropropane | (2) | 10.079( 0.000) | 63 | 929579 | 10.018 | 10.02 | | | 0.2 | 1 |
| 55) Dibromomethane | (2) | | | Not Detected | | | | | 0.2 | 1 |
| 56) 1,4-Dioxane | (2) | 10.450( 0.000) | 88 | 338404 | 11.517 | 11.52 | | | 0.5 | 1 |
| 57) Methyl Methacrylate | (2) | 10.486( 0.000) | 69 | 585229 | 11.360 | 11.36 | | | 0.2 | 1 |
| 58) Bromodichloromethane | (2) | 10.675( 0.000) | 83 | 1677271 | 9.141 | 9.14 | | | 0.2 | 1 |
| 59) cis-1,3-Dichloropropene | (2) | 11.642( 0.000) | 75 | 1208593 | 11.884 | 11.88 | | | 0.2 | 1 |
| 60) 4-Methyl-2-Pentanone | (2) | 12.074( 0.000) | 43 | 1600372 | 10.879 | 10.88 | | | 0.5 | 2 |
| 61) Toluene | (3) | 12.360(-0.000) | 91 | 2035274 | 13.039 | 13.04 | | | 0.2 | 1 |
| 62) Octane | (3) | | | Not Detected | | | | | 0.5 | 1 |
| 63) trans-1,3-Dichloropropene | (3) | 12.901(-0.000) | 75 | 1129047 | 11.477 | 11.48 | | | 0.2 | 1 |
| 64) 1,3-Dichloropropene (total) | (3) | | 75 | 2337640 | 23.361 | 23.36 | | | 0.2 | 1 |
| 65) Ethyl Methacrylate | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 66) 1,1,2-Trichloroethane | (3) | 13.279(-0.000) | 97 | 766050 | 11.178 | 11.18 | | | 0.2 | 1 |
| 67) Tetrachloroethene | (3) | 13.577(-0.000) | 166 | 697346 | 10.430 | 10.43 | | | 0.2 | 1 |
| 68) 2-Hexanone | (3) | 13.996(-0.000) | 43 | 1750400 | 13.524 | 13.52 | | | 0.5 | 2 |
| 69) Dibromochloromethane | (3) | 14.142(-0.000) | 127 | 1026787 | 10.586 | 10.59 | | | 0.2 | 1 |
| 70) 1,2-Dibromoethane | (3) | 14.349(-0.000) | 107 | 1170444 | 12.531 | 12.53 | | | 0.2 | 1 |
| 72) Chlorobenzene | (3) | 15.596( 0.000) | 112 | 1550765 | 12.340 | 12.34 | | | 0.2 | 1 |
| 73) 1,1,1,2-Tetrachloroethane | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 74) Ethylbenzene | (3) | 15.955( 0.000) | 91 | 2251597 | 13.454 | 13.45 | | | 0.2 | 1 |
| 75) m/p-Xylene | (3) | 16.266( 0.000) | 91 | 3645966 | 27.417 | 27.42 | | | 0.2 | 1 |
| 76) o-Xylene | (3) | 17.245(-0.000) | 91 | 1939900 | 13.712 | 13.71 | | | 0.2 | 1 |
| 77) Xylene (total) | (3) | | 91 | 5585866 | 41.129 | 41.13 | | | 0.2 | 1 |
| 78) Styrene | (3) | 17.282( 0.000) | 104 | 1502353 | 13.278 | 13.28 | | | 0.2 | 1 |
| 79) Bromoform | (3) | 17.634( 0.000) | 173 | 1101212 | 12.323 | 12.32 | | | 0.2 | 1 |
| 80) Cumene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 81) Bromobenzene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 82) 1,1,2,2-Tetrachloroethane | (3) | 19.046( 0.000) | 83 | 1893558 | 12.368 | 12.37 | | | 0.2 | 1 |
| 83) 1,2,3-Trichloropropane | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 84) n-Propylbenzene | (3) | | | Not Detected | | | | | 0.5 | 1 |
| 85) 2-Chlorotoluene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 86) 4-Ethyltoluene | (3) | 19.672( 0.000) | 105 | 2122274 | 12.403 | 12.40 | | | 0.2 | 1 |
| 87) 1,3,5-Trimethylbenzene | (3) | 19.867(-0.000) | 105 | 1836317 | 12.893 | 12.89 | | | 0.2 | 1 |
| 88) Alpha Methyl Styrene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 89) tert-Butylbenzene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 90) 1,2,4-Trimethylbenzene | (3) | 20.847( 0.000) | 105 | 1827675 | 11.818 | 11.82 | | | 0.2 | 1 |
| 91) sec-Butylbenzene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 92) 1,3-Dichlorobenzene | (3) | 21.510( 0.000) | 146 | 1305504 | 11.334 | 11.33 | | | 0.2 | 1 |
| 93) 1,4-Dichlorobenzene | (3) | 21.808(-0.000) | 146 | 1305950 | 11.158 | 11.16 | | | 0.2 | 1 |
| 94) p-Isopropyltoluene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 95) Benzyl Chloride | (3) | 22.294( 0.000) | 91 | 2118955 | 12.076 | 12.08 | | | 0.5 | 1 |
| 96) 1,2-Dichlorobenzene | (3) | 22.964( 0.000) | 146 | 1215005 | 11.403 | 11.40 | | | 0.2 | 1 |
| 97) n-Butylbenzene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 98) Hexachloroethane | (3) | | | Not Detected | | | | | 0.5 | 2 |
| 99) 1,2-Dibromo-3-chloropropane | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 100) 1,2,4-Trichlorobenzene | (3) | 25.999( 0.000) | 180 | 564166 | 10.455 | 10.45 | | | 0.5 | 2 |

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## Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP09464.i/15oct01.b/cj00004.d Injection date and time: **01-OCT-2015 17:43**
Data file Sample Info. Line: LCSC81;250;C1527430AA;LCSC81;0;3;LCS; Instrument ID: **HP09464.i** Batch: **C1527430AA**
Date, time and analyst ID of latest file update: 02-Oct-2015 18:37 jeb07445

Blank Data file reference: **/chem/HP09464.i/15oct01.b/cj00003.d**

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 01-OCT-2015 15:59
Mid Level Daily Calibration Standard Reference: **/chem/HP09464.i/15oct01.b/cj00001.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

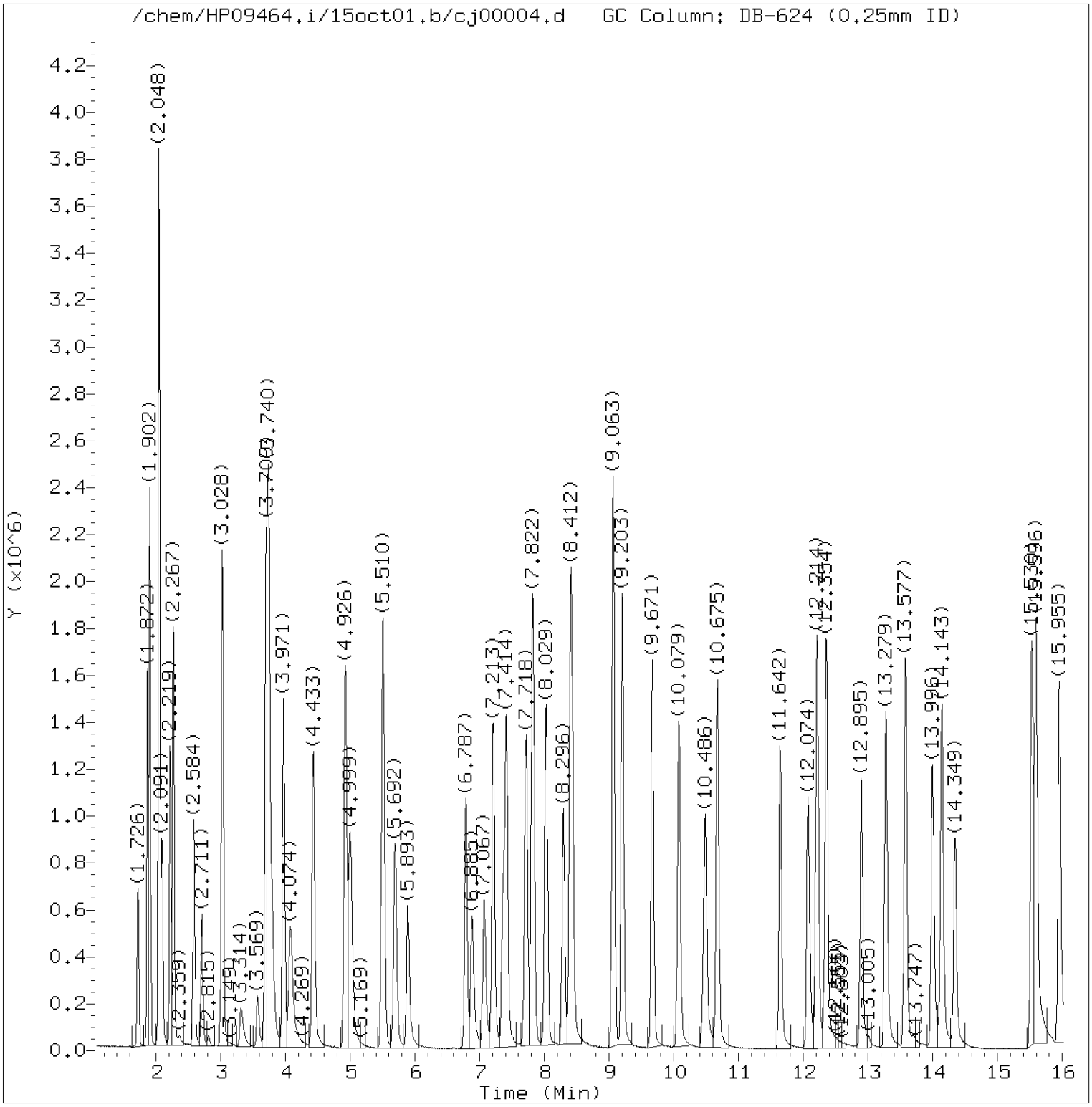
Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 250 cc Actual injection Volume (IVa): 250 cc

| Target Compounds | I.S. Ref. | RT (+/-RRT) | QIon | Area | Conc. (on-column) | Conc. (in sample) | Blank Conc. | Qual. | Reporting Limit (in sample) | LOQ |
|---|---|---|---|---|---|---|---|---|---|---|
| 101) Hexachlorobutadiene | (3) | 26.285( 0.000) | 225 | 562875 | 10.695 | 10.70 | | | 0.4 | 2 |
| 102) Naphthalene | (3) | 26.298( 0.000) | 128 | 1630207 | 10.653 | 10.65 | | | 0.4 | 1 |

Total number of targets = 99

Digitally signed by Jacob E. Bailey on 10/02/2015 at 18:37. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Michele J. Smith on 10/05/2015 at 07:30. Parallax ID: mjs00758




Total Ion Chromatogram (TIC)

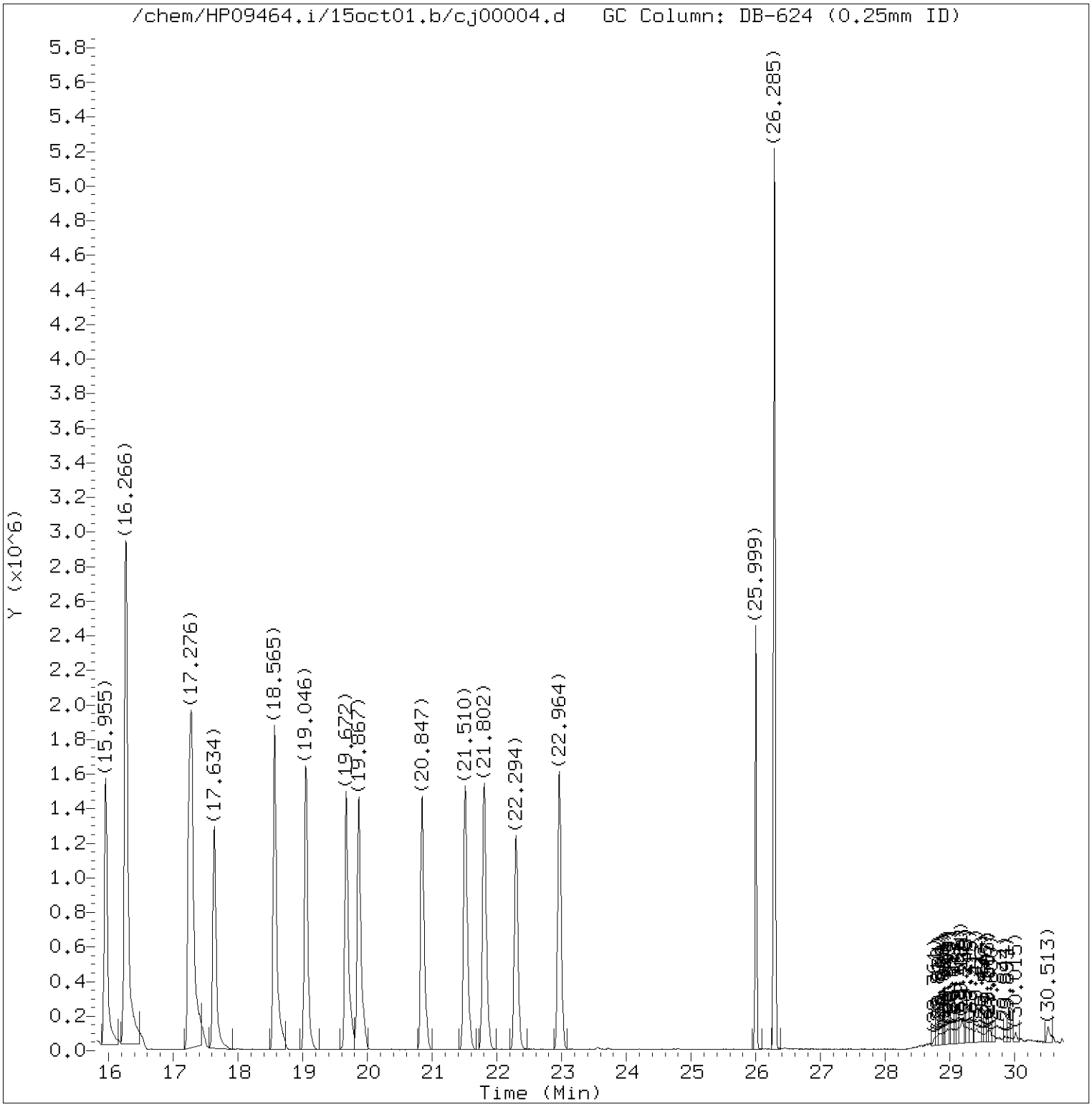
Target Revision 3.5

Data File: /chem/HP09464.i/15oct01.b/cj00004.d Instrument ID: HP09464.i
Injection date and time: 01-OCT-2015 17:43 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: all
Calibration date and time: 01-OCT-2015 15:59
Date, time and analyst ID of latest file update: 02-Oct-2015 18:37 jeb07445

Sample Name: LCSC81 Lab Sample ID: LCSC81

Digitally signed by Jacob E. Bailey
on 10/02/2015 at 18:37.
Target 3.5 esignature user ID: jeb07445




Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct01.b/cj00004.d Instrument ID: HP09464.i
Injection date and time: 01-OCT-2015 17:43 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: all
Calibration date and time: 01-OCT-2015 15:59
Date, time and analyst ID of latest file update: 02-Oct-2015 18:37 jeb07445

Sample Name: LCSC81 Lab Sample ID: LCSC81

Digitally signed by Jacob E. Bailey
on 10/02/2015 at 18:37.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct01.b/cj00004.d Instrument ID: HP09464.i
Injection date and time: 01-OCT-2015 17:43 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: all
Calibration date and time: 01-OCT-2015 15:59
Date, time and analyst ID of latest file update: 02-Oct-2015 18:37 jeb07445

Sample Name: LCSC81 Lab Sample ID: LCSC81

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 1) Propene | (1) | 1.866 | 41 | 874880 | 9.722 |
| 2) Dichlorodifluoromethane | (1) | 1.902 | 85 | 2240198 | 9.770 |
| 4) Freon 114 | (1) | 2.048 | 85 | 2063076 | 10.030 |
| 5) Chloromethane | (1) | 2.097 | 52 | 348526 | 8.426 |
| 6) Vinyl Chloride | (1) | 2.219 | 62 | 1087309 | 10.434 |
| 7) 1,3-Butadiene | (1) | 2.267 | 54 | 907290 | 10.337 |
| 8) Bromomethane | (1) | 2.584 | 94 | 786050 | 9.538 |
| 9) Chloroethane | (1) | 2.711 | 64 | 613982 | 9.292 |
| 12) Trichlorofluoromethane | (1) | 3.028 | 101 | 2284896 | 9.565 |
| 14) Ethanol | (1) | 3.314 | 45 | 396862 | 7.265 |
| 16) Acrolein | (1) | 3.569 | 56 | 323282 | 11.361 |
| 17) 1,1-Dichloroethene | (1) | 3.697 | 61 | 1875839 | 10.298 |
| 18) Freon 113 | (1) | 3.740 | 103 | 1095247 | 9.590 |
| 19) Acetone | (1) | 3.794 | 43 | 1146538 | 10.479 |
| 21) Carbon Disulfide | (1) | 3.971 | 76 | 2991337 | 10.203 |
| 22) Isopropanol | (1) | 4.074 | 45 | 1394371 | 8.667 |
| 25) Methylene Chloride | (1) | 4.433 | 84 | 900698 | 11.076 |
| 28) trans-1,2-Dichloroethene | (1) | 4.926 | 61 | 1797272 | 8.735 |
| 29) Methyl t-Butyl Ether | (1) | 4.999 | 73 | 1770585 | 11.740 |
| 30) Hexane | (1) | 5.510 | 57 | 1396379 | 10.701 |
| 31) 1,1-Dichloroethane | (1) | 5.692 | 63 | 1595818 | 9.488 |
| 32) Vinyl Acetate | (1) | 5.887 | 86 | 103157 | 13.165 |
| 36) 1,2-Dichloroethene (total) | (1) | | 61 | 2930237 | 17.955 |
| 35) cis-1,2-Dichloroethene | (1) | 6.787 | 61 | 1132965 | 9.220 |
| 37) 2-Butanone | (1) | 6.885 | 72 | 254710 | 12.400 |
| 38) Ethyl Acetate | (1) | 7.073 | 70 | 117550 | 9.947 |
| 40)*Bromochloromethane | (1) | 7.213 | 130 | 534232 | 10.000 |
| 41) Tetrahydrofuran | (1) | 7.359 | 42 | 848309 | 11.818 |
| 42) Chloroform | (1) | 7.414 | 83 | 1606766 | 9.642 |
| 43) 1,1,1-Trichloroethane | (1) | 7.718 | 97 | 1433821 | 9.764 |
| 44) Cyclohexane | (1) | 7.822 | 56 | 1569647 | 10.805 |
| 45) Carbon Tetrachloride | (1) | 8.029 | 117 | 1469987 | 10.015 |
| 46) Benzene | (2) | 8.406 | 78 | 2190173 | 10.086 |
| 47) 1,2-Dichloroethane | (2) | 8.436 | 62 | 1283681 | 9.149 |
| 50) Heptane | (2) | 9.063 | 43 | 1746828 | 9.988 |
| 51)*1,4-Difluorobenzene | (2) | 9.203 | 114 | 1952166 | 10.000 |
| 52) Trichloroethene | (2) | 9.671 | 130 | 712906 | 8.790 |
| 54) 1,2-Dichloropropane | (2) | 10.079 | 63 | 929579 | 10.018 |

* = Compound is an internal standard.



Digitally signed by Jacob E. Bailey
on 10/02/2015 at 18:37.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct01.b/cj00004.d  Instrument ID: HP09464.i
Injection date and time: 01-OCT-2015 17:43  Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m  Sublist used: all
Calibration date and time: 01-OCT-2015 15:59
Date, time and analyst ID of latest file update: 02-Oct-2015 18:37 jeb07445

Sample Name: LCSC81  Lab Sample ID: LCSC81

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 56) 1,4-Dioxane | (2) | 10.450 | 88 | 338404 | 11.517 |
| 57) Methyl Methacrylate | (2) | 10.486 | 69 | 585229 | 11.360 |
| 58) Bromodichloromethane | (2) | 10.675 | 83 | 1677271 | 9.141 |
| 59) cis-1,3-Dichloropropene | (2) | 11.642 | 75 | 1208593 | 11.884 |
| 60) 4-Methyl-2-Pentanone | (2) | 12.074 | 43 | 1600372 | 10.879 |
| 61) Toluene | (3) | 12.360 | 91 | 2035274 | 13.039 |
| 64) 1,3-Dichloropropene (total) | (3) | | 75 | 2337640 | 23.361 |
| 63) trans-1,3-Dichloropropene | (3) | 12.901 | 75 | 1129047 | 11.477 |
| 66) 1,1,2-Trichloroethane | (3) | 13.279 | 97 | 766050 | 11.178 |
| 67) Tetrachloroethene | (3) | 13.577 | 166 | 697346 | 10.430 |
| 68) 2-Hexanone | (3) | 13.996 | 43 | 1750400 | 13.524 |
| 69) Dibromochloromethane | (3) | 14.143 | 127 | 1026787 | 10.586 |
| 70) 1,2-Dibromoethane | (3) | 14.349 | 107 | 1170444 | 12.531 |
| 71)*Chlorobenzene-d5 | (3) | 15.530 | 117 | 1595483 | 10.000 |
| 72) Chlorobenzene | (3) | 15.596 | 112 | 1550765 | 12.340 |
| 74) Ethylbenzene | (3) | 15.955 | 91 | 2251597 | 13.454 |
| 75) m/p-Xylene | (3) | 16.266 | 91 | 3645966 | 27.417 |
| 77) Xylene (total) | (3) | | 91 | 5585866 | 41.129 |
| 76) o-Xylene | (3) | 17.245 | 91 | 1939900 | 13.712 |
| 78) Styrene | (3) | 17.282 | 104 | 1502353 | 13.278 |
| 79) Bromoform | (3) | 17.634 | 173 | 1101212 | 12.323 |
| 82) 1,1,2,2-Tetrachloroethane | (3) | 19.046 | 83 | 1893558 | 12.368 |
| 86) 4-Ethyltoluene | (3) | 19.672 | 105 | 2122274 | 12.403 |
| 87) 1,3,5-Trimethylbenzene | (3) | 19.867 | 105 | 1836317 | 12.893 |
| 90) 1,2,4-Trimethylbenzene | (3) | 20.847 | 105 | 1827675 | 11.818 |
| 92) 1,3-Dichlorobenzene | (3) | 21.510 | 146 | 1305504 | 11.334 |
| 93) 1,4-Dichlorobenzene | (3) | 21.808 | 146 | 1305950 | 11.158 |
| 95) Benzyl Chloride | (3) | 22.294 | 91 | 2118955 | 12.076 |
| 96) 1,2-Dichlorobenzene | (3) | 22.964 | 146 | 1215005 | 11.403 |
| 100) 1,2,4-Trichlorobenzene | (3) | 25.999 | 180 | 564166 | 10.455 |
| 101) Hexachlorobutadiene | (3) | 26.285 | 225 | 562875 | 10.695 |
| 102) Naphthalene | (3) | 26.297 | 128 | 1630207 | 10.653 |

* = Compound is an internal standard.



Digitally signed by Jacob E. Bailey
on 10/02/2015 at 18:37.
Target 3.5 esignature user ID: jeb07445

# Lancaster Laboratories, Inc.
## Analysis Summary for GC/MS Volatiles in Air

LCSDC81

Data file: /chem/HP09464.i/15oct01.b/cj00005.d  Injection date and time: **01-OCT-2015 18:26**
Data file Sample Info. Line: LCSDC81;250;C1527430AA;LCSDC81;0;3;LCSD;  Instrument ID: **HP09464.i**  Batch: **C1527430AA**
Date, time and analyst ID of latest file update: 02-Oct-2015 18:37 jeb07445

Blank Data file reference: **/chem/HP09464.i/15oct01.b/cj00003.d**

Method used: /chem/HP09464.i/15oct01.b/to-15.m  Sublist used: **all**
Calibration date and time (Last Method Edit): 01-OCT-2015 15:59
Mid Level Daily Calibration Standard Reference: **/chem/HP09464.i/15oct01.b/cj00001.d**

Sampling Media: Summa Canister  Matrix: AIR  On-Column Amount units: ppb(v)  In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa)  Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia  Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 250 cc  Actual injection Volume (IVa): 250 cc

**Analysis Comments:**

| Internal Standards | RT (+/-RT) | Scan | QIon | Area(+/- %Change) | Conc. (on column) | QC Flag | QC Limits |
|---|---|---|---|---|---|---|---|
| 40) Bromochloromethane | 7.207( 0.006) | 1007 | 130 | 574734 ( -10) | 10.00 | | 382734 - 893044 |
| 51) 1,4-Difluorobenzene | 9.209(-0.006) | 1336 | 114 | 2086304 ( -10) | 10.00 | | 1393840 - 3252292 |
| 71) Chlorobenzene-d5 | 15.529( 0.000) | 2375 | 117 | 1640118 ( -21) | 10.00 | | 1248171 - 2912397 |

| Target Compounds | I.S. Ref. | RT (+/-RRT) | QIon | Area | Conc. (on-column) | Conc. (in sample) | Blank Conc. | Qual. | Reporting Limit (in sample) | LOQ |
|---|---|---|---|---|---|---|---|---|---|---|
| 1) Propene | (1) | 1.866(-0.000) | 41 | 909580 | 9.396 | 9.40 | | | 0.5 | 1 |
| 2) Dichlorodifluoromethane | (1) | 1.902(-0.000) | 85 | 2307875 | 9.356 | 9.36 | | | 0.2 | 1 |
| 3) Chlorodifluoromethane | (1) | 1.866( 0.006) | 51 | 105182 | 0.501 | 0.50 | | J | 0.2 | 1 |
| 4) Freon 114 | (1) | 2.042( 0.000) | 85 | 2128768 | 9.620 | 9.62 | | | 0.2 | 1 |
| 5) Chloromethane | (1) | 2.091( 0.000) | 52 | 356027 | 8.001 | 8.00 | | | 0.2 | 1 |
| 6) Vinyl Chloride | (1) | 2.219(-0.000) | 62 | 1141930 | 10.186 | 10.19 | | | 0.2 | 1 |
| 7) 1,3-Butadiene | (1) | 2.267(-0.000) | 54 | 940643 | 9.962 | 9.96 | | | 0.4 | 2 |
| 8) Bromomethane | (1) | 2.584( 0.000) | 94 | 786904 | 8.875 | 8.88 | | | 0.2 | 1 |
| 9) Chloroethane | (1) | 2.711(-0.000) | 64 | 642087 | 9.032 | 9.03 | | | 0.2 | 1 |
| 10) Bromoethene | (1) | | | Not Detected | | | | | 0.4 | 2 |
| 11) Dichlorofluoromethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 12) Trichlorofluoromethane | (1) | 3.028(-0.000) | 101 | 2363567 | 9.197 | 9.20 | | | 0.2 | 1 |
| 13) Pentane | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 14) Ethanol | (1) | 3.314(-0.000) | 45 | 423363 | 7.204 | 7.20 | | | 0.5 | 2 |
| 15) Freon123a | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 16) Acrolein | (1) | 3.575(-0.002) | 56 | 355191 | 11.602 | 11.60 | | | 1 | 2 |
| 17) 1,1-Dichloroethene | (1) | 3.697(-0.000) | 61 | 1965643 | 10.030 | 10.03 | | | 0.2 | 1 |
| 18) Freon 113 | (1) | 3.740(-0.000) | 103 | 1151996 | 9.376 | 9.38 | | | 0.5 | 2 |
| 19) Acetone | (1) | 3.800(-0.001) | 43 | 1208461 | 10.267 | 10.27 | | | 0.5 | 2 |
| 20) Methyl Iodide | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 21) Carbon Disulfide | (1) | 3.971(-0.000) | 76 | 3142166 | 9.962 | 9.96 | | | 0.5 | 1 |
| 22) Isopropanol | (1) | 4.074(-0.001) | 45 | 1452324 | 8.391 | 8.39 | | | 0.5 | 2 |
| 23) Acetonitrile | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 24) 3-Chloropropene | (1) | 4.141( 0.014) | 76 | 19609 | 0.398 | 0.40 | | J | 0.2 | 1 |
| 25) Methylene Chloride | (1) | 4.433(-0.000) | 84 | 944654 | 10.798 | 10.80 | | | 0.2 | 1 |
| 26) tert-Butyl Alcohol | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 27) Acrylonitrile | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 28) trans-1,2-Dichloroethene | (1) | 4.926(-0.000) | 61 | 1893246 | 8.553 | 8.55 | | | 0.2 | 1 |
| 29) Methyl t-Butyl Ether | (1) | 5.005(-0.002) | 73 | 1915810 | 11.808 | 11.81 | | | 0.2 | 1 |
| 30) Hexane | (1) | 5.504( 0.000) | 57 | 1455287 | 10.366 | 10.37 | | | 0.2 | 1 |
| 31) 1,1-Dichloroethane | (1) | 5.692(-0.000) | 63 | 1664777 | 9.200 | 9.20 | | | 0.2 | 1 |
| 32) Vinyl Acetate | (1) | 5.893(-0.000) | 86 | 112052 | 13.293 | 13.29 | | | 1 | 1 |
| 33) Di-Isopropyl Ether | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 34) Ethyl Tert-Butyl Ether | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 35) cis-1,2-Dichloroethene | (1) | 6.787(-0.000) | 61 | 1179084 | 8.920 | 8.92 | | | 0.2 | 1 |
| 36) 1,2-Dichloroethene (total) | (1) | | 61 | 3072330 | 17.472 | 17.47 | | | 0.2 | 1 |
| 37) 2-Butanone | (1) | 6.885(-0.000) | 72 | 270348 | 12.234 | 12.23 | | | 0.5 | 2 |
| 38) Ethyl Acetate | (1) | 7.073(-0.000) | 70 | 118446 | 9.316 | 9.32 | | | 0.5 | 1 |
| 39) Methyl Acrylate | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 41) Tetrahydrofuran | (1) | 7.359(-0.000) | 42 | 898005 | 11.628 | 11.63 | | | 0.5 | 1 |
| 42) Chloroform | (1) | 7.414(-0.000) | 83 | 1697481 | 9.469 | 9.47 | | | 0.2 | 1 |
| 43) 1,1,1-Trichloroethane | (1) | 7.718(-0.000) | 97 | 1493961 | 9.457 | 9.46 | | | 0.2 | 1 |
| 44) Cyclohexane | (1) | 7.822(-0.000) | 56 | 1636827 | 10.473 | 10.47 | | | 0.2 | 1 |

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Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP09464.i/15oct01.b/cj00005.d Injection date and time: **01-OCT-2015 18:26**
Data file Sample Info. Line: LCSDC81;250;C1527430AA;LCSDC81;0;3;LCSD; Instrument ID: **HP09464.i** Batch: **C1527430AA**
Date, time and analyst ID of latest file update: 02-Oct-2015 18:37 jeb07445

Blank Data file reference: **/chem/HP09464.i/15oct01.b/cj00003.d**

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 01-OCT-2015 15:59
Mid Level Daily Calibration Standard Reference: **/chem/HP09464.i/15oct01.b/cj00001.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 250 cc Actual injection Volume (IVa): 250 cc

| Target Compounds | I.S. Ref. | RT (+/-RRT) | QIon | Area | Conc. (on-column) | Conc. (in sample) | Blank Conc. | Qual. | Reporting Limit (in sample) | LOQ |
|---|---|---|---|---|---|---|---|---|---|---|
| 45) Carbon Tetrachloride | (1) | 8.028(-0.000) | 117 | 1517539 | 9.610 | 9.61 | | | 0.2 | 1 |
| 46) Benzene | (2) | 8.406( 0.000) | 78 | 2296416 | 9.895 | 9.90 | | | 0.2 | 1 |
| 47) 1,2-Dichloroethane | (2) | 8.436( 0.000) | 62 | 1341644 | 8.947 | 8.95 | | | 0.2 | 1 |
| 48) Isooctane | (2) | | | Not Detected | | | | | 0.2 | 1 |
| 49) Tert-Amyl Methyl Ether | (2) | | | Not Detected | | | | | 0.2 | 1 |
| 50) Heptane | (2) | 9.063( 0.000) | 43 | 1840925 | 9.849 | 9.85 | | | 0.5 | 1 |
| 52) Trichloroethene | (2) | 9.671( 0.000) | 130 | 748599 | 8.637 | 8.64 | | | 0.2 | 1 |
| 53) Ethyl Acrylate | (2) | | | Not Detected | | | | | 0.2 | 1 |
| 54) 1,2-Dichloropropane | (2) | 10.078( 0.000) | 63 | 964758 | 9.728 | 9.73 | | | 0.2 | 1 |
| 55) Dibromomethane | (2) | | | Not Detected | | | | | 0.2 | 1 |
| 56) 1,4-Dioxane | (2) | 10.450( 0.001) | 88 | 364255 | 11.600 | 11.60 | | | 0.5 | 1 |
| 57) Methyl Methacrylate | (2) | 10.486( 0.000) | 69 | 618538 | 11.234 | 11.23 | | | 0.2 | 1 |
| 58) Bromodichloromethane | (2) | 10.675( 0.000) | 83 | 1759297 | 8.972 | 8.97 | | | 0.2 | 1 |
| 59) cis-1,3-Dichloropropene | (2) | 11.642( 0.000) | 75 | 1253170 | 11.530 | 11.53 | | | 0.2 | 1 |
| 60) 4-Methyl-2-Pentanone | (2) | 12.068( 0.001) | 43 | 1639028 | 10.426 | 10.43 | | | 0.5 | 2 |
| 61) Toluene | (3) | 12.354(-0.000) | 91 | 2162309 | 13.476 | 13.48 | | | 0.2 | 1 |
| 62) Octane | (3) | | | Not Detected | | | | | 0.5 | 1 |
| 63) trans-1,3-Dichloropropene | (3) | 12.895( 0.000) | 75 | 1163845 | 11.509 | 11.51 | | | 0.2 | 1 |
| 64) 1,3-Dichloropropene (total) | (3) | | 75 | 2417015 | 23.038 | 23.04 | | | 0.2 | 1 |
| 65) Ethyl Methacrylate | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 66) 1,1,2-Trichloroethane | (3) | 13.278(-0.000) | 97 | 791781 | 11.239 | 11.24 | | | 0.2 | 1 |
| 67) Tetrachloroethene | (3) | 13.577(-0.000) | 166 | 747457 | 10.875 | 10.88 | | | 0.2 | 1 |
| 68) 2-Hexanone | (3) | 13.996(-0.000) | 43 | 1802725 | 13.549 | 13.55 | | | 0.5 | 2 |
| 69) Dibromochloromethane | (3) | 14.142(-0.000) | 127 | 1075778 | 10.789 | 10.79 | | | 0.2 | 1 |
| 70) 1,2-Dibromoethane | (3) | 14.343(-0.000) | 107 | 1197900 | 12.476 | 12.48 | | | 0.2 | 1 |
| 72) Chlorobenzene | (3) | 15.596( 0.000) | 112 | 1570868 | 12.160 | 12.16 | | | 0.2 | 1 |
| 73) 1,1,1,2-Tetrachloroethane | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 74) Ethylbenzene | (3) | 15.955( 0.000) | 91 | 2395353 | 13.923 | 13.92 | | | 0.2 | 1 |
| 75) m/p-Xylene | (3) | 16.272( 0.000) | 91 | 3938769 | 28.813 | 28.81 | | | 0.2 | 1 |
| 76) o-Xylene | (3) | 17.245(-0.000) | 91 | 2090242 | 14.373 | 14.37 | | | 0.2 | 1 |
| 77) Xylene (total) | (3) | | 91 | 6029011 | 43.186 | 43.19 | | | 0.2 | 1 |
| 78) Styrene | (3) | 17.288(-0.000) | 104 | 1609406 | 13.837 | 13.84 | | | 0.2 | 1 |
| 79) Bromoform | (3) | 17.634( 0.000) | 173 | 1114698 | 12.135 | 12.13 | | | 0.2 | 1 |
| 80) Cumene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 81) Bromobenzene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 82) 1,1,2,2-Tetrachloroethane | (3) | 19.046( 0.000) | 83 | 1997540 | 12.692 | 12.69 | | | 0.2 | 1 |
| 83) 1,2,3-Trichloropropane | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 84) n-Propylbenzene | (3) | | | Not Detected | | | | | 0.5 | 1 |
| 85) 2-Chlorotoluene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 86) 4-Ethyltoluene | (3) | 19.672( 0.000) | 105 | 2305453 | 13.107 | 13.11 | | | 0.2 | 1 |
| 87) 1,3,5-Trimethylbenzene | (3) | 19.867(-0.000) | 105 | 1984095 | 13.551 | 13.55 | | | 0.2 | 1 |
| 88) Alpha Methyl Styrene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 89) tert-Butylbenzene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 90) 1,2,4-Trimethylbenzene | (3) | 20.840( 0.000) | 105 | 1964398 | 12.357 | 12.36 | | | 0.2 | 1 |
| 91) sec-Butylbenzene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 92) 1,3-Dichlorobenzene | (3) | 21.510( 0.000) | 146 | 1389280 | 11.733 | 11.73 | | | 0.2 | 1 |
| 93) 1,4-Dichlorobenzene | (3) | 21.802( 0.000) | 146 | 1378740 | 11.459 | 11.46 | | | 0.2 | 1 |
| 94) p-Isopropyltoluene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 95) Benzyl Chloride | (3) | 22.294( 0.000) | 91 | 2236353 | 12.398 | 12.40 | | | 0.5 | 1 |
| 96) 1,2-Dichlorobenzene | (3) | 22.964( 0.000) | 146 | 1291314 | 11.790 | 11.79 | | | 0.2 | 1 |
| 97) n-Butylbenzene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 98) Hexachloroethane | (3) | | | Not Detected | | | | | 0.5 | 2 |
| 99) 1,2-Dibromo-3-chloropropane | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 100) 1,2,4-Trichlorobenzene | (3) | 25.999( 0.000) | 180 | 594974 | 10.726 | 10.73 | | | 0.5 | 2 |

Digitally signed by Jacob E. Bailey on 10/02/2015 at 18:37. Target 3.5 esignature user ID: jeb07445

Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP09464.i/15oct01.b/cj00005.d Injection date and time: **01-OCT-2015 18:26**
Data file Sample Info. Line: LCSDC81;250;C1527430AA;LCSDC81;0;3;LCSD; Instrument ID: **HP09464.i** Batch: **C1527430AA**
Date, time and analyst ID of latest file update: 02-Oct-2015 18:37 jeb07445

Blank Data file reference: **/chem/HP09464.i/15oct01.b/cj00003.d**

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 01-OCT-2015 15:59
Mid Level Daily Calibration Standard Reference: **/chem/HP09464.i/15oct01.b/cj00001.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

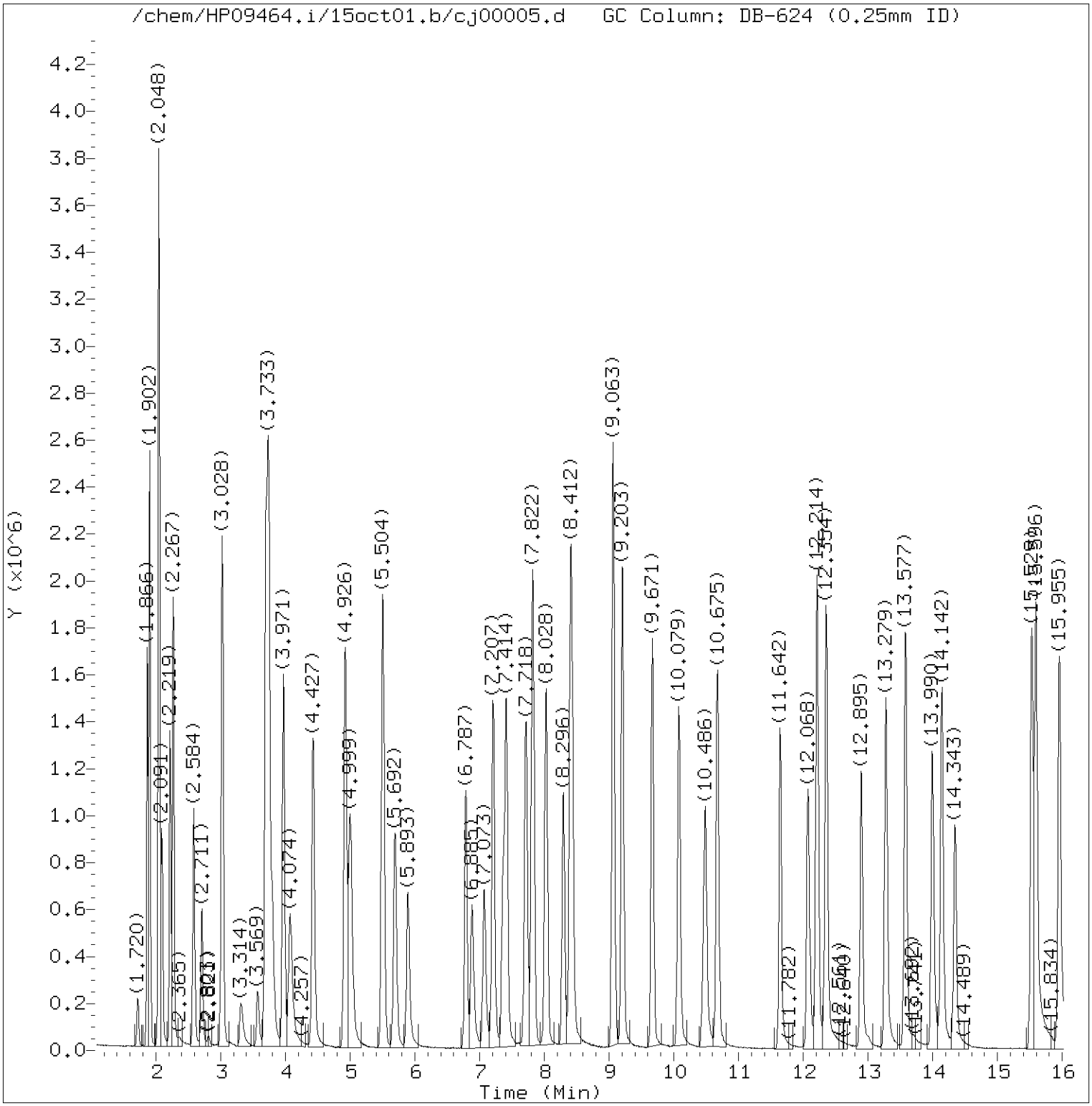
Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 250 cc Actual injection Volume (IVa): 250 cc

| Target Compounds | I.S. Ref. | RT (+/-RRT) | QIon | Area | Conc. (on-column) | Conc. (in sample) | Blank Conc. | Qual. | Reporting Limit (in sample) | LOQ |
|---|---|---|---|---|---|---|---|---|---|---|
| 101) Hexachlorobutadiene | (3) | 26.285( 0.000) | 225 | 600938 | 11.108 | 11.11 | | | 0.4 | 2 |
| 102) Naphthalene | (3) | 26.297( 0.000) | 128 | 1749377 | 11.121 | 11.12 | | | 0.4 | 1 |

Total number of targets = 99

Digitally signed by Jacob E. Bailey on 10/02/2015 at 18:37. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Michele J. Smith on 10/05/2015 at 07:30. Parallax ID: mjs00758




Total Ion Chromatogram (TIC)

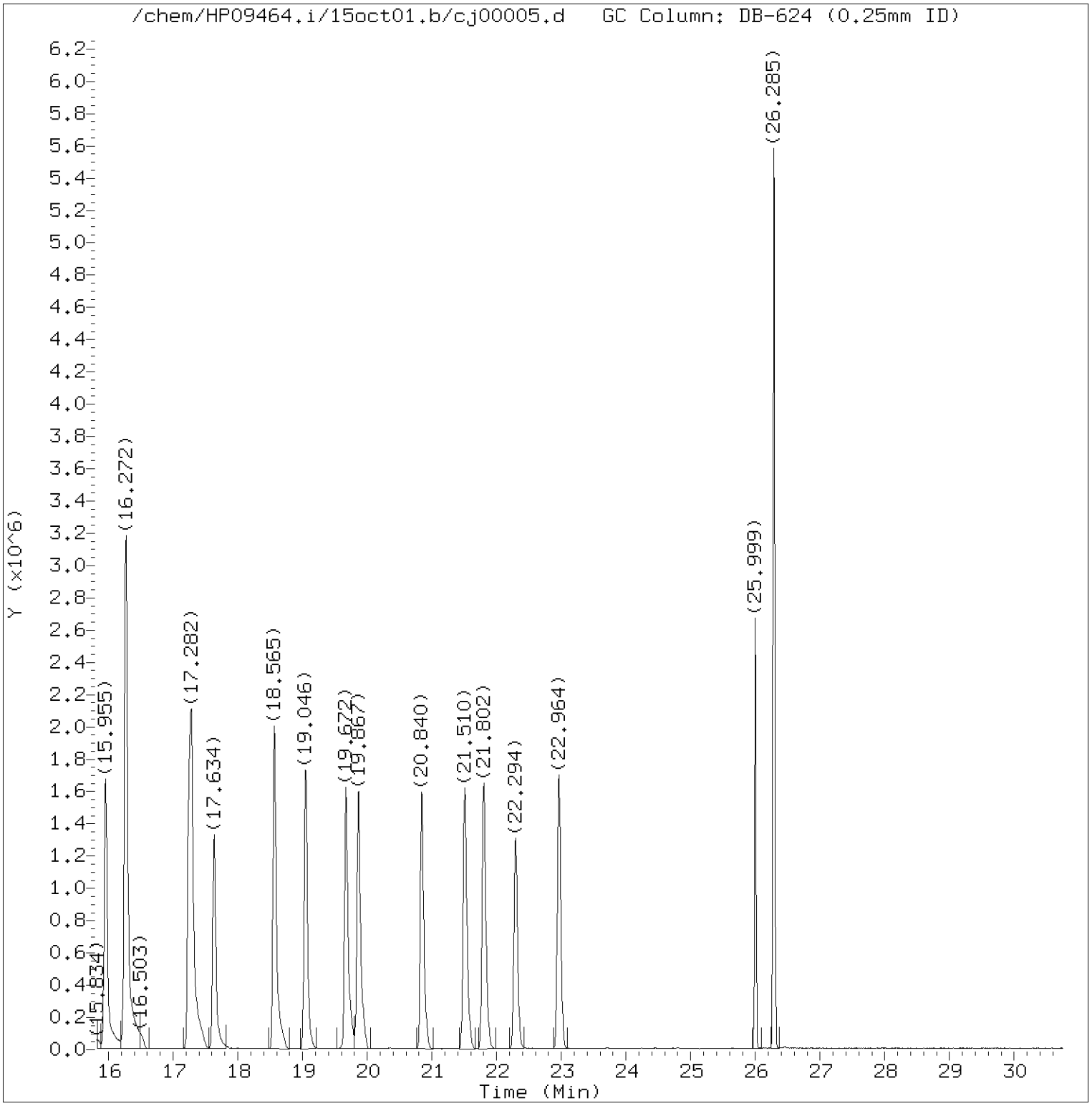
Target Revision 3.5

Data File: /chem/HP09464.i/15oct01.b/cj00005.d Instrument ID: HP09464.i
Injection date and time: 01-OCT-2015 18:26 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: all
Calibration date and time: 01-OCT-2015 15:59
Date, time and analyst ID of latest file update: 02-Oct-2015 18:37 jeb07445

Sample Name: LCSDC81 Lab Sample ID: LCSDC81

Digitally signed by Jacob E. Bailey
on 10/02/2015 at 18:37.
Target 3.5 esignature user ID: jeb07445




Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct01.b/cj00005.d Instrument ID: HP09464.i
Injection date and time: 01-OCT-2015 18:26 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: all
Calibration date and time: 01-OCT-2015 15:59
Date, time and analyst ID of latest file update: 02-Oct-2015 18:37 jeb07445

Sample Name: LCSDC81 Lab Sample ID: LCSDC81

Digitally signed by Jacob E. Bailey
on 10/02/2015 at 18:37.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct01.b/cj00005.d  Instrument ID: HP09464.i
Injection date and time: 01-OCT-2015 18:26  Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m  Sublist used: all
Calibration date and time: 01-OCT-2015 15:59
Date, time and analyst ID of latest file update: 02-Oct-2015 18:37 jeb07445

Sample Name: LCSDC81  Lab Sample ID: LCSDC81

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 1) Propene | (1) | 1.866 | 41 | 909580 | 9.396 |
| 3) Chlorodifluoromethane | (1) | 1.866 | 51 | 105182 | 0.501 |
| 2) Dichlorodifluoromethane | (1) | 1.902 | 85 | 2307875 | 9.356 |
| 4) Freon 114 | (1) | 2.042 | 85 | 2128768 | 9.620 |
| 5) Chloromethane | (1) | 2.091 | 52 | 356027 | 8.001 |
| 6) Vinyl Chloride | (1) | 2.219 | 62 | 1141930 | 10.186 |
| 7) 1,3-Butadiene | (1) | 2.267 | 54 | 940643 | 9.962 |
| 8) Bromomethane | (1) | 2.584 | 94 | 786904 | 8.875 |
| 9) Chloroethane | (1) | 2.711 | 64 | 642087 | 9.032 |
| 12) Trichlorofluoromethane | (1) | 3.028 | 101 | 2363567 | 9.197 |
| 14) Ethanol | (1) | 3.314 | 45 | 423363 | 7.204 |
| 16) Acrolein | (1) | 3.575 | 56 | 355191 | 11.602 |
| 17) 1,1-Dichloroethene | (1) | 3.697 | 61 | 1965643 | 10.030 |
| 18) Freon 113 | (1) | 3.740 | 103 | 1151996 | 9.376 |
| 19) Acetone | (1) | 3.800 | 43 | 1208461 | 10.267 |
| 21) Carbon Disulfide | (1) | 3.971 | 76 | 3142166 | 9.962 |
| 22) Isopropanol | (1) | 4.074 | 45 | 1452324 | 8.391 |
| 24) 3-Chloropropene | (1) | 4.141 | 76 | 19609 | 0.398 |
| 25) Methylene Chloride | (1) | 4.433 | 84 | 944654 | 10.798 |
| 28) trans-1,2-Dichloroethene | (1) | 4.926 | 61 | 1893246 | 8.553 |
| 29) Methyl t-Butyl Ether | (1) | 5.005 | 73 | 1915810 | 11.808 |
| 30) Hexane | (1) | 5.504 | 57 | 1455287 | 10.366 |
| 31) 1,1-Dichloroethane | (1) | 5.692 | 63 | 1664777 | 9.200 |
| 32) Vinyl Acetate | (1) | 5.893 | 86 | 112052 | 13.293 |
| 36) 1,2-Dichloroethene (total) | (1) | | 61 | 3072330 | 17.472 |
| 35) cis-1,2-Dichloroethene | (1) | 6.787 | 61 | 1179084 | 8.920 |
| 37) 2-Butanone | (1) | 6.885 | 72 | 270348 | 12.234 |
| 38) Ethyl Acetate | (1) | 7.073 | 70 | 118446 | 9.316 |
| 40)*Bromochloromethane | (1) | 7.207 | 130 | 574734 | 10.000 |
| 41) Tetrahydrofuran | (1) | 7.359 | 42 | 898005 | 11.628 |
| 42) Chloroform | (1) | 7.414 | 83 | 1697481 | 9.469 |
| 43) 1,1,1-Trichloroethane | (1) | 7.718 | 97 | 1493961 | 9.457 |
| 44) Cyclohexane | (1) | 7.822 | 56 | 1636827 | 10.473 |
| 45) Carbon Tetrachloride | (1) | 8.028 | 117 | 1517539 | 9.610 |
| 46) Benzene | (2) | 8.406 | 78 | 2296416 | 9.895 |
| 47) 1,2-Dichloroethane | (2) | 8.436 | 62 | 1341644 | 8.947 |
| 50) Heptane | (2) | 9.063 | 43 | 1840925 | 9.849 |
| 51)*1,4-Difluorobenzene | (2) | 9.209 | 114 | 2086304 | 10.000 |

* = Compound is an internal standard.



