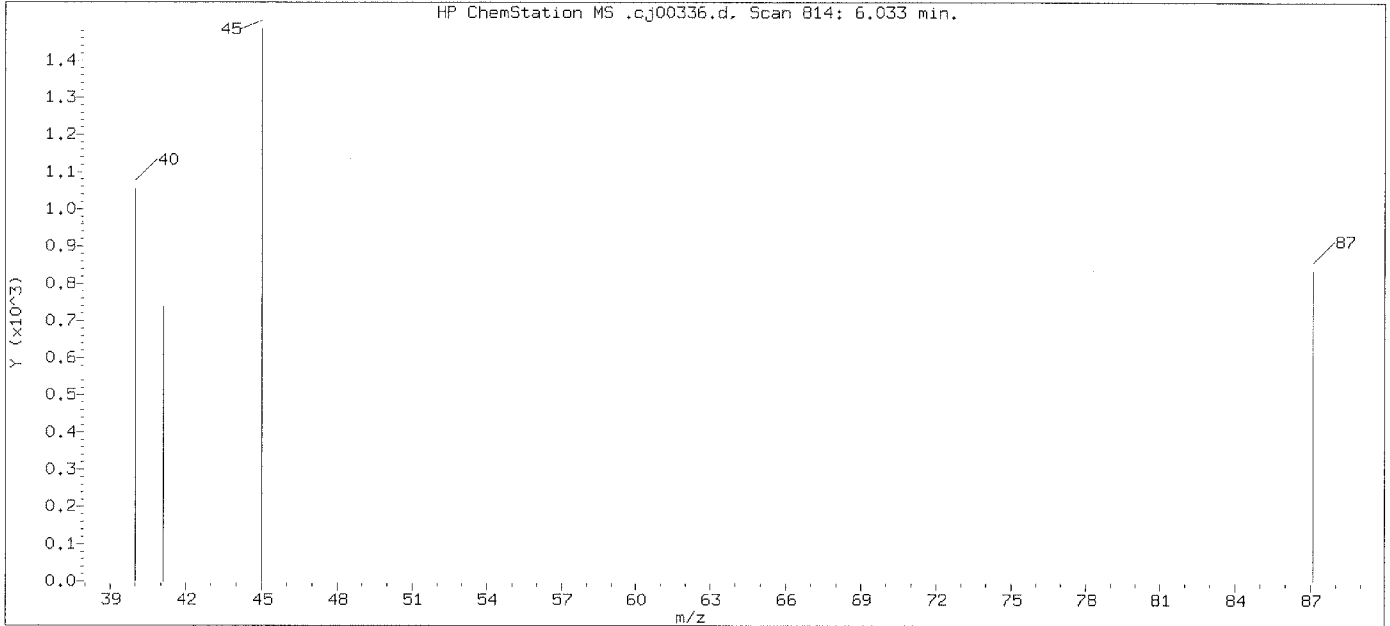
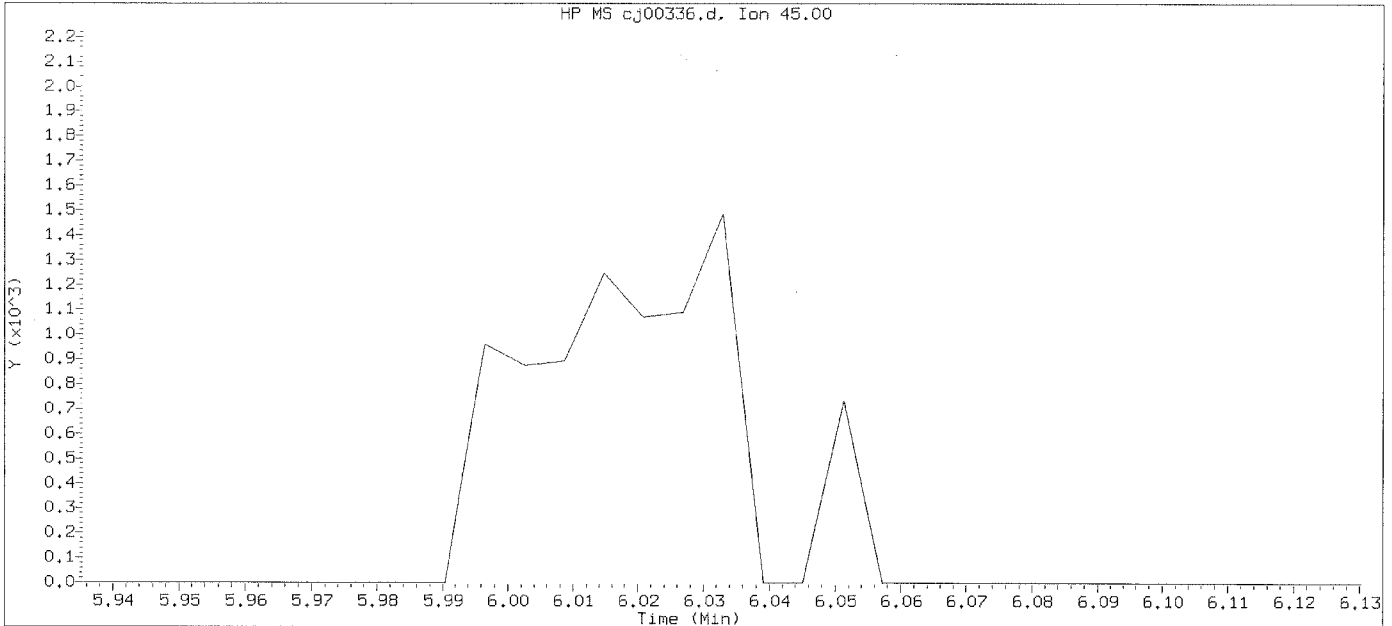


Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15oct15.b/cj00336.d  
Injection date and time: 16-OCT-2015 09:19

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
Calibration date and time: 15-OCT-2015 19:21

Sublist used: all

Date, time and analyst ID of latest file update: 16-Oct-2015 10:00 Automation

Sample Name: mdlv0.2

Lab Sample ID: mdlv0.2

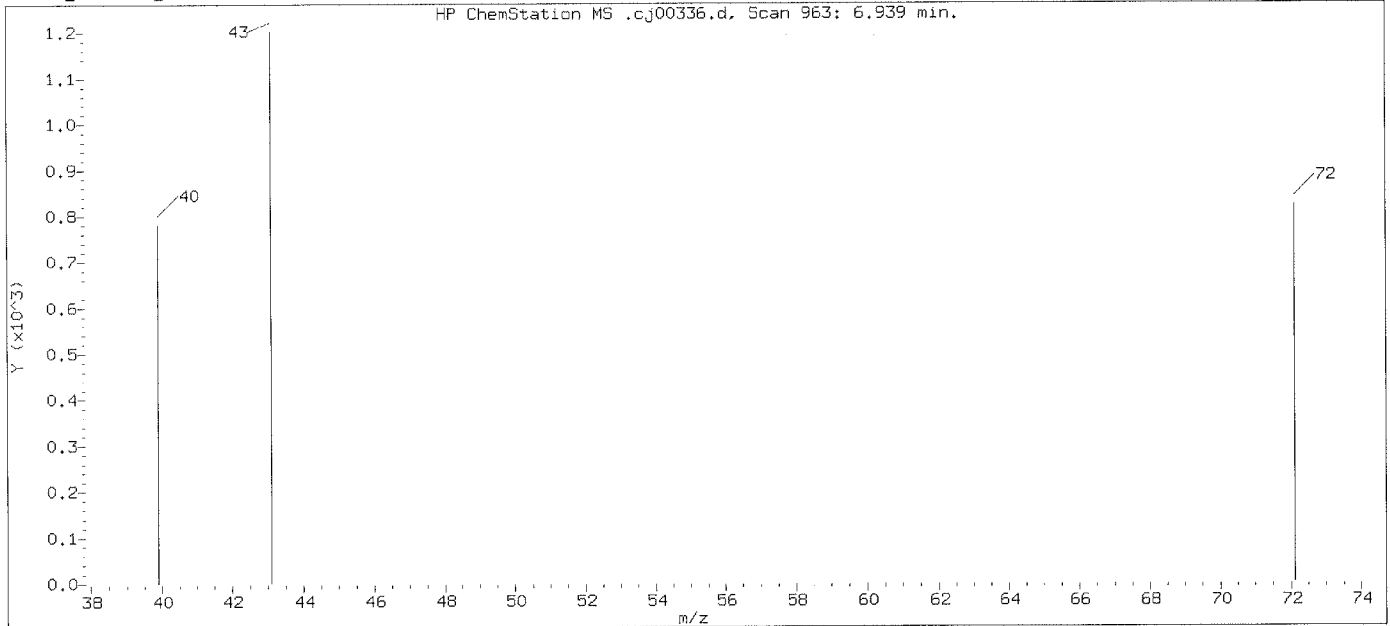
Compound Number : 33  
Compound Name : Di-Isopropyl Ether  
Expected RT (minutes) : 6.033  
Quant Ion : 45.00

Digitally signed by Jacob E. Bailey on 10/16/2015 at 18:17.  
Target 3.5 esignature user ID: jeb07445

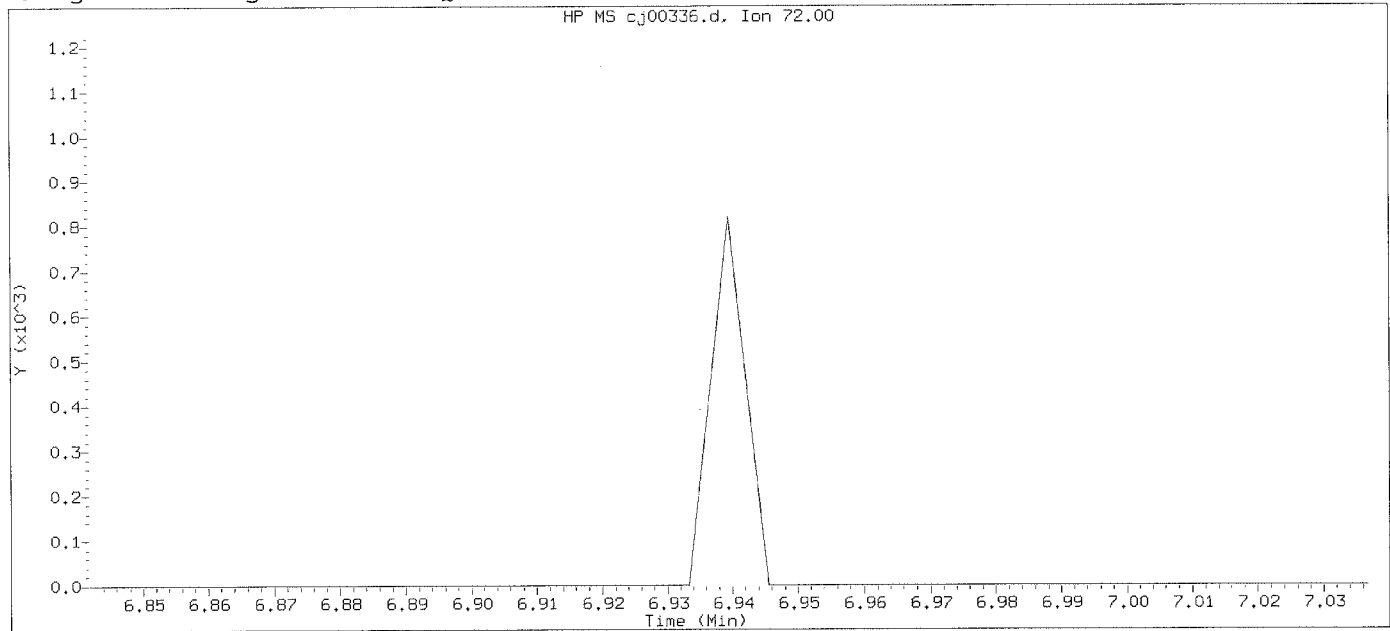




Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15oct15.b/cj00336.d                      Instrument ID: HP09464.i  
Injection date and time: 16-OCT-2015 09:19                      Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m                      Sublist used: all  
Calibration date and time: 15-OCT-2015 19:21  
Date, time and analyst ID of latest file update: 16-Oct-2015 10:00 Automation

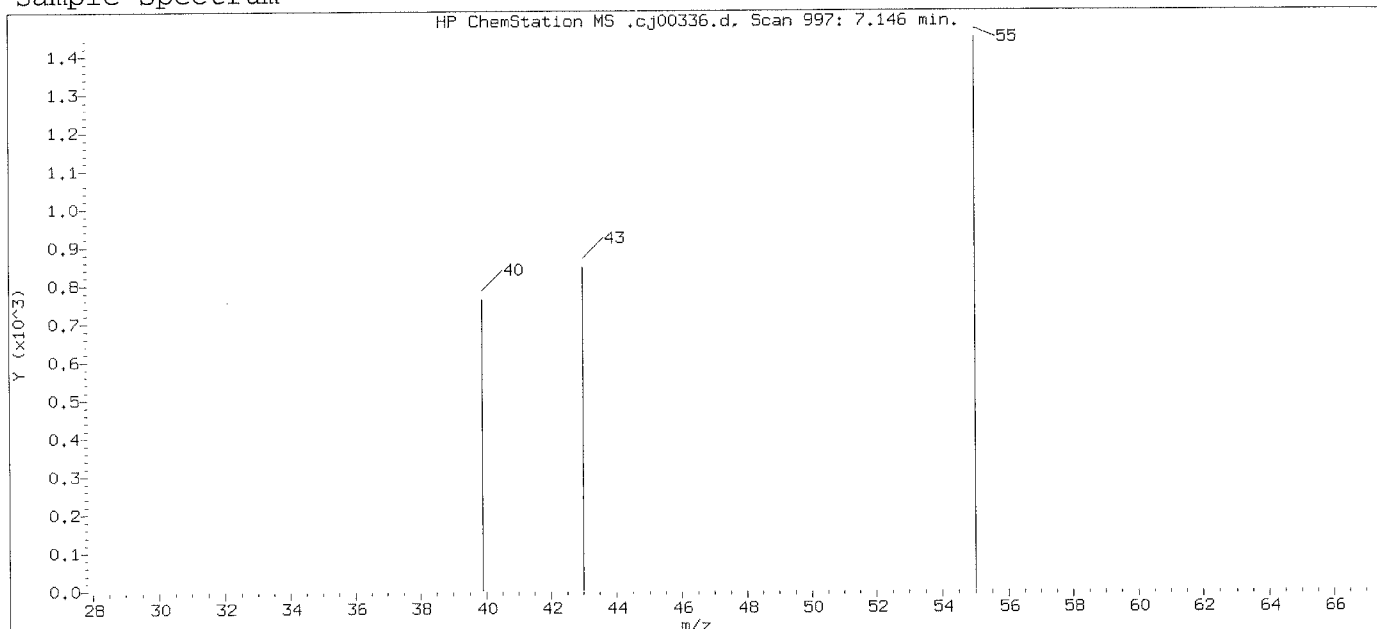
Sample Name: mdlv0.2    Lab Sample ID: mdlv0.2

Compound Number                      : 37  
Compound Name                         : 2-Butanone  
Expected RT (minutes)                : 6.939  
Quant Ion                                : 72.00

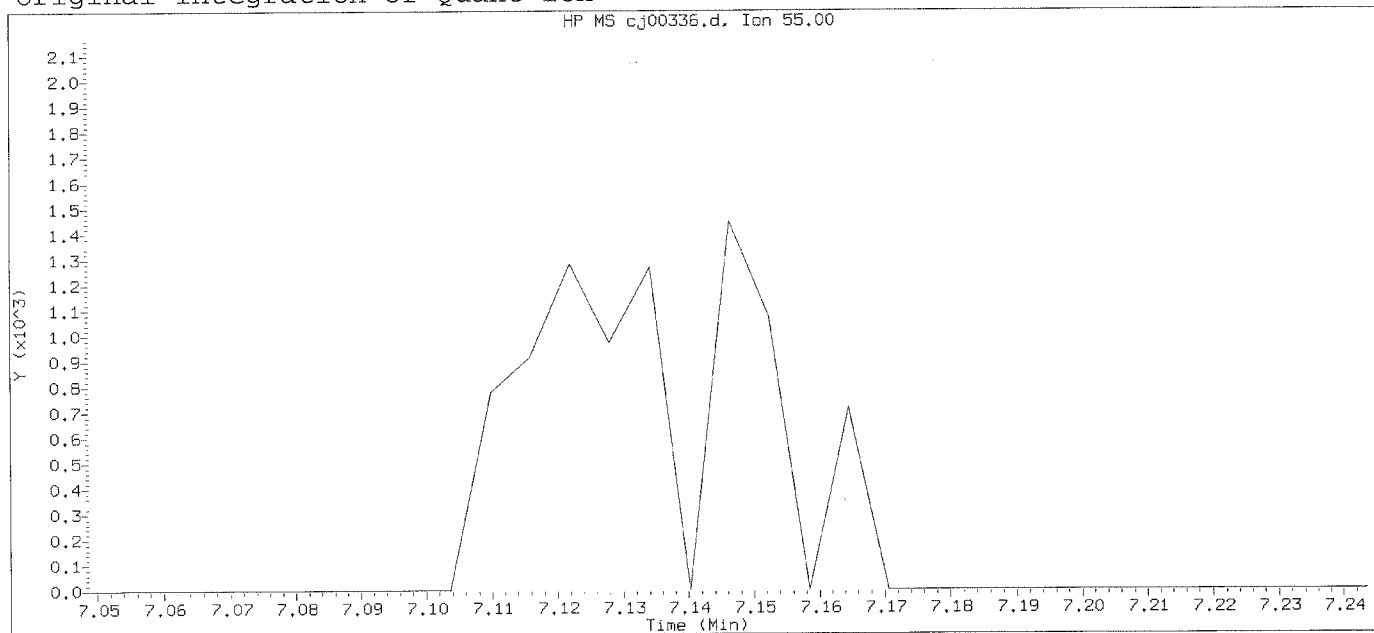
Digitally signed by Jacob E. Bailey on 10/16/2015 at 18:17.  
Target 3.5 esignature user ID: jeb07445



Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15oct15.b/cj00336.d  
Injection date and time: 16-OCT-2015 09:19

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
Calibration date and time: 15-OCT-2015 19:21  
Date, time and analyst ID of latest file update: 16-Oct-2015 10:00 Automation