Digitally signed by Jacob E. Bailey
on 10/02/2015 at 18:37.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct01.b/cj00005.d Instrument ID: HP09464.i
Injection date and time: 01-OCT-2015 18:26 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m Sublist used: all
Calibration date and time: 01-OCT-2015 15:59
Date, time and analyst ID of latest file update: 02-Oct-2015 18:37 jeb07445

Sample Name: LCSDC81 Lab Sample ID: LCSDC81

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 52) Trichloroethene | (2) | 9.671 | 130 | 748599 | 8.637 |
| 54) 1,2-Dichloropropane | (2) | 10.079 | 63 | 964758 | 9.728 |
| 56) 1,4-Dioxane | (2) | 10.450 | 88 | 364255 | 11.600 |
| 57) Methyl Methacrylate | (2) | 10.486 | 69 | 618538 | 11.234 |
| 58) Bromodichloromethane | (2) | 10.675 | 83 | 1759297 | 8.972 |
| 59) cis-1,3-Dichloropropene | (2) | 11.642 | 75 | 1253170 | 11.530 |
| 60) 4-Methyl-2-Pentanone | (2) | 12.068 | 43 | 1639028 | 10.426 |
| 61) Toluene | (3) | 12.354 | 91 | 2162309 | 13.476 |
| 64) 1,3-Dichloropropene (total) | (3) | | 75 | 2417015 | 23.038 |
| 63) trans-1,3-Dichloropropene | (3) | 12.895 | 75 | 1163845 | 11.509 |
| 66) 1,1,2-Trichloroethane | (3) | 13.279 | 97 | 791781 | 11.239 |
| 67) Tetrachloroethene | (3) | 13.577 | 166 | 747457 | 10.875 |
| 68) 2-Hexanone | (3) | 13.996 | 43 | 1802725 | 13.549 |
| 69) Dibromochloromethane | (3) | 14.142 | 127 | 1075778 | 10.789 |
| 70) 1,2-Dibromoethane | (3) | 14.343 | 107 | 1197900 | 12.476 |
| 71)*Chlorobenzene-d5 | (3) | 15.529 | 117 | 1640118 | 10.000 |
| 72) Chlorobenzene | (3) | 15.596 | 112 | 1570868 | 12.160 |
| 74) Ethylbenzene | (3) | 15.955 | 91 | 2395353 | 13.923 |
| 75) m/p-Xylene | (3) | 16.272 | 91 | 3938769 | 28.813 |
| 77) Xylene (total) | (3) | | 91 | 6029011 | 43.186 |
| 76) o-Xylene | (3) | 17.245 | 91 | 2090242 | 14.373 |
| 78) Styrene | (3) | 17.288 | 104 | 1609406 | 13.837 |
| 79) Bromoform | (3) | 17.634 | 173 | 1114698 | 12.135 |
| 82) 1,1,2,2-Tetrachloroethane | (3) | 19.046 | 83 | 1997540 | 12.692 |
| 86) 4-Ethyltoluene | (3) | 19.672 | 105 | 2305453 | 13.107 |
| 87) 1,3,5-Trimethylbenzene | (3) | 19.867 | 105 | 1984095 | 13.551 |
| 90) 1,2,4-Trimethylbenzene | (3) | 20.840 | 105 | 1964398 | 12.357 |
| 92) 1,3-Dichlorobenzene | (3) | 21.510 | 146 | 1389280 | 11.733 |
| 93) 1,4-Dichlorobenzene | (3) | 21.802 | 146 | 1378740 | 11.459 |
| 95) Benzyl Chloride | (3) | 22.294 | 91 | 2236353 | 12.398 |
| 96) 1,2-Dichlorobenzene | (3) | 22.964 | 146 | 1291314 | 11.790 |
| 100) 1,2,4-Trichlorobenzene | (3) | 25.999 | 180 | 594974 | 10.726 |
| 101) Hexachlorobutadiene | (3) | 26.285 | 225 | 600938 | 11.108 |
| 102) Naphthalene | (3) | 26.297 | 128 | 1749377 | 11.121 |

* = Compound is an internal standard.



Digitally signed by Jacob E. Bailey
on 10/02/2015 at 18:37.
Target 3.5 esignature user ID: jeb07445

Lancaster Laboratories
Volatiles in Air
Runlog for Agilent GC/MS System HP09464 **HP #03**

Data Directory Path is - C:\msdchem\1\data\15oct02\

| OPERATOR | FILE | LLI# | DATE | TIME | BATCH | DILUTION FACTOR |
|---|---|---|---|---|---|---|
| jeb07445 | CJ00035.D | 50NGBFB | 10/02/2015 | 17:42 | | |
| jeb07445 | CJ00036.D | VSTD010 | 10/02/2015 | 18:08 | | |
| jeb07445 | CJ00037.D | VSTD010 | 10/02/2015 | 18:59 | | |
| jeb07445 | CJ00038.D | VBLKC82 | 10/02/2015 | 19:54 | C1527430AB | |
| jeb07445 | CJ00039.D | VBLKC82 | 10/02/2015 | 20:39 | C1527430AB | |
| jeb07445 | CJ00040.D | 8057520 | 10/02/2015 | 21:58 | C1527430AB | |
| jeb07445 | CJ00041.D | 8066192 | 10/02/2015 | 22:47 | C1527430AB | |
| jeb07445 | CJ00042.D | 8066193 | 10/02/2015 | 23:30 | C1527430AB | |
| jeb07445 | CJ00043.D | 8066194 | 10/03/2015 | 00:13 | C1527430AB | |
| jeb07445 | CJ00044.D | 8066195 | 10/03/2015 | 00:59 | C1527430AB | |
| jeb07445 | CJ00045.D | 8066196 | 10/03/2015 | 01:46 | C1527430AB | |
| jeb07445 | CJ00046.D | 8066197 | 10/03/2015 | 02:34 | C1527430AB | |
| jeb07445 | CJ00047.D | 8066198 | 10/03/2015 | 03:21 | C1527430AB | |
| jeb07445 | CJ00048.D | 8057520 | 10/03/2015 | 04:07 | C1527430AB | |
| jeb07445 | CJ00049.D | MDL0.5 | 10/03/2015 | 04:51 | C1527430AB | |
| jeb07445 | CJ00050.D | cc914 | 10/03/2015 | 05:35 | C1527430AB | |
| jeb07445 | CJ00051.D | cc988 | 10/03/2015 | 06:19 | C1527430AB | |
| jeb07445 | CJ00052.D | cc992 | 10/03/2015 | 07:03 | C1527430AB | |
| jeb07445 | CJ00053.D | cc994 | 10/03/2015 | 07:47 | C1527430AB | |
| jeb07445 | CJ00054.D | cc999 | 10/03/2015 | 08:30 | C1527430AB | |
| jeb07445 | CJ00055.D | cc1139 | 10/03/2015 | 09:13 | C1527430AB | |

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKC82 |
| Canister ID: | N/A | Lab File ID: | cj00039.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 10/02/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 20:39 |
| Instrument ID: | 09464 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 115-07-1 | Propene | 0.50 | U |
| 75-71-8 | Dichlorodifluoromethane | 0.20 | U |
| 75-45-6 | Chlorodifluoromethane | 0.20 | U |
| 76-14-2 | Freon 114 | 0.20 | U |
| 74-87-3 | Chloromethane | 0.20 | U |
| 75-01-4 | Vinyl Chloride | 0.20 | U |
| 106-99-0 | 1,3-Butadiene | 0.40 | U |
| 74-83-9 | Bromomethane | 0.20 | U |
| 75-00-3 | Chloroethane | 0.20 | U |
| 593-60-2 | Bromoethene | 0.40 | U |
| 75-43-4 | Dichlorofluoromethane | 0.20 | U |
| 75-69-4 | Trichlorofluoromethane | 0.20 | U |
| 109-66-0 | Pentane | 0.50 | U |
| 64-17-5 | Ethanol | 0.50 | U |
| 107-02-8 | Acrolein | 1.0 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.20 | U |
| 76-13-1 | Freon 113 | 0.50 | U |
| 67-64-1 | Acetone | 0.50 | U |
| 74-88-4 | Methyl Iodide | 0.20 | U |
| 75-15-0 | Carbon Disulfide | 0.50 | U |
| 67-63-0 | Isopropanol | 0.50 | U |
| 75-05-8 | Acetonitrile | 0.50 | U |
| 107-05-1 | 3-Chloropropene | 0.20 | U |
| 75-09-2 | Methylene Chloride | 0.20 | U |

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKC82 |
| Canister ID: | N/A | Lab File ID: | cj00039.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 10/02/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 20:39 |
| Instrument ID: | 09464 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 75-65-0 | tert-Butyl Alcohol | 0.50 | U |
| 107-13-1 | Acrylonitrile | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.20 | U |
| 1634-04-4 | Methyl t-Butyl Ether | 0.20 | U |
| 110-54-3 | Hexane | 0.20 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.20 | U |
| 108-05-4 | Vinyl Acetate | 1.0 | U |
| 108-20-3 | Di-Isopropyl Ether | 0.20 | U |
| 637-92-3 | Ethyl Tert-Butyl Ether | 0.20 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.20 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 0.20 | U |
| 78-93-3 | 2-Butanone | 0.50 | U |
| 141-78-6 | Ethyl Acetate | 0.50 | U |
| 96-33-3 | Methyl Acrylate | 0.20 | U |
| 109-99-9 | Tetrahydrofuran | 0.50 | U |
| 67-66-3 | Chloroform | 0.20 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.20 | U |
| 110-82-7 | Cyclohexane | 0.20 | U |
| 56-23-5 | Carbon Tetrachloride | 0.20 | U |
| 71-43-2 | Benzene | 0.20 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.20 | U |
| 540-84-1 | Isooctane | 0.20 | U |
| 994-05-8 | Tert-Amyl Methyl Ether | 0.20 | U |
| 142-82-5 | Heptane | 0.50 | U |

Abbreviations:
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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKC82 |
| Canister ID: | N/A | Lab File ID: | cj00039.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 10/02/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 20:39 |
| Instrument ID: | 09464 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 79-01-6 | Trichloroethene | 0.20 | U |
| 140-88-5 | Ethyl Acrylate | 0.20 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.20 | U |
| 74-95-3 | Dibromomethane | 0.20 | U |
| 123-91-1 | 1,4-Dioxane | 0.50 | U |
| 80-62-6 | Methyl Methacrylate | 0.20 | U |
| 75-27-4 | Bromodichloromethane | 0.20 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.20 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 0.50 | U |
| 108-88-3 | Toluene | 0.20 | U |
| 111-65-9 | Octane | 0.50 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.20 | U |
| 542-75-6 | 1,3-Dichloropropene (total) | 0.20 | U |
| 97-63-2 | Ethyl Methacrylate | 0.20 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.20 | U |
| 127-18-4 | Tetrachloroethene | 0.20 | U |
| 591-78-6 | 2-Hexanone | 0.50 | U |
| 124-48-1 | Dibromochloromethane | 0.20 | U |
| 106-93-4 | 1,2-Dibromoethane | 0.20 | U |
| 108-90-7 | Chlorobenzene | 0.20 | U |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.20 | U |
| 100-41-4 | Ethylbenzene | 0.20 | U |
| 179601-23-1 | m/p-Xylene | 0.20 | U |
| 95-47-6 | o-Xylene | 0.20 | U |

Abbreviations:
U = The compound is less than the limit being reported.
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E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKC82 |
| Canister ID: | N/A | Lab File ID: | cj00039.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 10/02/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 20:39 |
| Instrument ID: | 09464 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 1330-20-7 | Xylene (total) | 0.20 | U |
| 100-42-5 | Styrene | 0.20 | U |
| 75-25-2 | Bromoform | 0.20 | U |
| 98-82-8 | Cumene | 0.20 | U |
| 108-86-1 | Bromobenzene | 0.20 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.20 | U |
| 96-18-4 | 1,2,3-Trichloropropane | 0.20 | U |
| 103-65-1 | n-Propylbenzene | 0.50 | U |
| 95-49-8 | 2-Chlorotoluene | 0.20 | U |
| 622-96-8 | 4-Ethyltoluene | 0.20 | U |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.20 | U |
| 98-83-9 | Alpha Methyl Styrene | 0.20 | U |
| 98-06-6 | tert-Butylbenzene | 0.20 | U |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.20 | U |
| 135-98-8 | sec-Butylbenzene | 0.20 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.20 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.20 | U |
| 99-87-6 | p-Isopropyltoluene | 0.20 | U |
| 100-44-7 | Benzyl Chloride | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.20 | U |
| 104-51-8 | n-Butylbenzene | 0.20 | U |
| 67-72-1 | Hexachloroethane | 0.50 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 0.20 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKC82 |
| Canister ID: | N/A | Lab File ID: | cj00039.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 10/02/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 20:39 |
| Instrument ID: | 09464 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 87-68-3 | Hexachlorobutadiene | 0.40 | U |
| 91-20-3 | Naphthalene | 0.40 | U |

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 04
VOLATILE ORGANICS IN AIR
METHOD BLANK SUMMARY

SDG No.:

Lab Sample ID: VBLKC82

Lab File ID: cj00039.d

Instrument ID: 09464

Analyzed Date: 10/02/2015

Analyzed Time: 20:39

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS AND LCSD:

| LAB SAMPLE ID | LAB FILE ID | CANISTER ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| 8057520 | cj00040.d | 821 | 10/02/2015 | 21:58 |
| 8066192 | cj00041.d | 1135 | 10/02/2015 | 22:47 |
| 8066195 | cj00044.d | 863 | 10/03/2015 | 00:59 |
| 8066196 | cj00045.d | 880 | 10/03/2015 | 01:46 |
| 8066197 | cj00046.d | 1157 | 10/03/2015 | 02:34 |
| 8066198 | cj00047.d | 1129 | 10/03/2015 | 03:21 |
| 8057520 | cj00048.d | 821 | 10/03/2015 | 04:07 |
| cc988 | cj00051.d | 988 | 10/03/2015 | 06:19 |
| cc992 | cj00052.d | 992 | 10/03/2015 | 07:03 |
| cc994 | cj00053.d | 994 | 10/03/2015 | 07:47 |
| cc1139 | cj00055.d | 1139 | 10/03/2015 | 09:13 |

COMMENTS:

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FORM 05
VOLATILE ORGANICS IN AIR
INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

SDG No.:

Lab File ID: cj00035.d

BFB Injection Date: 10/02/2015

Instrument ID: 09464

BFB Injection Time: 17:42

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 8.0% - 40.0% of mass 95 | 18.5 |
| 75 | 30.0% - 66.0% of mass 95 | 50.0 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0% - 9.0% of mass 95 | 7.0 |
| 173 | < 2.0% of mass 174 | 0.0 (0.0) |
| 174 | > 50.0% of mass 95 | 60.6 |
| 175 | 4.0% - 9.0% of mass 174 | 4.5 (7.4) |
| 176 | 93.0% - 101.0% of mass 174 | 57.9 (95.6) |
| 177 | 5.0% - 9.0% of mass 176 | 3.8 (6.6) |
| | | |

THIS CHECK APPLIES TO THE FOLLOWING:

| LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|
| VSTD010 | cj00037.d | 10/02/2015 | 18:59 |
| VBLKC82 | cj00039.d | 10/02/2015 | 20:39 |
| 8057520 | cj00040.d | 10/02/2015 | 21:58 |
| 8066192 | cj00041.d | 10/02/2015 | 22:47 |
| 8066195 | cj00044.d | 10/03/2015 | 00:59 |
| 8066196 | cj00045.d | 10/03/2015 | 01:46 |
| 8066197 | cj00046.d | 10/03/2015 | 02:34 |
| 8066198 | cj00047.d | 10/03/2015 | 03:21 |
| 8057520 | cj00048.d | 10/03/2015 | 04:07 |
| cc988 | cj00051.d | 10/03/2015 | 06:19 |
| cc992 | cj00052.d | 10/03/2015 | 07:03 |
| cc994 | cj00053.d | 10/03/2015 | 07:47 |
| cc1139 | cj00055.d | 10/03/2015 | 09:13 |

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FORM 07
VOLATILE ORGANICS IN AIR
CONTINUING CALIBRATION CHECK

SDG No.:

Lab File ID: cj00037.d

Calibration Date: 10/02/2015

Instrument ID: 09464

Calibration Time: 18:59

Init. Calib. Date(s): 09/22/2015

| COMPOUND | $\overline{RRF}$ | RRF 10 | ACTUAL CONC. | TRUE CONC. | %DRIFT |
|---|---|---|---|---|---|
| Vinyl Chloride | 1.951 | 2.363 | 12.237 | 10.1 | 21 |
| Methyl t-Butyl Ether | 2.823 | 2.503 | 9.045 | 10.2 | -11 |
| cis-1,2-Dichloroethene | 2.300 | 2.235 | 10.204 | 10.5 | -3 |
| Chloroform | 3.119 | 2.735 | 8.855 | 10.1 | -12 |
| Benzene | 1.112 | 1.141 | 10.877 | 10.6 | 3 |
| 1,2-Dichloroethane | 0.719 | 0.522 | 7.555 | 10.4 | -27 |
| Trichloroethene | 0.415 | 0.437 | 10.844 | 10.3 | 5 |
| Toluene | 0.978 | 1.126 | 12.198 | 10.6 | 15 |
| Tetrachloroethene | 0.419 | 0.516 | 13.184 | 10.7 | 23 |
| 1,2-Dibromoethane | 0.585 | 0.657 | 11.221 | 10 | 12 |
| Ethylbenzene | 1.049 | 1.230 | 12.434 | 10.6 | 17 |
| m/p-Xylene | 0.833 | 0.929 | 10.924 | 9.8 | 11 |
| o-Xylene | 0.887 | 1.012 | 12.210 | 10.7 | 14 |
| Naphthalene | 0.959 | 1.203 | 13.049 | 10.4 | 25 |

* Maximum %DRIFT = 30%.
\# Average RRF for all compounds must be greater than 0.010.

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FORM 08
VOLATILE ORGANICS IN AIR
INSTRUMENT STANDARD AREA AND RETENTION TIME SUMMARY

SDG No.:

Lab Sample ID: VSTD010 Analyzed Date: 10/02/2015

Lab File ID: cj00037.d Analyzed Time: 18:59

Instrument ID: 09464

| | Bromochloromethane | | 1,4-Difluorobenzene | | Chlorobenzene-d5 | |
|---|---|---|---|---|---|---|
| | Area | R.T. | Area | R.T. | Area | R.T. |
| 24 HOUR STANDARD | 613443 | 7.21 | 2212202 | 9.20 | 1908054 | 15.53 |
| UPPER LIMIT | 858820 | 7.54 | 3097083 | 9.53 | 2671276 | 15.86 |
| LOWER LIMIT | 368066 | 6.88 | 1327321 | 8.87 | 1144832 | 15.20 |
| LAB SAMPLE ID | | | | | | |
| VBLKC82 | 543536 | 7.23 | 1792445 | 9.22 | 1656561 | 15.54 |
| 8057520 | 611329 | 7.22 | 2374519 | 9.22 | 2285419 | 15.55 |
| 8066192 | 751987 | 7.21 | 2519172 | 9.20 | 2303675 | 15.53 |
| 8066195 | 438688 | 7.21 | 1450286 | 9.21 | 1367847 | 15.53 |
| 8066196 | 440486 | 7.21 | 1551421 | 9.21 | 1445796 | 15.53 |
| 8066197 | 421997 | 7.22 | 1402369 | 9.21 | 1305115 | 15.54 |
| 8066198 | 412576 | 7.21 | 1420348 | 9.21 | 1203960 | 15.53 |
| 8057520 | 514706 | 7.22 | 1596298 | 9.22 | 1993925 | 15.55 |
| cc988 | 417498 | 7.23 | 1536000 | 9.22 | 1405319 | 15.54 |
| cc992 | 369653 | 7.23 | 1243410 * | 9.22 | 1130773 * | 15.54 |
| cc994 | 370070 | 7.23 | 1191922 * | 9.21 | 1103042 * | 15.54 |
| cc1139 | 360375 * | 7.23 | 1256288 * | 9.22 | 1253674 | 15.54 |

* = Outside of the QC Limits.

AREA: Upper limit: +40% of the internal standard area.
Lower Limit: -40% of the internal standard area.
R.T.: Upper limit: +0.33 of the internal standard R.T.
Lower limit: -0.33 of the internal standard R.T.

Data File: /chem/HP09464.i/15oct02.b/cj00035.d

Page 1

Date : 02-OCT-2015 17:42

Client ID: 50NGBFB

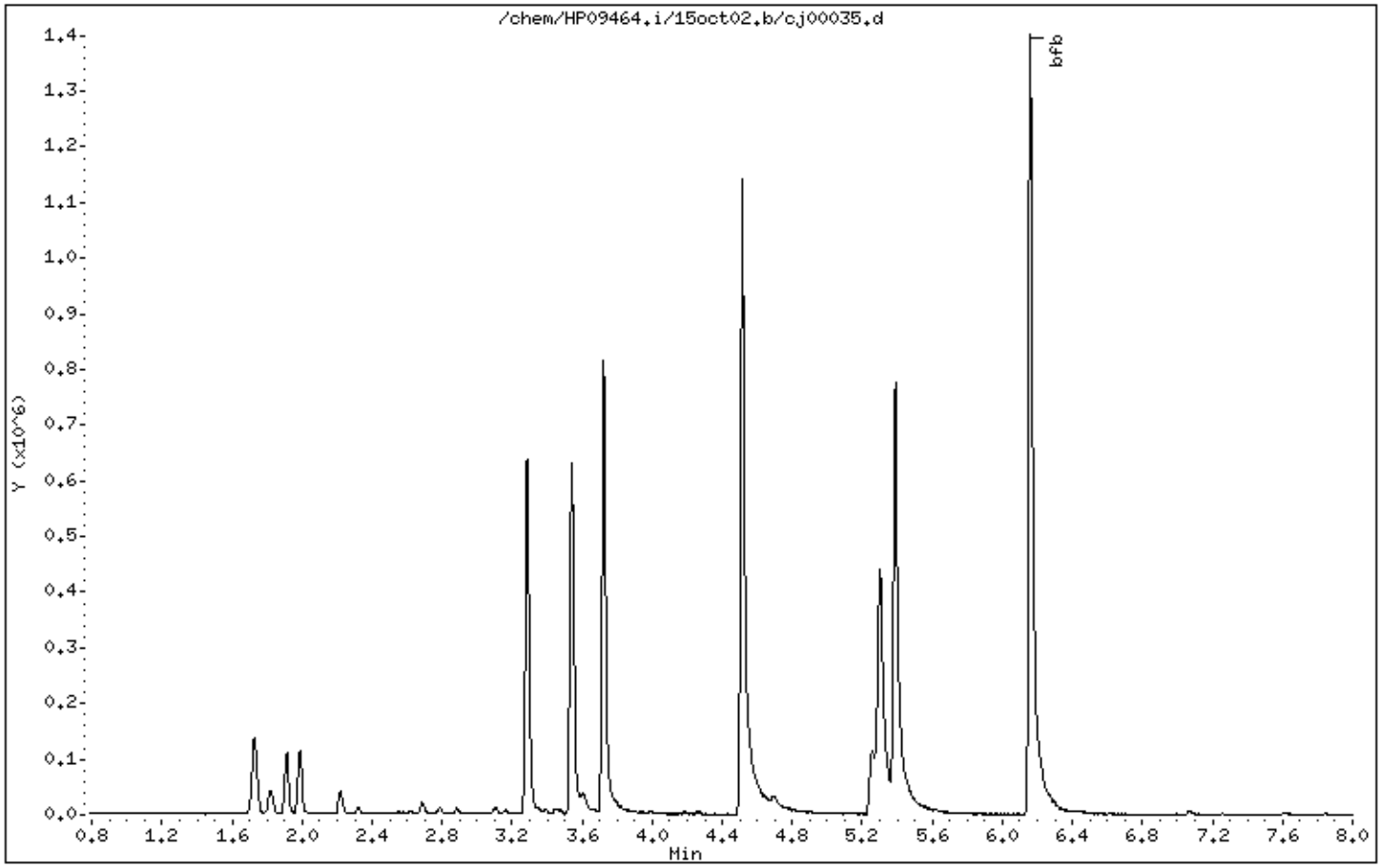
Instrument: HP09464.i

Sample Info: 50NGBFB;;;BFB;0;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25




Digitally signed by Jacob E. Bailey on 10/02/2015 at 21:32.
Target 3.5 esignature user ID: jeb07445

Data File: /chem/HP09464.i/15oct02.b/cj00035.d

Page 2

Date : 02-OCT-2015 17:42

Client ID: 50NGBFB

Instrument: HP09464.i

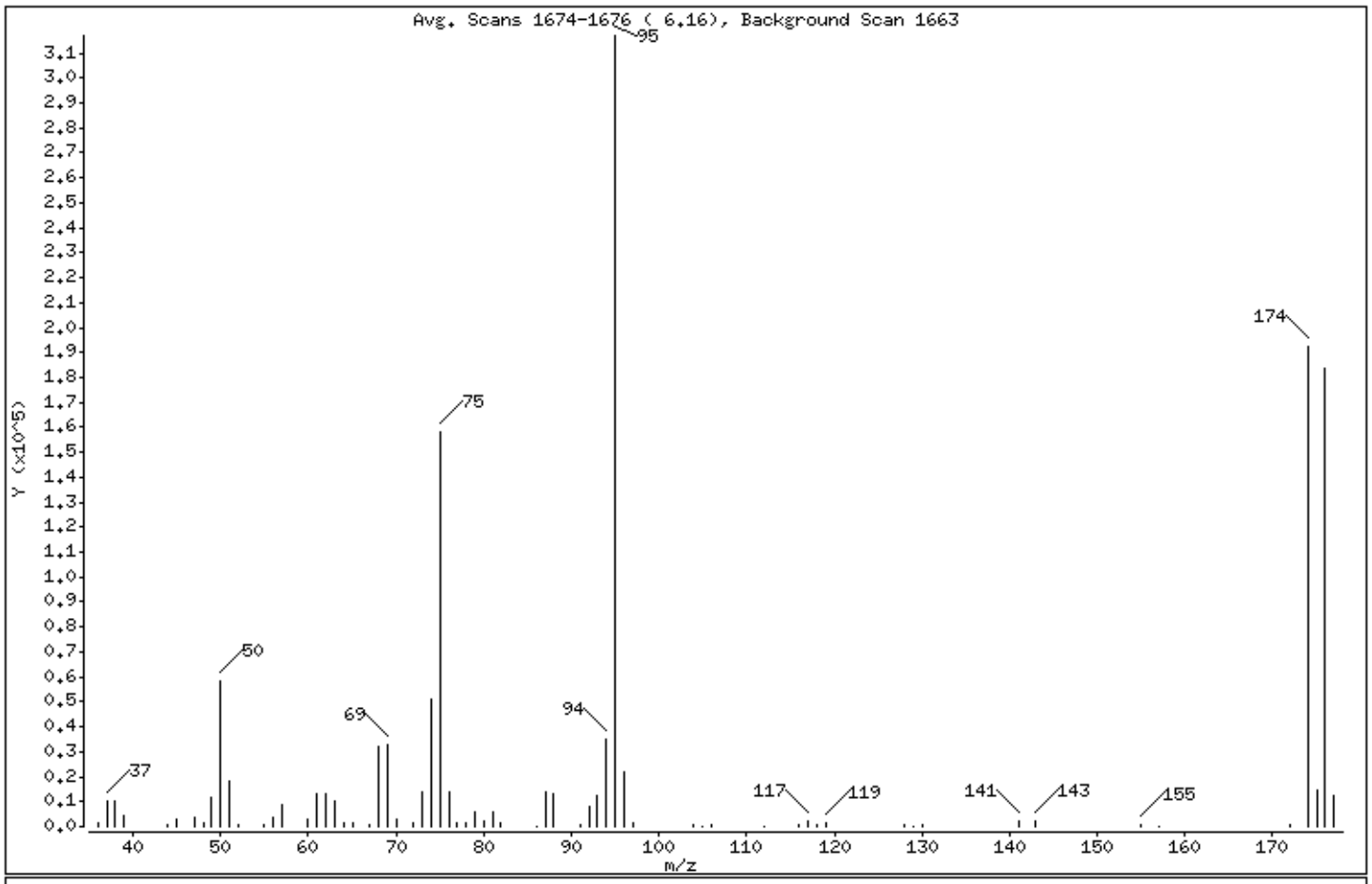
Sample Info: 50NGBFB;;;BFB;0;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 8.00 - 40.00% of mass 95 | 18.46 |
| 75 | 30.00 - 66.00% of mass 95 | 49.99 |
| 96 | 5.00 - 9.00% of mass 95 | 6.98 |
| 173 | Less than 2.00% of mass 174 | 0.00 ( 0.00) |
| 174 | 50.00 - 120.00% of mass 95 | 60.59 |
| 175 | 4.00 - 9.00% of mass 174 | 4.50 ( 7.43) |
| 176 | 93.00 - 101.00% of mass 174 | 57.90 ( 95.57) |
| 177 | 5.00 - 9.00% of mass 176 | 3.80 ( 6.56) |

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Target 3.5 esignature user ID: jeb07445

Date : 02-OCT-2015 17:42

Client ID: 50NGBFB Instrument: HP09464.i

Sample Info: 50NGBFB;;;BFB;0;;;

Operator: jeb07445

Column phase: DB-624 Column diameter: 0.25

Data File: cj00035.d
Spectrum: Avg. Scans 1674-1676 ( 6.16), Background Scan 1663
Location of Maximum: 95.00
Number of points: 66

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1709 | 62.00 | 13237 | 81.00 | 5896 | 117.00 | 1877 |
| 37.00 | 9957 | 63.00 | 10503 | 82.00 | 1507 | 118.00 | 792 |
| 38.00 | 9846 | 64.00 | 1188 | 86.00 | 180 | 119.00 | 1473 |
| 39.00 | 4426 | 65.00 | 1152 | 87.00 | 13931 | 128.00 | 915 |
| 44.00 | 968 | 67.00 | 885 | 88.00 | 12806 | 129.00 | 182 |
| 45.00 | 2555 | 68.00 | 32400 | 91.00 | 858 | 130.00 | 1029 |
| 47.00 | 3938 | 69.00 | 32648 | 92.00 | 7863 | 141.00 | 1990 |
| 48.00 | 1704 | 70.00 | 2558 | 93.00 | 12609 | 143.00 | 2092 |
| 49.00 | 11402 | 72.00 | 1772 | 94.00 | 34752 | 155.00 | 443 |
| 50.00 | 58520 | 73.00 | 13718 | 95.00 | 316992 | 157.00 | 355 |
| 51.00 | 17864 | 74.00 | 51320 | 96.00 | 22120 | 172.00 | 972 |
| 52.00 | 854 | 75.00 | 158464 | 97.00 | 1540 | 174.00 | 192064 |
| 55.00 | 1018 | 76.00 | 14064 | 104.00 | 924 | 175.00 | 14265 |
| 56.00 | 3879 | 77.00 | 1706 | 105.00 | 189 | 176.00 | 183552 |
| 57.00 | 8952 | 78.00 | 1476 | 106.00 | 958 | 177.00 | 12042 |
| 60.00 | 2670 | 79.00 | 6127 | 112.00 | 181 | | |
| 61.00 | 13251 | 80.00 | 2109 | 116.00 | 742 | | |

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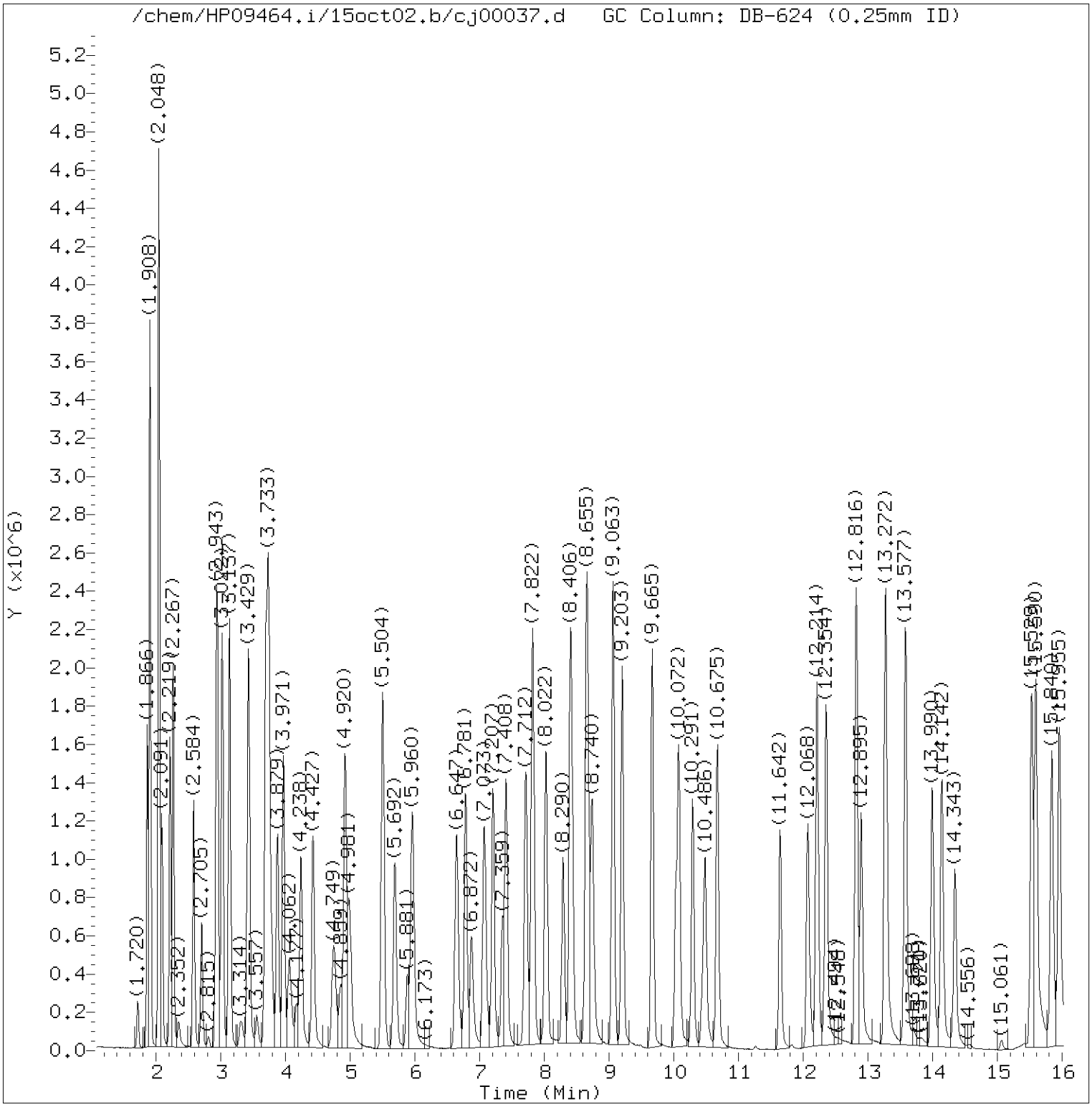
Target 3.5 esignature user ID: jeb07445




Total Ion Chromatogram (TIC)

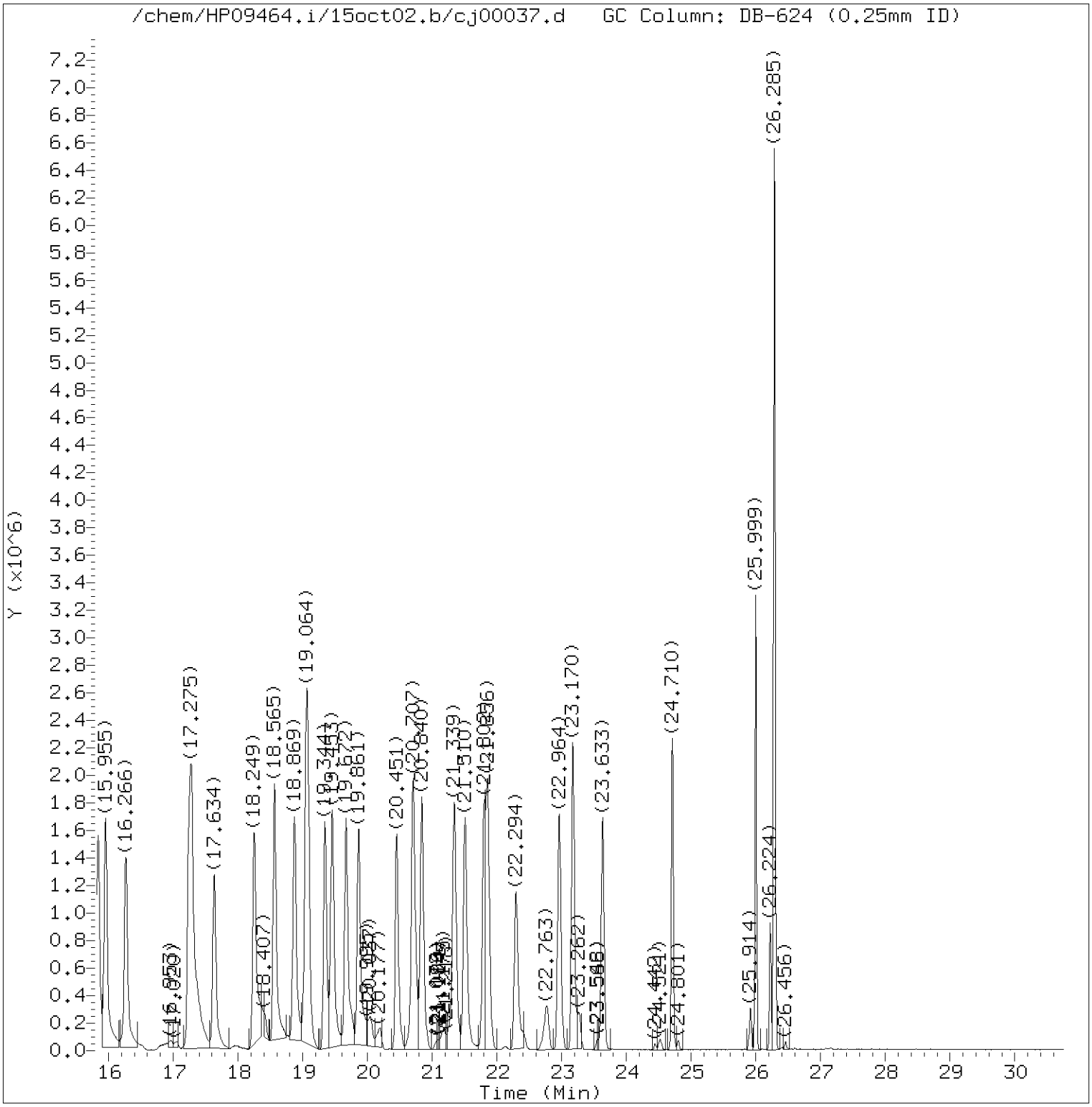
Target Revision 3.5

Data File: /chem/HP09464.i/15oct02.b/cj00037.d Instrument ID: HP09464.i
Injection date and time: 02-OCT-2015 18:59 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m Sublist used: 10215
Calibration date and time: 02-OCT-2015 19:53
Date, time and analyst ID of latest file update: 02-Oct-2015 19:53 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jacob E. Bailey
on 10/02/2015 at 21:32.
Target 3.5 esignature user ID: jeb07445




Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct02.b/cj00037.d Instrument ID: HP09464.i
Injection date and time: 02-OCT-2015 18:59 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m Sublist used: 10215
Calibration date and time: 02-OCT-2015 19:53
Date, time and analyst ID of latest file update: 02-Oct-2015 19:53 jeb07445

Sample Name: VSTD010 Lab Sample ID: VSTD010

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on 10/02/2015 at 21:32.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct02.b/cj00037.d  Instrument ID: HP09464.i
Injection date and time: 02-OCT-2015 18:59  Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m  Sublist used: 10215
Calibration date and time: 02-OCT-2015 19:53
Date, time and analyst ID of latest file update: 02-Oct-2015 19:53 jeb07445

Sample Name: VSTD010  Lab Sample ID: VSTD010

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 6) Vinyl Chloride | (1) | 2.219 | 62 | 1464275 | 12.237 |
| 29) Methyl t-Butyl Ether | (1) | 4.993 | 73 | 1566310 | 9.045 |
| 35) cis-1,2-Dichloroethene | (1) | 6.781 | 61 | 1439668 | 10.204 |
| 40)*Bromochloromethane | (1) | 7.207 | 130 | 613443 | 10.000 |
| 42) Chloroform | (1) | 7.408 | 83 | 1694354 | 8.855 |
| 46) Benzene | (2) | 8.399 | 78 | 2676534 | 10.877 |
| 47) 1,2-Dichloroethane | (2) | 8.430 | 62 | 1201264 | 7.555 |
| 51)*1,4-Difluorobenzene | (2) | 9.203 | 114 | 2212202 | 10.000 |
| 52) Trichloroethene | (2) | 9.671 | 130 | 996615 | 10.844 |
| 61) Toluene | (3) | 12.354 | 91 | 2276912 | 12.198 |
| 67) Tetrachloroethene | (3) | 13.577 | 166 | 1054166 | 13.184 |
| 70) 1,2-Dibromoethane | (3) | 14.343 | 107 | 1253348 | 11.221 |
| 71)*Chlorobenzene-d5 | (3) | 15.529 | 117 | 1908054 | 10.000 |
| 74) Ethylbenzene | (3) | 15.955 | 91 | 2488579 | 12.434 |
| 75) m/p-Xylene | (3) | 16.266 | 91 | 1737250 | 10.924 |
| 76) o-Xylene | (3) | 17.239 | 91 | 2065722 | 12.210 |
| 102) Naphthalene | (3) | 26.297 | 128 | 2388079 | 13.049 |

* = Compound is an internal standard.



Digitally signed by Jacob E. Bailey
on 10/02/2015 at 21:32.
Target 3.5 esignature user ID: jeb07445

# Lancaster Laboratories, Inc.
## Analysis Summary for GC/MS Volatiles in Air

VBLKC82

Data file: /chem/HP09464.i/15oct02.b/cj00039.d  Injection date and time: **02-OCT-2015 20:39**
Data file Sample Info. Line: VBLKC82;;C1527430AB;VBLKC82;0;3;BLANK;  Instrument ID: **HP09464.i**  Batch: **C1527430AB**
Date, time and analyst ID of latest file update: 02-Oct-2015 21:24 jeb07445

Blank Data file reference: **/chem/HP09464.i/15oct02.b/cj00039.d**

Method used: /chem/HP09464.i/15oct02.b/to-15.m  Sublist used: **all**
Calibration date and time (Last Method Edit): 02-OCT-2015 19:53
Mid Level Daily Calibration Standard Reference: **/chem/HP09464.i/15oct02.b/cj00037.d**

Sampling Media: Summa Canister  Matrix: AIR  On-Column Amount units: ppb(v)  In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa)  Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia  Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 250 cc  Actual injection Volume (IVa): 250 cc

**Analysis Comments:**

| Internal Standards | RT (+/-RT) | Scan | QIon | Area(+/- %Change) | Conc. (on column) | QC Flag | QC Limits |
|---|---|---|---|---|---|---|---|
| 40) Bromochloromethane | 7.225(-0.018) | 1010 | 130 | 543536 ( -11) | 10.00 | | 368066 - 858820 |
| 51) 1,4-Difluorobenzene | 9.221(-0.018) | 1338 | 114 | 1792445 ( -19) | 10.00 | | 1327322 - 3097082 |
| 71) Chlorobenzene-d5 | 15.536(-0.006) | 2376 | 117 | 1656561 ( -13) | 10.00 | | 1144833 - 2671275 |

| Target Compounds | I.S. Ref. | RT (+/-RRT) | QIon | Area | Conc. (on-column) | Conc. (in sample) | Blank Conc. | Qual. | Reporting Limit (in sample) | LOQ |
|---|---|---|---|---|---|---|---|---|---|---|
| 1) Propene | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 2) Dichlorodifluoromethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 3) Chlorodifluoromethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 4) Freon 114 | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 5) Chloromethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 6) Vinyl Chloride | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 7) 1,3-Butadiene | (1) | | | Not Detected | | | | | 0.4 | 2 |
| 8) Bromomethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 9) Chloroethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 10) Bromoethene | (1) | | | Not Detected | | | | | 0.4 | 2 |
| 11) Dichlorofluoromethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 12) Trichlorofluoromethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 13) Pentane | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 14) Ethanol | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 15) Freon123a | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 16) Acrolein | (1) | | | Not Detected | | | | | 1 | 2 |
| 17) 1,1-Dichloroethene | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 18) Freon 113 | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 19) Acetone | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 20) Methyl Iodide | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 21) Carbon Disulfide | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 22) Isopropanol | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 23) Acetonitrile | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 24) 3-Chloropropene | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 25) Methylene Chloride | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 26) tert-Butyl Alcohol | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 27) Acrylonitrile | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 28) trans-1,2-Dichloroethene | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 29) Methyl t-Butyl Ether | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 30) Hexane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 31) 1,1-Dichloroethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 32) Vinyl Acetate | (1) | | | Not Detected | | | | | 1 | 1 |
| 33) Di-Isopropyl Ether | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 34) Ethyl Tert-Butyl Ether | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 35) cis-1,2-Dichloroethene | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 36) 1,2-Dichloroethene (total) | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 37) 2-Butanone | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 38) Ethyl Acetate | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 39) Methyl Acrylate | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 41) Tetrahydrofuran | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 42) Chloroform | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 43) 1,1,1-Trichloroethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 44) Cyclohexane | (1) | | | Not Detected | | | | | 0.2 | 1 |

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## Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP09464.i/15oct02.b/cj00039.d Injection date and time: **02-OCT-2015 20:39**
Data file Sample Info. Line: VBLKC82;;C1527430AB;VBLKC82;0;3;BLANK; Instrument ID: **HP09464.i** Batch: **C1527430AB**
Date, time and analyst ID of latest file update: 02-Oct-2015 21:24 jeb07445

Blank Data file reference: **/chem/HP09464.i/15oct02.b/cj00039.d**

Method used: /chem/HP09464.i/15oct02.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 02-OCT-2015 19:53
Mid Level Daily Calibration Standard Reference: **/chem/HP09464.i/15oct02.b/cj00037.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 250 cc Actual injection Volume (IVa): 250 cc

| Target Compounds | I.S. Ref. | RT | (+/-RRT) | QIon | Area | Conc. (on-column) | Conc. (in sample) | Blank Conc. | Qual. | Reporting Limit (in sample) | LOQ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 45) Carbon Tetrachloride | (1) | | | | Not Detected | | | | | 0.2 | 1 |
| 46) Benzene | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 47) 1,2-Dichloroethane | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 48) Isooctane | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 49) Tert-Amyl Methyl Ether | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 50) Heptane | (2) | | | | Not Detected | | | | | 0.5 | 1 |
| 52) Trichloroethene | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 53) Ethyl Acrylate | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 54) 1,2-Dichloropropane | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 55) Dibromomethane | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 56) 1,4-Dioxane | (2) | | | | Not Detected | | | | | 0.5 | 1 |
| 57) Methyl Methacrylate | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 58) Bromodichloromethane | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 59) cis-1,3-Dichloropropene | (2) | | | | Not Detected | | | | | 0.2 | 1 |
| 60) 4-Methyl-2-Pentanone | (2) | | | | Not Detected | | | | | 0.5 | 2 |
| 61) Toluene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 62) Octane | (3) | | | | Not Detected | | | | | 0.5 | 1 |
| 63) trans-1,3-Dichloropropene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 64) 1,3-Dichloropropene (total) | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 65) Ethyl Methacrylate | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 66) 1,1,2-Trichloroethane | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 67) Tetrachloroethene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 68) 2-Hexanone | (3) | | | | Not Detected | | | | | 0.5 | 2 |
| 69) Dibromochloromethane | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 70) 1,2-Dibromoethane | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 72) Chlorobenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 73) 1,1,1,2-Tetrachloroethane | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 74) Ethylbenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 75) m/p-Xylene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 76) o-Xylene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 77) Xylene (total) | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 78) Styrene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 79) Bromoform | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 80) Cumene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 81) Bromobenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 82) 1,1,2,2-Tetrachloroethane | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 83) 1,2,3-Trichloropropane | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 84) n-Propylbenzene | (3) | | | | Not Detected | | | | | 0.5 | 1 |
| 85) 2-Chlorotoluene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 86) 4-Ethyltoluene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 87) 1,3,5-Trimethylbenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 88) Alpha Methyl Styrene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 89) tert-Butylbenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 90) 1,2,4-Trimethylbenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 91) sec-Butylbenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 92) 1,3-Dichlorobenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 93) 1,4-Dichlorobenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 94) p-Isopropyltoluene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 95) Benzyl Chloride | (3) | | | | Not Detected | | | | | 0.5 | 1 |
| 96) 1,2-Dichlorobenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 97) n-Butylbenzene | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 98) Hexachloroethane | (3) | | | | Not Detected | | | | | 0.5 | 2 |
| 99) 1,2-Dibromo-3-chloropropane | (3) | | | | Not Detected | | | | | 0.2 | 1 |
| 100) 1,2,4-Trichlorobenzene | (3) | | | | Not Detected | | | | | 0.5 | 2 |

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Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP09464.i/15oct02.b/cj00039.d Injection date and time: **02-OCT-2015 20:39**
Data file Sample Info. Line: VBLKC82;;C1527430AB;VBLKC82;0;3;BLANK; Instrument ID: **HP09464.i** Batch: **C1527430AB**
Date, time and analyst ID of latest file update: 02-Oct-2015 21:24 jeb07445

Blank Data file reference: **/chem/HP09464.i/15oct02.b/cj00039.d**

Method used: /chem/HP09464.i/15oct02.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 02-OCT-2015 19:53
Mid Level Daily Calibration Standard Reference: **/chem/HP09464.i/15oct02.b/cj00037.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

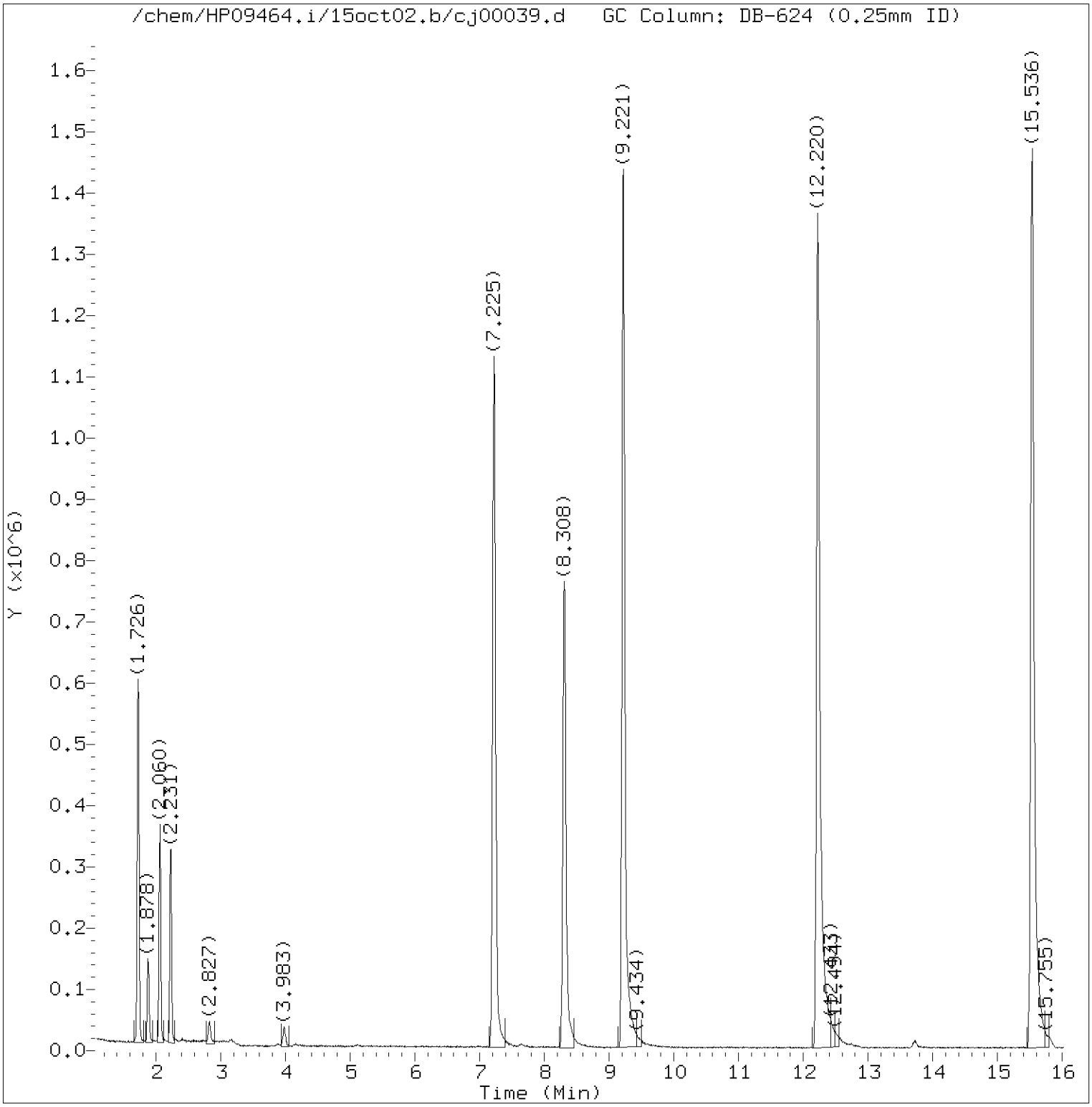
Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 250 cc Actual injection Volume (IVa): 250 cc

| Target Compounds | I.S. Ref. | RT | (+/-RRT) | QIon | Area | Conc. (on-column) | Conc. (in sample) | Blank Conc. | Qual. | Reporting Limit (in sample) | LOQ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 101) Hexachlorobutadiene | (3) | | | | Not Detected | | | | | 0.4 | 2 |
| 102) Naphthalene | (3) | | | | Not Detected | | | | | 0.4 | 1 |

Total number of targets = 99

Digitally signed by Jacob E. Bailey on 10/02/2015 at 21:32. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Mark A. Ratcliff on 10/08/2015 at 11:39. Parallax ID: mar00486




Total Ion Chromatogram (TIC)

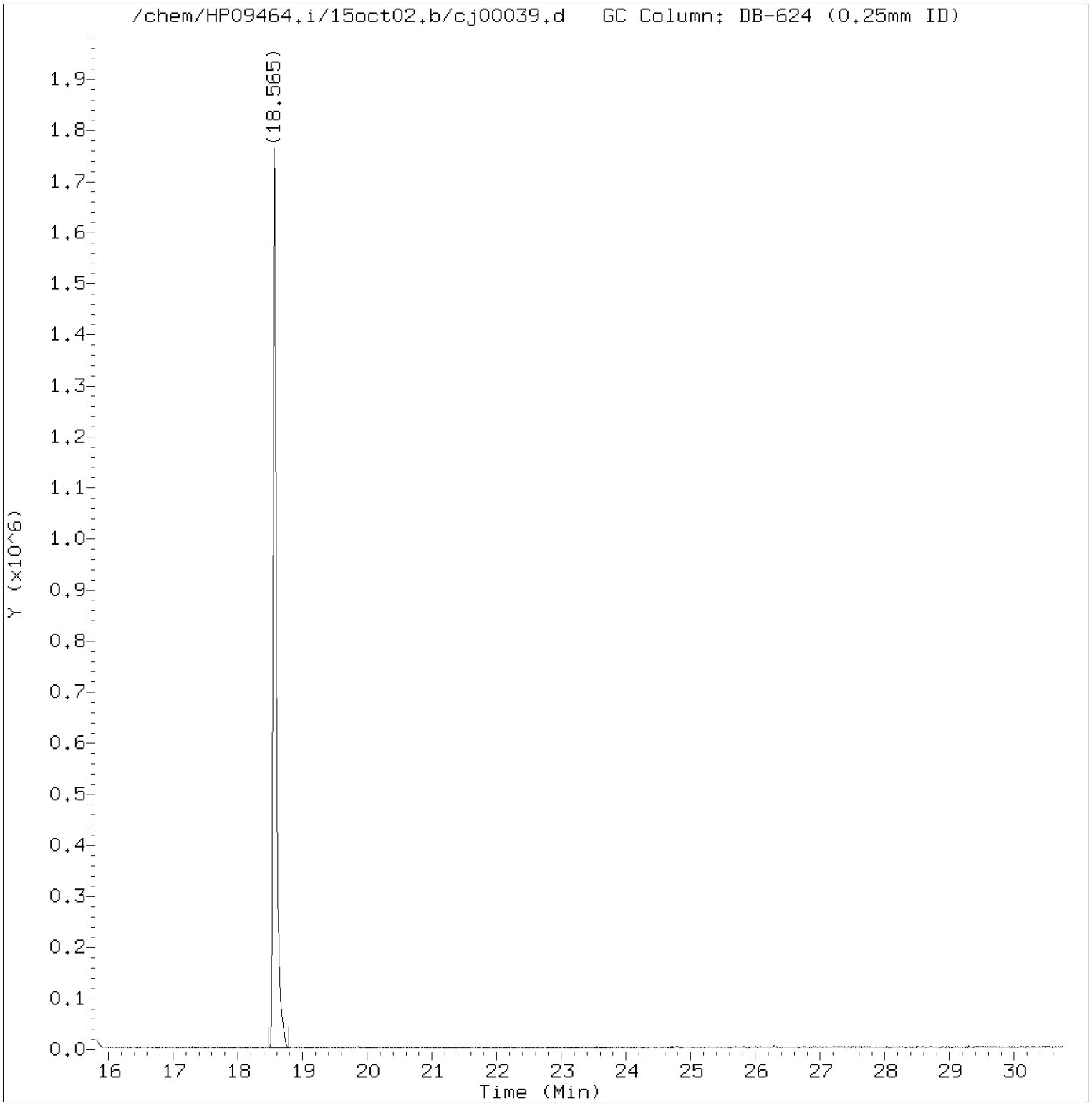
Target Revision 3.5

Data File: /chem/HP09464.i/15oct02.b/cj00039.d Instrument ID: HP09464.i
Injection date and time: 02-OCT-2015 20:39 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m Sublist used: all
Calibration date and time: 02-OCT-2015 19:53
Date, time and analyst ID of latest file update: 02-Oct-2015 21:24 jeb07445

Sample Name: VBLKC82 Lab Sample ID: VBLKC82

Digitally signed by Jacob E. Bailey
on 10/02/2015 at 21:32.
Target 3.5 esignature user ID: jeb07445




Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct02.b/cj00039.d Instrument ID: HP09464.i
Injection date and time: 02-OCT-2015 20:39 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m Sublist used: all
Calibration date and time: 02-OCT-2015 19:53
Date, time and analyst ID of latest file update: 02-Oct-2015 21:24 jeb07445

Sample Name: VBLKC82 Lab Sample ID: VBLKC82

Digitally signed by Jacob E. Bailey
on 10/02/2015 at 21:32.
Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct02.b/cj00039.d Instrument ID: HP09464.i
Injection date and time: 02-OCT-2015 20:39 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m Sublist used: all
Calibration date and time: 02-OCT-2015 19:53
Date, time and analyst ID of latest file update: 02-Oct-2015 21:24 jeb07445

Sample Name: VBLKC82 Lab Sample ID: VBLKC82

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 40)*Bromochloromethane | (1) | 7.225 | 130 | 543536 | 10.000 |
| 51)*1,4-Difluorobenzene | (2) | 9.221 | 114 | 1792445 | 10.000 |
| 71)*Chlorobenzene-d5 | (3) | 15.536 | 117 | 1656561 | 10.000 |

* = Compound is an internal standard.