Sample Name: mdlv0.2

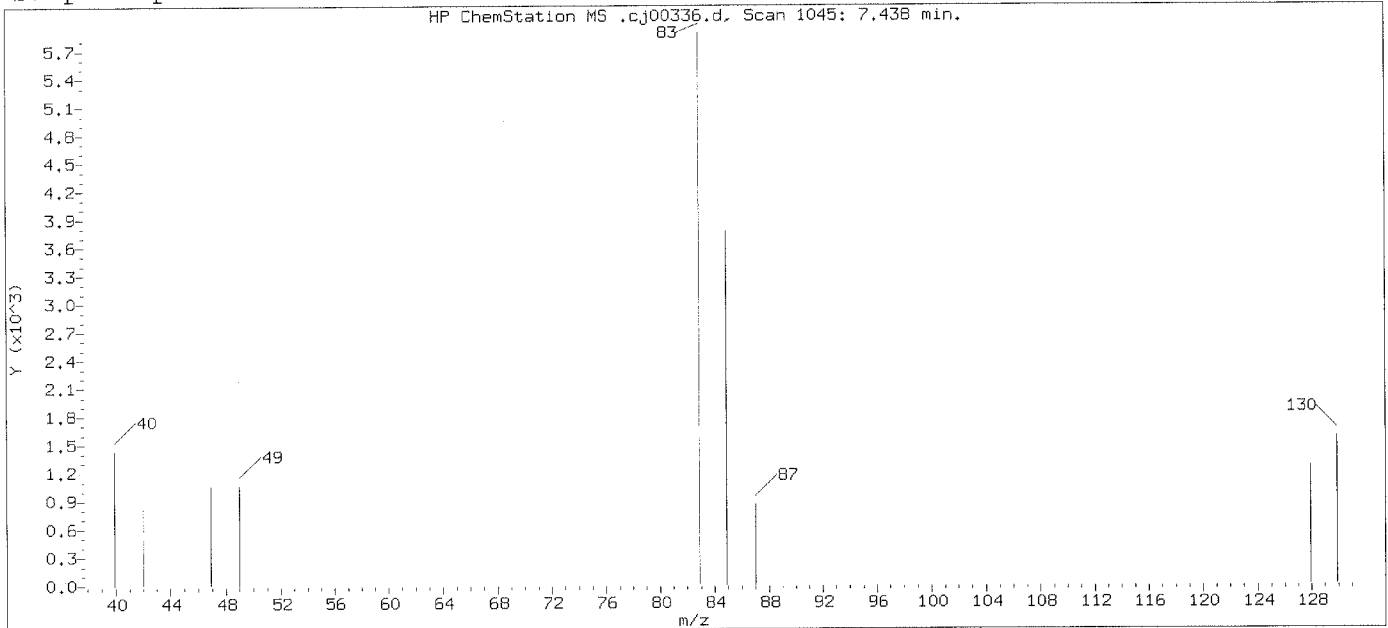
Lab Sample ID: mdlv0.2

Compound Number : 39  
Compound Name : Methyl Acrylate  
Expected RT (minutes) : 7.146  
Quant Ion : 55.00

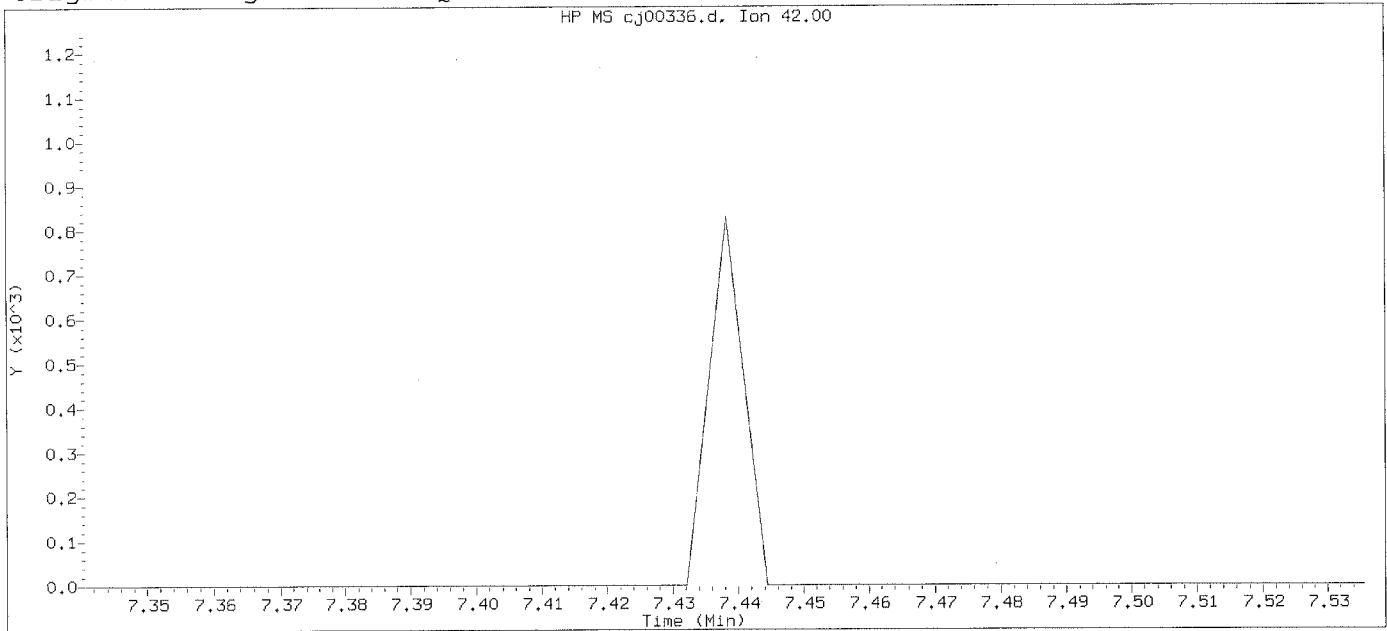
Digitally signed by Jacob E. Bailey on 10/16/2015 at 18:17.  
Target 3.5 esignature user ID: jeb07445



Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15oct15.b/cj00336.d  
Injection date and time: 16-OCT-2015 09:19

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
Calibration date and time: 15-OCT-2015 19:21  
Date, time and analyst ID of latest file update: 16-Oct-2015 10:00 Automation

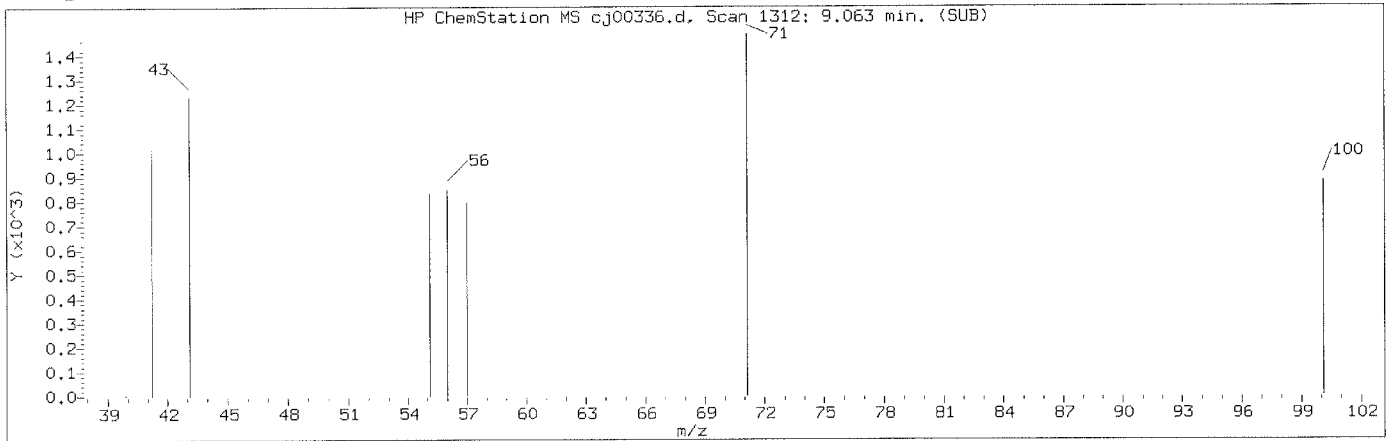
Sample Name: mdlv0.2

Lab Sample ID: mdlv0.2

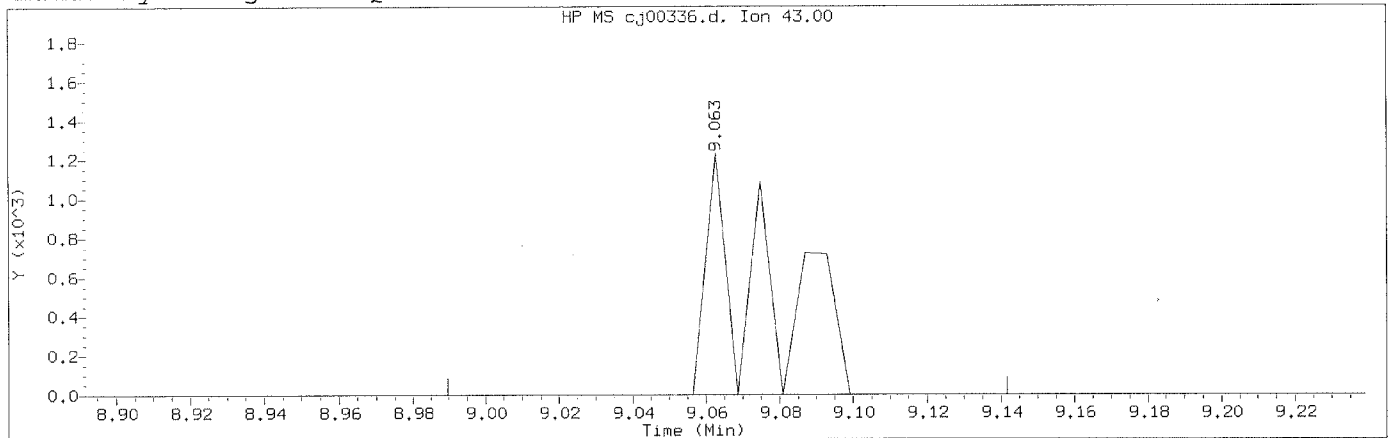
Compound Number : 41  
Compound Name : Tetrahydrofuran  
Expected RT (minutes) : 7.438  
Quant Ion : 42.00

Digitally signed by Jacob E. Bailey on 10/16/2015 at 18:17.  
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09464.i/15oct15.b/cj00336.d  
Injection date and time: 16-OCT-2015 09:19

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
Calibration date and time: 16-OCT-2015 18:12  
Date, time and analyst ID of latest file update: 16-Oct-2015 18:16 jeb07445

Sublist used: all

Sample Name: mdlv0.2

Lab Sample ID: mdlv0.2

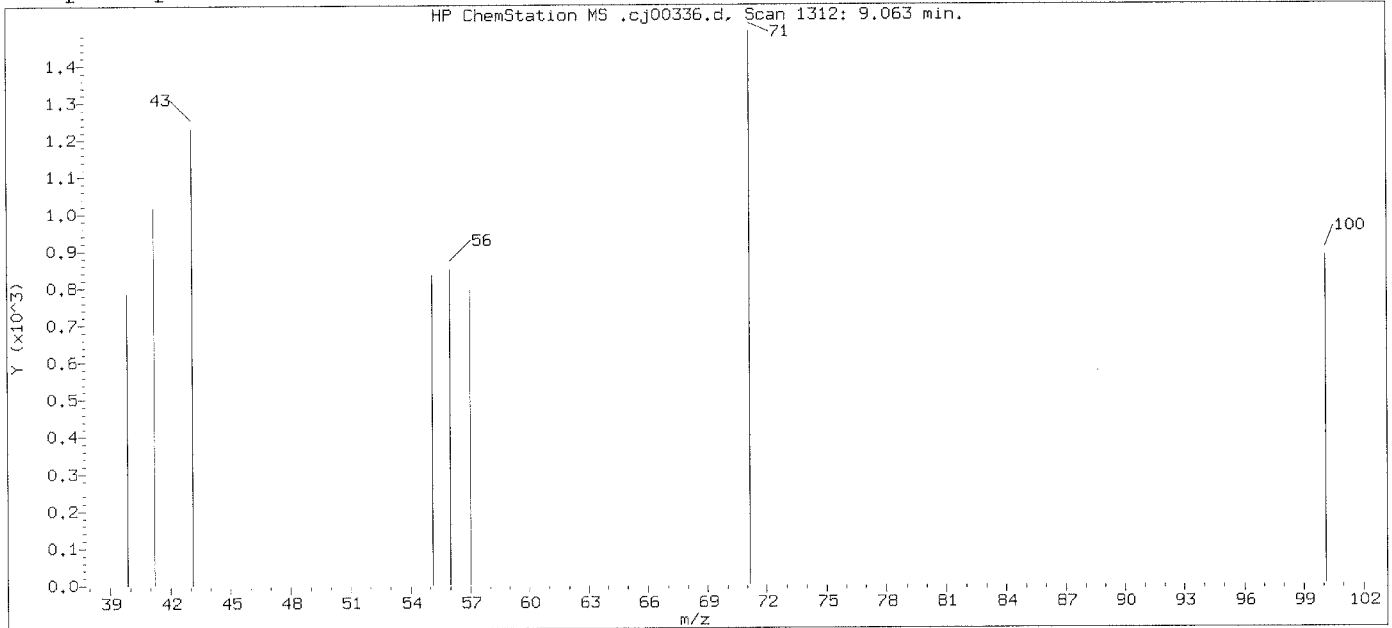
Compound Number : 50  
Compound Name : Heptane  
Scan Number : 1312  
Retention Time (minutes): 9.063  
Quant Ion : 43.00  
Area (flag) : 1370M  
Concentration (ppb(v)) : 0.0471  
Integration start scan : 1299      Integration stop scan: 1324  
Y at integration start : 0      Y at integration end: 0

Reason for manual integration: missed peak

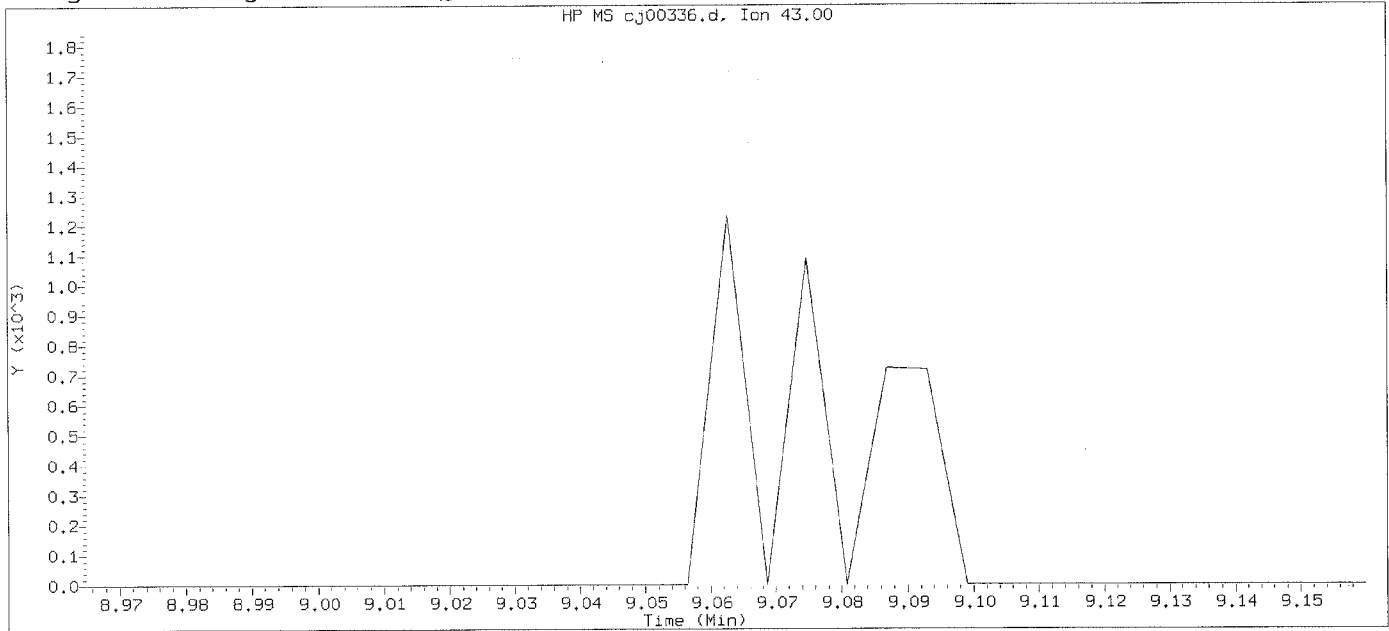
Analyst responsible for change: Digitally signed by Jacob E. Bailey  
on 10/16/2015 at 18:17.  
Target 3.5 esignature user ID: jeb07445

GC/MS audit/management approval: MAP/758 10/21/15

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15oct15.b/cj00336.d Instrument ID: HP09464.i  
Injection date and time: 16-OCT-2015 09:19 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m Sublist used: all  
Calibration date and time: 15-OCT-2015 19:21  
Date, time and analyst ID of latest file update: 16-Oct-2015 10:00 Automation