Digitally signed by Jacob E. Bailey
on 10/02/2015 at 21:32.
Target 3.5 esignature user ID: jeb07445

# Lancaster Laboratories, Inc.
## Analysis Summary for GC/MS Volatiles in Air

cc988

Data file: /chem/HP09464.i/15oct02.b/cj00051.d  Injection date and time: **03-OCT-2015 06:19**
Data file Sample Info. Line: cc988;250;C1527430AB;cc988;0;3;;  Instrument ID: **HP09464.i**  Batch: **C1527430AB**
Date, time and analyst ID of latest file update: 05-Oct-2015 09:31 jbs01304

Blank Data file reference: **/chem/HP09464.i/15oct02.b/cj00039.d**

Method used: /chem/HP09464.i/15oct02.b/to-15.m  Sublist used: **all**
Calibration date and time (Last Method Edit): 05-OCT-2015 08:55
Mid Level Daily Calibration Standard Reference: **/chem/HP09464.i/15oct02.b/cj00037.d**

Sampling Media: Summa Canister  Matrix: AIR  On-Column Amount units: ppb(v)  In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa)  Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia  Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 250 cc  Actual injection Volume (IVa): 250 cc

**Analysis Comments:**

| Internal Standards | RT (+/-RT) | Scan | QIon | Area(+/- %Change) | Conc. (on column) | QC Flag | QC Limits |
|---|---|---|---|---|---|---|---|
| 40) Bromochloromethane | 7.225(-0.018) | 1010 | 130 | 417498 ( -32) | 10.00 | | 368066 - 858820 |
| 51) 1,4-Difluorobenzene | 9.221(-0.018) | 1338 | 114 | 1536000 ( -31) | 10.00 | | 1327322 - 3097082 |
| 71) Chlorobenzene-d5 | 15.542(-0.012) | 2377 | 117 | 1405319 ( -26) | 10.00 | | 1144833 - 2671275 |

| Target Compounds | I.S. Ref. | RT (+/-RRT) | QIon | Area | Conc. (on-column) | Conc. (in sample) | Blank Conc. | Qual. | Reporting Limit (in sample) | LOQ |
|---|---|---|---|---|---|---|---|---|---|---|
| 1) Propene | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 2) Dichlorodifluoromethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 3) Chlorodifluoromethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 4) Freon 114 | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 5) Chloromethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 6) Vinyl Chloride | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 7) 1,3-Butadiene | (1) | | | Not Detected | | | | | 0.4 | 2 |
| 8) Bromomethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 9) Chloroethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 10) Bromoethene | (1) | | | Not Detected | | | | | 0.4 | 2 |
| 11) Dichlorofluoromethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 12) Trichlorofluoromethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 13) Pentane | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 14) Ethanol | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 15) Freon123a | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 16) Acrolein | (1) | | | Not Detected | | | | | 1 | 2 |
| 17) 1,1-Dichloroethene | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 18) Freon 113 | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 19) Acetone | (1) | 3.855(-0.007) | 43 | 163006 | 1.906 | 1.91 | | J | 0.5 | 2 |
| 20) Methyl Iodide | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 21) Carbon Disulfide | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 22) Isopropanol | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 23) Acetonitrile | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 24) 3-Chloropropene | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 25) Methylene Chloride | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 26) tert-Butyl Alcohol | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 27) Acrylonitrile | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 28) trans-1,2-Dichloroethene | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 29) Methyl t-Butyl Ether | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 30) Hexane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 31) 1,1-Dichloroethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 32) Vinyl Acetate | (1) | | | Not Detected | | | | | 1 | 1 |
| 33) Di-Isopropyl Ether | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 34) Ethyl Tert-Butyl Ether | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 35) cis-1,2-Dichloroethene | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 36) 1,2-Dichloroethene (total) | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 37) 2-Butanone | (1) | | | Not Detected | | | | | 0.5 | 2 |
| 38) Ethyl Acetate | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 39) Methyl Acrylate | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 41) Tetrahydrofuran | (1) | | | Not Detected | | | | | 0.5 | 1 |
| 42) Chloroform | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 43) 1,1,1-Trichloroethane | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 44) Cyclohexane | (1) | | | Not Detected | | | | | 0.2 | 1 |

Digitally signed by Jeffrey B. Smith on 10/05/2015 at 09:32. Target 3.5 esignature user ID: jbs01304

# Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP09464.i/15oct02.b/cj00051.d Injection date and time: **03-OCT-2015 06:19**
Data file Sample Info. Line: cc988;250;C1527430AB;cc988;0;3;; Instrument ID: **HP09464.i** Batch: **C1527430AB**
Date, time and analyst ID of latest file update: 05-Oct-2015 09:31 jbs01304

Blank Data file reference: **/chem/HP09464.i/15oct02.b/cj00039.d**

Method used: /chem/HP09464.i/15oct02.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 05-OCT-2015 08:55
Mid Level Daily Calibration Standard Reference: **/chem/HP09464.i/15oct02.b/cj00037.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 250 cc Actual injection Volume (IVa): 250 cc

| Target Compounds | I.S. Ref. | RT (+/-RRT) | QIon | Area | Conc. (on-column) | Conc. (in sample) | Blank Conc. | Qual. | Reporting Limit (in sample) | LOQ |
|---|---|---|---|---|---|---|---|---|---|---|
| 45) Carbon Tetrachloride | (1) | | | Not Detected | | | | | 0.2 | 1 |
| 46) Benzene | (2) | | | Not Detected | | | | | 0.2 | 1 |
| 47) 1,2-Dichloroethane | (2) | | | Not Detected | | | | | 0.2 | 1 |
| 48) Isooctane | (2) | | | Not Detected | | | | | 0.2 | 1 |
| 49) Tert-Amyl Methyl Ether | (2) | | | Not Detected | | | | | 0.2 | 1 |
| 50) Heptane | (2) | | | Not Detected | | | | | 0.5 | 1 |
| 52) Trichloroethene | (2) | | | Not Detected | | | | | 0.2 | 1 |
| 53) Ethyl Acrylate | (2) | | | Not Detected | | | | | 0.2 | 1 |
| 54) 1,2-Dichloropropane | (2) | | | Not Detected | | | | | 0.2 | 1 |
| 55) Dibromomethane | (2) | | | Not Detected | | | | | 0.2 | 1 |
| 56) 1,4-Dioxane | (2) | | | Not Detected | | | | | 0.5 | 1 |
| 57) Methyl Methacrylate | (2) | | | Not Detected | | | | | 0.2 | 1 |
| 58) Bromodichloromethane | (2) | | | Not Detected | | | | | 0.2 | 1 |
| 59) cis-1,3-Dichloropropene | (2) | | | Not Detected | | | | | 0.2 | 1 |
| 60) 4-Methyl-2-Pentanone | (2) | | | Not Detected | | | | | 0.5 | 2 |
| 61) Toluene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 62) Octane | (3) | | | Not Detected | | | | | 0.5 | 1 |
| 63) trans-1,3-Dichloropropene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 64) 1,3-Dichloropropene (total) | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 65) Ethyl Methacrylate | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 66) 1,1,2-Trichloroethane | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 67) Tetrachloroethene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 68) 2-Hexanone | (3) | | | Not Detected | | | | | 0.5 | 2 |
| 69) Dibromochloromethane | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 70) 1,2-Dibromoethane | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 72) Chlorobenzene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 73) 1,1,1,2-Tetrachloroethane | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 74) Ethylbenzene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 75) m/p-Xylene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 76) o-Xylene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 77) Xylene (total) | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 78) Styrene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 79) Bromoform | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 80) Cumene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 81) Bromobenzene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 82) 1,1,2,2-Tetrachloroethane | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 83) 1,2,3-Trichloropropane | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 84) n-Propylbenzene | (3) | | | Not Detected | | | | | 0.5 | 1 |
| 85) 2-Chlorotoluene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 86) 4-Ethyltoluene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 87) 1,3,5-Trimethylbenzene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 88) Alpha Methyl Styrene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 89) tert-Butylbenzene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 90) 1,2,4-Trimethylbenzene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 91) sec-Butylbenzene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 92) 1,3-Dichlorobenzene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 93) 1,4-Dichlorobenzene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 94) p-Isopropyltoluene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 95) Benzyl Chloride | (3) | | | Not Detected | | | | | 0.5 | 1 |
| 96) 1,2-Dichlorobenzene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 97) n-Butylbenzene | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 98) Hexachloroethane | (3) | | | Not Detected | | | | | 0.5 | 2 |
| 99) 1,2-Dibromo-3-chloropropane | (3) | | | Not Detected | | | | | 0.2 | 1 |
| 100) 1,2,4-Trichlorobenzene | (3) | | | Not Detected | | | | | 0.5 | 2 |

Digitally signed by Jeffrey B. Smith on 10/05/2015 at 09:32. Target 3.5 esignature user ID: jbs01304

## Analysis Summary for GC/MS Volatiles in Air

Data file: /chem/HP09464.i/15oct02.b/cj00051.d Injection date and time: **03-OCT-2015 06:19**
Data file Sample Info. Line: cc988;250;C1527430AB;cc988;0;3;; Instrument ID: **HP09464.i** Batch: **C1527430AB**
Date, time and analyst ID of latest file update: 05-Oct-2015 09:31 jbs01304

Blank Data file reference: **/chem/HP09464.i/15oct02.b/cj00039.d**

Method used: /chem/HP09464.i/15oct02.b/to-15.m Sublist used: **all**
Calibration date and time (Last Method Edit): 05-OCT-2015 08:55
Mid Level Daily Calibration Standard Reference: **/chem/HP09464.i/15oct02.b/cj00037.d**

Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

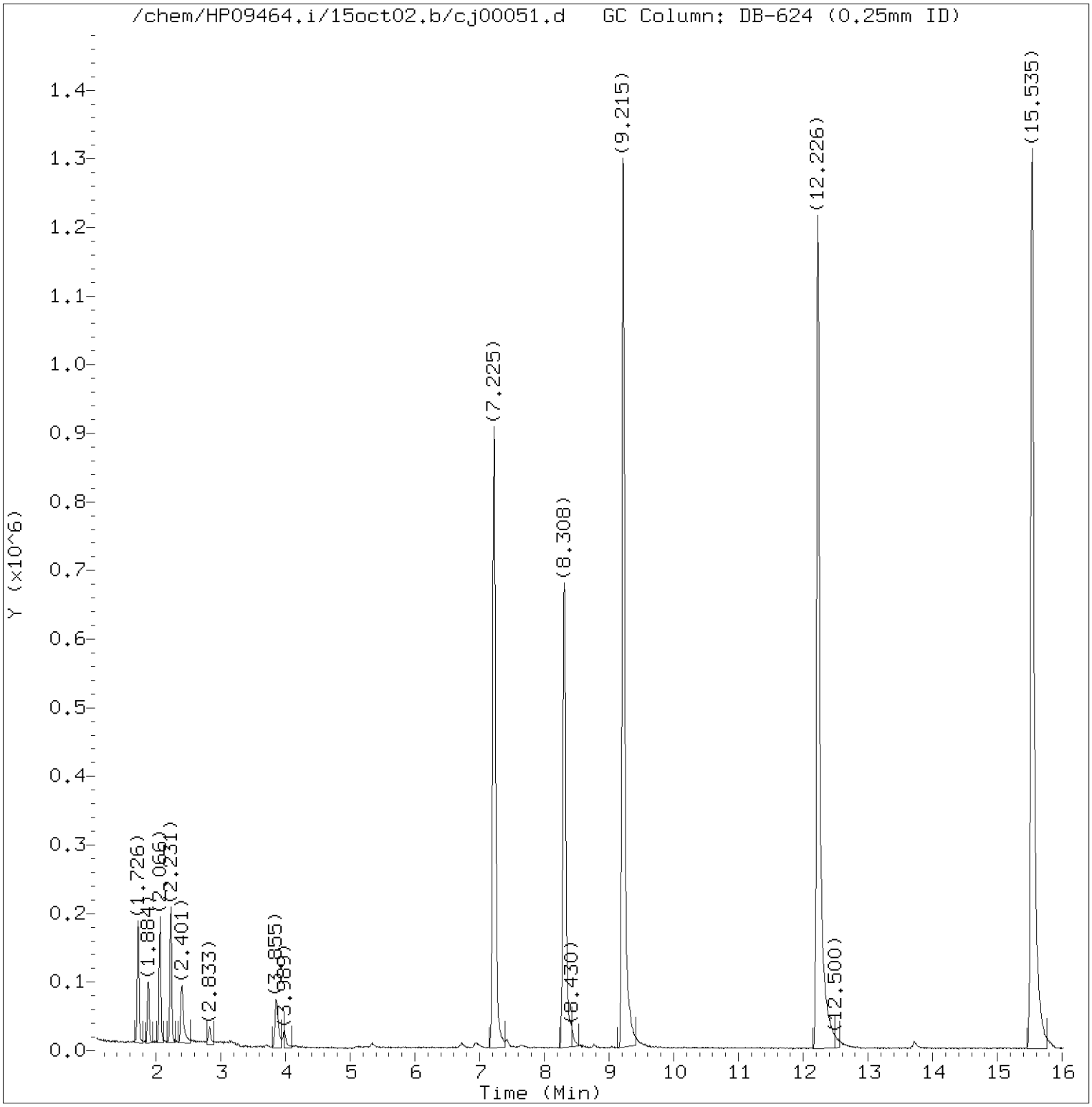
Sample Concentration Formula: On-Column Amount * DF * (Xa/Ya)*(IVn/IVa) Dilution Factor (DF): 1
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia
Nominal Injection Volume (IVn): 250 cc Actual injection Volume (IVa): 250 cc

| Target Compounds | I.S. Ref. | RT | (+/-RRT) | QIon | Area | Conc. (on-column) | Conc. (in sample) | Blank Conc. | Qual. | Reporting Limit (in sample) | LOQ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 101) Hexachlorobutadiene | (3) | | | | Not Detected | | | | | 0.4 | 2 |
| 102) Naphthalene | (3) | | | | Not Detected | | | | | 0.4 | 1 |

Total number of targets = 99

Digitally signed by Jeffrey B. Smith on 10/05/2015 at 09:32. Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Mark A. Ratcliff on 10/08/2015 at 11:48. Parallax ID: mar00486




Total Ion Chromatogram (TIC)

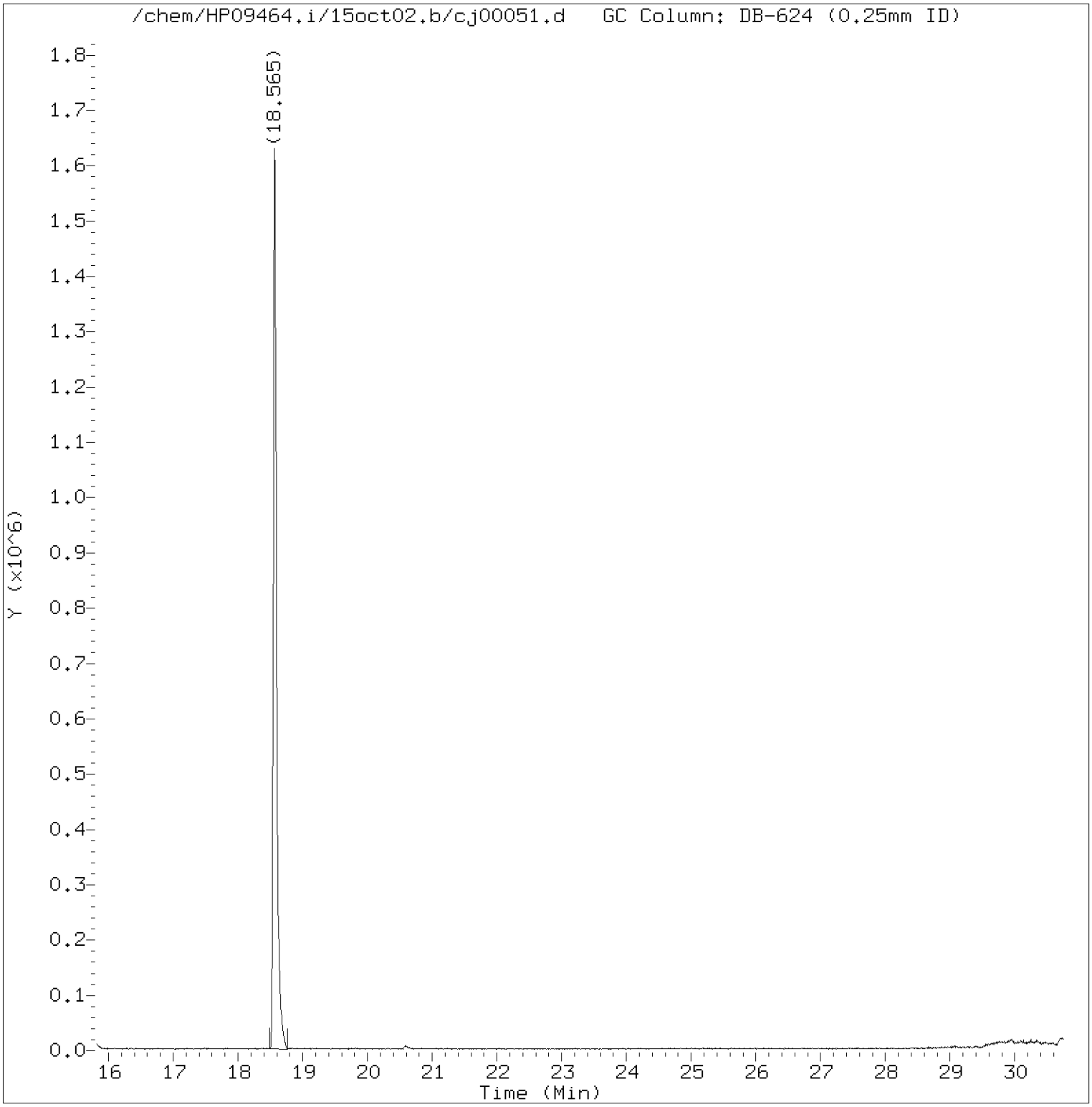
Target Revision 3.5

Data File: /chem/HP09464.i/15oct02.b/cj00051.d Instrument ID: HP09464.i
Injection date and time: 03-OCT-2015 06:19 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m Sublist used: all
Calibration date and time: 05-OCT-2015 08:55
Date, time and analyst ID of latest file update: 05-Oct-2015 09:31 jbs01304

Sample Name: cc988 Lab Sample ID: cc988

Digitally signed by Jeffrey B. Smith
on 10/05/2015 at 09:32.
Target 3.5 esignature user ID: jbs01304




Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct02.b/cj00051.d Instrument ID: HP09464.i
Injection date and time: 03-OCT-2015 06:19 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m Sublist used: all
Calibration date and time: 05-OCT-2015 08:55
Date, time and analyst ID of latest file update: 05-Oct-2015 09:31 jbs01304

Sample Name: cc988 Lab Sample ID: cc988

Digitally signed by Jeffrey B. Smith
on 10/05/2015 at 09:32.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct02.b/cj00051.d  Instrument ID: HP09464.i
Injection date and time: 03-OCT-2015 06:19  Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m  Sublist used: all
Calibration date and time: 05-OCT-2015 08:55
Date, time and analyst ID of latest file update: 05-Oct-2015 09:31 jbs01304

Sample Name: cc988  Lab Sample ID: cc988

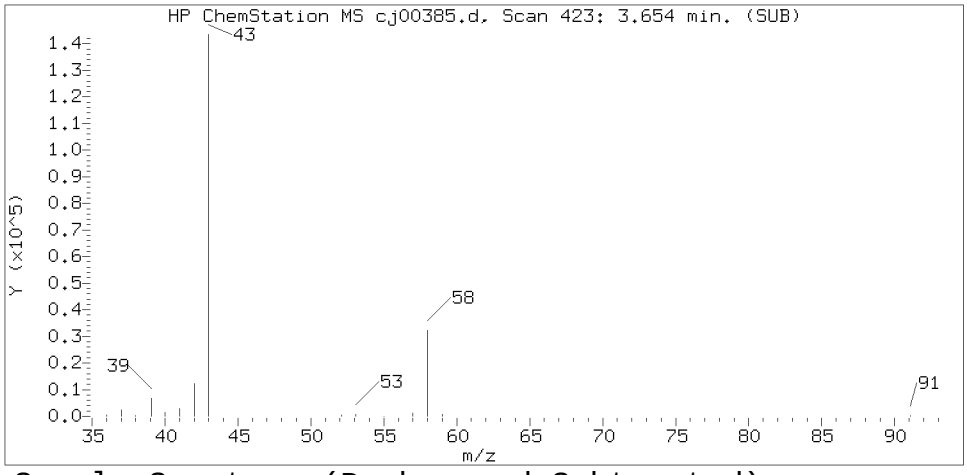
| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 19) Acetone | (1) | 3.855 | 43 | 163006 | 1.906 |
| 40)*Bromochloromethane | (1) | 7.225 | 130 | 417498 | 10.000 |
| 51)*1,4-Difluorobenzene | (2) | 9.221 | 114 | 1536000 | 10.000 |
| 71)*Chlorobenzene-d5 | (3) | 15.542 | 117 | 1405319 | 10.000 |

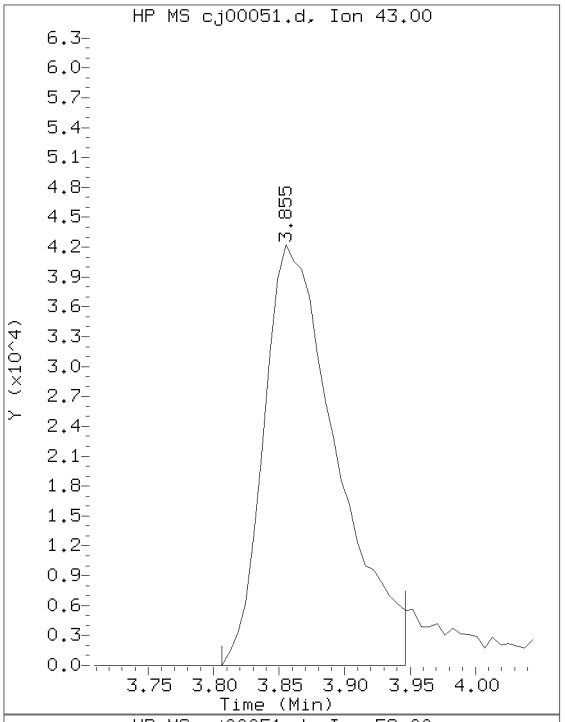
* = Compound is an internal standard.



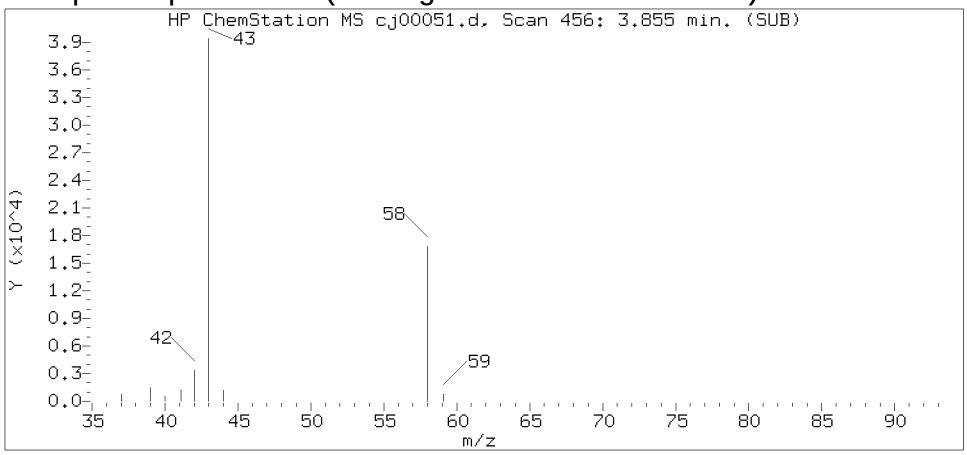
Digitally signed by Jeffrey B. Smith
on 10/05/2015 at 09:32.
Target 3.5 esignature user ID: jbs01304

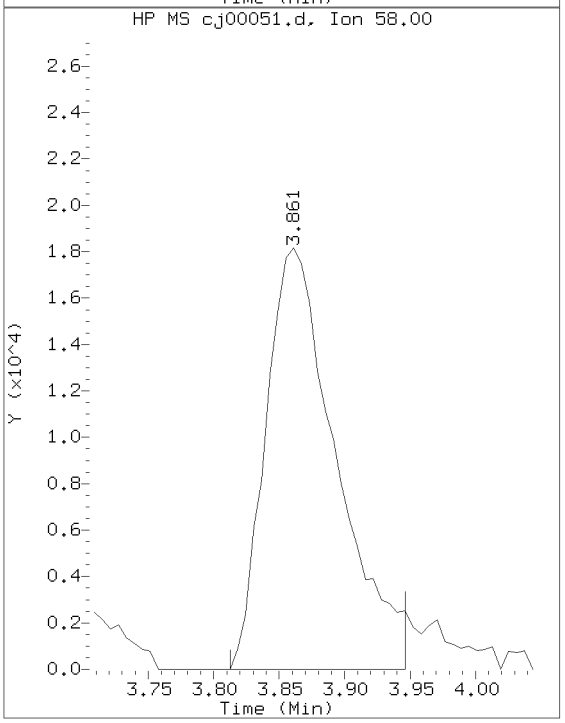
Reference Standard Spectrum for Acetone



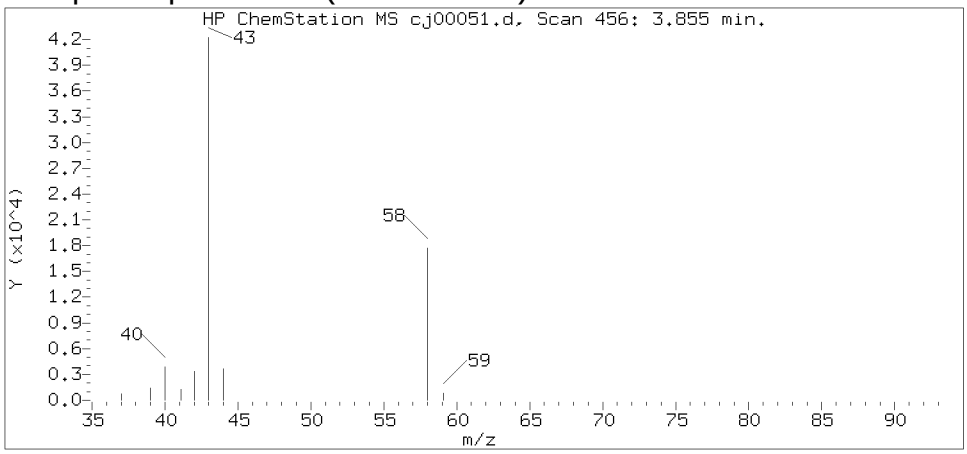




Sample Spectrum (Background Subtracted)




Sample Spectrum (Unaltered)




Data File: /chem/HP09464.i/15oct02.b/cj00051.d Instrument ID: HP09464.i
Injection date and time: 03-OCT-2015 06:19 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m Sublist used: all
Calibration date and time: 05-OCT-2015 08:55
Date, time and analyst ID of latest file update: 05-Oct-2015 09:31 jbs01304

Sample Name: cc988 Lab Sample ID: cc988

Compound Number : 19
Compound Name : Acetone
Scan Number : 456
Retention Time (minutes): 3.855
Relative Retention Time :-0.00793
Quant Ion : 43.00
Area (flag) : 163006
Concentration (ppb(v)) : 1.9064

Digitally signed by Jeffrey B. Smith on 10/05/2015 at 09:32.
Target 3.5 esignature user ID: jbs01304

Lancaster Laboratories
Volatiles in Air
Runlog for Agilent GC/MS System HP10145 **HP #04**

Data Directory Path is - C:\msdchem\1\data\15sep11\

| OPERATOR | FILE | LLI# | DATE | TIME | BATCH | DILUTION FACTOR |
|---|---|---|---|---|---|---|
| jeb07445 | DI00190.D | 50NGBFB | 09/11/2015 | 16:22 | | |
| jeb07445 | DI00191.D | VSTD025 | 09/11/2015 | 16:53 | | |
| jeb07445 | DI00192.D | VSTD070 | 09/11/2015 | 17:39 | | |
| jeb07445 | DI00193.D | VBLKD62 | 09/11/2015 | 18:25 | D1525330AA | |
| jeb07445 | DI00194.D | VBLKD62 | 09/11/2015 | 19:10 | D1525330AA | |
| jeb07445 | DI00195.D | VSTD0.50 | 09/11/2015 | 19:56 | | |
| jeb07445 | DI00196.D | VSTD0.50 | 09/11/2015 | 20:42 | | |
| jeb07445 | DI00197.D | VSTD001 | 09/11/2015 | 21:26 | | |
| jeb07445 | DI00198.D | VSTD001 | 09/11/2015 | 22:09 | | |
| jeb07445 | DI00199.D | VSTD002 | 09/11/2015 | 22:53 | | |
| jeb07445 | DI00200.D | VSTD005 | 09/11/2015 | 23:37 | | |
| jeb07445 | DI00201.D | VSTD010 | 09/12/2015 | 00:23 | | |
| jeb07445 | DI00202.D | VBLKD62 | 09/12/2015 | 01:08 | D1525430AA | |
| jeb07445 | DI00203.D | VBLKD62 | 09/12/2015 | 01:54 | D1525430AA | |
| jeb07445 | DI00204.D | LCSD62 | 09/12/2015 | 02:39 | D1525430AA | |
| jeb07445 | DI00205.D | LCSDD62 | 09/12/2015 | 03:25 | D1525430AA | |
| jeb07445 | DI00206.D | LCSD62 | 09/12/2015 | 04:11 | D1525430AA | |
| jeb07445 | DI00207.D | mdlv0.5 | 09/12/2015 | 04:56 | D1525430AA | |
| jeb07445 | DI00208.D | mdlv0.2 | 09/12/2015 | 05:40 | D1525430AA | |

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKD62 |
| Canister ID: | N/A | Lab File ID: | di00203.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 09/12/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 01:54 |
| Instrument ID: | 10145 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 115-07-1 | Propene | 0.50 | U |
| 75-71-8 | Dichlorodifluoromethane | 0.50 | U |
| 75-45-6 | Chlorodifluoromethane | 0.20 | U |
| 76-14-2 | Freon 114 | 0.20 | U |
| 74-87-3 | Chloromethane | 0.50 | U |
| 75-01-4 | Vinyl Chloride | 0.20 | U |
| 106-99-0 | 1,3-Butadiene | 0.40 | U |
| 74-83-9 | Bromomethane | 0.20 | U |
| 75-00-3 | Chloroethane | 0.20 | U |
| 593-60-2 | Bromoethene | 0.40 | U |
| 75-43-4 | Dichlorofluoromethane | 0.20 | U |
| 75-69-4 | Trichlorofluoromethane | 0.20 | U |
| 109-66-0 | Pentane | 0.20 | U |
| 64-17-5 | Ethanol | 0.50 | U |
| 107-02-8 | Acrolein | 0.50 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.20 | U |
| 76-13-1 | Freon 113 | 0.50 | U |
| 67-64-1 | Acetone | 0.50 | U |
| 74-88-4 | Methyl Iodide | 0.20 | U |
| 75-15-0 | Carbon Disulfide | 0.50 | U |
| 67-63-0 | Isopropanol | 0.50 | U |
| 75-05-8 | Acetonitrile | 0.50 | U |
| 107-05-1 | 3-Chloropropene | 0.20 | U |
| 75-09-2 | Methylene Chloride | 0.50 | U |

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKD62 |
| Canister ID: | N/A | Lab File ID: | di00203.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 09/12/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 01:54 |
| Instrument ID: | 10145 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 75-65-0 | tert-Butyl Alcohol | 0.50 | U |
| 107-13-1 | Acrylonitrile | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.20 | U |
| 1634-04-4 | Methyl t-Butyl Ether | 0.20 | U |
| 110-54-3 | Hexane | 0.20 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.20 | U |
| 108-05-4 | Vinyl Acetate | 1.0 | U |
| 108-20-3 | Di-Isopropyl Ether | 0.20 | U |
| 637-92-3 | Ethyl Tert-Butyl Ether | 0.20 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.20 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 0.20 | U |
| 78-93-3 | 2-Butanone | 0.50 | U |
| 141-78-6 | Ethyl Acetate | 0.50 | U |
| 96-33-3 | Methyl Acrylate | 0.20 | U |
| 109-99-9 | Tetrahydrofuran | 0.50 | U |
| 67-66-3 | Chloroform | 0.20 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.20 | U |
| 110-82-7 | Cyclohexane | 0.20 | U |
| 56-23-5 | Carbon Tetrachloride | 0.20 | U |
| 71-43-2 | Benzene | 0.20 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.20 | U |
| 540-84-1 | Isooctane | 0.20 | U |
| 994-05-8 | Tert-Amyl Methyl Ether | 0.20 | U |
| 142-82-5 | Heptane | 0.20 | U |

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKD62 |
| Canister ID: | N/A | Lab File ID: | di00203.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 09/12/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 01:54 |
| Instrument ID: | 10145 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 79-01-6 | Trichloroethene | 0.20 | U |
| 140-88-5 | Ethyl Acrylate | 0.20 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.20 | U |
| 74-95-3 | Dibromomethane | 0.20 | U |
| 123-91-1 | 1,4-Dioxane | 0.50 | U |
| 80-62-6 | Methyl Methacrylate | 0.50 | U |
| 75-27-4 | Bromodichloromethane | 0.20 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.20 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 0.50 | U |
| 108-88-3 | Toluene | 0.20 | U |
| 111-65-9 | Octane | 0.20 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.20 | U |
| 542-75-6 | 1,3-Dichloropropene (total) | 0.20 | U |
| 97-63-2 | Ethyl Methacrylate | 0.20 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.20 | U |
| 127-18-4 | Tetrachloroethene | 0.20 | U |
| 591-78-6 | 2-Hexanone | 0.50 | U |
| 124-48-1 | Dibromochloromethane | 0.20 | U |
| 106-93-4 | 1,2-Dibromoethane | 0.20 | U |
| 108-90-7 | Chlorobenzene | 0.20 | U |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.20 | U |
| 100-41-4 | Ethylbenzene | 0.20 | U |
| 179601-23-1 | m/p-Xylene | 0.20 | U |
| 95-47-6 | o-Xylene | 0.20 | U |

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKD62 |
| Canister ID: | N/A | Lab File ID: | di00203.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 09/12/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 01:54 |
| Instrument ID: | 10145 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 1330-20-7 | Xylene (total) | 0.20 | U |
| 100-42-5 | Styrene | 0.20 | U |
| 75-25-2 | Bromoform | 0.20 | U |
| 98-82-8 | Cumene | 0.20 | U |
| 108-86-1 | Bromobenzene | 0.20 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.20 | U |
| 96-18-4 | 1,2,3-Trichloropropane | 0.20 | U |
| 103-65-1 | n-Propylbenzene | 0.20 | U |
| 95-49-8 | 2-Chlorotoluene | 0.20 | U |
| 622-96-8 | 4-Ethyltoluene | 0.20 | U |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.20 | U |
| 98-83-9 | Alpha Methyl Styrene | 0.20 | U |
| 98-06-6 | tert-Butylbenzene | 0.20 | U |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.20 | U |
| 135-98-8 | sec-Butylbenzene | 0.20 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.20 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.20 | U |
| 99-87-6 | p-Isopropyltoluene | 0.20 | U |
| 100-44-7 | Benzyl Chloride | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.20 | U |
| 104-51-8 | n-Butylbenzene | 0.20 | U |
| 67-72-1 | Hexachloroethane | 0.20 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 0.20 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKD62 |
| Canister ID: | N/A | Lab File ID: | di00203.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 09/12/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 01:54 |
| Instrument ID: | 10145 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 87-68-3 | Hexachlorobutadiene | 0.40 | U |
| 91-20-3 | Naphthalene | 0.50 | U |

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 10145 LCS File ID: di00204.d LCSD File ID: di00205.d

Batch: D1525430AA LCS Injected: 09/12/2015 LCSD Injected: 09/12/2015

Method: EPA TO-15 LCS Client ID: LCSD62 LCSD Client ID: LCSDD62

Dilution Factor: 1

| COMPOUND | SPIKE LEVEL | LCS CONC. (ppb(v)) | LCSD CONC. (ppb(v)) | LCS %REC | LCSD %REC | RANGE | %RPD | RPD MAX | IN SPEC |
|---|---|---|---|---|---|---|---|---|---|
| Propene | 11.00 | 8.82 | 8.85 | 80 | 80 | 41-129 | 0 | 25 | YES |
| Dichlorodifluoromethane | 10.00 | 9.08 | 8.73 | 91 | 87 | 61-149 | 4 | 25 | YES |
| Freon 114 | 10.20 | 8.72 | 8.50 | 86 | 83 | 63-123 | 3 | 25 | YES |
| Chloromethane | 10.30 | 7.47 | 7.30 | 73 | 71 | 54-118 | 2 | 25 | YES |
| Vinyl Chloride | 10.20 | 9.02 | 8.88 | 88 | 87 | 70-130 | 2 | 25 | YES |
| 1,3-Butadiene | 10.50 | 9.04 | 8.86 | 86 | 84 | 57-138 | 2 | 25 | YES |
| Bromomethane | 10.10 | 8.66 | 8.41 | 86 | 83 | 70-130 | 3 | 25 | YES |
| Chloroethane | 10.00 | 8.73 | 8.48 | 87 | 85 | 63-119 | 3 | 25 | YES |
| Trichlorofluoromethane | 10.00 | 8.93 | 8.62 | 89 | 86 | 70-130 | 3 | 25 | YES |
| Ethanol | 10.60 | 7.53 | 7.10 | 71 | 67 | 10-175 | 6 | 25 | YES |
| Acrolein | 10.90 | 9.39 | 9.11 | 86 | 84 | 43-141 | 3 | 25 | YES |
| 1,1-Dichloroethene | 10.60 | 9.77 | 9.45 | 92 | 89 | 61-128 | 3 | 25 | YES |
| Freon 113 | 10.50 | 9.19 | 8.84 | 87 | 84 | 63-114 | 4 | 25 | YES |
| Acetone | 10.70 | 9.73 | 9.30 | 91 | 87 | 61-134 | 4 | 25 | YES |
| Carbon Disulfide | 10.20 | 8.82 | 8.53 | 87 | 84 | 55-121 | 3 | 25 | YES |
| Isopropanol | 11.00 | 8.00 | 7.96 | 73 | 72 | 55-152 | 0 | 25 | YES |
| Methylene Chloride | 10.60 | 10.43 | 10.01 | 98 | 94 | 70-130 | 4 | 25 | YES |
| trans-1,2-Dichloroethene | 10.50 | 10.59 | 10.19 | 101 | 97 | 66-121 | 4 | 25 | YES |
| Methyl t-Butyl Ether | 10.70 | 10.84 | 10.47 | 101 | 98 | 52-129 | 4 | 25 | YES |
| Hexane | 10.80 | 9.47 | 9.19 | 88 | 85 | 63-117 | 3 | 25 | YES |
| 1,1-Dichloroethane | 10.50 | 9.39 | 9.03 | 89 | 86 | 67-124 | 4 | 25 | YES |
| Vinyl Acetate | 10.80 | 10.87 | 10.51 | 101 | 97 | 45-162 | 3 | 25 | YES |
| cis-1,2-Dichloroethene | 10.60 | 9.49 | 9.19 | 90 | 87 | 65-121 | 3 | 25 | YES |
| 2-Butanone | 10.80 | 10.66 | 10.15 | 99 | 94 | 60-135 | 5 | 25 | YES |
| Ethyl Acetate | 10.60 | 8.84 | 8.57 | 83 | 81 | 51-131 | 3 | 25 | YES |
| Tetrahydrofuran | 10.90 | 10.01 | 9.70 | 92 | 89 | 53-134 | 3 | 25 | YES |
| Chloroform | 10.60 | 9.46 | 8.94 | 89 | 84 | 70-130 | 6 | 25 | YES |
| 1,1,1-Trichloroethane | 10.50 | 9.45 | 8.91 | 90 | 85 | 70-130 | 6 | 25 | YES |
| Cyclohexane | 10.60 | 9.63 | 9.24 | 91 | 87 | 63-123 | 4 | 25 | YES |
| Carbon Tetrachloride | 10.40 | 9.87 | 9.23 | 95 | 89 | 70-130 | 7 | 25 | YES |
| Benzene | 10.50 | 9.48 | 8.96 | 90 | 85 | 70-130 | 6 | 25 | YES |
| 1,2-Dichloroethane | 10.50 | 9.59 | 9.03 | 91 | 86 | 70-130 | 6 | 25 | YES |
| Heptane | 10.70 | 9.35 | 8.88 | 87 | 83 | 56-123 | 5 | 25 | YES |
| Trichloroethene | 10.50 | 9.18 | 8.80 | 87 | 84 | 70-130 | 4 | 25 | YES |
| 1,2-Dichloropropane | 10.70 | 9.13 | 8.67 | 85 | 81 | 70-130 | 5 | 25 | YES |
| 1,4-Dioxane | 10.50 | 10.09 | 9.60 | 96 | 91 | 43-149 | 5 | 25 | YES |

COMMENTS:

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FORM 03
VOLATILE ORGANICS IN AIR
LABORATORY CONTROL SAMPLE RECOVERY

SDG No.:

Instrument ID: 10145 LCS File ID: di00204.d LCSD File ID: di00205.d

Batch: D1525430AA LCS Injected: 09/12/2015 LCSD Injected: 09/12/2015

Method: EPA TO-15 LCS Client ID: LCSD62 LCSD Client ID: LCSDD62

Dilution Factor: 1

| COMPOUND | SPIKE LEVEL | LCS CONC. (ppb(v)) | LCSD CONC. (ppb(v)) | LCS %REC | LCSD %REC | RANGE | %RPD | RPD MAX | IN SPEC |
|---|---|---|---|---|---|---|---|---|---|
| Methyl Methacrylate | 10.30 | 9.86 | 9.35 | 96 | 91 | 59-146 | 5 | 25 | YES |
| Bromodichloromethane | 10.50 | 9.07 | 8.50 | 86 | 81 | 62-129 | 7 | 25 | YES |
| cis-1,3-Dichloropropene | 10.90 | 10.72 | 10.09 | 98 | 93 | 64-136 | 6 | 25 | YES |
| 4-Methyl-2-Pentanone | 10.80 | 9.30 | 8.85 | 86 | 82 | 53-140 | 5 | 25 | YES |
| Toluene | 10.70 | 9.70 | 9.18 | 91 | 86 | 70-130 | 5 | 25 | YES |
| trans-1,3-Dichloropropene | 10.00 | 9.29 | 8.80 | 93 | 88 | 61-126 | 5 | 25 | YES |
| 1,1,2-Trichloroethane | 10.70 | 9.58 | 9.04 | 89 | 84 | 59-131 | 6 | 25 | YES |
| Tetrachloroethene | 10.40 | 8.29 | 7.82 | 80 | 75 | 70-130 | 6 | 25 | YES |
| 2-Hexanone | 11.00 | 10.26 | 9.88 | 93 | 90 | 47-150 | 4 | 25 | YES |
| Dibromochloromethane | 10.80 | 8.92 | 8.41 | 83 | 78 | 65-127 | 6 | 25 | YES |
| 1,2-Dibromoethane | 10.50 | 9.46 | 8.89 | 90 | 85 | 65-126 | 6 | 25 | YES |
| Chlorobenzene | 10.80 | 9.38 | 8.94 | 87 | 83 | 70-130 | 5 | 25 | YES |
| Ethylbenzene | 10.80 | 9.71 | 9.22 | 90 | 85 | 70-130 | 5 | 25 | YES |
| m/p-Xylene | 21.20 | 18.24 | 17.30 | 86 | 82 | 70-130 | 5 | 25 | YES |
| o-Xylene | 10.90 | 9.96 | 9.49 | 91 | 87 | 70-130 | 5 | 25 | YES |
| Xylene (total) | 32.10 | 28.20 | 26.80 | 88 | 83 | 70-130 | 5 | 25 | YES |
| Styrene | 10.80 | 9.58 | 9.11 | 89 | 84 | 64-130 | 5 | 25 | YES |
| Bromoform | 10.60 | 9.12 | 8.61 | 86 | 81 | 64-141 | 6 | 25 | YES |
| 1,1,2,2-Tetrachloroethane | 10.90 | 9.04 | 8.59 | 83 | 79 | 58-133 | 5 | 25 | YES |
| 4-Ethyltoluene | 10.70 | 9.15 | 8.76 | 86 | 82 | 59-126 | 4 | 25 | YES |
| 1,3,5-Trimethylbenzene | 10.70 | 9.25 | 8.80 | 86 | 82 | 61-132 | 5 | 25 | YES |
| 1,2,4-Trimethylbenzene | 10.80 | 8.90 | 8.50 | 82 | 79 | 60-128 | 5 | 25 | YES |
| 1,3-Dichlorobenzene | 10.90 | 8.96 | 8.62 | 82 | 79 | 63-125 | 4 | 25 | YES |
| 1,4-Dichlorobenzene | 10.70 | 8.65 | 8.30 | 81 | 78 | 63-127 | 4 | 25 | YES |
| Benzyl Chloride | 10.30 | 8.57 | 8.33 | 83 | 81 | 50-160 | 3 | 25 | YES |
| 1,2-Dichlorobenzene | 10.80 | 8.64 | 8.29 | 80 | 77 | 62-132 | 4 | 25 | YES |
| 1,2,4-Trichlorobenzene | 11.00 | 8.28 | 7.96 | 75 | 72 | 37-119 | 4 | 25 | YES |
| Hexachlorobutadiene | 11.00 | 8.42 | 8.06 | 77 | 73 | 43-120 | 4 | 25 | YES |
| Naphthalene | 10.40 | 8.93 | 8.70 | 86 | 84 | 35-153 | 3 | 25 | YES |

COMMENTS:

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FORM 04
VOLATILE ORGANICS IN AIR
METHOD BLANK SUMMARY

SDG No.:

Lab Sample ID: VBLKD62

Analyzed Date: 09/12/2015

Lab File ID: di00203.d

Analyzed Time: 01:54

Instrument ID: 10145

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS AND LCSD:

| LAB SAMPLE ID | LAB FILE ID | CANISTER ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| LCSD62 | di00204.d | N/A | 09/12/2015 | 02:39 |
| LCSDD62 | di00205.d | N/A | 09/12/2015 | 03:25 |

COMMENTS:

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FORM 05
VOLATILE ORGANICS IN AIR
INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

SDG No.:

Lab File ID: di00190.d

BFB Injection Date: 09/11/2015

Instrument ID: 10145

BFB Injection Time: 16:22

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 8.0% - 40.0% of mass 95 | 15.1 |
| 75 | 30.0% - 66.0% of mass 95 | 49.8 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0% - 9.0% of mass 95 | 6.6 |
| 173 | < 2.0% of mass 174 | 0.6 (0.7) |
| 174 | > 50.0% of mass 95 | 85.5 |
| 175 | 4.0% - 9.0% of mass 174 | 6.3 (7.4) |
| 176 | 93.0% - 101.0% of mass 174 | 82.3 (96.2) |
| 177 | 5.0% - 9.0% of mass 176 | 5.4 (6.6) |
| | | |

THIS CHECK APPLIES TO THE FOLLOWING:

| LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|
| VSTD025 | di00191.d | 09/11/2015 | 16:53 |
| VSTD070 | di00192.d | 09/11/2015 | 17:39 |
| VSTD001 | di00198.d | 09/11/2015 | 22:09 |
| VSTD002 | di00199.d | 09/11/2015 | 22:53 |
| VSTD005 | di00200.d | 09/11/2015 | 23:37 |
| VSTD010 | di00201.d | 09/12/2015 | 00:23 |
| VBLKD62 | di00203.d | 09/12/2015 | 01:54 |
| LCSD62 | di00204.d | 09/12/2015 | 02:39 |
| LCSDD62 | di00205.d | 09/12/2015 | 03:25 |
| mdlv0.5 | di00207.d | 09/12/2015 | 04:56 |
| mdlv0.2 | di00208.d | 09/12/2015 | 05:40 |

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FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 10145 Calibration Start Date: 09/11/2015 Calibration End Date: 09/12/2015

Calibration Start Time: 16:53 Calibration End Time: 00:23

LAB FILE IDs:
RRF 1 = di00198.d RRF 2 = di00199.d RRF 5 = di00200.d RRF 10 = di00201.d RRF 25 = di00191.d
RRF 70 = di00192.d

| COMPOUND | RFF 1 | RFF 2 | RFF 5 | RFF 10 | RFF 25 | RFF 70 | $\overline{RRF}$ | % RSD | CAL. METHOD |
|---|---|---|---|---|---|---|---|---|---|
| Propene | 0.502 | 0.454 | **** | 0.413 | 0.402 | 0.376 | 0.430 | 11 | AVG |
| Dichlorodifluoromethane | 3.937 | 3.723 | 3.107 | 3.041 | 3.009 | 2.473 | 3.215 | 17 | AVG |
| Chlorodifluoromethane | 1.292 | 1.207 | 1.016 | 1.034 | 0.968 | 0.877 | 1.066 | 15 | AVG |
| Freon 114 | 3.101 | 2.871 | 2.474 | 2.533 | 2.192 | **** | 2.634 | 13 | AVG |
| Chloromethane | 0.240 | 0.225 | 0.185 | 0.192 | 0.183 | **** | 0.205 | 13 | AVG |
| Vinyl Chloride | 0.953 | 0.899 | 0.774 | 0.802 | 0.730 | 0.696 | 0.809 | 12 | AVG |
| 1,3-Butadiene | 0.545 | 0.518 | 0.468 | 0.500 | 0.449 | **** | 0.496 | 8 | AVG |
| Bromomethane | 1.135 | 1.043 | 0.890 | 0.946 | 0.801 | **** | 0.963 | 14 | AVG |
| Chloroethane | 0.519 | 0.467 | 0.416 | 0.463 | 0.370 | **** | 0.447 | 13 | AVG |
| Bromoethene | 0.983 | 0.897 | 0.798 | 0.868 | 0.734 | **** | 0.856 | 11 | AVG |
| Dichlorofluoromethane | 2.296 | 2.092 | 1.808 | 1.970 | 1.620 | **** | 1.957 | 13 | AVG |
| Trichlorofluoromethane | 3.792 | 3.351 | 2.825 | 3.017 | 2.632 | **** | 3.124 | 15 | AVG |
| Pentane | 1.112 | 0.997 | 0.882 | 0.959 | 0.793 | 0.818 | 0.927 | 13 | AVG |
| Ethanol | **** | 0.246 | 0.253 | 0.282 | 0.256 | 0.235 | 0.254 | 7 | AVG |
| Freon123a | 1.981 | 1.740 | 1.532 | 1.652 | 1.323 | **** | 1.646 | 15 | AVG |
| Acrolein | 0.213 | 0.198 | 0.200 | 0.219 | 0.202 | **** | 0.206 | 4 | AVG |
| 1,1-Dichloroethene | 1.551 | 1.397 | 1.211 | 1.340 | 1.116 | 1.087 | 1.284 | 14 | AVG |
| Freon 113 | 1.613 | 1.402 | 1.215 | 1.303 | 1.095 | **** | 1.326 | 15 | AVG |
| Acetone | 1.110 | 0.952 | 0.875 | 0.920 | 0.772 | 0.842 | 0.912 | 13 | AVG |
| Methyl Iodide | 2.159 | 1.950 | 1.680 | 1.969 | 1.575 | **** | 1.867 | 13 | AVG |
| Carbon Disulfide | 3.348 | 2.945 | 2.375 | 2.539 | 2.014 | **** | 2.644 | 20 | AVG |
| Isopropanol | 1.364 | 1.064 | 0.959 | 1.048 | 1.067 | 1.066 | 1.095 | 13 | AVG |
| Acetonitrile * | 0.144 | 0.133 | **** | 0.282 | 0.283 | 0.288 | 0.226 | 35 | AVG * |

* Maximum %RSD = 30%. Two may exceed Maximum %RSD of 30% but must be less than 40%.
\# Average RRF for all compounds must be greater than 0.010.

FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 10145 Calibration Start Date: 09/11/2015 Calibration End Date: 09/12/2015

Calibration Start Time: 16:53 Calibration End Time: 00:23

LAB FILE IDs:
RRF 1 = di00198.d RRF 2 = di00199.d RRF 5 = di00200.d RRF 10 = di00201.d RRF 25 = di00191.d
RRF 70 = di00192.d

| COMPOUND | RFF 1 | RFF 2 | RFF 5 | RFF 10 | RFF 25 | RFF 70 | $\overline{RRF}$ | % RSD | CAL. METHOD |
|---|---|---|---|---|---|---|---|---|---|
| 3-Chloropropene | 0.471 | 0.385 | 0.342 | 0.389 | 0.323 | **** | 0.382 | 15 | AVG |
| Methylene Chloride | 0.830 | 0.744 | 0.651 | 0.718 | 0.579 | 0.611 | 0.689 | 14 | AVG |
| tert-Butyl Alcohol | 2.065 | 1.654 | 1.592 | 1.348 | 1.630 | 1.235 | 1.587 | 18 | AVG |
| Acrylonitrile | 0.462 | 0.411 | 0.405 | 0.348 | 0.393 | **** | 0.404 | 10 | AVG |
| trans-1,2-Dichloroethene | 1.286 | 1.125 | 1.020 | 0.785 | 0.979 | 0.699 | 0.982 | 22 | AVG |
| Methyl t-Butyl Ether | 2.878 | 2.517 | 2.405 | 1.618 | 2.236 | **** | 2.331 | 20 | AVG |
| Hexane | 1.269 | 1.194 | 1.012 | 1.090 | 0.945 | 0.949 | 1.076 | 12 | AVG |
| 1,1-Dichloroethane | 1.840 | 1.596 | 1.420 | 1.555 | 1.322 | 1.309 | 1.507 | 13 | AVG |
| Vinyl Acetate | 0.189 | 0.169 | 0.185 | 0.218 | 0.201 | **** | 0.192 | 10 | AVG |
| Di-Isopropyl Ether | 2.178 | 1.897 | 1.831 | 1.983 | 1.659 | **** | 1.909 | 10 | AVG |
| Ethyl Tert-Butyl Ether | 2.884 | 2.487 | 2.425 | 2.652 | 2.362 | **** | 2.562 | 8 | AVG |
| cis-1,2-Dichloroethene | 1.276 | 1.110 | 0.998 | 1.120 | 0.972 | 0.972 | 1.075 | 11 | AVG |
| 2-Butanone | 0.449 | 0.385 | 0.403 | 0.455 | 0.371 | 0.404 | 0.411 | 8 | AVG |
| Ethyl Acetate | 0.281 | 0.237 | 0.241 | 0.272 | 0.223 | **** | 0.251 | 10 | AVG |
| Methyl Acrylate | 1.173 | 1.031 | 1.012 | 1.167 | 0.990 | **** | 1.075 | 8 | AVG |
| Tetrahydrofuran | 0.656 | 0.535 | 0.553 | 0.640 | 0.536 | **** | 0.584 | 10 | AVG |
| Chloroform | 2.607 | 2.246 | 1.990 | 2.206 | 1.906 | 1.860 | 2.136 | 13 | AVG |
| 1,1,1-Trichloroethane | 3.134 | 2.674 | 2.330 | 2.524 | 2.291 | 2.174 | 2.521 | 14 | AVG |
| Cyclohexane | 1.322 | 1.180 | 1.068 | 1.186 | 0.989 | 1.009 | 1.126 | 11 | AVG |
| Carbon Tetrachloride | 3.288 | 2.800 | 2.439 | 2.662 | 2.299 | 2.157 | 2.608 | 16 | AVG |
| Benzene | 0.891 | 0.750 | 0.660 | 0.729 | 0.611 | 0.616 | 0.709 | 15 | AVG |
| 1,2-Dichloroethane | 0.413 | 0.346 | 0.305 | 0.343 | 0.310 | 0.302 | 0.337 | 12 | AVG |
| Isooctane | 1.054 | 0.943 | 0.835 | 0.922 | 0.788 | 0.786 | 0.888 | 12 | AVG |

* Maximum %RSD = 30%. Two may exceed Maximum %RSD of 30% but must be less than 40%.
\# Average RRF for all compounds must be greater than 0.010.

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FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 10145 Calibration Start Date: 09/11/2015 Calibration End Date: 09/12/2015

Calibration Start Time: 16:53 Calibration End Time: 00:23

LAB FILE IDs:
RRF 1 = di00198.d RRF 2 = di00199.d RRF 5 = di00200.d RRF 10 = di00201.d RRF 25 = di00191.d
RRF 70 = di00192.d

| COMPOUND | RFF 1 | RFF 2 | RFF 5 | RFF 10 | RFF 25 | RFF 70 | $\overline{RRF}$ | % RSD | CAL. METHOD |
|---|---|---|---|---|---|---|---|---|---|
| Tert-Amyl Methyl Ether | 0.800 | 0.694 | 0.664 | 0.740 | 0.666 | **** | 0.713 | 8 | AVG |
| Heptane | 0.304 | 0.273 | 0.245 | 0.269 | 0.233 | 0.242 | 0.261 | 10 | AVG |
| Trichloroethene | 0.379 | 0.315 | 0.284 | 0.323 | 0.288 | 0.299 | 0.315 | 11 | AVG |
| Ethyl Acrylate | 0.370 | 0.328 | 0.330 | 0.376 | 0.332 | **** | 0.347 | 7 | AVG |
| 1,2-Dichloropropane | 0.268 | 0.220 | 0.204 | 0.225 | 0.186 | **** | 0.220 | 14 | AVG |
| Dibromomethane | 0.380 | 0.321 | 0.285 | 0.328 | 0.289 | **** | 0.321 | 12 | AVG |
| 1,4-Dioxane | 0.167 | 0.152 | 0.149 | 0.174 | 0.162 | **** | 0.161 | 6 | AVG |
| Methyl Methacrylate | 0.246 | 0.212 | 0.222 | 0.251 | 0.214 | **** | 0.229 | 8 | AVG |
| Bromodichloromethane | 0.704 | 0.597 | 0.536 | 0.601 | 0.535 | **** | 0.595 | 12 | AVG |
| cis-1,3-Dichloropropene | 0.396 | 0.343 | 0.339 | 0.391 | 0.351 | 0.372 | 0.365 | 7 | AVG |
| 4-Methyl-2-Pentanone | 0.448 | 0.374 | 0.345 | 0.376 | 0.327 | **** | 0.374 | 12 | AVG |
| Toluene | 1.246 | 1.030 | 0.929 | 1.046 | 0.869 | 0.831 | 0.992 | 15 | AVG |
| Octane | 0.465 | 0.407 | 0.375 | 0.423 | 0.350 | 0.338 | 0.393 | 12 | AVG |
| trans-1,3-Dichloropropene | 0.489 | 0.404 | 0.398 | 0.471 | 0.427 | 0.402 | 0.432 | 9 | AVG |
| Ethyl Methacrylate | 0.503 | 0.411 | 0.439 | 0.497 | 0.409 | **** | 0.452 | 10 | AVG |
| 1,1,2-Trichloroethane | 0.436 | 0.350 | 0.320 | 0.360 | 0.300 | 0.274 | 0.340 | 17 | AVG |
| Tetrachloroethene | 0.706 | 0.571 | 0.506 | 0.564 | 0.713 | 0.661 | 0.620 | 14 | AVG |
| 2-Hexanone | 0.450 | 0.366 | 0.391 | 0.409 | 0.353 | 0.365 | 0.389 | 9 | AVG |
| Dibromochloromethane | 0.614 | 0.499 | 0.472 | 0.533 | 0.474 | **** | 0.518 | 11 | AVG |
| 1,2-Dibromoethane | 0.639 | 0.521 | 0.488 | 0.552 | 0.485 | **** | 0.537 | 12 | AVG |
| Chlorobenzene | 0.992 | 0.798 | 0.732 | 0.810 | 0.699 | 0.721 | 0.792 | 14 | AVG |
| 1,1,1,2-Tetrachloroethane | 0.564 | 0.460 | 0.421 | 0.462 | 0.411 | 0.398 | 0.453 | 13 | AVG |
| Ethylbenzene | 1.570 | 1.320 | 1.260 | 1.404 | 1.216 | 1.212 | 1.330 | 10 | AVG |

* Maximum %RSD = 30%. Two may exceed Maximum %RSD of 30% but must be less than 40%.
\# Average RRF for all compounds must be greater than 0.010.

FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 10145 Calibration Start Date: 09/11/2015 Calibration End Date: 09/12/2015

Calibration Start Time: 16:53 Calibration End Time: 00:23

LAB FILE IDs:
RRF 1 = di00198.d RRF 2 = di00199.d RRF 5 = di00200.d RRF 10 = di00201.d RRF 25 = di00191.d
RRF 70 = di00192.d

| COMPOUND | RFF 1 | RFF 2 | RFF 5 | RFF 10 | RFF 25 | RFF 70 | $\overline{RRF}$ | % RSD | CAL. METHOD |
|---|---|---|---|---|---|---|---|---|---|
| m/p-Xylene | 1.364 | 1.142 | 1.094 | 1.216 | 1.083 | 1.063 | 1.160 | 10 | AVG |
| o-Xylene | 1.286 | 1.074 | 1.040 | 1.165 | 1.030 | 1.000 | 1.099 | 10 | AVG |
| Styrene | 0.944 | 0.772 | 0.766 | 0.852 | 0.757 | **** | 0.818 | 10 | AVG |
| Bromoform | 0.802 | 0.651 | 0.634 | 0.711 | 0.656 | **** | 0.691 | 10 | AVG |
| Cumene | 1.752 | 1.505 | 1.470 | 1.623 | 1.467 | **** | 1.563 | 8 | AVG |
| Bromobenzene | 0.559 | 0.455 | 0.436 | 0.474 | 0.429 | **** | 0.471 | 11 | AVG |
| 1,1,2,2-Tetrachloroethane | 0.965 | 0.774 | 0.723 | 0.776 | 0.641 | **** | 0.776 | 15 | AVG |
| 1,2,3-Trichloropropane | 0.308 | 0.251 | 0.239 | 0.252 | 0.227 | **** | 0.256 | 12 | AVG |
| n-Propylbenzene | 0.474 | 0.403 | 0.400 | 0.437 | 0.394 | **** | 0.421 | 8 | AVG |
| 2-Chlorotoluene | 0.399 | 0.332 | 0.320 | 0.354 | 0.318 | **** | 0.345 | 10 | AVG |
| 4-Ethyltoluene | 1.777 | 1.520 | 1.496 | 1.617 | 1.458 | **** | 1.573 | 8 | AVG |
| 1,3,5-Trimethylbenzene | 1.591 | 1.389 | 1.324 | 1.438 | 1.297 | **** | 1.408 | 8 | AVG |
| Alpha Methyl Styrene | 0.620 | 0.537 | 0.561 | 0.623 | 0.579 | **** | 0.584 | 6 | AVG |
| tert-Butylbenzene | 1.560 | 1.331 | 1.281 | 1.393 | 1.253 | **** | 1.364 | 9 | AVG |
| 1,2,4-Trimethylbenzene | 1.588 | 1.358 | 1.314 | 1.408 | 1.291 | **** | 1.392 | 9 | AVG |
| sec-Butylbenzene | 2.178 | 1.900 | 1.820 | 1.971 | 1.798 | **** | 1.933 | 8 | AVG |
| 1,3-Dichlorobenzene | 0.950 | 0.793 | 0.769 | 0.825 | 0.758 | **** | 0.819 | 9 | AVG |
| 1,4-Dichlorobenzene | 0.956 | 0.789 | 0.759 | 0.807 | 0.782 | **** | 0.819 | 10 | AVG |
| p-Isopropyltoluene | 1.825 | 1.567 | 1.519 | 1.653 | 1.595 | **** | 1.632 | 7 | AVG |
| Benzyl Chloride | 1.117 | 0.921 | 0.975 | 1.104 | 1.202 | **** | 1.064 | 11 | AVG |
| 1,2-Dichlorobenzene | 0.887 | 0.751 | 0.714 | 0.779 | 0.767 | **** | 0.780 | 8 | AVG |
| n-Butylbenzene | 1.633 | 1.375 | 1.328 | 1.438 | 1.390 | **** | 1.433 | 8 | AVG |
| Hexachloroethane * | 0.602 | 0.501 | 0.483 | 0.539 | 0.217 | **** | 0.468 | 32 | AVG * |

* Maximum %RSD = 30%. Two may exceed Maximum %RSD of 30% but must be less than 40%.
\# Average RRF for all compounds must be greater than 0.010.

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FORM 06
VOLATILE ORGANICS IN AIR
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 10145 Calibration Start Date: 09/11/2015 Calibration End Date: 09/12/2015

Calibration Start Time: 16:53 Calibration End Time: 00:23

LAB FILE IDs:
RRF 1 = di00198.d RRF 2 = di00199.d RRF 5 = di00200.d RRF 10 = di00201.d RRF 25 = di00191.d
RRF 70 = di00192.d

| COMPOUND | RFF 1 | RFF 2 | RFF 5 | RFF 10 | RFF 25 | RFF 70 | $\overline{RRF}$ | % RSD | CAL. METHOD |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromo-3-chloropropane | 0.531 | 0.429 | 0.401 | 0.465 | 0.484 | **** | 0.462 | 11 | AVG |
| 1,2,4-Trichlorobenzene | 0.655 | 0.479 | 0.503 | 0.638 | 0.693 | **** | 0.594 | 16 | AVG |
| Hexachlorobutadiene | 1.239 | 0.848 | 0.750 | 0.825 | 0.794 | **** | 0.891 | 22 | AVG |
| Naphthalene | 1.149 | 0.712 | 0.808 | 1.199 | 1.273 | **** | 1.028 | 24 | AVG |

Average % RSD: 12

* Maximum %RSD = 30%. Two may exceed Maximum %RSD of 30% but must be less than 40%.
\# Average RRF for all compounds must be greater than 0.010.

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FORM 08
VOLATILE ORGANICS IN AIR
INSTRUMENT STANDARD AREA AND RETENTION TIME SUMMARY

SDG No.:

Lab Sample ID: VSTD010 Analyzed Date: 09/12/2015

Lab File ID: di00201.d Analyzed Time: 00:23

Instrument ID: 10145

| | Bromochloromethane | | 1,4-Difluorobenzene | | Chlorobenzene-d5 | |
|---|---|---|---|---|---|---|
| | Area | R.T. | Area | R.T. | Area | R.T. |
| 24 HOUR STANDARD | 623987 | 7.29 | 2489018 | 9.22 | 2183720 | 15.45 |
| UPPER LIMIT | 873582 | 7.62 | 3484625 | 9.55 | 3057208 | 15.78 |
| LOWER LIMIT | 374392 | 6.96 | 1493411 | 8.89 | 1310232 | 15.12 |
| LAB SAMPLE ID | | | | | | |
| VBLKD62 | 612485 | 7.29 | 2431880 | 9.22 | 2084760 | 15.45 |
| LCSD62 | 666538 | 7.29 | 2710861 | 9.22 | 2442164 | 15.45 |
| LCSDD62 | 696028 | 7.29 | 2843771 | 9.22 | 2535598 | 15.45 |
| mdlv0.5 | 700396 | 7.29 | 2829233 | 9.21 | 2411975 | 15.45 |
| mdlv0.2 | 695321 | 7.29 | 2823935 | 9.21 | 2421665 | 15.45 |

* = Outside of the QC Limits.

AREA: Upper limit: +40% of the internal standard area.
Lower Limit: -40% of the internal standard area.
R.T.: Upper limit: +0.33 of the internal standard R.T.
Lower limit: -0.33 of the internal standard R.T.

Lancaster Laboratories
Volatiles in Air
Runlog for Agilent GC/MS System HP10145 **HP #04**

Data Directory Path is - C:\msdchem\1\data\15sep14\

| OPERATOR | FILE | LLI# | DATE | TIME | BATCH | DILUTION FACTOR |
|---|---|---|---|---|---|---|
| jeb07445 | DI00220.D | 50NGBFB | 09/14/2015 | 11:38 | | |
| jeb07445 | DI00221.D | VSTD010 | 09/14/2015 | 12:42 | | |
| jeb07445 | DI00223.D | VBLKD63 | 09/14/2015 | 13:39 | D1525430AB | |
| jeb07445 | DI00224.D | cc1014 | 09/14/2015 | 14:52 | D1525430AB | |
| jeb07445 | DI00225.D | FC1 | 09/14/2015 | 15:38 | D1525430AB | |
| jeb07445 | DI00231.D | 8011224 | 09/14/2015 | 20:22 | D1525430AB | |
| jeb07445 | DI00232.D | 8013682 | 09/14/2015 | 21:05 | D1525430AB | |
| jeb07445 | DI00233.D | 8016610 | 09/14/2015 | 21:49 | D1525430AB | 10 |
| jeb07445 | DI00234.D | 8016611 | 09/14/2015 | 22:32 | D1525430AB | |
| jeb07445 | DI00235.D | 8020311 | 09/14/2015 | 23:42 | D1525430AB | |
| jeb07445 | DI00236.D | 8033535 | 09/15/2015 | 00:34 | D1525430AB | |
| jeb07445 | DI00237.D | 8033536 | 09/15/2015 | 01:17 | D1525430AB | 100 |
| jeb07445 | DI00238.D | 8016675 | 09/15/2015 | 02:06 | D1525430AB | |
| jeb07445 | DI00239.D | 8016676 | 09/15/2015 | 02:49 | D1525430AB | |
| jeb07445 | DI00240.D | 8021101 | 09/15/2015 | 03:39 | D1525430AB | |
| jeb07445 | DI00241.D | 8021102 | 09/15/2015 | 04:28 | D1525430AB | |
| jeb07445 | DI00242.D | 8021103 | 09/15/2015 | 05:18 | D1525430AB | |
| jeb07445 | DI00243.D | 8035386 | 09/15/2015 | 06:08 | D1525430AB | |
| jeb07445 | DI00244.D | 8035387 | 09/15/2015 | 06:57 | D1525430AB | |
| jeb07445 | DI00245.D | 8035388 | 09/15/2015 | 07:46 | D1525430AB | |
| jeb07445 | DI00246.D | 8035389 | 09/15/2015 | 08:35 | D1525430AB | |
| jeb07445 | DI00248.D | 8021101DL | 09/15/2015 | 10:02 | D1525430AB | |
| jeb07445 | DI00249.D | 8021102DL | 09/15/2015 | 10:44 | D1525430AB | |
| jeb07445 | DI00250.D | 8021103DL | 09/15/2015 | 11:28 | D1525430AB | |

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKD63 |
| Canister ID: | N/A | Lab File ID: | di00223.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 09/14/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 13:39 |
| Instrument ID: | 10145 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 115-07-1 | Propene | 0.50 | U |
| 75-71-8 | Dichlorodifluoromethane | 0.50 | U |
| 75-45-6 | Chlorodifluoromethane | 0.20 | U |
| 76-14-2 | Freon 114 | 0.20 | U |
| 74-87-3 | Chloromethane | 0.50 | U |
| 75-01-4 | Vinyl Chloride | 0.20 | U |
| 106-99-0 | 1,3-Butadiene | 0.40 | U |
| 74-83-9 | Bromomethane | 0.20 | U |
| 75-00-3 | Chloroethane | 0.20 | U |
| 593-60-2 | Bromoethene | 0.40 | U |
| 75-43-4 | Dichlorofluoromethane | 0.20 | U |
| 75-69-4 | Trichlorofluoromethane | 0.20 | U |
| 109-66-0 | Pentane | 0.20 | U |
| 64-17-5 | Ethanol | 0.50 | U |
| 107-02-8 | Acrolein | 0.50 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.20 | U |
| 76-13-1 | Freon 113 | 0.50 | U |
| 67-64-1 | Acetone | 0.50 | U |
| 74-88-4 | Methyl Iodide | 0.20 | U |
| 75-15-0 | Carbon Disulfide | 0.50 | U |
| 67-63-0 | Isopropanol | 0.50 | U |
| 75-05-8 | Acetonitrile | 0.50 | U |
| 107-05-1 | 3-Chloropropene | 0.20 | U |
| 75-09-2 | Methylene Chloride | 0.50 | U |

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKD63 |
| Canister ID: | N/A | Lab File ID: | di00223.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 09/14/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 13:39 |
| Instrument ID: | 10145 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 75-65-0 | tert-Butyl Alcohol | 0.50 | U |
| 107-13-1 | Acrylonitrile | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.20 | U |
| 1634-04-4 | Methyl t-Butyl Ether | 0.20 | U |
| 110-54-3 | Hexane | 0.20 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.20 | U |
| 108-05-4 | Vinyl Acetate | 1.0 | U |
| 108-20-3 | Di-Isopropyl Ether | 0.20 | U |
| 637-92-3 | Ethyl Tert-Butyl Ether | 0.20 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.20 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 0.20 | U |
| 78-93-3 | 2-Butanone | 0.50 | U |
| 141-78-6 | Ethyl Acetate | 0.50 | U |
| 96-33-3 | Methyl Acrylate | 0.20 | U |
| 109-99-9 | Tetrahydrofuran | 0.50 | U |
| 67-66-3 | Chloroform | 0.20 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.20 | U |
| 110-82-7 | Cyclohexane | 0.20 | U |
| 56-23-5 | Carbon Tetrachloride | 0.20 | U |
| 71-43-2 | Benzene | 0.20 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.20 | U |
| 540-84-1 | Isooctane | 0.20 | U |
| 994-05-8 | Tert-Amyl Methyl Ether | 0.20 | U |
| 142-82-5 | Heptane | 0.20 | U |

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKD63 |
| Canister ID: | N/A | Lab File ID: | di00223.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 09/14/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 13:39 |
| Instrument ID: | 10145 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 79-01-6 | Trichloroethene | 0.20 | U |
| 140-88-5 | Ethyl Acrylate | 0.20 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.20 | U |
| 74-95-3 | Dibromomethane | 0.20 | U |
| 123-91-1 | 1,4-Dioxane | 0.50 | U |
| 80-62-6 | Methyl Methacrylate | 0.50 | U |
| 75-27-4 | Bromodichloromethane | 0.20 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.20 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 0.50 | U |
| 108-88-3 | Toluene | 0.20 | U |
| 111-65-9 | Octane | 0.20 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.20 | U |
| 542-75-6 | 1,3-Dichloropropene (total) | 0.20 | U |
| 97-63-2 | Ethyl Methacrylate | 0.20 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.20 | U |
| 127-18-4 | Tetrachloroethene | 0.20 | U |
| 591-78-6 | 2-Hexanone | 0.50 | U |
| 124-48-1 | Dibromochloromethane | 0.20 | U |
| 106-93-4 | 1,2-Dibromoethane | 0.20 | U |
| 108-90-7 | Chlorobenzene | 0.20 | U |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.20 | U |
| 100-41-4 | Ethylbenzene | 0.20 | U |
| 179601-23-1 | m/p-Xylene | 0.20 | U |
| 95-47-6 | o-Xylene | 0.20 | U |

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKD63 |
| Canister ID: | N/A | Lab File ID: | di00223.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 09/14/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 13:39 |
| Instrument ID: | 10145 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 1330-20-7 | Xylene (total) | 0.20 | U |
| 100-42-5 | Styrene | 0.20 | U |
| 75-25-2 | Bromoform | 0.20 | U |
| 98-82-8 | Cumene | 0.20 | U |
| 108-86-1 | Bromobenzene | 0.20 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.20 | U |
| 96-18-4 | 1,2,3-Trichloropropane | 0.20 | U |
| 103-65-1 | n-Propylbenzene | 0.20 | U |
| 95-49-8 | 2-Chlorotoluene | 0.20 | U |
| 622-96-8 | 4-Ethyltoluene | 0.20 | U |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.20 | U |
| 98-83-9 | Alpha Methyl Styrene | 0.20 | U |
| 98-06-6 | tert-Butylbenzene | 0.20 | U |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.20 | U |
| 135-98-8 | sec-Butylbenzene | 0.20 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.20 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.20 | U |
| 99-87-6 | p-Isopropyltoluene | 0.20 | U |
| 100-44-7 | Benzyl Chloride | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.20 | U |
| 104-51-8 | n-Butylbenzene | 0.20 | U |
| 67-72-1 | Hexachloroethane | 0.20 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 0.20 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |

Abbreviations:
U = The compound is less than the limit being reported.
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J = The result is between the MDL and LOQ.

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FORM 01
VOLATILE ORGANICS IN AIR
SAMPLE DATA SHEET

SDG No.:

| | | | |
|---|---|---|---|
| Sample Media: | N/A | Lab Sample ID: | VBLKD63 |
| Canister ID: | N/A | Lab File ID: | di00223.d |
| Pressure Received: | 14.7 psia | Date Collected: | |
| Final Pressure: | 14.7 psia | Date Received: | |
| Nominal Volume: | 250 cc | Analyzed Date: | 09/14/2015 |
| Injection Volume: | 250 cc | Analyzed Time: | 13:39 |
| Instrument ID: | 10145 | Dilution Factor: | 1 |

Concentration Units: ppb(v) Limit: MDL

| CAS NO. | COMPOUND | CONCENTRATION | Q |
|---|---|---|---|
| 87-68-3 | Hexachlorobutadiene | 0.40 | U |
| 91-20-3 | Naphthalene | 0.50 | U |

Abbreviations:
U = The compound is less than the limit being reported.
B = The compound was found in blank with a result greater than the limit being reported.
E = The compound exceeded the calibration limit.
D = Analysis of diluted sample.
J = The result is between the MDL and LOQ.

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FORM 04
VOLATILE ORGANICS IN AIR
METHOD BLANK SUMMARY

SDG No.:

Lab Sample ID: VBLKD63

Lab File ID: di00223.d

Instrument ID: 10145

Analyzed Date: 09/14/2015

Analyzed Time: 13:39

THIS BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS AND LCSD:

| LAB SAMPLE ID | LAB FILE ID | CANISTER ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| cc1014 | di00224.d | 1014 | 09/14/2015 | 14:52 |
| 8011224 | di00231.d | 922 | 09/14/2015 | 20:22 |
| 8013682 | di00232.d | 857 | 09/14/2015 | 21:05 |
| 8016610 | di00233.d | 1169 | 09/14/2015 | 21:49 |
| 8016611 | di00234.d | 1195 | 09/14/2015 | 22:32 |
| 8033536 | di00237.d | 1138 | 09/15/2015 | 01:17 |
| 8016675 | di00238.d | 804 | 09/15/2015 | 02:06 |
| 8016676 | di00239.d | 1108 | 09/15/2015 | 02:49 |
| 8021101 | di00240.d | 524 | 09/15/2015 | 03:39 |
| 8021102 | di00241.d | 1189 | 09/15/2015 | 04:28 |
| 8021103 | di00242.d | 328 | 09/15/2015 | 05:18 |
| 8035386 | di00243.d | 989 | 09/15/2015 | 06:08 |
| 8035388 | di00245.d | 1008 | 09/15/2015 | 07:46 |
| 8035389 | di00246.d | 1005 | 09/15/2015 | 08:35 |
| 8021101DL | di00248.d | 524 | 09/15/2015 | 10:02 |
| 8021103DL | di00250.d | 328 | 09/15/2015 | 11:28 |

COMMENTS:

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FORM 05
VOLATILE ORGANICS IN AIR
INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

SDG No.:

Lab File ID: di00220.d

BFB Injection Date: 09/14/2015

Instrument ID: 10145

BFB Injection Time: 11:38

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 8.0% - 40.0% of mass 95 | 14.9 |
| 75 | 30.0% - 66.0% of mass 95 | 51.0 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0% - 9.0% of mass 95 | 6.5 |
| 173 | < 2.0% of mass 174 | 0.7 (0.7) |
| 174 | > 50.0% of mass 95 | 87.9 |
| 175 | 4.0% - 9.0% of mass 174 | 6.3 (7.1) |
| 176 | 93.0% - 101.0% of mass 174 | 84.5 (96.2) |
| 177 | 5.0% - 9.0% of mass 176 | 5.6 (6.6) |
| | | |

THIS CHECK APPLIES TO THE FOLLOWING:

| LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|
| VSTD010 | di00221.d | 09/14/2015 | 12:42 |
| VBLKD63 | di00223.d | 09/14/2015 | 13:39 |
| cc1014 | di00224.d | 09/14/2015 | 14:52 |
| 8011224 | di00231.d | 09/14/2015 | 20:22 |
| 8013682 | di00232.d | 09/14/2015 | 21:05 |
| 8016610 | di00233.d | 09/14/2015 | 21:49 |
| 8016611 | di00234.d | 09/14/2015 | 22:32 |
| 8033536 | di00237.d | 09/15/2015 | 01:17 |
| 8016675 | di00238.d | 09/15/2015 | 02:06 |
| 8016676 | di00239.d | 09/15/2015 | 02:49 |
| 8021101 | di00240.d | 09/15/2015 | 03:39 |
| 8021102 | di00241.d | 09/15/2015 | 04:28 |
| 8021103 | di00242.d | 09/15/2015 | 05:18 |
| 8035386 | di00243.d | 09/15/2015 | 06:08 |
| 8035388 | di00245.d | 09/15/2015 | 07:46 |
| 8035389 | di00246.d | 09/15/2015 | 08:35 |
| 8021101DL | di00248.d | 09/15/2015 | 10:02 |
| 8021103DL | di00250.d | 09/15/2015 | 11:28 |

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FORM 07
VOLATILE ORGANICS IN AIR
CONTINUING CALIBRATION CHECK

SDG No.:

Lab File ID: di00221.d

Calibration Date: 09/14/2015

Instrument ID: 10145

Calibration Time: 12:42

Init. Calib. Date(s): 09/11/2015 - 09/12/2015

| COMPOUND | $\overline{RRF}$ | RRF 10 | ACTUAL CONC. | TRUE CONC. | %DRIFT |
|---|---|---|---|---|---|
| Propene | 0.430 | 0.368 | 8.744 | 10.2 | -14 |
| Dichlorodifluoromethane | 3.215 | 3.158 | 9.919 | 10.1 | -2 |
| Chlorodifluoromethane | 1.066 | 1.000 | 10.040 | 10.7 | -6 |
| Freon 114 | 2.634 | 2.350 | 8.830 | 9.9 | -11 |
| Chloromethane | 0.205 | 0.168 | 8.439 | 10.3 | -18 |
| Vinyl Chloride | 0.809 | 0.712 | 8.890 | 10.1 | -12 |
| 1,3-Butadiene | 0.496 | 0.431 | 8.869 | 10.2 | -13 |
| Bromomethane | 0.963 | 0.844 | 8.594 | 9.8 | -12 |
| Chloroethane | 0.447 | 0.380 | 8.244 | 9.7 | -15 |
| Bromoethene | 0.856 | 0.764 | 9.459 | 10.6 | -11 |
| Dichlorofluoromethane | 1.957 | 1.727 | 9.266 | 10.5 | -12 |
| Trichlorofluoromethane | 3.124 | 2.962 | 9.579 | 10.1 | -5 |
| Pentane | 0.927 | 0.771 | 8.735 | 10.5 | -17 |
| Ethanol | 0.254 | 0.233 | 5.303 | 5.8 | -9 |
| Freon123a | 1.646 | 1.367 | 9.137 | 11 | -17 |
| Acrolein | 0.206 | 0.175 | 6.348 | 7.5 | -15 |
| 1,1-Dichloroethene | 1.284 | 1.187 | 9.248 | 10 | -8 |
| Freon 113 | 1.326 | 1.159 | 8.481 | 9.7 | -13 |
| Acetone | 0.912 | 0.817 | 9.584 | 10.7 | -10 |
| Methyl Iodide | 1.867 | 1.712 | 9.263 | 10.1 | -8 |
| Carbon Disulfide | 2.644 | 2.218 | 8.387 | 10 | -16 |
| Isopropanol | 1.095 | 0.984 | 8.631 | 9.6 | -10 |
| Acetonitrile | 0.226 | 0.250 | 10.948 | 9.9 | 11 |
| 3-Chloropropene | 0.382 | 0.319 | 9.175 | 11 | -17 |
| Methylene Chloride | 0.689 | 0.593 | 9.474 | 11 | -14 |
| tert-Butyl Alcohol | 1.587 | 1.548 | 10.728 | 11 | -2 |
| Acrylonitrile | 0.404 | 0.357 | 9.301 | 10.5 | -11 |
| trans-1,2-Dichloroethene | 0.982 | 1.016 | 10.337 | 10 | 3 |
| Methyl t-Butyl Ether | 2.331 | 2.340 | 10.238 | 10.2 | 0 |
| Hexane | 1.076 | 0.902 | 8.543 | 10.2 | -16 |
| 1,1-Dichloroethane | 1.507 | 1.322 | 8.860 | 10.1 | -12 |
| Vinyl Acetate | 0.192 | 0.179 | 7.064 | 7.6 | -7 |
| Di-Isopropyl Ether | 1.909 | 1.601 | 8.719 | 10.4 | -16 |
| Ethyl Tert-Butyl Ether | 2.562 | 2.283 | 9.001 | 10.1 | -11 |
| cis-1,2-Dichloroethene | 1.075 | 0.951 | 9.288 | 10.5 | -12 |
| 2-Butanone | 0.411 | 0.367 | 9.292 | 10.4 | -11 |
| Ethyl Acetate | 0.251 | 0.219 | 9.599 | 11 | -13 |
| Methyl Acrylate | 1.075 | 0.947 | 9.165 | 10.4 | -12 |
| Tetrahydrofuran | 0.584 | 0.508 | 8.694 | 10 | -13 |

* Maximum %DRIFT = 30%.
\# Average RRF for all compounds must be greater than 0.010.

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FORM 07
VOLATILE ORGANICS IN AIR
CONTINUING CALIBRATION CHECK

SDG No.:

Lab File ID: di00221.d

Calibration Date: 09/14/2015

Instrument ID: 10145

Calibration Time: 12:42

Init. Calib. Date(s): 09/11/2015 - 09/12/2015

| COMPOUND | $\overline{RRF}$ | RRF 10 | ACTUAL CONC. | TRUE CONC. | %DRIFT |
|---|---|---|---|---|---|
| Chloroform | 2.136 | 1.957 | 9.255 | 10.1 | -8 |
| 1,1,1-Trichloroethane | 2.521 | 2.380 | 9.724 | 10.3 | -6 |
| Cyclohexane | 1.126 | 0.954 | 8.731 | 10.3 | -15 |
| Carbon Tetrachloride | 2.608 | 2.575 | 10.270 | 10.4 | -1 |
| Benzene | 0.709 | 0.581 | 8.682 | 10.6 | -18 |
| 1,2-Dichloroethane | 0.337 | 0.309 | 9.560 | 10.4 | -8 |
| Isooctane | 0.888 | 0.738 | 8.733 | 10.5 | -17 |
| Tert-Amyl Methyl Ether | 0.713 | 0.638 | 9.584 | 10.7 | -10 |
| Heptane | 0.261 | 0.209 | 8.411 | 10.5 | -20 |
| Trichloroethene | 0.315 | 0.264 | 8.639 | 10.3 | -16 |
| Ethyl Acrylate | 0.347 | 0.298 | 9.291 | 10.8 | -14 |
| 1,2-Dichloropropane | 0.220 | 0.177 | 8.445 | 10.5 | -20 |
| Dibromomethane | 0.321 | 0.274 | 8.971 | 10.5 | -15 |
| 1,4-Dioxane | 0.161 | 0.140 | 8.947 | 10.3 | -13 |
| Methyl Methacrylate | 0.229 | 0.199 | 8.787 | 10.1 | -13 |
| Bromodichloromethane | 0.595 | 0.527 | 9.133 | 10.3 | -11 |
| cis-1,3-Dichloropropene | 0.365 | 0.317 | 8.252 | 9.5 | -13 |
| 4-Methyl-2-Pentanone | 0.374 | 0.300 | 8.185 | 10.2 | -20 |
| Toluene | 0.992 | 0.857 | 9.161 | 10.6 | -14 |
| Octane | 0.393 | 0.331 | 8.675 | 10.3 | -16 |
| trans-1,3-Dichloropropene | 0.432 | 0.414 | 9.683 | 10.1 | -4 |
| Ethyl Methacrylate | 0.452 | 0.403 | 9.011 | 10.1 | -11 |
| 1,1,2-Trichloroethane | 0.340 | 0.305 | 9.519 | 10.6 | -10 |
| Tetrachloroethene | 0.620 | 0.489 | 8.430 | 10.7 | -21 |
| 2-Hexanone | 0.389 | 0.338 | 9.472 | 10.9 | -13 |
| Dibromochloromethane | 0.518 | 0.475 | 8.983 | 9.8 | -8 |
| 1,2-Dibromoethane | 0.537 | 0.459 | 8.539 | 10 | -15 |
| Chlorobenzene | 0.792 | 0.664 | 8.891 | 10.6 | -16 |
| 1,1,1,2-Tetrachloroethane | 0.453 | 0.413 | 9.672 | 10.6 | -9 |
| Ethylbenzene | 1.330 | 1.173 | 9.348 | 10.6 | -12 |
| m/p-Xylene | 1.160 | 1.044 | 8.820 | 9.8 | -10 |
| o-Xylene | 1.099 | 1.005 | 9.786 | 10.7 | -9 |
| Styrene | 0.818 | 0.711 | 9.034 | 10.4 | -13 |
| Bromoform | 0.691 | 0.645 | 9.340 | 10 | -7 |
| Cumene | 1.563 | 1.418 | 9.431 | 10.4 | -9 |
| Bromobenzene | 0.471 | 0.406 | 9.151 | 10.6 | -14 |
| 1,1,2,2-Tetrachloroethane | 0.776 | 0.664 | 9.164 | 10.7 | -14 |
| 1,2,3-Trichloropropane | 0.256 | 0.230 | 9.178 | 10.2 | -10 |
| n-Propylbenzene | 0.421 | 0.373 | 8.856 | 10 | -11 |

* Maximum %DRIFT = 30%.
\# Average RRF for all compounds must be greater than 0.010.

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FORM 07
VOLATILE ORGANICS IN AIR
CONTINUING CALIBRATION CHECK

SDG No.:

Lab File ID: di00221.d

Calibration Date: 09/14/2015

Instrument ID: 10145

Calibration Time: 12:42

Init. Calib. Date(s): 09/11/2015 - 09/12/2015

| COMPOUND | $\overline{RRF}$ | RRF 10 | ACTUAL CONC. | TRUE CONC. | %DRIFT |
|---|---|---|---|---|---|
| 2-Chlorotoluene | 0.345 | 0.303 | 9.071 | 10.3 | -12 |
| 4-Ethyltoluene | 1.573 | 1.430 | 9.178 | 10.1 | -9 |
| 1,3,5-Trimethylbenzene | 1.408 | 1.295 | 9.475 | 10.3 | -8 |
| Alpha Methyl Styrene | 0.584 | 0.542 | 9.192 | 9.9 | -7 |
| tert-Butylbenzene | 1.364 | 1.258 | 9.413 | 10.2 | -8 |
| 1,2,4-Trimethylbenzene | 1.392 | 1.291 | 9.463 | 10.2 | -7 |
| sec-Butylbenzene | 1.933 | 1.791 | 9.359 | 10.1 | -7 |
| 1,3-Dichlorobenzene | 0.819 | 0.739 | 9.473 | 10.5 | -10 |
| 1,4-Dichlorobenzene | 0.819 | 0.719 | 8.960 | 10.2 | -12 |
| p-Isopropyltoluene | 1.632 | 1.505 | 9.405 | 10.2 | -8 |
| Benzyl Chloride | 1.064 | 1.062 | 8.485 | 8.5 | 0 |
| 1,2-Dichlorobenzene | 0.780 | 0.702 | 9.097 | 10.1 | -10 |
| n-Butylbenzene | 1.433 | 1.284 | 9.138 | 10.2 | -10 |
| Hexachloroethane | 0.468 | 0.485 | 11.281 | 10.9 | 3 |
| 1,2-Dibromo-3-chloropropane | 0.462 | 0.403 | 8.371 | 9.6 | -13 |
| 1,2,4-Trichlorobenzene | 0.594 | 0.568 | 9.192 | 9.6 | -4 |
| Hexachlorobutadiene | 0.891 | 0.856 | 9.508 | 9.9 | -4 |
| Naphthalene | 1.028 | 1.034 | 10.462 | 10.4 | 1 |

* Maximum %DRIFT = 30%.
\# Average RRF for all compounds must be greater than 0.010.

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FORM 08
VOLATILE ORGANICS IN AIR
INSTRUMENT STANDARD AREA AND RETENTION TIME SUMMARY

SDG No.:

Lab Sample ID: VSTD010 Analyzed Date: 09/14/2015

Lab File ID: di00221.d Analyzed Time: 12:42

Instrument ID: 10145

| | Bromochloromethane | | 1,4-Difluorobenzene | | Chlorobenzene-d5 | |
|---|---|---|---|---|---|---|
| | Area | R.T. | Area | R.T. | Area | R.T. |
| 24 HOUR STANDARD | 552449 | 7.27 | 2226235 | 9.20 | 1906987 | 15.44 |
| UPPER LIMIT | 773429 | 7.60 | 3116729 | 9.53 | 2669782 | 15.77 |
| LOWER LIMIT | 331469 | 6.94 | 1335741 | 8.87 | 1144192 | 15.11 |
| LAB SAMPLE ID | | | | | | |
| VBLKD63 | 677307 | 7.28 | 2709545 | 9.21 | 2189865 | 15.44 |
| cc1014 | 542700 | 7.28 | 2134655 | 9.21 | 1751218 | 15.44 |
| 8011224 | 578054 | 7.30 | 2290506 | 9.22 | 1970805 | 15.45 |
| 8013682 | 601550 | 7.29 | 2324541 | 9.22 | 1922406 | 15.45 |
| 8016610 | 436238 | 7.29 | 1653070 | 9.21 | 1404123 | 15.45 |
| 8016611 | 538378 | 7.28 | 2126738 | 9.21 | 1888921 | 15.45 |
| 8033536 | 592405 | 7.28 | 2379563 | 9.21 | 2002770 | 15.44 |
| 8016675 | 550433 | 7.29 | 2109714 | 9.21 | 1733699 | 15.44 |
| 8016676 | 560938 | 7.29 | 2100326 | 9.21 | 1723238 | 15.44 |
| 8021101 | 645281 | 7.30 | 2549676 | 9.22 | 2320995 | 15.45 |
| 8021102 | 610276 | 7.29 | 2527261 | 9.21 | 2080702 | 15.44 |
| 8021103 | 582352 | 7.29 | 2235059 | 9.21 | 2033646 | 15.44 |
| 8035386 | 598508 | 7.29 | 2293508 | 9.21 | 1824976 | 15.44 |
| 8035388 | 661399 | 7.29 | 2552455 | 9.21 | 2092147 | 15.45 |
| 8035389 | 766527 | 7.29 | 2978776 | 9.22 | 2395328 | 15.45 |
| 8021101DL | 746989 | 7.24 | 2924451 | 9.17 | 2524224 | 15.42 |
| 8021103DL | 751698 | 7.28 | 3016845 | 9.21 | 2569897 | 15.44 |

* = Outside of the QC Limits.

AREA: Upper limit: +40% of the internal standard area.
Lower Limit: -40% of the internal standard area.
R.T.: Upper limit: +0.33 of the internal standard R.T.
Lower limit: -0.33 of the internal standard R.T.