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

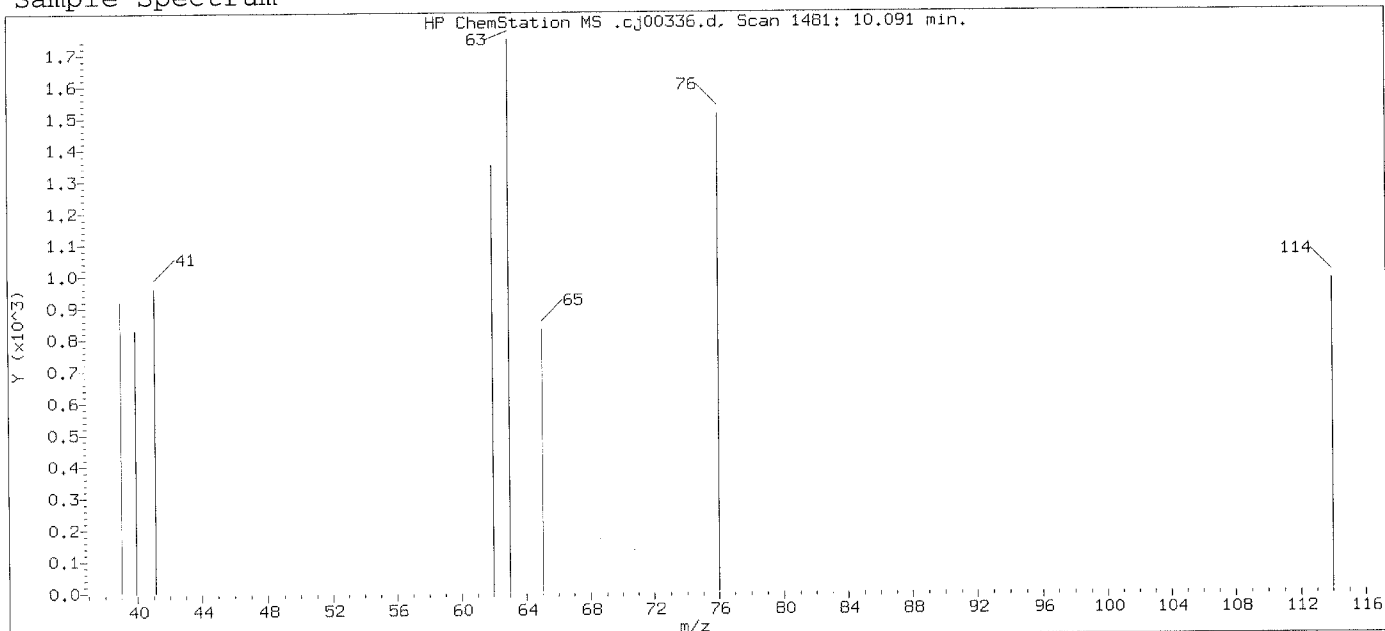
Compound Number : 50  
Compound Name : Heptane  
Expected RT (minutes) : 9.063  
Quant Ion : 43.00

Digitally signed by Jacob E. Bailey on 10/16/2015 at 18:17.  
Target 3.5 esignature user ID: jeb07445

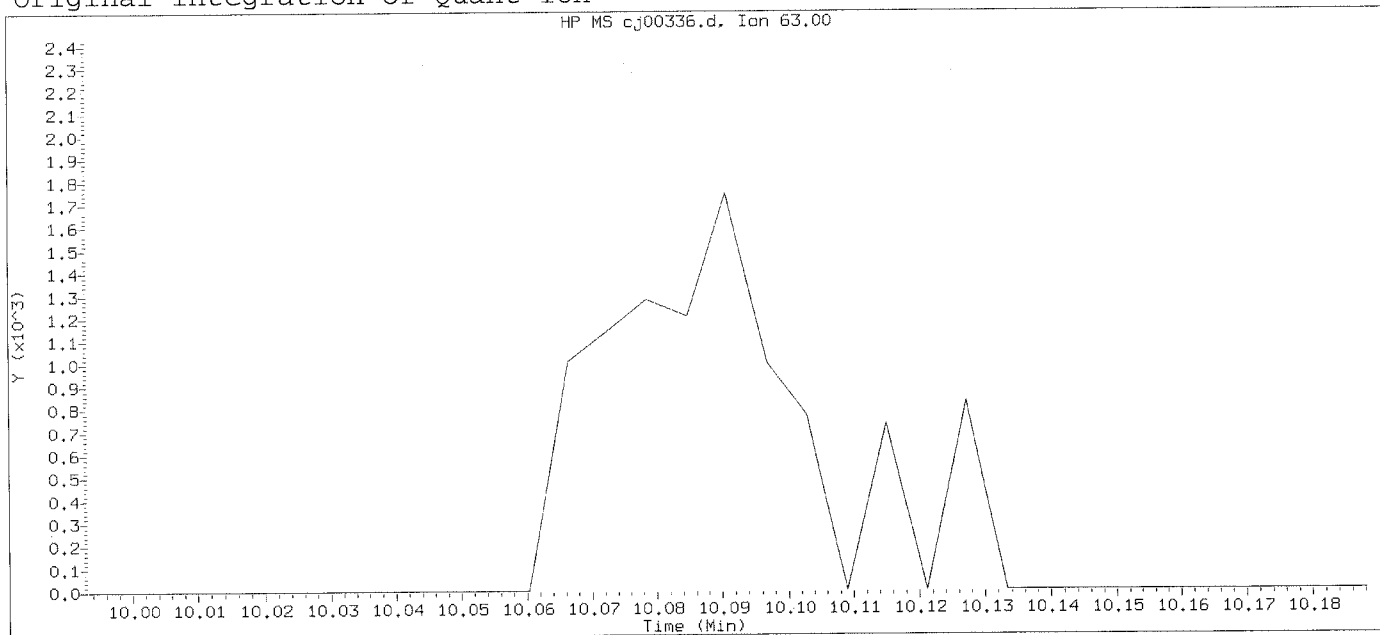




Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15oct15.b/cj00336.d  
Injection date and time: 16-OCT-2015 09:19

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
Calibration date and time: 15-OCT-2015 19:21  
Date, time and analyst ID of latest file update: 16-Oct-2015 10:00 Automation

Sample Name: mdlv0.2

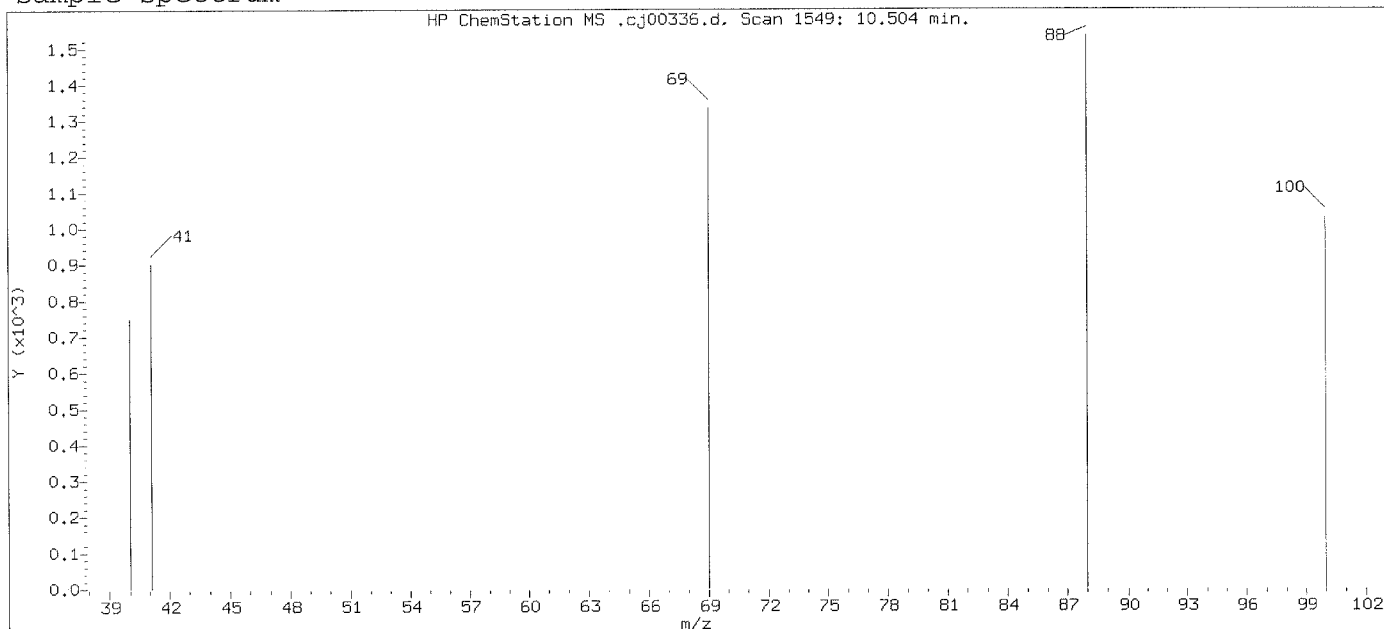
Lab Sample ID: mdlv0.2

Compound Number : 54  
Compound Name : 1,2-Dichloropropane  
Expected RT (minutes) : 10.091  
Quant Ion : 63.00

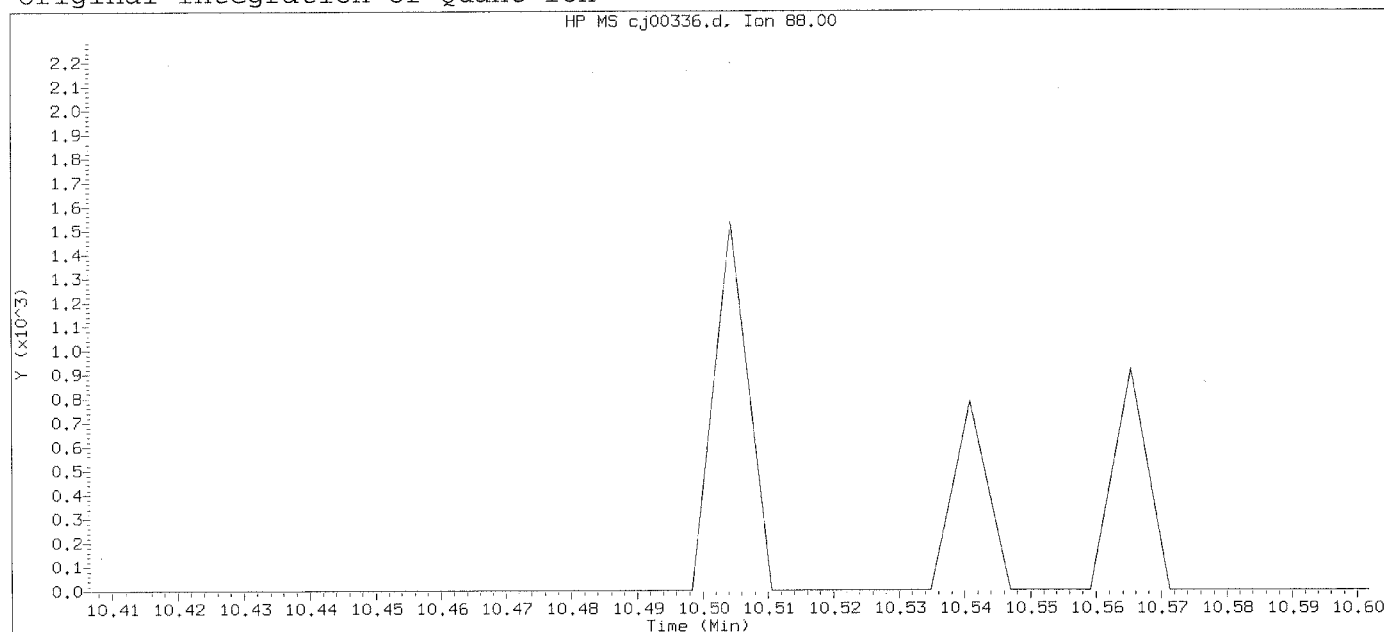
Digitally signed by Jacob E. Bailey on 10/16/2015 at 18:17.  
Target 3.5 esignature user ID: jeb07445



Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15oct15.b/cj00336.d

Instrument ID: HP09464.i

Injection date and time: 16-OCT-2015 09:19

Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m

Sublist used: all

Calibration date and time: 15-OCT-2015 19:21

Date, time and analyst ID of latest file update: 16-Oct-2015 10:00 Automation

Sample Name: mdlv0.2

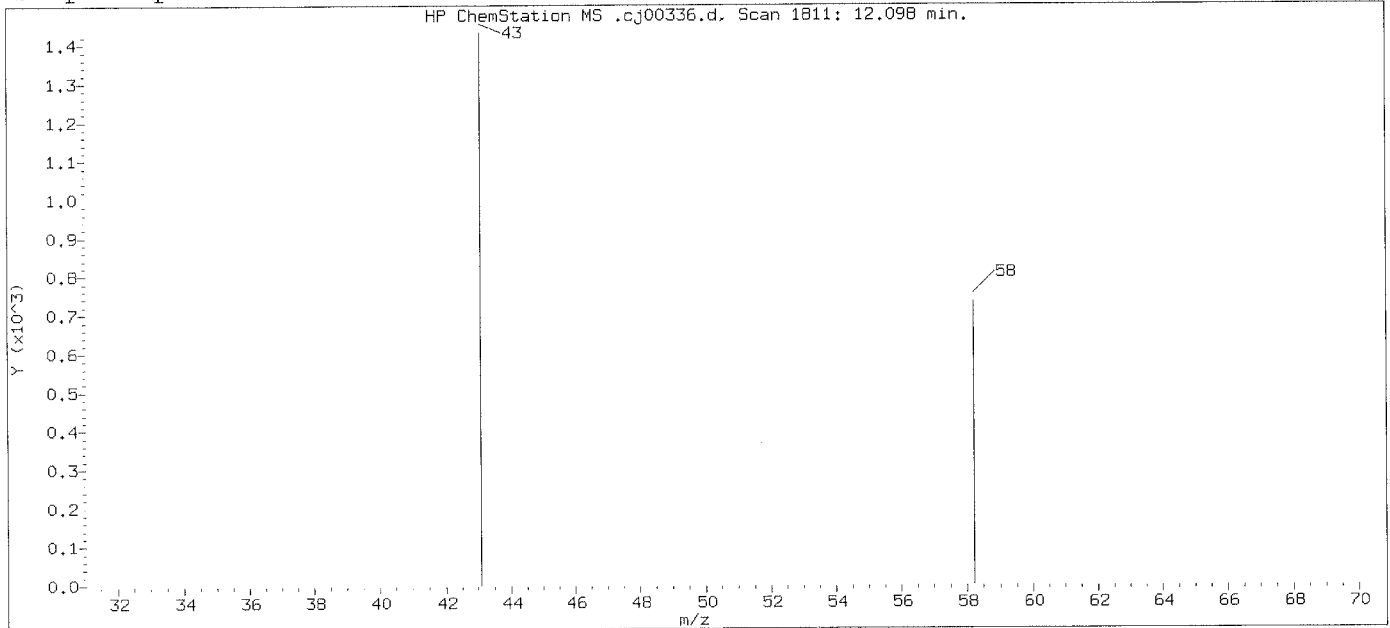
Lab Sample ID: mdlv0.2

Compound Number : 56  
Compound Name : 1,4-Dioxane  
Expected RT (minutes) : 10.504  
Quant Ion : 88.00

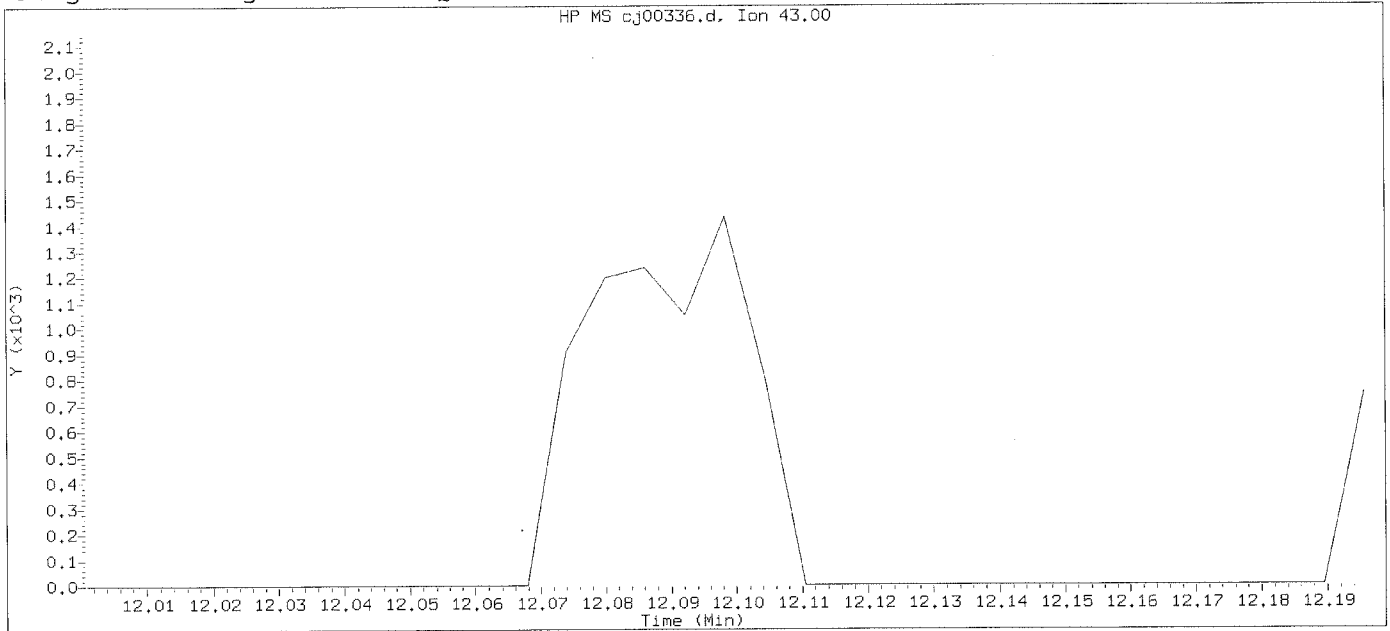
Digitally signed by Jacob E. Bailey on 10/16/2015 at 18:17.  
Target 3.5 esignature user ID: jeb07445



Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15oct15.b/cj00336.d      Instrument ID: HP09464.i  
Injection date and time: 16-OCT-2015 09:19      Analyst ID: jeb07445

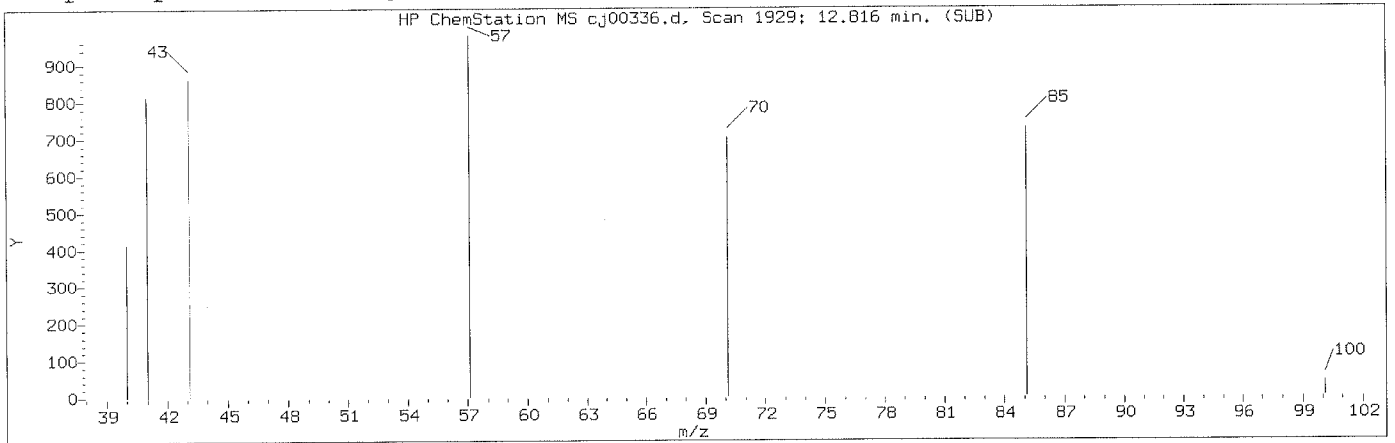
Method used: /chem/HP09464.i/15oct15.b/to-15.m      Sublist used: all  
Calibration date and time: 15-OCT-2015 19:21  
Date, time and analyst ID of latest file update: 16-Oct-2015 10:00 Automation

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

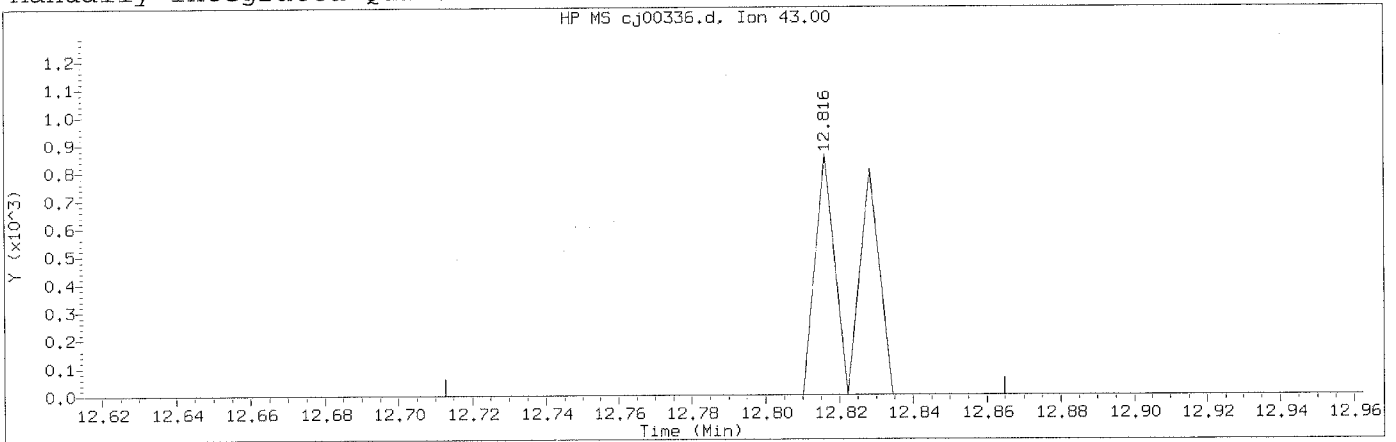
Compound Number      : 60  
Compound Name        : 4-Methyl-2-Pentanone  
Expected RT (minutes) : 12.098  
Quant Ion             : 43.00

Digitally signed by Jacob E. Bailey on 10/16/2015 at 18:17.  
Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09464.i/15oct15.b/cj00336.d  
Injection date and time: 16-OCT-2015 09:19

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
Calibration date and time: 16-OCT-2015 18:12  
Date, time and analyst ID of latest file update: 16-Oct-2015 18:16 jeb07445

Sublist used: all

Sample Name: mdlv0.2

Lab Sample ID: mdlv0.2

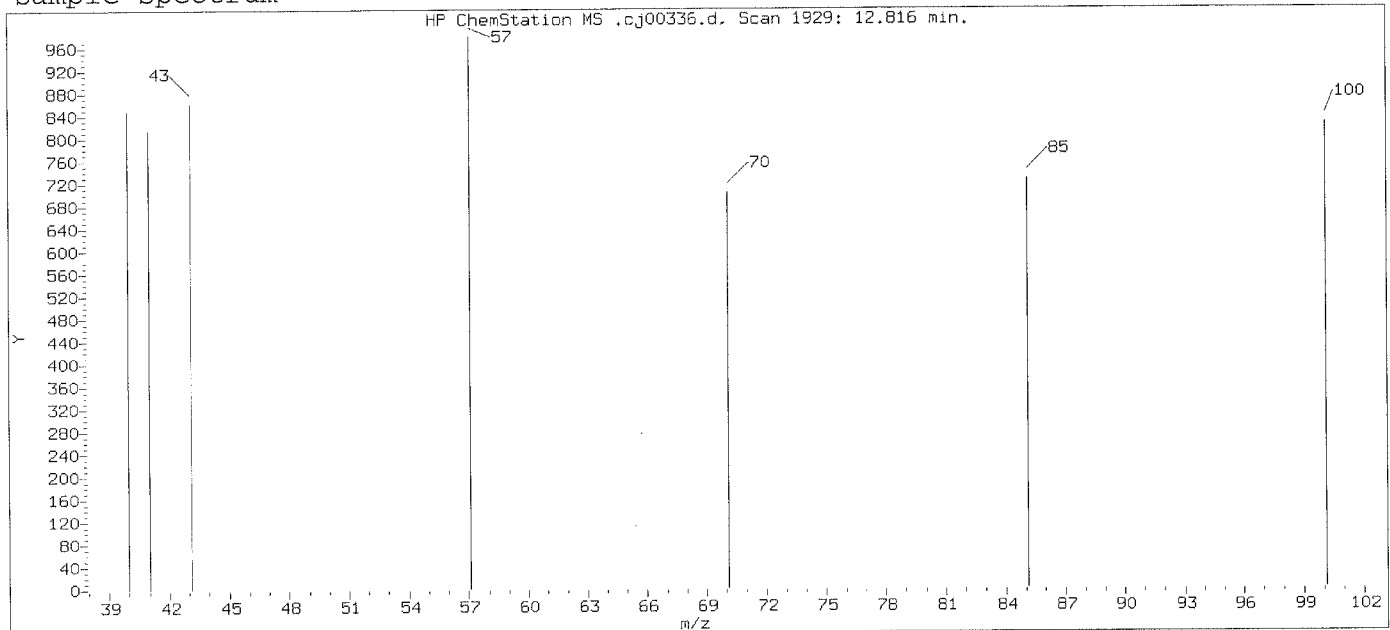
Compound Number : 62  
Compound Name : Octane  
Scan Number : 1929  
Retention Time (minutes): 12.816  
Quant Ion : 43.00  
Area (flag) : 609M  
Concentration (ppb(v)) : 0.0194  
Integration start scan : 1911      Integration stop scan: 1936  
Y at integration start : 0      Y at integration end: 0

Reason for manual integration: missed peak

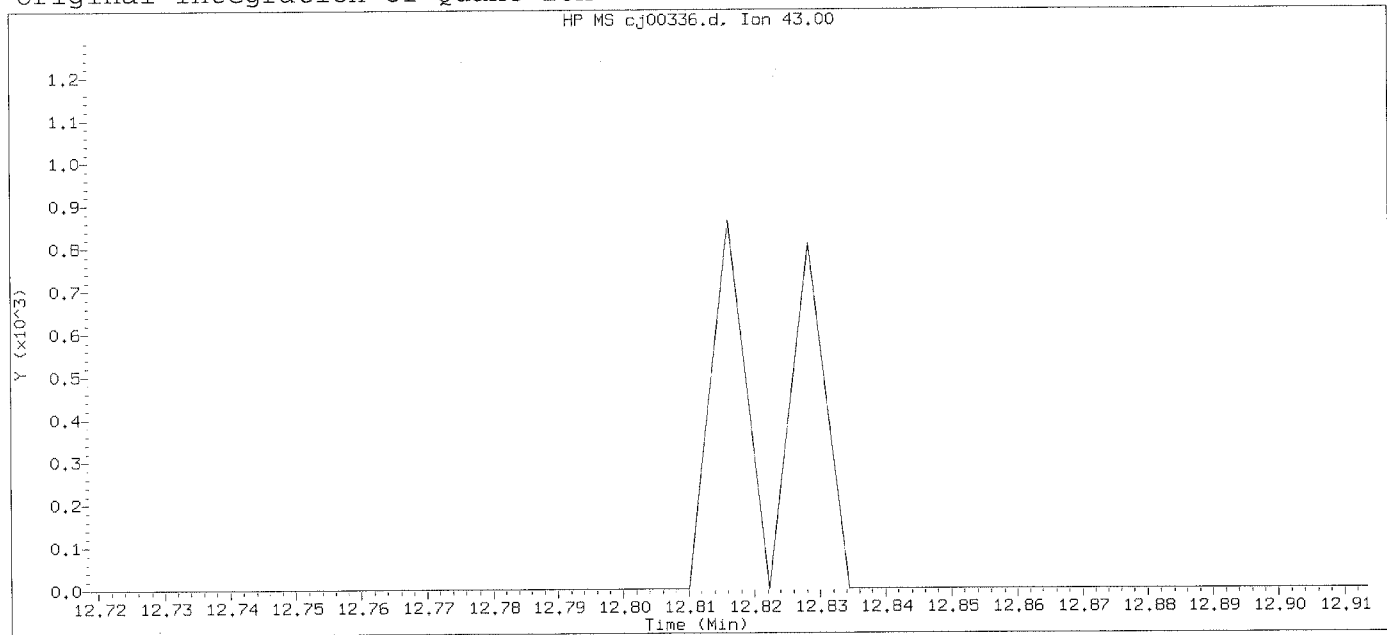
Digitally signed by Jacob E. Bailey  
Analyst responsible for change: on 10/16/2015 at 18:17.  
Target 3.5 esignature user ID: jeb07445

GC/MS audit/management approval: mgp1758 10/21/15

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15oct15.b/cj00336.d  
Injection date and time: 16-OCT-2015 09:19

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
Calibration date and time: 15-OCT-2015 19:21  
Date, time and analyst ID of latest file update: 16-Oct-2015 10:00 Automation

Sample Name: mdlv0.2

Lab Sample ID: mdlv0.2

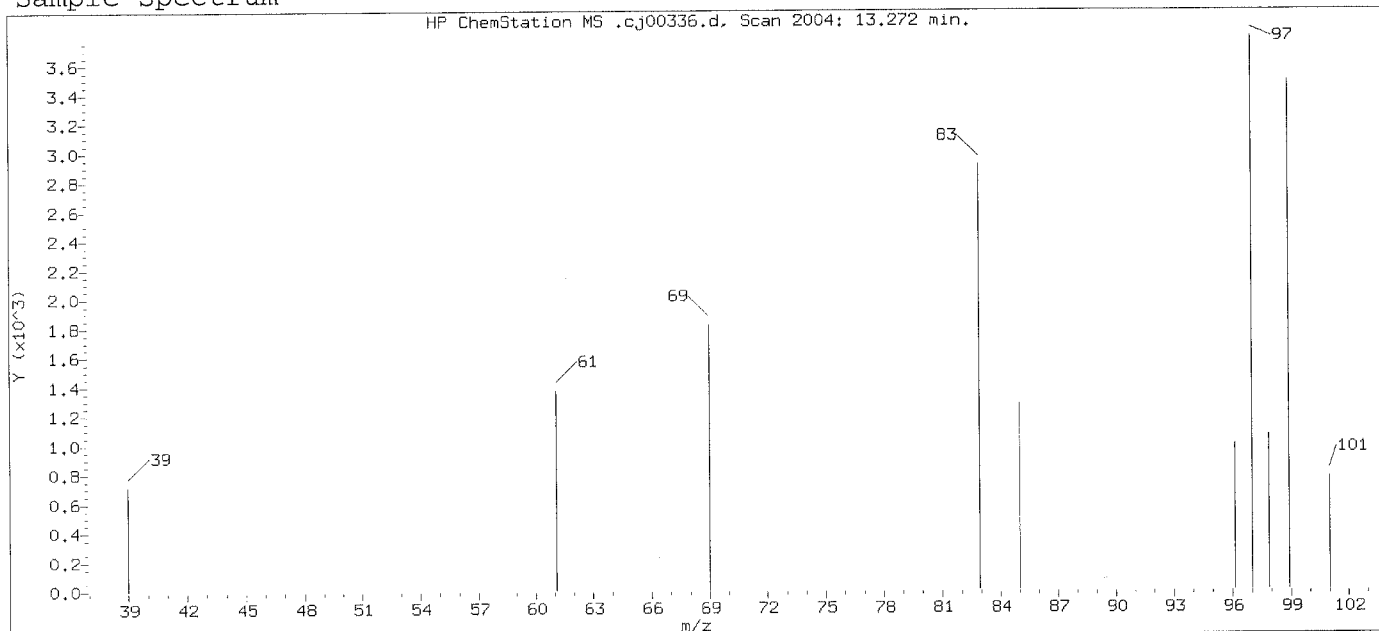
Compound Number : 62  
Compound Name : Octane  
Expected RT (minutes) : 12.816  
Quant Ion : 43.00

Digitally signed by Jacob E. Bailey on 10/16/2015 at 18:17.  
Target 3.5 esignature user ID: jeb07445

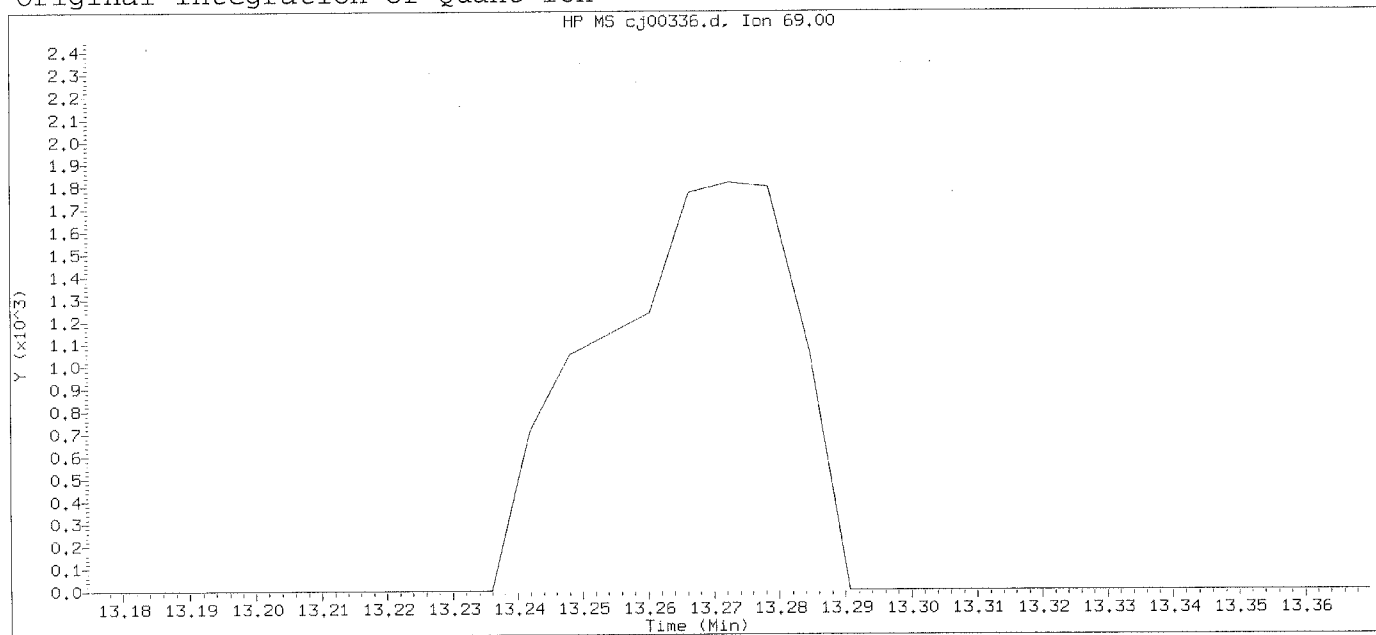




Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15oct15.b/cj00336.d

Instrument ID: HP09464.i

Injection date and time: 16-OCT-2015 09:19

Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m

Sublist used: all

Calibration date and time: 15-OCT-2015 19:21

Date, time and analyst ID of latest file update: 16-Oct-2015 10:00 Automation

Sample Name: mdlv0.2

Lab Sample ID: mdlv0.2

Compound Number : 65  
Compound Name : Ethyl Methacrylate  
Expected RT (minutes) : 13.272  
Quant Ion : 69.00

Digitally signed by Jacob E. Bailey on 10/16/2015 at 18:17.  
Target 3.5 esignature user ID: jeb07445

SDG No.:

Lab File ID: cj00351.d

Calibration Date: 10/16/2015

Instrument ID: 09464

Calibration Time: 15:29

Init. Calib. Date(s): 10/16/2015

COMPOUND	RRF	RRF 10	ACTUAL CONC.	TRUE CONC.	%DRIFT
Propene	0.238	0.245	10.947	10.6	3
Dichlorodifluoromethane	2.943	2.514	8.715	10.2	-15
Chlorodifluoromethane	0.940	0.861	9.616	10.5	-8
Freon 114	2.648	2.447	8.871	9.6	-8
Chloromethane	0.140	0.142	10.191	10	2
Vinyl Chloride	0.623	0.586	9.397	10	-6
1,3-Butadiene	0.384	0.362	9.730	10.3	-6
Bromomethane	0.908	0.851	9.379	10	-6
Chloroethane	0.352	0.311	8.476	9.6	-12
Bromoethene	0.863	0.875	10.546	10.4	1
Dichlorofluoromethane	1.644	1.472	9.490	10.6	-10
Trichlorofluoromethane	3.172	2.859	9.463	10.5	-10
Pentane	0.539	0.515	10.019	10.5	-5
Ethanol	0.127	0.146	12.049	10.5	15
Freon123a	1.158	1.104	10.489	11	-5
Acrolein	0.119	0.129	11.844	10.9	9
1,1-Dichloroethene	1.034	0.946	9.611	10.5	-8
Freon 113	1.258	1.181	10.049	10.7	-6
Acetone	0.411	0.435	11.097	10.5	6
Methyl Iodide	2.713	2.731	10.573	10.5	1
Carbon Disulfide	2.125	1.804	8.490	10	-15
Isopropanol	0.486	0.437	10.421	11.6	-10
Acetonitrile	0.094	0.085	10.011	11	-9
3-Chloropropene	0.293	0.274	10.295	11	-6
Methylene Chloride	0.641	0.569	9.760	11	-11
tert-Butyl Alcohol	0.731	0.743	11.386	11.2	2
Acrylonitrile	0.221	0.264	12.542	10.5	19
trans-1,2-Dichloroethene	0.876	0.799	8.937	9.8	-9
Methyl t-Butyl Ether	1.132	1.212	11.135	10.4	7
Hexane	0.641	0.669	10.535	10.1	4
1,1-Dichloroethane	1.081	1.083	10.324	10.3	0
Vinyl Acetate *	0.113	0.151	14.764	11	34 *
Di-Isopropyl Ether	0.645	0.732	11.691	10.3	14
Ethyl Tert-Butyl Ether	0.900	1.028	11.651	10.2	14
cis-1,2-Dichloroethene	0.806	0.806	10.304	10.3	0
2-Butanone	0.200	0.220	11.550	10.5	10
Ethyl Acetate	0.091	0.107	12.137	10.3	18
Methyl Acrylate	0.506	0.604	12.436	10.43	19
Tetrahydrofuran	0.217	0.250	12.095	10.5	15

\* Maximum %DRIFT = 30%.