Data File: /chem/HP10145.i/15sep11.b/di00190.d

Date : 11-SEP-2015 16:22

Client ID: 50NGBFB

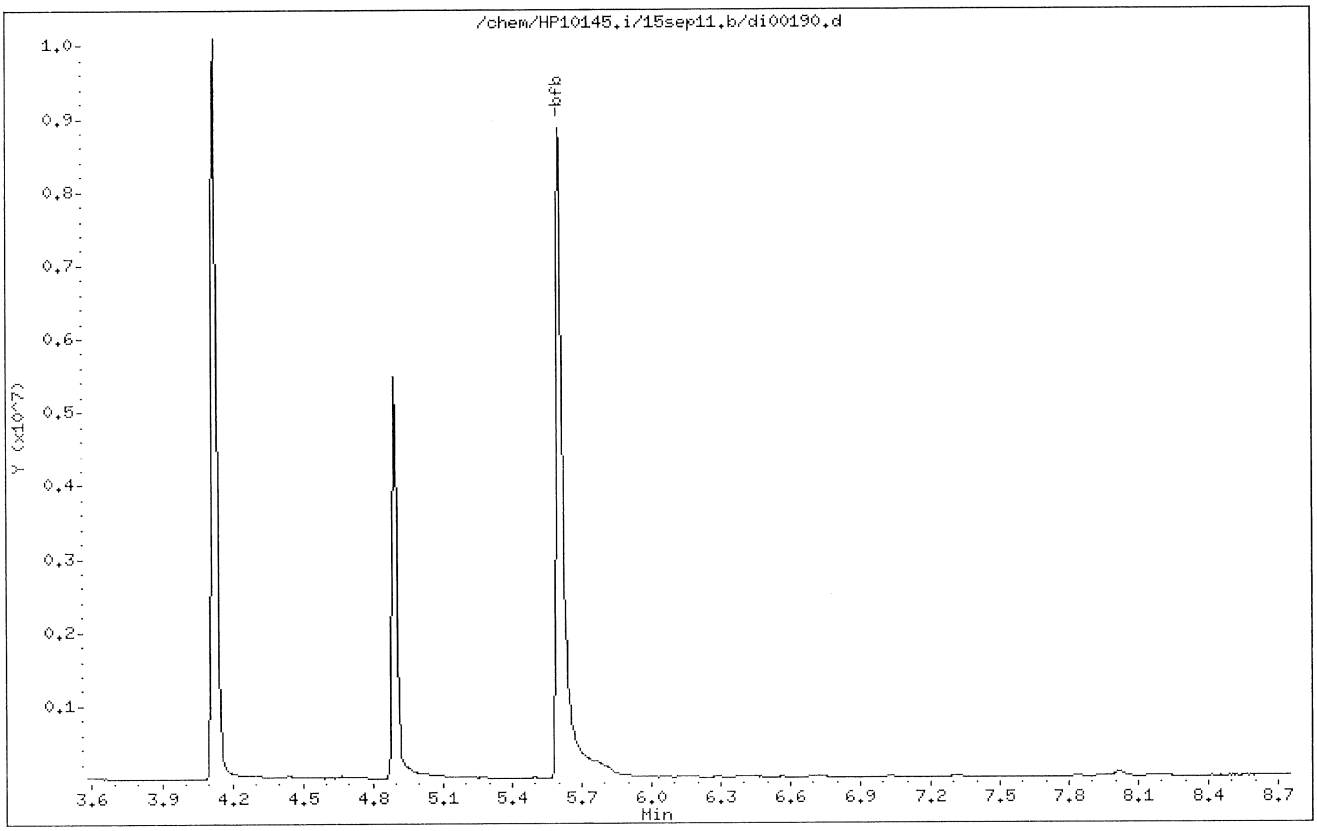
Instrument: HP10145.i

Sample Info: 50NGBFB:::BFB:0:::

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25




Digitally signed by Jeffrey B. Smith on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

Data File: /chem/HP10145.i/15sep11.b/di00190.d

Date : 11-SEP-2015 16:22

Client ID: 50NGBFB

Instrument: HP10145.i

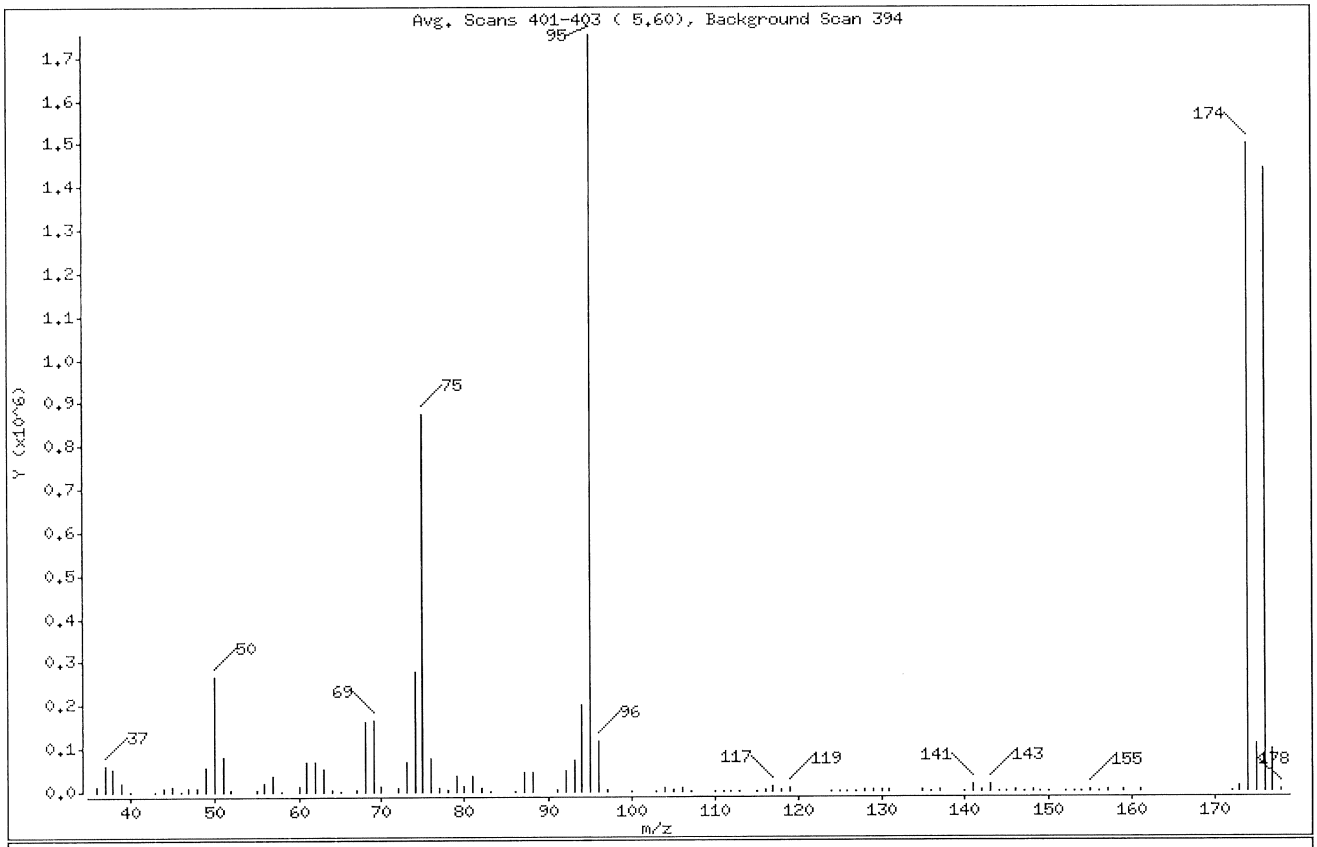
Sample Info: 50NGBFB;;;BFB;0;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 8.00 - 40.00% of mass 95 | 15.09 |
| 75 | 30.00 - 66.00% of mass 95 | 49.81 |
| 96 | 5.00 - 9.00% of mass 95 | 6.56 |
| 173 | Less than 2.00% of mass 174 | 0.60 ( 0.70) |
| 174 | 50.00 - 120.00% of mass 95 | 85.54 |
| 175 | 4.00 - 9.00% of mass 174 | 6.32 ( 7.39) |
| 176 | 93.00 - 101.00% of mass 174 | 82.27 ( 96.17) |
| 177 | 5.00 - 9.00% of mass 176 | 5.43 ( 6.60) |

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Target 3.5 esignature user ID: jbs01304

Data File: /chem/HP10145.i/15sep11.b/di00190.d

Date : 11-SEP-2015 16:22

Client ID: 50NGBFB

Instrument: HP10145.i

Sample Info: 50NGBFB;;;BFB;0;;;

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25

Data File: di00190.d
Spectrum: Avg. Scans 401-403 ( 5.60), Background Scan 394
Location of Maximum: 95.00
Number of points: 103

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 10573 | 68.00 | 162944 | 103.00 | 797 | 141.00 | 17352 |
| 37.00 | 61112 | 69.00 | 163840 | 104.00 | 7092 | 142.00 | 2324 |
| 38.00 | 51984 | 70.00 | 11695 | 105.00 | 2513 | 143.00 | 18032 |
| 39.00 | 20528 | 72.00 | 8262 | 106.00 | 6292 | 144.00 | 1058 |
| 40.00 | 691 | 73.00 | 69064 | 107.00 | 1778 | 145.00 | 1837 |
| 43.00 | 1074 | 74.00 | 278080 | 110.00 | 618 | 146.00 | 2519 |
| 44.00 | 6457 | 75.00 | 872640 | 111.00 | 1202 | 147.00 | 994 |
| 45.00 | 10996 | 76.00 | 76088 | 112.00 | 1117 | 148.00 | 4236 |
| 46.00 | 897 | 77.00 | 7691 | 113.00 | 1209 | 149.00 | 1188 |
| 47.00 | 7629 | 78.00 | 4642 | 115.00 | 1802 | 150.00 | 1887 |
| 48.00 | 7438 | 79.00 | 36944 | 116.00 | 5719 | 152.00 | 907 |
| 49.00 | 55704 | 80.00 | 10653 | 117.00 | 10835 | 153.00 | 1326 |
| 50.00 | 264256 | 81.00 | 37880 | 118.00 | 5865 | 154.00 | 1157 |
| 51.00 | 79552 | 82.00 | 7766 | 119.00 | 7888 | 155.00 | 4590 |
| 52.00 | 3610 | 83.00 | 929 | 124.00 | 1048 | 156.00 | 737 |
| 55.00 | 3645 | 86.00 | 1173 | 125.00 | 200 | 157.00 | 3037 |
| 56.00 | 20256 | 87.00 | 44464 | 126.00 | 424 | 159.00 | 2254 |
| 57.00 | 37872 | 88.00 | 43128 | 127.00 | 238 | 161.00 | 2306 |
| 58.00 | 1679 | 91.00 | 5369 | 128.00 | 5936 | 172.00 | 1923 |
| 60.00 | 13202 | 92.00 | 48112 | 129.00 | 2894 | 173.00 | 10453 |
| 61.00 | 69328 | 93.00 | 71984 | 130.00 | 5960 | 174.00 | 1498624 |
| 62.00 | 69936 | 94.00 | 199808 | 131.00 | 2481 | 175.00 | 110712 |
| 63.00 | 53736 | 95.00 | 1751552 | 135.00 | 2763 | 176.00 | 1441280 |
| 64.00 | 4565 | 96.00 | 114880 | 136.00 | 222 | 177.00 | 95152 |
| 65.00 | 1530 | 97.00 | 3402 | 137.00 | 2834 | 178.00 | 2566 |
| 67.00 | 3545 | 100.00 | 202 | 140.00 | 994 | | |

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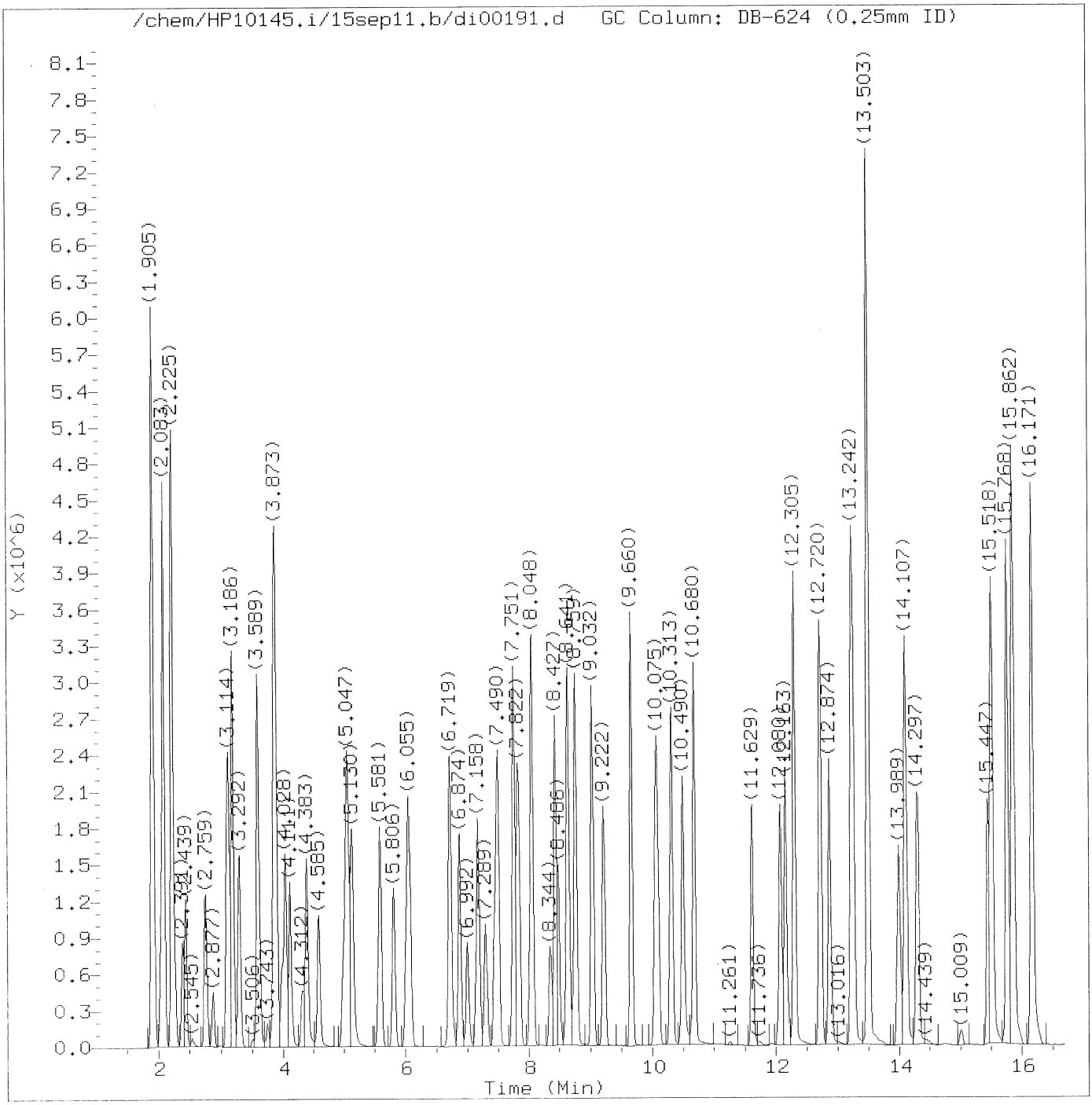
Target 3.5 esignature user ID: jbs01304




Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10145.i/15sep11.b/di00191.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 16:53 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 14-SEP-2015 10:11
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD025 Lab Sample ID: VSTD025

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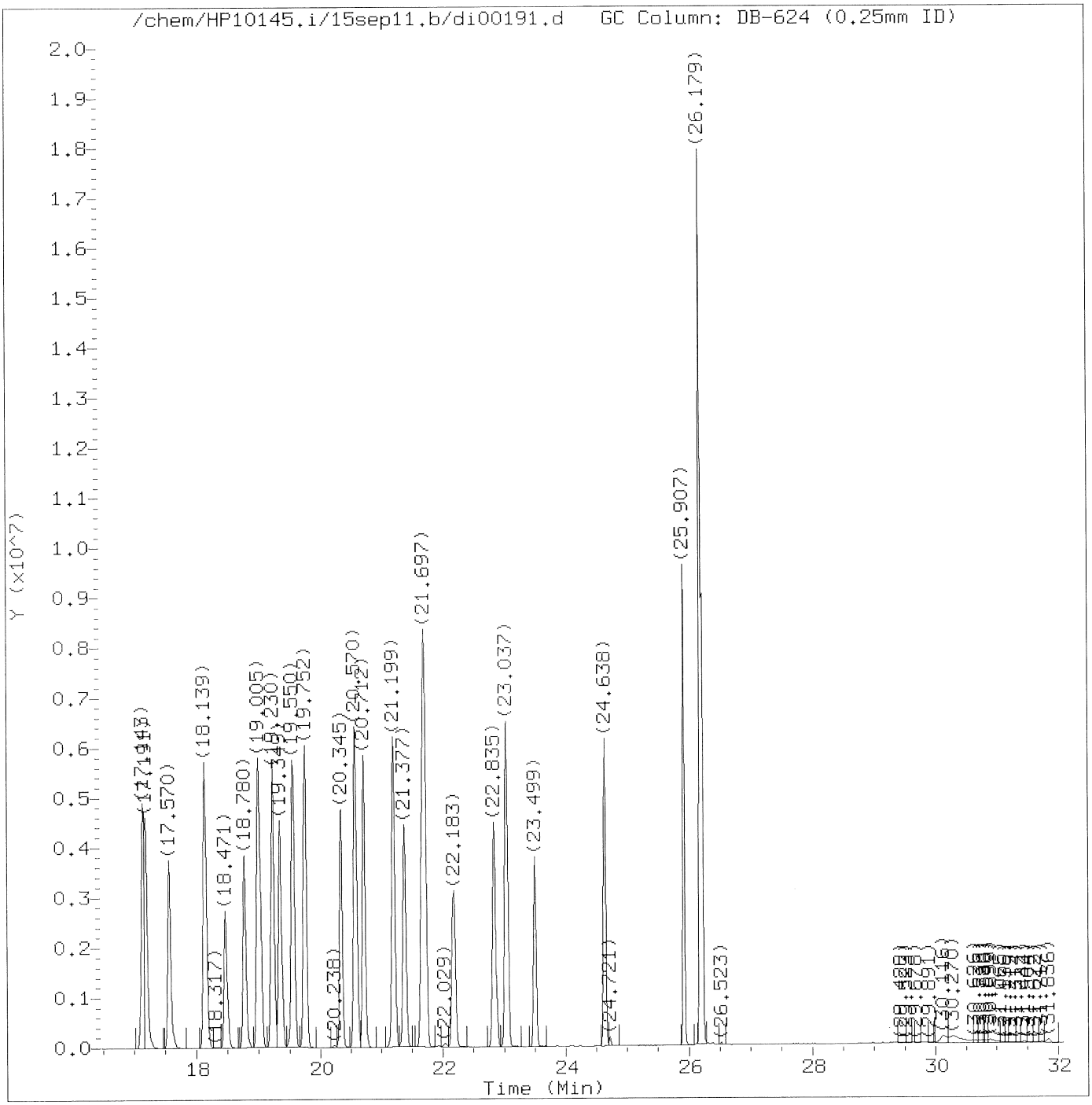
on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304




Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10145.i/15sep11.b/di00191.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 16:53 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 14-SEP-2015 10:11
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Jeffrey B. Smith
on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP10145.i/15sep11.b/di00191.d
Injection date and time: 11-SEP-2015 16:53
Instrument ID: HP10145.i
Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m
Calibration date and time: 14-SEP-2015 10:11
Sublist used: all
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD025
Lab Sample ID: VSTD025

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 1) Propene | (1) | 2.035 | 41 | 654413 | 23.862 |
| 2) Dichlorodifluoromethane | (1) | 2.083 | 85 | 4851497 | 23.635 |
| 3) Chlorodifluoromethane | (1) | 2.095 | 51 | 1653578 | 24.303 |
| 4) Freon 114 | (1) | 2.225 | 85 | 3464364 | 20.598 |
| 5) Chloromethane | (1) | 2.261 | 52 | 301313 | 23.028 |
| 6) Vinyl Chloride | (1) | 2.391 | 62 | 1177478 | 22.795 |
| 7) 1,3-Butadiene | (1) | 2.439 | 54 | 730316 | 23.062 |
| 8) Bromomethane | (1) | 2.759 | 94 | 1252392 | 20.373 |
| 9) Chloroethane | (1) | 2.877 | 64 | 572755 | 20.071 |
| 10) Bromoethene | (1) | 3.091 | 106 | 1241206 | 22.713 |
| 11) Dichlorofluoromethane | (1) | 3.114 | 67 | 2714815 | 21.726 |
| 12) Trichlorofluoromethane | (1) | 3.186 | 101 | 4242824 | 21.275 |
| 13) Pentane | (1) | 3.292 | 43 | 1329643 | 22.471 |
| 14) Ethanol | (1) | 3.565 | 45 | 236845M | 14.587 |
| 15) Freon123a | (1) | 3.589 | 67 | 2323118 | 22.112 |
| 16) Acrolein | (1) | 3.743 | 56 | 241348 | 18.332 |
| 17) 1,1-Dichloroethene | (1) | 3.838 | 61 | 1781305 | 21.736 |
| 18) Freon 113 | (1) | 3.873 | 103 | 1695286 | 20.029 |
| 19) Acetone | (1) | 3.980 | 43 | 1318662 | 22.654 |
| 20) Methyl Iodide | (1) | 4.028 | 142 | 2640297 | 22.155 |
| 21) Carbon Disulfide | (1) | 4.111 | 76 | 3214363 | 19.040 |
| 22) Isopropanol | (1) | 4.312 | 45 | 1634721M | 23.391 |
| 23) Acetonitrile | (1) | 4.383 | 40 | 447354 | 31.000 |
| 24) 3-Chloropropene | (1) | 4.383 | 76 | 567105 | 23.252 |
| 25) Methylene Chloride | (1) | 4.585 | 84 | 1016257 | 23.105 |
| 26) tert-Butyl Alcohol | (1) | 5.000 | 59 | 2861071 | 28.230 |
| 27) Acrylonitrile | (1) | 5.047 | 53 | 657815 | 25.532 |
| 28) trans-1,2-Dichloroethene | (1) | 5.047 | 61 | 1562636 | 24.913 |
| 29) Methyl t-Butyl Ether | (1) | 5.130 | 73 | 3640852 | 24.466 |
| 30) Hexane | (1) | 5.581 | 57 | 1538747 | 22.391 |
| 31) 1,1-Dichloroethane | (1) | 5.806 | 63 | 2131943 | 22.156 |
| 32) Vinyl Acetate | (1) | 6.008 | 86 | 243932 | 19.870 |
| 33) Di-Isopropyl Ether | (1) | 6.055 | 45 | 2753652 | 22.587 |
| 36) 1,2-Dichloroethene (total) | (1) | | 61 | 3190875 | 48.644 |
| 34) Ethyl Tert-Butyl Ether | (1) | 6.719 | 59 | 3808595 | 23.283 |
| 35) cis-1,2-Dichloroethene | (1) | 6.862 | 61 | 1628239 | 23.731 |
| 37) 2-Butanone | (1) | 6.992 | 72 | 616346 | 23.477 |
| 38) Ethyl Acetate | (1) | 7.158 | 70 | 391165 | 24.435 |

M = Compound was manually integrated.



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on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP10145.i/15sep11.b/di00191.d  Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 16:53  Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m  Sublist used: all
Calibration date and time: 14-SEP-2015 10:11
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD025  Lab Sample ID: VSTD025

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 39) Methyl Acrylate | (1) | 7.170 | 55 | 1643504 | 23.948 |
| 40)*Bromochloromethane | (1) | 7.289 | 130 | 638458 | 10.000 |
| 41) Tetrahydrofuran | (1) | 7.431 | 42 | 855158 | 22.935 |
| 42) Chloroform | (1) | 7.490 | 83 | 3073091 | 22.535 |
| 43) 1,1,1-Trichloroethane | (1) | 7.751 | 97 | 3766515 | 23.400 |
| 44) Cyclohexane | (1) | 7.822 | 56 | 1626017 | 22.626 |
| 45) Carbon Tetrachloride | (1) | 8.048 | 117 | 3816092 | 22.921 |
| 46) Benzene | (2) | 8.427 | 78 | 4087584 | 22.805 |
| 47) 1,2-Dichloroethane | (2) | 8.486 | 62 | 2034889 | 23.935 |
| 48) Isooctane | (2) | 8.641 | 57 | 5226217 | 23.297 |
| 49) Tert-Amyl Methyl Ether | (2) | 8.759 | 73 | 4500849 | 24.998 |
| 50) Heptane | (2) | 9.032 | 43 | 1542213 | 23.404 |
| 51)*1,4-Difluorobenzene | (2) | 9.222 | 114 | 2526371 | 10.000 |
| 52) Trichloroethene | (2) | 9.660 | 130 | 1872498 | 23.552 |
| 53) Ethyl Acrylate | (2) | 10.052 | 55 | 2264241 | 25.830 |
| 54) 1,2-Dichloropropane | (2) | 10.087 | 63 | 1234232 | 22.160 |
| 55) Dibromomethane | (2) | 10.313 | 174 | 1917067 | 23.668 |
| 57) Methyl Methacrylate | (2) | 10.490 | 69 | 1364271 | 23.565 |
| 56) 1,4-Dioxane | (2) | 10.502 | 88 | 1056288M | 25.998 |
| 58) Bromodichloromethane | (2) | 10.680 | 83 | 3483084 | 23.185 |
| 59) cis-1,3-Dichloropropene | (2) | 11.629 | 75 | 2106913 | 22.835 |
| 60) 4-Methyl-2-Pentanone | (2) | 12.080 | 43 | 2107843 | 22.300 |
| 61) Toluene | (3) | 12.305 | 91 | 5270776 | 23.207 |
| 62) Octane | (3) | 12.720 | 43 | 2061426 | 22.918 |
| 63) trans-1,3-Dichloropropene | (3) | 12.874 | 75 | 2468636 | 24.961 |
| 64) 1,3-Dichloropropene (total) | (3) | | 75 | 4575549 | 47.796 |
| 65) Ethyl Methacrylate | (3) | 13.230 | 69 | 2363638 | 22.848 |
| 66) 1,1,2-Trichloroethane | (3) | 13.254 | 97 | 1822891 | 23.408 |
| 67) Tetrachloroethene | (3) | 13.503 | 166 | 4369681 | 30.763 |
| 68) 2-Hexanone | (3) | 13.989 | 43 | 2202355 | 24.724 |
| 69) Dibromochloromethane | (3) | 14.107 | 127 | 2661759 | 22.427 |
| 70) 1,2-Dibromoethane | (3) | 14.297 | 107 | 2773441 | 22.551 |
| 71)*Chlorobenzene-d5 | (3) | 15.447 | 117 | 2289732 | 10.000 |
| 72) Chlorobenzene | (3) | 15.518 | 112 | 4241602 | 23.390 |
| 73) 1,1,1,2-Tetrachloroethane | (3) | 15.768 | 131 | 2491634 | 24.033 |
| 74) Ethylbenzene | (3) | 15.862 | 91 | 7380212 | 24.228 |
| 75) m/p-Xylene | (3) | 16.171 | 91 | 6075080 | 22.868 |
| 76) o-Xylene | (3) | 17.143 | 91 | 6310281 | 25.071 |

M = Compound was manually integrated.
* = Compound is an internal standard.



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on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP10145.i/15sep11.b/di00191.d
Injection date and time: 11-SEP-2015 16:53
Instrument ID: HP10145.i
Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m
Calibration date and time: 14-SEP-2015 10:11
Sublist used: all
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD025
Lab Sample ID: VSTD025

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 78) Styrene | (3) | 17.191 | 104 | 4505811 | 24.052 |
| 77) Xylene (total) | (3) | | 91 | 12385361 | 47.939 |
| 79) Bromoform | (3) | 17.570 | 173 | 3753849 | 23.736 |
| 80) Cumene | (3) | 18.139 | 105 | 8735210 | 24.401 |
| 81) Bromobenzene | (3) | 18.780 | 156 | 2600951 | 24.133 |
| 82) 1,1,2,2-Tetrachloroethane | (3) | 18.993 | 83 | 3925022 | 22.093 |
| 83) 1,2,3-Trichloropropane | (3) | 19.017 | 110 | 1322896 | 22.610 |
| 84) n-Propylbenzene | (3) | 19.230 | 120 | 2258090 | 23.402 |
| 85) 2-Chlorotoluene | (3) | 19.349 | 126 | 1873758 | 23.753 |
| 86) 4-Ethyltoluene | (3) | 19.550 | 105 | 8428790 | 23.395 |
| 87) 1,3,5-Trimethylbenzene | (3) | 19.752 | 105 | 7648777 | 23.727 |
| 88) Alpha Methyl Styrene | (3) | 20.345 | 118 | 3283564 | 24.554 |
| 89) tert-Butylbenzene | (3) | 20.582 | 119 | 7315433 | 23.430 |
| 90) 1,2,4-Trimethylbenzene | (3) | 20.712 | 105 | 7540781 | 23.661 |
| 91) sec-Butylbenzene | (3) | 21.199 | 105 | 10393315 | 23.480 |
| 92) 1,3-Dichlorobenzene | (3) | 21.388 | 146 | 4556311 | 24.296 |
| 93) 1,4-Dichlorobenzene | (3) | 21.673 | 146 | 4564141 | 24.346 |
| 94) p-Isopropyltoluene | (3) | 21.709 | 119 | 9313143 | 24.923 |
| 95) Benzyl Chloride | (3) | 22.183 | 91 | 5847645M | 24.011 |
| 96) 1,2-Dichlorobenzene | (3) | 22.835 | 146 | 4436260 | 24.851 |
| 97) n-Butylbenzene | (3) | 23.037 | 91 | 8118155 | 24.740 |
| 98) Hexachloroethane | (3) | 23.499 | 117 | 1355023 | 12.633 |
| 99) 1,2-Dibromo-3-chloropropane | (3) | 24.638 | 157 | 2660858 | 25.138 |
| 100) 1,2,4-Trichlorobenzene | (3) | 25.918 | 180 | 3808228 | 28.018 |
| 101) Hexachlorobutadiene | (3) | 26.179 | 225 | 4500542 | 22.055 |
| 102) Naphthalene | (3) | 26.215 | 128 | 7577613 | 32.190 |

M = Compound was manually integrated.



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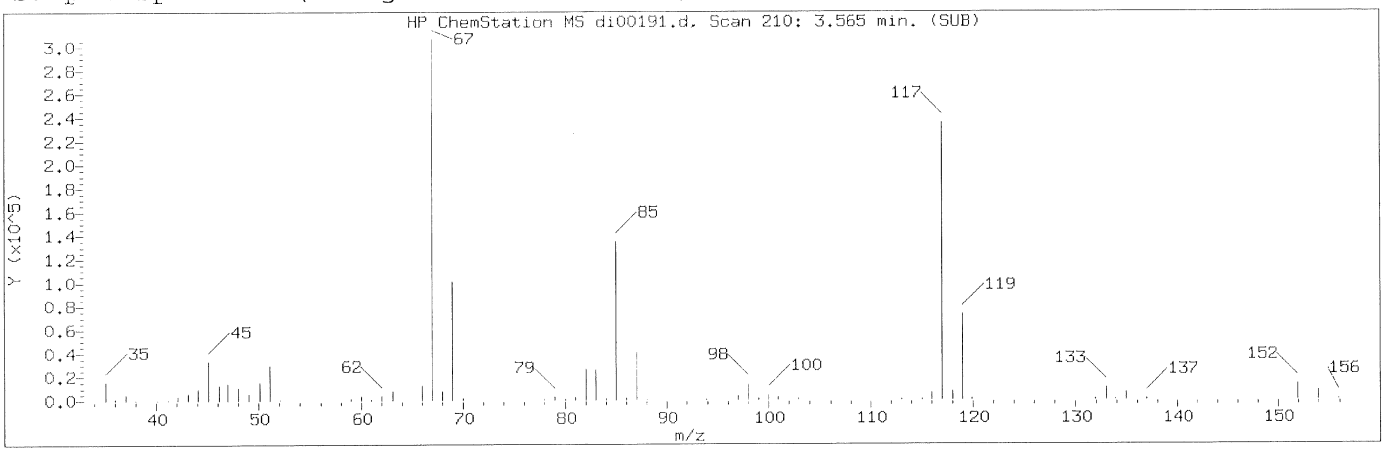
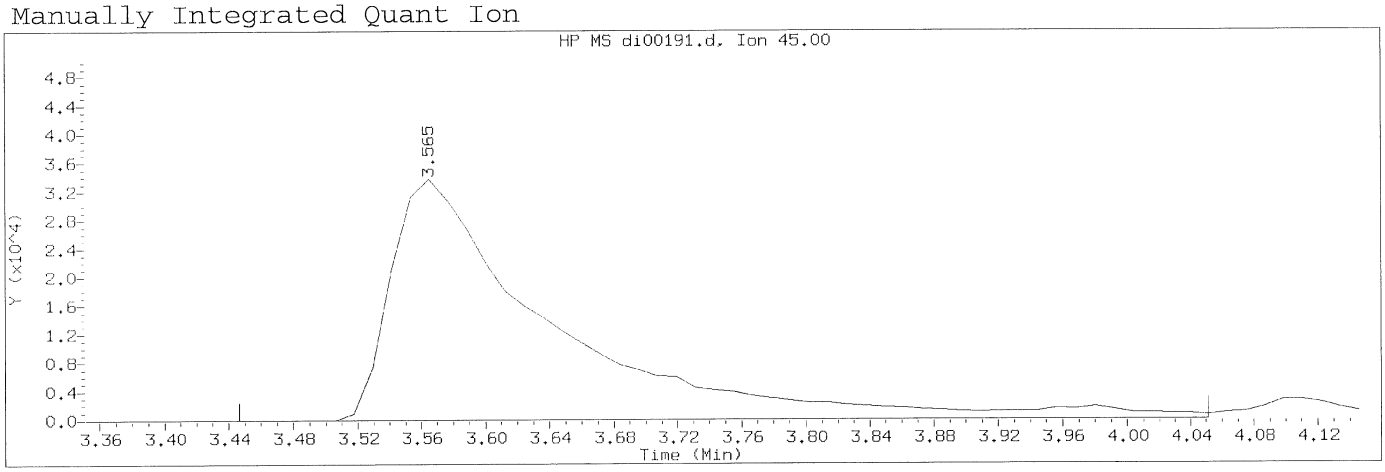
on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00191.d  Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 16:53  Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m  Sublist used: all
Calibration date and time: 14-SEP-2015 10:11
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD025  Lab Sample ID: VSTD025

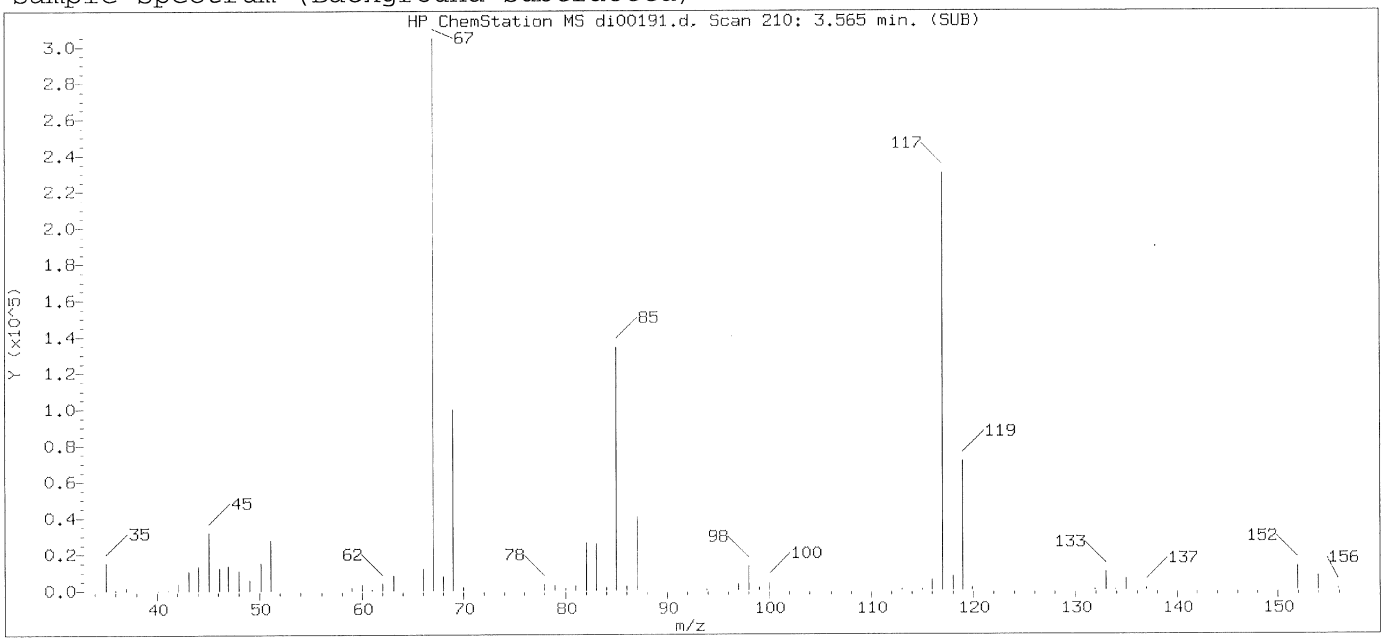
| | | | |
|---|---|---|---|
| Compound Number | : 14 | | |
| Compound Name | : Ethanol | | |
| Scan Number | : 210 | | |
| Retention Time (minutes) | : 3.565 | | |
| Quant Ion | : 45.00 | | |
| Area (flag) | : 236845M | | |
| Concentration (ppb(v)) | : 14.5874 | | |
| Integration start scan | : 199 | Integration stop scan: | 250 |
| Y at integration start | : 0 | Y at integration end: | 0 |

Reason for manual integration: improper integration

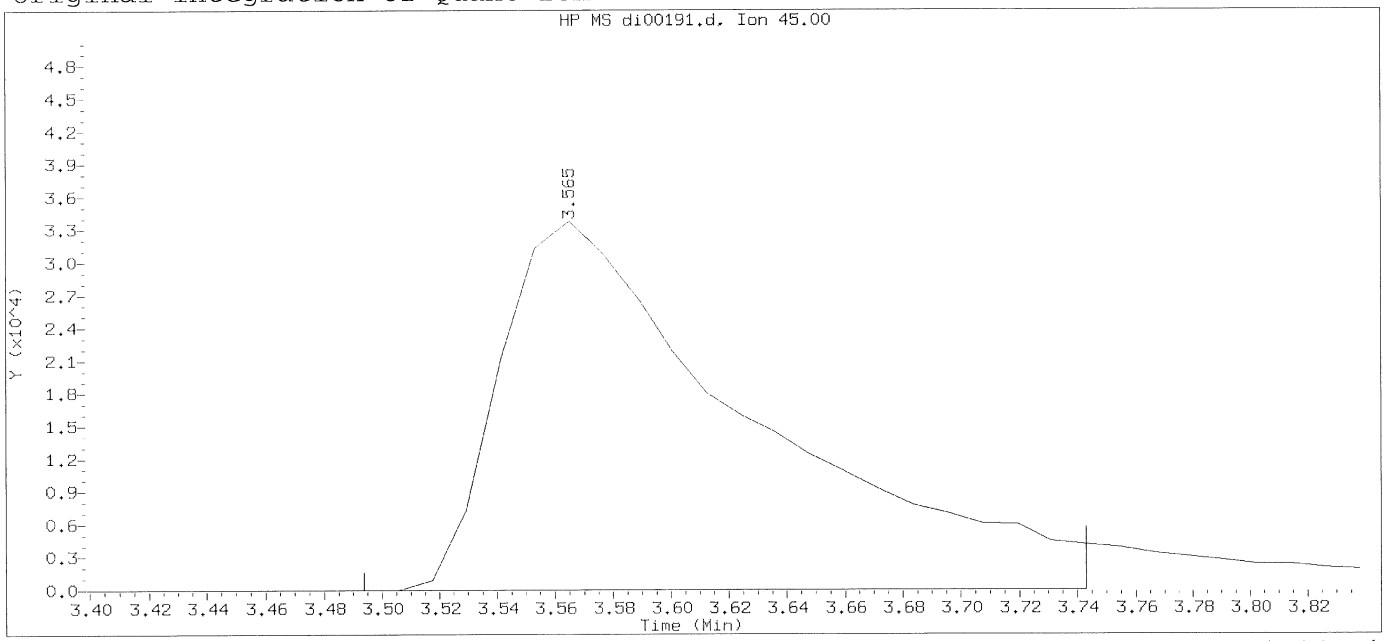
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 09/14/2015 at 13:37. Target 3.5 esignature user ID: jbs01304

GC/MS audit/management approval: Mark A. Ratcliff Senior Specialist SEP 15 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00191.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 16:53 Analyst ID: jeb07445

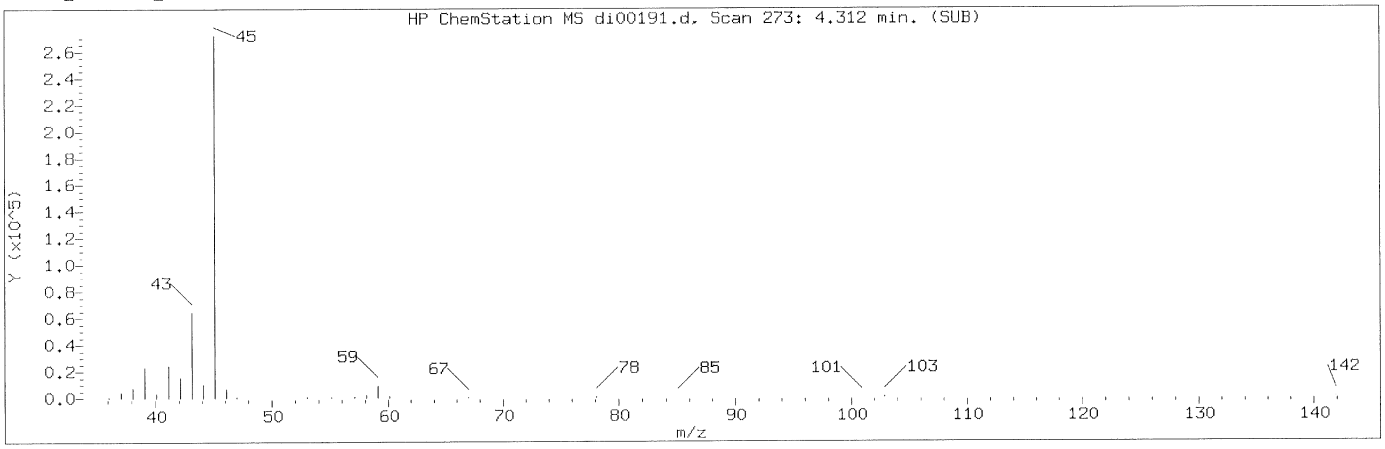
Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 11-SEP-2015 17:33
Date, time and analyst ID of latest file update: 11-Sep-2015 17:33 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

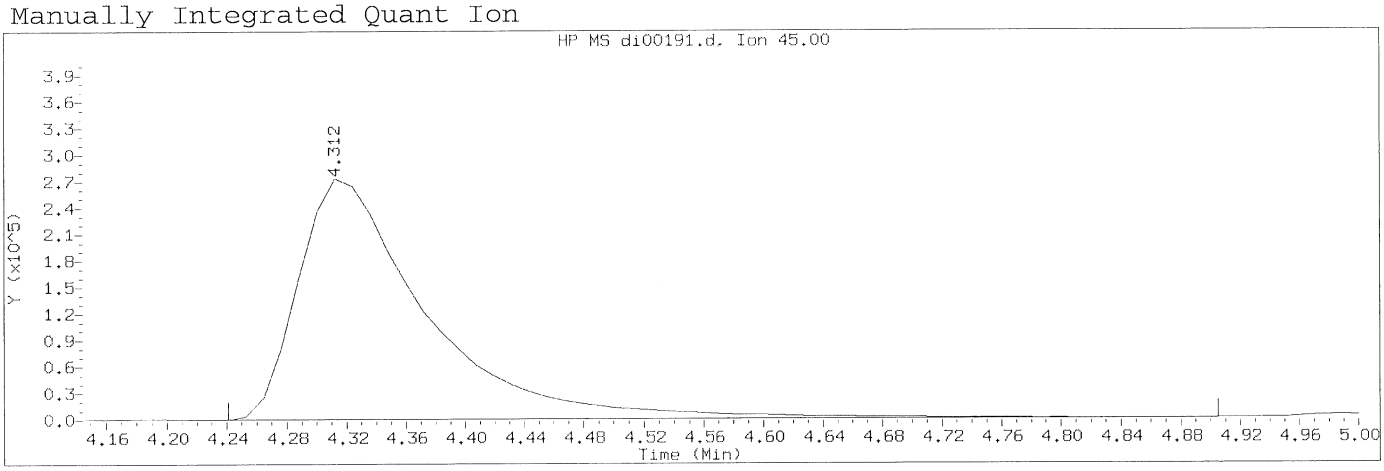
| | | | |
|---|---|---|---|
| Compound Number | : 14 | | |
| Compound Name | : Ethanol | | |
| Scan Number | : 210 | | |
| Retention Time (minutes) | : 3.565 | | |
| Quant Ion | : 45.00 | | |
| Area | : 204612 | | |
| Concentration (ppb(v)) | : 14.0735 | | |
| Integration start scan | : 203 | Integration stop scan: | 224 |
| Y at integration start | : 0 | Y at integration end: | 0 |

Digitally signed by Jeffrey B. Smith on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00191.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 16:53 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 14-SEP-2015 10:11
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 22
Compound Name : Isopropanol
Scan Number : 273
Retention Time (minutes): 4.312
Quant Ion : 45.00
Area (flag) : 1634721M
Concentration (ppb(v)) : 23.3909
Integration start scan : 266 Integration stop scan: 322
Y at integration start : 575 Y at integration end: 575

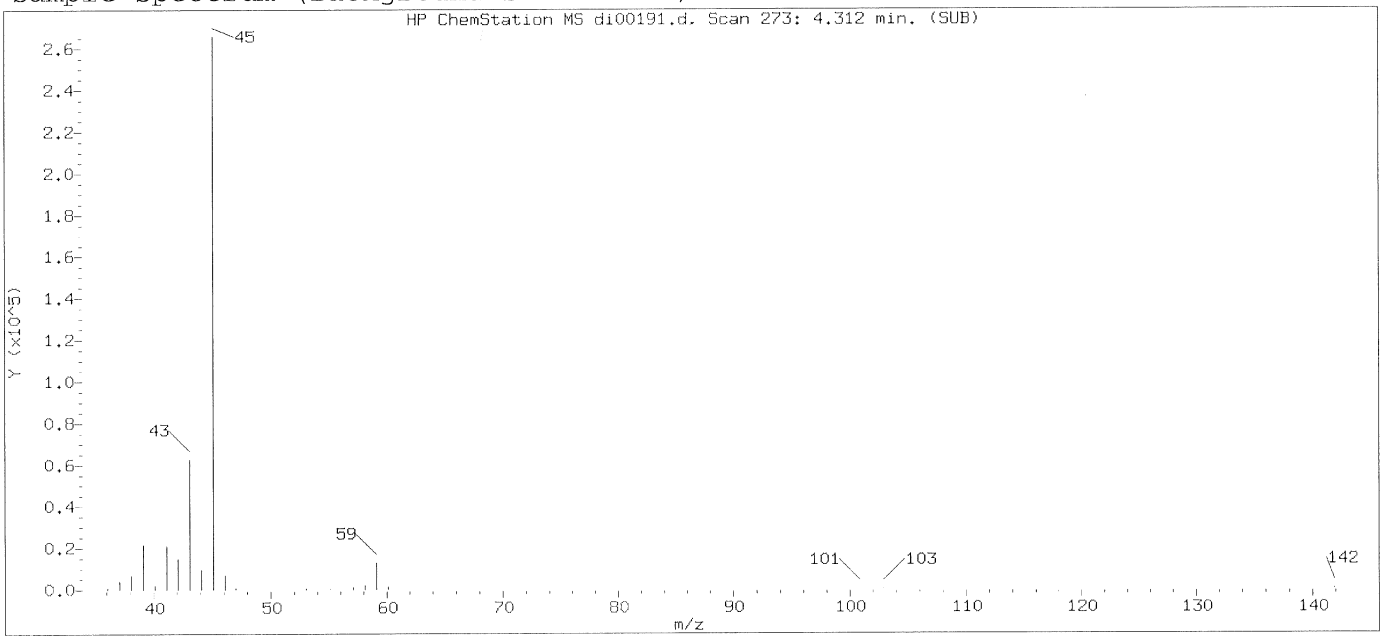
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 09/14/2015 at 13:37. Target 3.5 esignature user ID: jbs01304

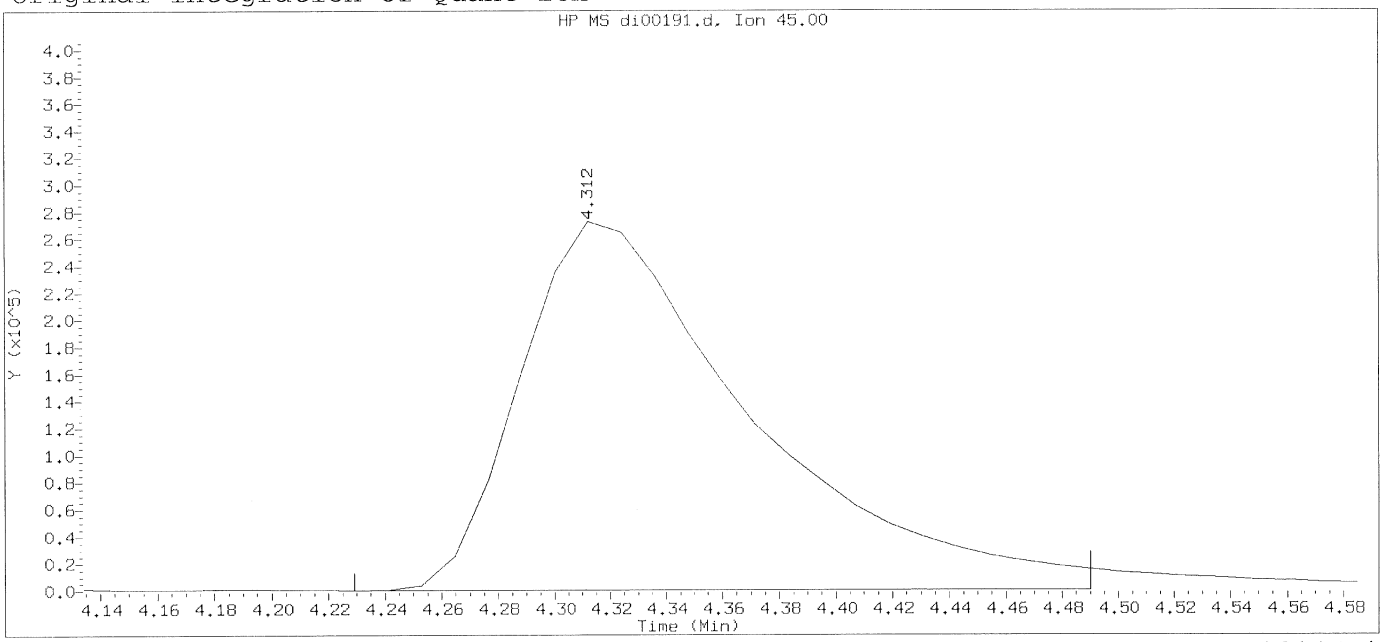
Mark A. Ratcliff
Senior Specialist

GC/MS audit/management approval: SEP 15 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00191.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 16:53 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 11-SEP-2015 17:33
Date, time and analyst ID of latest file update: 11-Sep-2015 17:33 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

| | | | |
|---|---|---|---|
| Compound Number | : 22 | | |
| Compound Name | : Isopropanol | | |
| Scan Number | : 273 | | |
| Retention Time (minutes) | : 4.312 | | |
| Quant Ion | : 45.00 | | |
| Area | : 1548258 | | |
| Concentration (ppb(v)) | : 26.2092 | | |
| Integration start scan | : 265 | Integration stop scan: | 287 |
| Y at integration start | : 637 | Y at integration end: | 637 |

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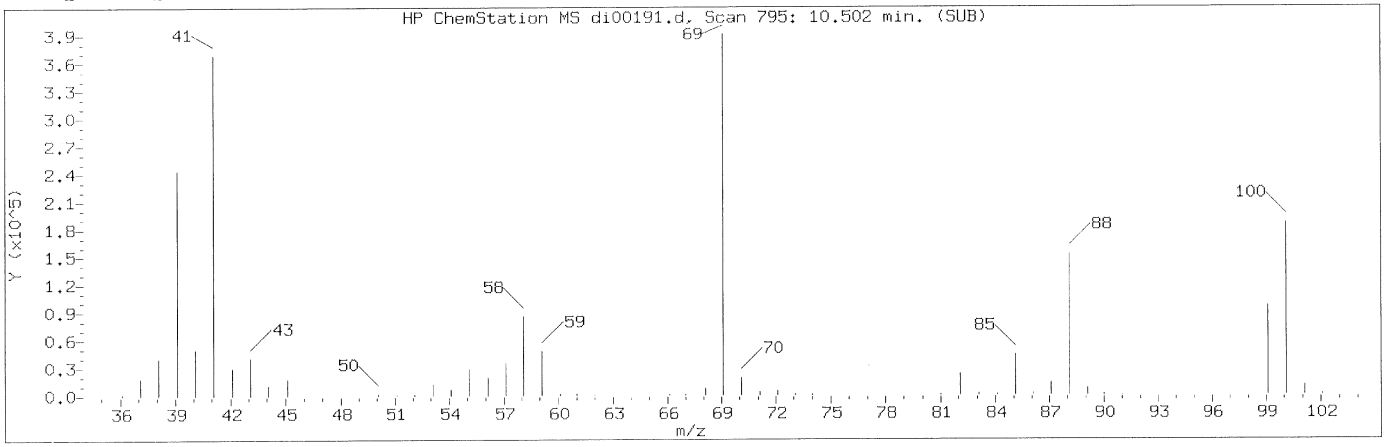
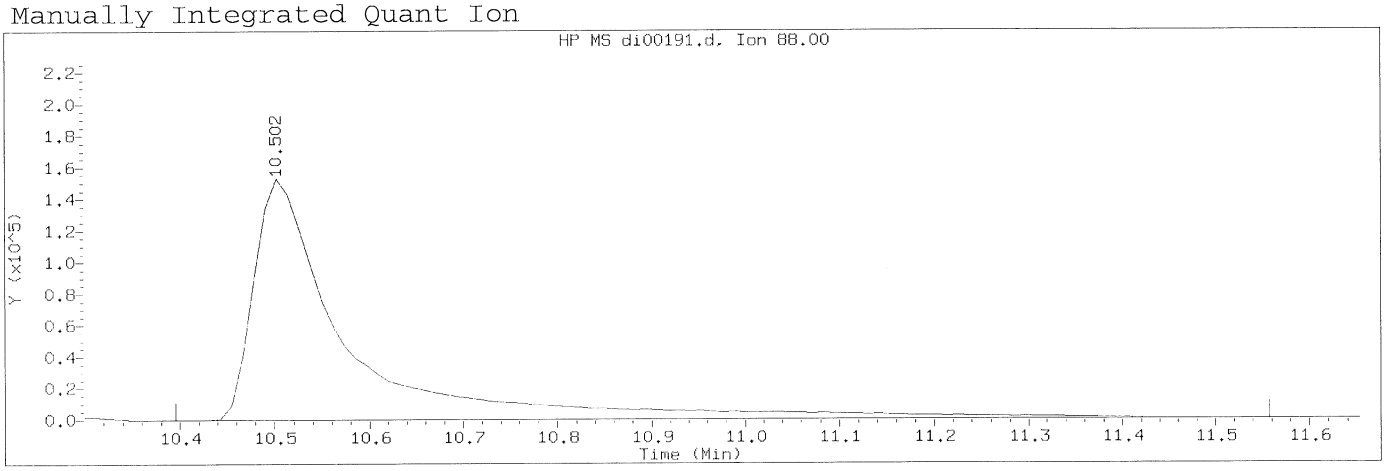
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00191.d  Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 16:53  Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m  Sublist used: all
Calibration date and time: 14-SEP-2015 10:11
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD025  Lab Sample ID: VSTD025

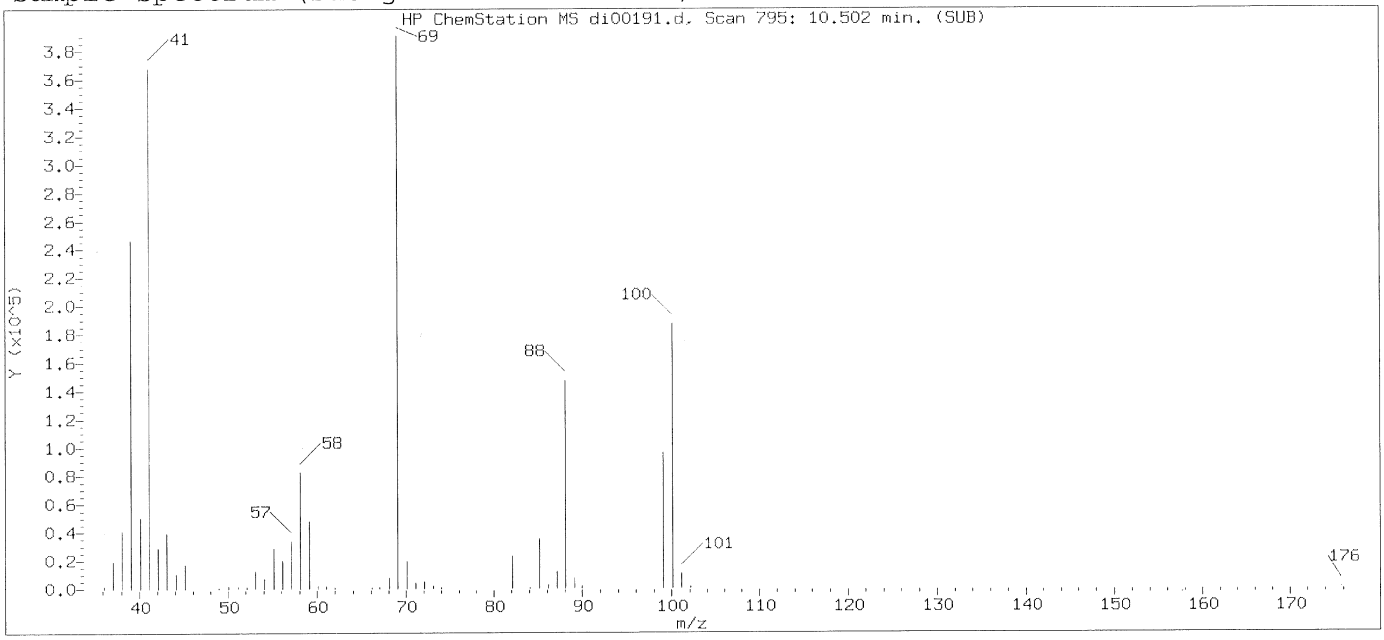
| | | | |
|---|---|---|---|
| Compound Number | : 56 | | |
| Compound Name | : 1,4-Dioxane | | |
| Scan Number | : 795 | | |
| Retention Time (minutes) | : 10.502 | | |
| Quant Ion | : 88.00 | | |
| Area (flag) | : 1056288M | | |
| Concentration (ppb(v)) | : 25.9978 | | |
| Integration start scan | : 785 | Integration stop scan: | 883 |
| Y at integration start | : 0 | Y at integration end: | 0 |