# Average RRF for all compounds must be greater than 0.010.

SDG No.:

Lab File ID: cj00351.d

Calibration Date: 10/16/2015

Instrument ID: 09464

Calibration Time: 15:29

Init. Calib. Date(s): 10/16/2015

COMPOUND	RRF	RRF 10	ACTUAL CONC.	TRUE CONC.	%DRIFT
Chloroform	1.895	1.821	9.899	10.3	-4
1,1,1-Trichloroethane	2.153	2.117	10.126	10.3	-2
Cyclohexane	0.702	0.712	10.340	10.2	1
Carbon Tetrachloride	2.435	2.331	10.052	10.5	-4
Benzene	0.612	0.611	10.473	10.5	0
1,2-Dichloroethane	0.355	0.340	9.970	10.4	-4
Isooctane	0.576	0.631	11.725	10.7	10
Tert-Amyl Methyl Ether	0.335	0.355	10.913	10.3	6
Heptane	0.159	0.168	11.032	10.4	6
Trichloroethene	0.419	0.402	9.679	10.1	-4
Ethyl Acrylate	0.172	0.193	12.005	10.7	12
1,2-Dichloropropane	0.170	0.181	11.013	10.3	7
Dibromomethane	0.417	0.369	9.107	10.3	-12
1,4-Dioxane	0.125	0.122	9.832	10.1	-3
Methyl Methacrylate	0.130	0.139	10.945	10.2	7
Bromodichloromethane	0.624	0.588	9.717	10.31	-6
cis-1,3-Dichloropropene	0.332	0.362	11.992	11	9
4-Methyl-2-Pentanone	0.159	0.167	10.559	10.1	5
Toluene	0.781	0.896	11.815	10.3	15
Octane	0.206	0.239	12.075	10.4	16
trans-1,3-Dichloropropene	0.411	0.441	10.851	10.1	7
Ethyl Methacrylate	0.219	0.243	11.428	10.3	11
1,1,2-Trichloroethane	0.333	0.349	10.782	10.3	5
Tetrachloroethene	0.665	0.594	8.750	9.8	-11
2-Hexanone	0.181	0.185	11.158	10.9	2
Dibromochloromethane	0.642	0.601	9.549	10.2	-6
1,2-Dibromoethane	0.570	0.581	10.405	10.2	2
Chlorobenzene	0.776	0.816	11.038	10.5	5
1,1,1,2-Tetrachloroethane	0.484	0.491	10.649	10.5	1
Ethylbenzene	0.863	1.019	12.283	10.4	18
m/p-Xylene	0.713	0.845	11.370	9.6	18
o-Xylene	0.751	0.847	11.510	10.2	13
Styrene	0.673	0.755	11.222	10	12
Bromoform	0.829	0.854	10.101	9.8	3
Cumene	0.964	1.068	11.297	10.2	11
Bromobenzene	0.542	0.550	10.656	10.5	1
1,1,2,2-Tetrachloroethane	0.634	0.599	9.631	10.2	-6
1,2,3-Trichloropropane	0.243	0.233	9.995	10.4	-4
n-Propylbenzene	0.321	0.340	10.512	9.9	6

\* Maximum %DRIFT = 30%.

# Average RRF for all compounds must be greater than 0.010.

SDG No.:

Lab File ID: cj00351.d

Calibration Date: 10/16/2015

Instrument ID: 09464

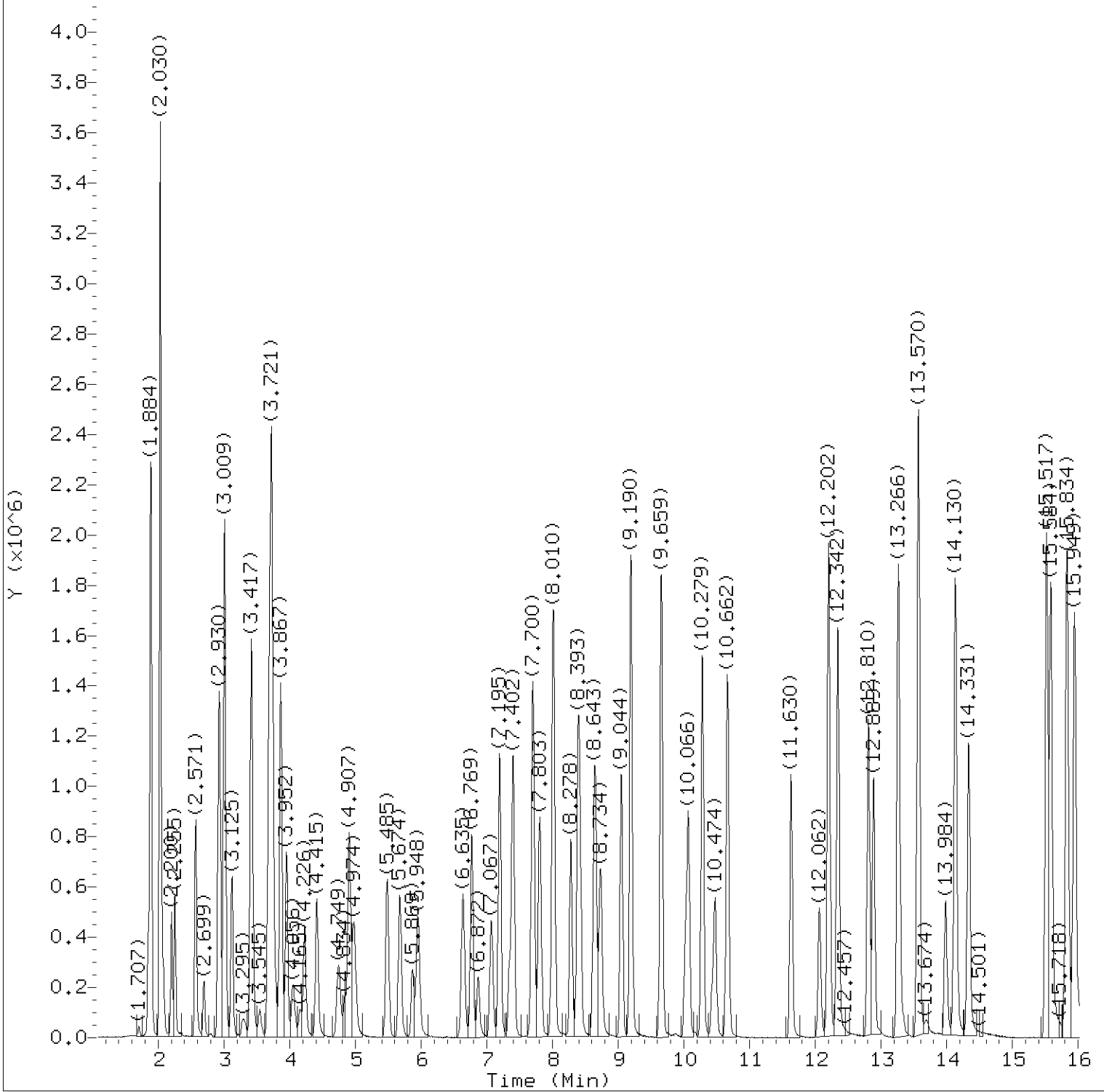
Calibration Time: 15:29

Init. Calib. Date(s): 10/16/2015

COMPOUND	RRF	RRF 10	ACTUAL CONC.	TRUE CONC.	%DRIFT
2-Chlorotoluene	0.356	0.382	11.058	10.3	7
4-Ethyltoluene	1.075	1.207	11.341	10.1	12
1,3,5-Trimethylbenzene	0.926	1.019	11.002	10	10
Alpha Methyl Styrene	0.525	0.598	11.732	10.3	14
tert-Butylbenzene	0.915	1.017	11.231	10.1	11
1,2,4-Trimethylbenzene	0.961	1.103	11.589	10.1	15
sec-Butylbenzene	1.270	1.393	11.078	10.1	10
1,3-Dichlorobenzene	0.953	1.000	10.910	10.4	5
1,4-Dichlorobenzene	1.002	1.074	10.722	10	7
p-Isopropyltoluene	1.158	1.297	11.542	10.3	12
Benzyl Chloride	0.948	0.979	10.734	10.4	3
1,2-Dichlorobenzene	0.903	0.947	10.593	10.1	5
n-Butylbenzene	0.943	1.056	11.757	10.5	12
Hexachloroethane	0.478	0.538	11.819	10.5	13
1,2-Dibromo-3-chloropropane	0.491	0.451	9.646	10.5	-8
1,2,4-Trichlorobenzene	0.499	0.631	12.393	9.8	26
Hexachlorobutadiene	0.546	0.662	12.125	10	21
Naphthalene	1.032	1.207	12.636	10.8	17

\* Maximum %DRIFT = 30%.

# Average RRF for all compounds must be greater than 0.010.



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct16.b/cj00351.d  
Injection date and time: 16-OCT-2015 15:29

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct16.b/to-15.m  
Calibration date and time: 21-OCT-2015 16:54

Sublist used: all

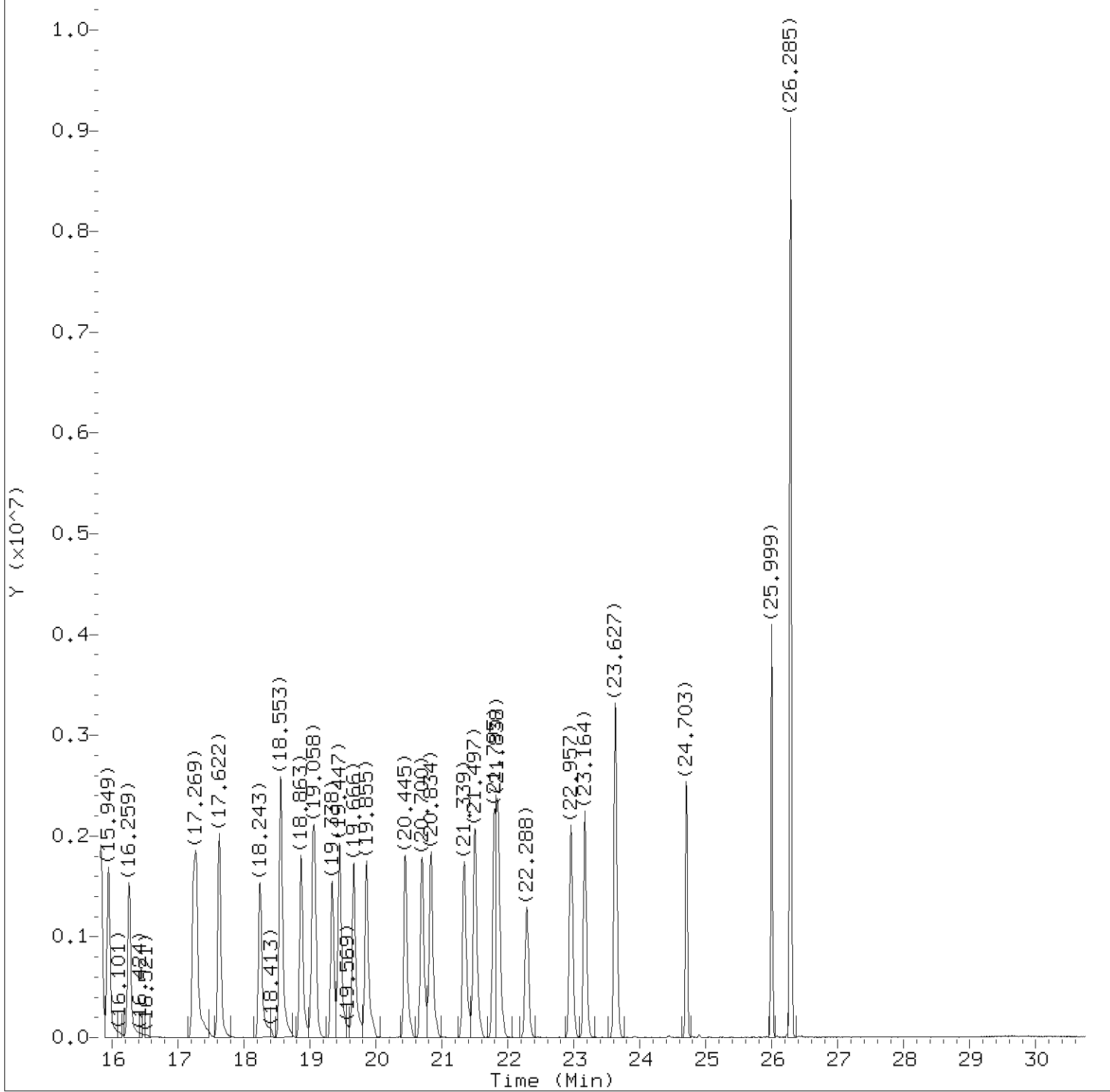
Date, time and analyst ID of latest file update: 21-Oct-2015 16:54 jeb07445

Sample Name: VSTD010

Lab Sample ID: VSTD010

Digitally signed by Jacob E. Bailey  
on 10/21/2015 at 16:54.

Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct16.b/cj00351.d  
Injection date and time: 16-OCT-2015 15:29

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct16.b/to-15.m  
Calibration date and time: 21-OCT-2015 16:54

Sublist used: all

Date, time and analyst ID of latest file update: 21-Oct-2015 16:54 jeb07445

Sample Name: VSTD010

Lab Sample ID: VSTD010

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on 10/21/2015 at 16:54.

Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct16.b/cj00351.d  
 Injection date and time: 16-OCT-2015 15:29

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct16.b/to-15.m  
 Calibration date and time: 21-OCT-2015 16:54  
 Date, time and analyst ID of latest file update: 21-Oct-2015 16:54 jeb07445

Sublist used: all

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.847	41	208140	10.947
2) Dichlorodifluoromethane	(1)	1.884	85	2052091	8.715
3) Chlorodifluoromethane	(1)	1.896	51	723589	9.616
4) Freon 114	(1)	2.030	85	1879643	8.871
5) Chloromethane	(1)	2.079	52	113905	10.191
6) Vinyl Chloride	(1)	2.200	62	468680	9.397
7) 1,3-Butadiene	(1)	2.255	54	298719	9.730
8) Bromomethane	(1)	2.571	94	681284	9.379
9) Chloroethane	(1)	2.699	64	238943	8.476
10) Bromoethene	(1)	2.912	106	727822	10.546
11) Dichlorofluoromethane	(1)	2.936	67	1248260	9.490
12) Trichlorofluoromethane	(1)	3.009	101	2402075	9.463
13) Pentane	(1)	3.125	43	432288	10.019
14) Ethanol	(1)	3.277	45	122501	12.049
15) Freon123a	(1)	3.417	67	971901	10.489
16) Acrolein	(1)	3.545	56	112543	11.844
17) 1,1-Dichloroethene	(1)	3.679	61	795094	9.611
18) Freon 113	(1)	3.721	103	1011349	10.049
19) Acetone	(1)	3.776	43	365145	11.097
20) Methyl Iodide	(1)	3.867	142	2294705	10.573
21) Carbon Disulfide	(1)	3.952	76	1443630	8.490
22) Isopropanol	(1)	4.056	45	405391	10.421
23) Acetonitrile	(1)	4.165	40	74965	10.011
24) 3-Chloropropene	(1)	4.226	76	241429	10.295
25) Methylene Chloride	(1)	4.415	84	500841	9.760
26) tert-Butyl Alcohol	(1)	4.749	59	665962	11.386
27) Acrylonitrile	(1)	4.847	53	221744	12.542
28) trans-1,2-Dichloroethene	(1)	4.901	61	626233	8.937
29) Methyl t-Butyl Ether	(1)	4.980	73	1008698	11.135
30) Hexane	(1)	5.485	57	540595	10.535
31) 1,1-Dichloroethane	(1)	5.674	63	892930	10.324
32) Vinyl Acetate	(1)	5.869	86	132940	14.764
33) Di-Isopropyl Ether	(1)	5.948	45	603577	11.691
36) 1,2-Dichloroethene (total)	(1)		61	1290694	19.240
34) Ethyl Tert-Butyl Ether	(1)	6.641	59	838837	11.651
35) cis-1,2-Dichloroethene	(1)	6.769	61	664461	10.304
37) 2-Butanone	(1)	6.866	72	184618	11.550
38) Ethyl Acetate	(1)	7.055	70	88176	12.137

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 on 10/21/2015 at 16:54.

Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct16.b/cj00351.d  
 Injection date and time: 16-OCT-2015 15:29

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct16.b/to-15.m  
 Calibration date and time: 21-OCT-2015 16:54  
 Date, time and analyst ID of latest file update: 21-Oct-2015 16:54 jeb07445

Sublist used: all

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Methyl Acrylate	(1)	7.079	55	503683	12.436
40)*Bromochloromethane	(1)	7.201	130	800124	10.000
41) Tetrahydrofuran	(1)	7.347	42	210152	12.095
42) Chloroform	(1)	7.402	83	1501146	9.899
43) 1,1,1-Trichloroethane	(1)	7.700	97	1744679	10.126
44) Cyclohexane	(1)	7.803	56	580896	10.340
45) Carbon Tetrachloride	(1)	8.016	117	1958086	10.052
46) Benzene	(2)	8.393	78	1681765	10.473
47) 1,2-Dichloroethane	(2)	8.424	62	928480	9.970
48) Isooctane	(2)	8.643	57	1771479	11.725
49) Tert-Amyl Methyl Ether	(2)	8.734	73	957993	10.913
50) Heptane	(2)	9.044	43	459256	11.032
51)*1,4-Difluorobenzene	(2)	9.190	114	2623343	10.000
52) Trichloroethene	(2)	9.653	130	1063942	9.679
53) Ethyl Acrylate	(2)	10.024	55	541107	12.005
54) 1,2-Dichloropropane	(2)	10.066	63	490359	11.013
55) Dibromomethane	(2)	10.285	174	996998	9.107
56) 1,4-Dioxane	(2)	10.437	88	322311	9.832
57) Methyl Methacrylate	(2)	10.480	69	372735	10.945
58) Bromodichloromethane	(2)	10.662	83	1591650	9.717
59) cis-1,3-Dichloropropene	(2)	11.630	75	1044629	11.992
60) 4-Methyl-2-Pentanone	(2)	12.062	43	441383	10.559
61) Toluene	(3)	12.342	91	2204009	11.815
64) 1,3-Dichloropropene (total)	(3)		75	2109063	22.843
62) Octane	(3)	12.810	43	593584	12.075
63) trans-1,3-Dichloropropene	(3)	12.889	75	1064434	10.851
65) Ethyl Methacrylate	(3)	13.254	69	597758	11.428
66) 1,1,2-Trichloroethane	(3)	13.266	97	857659	10.782
67) Tetrachloroethene	(3)	13.570	166	1389636	8.750
68) 2-Hexanone	(3)	13.984	43	481543	11.158
69) Dibromochloromethane	(3)	14.130	127	1464019	9.549
70) 1,2-Dibromoethane	(3)	14.331	107	1415966	10.405
71)*Chlorobenzene-d5	(3)	15.517	117	2389136	10.000
72) Chlorobenzene	(3)	15.584	112	2047706	11.038
73) 1,1,1,2-Tetrachloroethane	(3)	15.834	131	1231098	10.649
74) Ethylbenzene	(3)	15.949	91	2531458	12.283
75) m/p-Xylene	(3)	16.259	91	1937893	11.370
77) Xylene (total)	(3)		91	4002763	22.880

\* = Compound is an internal standard.

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 on 10/21/2015 at 16:54.  
 Target 3.5 esignature user ID: jeb07445  
 SSX26 Page 226 of 507



Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct16.b/cj00351.d  
 Injection date and time: 16-OCT-2015 15:29

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct16.b/to-15.m  
 Calibration date and time: 21-OCT-2015 16:54  
 Date, time and analyst ID of latest file update: 21-Oct-2015 16:54 jeb07445

Sublist used: all

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
76) o-Xylene	(3)	17.233	91	2064870	11.510
78) Styrene	(3)	17.275	104	1804622	11.222
79) Bromoform	(3)	17.622	173	2000465	10.101
80) Cumene	(3)	18.243	105	2602830	11.297
81) Bromobenzene	(3)	18.863	156	1379065	10.656
82) 1,1,2,2-Tetrachloroethane	(3)	19.040	83	1459115	9.631
83) 1,2,3-Trichloropropane	(3)	19.082	110	579427	9.995
84) n-Propylbenzene	(3)	19.338	120	805065	10.512
85) 2-Chlorotoluene	(3)	19.447	126	940594	11.058
86) 4-Ethyltoluene	(3)	19.666	105	2913664	11.341
87) 1,3,5-Trimethylbenzene	(3)	19.855	105	2433925	11.002
88) Alpha Methyl Styrene	(3)	20.439	118	1472772	11.732
89) tert-Butylbenzene	(3)	20.700	119	2454903	11.231
90) 1,2,4-Trimethylbenzene	(3)	20.834	105	2661949	11.589
91) sec-Butylbenzene	(3)	21.333	105	3362325	11.078
92) 1,3-Dichlorobenzene	(3)	21.503	146	2484895	10.910
93) 1,4-Dichlorobenzene	(3)	21.789	146	2565649	10.722
94) p-Isopropyltoluene	(3)	21.856	119	3192238	11.542
95) Benzyl Chloride	(3)	22.288	91	2431897	10.734
96) 1,2-Dichlorobenzene	(3)	22.957	146	2284678	10.593
97) n-Butylbenzene	(3)	23.164	91	2649163	11.757
98) Hexachloroethane	(3)	23.627	117	1350288	11.819
99) 1,2-Dibromo-3-chloropropane	(3)	24.709	157	1130591	9.646
100) 1,2,4-Trichlorobenzene	(3)	25.999	180	1476978	12.393
101) Hexachlorobutadiene	(3)	26.279	225	1580656	12.125
102) Naphthalene	(3)	26.291	128	3115549	12.636

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 on 10/21/2015 at 16:54.

Target 3.5 esignature user ID: jeb07445

SDG No.:

Lab File ID: cj00385.d

Calibration Date: 10/19/2015

Instrument ID: 09464

Calibration Time: 15:16

Init. Calib. Date(s): 10/16/2015

COMPOUND	RRF	RRF 10	ACTUAL CONC.	TRUE CONC.	%DRIFT
Propene	0.238	0.216	9.633	10.6	-9
Dichlorodifluoromethane	2.943	2.646	9.170	10.2	-10
Chlorodifluoromethane	0.940	0.797	8.896	10.5	-15
Freon 114	2.648	2.265	8.212	9.6	-14
Chloromethane	0.140	0.118	8.483	10	-15
Vinyl Chloride	0.623	0.527	8.451	10	-15
1,3-Butadiene	0.384	0.332	8.917	10.3	-13
Bromomethane	0.908	0.789	8.692	10	-13
Chloroethane	0.352	0.292	7.948	9.6	-17
Bromoethene	0.863	0.772	9.304	10.4	-11
Dichlorofluoromethane	1.644	1.352	8.720	10.6	-18
Trichlorofluoromethane	3.172	2.789	9.231	10.5	-12
Pentane	0.539	0.472	9.184	10.5	-13
Ethanol	0.127	0.133	10.999	10.5	5
Freon123a	1.158	0.917	8.709	11	-21
Acrolein	0.119	0.103	9.476	10.9	-13
1,1-Dichloroethene	1.034	0.901	9.154	10.5	-13
Freon 113	1.258	1.073	9.129	10.7	-15
Acetone	0.411	0.369	9.433	10.5	-10
Methyl Iodide	2.713	2.463	9.534	10.5	-9
Carbon Disulfide	2.125	1.754	8.252	10	-17
Isopropanol	0.486	0.401	9.558	11.6	-18
Acetonitrile	0.094	0.076	8.896	11	-19
3-Chloropropene	0.293	0.242	9.081	11	-17
Methylene Chloride	0.641	0.527	9.046	11	-18
tert-Butyl Alcohol	0.731	0.681	10.433	11.2	-7
Acrylonitrile	0.221	0.192	9.137	10.5	-13
trans-1,2-Dichloroethene	0.876	0.782	8.750	9.8	-11
Methyl t-Butyl Ether	1.132	1.086	9.975	10.4	-4
Hexane	0.641	0.579	9.119	10.1	-10
1,1-Dichloroethane	1.081	0.904	8.613	10.3	-16
Vinyl Acetate	0.113	0.115	11.234	11	2
Di-Isopropyl Ether	0.645	0.663	10.587	10.3	3
Ethyl Tert-Butyl Ether	0.900	0.930	10.543	10.2	3
cis-1,2-Dichloroethene	0.806	0.705	9.012	10.3	-13
2-Butanone	0.200	0.180	9.446	10.5	-10
Ethyl Acetate	0.091	0.092	10.450	10.3	1
Methyl Acrylate	0.506	0.470	9.691	10.43	-7
Tetrahydrofuran	0.217	0.206	9.960	10.5	-5

\* Maximum %DRIFT = 30%.

# Average RRF for all compounds must be greater than 0.010.

SDG No.:

Lab File ID: cj00385.d

Calibration Date: 10/19/2015

Instrument ID: 09464

Calibration Time: 15:16

Init. Calib. Date(s): 10/16/2015

COMPOUND	RRF	RRF 10	ACTUAL CONC.	TRUE CONC.	%DRIFT
Chloroform	1.895	1.669	9.070	10.3	-12
1,1,1-Trichloroethane	2.153	1.994	9.537	10.3	-7
Cyclohexane	0.702	0.668	9.711	10.2	-5
Carbon Tetrachloride	2.435	2.364	10.198	10.5	-3
Benzene	0.612	0.571	9.791	10.5	-7
1,2-Dichloroethane	0.355	0.327	9.578	10.4	-8
Isooctane	0.576	0.568	10.545	10.7	-1
Tert-Amyl Methyl Ether	0.335	0.355	10.920	10.3	6
Heptane	0.159	0.157	10.296	10.4	-1
Trichloroethene	0.419	0.416	10.034	10.1	-1
Ethyl Acrylate	0.172	0.162	10.118	10.7	-5
1,2-Dichloropropane	0.170	0.161	9.799	10.3	-5
Dibromomethane	0.417	0.394	9.717	10.3	-6
1,4-Dioxane	0.125	0.125	10.129	10.1	0
Methyl Methacrylate	0.130	0.123	9.670	10.2	-5
Bromodichloromethane	0.624	0.580	9.581	10.31	-7
cis-1,3-Dichloropropene	0.332	0.339	11.224	11	2
4-Methyl-2-Pentanone	0.159	0.165	10.434	10.1	3
Toluene	0.781	0.852	11.242	10.3	9
Octane	0.206	0.235	11.880	10.4	14
trans-1,3-Dichloropropene	0.411	0.423	10.413	10.1	3
Ethyl Methacrylate	0.219	0.226	10.625	10.3	3
1,1,2-Trichloroethane	0.333	0.345	10.684	10.3	4
Tetrachloroethene	0.665	0.683	10.074	9.8	3
2-Hexanone	0.181	0.203	12.220	10.9	12
Dibromochloromethane	0.642	0.664	10.561	10.2	4
1,2-Dibromoethane	0.570	0.608	10.888	10.2	7
Chlorobenzene	0.776	0.836	11.301	10.5	8
1,1,1,2-Tetrachloroethane	0.484	0.538	11.682	10.5	11
Ethylbenzene	0.863	0.992	11.956	10.4	15
m/p-Xylene	0.713	0.800	10.769	9.6	12
o-Xylene	0.751	0.825	11.213	10.2	10
Styrene	0.673	0.749	11.120	10	11
Bromoform	0.829	0.966	11.423	9.8	17
Cumene	0.964	1.135	12.003	10.2	18
Bromobenzene	0.542	0.587	11.385	10.5	8
1,1,2,2-Tetrachloroethane	0.634	0.620	9.966	10.2	-2
1,2,3-Trichloropropane	0.243	0.250	10.735	10.4	3
n-Propylbenzene	0.321	0.366	11.301	9.9	14

\* Maximum %DRIFT = 30%.

# Average RRF for all compounds must be greater than 0.010.

SDG No.:

Lab File ID: cj00385.d

Calibration Date: 10/19/2015

Instrument ID: 09464

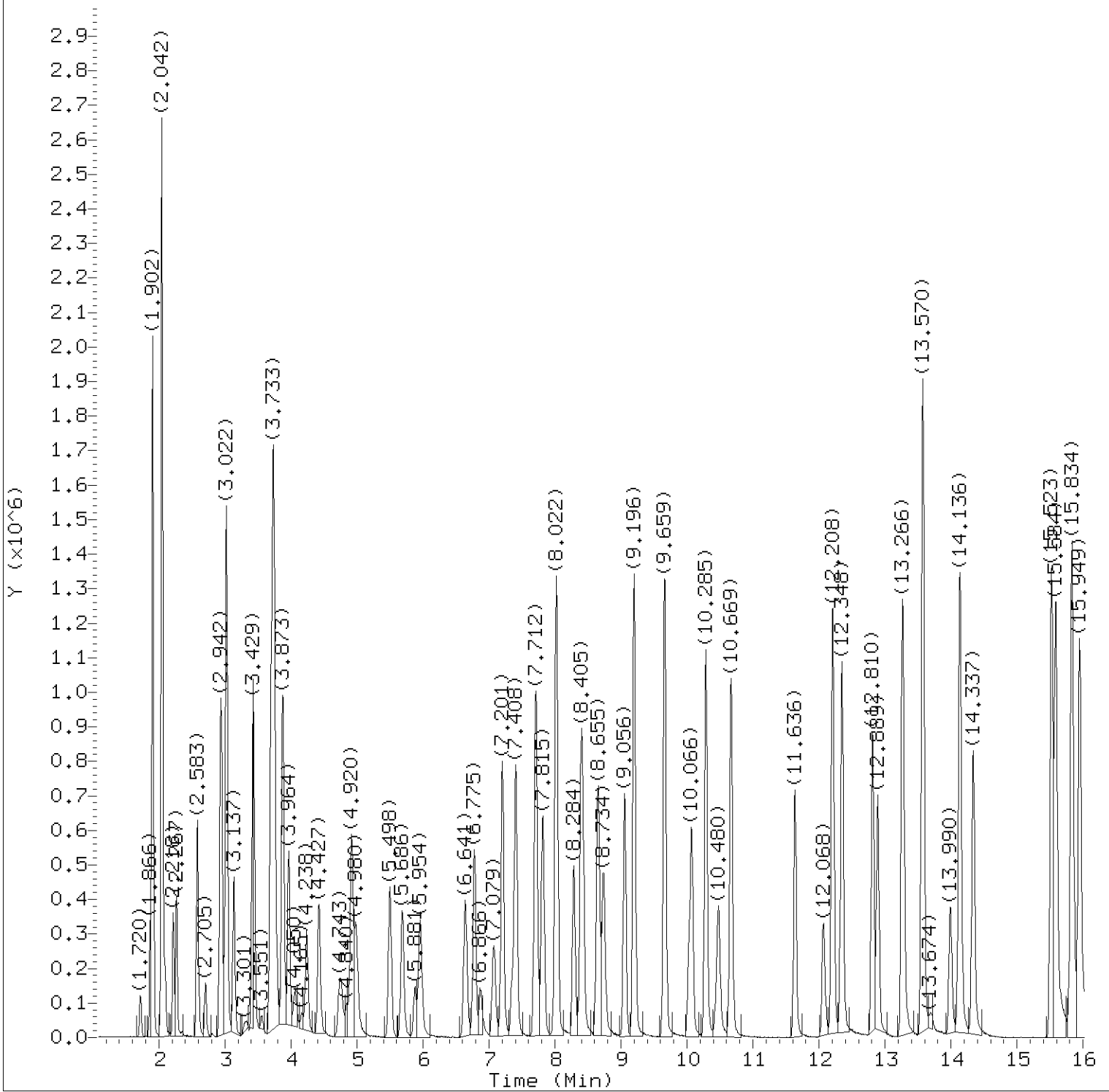
Calibration Time: 15:16

Init. Calib. Date(s): 10/16/2015

COMPOUND	RRF	RRF 10	ACTUAL CONC.	TRUE CONC.	%DRIFT
2-Chlorotoluene	0.356	0.396	11.457	10.3	11
4-Ethyltoluene	1.075	1.235	11.599	10.1	15
1,3,5-Trimethylbenzene	0.926	1.047	11.311	10	13
Alpha Methyl Styrene	0.525	0.586	11.486	10.3	12
tert-Butylbenzene	0.915	1.029	11.362	10.1	12
1,2,4-Trimethylbenzene	0.961	1.086	11.407	10.1	13
sec-Butylbenzene	1.270	1.469	11.679	10.1	16
1,3-Dichlorobenzene	0.953	1.065	11.619	10.4	12
1,4-Dichlorobenzene	1.002	1.159	11.575	10	16
p-Isopropyltoluene	1.158	1.366	12.156	10.3	18
Benzyl Chloride	0.948	1.042	11.430	10.4	10
1,2-Dichlorobenzene	0.903	0.980	10.962	10.1	9
n-Butylbenzene	0.943	1.011	11.255	10.5	7
Hexachloroethane	0.478	0.522	11.467	10.5	9
1,2-Dibromo-3-chloropropane	0.491	0.493	10.548	10.5	0
1,2,4-Trichlorobenzene	0.499	0.595	11.698	9.8	19
Hexachlorobutadiene	0.546	0.701	12.852	10	29
Naphthalene	1.032	1.121	11.731	10.8	9

\* Maximum %DRIFT = 30%.

# Average RRF for all compounds must be greater than 0.010.



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct19.b/cj00385.d  
Injection date and time: 19-OCT-2015 15:16

Instrument ID: HP09464.i  
Analyst ID: jbs01304

Method used: /chem/HP09464.i/15oct19.b/to-15.m  
Calibration date and time: 21-OCT-2015 17:37

Sublist used: all

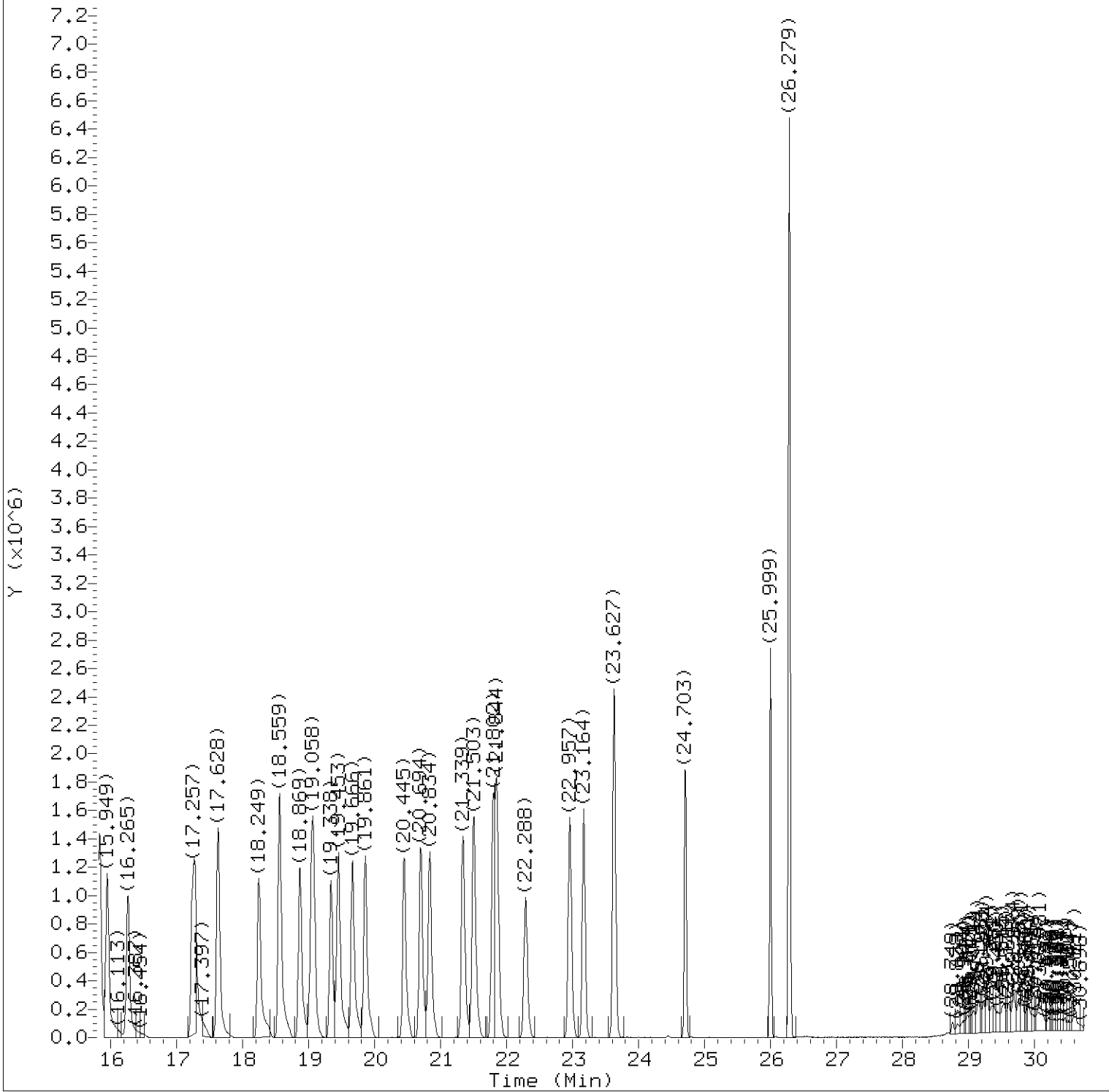
Date, time and analyst ID of latest file update: 21-Oct-2015 17:37 jeb07445

Sample Name: VSTD010

Lab Sample ID: VSTD010

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on 10/21/2015 at 17:37.

Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct19.b/cj00385.d  
Injection date and time: 19-OCT-2015 15:16

Instrument ID: HP09464.i  
Analyst ID: jbs01304

Method used: /chem/HP09464.i/15oct19.b/to-15.m  
Calibration date and time: 21-OCT-2015 17:37

Sublist used: all

Date, time and analyst ID of latest file update: 21-Oct-2015 17:37 jeb07445

Sample Name: VSTD010

Lab Sample ID: VSTD010

Digitally signed by Jacob E. Bailey  
on 10/21/2015 at 17:37.

Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct19.b/cj00385.d  
 Injection date and time: 19-OCT-2015 15:16

Instrument ID: HP09464.i  
 Analyst ID: jbs01304

Method used: /chem/HP09464.i/15oct19.b/to-15.m  
 Calibration date and time: 21-OCT-2015 17:37  
 Date, time and analyst ID of latest file update: 21-Oct-2015 17:37 jeb07445

Sublist used: all

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	140093	9.633
2) Dichlorodifluoromethane	(1)	1.902	85	1651697	9.170
3) Chlorodifluoromethane	(1)	1.914	51	512080	8.896
4) Freon 114	(1)	2.042	85	1330991	8.212
5) Chloromethane	(1)	2.091	52	72526	8.483
6) Vinyl Chloride	(1)	2.218	62	322453	8.451
7) 1,3-Butadiene	(1)	2.267	54	209416	8.917
8) Bromomethane	(1)	2.583	94	482938	8.692
9) Chloroethane	(1)	2.705	64	171391	7.948
10) Bromoethene	(1)	2.930	106	491192	9.304
11) Dichlorofluoromethane	(1)	2.948	67	877373	8.720
12) Trichlorofluoromethane	(1)	3.022	101	1792339	9.231
13) Pentane	(1)	3.137	43	303115	9.184
14) Ethanol	(1)	3.301	45	85543	10.999
15) Freon123a	(1)	3.429	67	617290	8.709
16) Acrolein	(1)	3.551	56	68878	9.476
17) 1,1-Dichloroethene	(1)	3.691	61	579292	9.154
18) Freon 113	(1)	3.739	103	702821	9.129
19) Acetone	(1)	3.782	43	237439	9.433
20) Methyl Iodide	(1)	3.873	142	1582895	9.534
21) Carbon Disulfide	(1)	3.964	76	1073357	8.252
22) Isopropanol	(1)	4.062	45	284441	9.558
23) Acetonitrile	(1)	4.159	40	50955	8.896
24) 3-Chloropropene	(1)	4.244	76	162899	9.081
25) Methylene Chloride	(1)	4.421	84	355106	9.046
26) tert-Butyl Alcohol	(1)	4.755	59	466812	10.433
27) Acrylonitrile	(1)	4.853	53	123574	9.137
28) trans-1,2-Dichloroethene	(1)	4.913	61	469057	8.750
29) Methyl t-Butyl Ether	(1)	4.980	73	691245	9.975
30) Hexane	(1)	5.504	57	357944	9.119
31) 1,1-Dichloroethane	(1)	5.686	63	569846	8.613
32) Vinyl Acetate	(1)	5.881	86	77374	11.234
33) Di-Isopropyl Ether	(1)	5.954	45	418097	10.587
36) 1,2-Dichloroethene (total)	(1)		61	913606	17.762
34) Ethyl Tert-Butyl Ether	(1)	6.641	59	580640	10.543
35) cis-1,2-Dichloroethene	(1)	6.775	61	444549	9.012
37) 2-Butanone	(1)	6.872	72	115492	9.446
38) Ethyl Acetate	(1)	7.055	70	58076	10.450

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 on 10/21/2015 at 17:37.

Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct19.b/cj00385.d  
 Injection date and time: 19-OCT-2015 15:16

Instrument ID: HP09464.i  
 Analyst ID: jbs01304

Method used: /chem/HP09464.i/15oct19.b/to-15.m  
 Calibration date and time: 21-OCT-2015 17:37  
 Date, time and analyst ID of latest file update: 21-Oct-2015 17:37 jeb07445

Sublist used: all

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Methyl Acrylate	(1)	7.079	55	300232	9.691
40)*Bromochloromethane	(1)	7.207	130	612057	10.000
41) Tetrahydrofuran	(1)	7.353	42	132379	9.960
42) Chloroform	(1)	7.408	83	1052165	9.070
43) 1,1,1-Trichloroethane	(1)	7.712	97	1257030	9.537
44) Cyclohexane	(1)	7.815	56	417333	9.711
45) Carbon Tetrachloride	(1)	8.022	117	1519500	10.198
46) Benzene	(2)	8.393	78	1150325	9.791
47) 1,2-Dichloroethane	(2)	8.430	62	652612	9.578
48) Isooctane	(2)	8.655	57	1165675	10.545
49) Tert-Amyl Methyl Ether	(2)	8.740	73	701376	10.920
50) Heptane	(2)	9.056	43	313597	10.296
51)*1,4-Difluorobenzene	(2)	9.202	114	1919381	10.000
52) Trichloroethene	(2)	9.659	130	806963	10.034
53) Ethyl Acrylate	(2)	10.018	55	333651	10.118
54) 1,2-Dichloropropane	(2)	10.072	63	319236	9.799
55) Dibromomethane	(2)	10.291	174	778361	9.717
56) 1,4-Dioxane	(2)	10.443	88	242952	10.129
57) Methyl Methacrylate	(2)	10.480	69	240962	9.670
58) Bromodichloromethane	(2)	10.669	83	1148166	9.581
59) cis-1,3-Dichloropropene	(2)	11.636	75	715362	11.224
60) 4-Methyl-2-Pentanone	(2)	12.062	43	319131	10.434
61) Toluene	(3)	12.348	91	1495038	11.242
64) 1,3-Dichloropropene (total)	(3)		75	1443582	21.637
62) Octane	(3)	12.810	43	416323	11.880
63) trans-1,3-Dichloropropene	(3)	12.889	75	728220	10.413
65) Ethyl Methacrylate	(3)	13.254	69	396202	10.625
66) 1,1,2-Trichloroethane	(3)	13.272	97	605850	10.684
67) Tetrachloroethene	(3)	13.576	166	1140583	10.074
68) 2-Hexanone	(3)	13.984	43	375963	12.220
69) Dibromochloromethane	(3)	14.136	127	1154275	10.561
70) 1,2-Dibromoethane	(3)	14.337	107	1056226	10.888
71)*Chlorobenzene-d5	(3)	15.523	117	1703163	10.000
72) Chlorobenzene	(3)	15.590	112	1494540	11.301
73) 1,1,1,2-Tetrachloroethane	(3)	15.834	131	962719	11.682
74) Ethylbenzene	(3)	15.949	91	1756579	11.956
75) m/p-Xylene	(3)	16.265	91	1308459	10.769
77) Xylene (total)	(3)		91	2742468	21.982

\* = Compound is an internal standard.

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 on 10/21/2015 at 17:37.  
 Target 3.5 esignature user ID: jeb07445  
 SSX26 Page 234 of 507



Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct19.b/cj00385.d  
 Injection date and time: 19-OCT-2015 15:16

Instrument ID: HP09464.i  
 Analyst ID: jbs01304

Method used: /chem/HP09464.i/15oct19.b/to-15.m  
 Calibration date and time: 21-OCT-2015 17:37  
 Date, time and analyst ID of latest file update: 21-Oct-2015 17:37 jeb07445

Sublist used: all

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
76) o-Xylene	(3)	17.233	91	1434009	11.213
78) Styrene	(3)	17.275	104	1274861	11.120
79) Bromoform	(3)	17.628	173	1612759	11.423
80) Cumene	(3)	18.243	105	1971426	12.003
81) Bromobenzene	(3)	18.869	156	1050296	11.385
82) 1,1,2,2-Tetrachloroethane	(3)	19.046	83	1076357	9.966
83) 1,2,3-Trichloropropane	(3)	19.076	110	443641	10.735
84) n-Propylbenzene	(3)	19.338	120	617023	11.301
85) 2-Chlorotoluene	(3)	19.459	126	694720	11.457
86) 4-Ethyltoluene	(3)	19.666	105	2124510	11.599
87) 1,3,5-Trimethylbenzene	(3)	19.861	105	1783709	11.311
88) Alpha Methyl Styrene	(3)	20.451	118	1027895	11.486
89) tert-Butylbenzene	(3)	20.694	119	1770401	11.362
90) 1,2,4-Trimethylbenzene	(3)	20.834	105	1867834	11.407
91) sec-Butylbenzene	(3)	21.333	105	2526977	11.679
92) 1,3-Dichlorobenzene	(3)	21.503	146	1886570	11.619
93) 1,4-Dichlorobenzene	(3)	21.795	146	1974523	11.575
94) p-Isopropyltoluene	(3)	21.850	119	2396830	12.156
95) Benzyl Chloride	(3)	22.288	91	1846066	11.430
96) 1,2-Dichlorobenzene	(3)	22.957	146	1685380	10.962
97) n-Butylbenzene	(3)	23.164	91	1807975	11.255
98) Hexachloroethane	(3)	23.627	117	933894	11.467
99) 1,2-Dibromo-3-chloropropane	(3)	24.709	157	881349	10.548
100) 1,2,4-Trichlorobenzene	(3)	25.999	180	993902	11.698
101) Hexachlorobutadiene	(3)	26.279	225	1194311	12.852
102) Naphthalene	(3)	26.291	128	2061998	11.731

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 on 10/21/2015 at 17:37.

Target 3.5 esignature user ID: jeb07445

**Raw QC Data**

**Volatile Organics in Air by GC/MS**

Date : 15-OCT-2015 21:05

Client ID: 50NGBFB

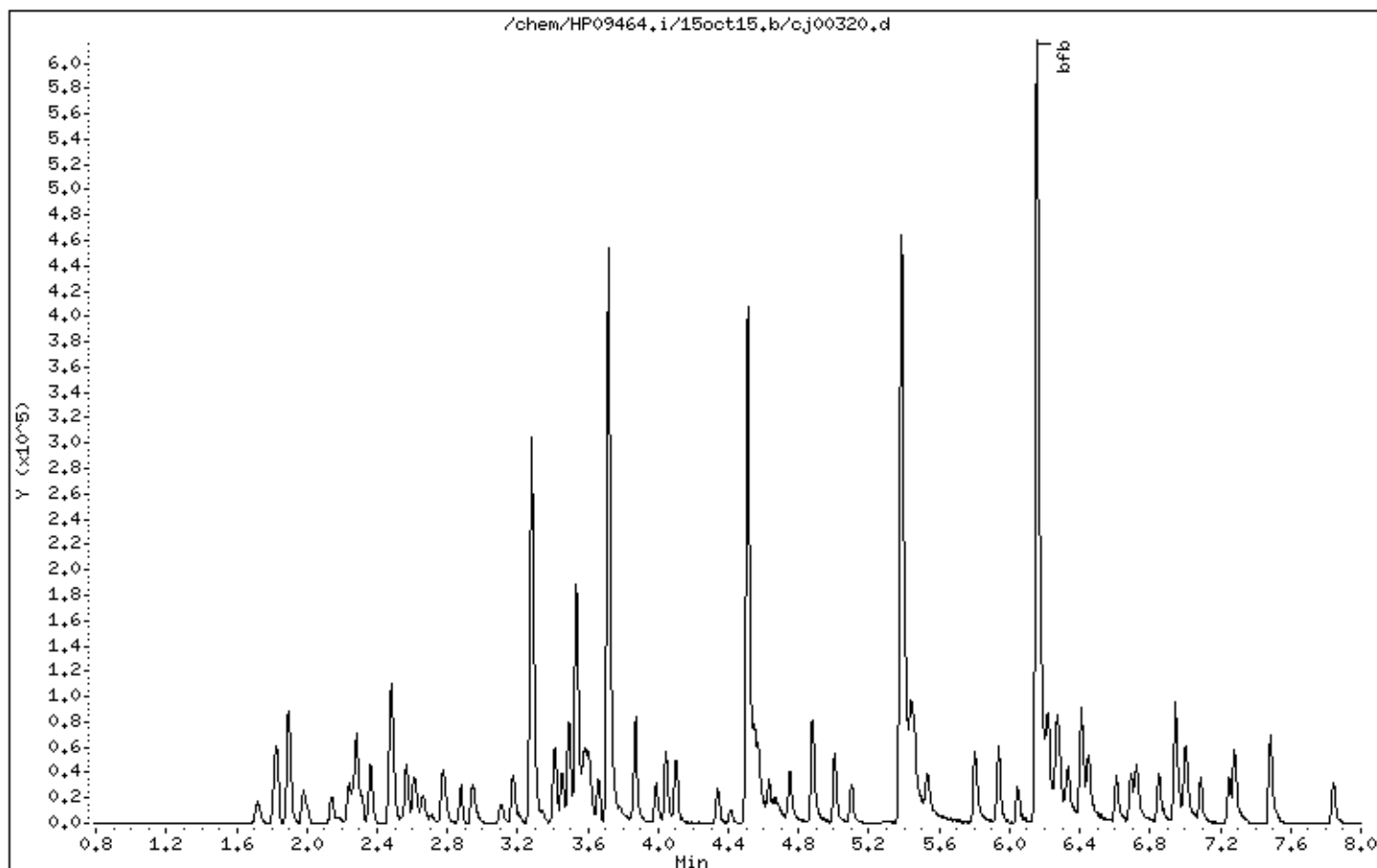
Instrument: HP09464.i

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

Operator: jeb07445

Column phase: DB-624

Column diameter: 0,25



Digitally signed by Jacob E. Bailey on 10/16/2015 at 17:58.  
Target 3.5 esignature user ID: jeb07445

Date : 15-OCT-2015 21:05

Client ID: 50NGBFB

Instrument: HP09464.i

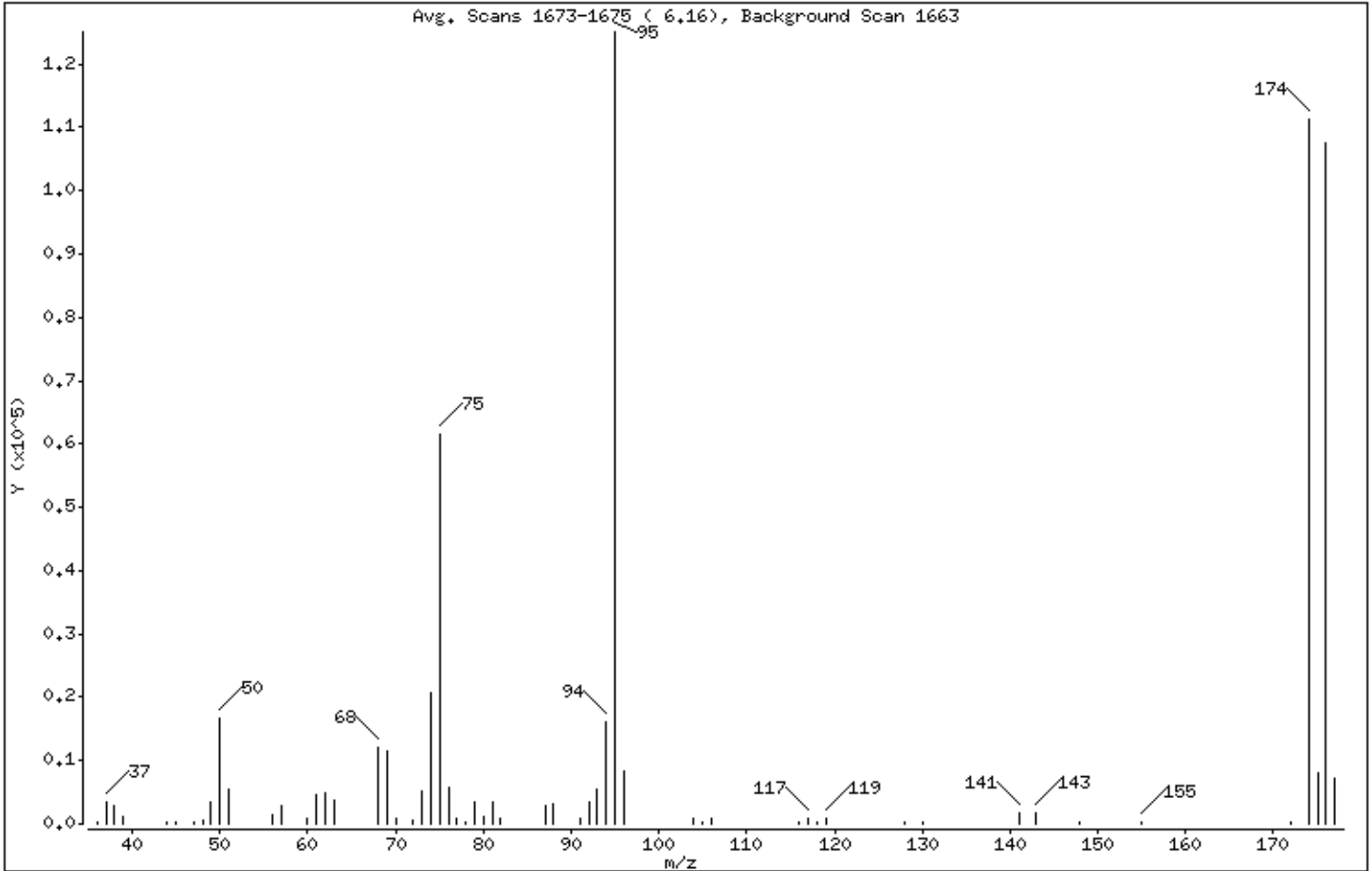
Sample Info: 50NGBFB;;;BFB;0;;;