Reason for manual integration: improper integration

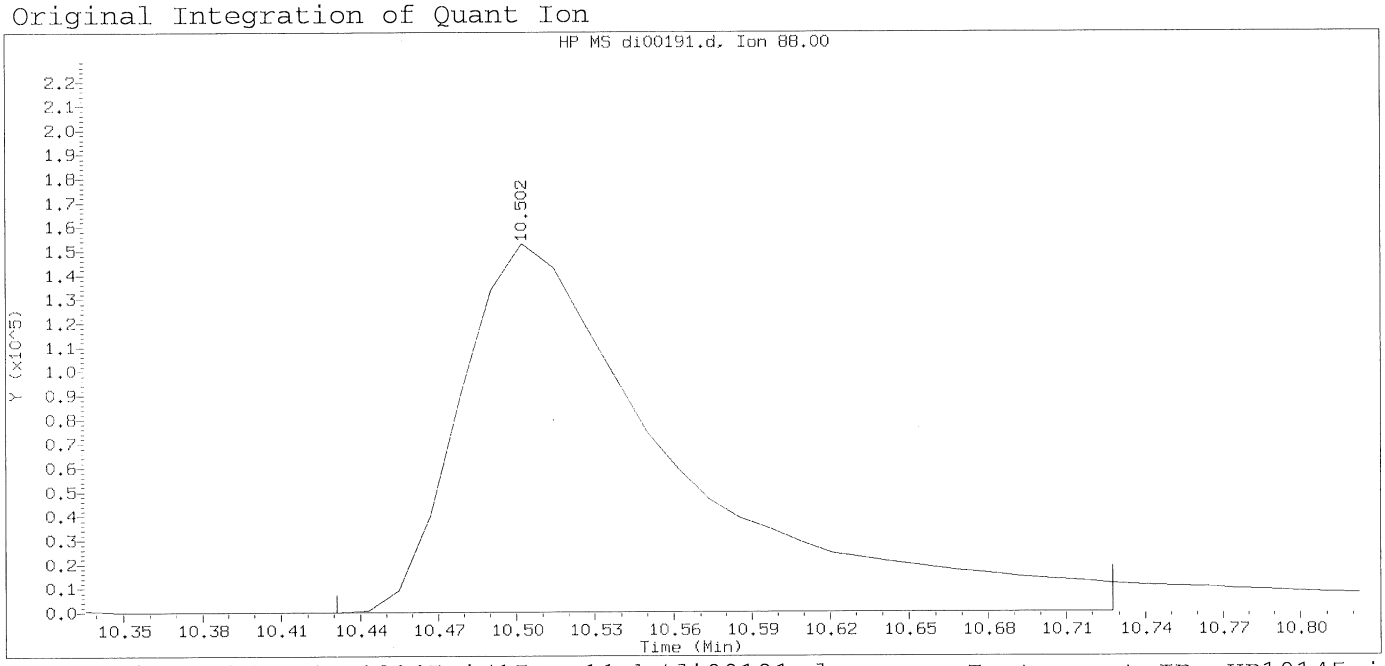
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 09/14/2015 at 13:37. Target 3.5 esignature user ID: jbs01304

GC/MS audit/management approval: Mark A. Ratcliff Senior Specialist SEP 15 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00191.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 16:53 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 11-SEP-2015 17:33
Date, time and analyst ID of latest file update: 11-Sep-2015 17:33 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

| | | | |
|---|---|---|---|
| Compound Number | : 56 | | |
| Compound Name | : 1,4-Dioxane | | |
| Scan Number | : 795 | | |
| Retention Time (minutes) | : 10.502 | | |
| Quant Ion | : 88.00 | | |
| Area | : 879897 | | |
| Concentration (ppb(v)) | : 27.7975 | | |
| Integration start scan | : 788 | Integration stop scan: | 813 |
| Y at integration start | : 0 | Y at integration end: | 0 |

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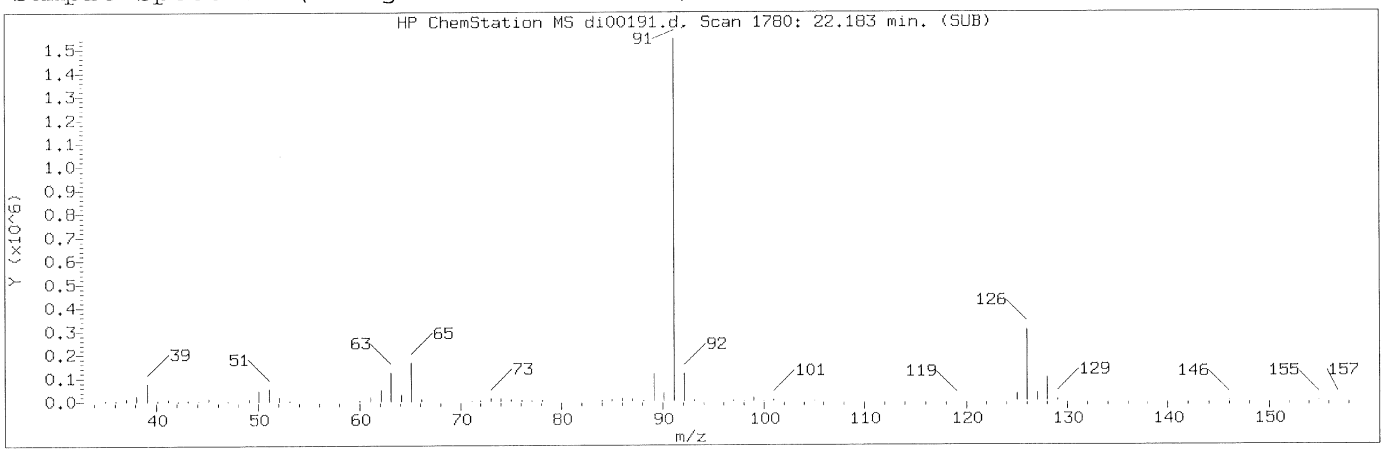
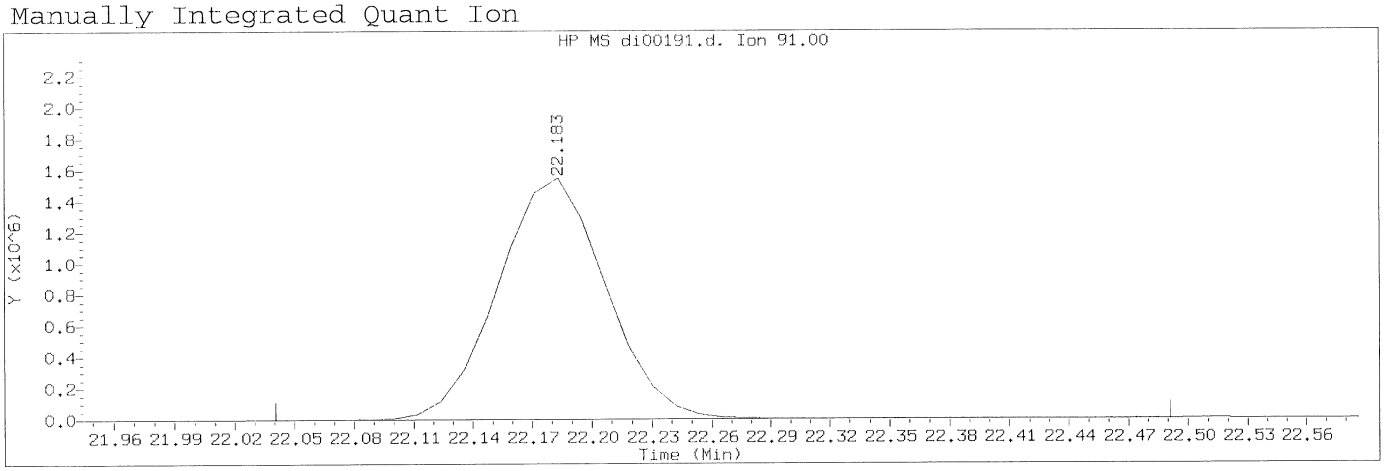
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00191.d  Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 16:53  Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m  Sublist used: all
Calibration date and time: 14-SEP-2015 10:11
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD025  Lab Sample ID: VSTD025

Compound Number : 95
Compound Name : Benzyl Chloride
Scan Number : 1780
Retention Time (minutes): 22.183
Quant Ion : 91.00
Area (flag) : 5847645M
Concentration (ppb(v)) : 24.0115
Integration start scan : 1767  Integration stop scan: 1805
Y at integration start : 728  Y at integration end: 728

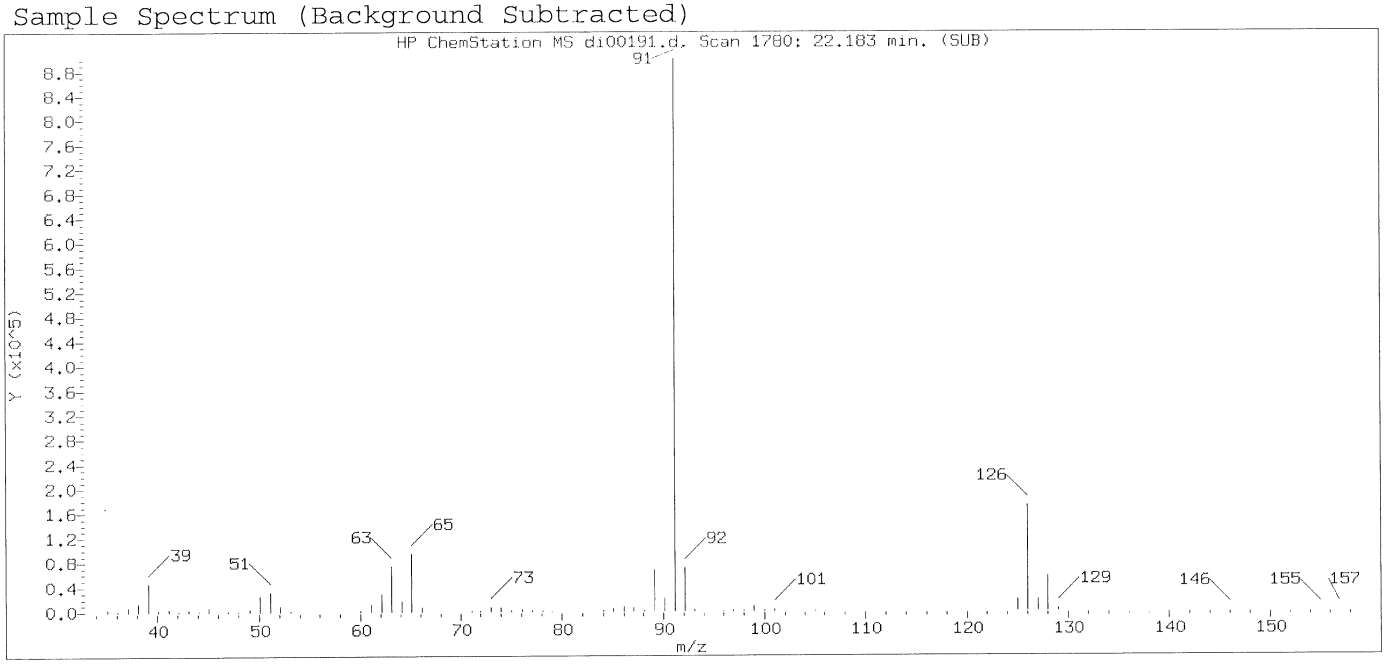
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 09/14/2015 at 13:37. Target 3.5 esignature user ID: jbs01304

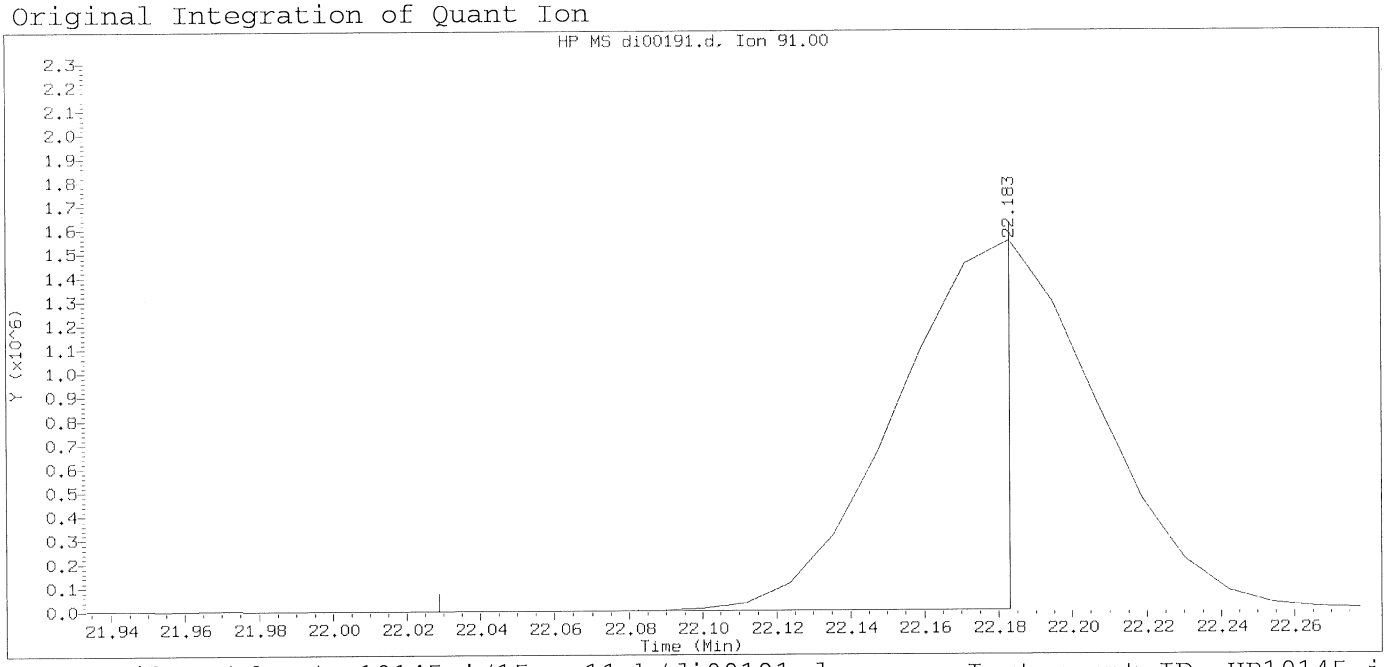
Mark A. Ratcliff
Senior Specialist

GC/MS audit/management approval: SEP 15 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00191.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 16:53 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 11-SEP-2015 17:33
Date, time and analyst ID of latest file update: 11-Sep-2015 17:33 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

| | |
|---|---|
| Compound Number | : 95 |
| Compound Name | : Benzyl Chloride |
| Scan Number | : 1780 |
| Retention Time (minutes) | : 22.183 |
| Quant Ion | : 91.00 |
| Area | : 3165861 |
| Concentration (ppb(v)) | : 19.2830 |
| Integration start scan | : 1766 Integration stop scan: 1779 |
| Y at integration start | : 757 Y at integration end: 757 |

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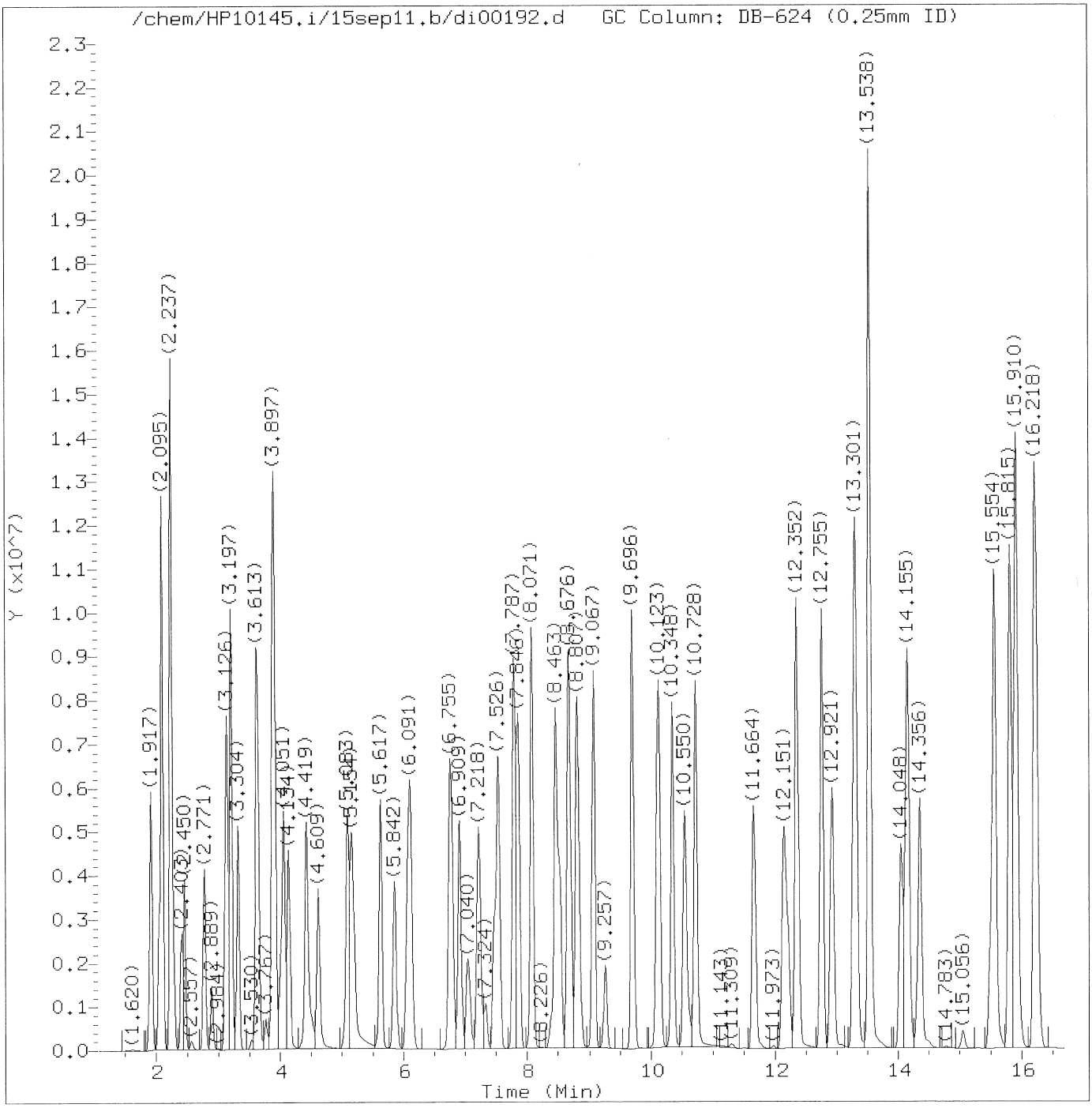
Target 3.5 esignature user ID: jbs01304




Total Ion Chromatogram (TIC)

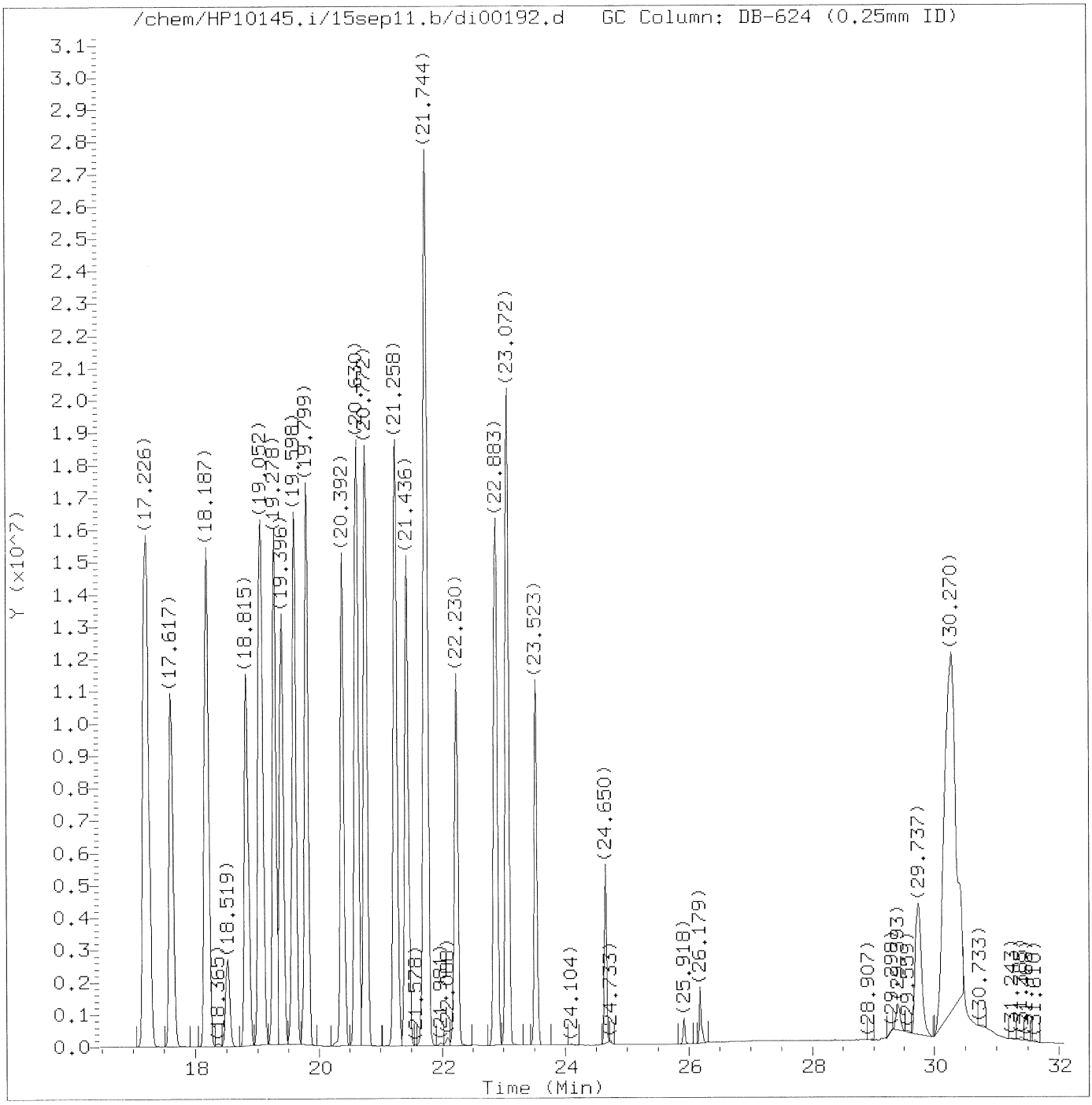
Target Revision 3.5

Data File: /chem/HP10145.i/15sep11.b/di00192.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 17:39 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 14-SEP-2015 10:11
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD070 Lab Sample ID: VSTD070

Digitally signed by Jeffrey B. Smith
on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304




Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10145.i/15sep11.b/di00192.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 17:39 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 14-SEP-2015 10:11
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD070 Lab Sample ID: VSTD070

Digitally signed by Jeffrey B. Smith
on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP10145.i/15sep11.b/di00192.d
Injection date and time: 11-SEP-2015 17:39
Instrument ID: HP10145.i
Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m
Calibration date and time: 14-SEP-2015 10:11
Sublist used: all
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD070
Lab Sample ID: VSTD070

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 1) Propene | (1) | 2.047 | 41 | 2059385 | 62.546 |
| 2) Dichlorodifluoromethane | (1) | 2.095 | 85 | 13403773 | 54.388 |
| 3) Chlorodifluoromethane | (1) | 2.107 | 51 | 5033161 | 61.614 |
| 4) Freon 114 | (1) | 2.237 | 85 | 10678544 | 52.883 |
| 5) Chloromethane | (1) | 2.273 | 52 | 954826 | 60.782 |
| 6) Vinyl Chloride | (1) | 2.403 | 62 | 3771700 | 60.819 |
| 7) 1,3-Butadiene | (1) | 2.450 | 54 | 2419680 | 63.643 |
| 8) Bromomethane | (1) | 2.771 | 94 | 4182067 | 56.665 |
| 9) Chloroethane | (1) | 2.889 | 64 | 1963406 | 57.307 |
| 10) Bromoethene | (1) | 3.103 | 106 | 4106854 | 62.596 |
| 11) Dichlorofluoromethane | (1) | 3.138 | 67 | 8496331 | 56.633 |
| 12) Trichlorofluoromethane | (1) | 3.197 | 101 | 13399116 | 55.964 |
| 13) Pentane | (1) | 3.304 | 43 | 4606021 | 64.836 |
| 15) Freon123a | (1) | 3.613 | 67 | 7826546 | 62.048 |
| 14) Ethanol | (1) | 3.684 | 45 | 730789M | 37.489 |
| 16) Acrolein | (1) | 3.767 | 56 | 910996 | 57.634 |
| 17) 1,1-Dichloroethene | (1) | 3.862 | 61 | 5831431 | 59.268 |
| 18) Freon 113 | (1) | 3.909 | 103 | 5498583 | 54.109 |
| 19) Acetone | (1) | 4.004 | 43 | 4831927 | 69.141 |
| 20) Methyl Iodide | (1) | 4.051 | 142 | 9302054 | 65.013 |
| 21) Carbon Disulfide | (1) | 4.134 | 76 | 11343285 | 55.965 |
| 24) 3-Chloropropene | (1) | 4.419 | 76 | 1927619 | 65.830 |
| 23) Acetonitrile | (1) | 4.419 | 40 | 1529485 | 88.279 |
| 22) Isopropanol | (1) | 4.455 | 45 | 5492347M | 65.459 |
| 25) Methylene Chloride | (1) | 4.609 | 84 | 3607212 | 68.309 |
| 28) trans-1,2-Dichloroethene | (1) | 5.083 | 61 | 3753190 | 49.840 |
| 27) Acrylonitrile | (1) | 5.095 | 53 | 1752569 | 56.658 |
| 26) tert-Butyl Alcohol | (1) | 5.142 | 59 | 7288491M | 59.899 |
| 29) Methyl t-Butyl Ether | (1) | 5.166 | 73 | 8758501 | 49.022 |
| 30) Hexane | (1) | 5.617 | 57 | 5191366 | 62.921 |
| 31) 1,1-Dichloroethane | (1) | 5.842 | 63 | 7096242 | 61.425 |
| 32) Vinyl Acetate | (1) | 6.055 | 86 | 867584 | 58.864 |
| 33) Di-Isopropyl Ether | (1) | 6.091 | 45 | 9603790 | 65.614 |
| 36) 1,2-Dichloroethene (total) | (1) | | 61 | 9231937 | 116.349 |
| 34) Ethyl Tert-Butyl Ether | (1) | 6.755 | 59 | 13206443 | 67.246 |
| 35) cis-1,2-Dichloroethene | (1) | 6.909 | 61 | 5478747 | 66.509 |
| 37) 2-Butanone | (1) | 7.040 | 72 | 2252067 | 71.451 |
| 38) Ethyl Acetate | (1) | 7.206 | 70 | 1392243 | 72.440 |

M = Compound was manually integrated.



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on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP10145.i/15sep11.b/di00192.d
Injection date and time: 11-SEP-2015 17:39
Instrument ID: HP10145.i
Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m
Calibration date and time: 14-SEP-2015 10:11
Sublist used: all
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD070
Lab Sample ID: VSTD070

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 39) Methyl Acrylate | (1) | 7.229 | 55 | 5866134 | 71.197 |
| 40)*Bromochloromethane | (1) | 7.324 | 130 | 766526 | 10.000 |
| 41) Tetrahydrofuran | (1) | 7.467 | 42 | 3174182 | 70.906 |
| 42) Chloroform | (1) | 7.538 | 83 | 10079028 | 61.562 |
| 43) 1,1,1-Trichloroethane | (1) | 7.787 | 97 | 12016439 | 62.182 |
| 44) Cyclohexane | (1) | 7.858 | 56 | 5577618 | 64.646 |
| 45) Carbon Tetrachloride | (1) | 8.071 | 117 | 12039509 | 60.232 |
| 46) Benzene | (2) | 8.463 | 78 | 13937018 | 64.468 |
| 47) 1,2-Dichloroethane | (2) | 8.522 | 62 | 6706083 | 65.397 |
| 48) Isooctane | (2) | 8.676 | 57 | 17597072 | 65.035 |
| 49) Tert-Amyl Methyl Ether | (2) | 8.807 | 73 | 15451502 | 71.151 |
| 50) Heptane | (2) | 9.067 | 43 | 5409162 | 68.056 |
| 51)*1,4-Difluorobenzene | (2) | 9.257 | 114 | 3047162 | 10.000 |
| 52) Trichloroethene | (2) | 9.696 | 130 | 6577250 | 68.588 |
| 53) Ethyl Acrylate | (2) | 10.111 | 55 | 8135019 | 76.941 |
| 54) 1,2-Dichloropropane | (2) | 10.123 | 63 | 4035202 | 60.067 |
| 55) Dibromomethane | (2) | 10.348 | 174 | 6821261 | 69.821 |
| 57) Methyl Methacrylate | (2) | 10.550 | 69 | 4858443 | 69.578 |
| 56) 1,4-Dioxane | (2) | 10.573 | 88 | 3685899M | 75.214 |
| 58) Bromodichloromethane | (2) | 10.728 | 83 | 11532587 | 63.647 |
| 59) cis-1,3-Dichloropropene | (2) | 11.664 | 75 | 7529010 | 67.654 |
| 60) 4-Methyl-2-Pentanone | (2) | 12.139 | 43 | 7865483 | 68.991 |
| 61) Toluene | (3) | 12.352 | 91 | 18575496 | 62.199 |
| 62) Octane | (3) | 12.755 | 43 | 7328789M | 61.964 |
| 63) trans-1,3-Dichloropropene | (3) | 12.921 | 75 | 8562657 | 65.843 |
| 64) 1,3-Dichloropropene (total) | (3) | | 75 | 16091667 | 133.497 |
| 65) Ethyl Methacrylate | (3) | 13.289 | 69 | 8102627 | 59.566 |
| 66) 1,1,2-Trichloroethane | (3) | 13.313 | 97 | 6116085 | 59.727 |
| 67) Tetrachloroethene | (3) | 13.538 | 166 | 14911859 | 79.838 |
| 68) 2-Hexanone | (3) | 14.048 | 43 | 8375318 | 71.506 |
| 69) Dibromochloromethane | (3) | 14.155 | 127 | 9448935 | 60.546 |
| 70) 1,2-Dibromoethane | (3) | 14.356 | 107 | 10159305 | 62.821 |
| 71)*Chlorobenzene-d5 | (3) | 15.495 | 117 | 3010823 | 10.000 |
| 72) Chlorobenzene | (3) | 15.566 | 112 | 16103785 | 67.536 |
| 73) 1,1,1,2-Tetrachloroethane | (3) | 15.815 | 131 | 8894313 | 65.242 |
| 74) Ethylbenzene | (3) | 15.910 | 91 | 27074029 | 67.594 |
| 75) m/p-Xylene | (3) | 16.218 | 91 | 21946933 | 62.828 |
| 76) o-Xylene | (3) | 17.191 | 91 | 22541182M | 68.107 |

M = Compound was manually integrated.
* = Compound is an internal standard.



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on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP10145.i/15sep11.b/di00192.d
Injection date and time: 11-SEP-2015 17:39
Instrument ID: HP10145.i
Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m
Calibration date and time: 14-SEP-2015 10:11
Sublist used: all
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD070
Lab Sample ID: VSTD070

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 78) Styrene | (3) | 17.250 | 104 | 16757800 | 68.030 |
| 77) Xylene (total) | (3) | | 91 | 44488115 | 130.934 |
| 79) Bromoform | (3) | 17.617 | 173 | 13744158 | 66.091 |
| 80) Cumene | (3) | 18.187 | 105 | 31718676 | 67.384 |
| 81) Bromobenzene | (3) | 18.827 | 156 | 10029448 | 70.772 |
| 82) 1,1,2,2-Tetrachloroethane | (3) | 19.040 | 83 | 13742073 | 58.826 |
| 83) 1,2,3-Trichloropropane | (3) | 19.076 | 110 | 4708612 | 61.203 |
| 84) n-Propylbenzene | (3) | 19.278 | 120 | 8698939 | 68.560 |
| 85) 2-Chlorotoluene | (3) | 19.396 | 126 | 7204162 | 69.453 |
| 86) 4-Ethyltoluene | (3) | 19.598 | 105 | 31326675 | 66.125 |
| 87) 1,3,5-Trimethylbenzene | (3) | 19.799 | 105 | 28251255 | 66.647 |
| 88) Alpha Methyl Styrene | (3) | 20.392 | 118 | 13102941 | 74.516 |
| 89) tert-Butylbenzene | (3) | 20.630 | 119 | 26385397 | 64.267 |
| 90) 1,2,4-Trimethylbenzene | (3) | 20.772 | 105 | 28215109 | 67.329 |
| 91) sec-Butylbenzene | (3) | 21.258 | 105 | 37638365 | 64.665 |
| 92) 1,3-Dichlorobenzene | (3) | 21.436 | 146 | 18115486 | 73.464 |
| 93) 1,4-Dichlorobenzene | (3) | 21.720 | 146 | 17082284M | 69.296 |
| 94) p-Isopropyltoluene | (3) | 21.756 | 119 | 32184440 | 65.501 |
| 95) Benzyl Chloride | (3) | 22.230 | 91 | 23266283 | 72.655 |
| 96) 1,2-Dichlorobenzene | (3) | 22.883 | 146 | 17422483 | 74.223 |
| 97) n-Butylbenzene | (3) | 23.072 | 91 | 25989692 | 60.235 |
| 98) Hexachloroethane | (3) | 23.523 | 117 | 4430324 | 31.413 |
| 99) 1,2-Dibromo-3-chloropropane | (3) | 24.650 | 157 | 2559389 | 18.389 |
| 100) 1,2,4-Trichlorobenzene | (3) | 25.918 | 180 | 339677 | 1.901 |
| 101) Hexachlorobutadiene | (3) | 26.179 | 225 | 484699M | 1.806 |
| 102) Naphthalene | (3) | 26.215 | 128 | 268594 | 0.868 |

M = Compound was manually integrated.



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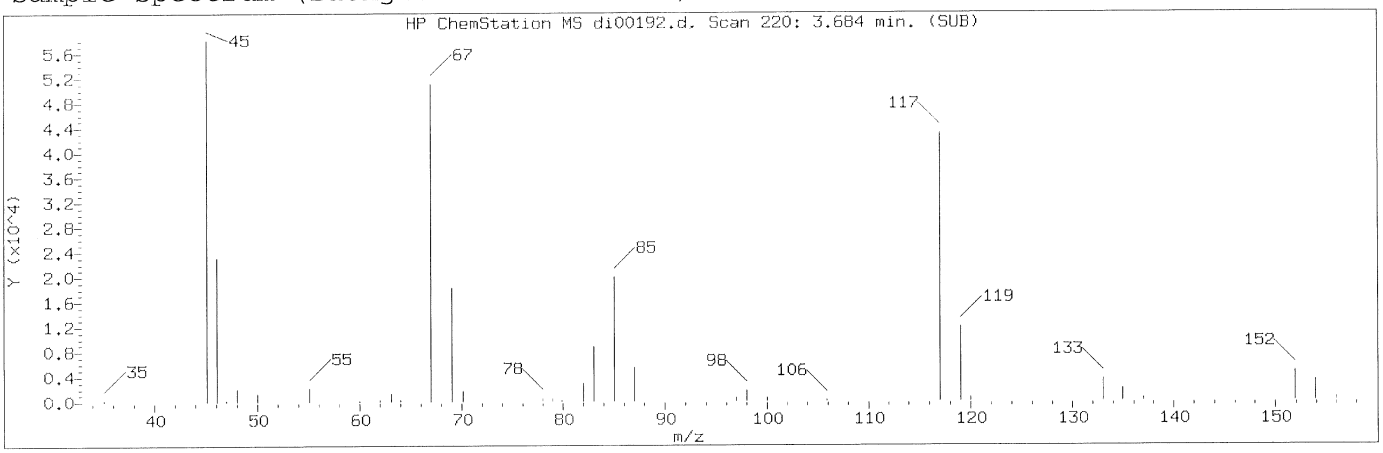
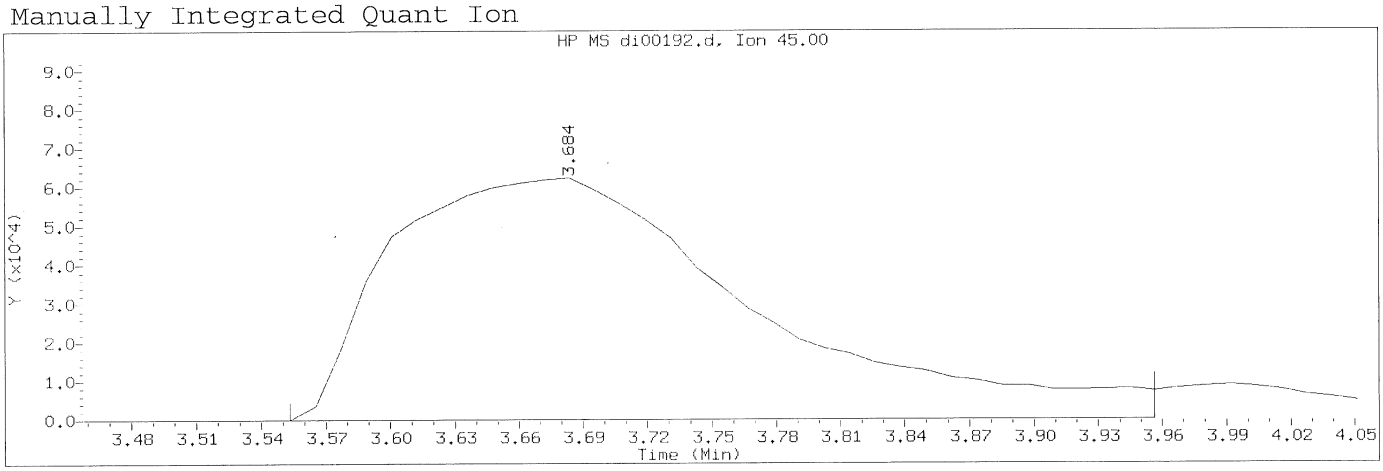
on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00192.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 17:39 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 14-SEP-2015 10:11
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compound Number : 14
Compound Name : Ethanol
Scan Number : 220
Retention Time (minutes): 3.684
Quant Ion : 45.00
Area (flag) : 730789M
Concentration (ppb(v)) : 37.4895
Integration start scan : 208 Integration stop scan: 242
Y at integration start : 0 Y at integration end: 0

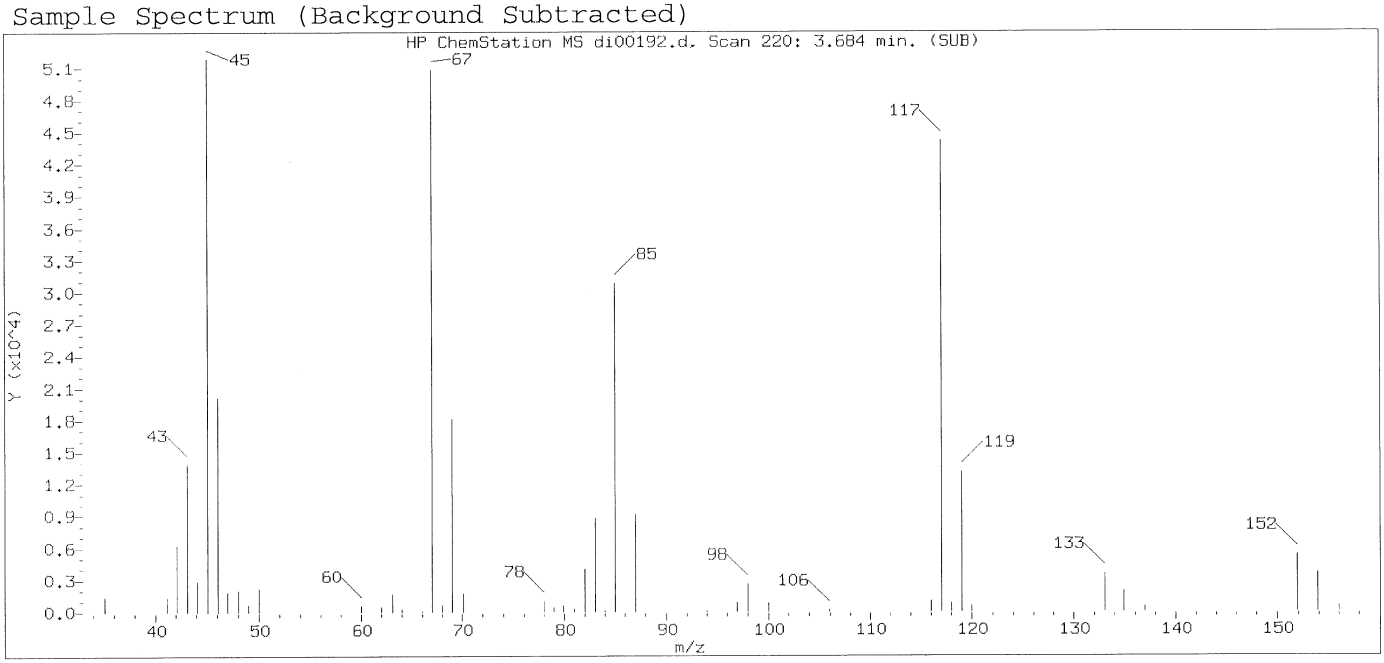
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 09/14/2015 at 13:37. Target 3.5 esignature user ID: jbs01304

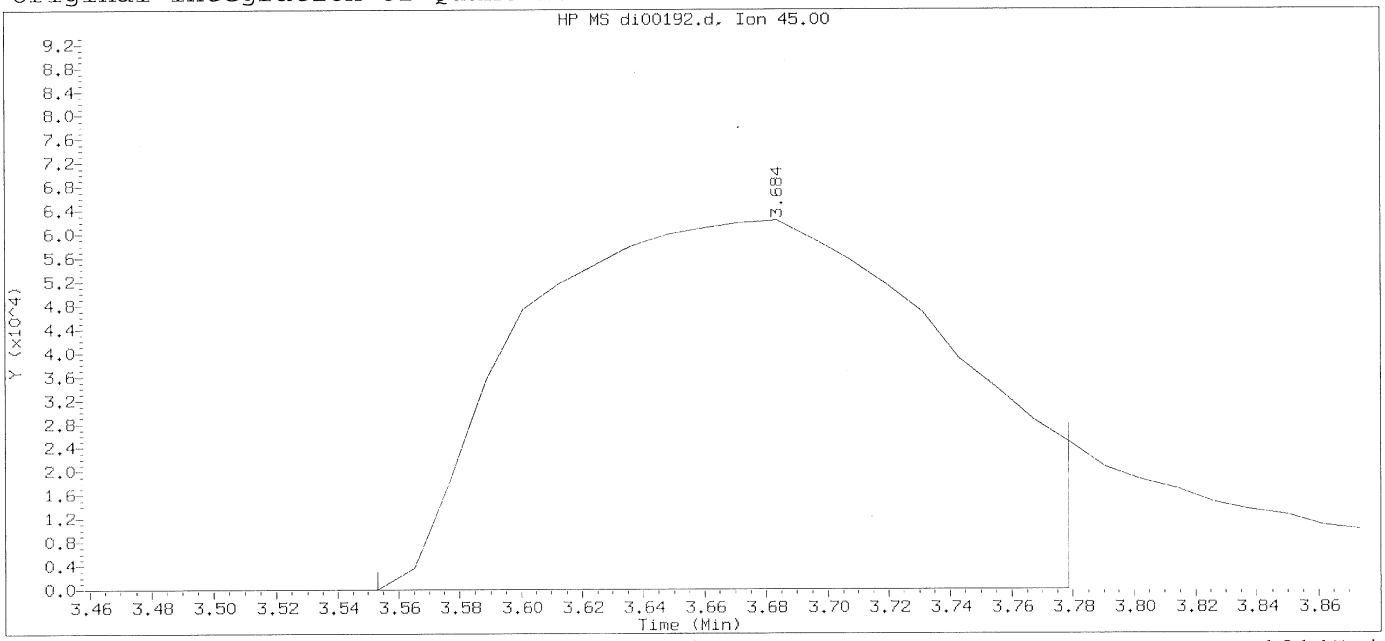
GC/MS audit/management approval: Mark A. Ratcliff Senior Specialist

SEP 15 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00192.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 17:39 Analyst ID: jeb07445

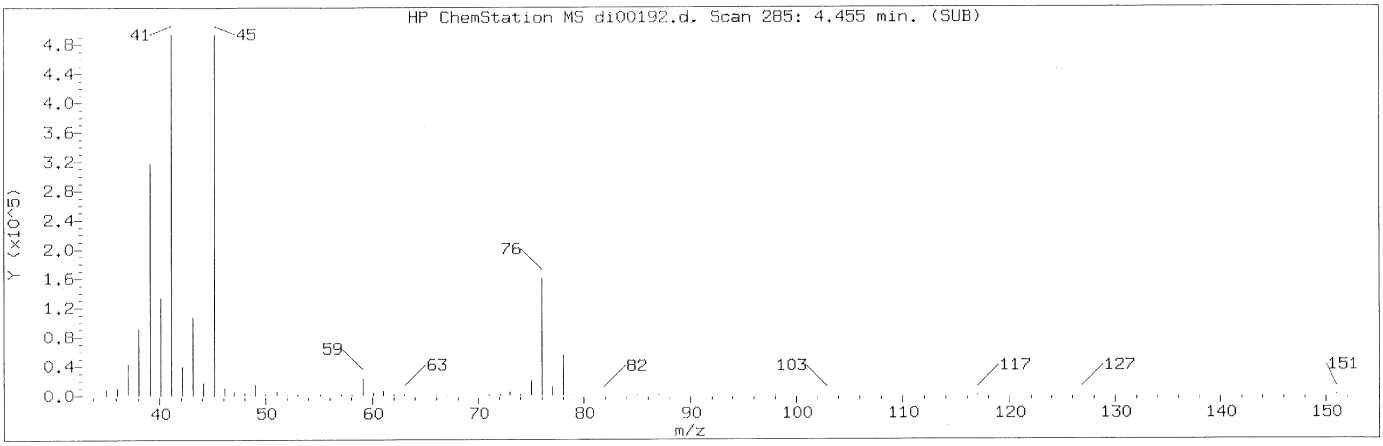
Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 11-SEP-2015 17:33
Date, time and analyst ID of latest file update: 11-Sep-2015 18:20 Automation

Sample Name: VSTD070 Lab Sample ID: VSTD070

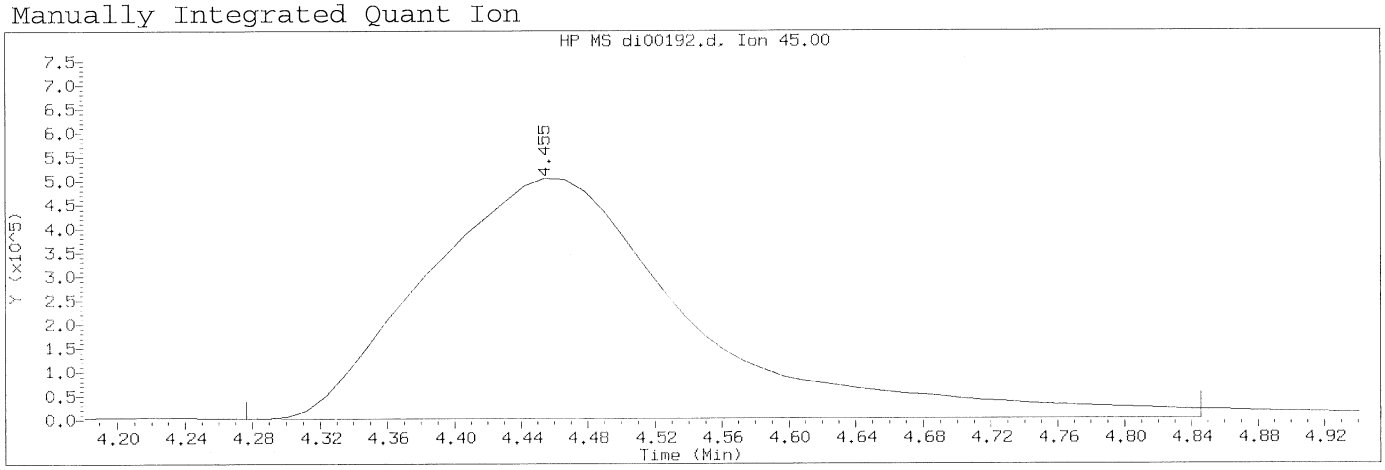
| | | | |
|---|---|---|---|
| Compound Number | : 14 | | |
| Compound Name | : Ethanol | | |
| Scan Number | : 220 | | |
| Retention Time (minutes) | : 3.684 | | |
| Quant Ion | : 45.00 | | |
| Area | : 598734 | | |
| Concentration (ppb(v)) | : 34.3014 | | |
| Integration start scan | : 208 | Integration stop scan: | 227 |
| Y at integration start | : 0 | Y at integration end: | 0 |

Digitally signed by Jeffrey B. Smith on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00192.d  Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 17:39  Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m  Sublist used: all
Calibration date and time: 14-SEP-2015 10:11
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD070  Lab Sample ID: VSTD070

| | | | |
|---|---|---|---|
| Compound Number | : 22 | | |
| Compound Name | : Isopropanol | | |
| Scan Number | : 285 | | |
| Retention Time (minutes) | : 4.455 | | |
| Quant Ion | : 45.00 | | |
| Area (flag) | : 5492347M | | |
| Concentration (ppb(v)) | : 65.4586 | | |
| Integration start scan | : 269 | Integration stop scan: | 317 |
| Y at integration start | : 2721 | Y at integration end: | 2721 |

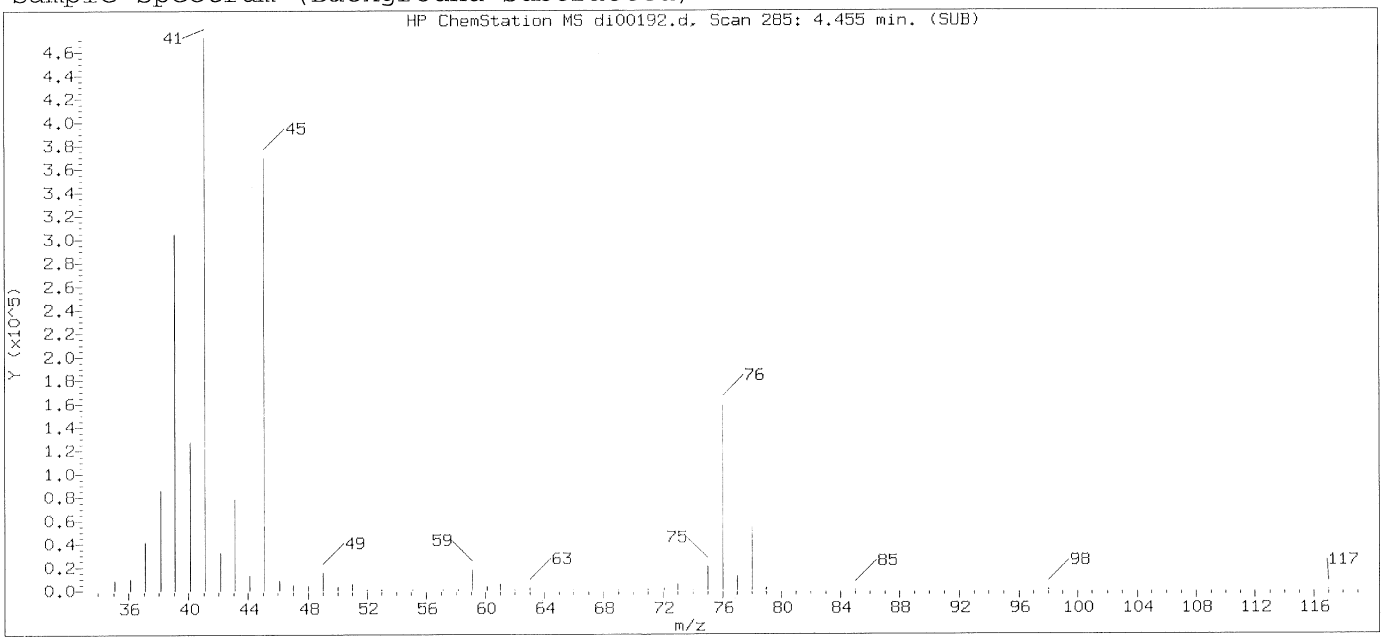
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 09/14/2015 at 13:37. Target 3.5 esignature user ID: jbs01304

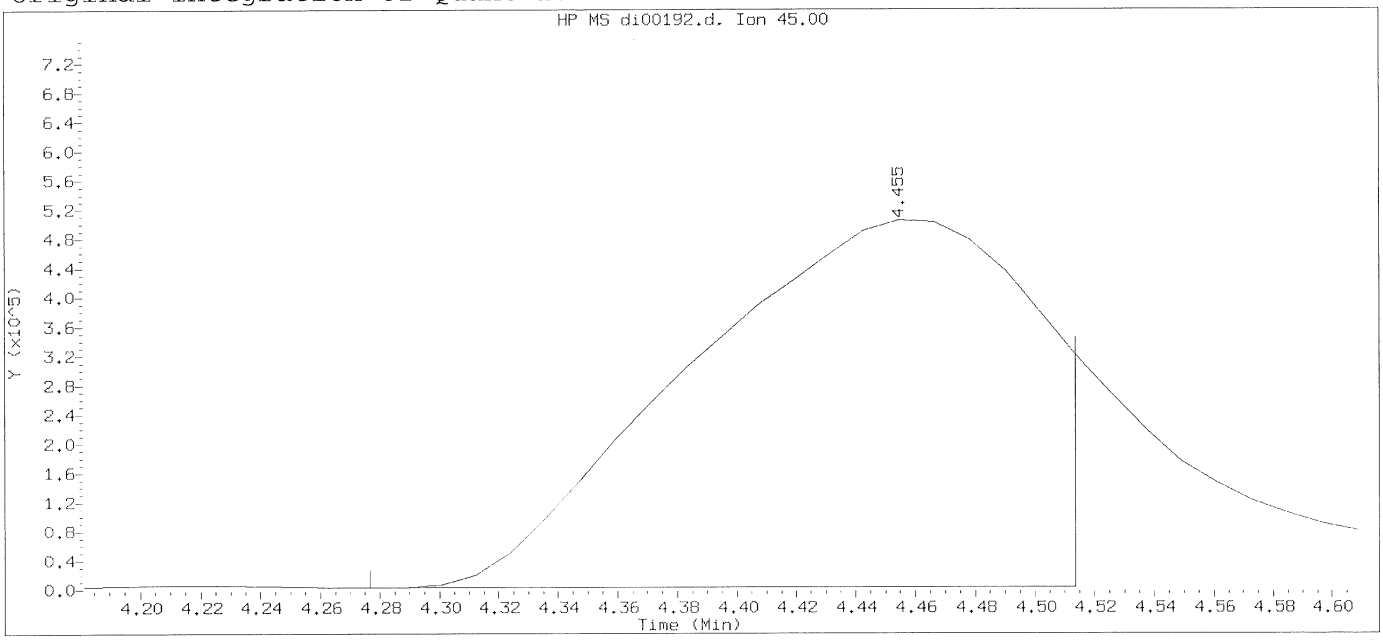
Mark A. Ratcliff
Senior Specialist

GC/MS audit/management approval: _____ SEP 15 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00192.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 17:39 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 11-SEP-2015 17:33
Date, time and analyst ID of latest file update: 11-Sep-2015 18:20 Automation

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compound Number : 22
Compound Name : Isopropanol
Scan Number : 285
Retention Time (minutes): 4.455
Quant Ion : 45.00
Area : 3990518
Concentration (ppb(v)) : 56.2659
Integration start scan : 269 Integration stop scan: 289
Y at integration start : 2853 Y at integration end: 2853

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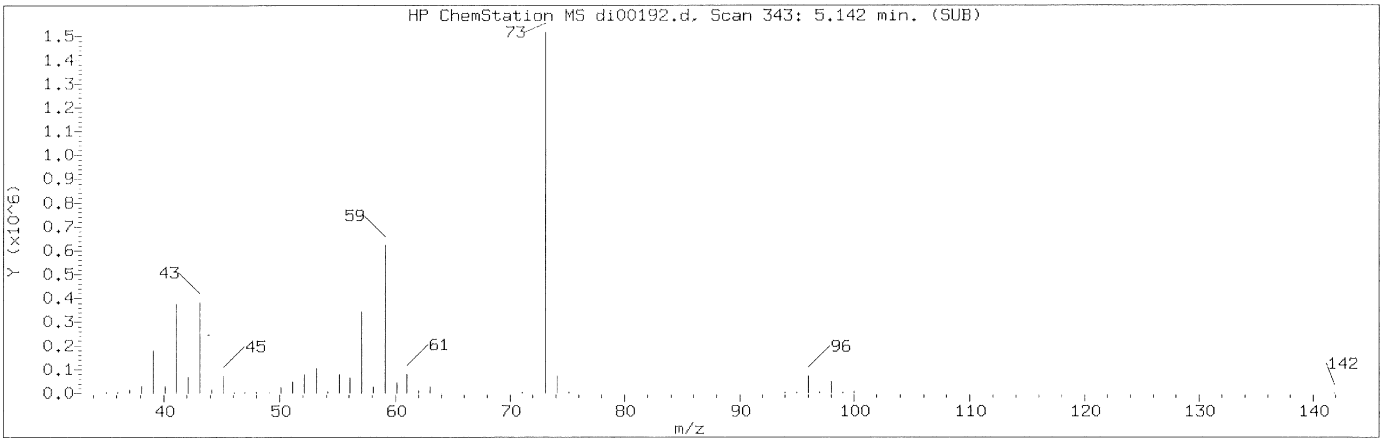
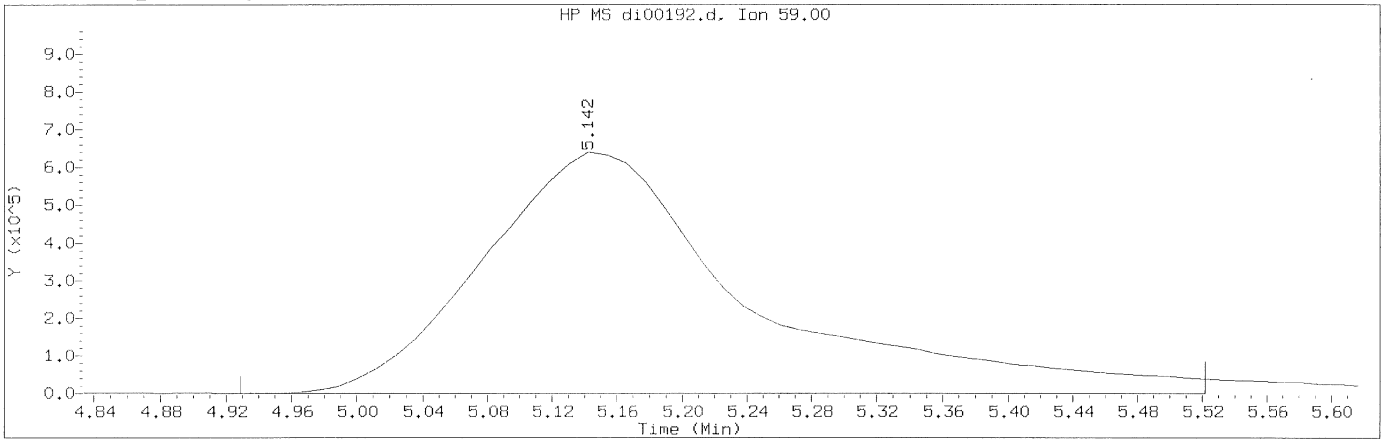
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00192.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 17:39 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 14-SEP-2015 10:11
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD070 Lab Sample ID: VSTD070

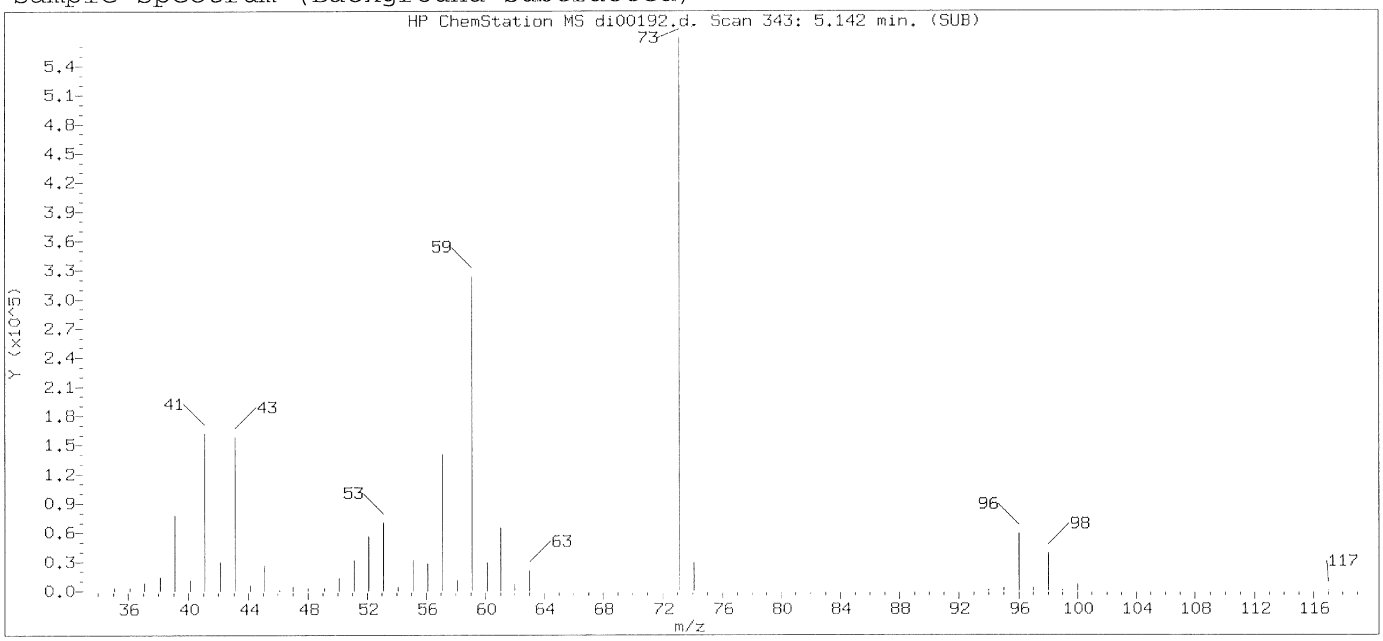
Compound Number : 26
Compound Name : tert-Butyl Alcohol
Scan Number : 343
Retention Time (minutes): 5.142
Quant Ion : 59.00
Area (flag) : 7288491M
Concentration (ppb(v)) : 59.8989
Integration start scan : 324 Integration stop scan: 374
Y at integration start : 601 Y at integration end: 601

Reason for manual integration: improper integration

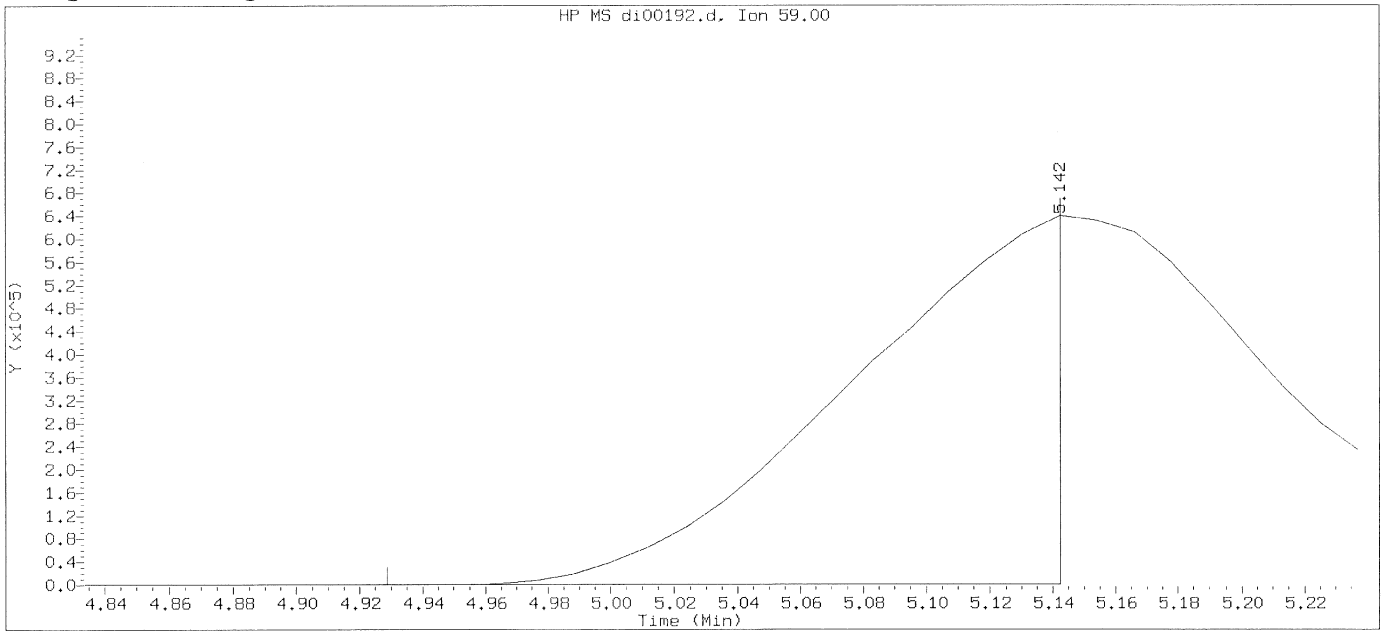
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

GC/MS audit/management approval: Mark A. Ratcliff
Senior Specialist
SEP 15 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00192.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 17:39 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 11-SEP-2015 17:33
Date, time and analyst ID of latest file update: 11-Sep-2015 18:20 Automation

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compound Number : 26
Compound Name : tert-Butyl Alcohol
Scan Number : 343
Retention Time (minutes): 5.142
Quant Ion : 59.00
Area : 2838536
Concentration (ppb(v)) : 27.6286
Integration start scan : 324 Integration stop scan: 342
Y at integration start : 725 Y at integration end: 725

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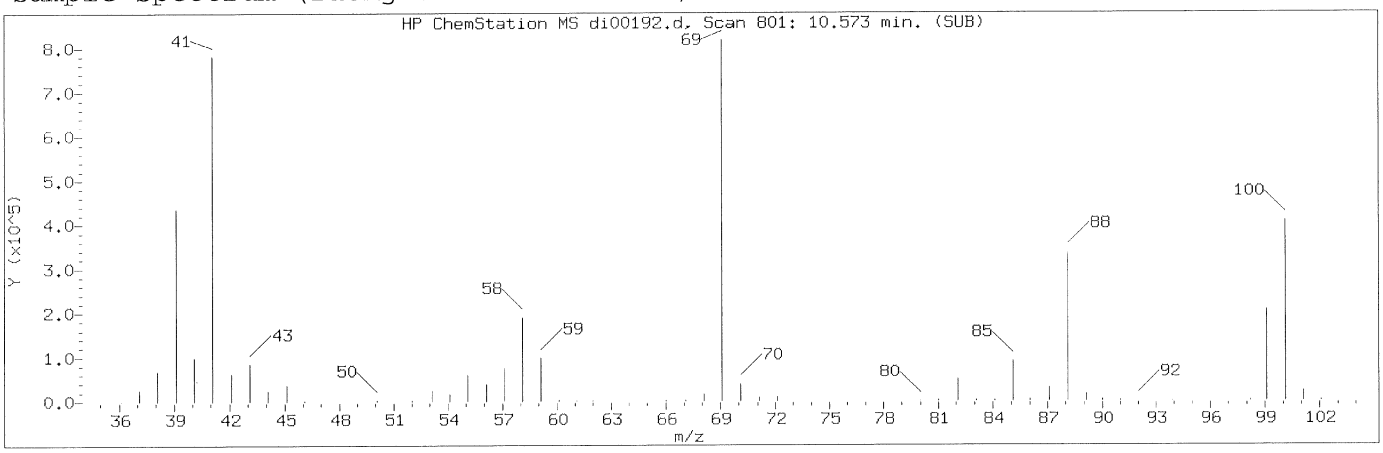
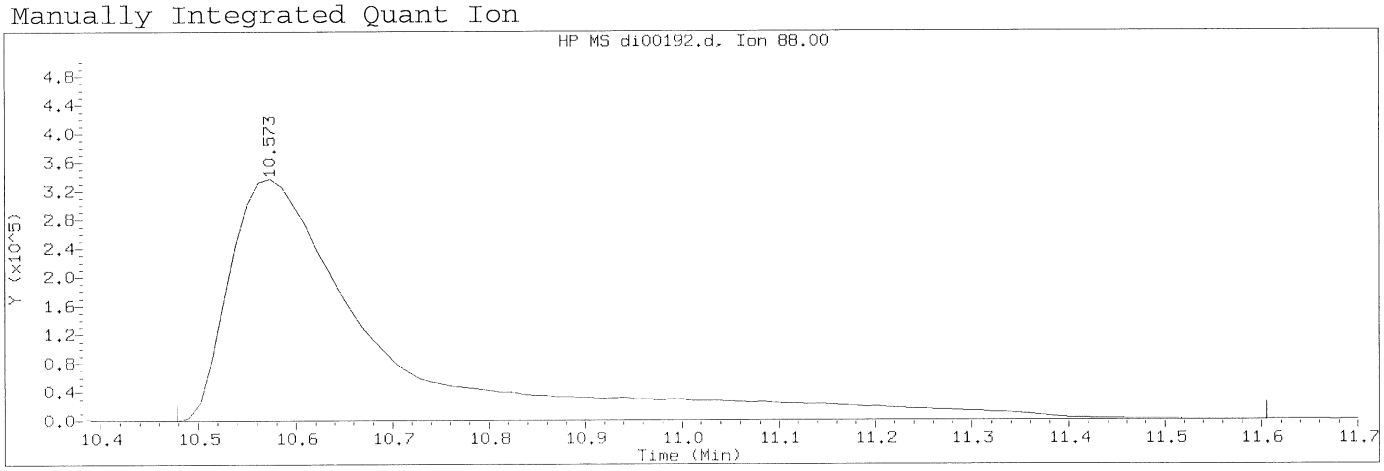
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00192.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 17:39 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 14-SEP-2015 10:11
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD070 Lab Sample ID: VSTD070

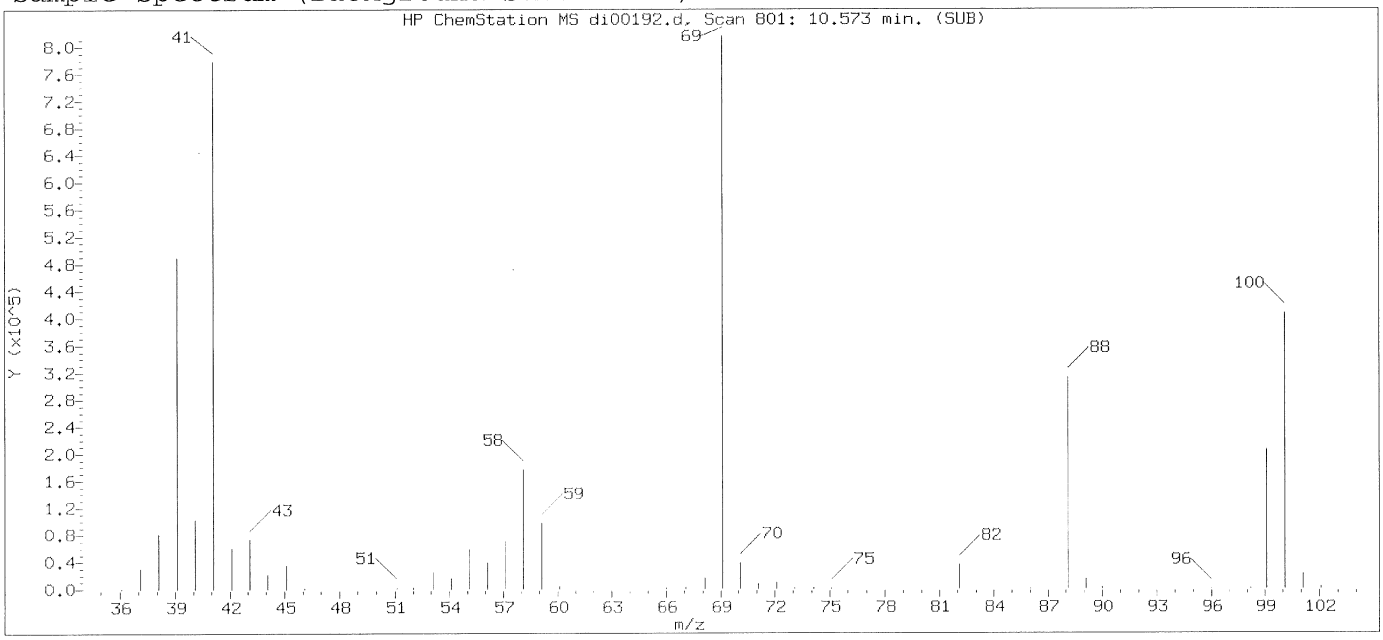
Compound Number : 56
Compound Name : 1,4-Dioxane
Scan Number : 801
Retention Time (minutes): 10.573
Quant Ion : 88.00
Area (flag) : 3685899M
Concentration (ppb(v)) : 75.2141
Integration start scan : 792 Integration stop scan: 887
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

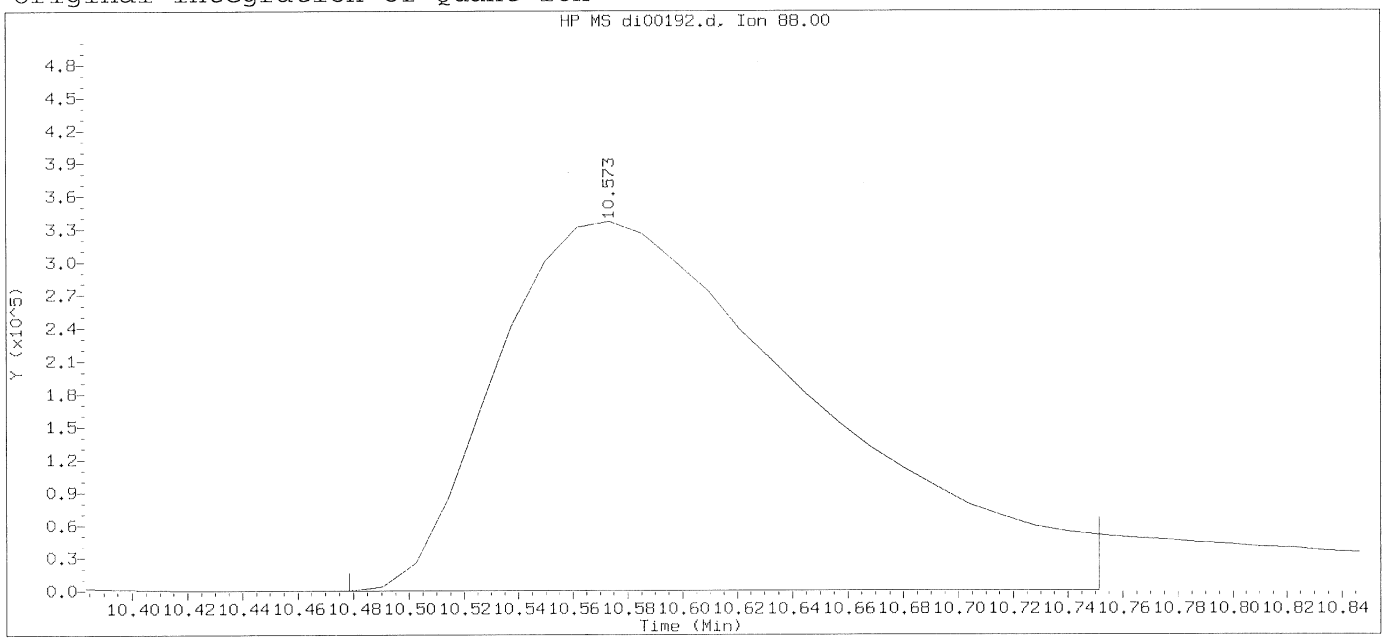
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

GC/MS audit/management approval: Mark A. Ratcliff Senior Specialist SEP 15 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00192.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 17:39 Analyst ID: jeb07445

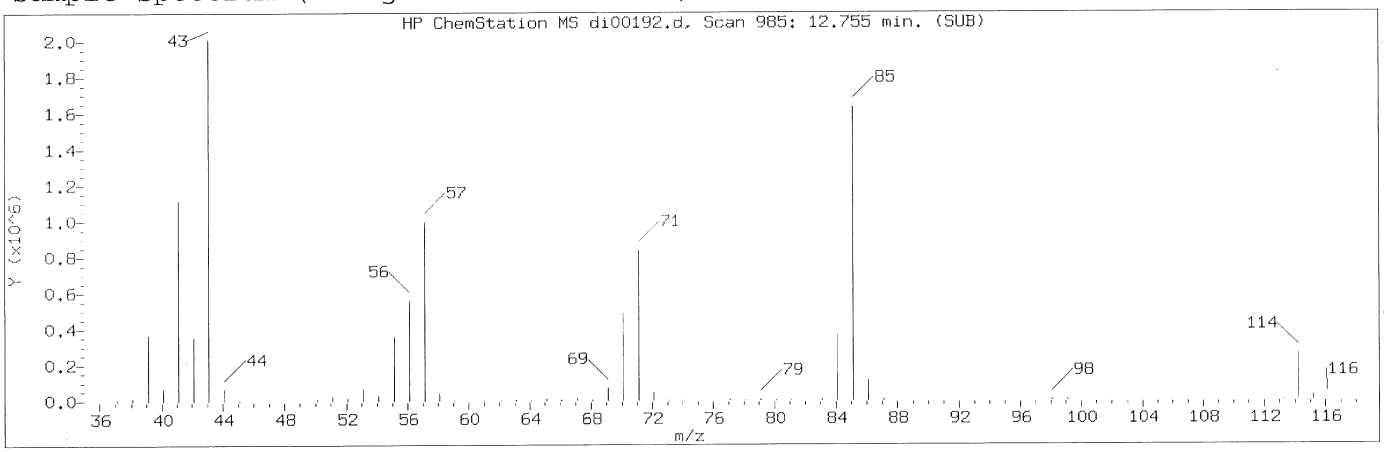
Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 11-SEP-2015 17:33
Date, time and analyst ID of latest file update: 11-Sep-2015 18:20 Automation

Sample Name: VSTD070 Lab Sample ID: VSTD070

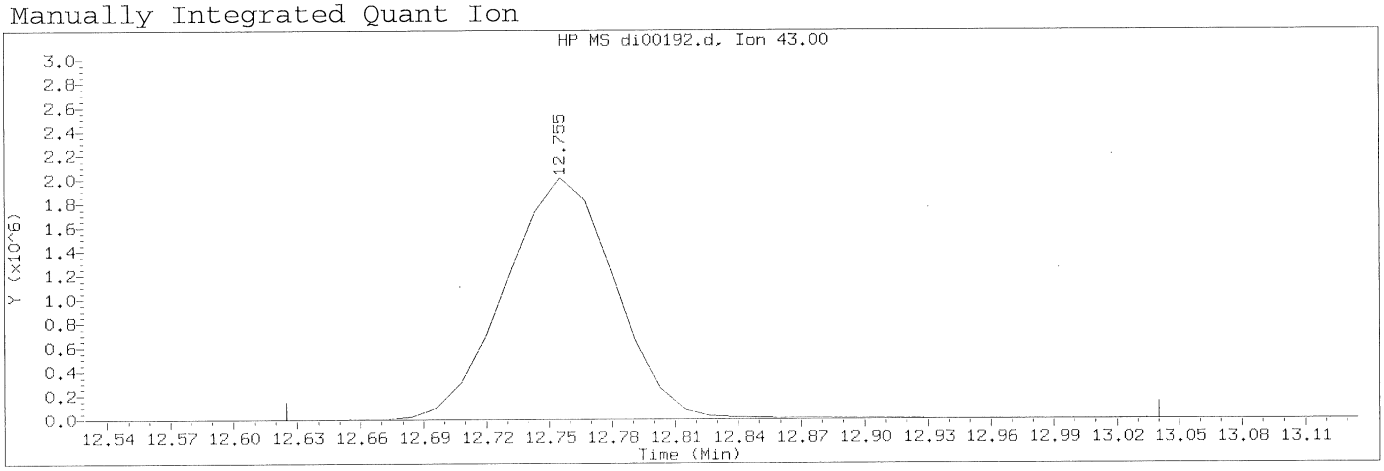
| | | | |
|---|---|---|---|
| Compound Number | : 56 | | |
| Compound Name | : 1,4-Dioxane | | |
| Scan Number | : 801 | | |
| Retention Time (minutes) | : 10.573 | | |
| Quant Ion | : 88.00 | | |
| Area | : 2703736 | | |
| Concentration (ppb(v)) | : 70.8175 | | |
| Integration start scan | : 792 | Integration stop scan: | 815 |
| Y at integration start | : 0 | Y at integration end: | 0 |

Digitally signed by Jeffrey B. Smith on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00192.d  Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 17:39  Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m  Sublist used: all
Calibration date and time: 14-SEP-2015 10:11
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD070  Lab Sample ID: VSTD070

Compound Number : 62
Compound Name : Octane
Scan Number : 985
Retention Time (minutes): 12.755
Quant Ion : 43.00
Area (flag) : 7328789M
Concentration (ppb(v)) : 61.9640
Integration start scan : 973  Integration stop scan: 1008
Y at integration start : 2278  Y at integration end: 2410

Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 09/14/2015 at 13:37. Target 3.5 esignature user ID: jbs01304

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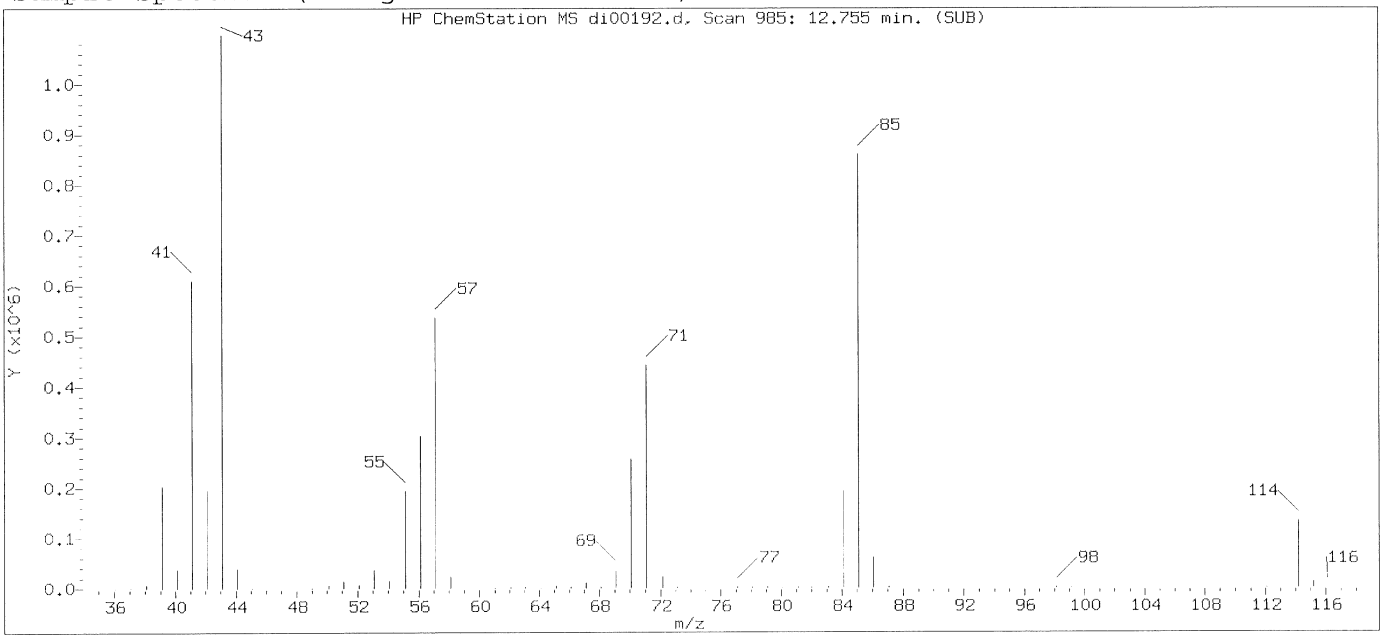
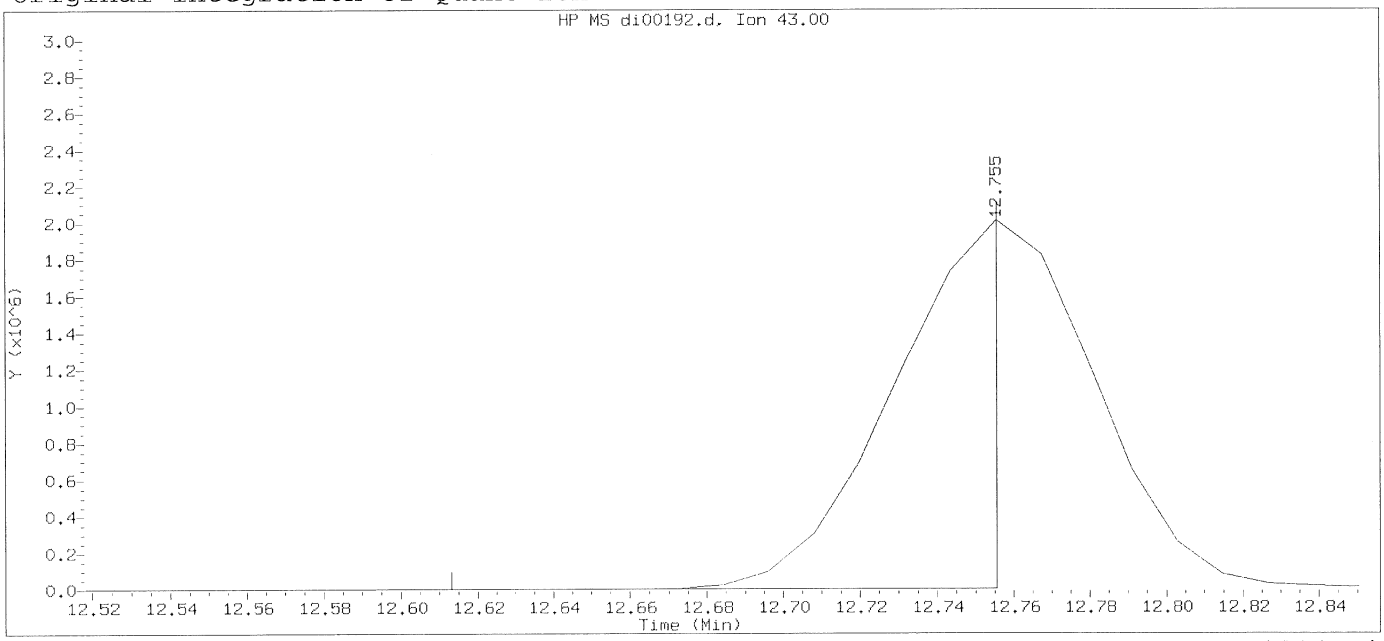
Senior Specialist

GC/MS audit/management approval: _____ SEP 15 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00192.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 17:39 Analyst ID: jeb07445

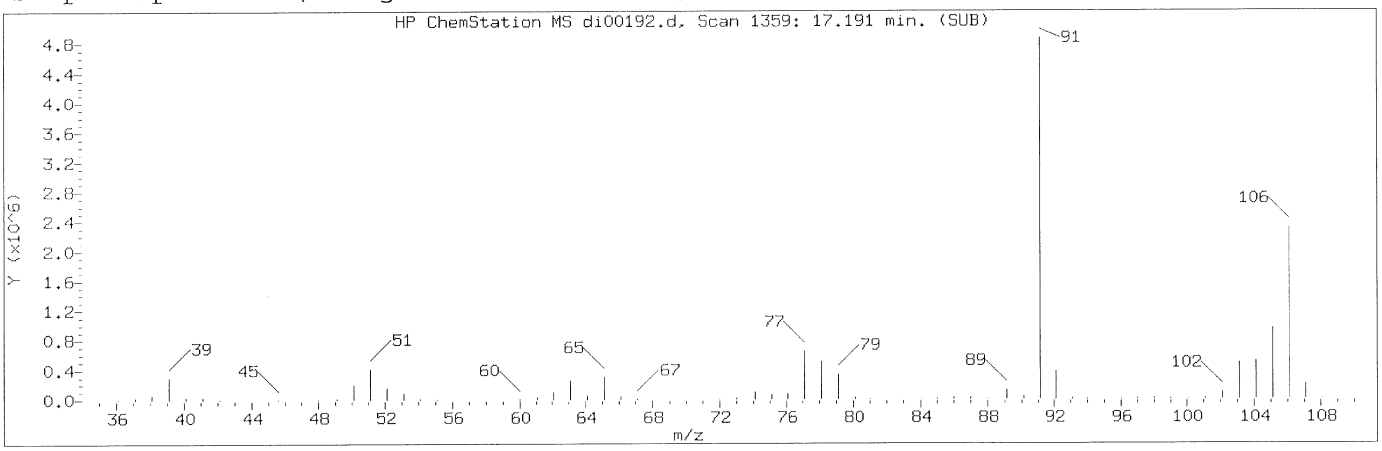
Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 11-SEP-2015 17:33
Date, time and analyst ID of latest file update: 11-Sep-2015 18:20 Automation

Sample Name: VSTD070 Lab Sample ID: VSTD070

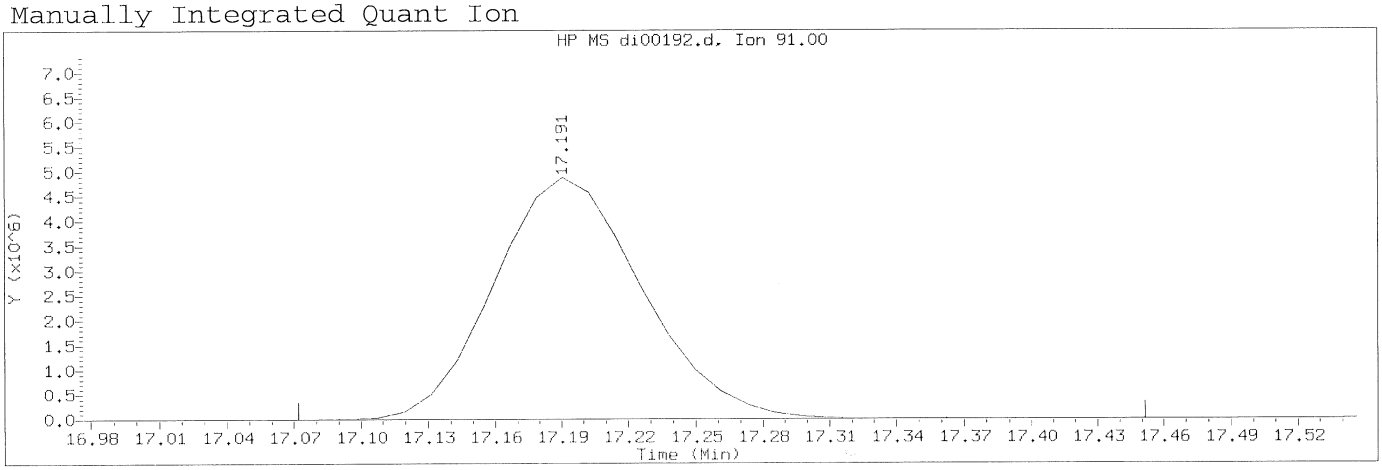
| | | | |
|---|---|---|---|
| Compound Number | : 62 | | |
| Compound Name | : Octane | | |
| Scan Number | : 985 | | |
| Retention Time (minutes) | : 12.755 | | |
| Quant Ion | : 43.00 | | |
| Area | : 3628715 | | |
| Concentration (ppb(v)) | : 36.5576 | | |
| Integration start scan | : 972 | Integration stop scan: | 984 |
| Y at integration start | : 1899 | Y at integration end: | 1899 |

Digitally signed by Jeffrey B. Smith on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00192.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 17:39 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 14-SEP-2015 10:11
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD070 Lab Sample ID: VSTD070

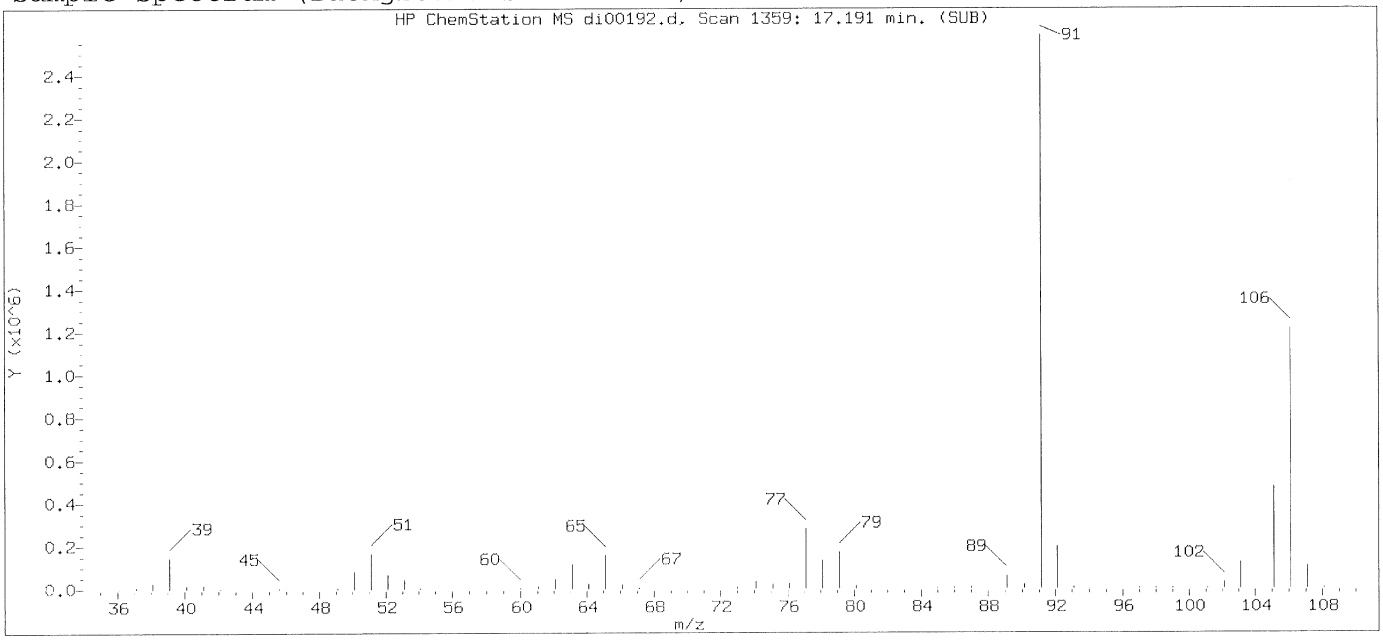
Compound Number : 76
Compound Name : o-Xylene
Scan Number : 1359
Retention Time (minutes): 17.191
Quant Ion : 91.00
Area (flag) : 22541182M
Concentration (ppb(v)) : 68.1069
Integration start scan : 1348 Integration stop scan: 1380
Y at integration start : 1754 Y at integration end: 3095

Reason for manual integration: improper integration

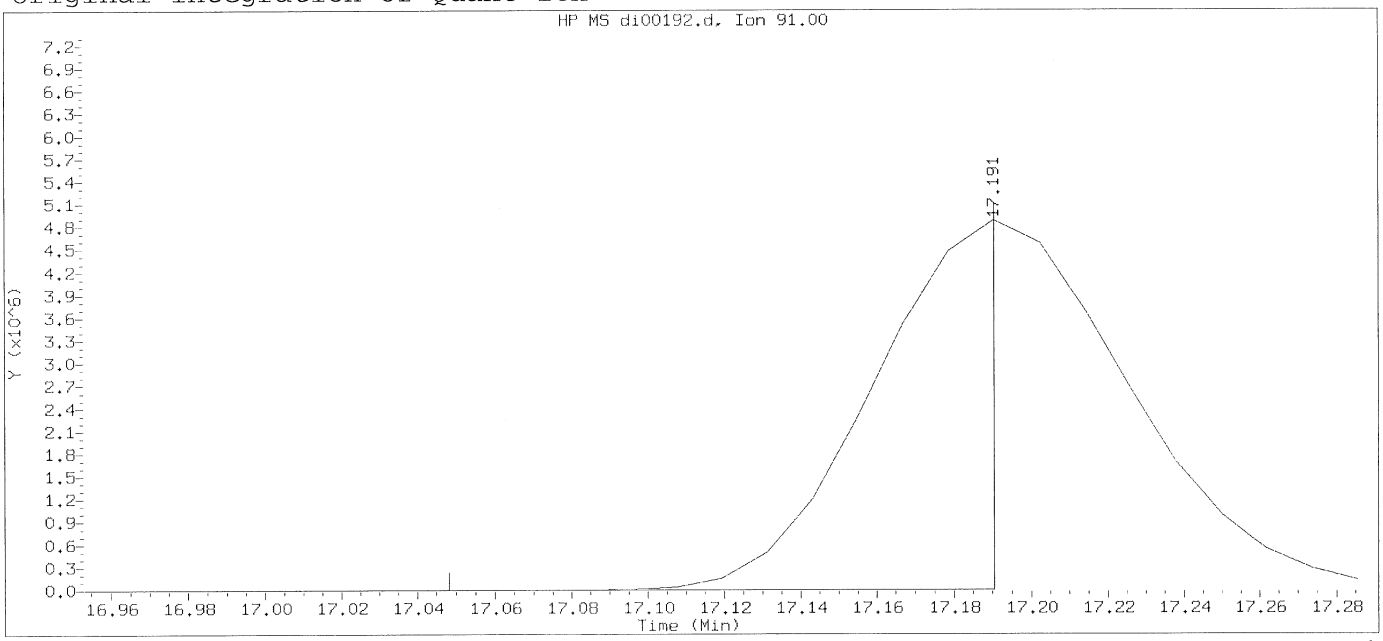
Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

GC/MS audit/management approval: Mark A. Ratcliff
Senior Specialist
SEP 15 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00192.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 17:39 Analyst ID: jeb07445

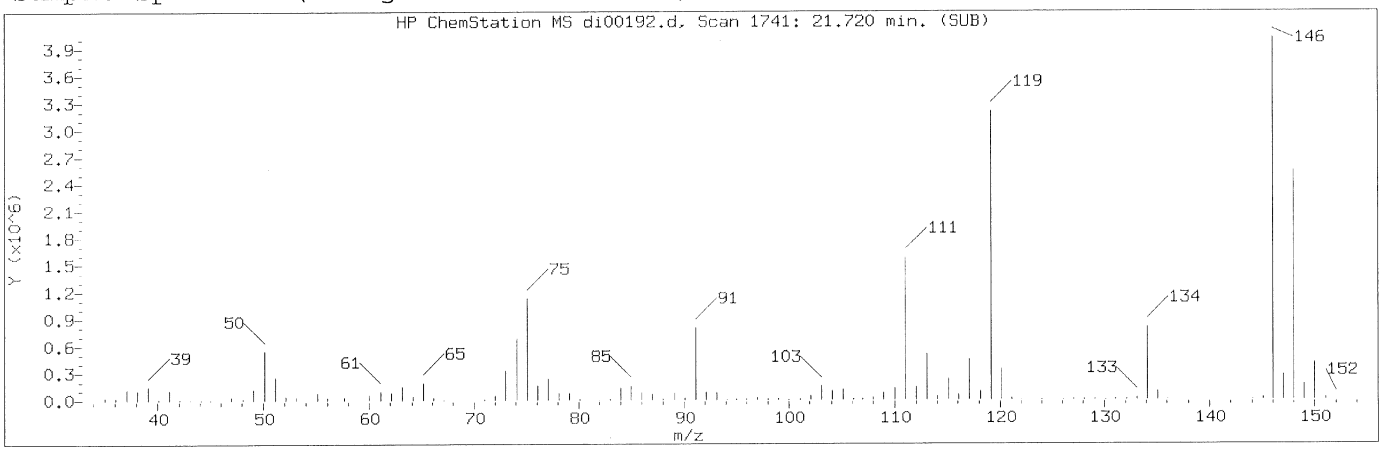
Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 11-SEP-2015 17:33
Date, time and analyst ID of latest file update: 11-Sep-2015 18:20 Automation

Sample Name: VSTD070 Lab Sample ID: VSTD070

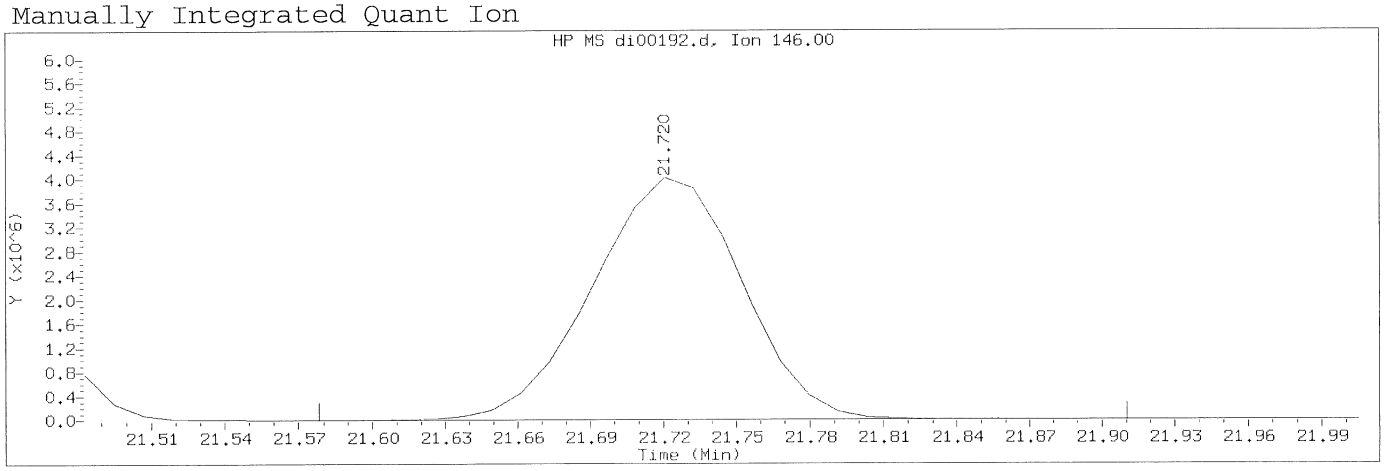
| | | | |
|---|---|---|---|
| Compound Number | : 76 | | |
| Compound Name | : o-Xylene | | |
| Scan Number | : 1359 | | |
| Retention Time (minutes) | : 17.191 | | |
| Quant Ion | : 91.00 | | |
| Area | : 10390791 | | |
| Concentration (ppb(v)) | : 43.3612 | | |
| Integration start scan | : 1346 | Integration stop scan: | 1358 |
| Y at integration start | : 1546 | Y at integration end: | 1546 |

Digitally signed by Jeffrey B. Smith on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00192.d  Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 17:39  Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m  Sublist used: all
Calibration date and time: 14-SEP-2015 10:11
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD070  Lab Sample ID: VSTD070

Compound Number : 93
Compound Name : 1,4-Dichlorobenzene
Scan Number : 1741
Retention Time (minutes): 21.720
Quant Ion : 146.00
Area (flag) : 17082284M
Concentration (ppb(v)) : 69.2958
Integration start scan : 1728  Integration stop scan: 1756
Y at integration start : 3474  Y at integration end: 3475

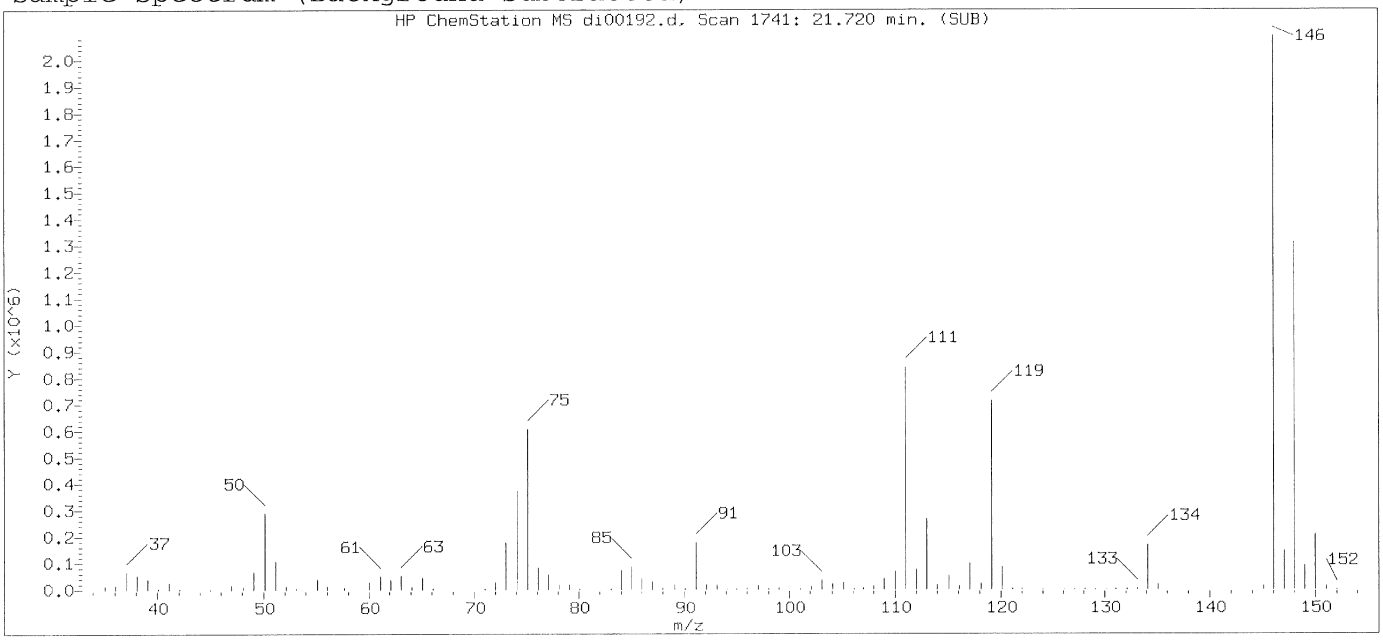
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

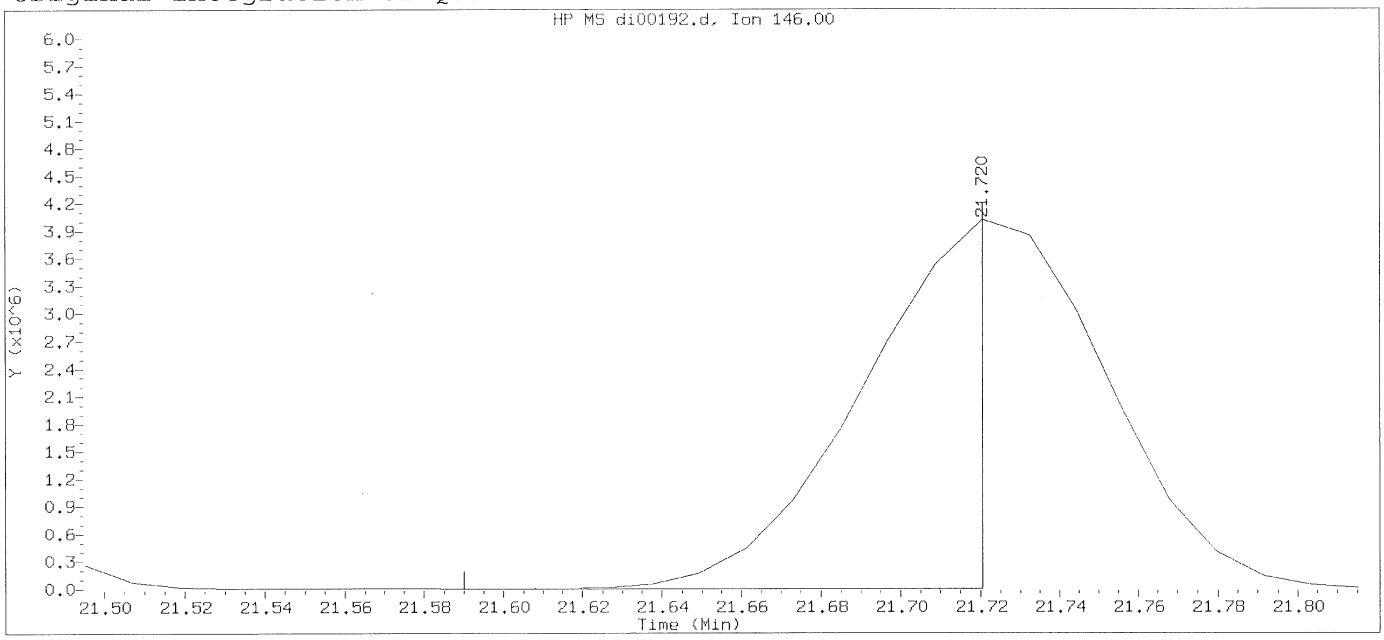
Mark A. Ratcliff
Senior Specialist

GC/MS audit/management approval: SEP 15 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00192.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 17:39 Analyst ID: jeb07445

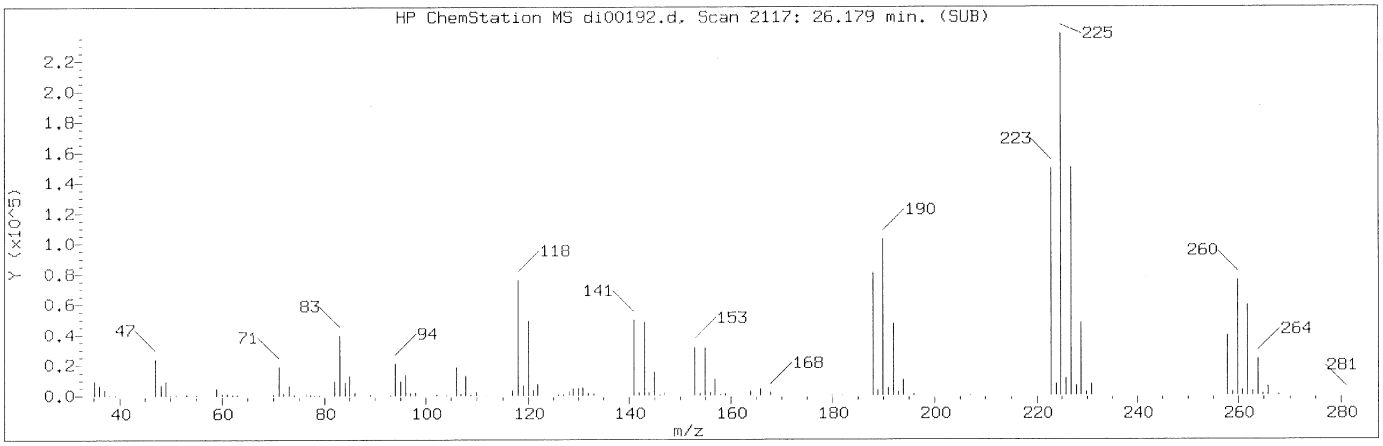
Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 11-SEP-2015 17:33
Date, time and analyst ID of latest file update: 11-Sep-2015 18:20 Automation

Sample Name: VSTD070 Lab Sample ID: VSTD070

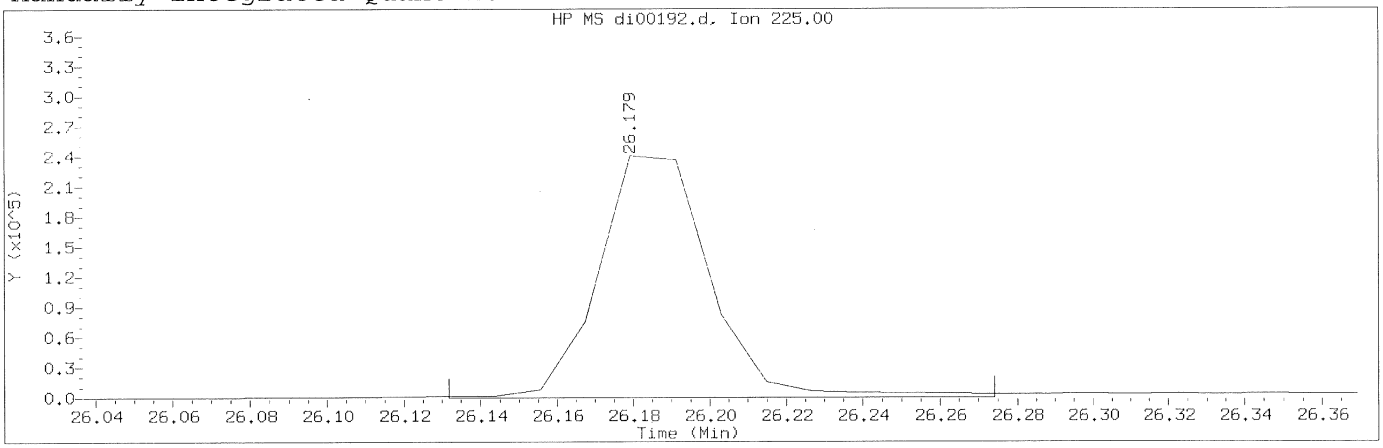
Compound Number : 93
Compound Name : 1,4-Dichlorobenzene
Scan Number : 1741
Retention Time (minutes): 21.720
Quant Ion : 146.00
Area : 8250309
Concentration (ppb(v)) : 50.4082
Integration start scan : 1729 Integration stop scan: 1740
Y at integration start : 3033 Y at integration end: 3033

Digitally signed by Jeffrey B. Smith on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00192.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 17:39 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 14-SEP-2015 10:11
Date, time and analyst ID of latest file update: 14-Sep-2015 10:11 jbs01304

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compound Number : 101
Compound Name : Hexachlorobutadiene
Scan Number : 2117
Retention Time (minutes): 26.179
Quant Ion : 225.00
Area (flag) : 484699M
Concentration (ppb(v)) : 1.8064
Integration start scan : 2112 Integration stop scan: 2124
Y at integration start : 288 Y at integration end: 288

Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Jeffrey B. Smith
on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

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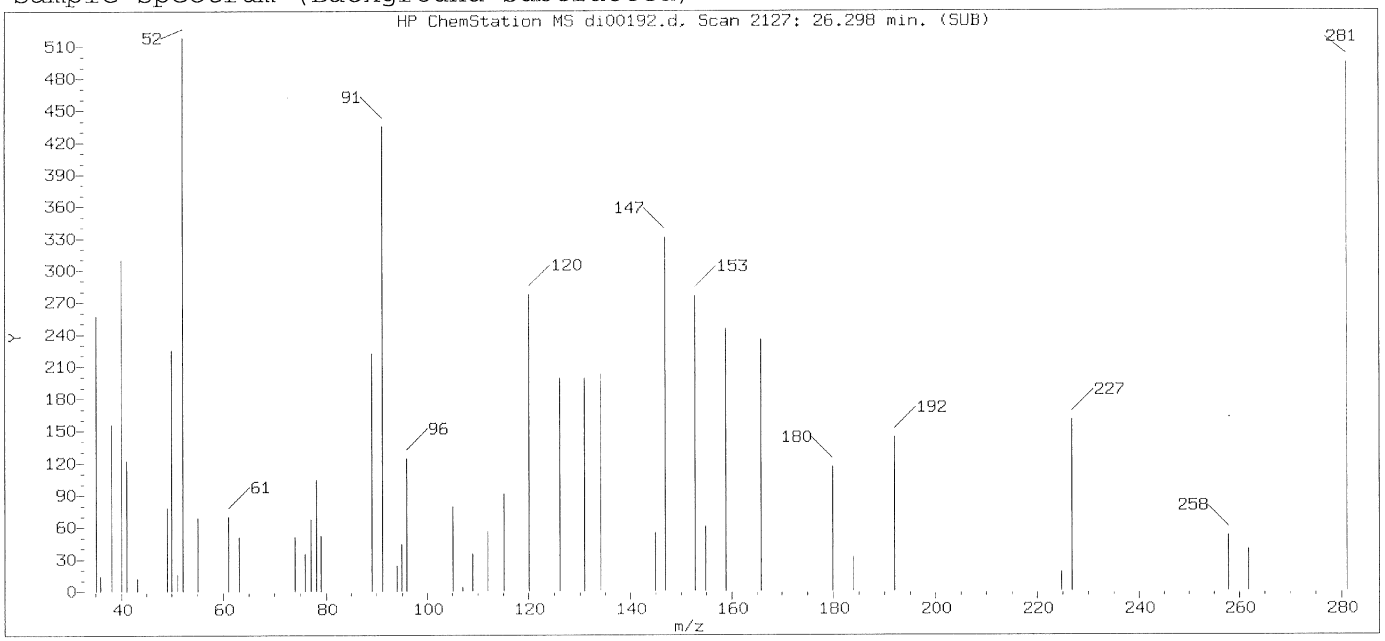
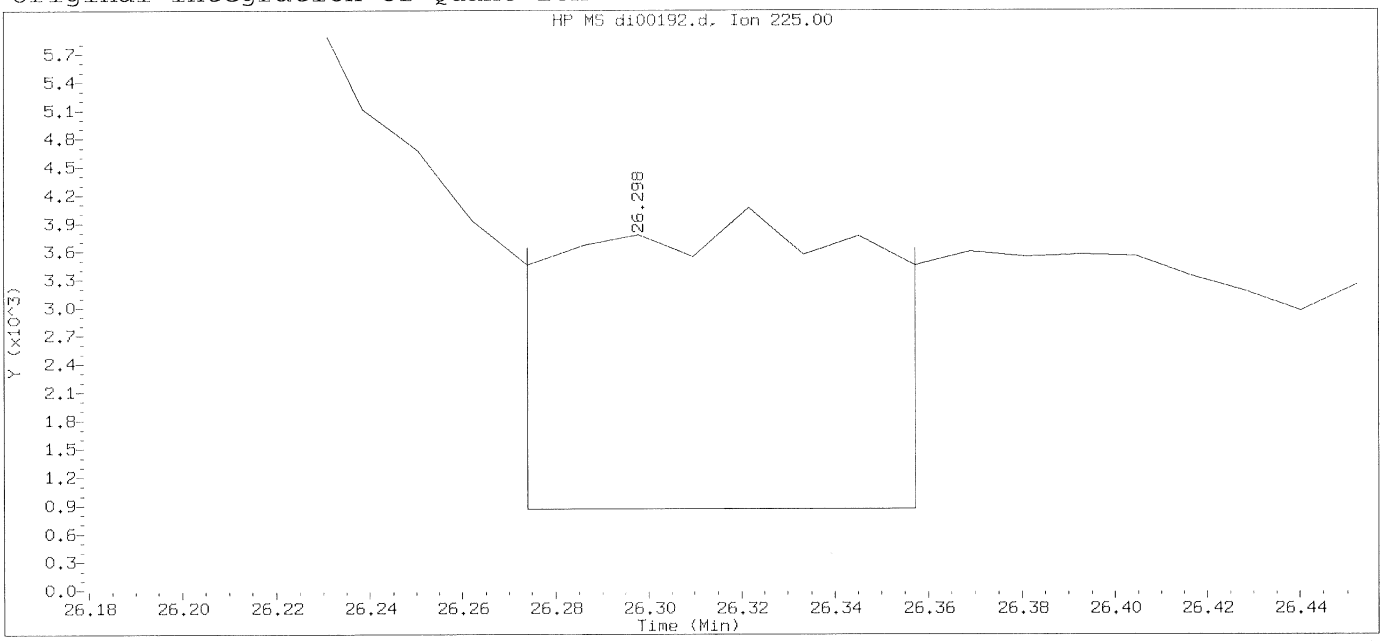
Senior Specialist

GC/MS audit/management approval: SEP 15 2015

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00192.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 17:39 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 11-SEP-2015 17:33
Date, time and analyst ID of latest file update: 11-Sep-2015 18:20 Automation

Sample Name: VSTD070 Lab Sample ID: VSTD070

Compound Number : 101
Compound Name : Hexachlorobutadiene
Scan Number : 2127
Retention Time (minutes): 26.298
Quant Ion : 225.00
Area : 14067
Concentration (ppb(v)) : 0.0761
Integration start scan : 2124 Integration stop scan: 2131
Y at integration start : 864 Y at integration end: 864

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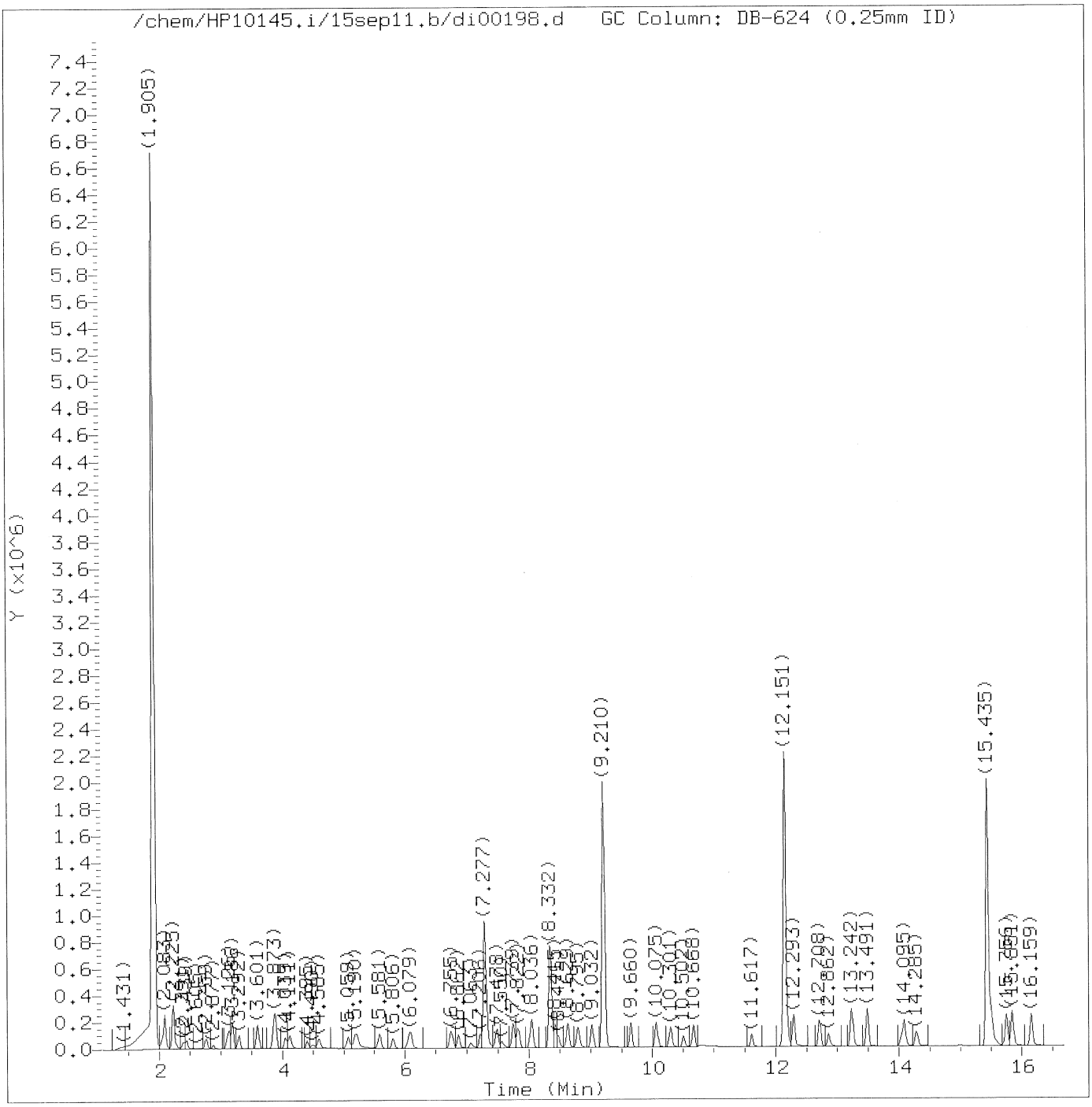
Target 3.5 esignature user ID: jbs01304




Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10145.i/15sep11.b/di00198.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 22:09 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 14-SEP-2015 10:01
Date, time and analyst ID of latest file update: 14-Sep-2015 10:01 jbs01304

Sample Name: VSTD001 Lab Sample ID: VSTD001

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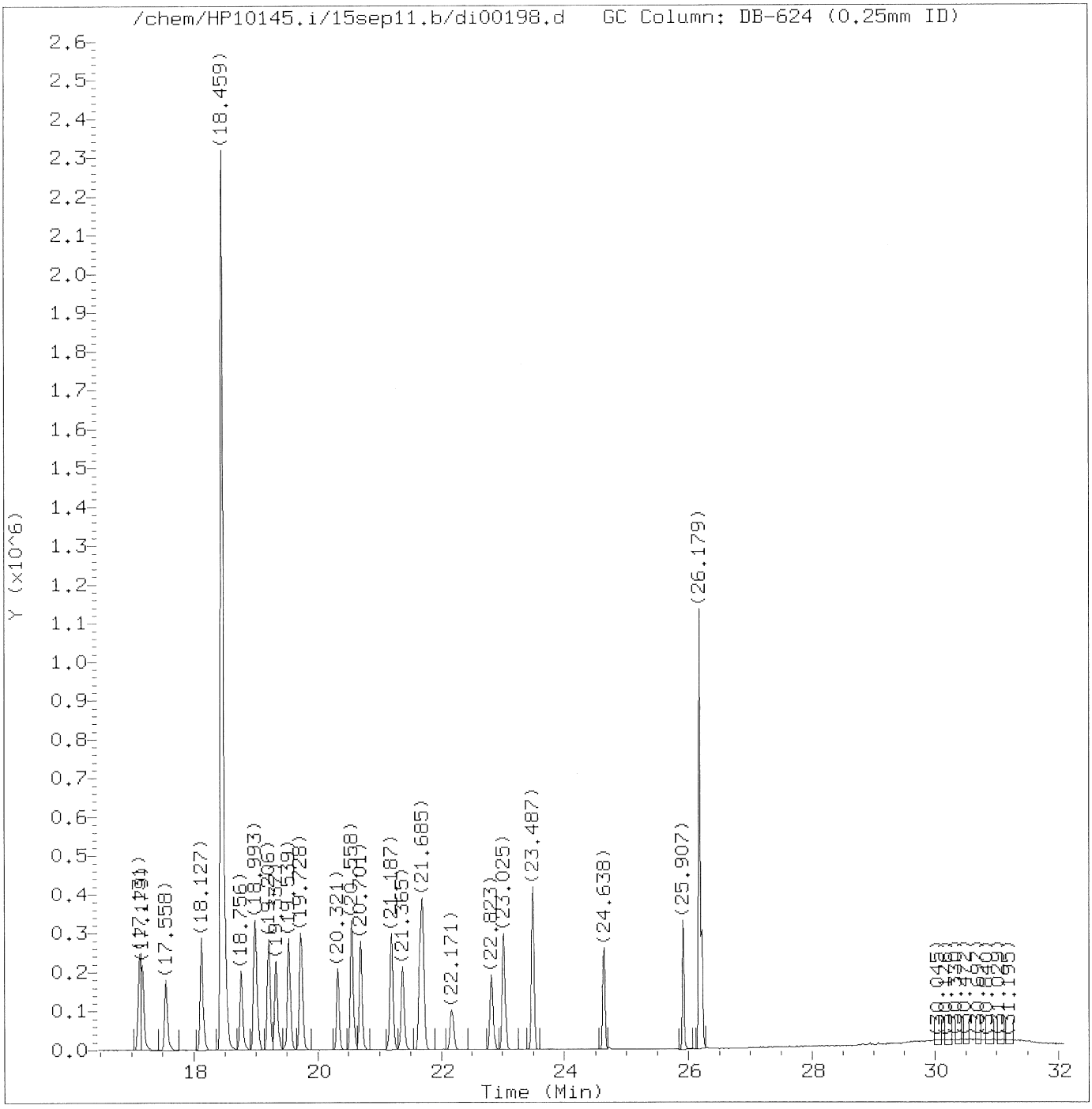
on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304




Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10145.i/15sep11.b/di00198.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 22:09 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 14-SEP-2015 10:01
Date, time and analyst ID of latest file update: 14-Sep-2015 10:01 jbs01304

Sample Name: VSTD001 Lab Sample ID: VSTD001

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on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP10145.i/15sep11.b/di00198.d
Injection date and time: 11-SEP-2015 22:09
Instrument ID: HP10145.i
Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m
Calibration date and time: 14-SEP-2015 10:01
Sublist used: all
Date, time and analyst ID of latest file update: 14-Sep-2015 10:01 jbs01304

Sample Name: VSTD001
Lab Sample ID: VSTD001

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 1) Propene | (1) | 2.047 | 41 | 33817 | 1.418 |
| 2) Dichlorodifluoromethane | (1) | 2.083 | 85 | 262743 | 1.152 |
| 3) Chlorodifluoromethane | (1) | 2.095 | 51 | 91318 | 1.215 |
| 4) Freon 114 | (1) | 2.225 | 85 | 211073 | 1.164 |
| 5) Chloromethane | (1) | 2.273 | 52 | 16320 | 1.174 |
| 6) Vinyl Chloride | (1) | 2.391 | 62 | 63605 | 1.123 |
| 7) 1,3-Butadiene | (1) | 2.450 | 54 | 36742 | 1.095 |
| 8) Bromomethane | (1) | 2.759 | 94 | 73486 | 1.108 |
| 9) Chloroethane | (1) | 2.877 | 64 | 33279 | 1.080 |
| 10) Bromoethene | (1) | 3.103 | 106 | 68882 | 1.176 |
| 11) Dichlorofluoromethane | (1) | 3.126 | 67 | 159327 | 1.181 |
| 12) Trichlorofluoromethane | (1) | 3.186 | 101 | 253084 | 1.180 |
| 13) Pentane | (1) | 3.292 | 43 | 77132 | 1.182 |
| 15) Freon123a | (1) | 3.601 | 67 | 143998 | 1.262 |
| 14) Ethanol | (1) | 3.802 | 45 | 9279M | 0.540 |
| 16) Acrolein | (1) | 3.826 | 56 | 10560 | 0.771 |
| 17) 1,1-Dichloroethene | (1) | 3.850 | 61 | 102453 | 1.128 |
| 18) Freon 113 | (1) | 3.873 | 103 | 103367 | 1.131 |
| 20) Methyl Iodide | (1) | 4.039 | 142 | 149773 | 1.169 |
| 19) Acetone | (1) | 4.087 | 43 | 78467M | 1.232 |
| 21) Carbon Disulfide | (1) | 4.122 | 76 | 221257 | 1.195 |
| 24) 3-Chloropropene | (1) | 4.395 | 76 | 34208 | 1.305 |
| 23) Acetonitrile | (1) | 4.395 | 40 | 9430 | 0.874 |
| 22) Isopropanol | (1) | 4.490 | 45 | 86529M | 1.181 |
| 25) Methylene Chloride | (1) | 4.585 | 84 | 60359 | 1.241 |
| 28) trans-1,2-Dichloroethene | (1) | 5.059 | 61 | 84969 | 1.220 |
| 27) Acrylonitrile | (1) | 5.107 | 53 | 32020M | 1.193 |
| 26) tert-Butyl Alcohol | (1) | 5.178 | 59 | 150124M | 1.365 |
| 29) Methyl t-Butyl Ether | (1) | 5.202 | 73 | 193954M | 1.247 |
| 30) Hexane | (1) | 5.581 | 57 | 85534 | 1.134 |
| 31) 1,1-Dichloroethane | (1) | 5.806 | 63 | 122766 | 1.159 |
| 32) Vinyl Acetate | (1) | 6.032 | 86 | 9479 | 0.755 |
| 33) Di-Isopropyl Ether | (1) | 6.079 | 45 | 149686 | 1.149 |
| 36) 1,2-Dichloroethene (total) | (1) | | 61 | 173473 | 2.410 |
| 34) Ethyl Tert-Butyl Ether | (1) | 6.755 | 59 | 192471 | 1.115 |
| 35) cis-1,2-Dichloroethene | (1) | 6.862 | 61 | 88504 | 1.190 |
| 37) 2-Butanone | (1) | 7.063 | 72 | 30830 | 1.103 |
| 38) Ethyl Acetate | (1) | 7.206 | 70 | 20402 | 1.198 |

M = Compound was manually integrated.



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Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP10145.i/15sep11.b/di00198.d  Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 22:09  Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m  Sublist used: all
Calibration date and time: 14-SEP-2015 10:01
Date, time and analyst ID of latest file update: 14-Sep-2015 10:01 jbs01304

Sample Name: VSTD001  Lab Sample ID: VSTD001

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 39) Methyl Acrylate | (1) | 7.218 | 55 | 80635 | 1.113 |
| 40)*Bromochloromethane | (1) | 7.289 | 130 | 660771 | 10.000 |
| 42) Chloroform | (1) | 7.478 | 83 | 173974 | 1.164 |
| 41) Tetrahydrofuran | (1) | 7.550 | 42 | 43359M | 1.101 |
| 43) 1,1,1-Trichloroethane | (1) | 7.739 | 97 | 213332 | 1.211 |
| 44) Cyclohexane | (1) | 7.822 | 56 | 89998 | 1.146 |
| 45) Carbon Tetrachloride | (1) | 8.036 | 117 | 225983 | 1.223 |
| 46) Benzene | (2) | 8.415 | 78 | 245049 | 1.247 |
| 47) 1,2-Dichloroethane | (2) | 8.475 | 62 | 111391 | 1.221 |
| 48) Isooctane | (2) | 8.629 | 57 | 287083 | 1.179 |
| 49) Tert-Amyl Methyl Ether | (2) | 8.795 | 73 | 222016 | 1.181 |
| 50) Heptane | (2) | 9.032 | 43 | 82850 | 1.171 |
| 51)*1,4-Difluorobenzene | (2) | 9.210 | 114 | 2594288 | 10.000 |
| 52) Trichloroethene | (2) | 9.660 | 130 | 101222 | 1.200 |
| 53) Ethyl Acrylate | (2) | 10.075 | 55 | 103632 | 1.139 |
| 54) 1,2-Dichloropropane | (2) | 10.075 | 63 | 72950 | 1.228 |
| 55) Dibromomethane | (2) | 10.301 | 174 | 103485 | 1.214 |
| 57) Methyl Methacrylate | (2) | 10.514 | 69 | 64473 | 1.067 |
| 58) Bromodichloromethane | (2) | 10.668 | 83 | 188093 | 1.190 |
| 56) 1,4-Dioxane | (2) | 10.787 | 88 | 44553M | 1.070 |
| 59) cis-1,3-Dichloropropene | (2) | 11.617 | 75 | 97577 | 1.024 |
| 60) 4-Methyl-2-Pentanone | (2) | 12.115 | 43 | 118563 | 1.184 |
| 61) Toluene | (3) | 12.293 | 91 | 294614 | 1.243 |
| 62) Octane | (3) | 12.708 | 43 | 106760 | 1.147 |
| 63) trans-1,3-Dichloropropene | (3) | 12.862 | 75 | 110079 | 1.120 |
| 64) 1,3-Dichloropropene (total) | (3) | | 75 | 207656 | 2.145 |
| 65) Ethyl Methacrylate | (3) | 13.242 | 69 | 113279 | 1.098 |
| 66) 1,1,2-Trichloroethane | (3) | 13.242 | 97 | 103001 | 1.260 |
| 67) Tetrachloroethene | (3) | 13.491 | 166 | 168438 | 1.287 |
| 68) 2-Hexanone | (3) | 14.048 | 43 | 109398M | 1.214 |
| 69) Dibromochloromethane | (3) | 14.095 | 127 | 134166 | 1.137 |
| 70) 1,2-Dibromoethane | (3) | 14.285 | 107 | 142601 | 1.162 |
| 71)*Chlorobenzene-d5 | (3) | 15.435 | 117 | 2230179 | 10.000 |
| 72) Chlorobenzene | (3) | 15.507 | 112 | 234520 | 1.262 |
| 73) 1,1,1,2-Tetrachloroethane | (3) | 15.756 | 131 | 133405 | 1.254 |
| 74) Ethylbenzene | (3) | 15.851 | 91 | 371115 | 1.199 |
| 75) m/p-Xylene | (3) | 16.159 | 91 | 298075 | 1.110 |
| 76) o-Xylene | (3) | 17.131 | 91 | 306976 | 1.206 |

M = Compound was manually integrated.
* = Compound is an internal standard.



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on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP10145.i/15sep11.b/di00198.d  Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 22:09  Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m  Sublist used: all
Calibration date and time: 14-SEP-2015 10:01
Date, time and analyst ID of latest file update: 14-Sep-2015 10:01 jbs01304

Sample Name: VSTD001  Lab Sample ID: VSTD001

| Compounds | I.S. Ref. | RT | QIon | Area | On-Column Concentration (ppb(v)) |
|---|---|---|---|---|---|
| 78) Styrene | (3) | 17.179 | 104 | 218997 | 1.178 |
| 77) Xylene (total) | (3) | | 91 | 605051 | 2.316 |
| 79) Bromoform | (3) | 17.558 | 173 | 178920 | 1.147 |
| 80) Cumene | (3) | 18.127 | 105 | 406307 | 1.148 |
| 81) Bromobenzene | (3) | 18.756 | 156 | 132216 | 1.232 |
| 82) 1,1,2,2-Tetrachloroethane | (3) | 18.981 | 83 | 230264 | 1.275 |
| 83) 1,2,3-Trichloropropane | (3) | 19.005 | 110 | 70064 | 1.196 |
| 84) n-Propylbenzene | (3) | 19.206 | 120 | 105623 | 1.106 |
| 85) 2-Chlorotoluene | (3) | 19.337 | 126 | 91712 | 1.171 |
| 86) 4-Ethyltoluene | (3) | 19.539 | 105 | 400244 | 1.120 |
| 87) 1,3,5-Trimethylbenzene | (3) | 19.728 | 105 | 365519 | 1.142 |
| 88) Alpha Methyl Styrene | (3) | 20.321 | 118 | 136970 | 1.050 |
| 89) tert-Butylbenzene | (3) | 20.558 | 119 | 354932 | 1.144 |
| 90) 1,2,4-Trimethylbenzene | (3) | 20.701 | 105 | 361331 | 1.143 |
| 91) sec-Butylbenzene | (3) | 21.187 | 105 | 490533 | 1.118 |
| 92) 1,3-Dichlorobenzene | (3) | 21.365 | 146 | 222367 | 1.195 |
| 93) 1,4-Dichlorobenzene | (3) | 21.661 | 146 | 217542 | 1.178 |
| 94) p-Isopropyltoluene | (3) | 21.697 | 119 | 415208 | 1.134 |
| 95) Benzyl Chloride | (3) | 22.171 | 91 | 211775 | 0.923 |
| 96) 1,2-Dichlorobenzene | (3) | 22.823 | 146 | 199717 | 1.144 |
| 97) n-Butylbenzene | (3) | 23.025 | 91 | 371536 | 1.154 |
| 98) Hexachloroethane | (3) | 23.487 | 117 | 146326 | 1.235 |
| 99) 1,2-Dibromo-3-chloropropane | (3) | 24.638 | 157 | 113703 | 1.116 |
| 100) 1,2,4-Trichlorobenzene | (3) | 25.918 | 180 | 140305 | 1.106 |
| 101) Hexachlorobutadiene | (3) | 26.179 | 225 | 273632 | 1.340 |
| 102) Naphthalene | (3) | 26.215 | 128 | 266447 | 1.236 |



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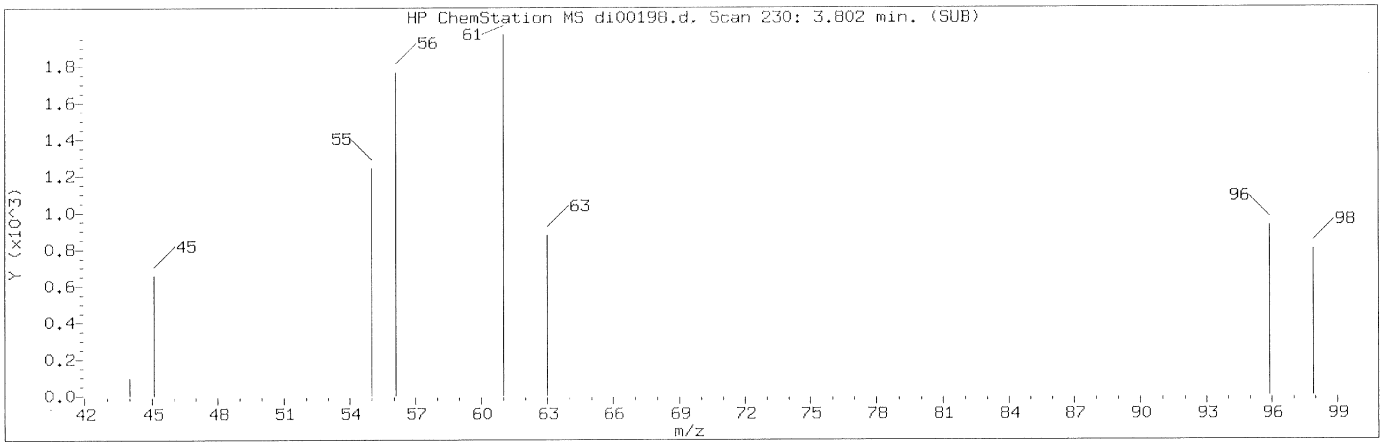
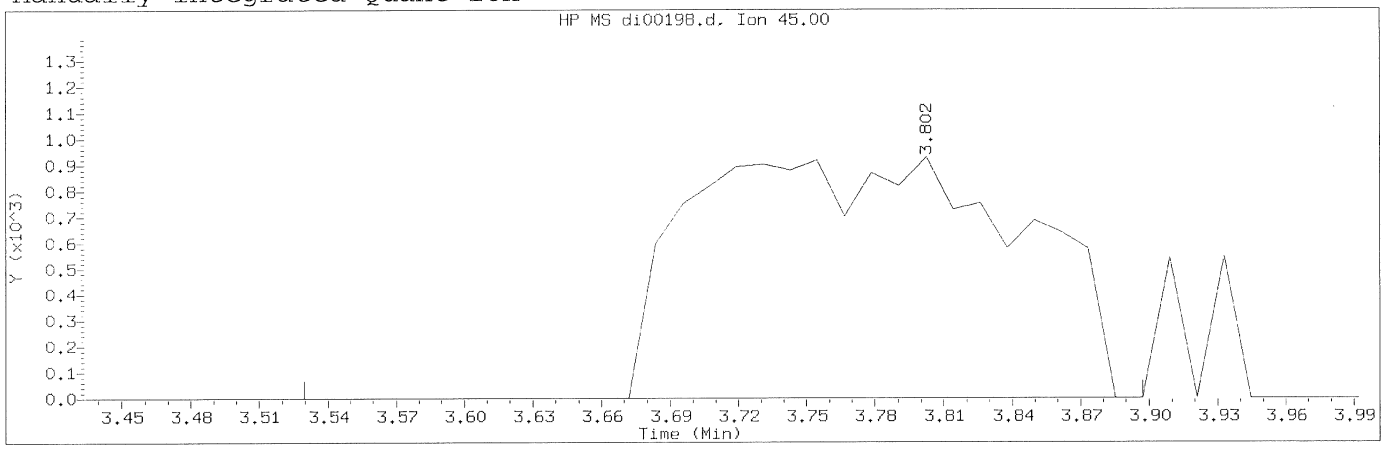
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00198.d  Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 22:09  Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m  Sublist used: all
Calibration date and time: 14-SEP-2015 10:01
Date, time and analyst ID of latest file update: 14-Sep-2015 10:01 jbs01304

Sample Name: VSTD001  Lab Sample ID: VSTD001

| | | | |
|---|---|---|---|
| Compound Number | : 14 | | |
| Compound Name | : Ethanol | | |
| Scan Number | : 230 | | |
| Retention Time (minutes) | : 3.802 | | |
| Quant Ion | : 45.00 | | |
| Area (flag) | : 9279M | | |
| Concentration (ppb(v)) | : 0.5395 | | |
| Integration start scan | : 206 | Integration stop scan: | 237 |
| Y at integration start | : 0 | Y at integration end: | 0 |

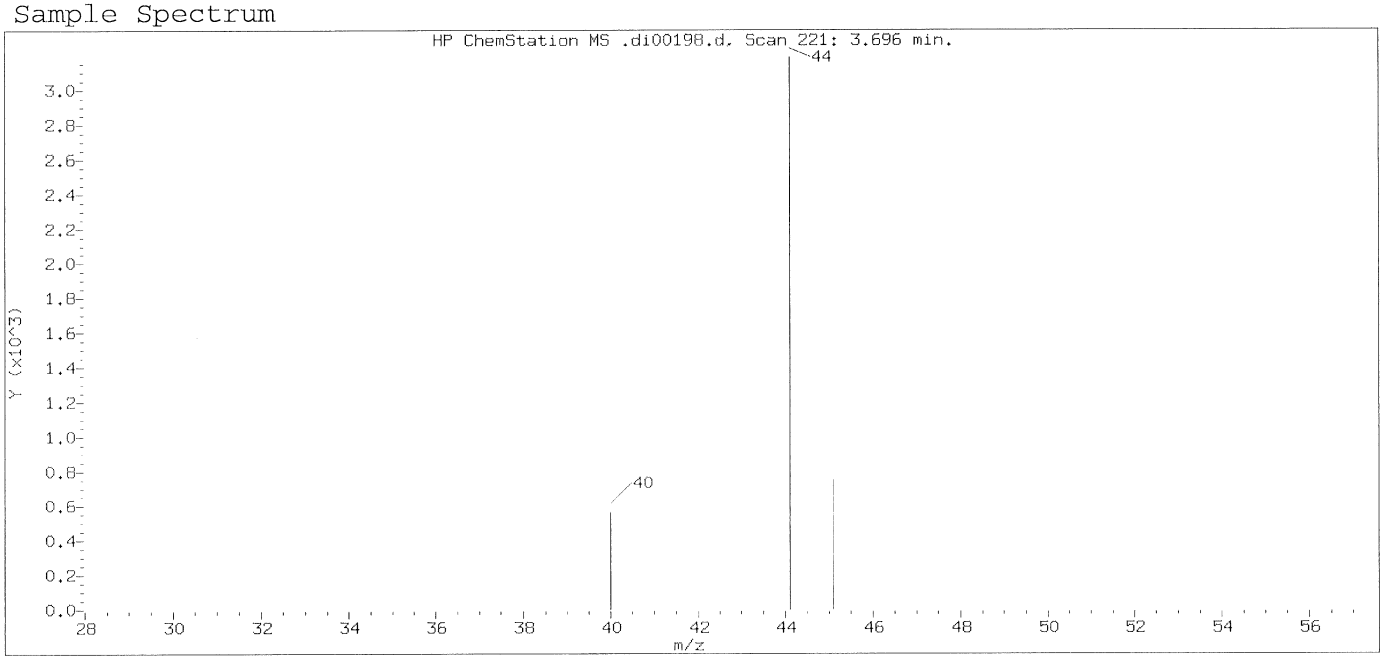
Reason for manual integration: missed peak

Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 09/14/2015 at 13:37. Target 3.5 esignature user ID: jbs01304

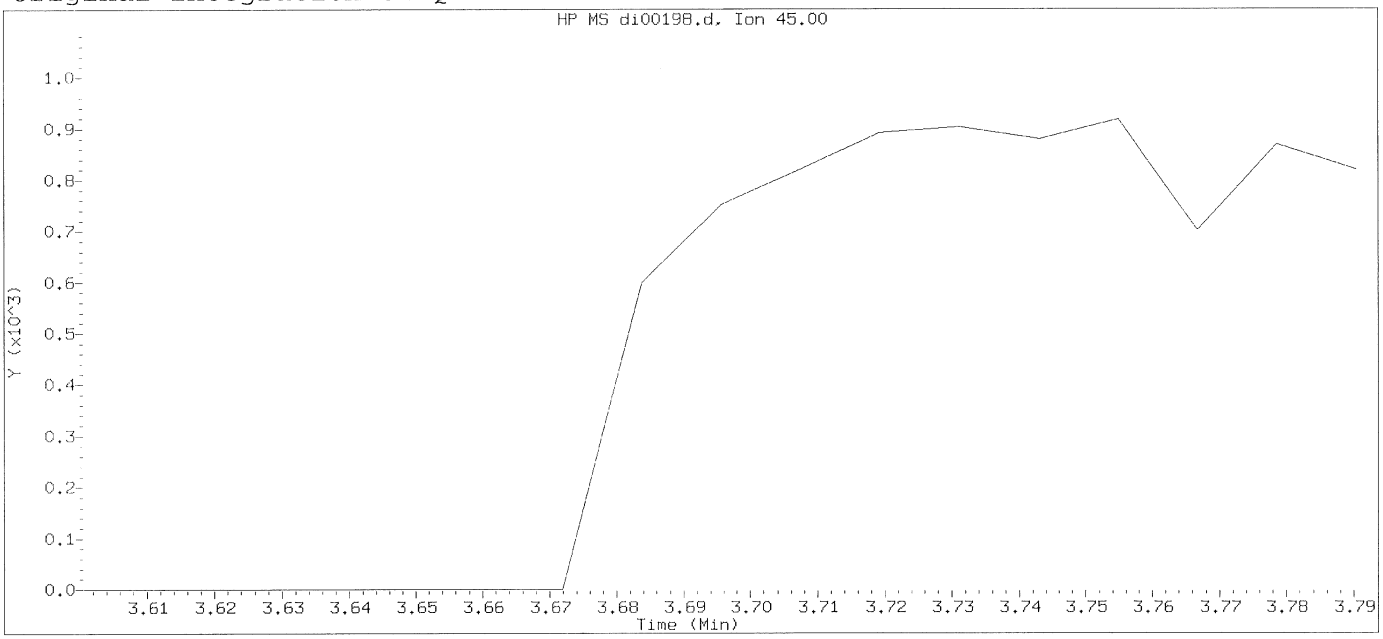
Mark A. Ratcliff
Senior Specialist

GC/MS audit/management approval: _____ SEP 15 2015

Sample Spectrum




Original Integration of Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00198.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 22:09 Analyst ID: jeb07445

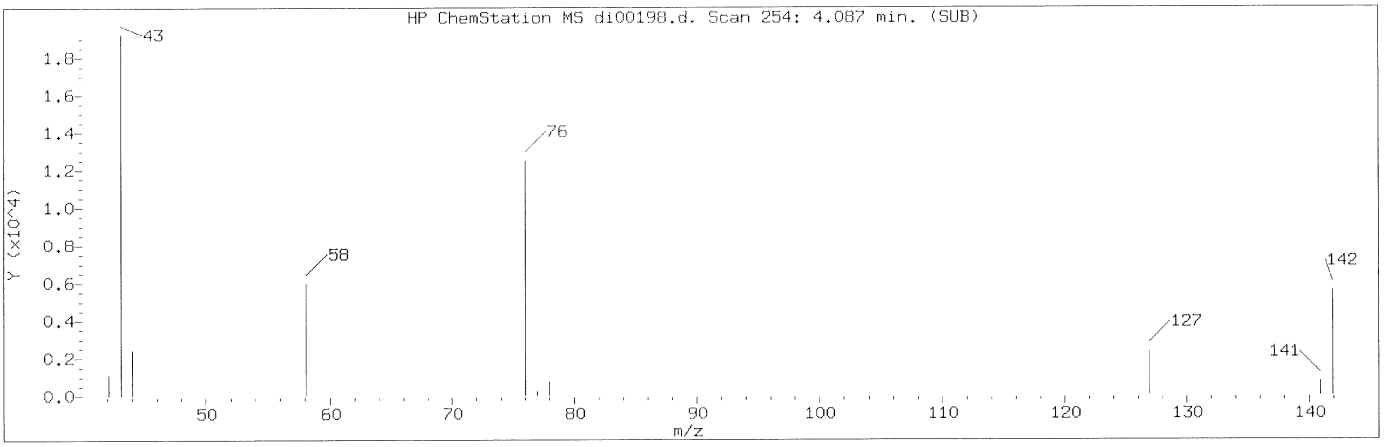
Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 11-SEP-2015 21:28
Date, time and analyst ID of latest file update: 11-Sep-2015 22:50 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

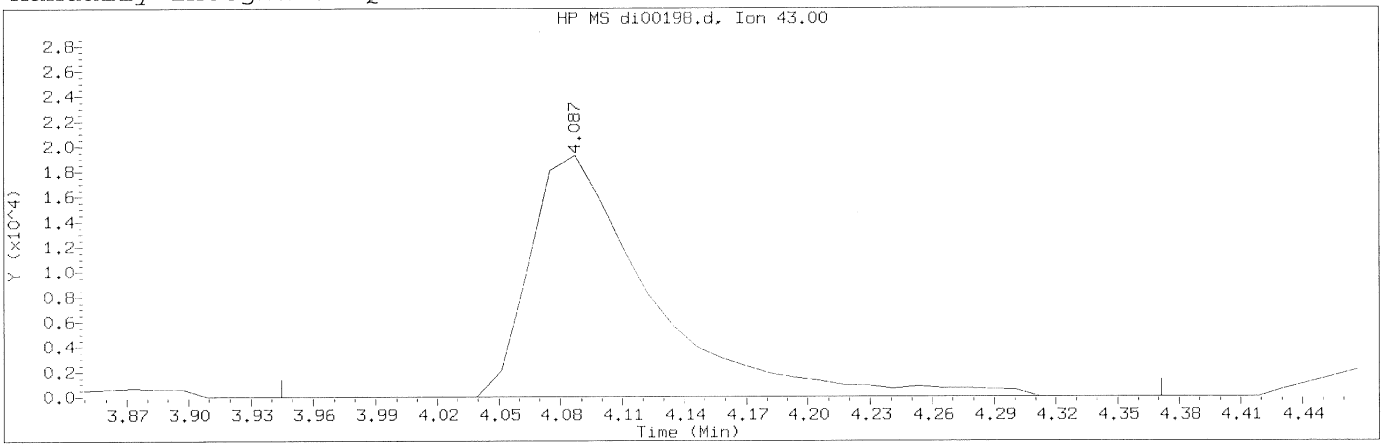
Compound Number : 14
Compound Name : Ethanol
Expected RT (minutes) : 3.696
Quant Ion : 45.00

Digitally signed by Jeffrey B. Smith on 09/14/2015 at 13:37.
Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)




Manually Integrated Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00198.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 22:09 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 14-SEP-2015 10:01
Date, time and analyst ID of latest file update: 14-Sep-2015 10:01 jbs01304

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 19
Compound Name : Acetone
Scan Number : 254
Retention Time (minutes): 4.087
Quant Ion : 43.00
Area (flag) : 78467M
Concentration (ppb(v)) : 1.2317
Integration start scan : 241 Integration stop scan: 277
Y at integration start : 0 Y at integration end: 0

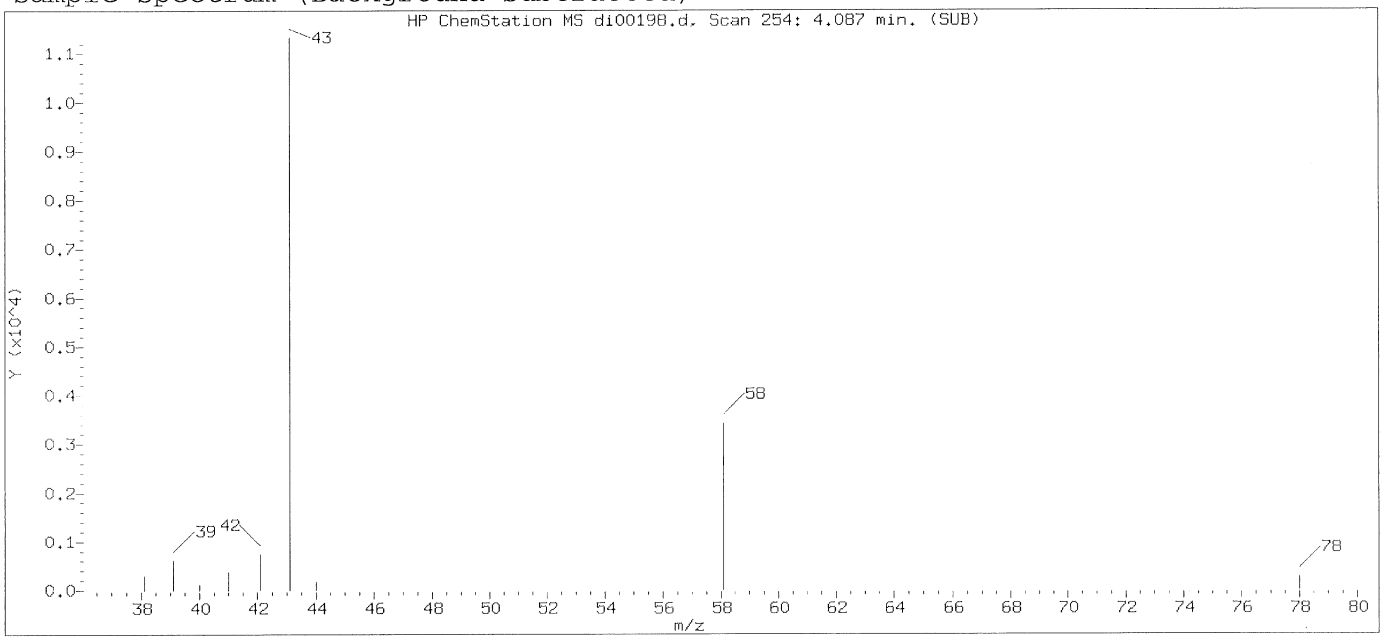
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 09/14/2015 at 13:37. Target 3.5 esignature user ID: jbs01304

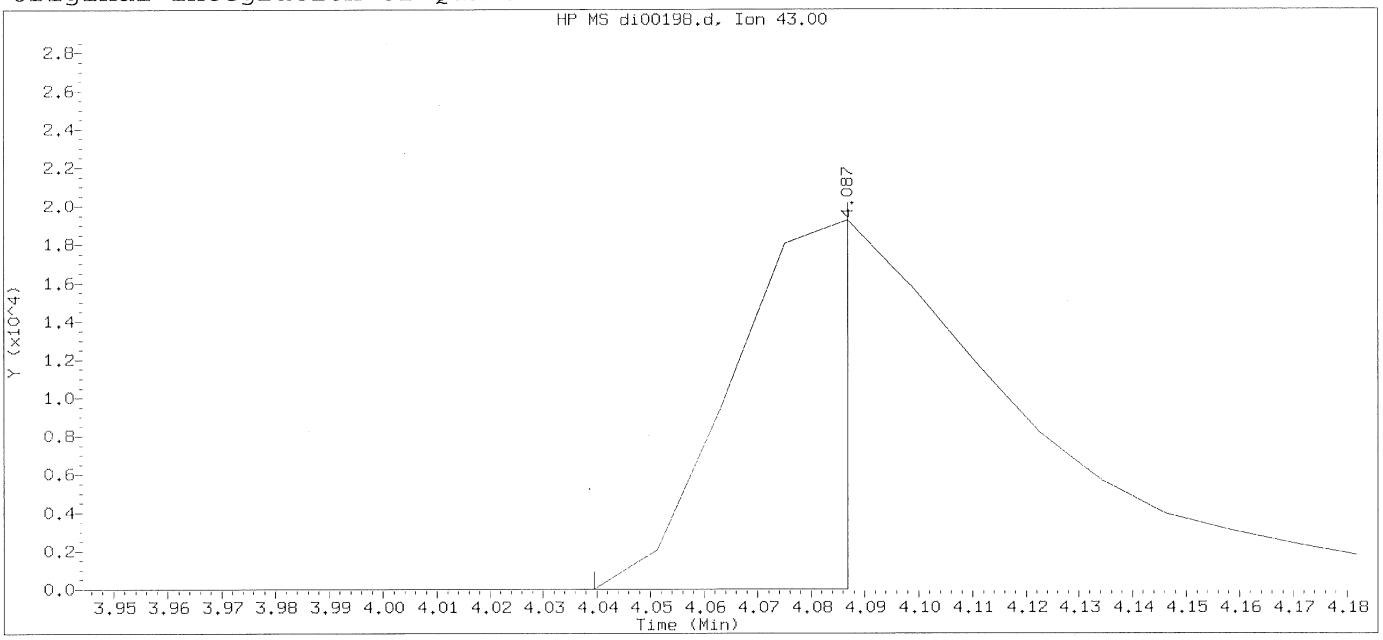
Mark A. Ratcliff
Senior Specialist
SEP 15 2015

GC/MS audit/management approval:_____

Sample Spectrum (Background Subtracted)




Original Integration of Quant Ion




Data File: /chem/HP10145.i/15sep11.b/di00198.d Instrument ID: HP10145.i
Injection date and time: 11-SEP-2015 22:09 Analyst ID: jeb07445

Method used: /chem/HP10145.i/15sep11.b/to-15.m Sublist used: all
Calibration date and time: 11-SEP-2015 21:28
Date, time and analyst ID of latest file update: 11-Sep-2015 22:50 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

| | | | |
|---|---|---|---|
| Compound Number | : 19 | | |
| Compound Name | : Acetone | | |
| Scan Number | : 254 | | |
| Retention Time (minutes) | : 4.087 | | |
| Quant Ion | : 43.00 | | |
| Area | : 27913 | | |
| Concentration (ppb(v)) | : 0.5856 | | |
| Integration start scan | : 249 | Integration stop scan: | 253 |
| Y at integration start | : 0 | Y at integration end: | 0 |

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Target 3.5 esignature user ID: jbs01304