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	13,32
75	30,00 - 66,00% of mass 95	49,29
96	5,00 - 9,00% of mass 95	6,76
173	Less than 2,00% of mass 174	0,00 ( 0,00)
174	50,00 - 120,00% of mass 95	89,07
175	4,00 - 9,00% of mass 174	6,54 ( 7,34)
176	93,00 - 101,00% of mass 174	86,09 ( 96,65)
177	5,00 - 9,00% of mass 176	5,68 ( 6,60)

Digitally signed by Jacob E. Bailey on 10/16/2015 at 17:58.  
Target 3.5 esignature user ID: jeb07445

Date : 15-OCT-2015 21:05

Client ID: 50NGBFB

Instrument: HP09464.i

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

Operator: jeb07445

Column phase: DB-624

Column diameter: 0,25

Data File: cj00320.d

Spectrum: Avg. Scans 1673-1675 ( 6.16), Background Scan 1663

Location of Maximum: 95,00

Number of points: 57

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36,00	366	62,00	4829	82,00	931	119,00	804
37,00	3343	63,00	3847	87,00	2973	128,00	394
38,00	2997	68,00	12069	88,00	3063	130,00	262
39,00	1161	69,00	11460	91,00	856	141,00	1644
44,00	350	70,00	986	92,00	3548	143,00	1766
45,00	189	72,00	645	93,00	5585	148,00	184
47,00	374	73,00	5136	94,00	16025	155,00	183
48,00	451	74,00	20688	95,00	125096	172,00	362
49,00	3496	75,00	61656	96,00	8453	174,00	111424
50,00	16656	76,00	5663	104,00	721	175,00	8176
51,00	5342	77,00	783	105,00	155	176,00	107696
56,00	1502	78,00	370	106,00	929	177,00	7106
57,00	2860	79,00	3437	116,00	231		
60,00	770	80,00	1030	117,00	957		
61,00	4675	81,00	3328	118,00	429		

Digitally signed by Jacob E. Bailey on 10/16/2015 at 17:58.  
Target 3.5 esignature user ID: jeb07445

Date : 16-OCT-2015 14:59

Client ID: 50NGBFB

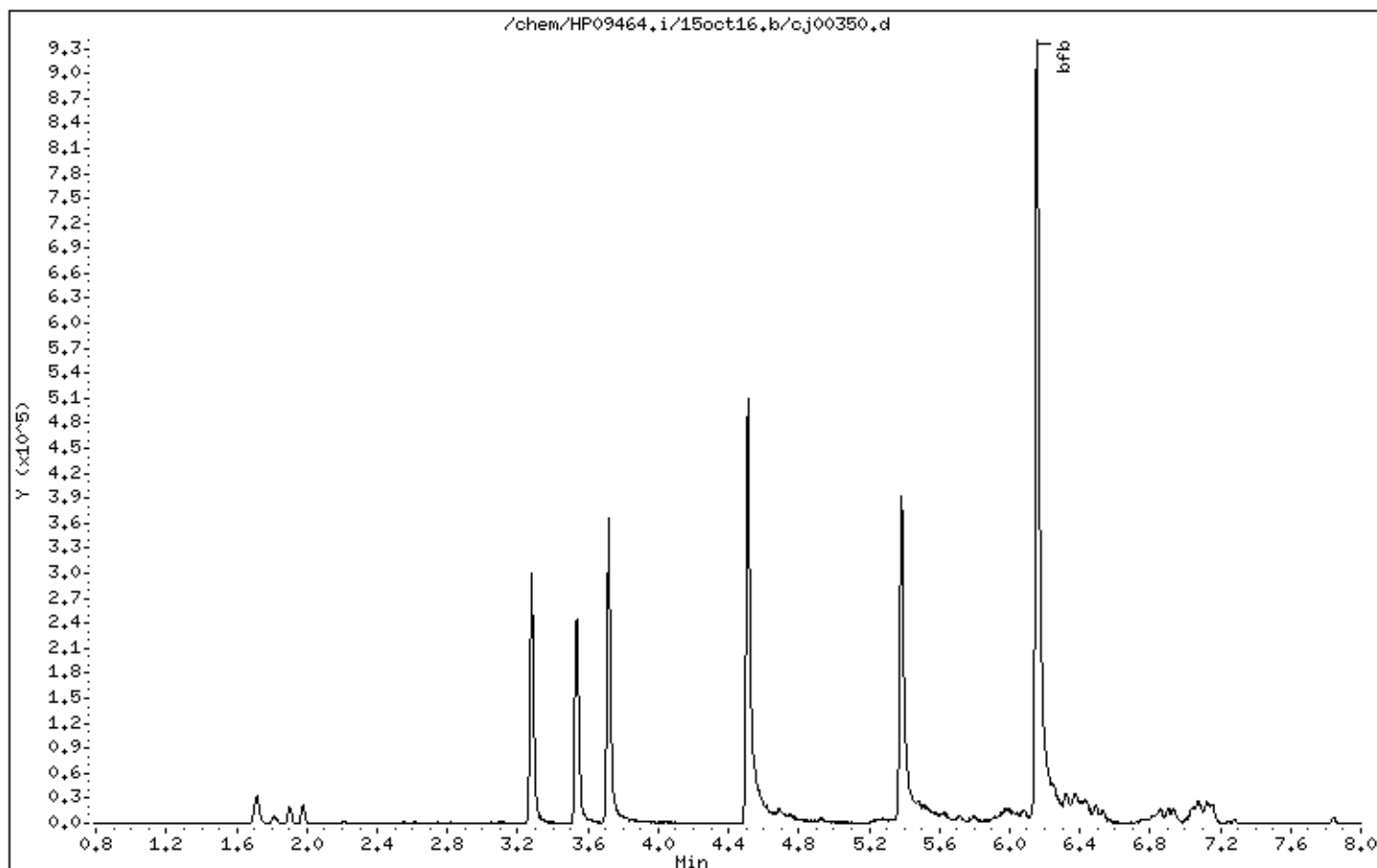
Instrument: HP09464.i

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

Operator: jeb07445

Column phase: DB-624

Column diameter: 0,25



Digitally signed by Jacob E. Bailey on 10/19/2015 at 15:30.  
Target 3.5 esignature user ID: jeb07445

Date : 16-OCT-2015 14:59

Client ID: 50NGBFB

Instrument: HP09464.i

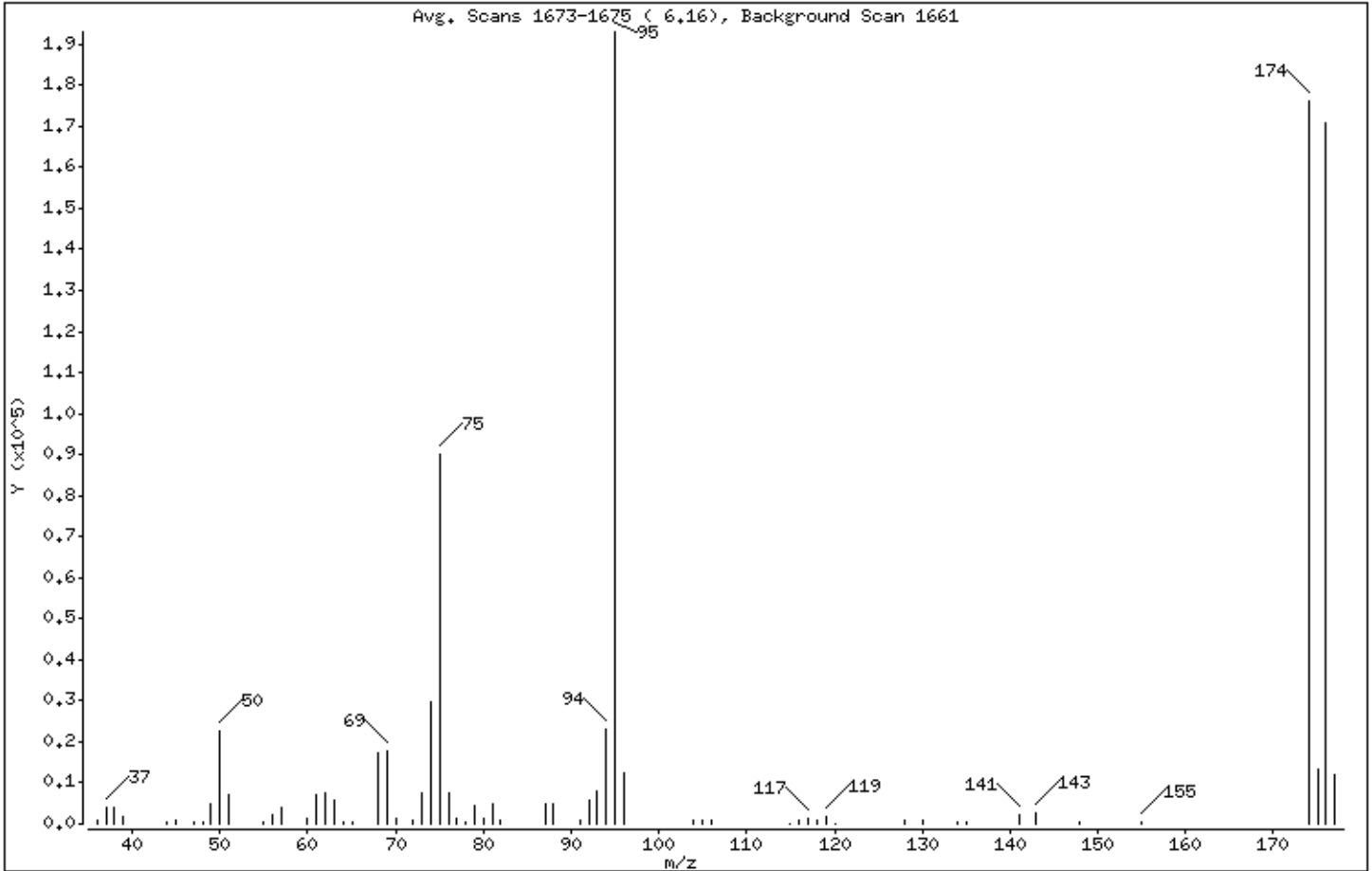
Sample Info: 50NGBFB;;;BFB;0;;;

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	11,80
75	30,00 - 66,00% of mass 95	46,73
96	5,00 - 9,00% of mass 95	6,47
173	Less than 2,00% of mass 174	0,00 ( 0,00)
174	50,00 - 120,00% of mass 95	91,21
175	4,00 - 9,00% of mass 174	6,97 ( 7,64)
176	93,00 - 101,00% of mass 174	88,40 ( 96,91)
177	5,00 - 9,00% of mass 176	6,11 ( 6,92)

Digitally signed by Jacob E. Bailey on 10/19/2015 at 15:30.  
Target 3.5 esignature user ID: jeb07445

Date : 16-OCT-2015 14:59

Client ID: 50NGBFB

Instrument: HP09464.i

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

Operator: jeb07445

Column phase: DB-624

Column diameter: 0,25

Data File: cj00350.d

Spectrum: Avg. Scans 1673-1675 ( 6,16), Background Scan 1661

Location of Maximum: 95,00

Number of points: 63

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36,00	830	62,00	7467	81,00	4861	118,00	964
37,00	4170	63,00	5704	82,00	902	119,00	1985
38,00	3943	64,00	629	87,00	4891	120,00	74
39,00	1596	65,00	401	88,00	4794	128,00	801
44,00	455	68,00	17208	91,00	854	130,00	742
45,00	1038	69,00	17560	92,00	5686	134,00	356
47,00	635	70,00	1232	93,00	8015	135,00	562
48,00	430	72,00	941	94,00	23280	141,00	2079
49,00	4975	73,00	7546	95,00	193024	143,00	2459
50,00	22784	74,00	29928	96,00	12485	148,00	243
51,00	6975	75,00	90192	104,00	998	155,00	421
55,00	362	76,00	7749	105,00	1034	174,00	176064
56,00	2019	77,00	1522	106,00	921	175,00	13449
57,00	4104	78,00	581	115,00	202	176,00	170624
60,00	1506	79,00	4523	116,00	790	177,00	11800
61,00	6902	80,00	1316	117,00	1435		

Digitally signed by Jacob E. Bailey on 10/19/2015 at 15:30.  
Target 3.5 esignature user ID: jeb07445



Date : 19-OCT-2015 11:17

Client ID: 50NGBFB

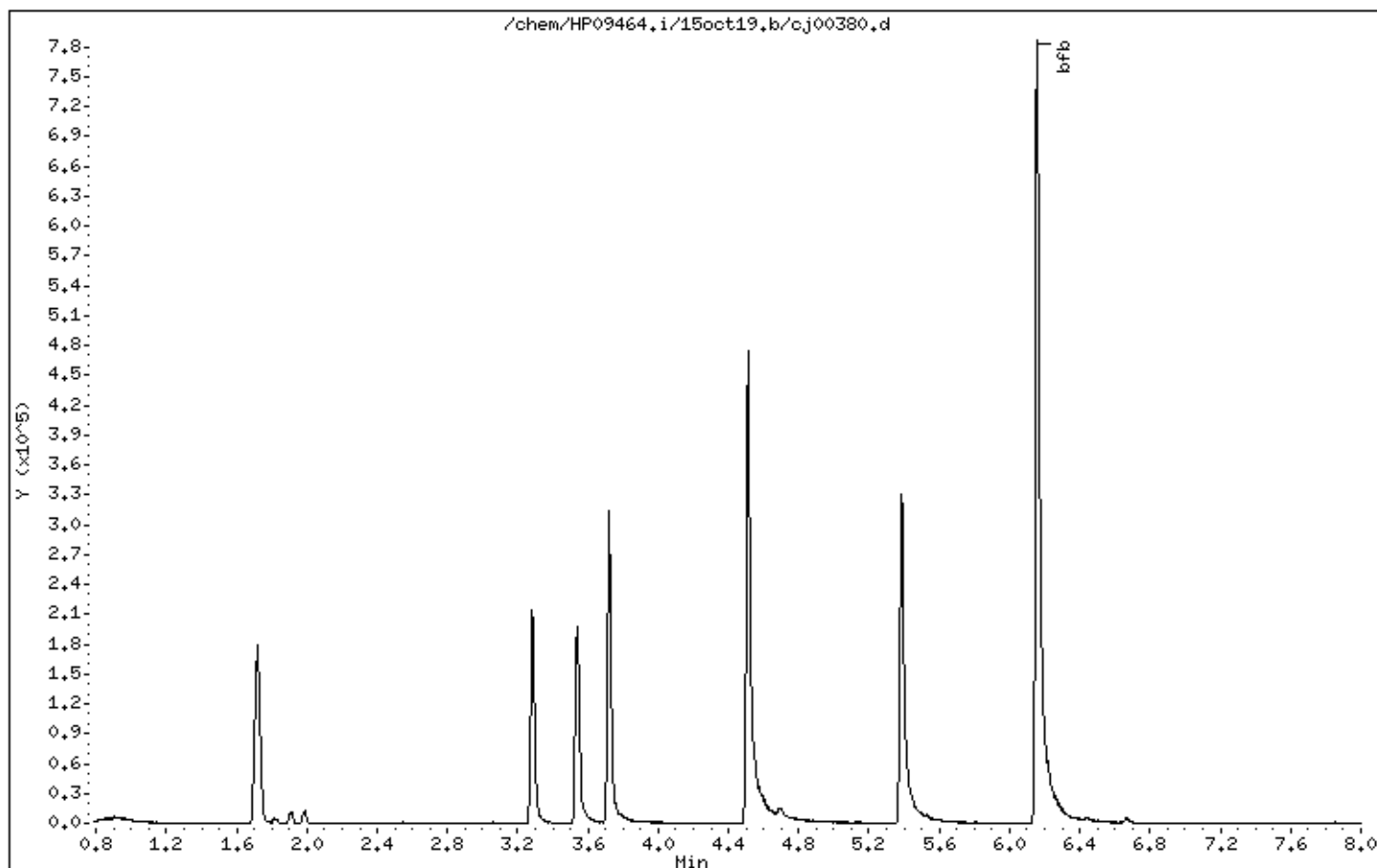
Instrument: HP09464.i

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

Operator: jbs01304

Column phase: DB-624

Column diameter: 0,25



Digitally signed by Jacob E. Bailey on 10/19/2015 at 18:16.  
Target 3.5 esignature user ID: jeb07445

Date : 19-OCT-2015 11:17

Client ID: 50NGBFB

Instrument: HP09464.i

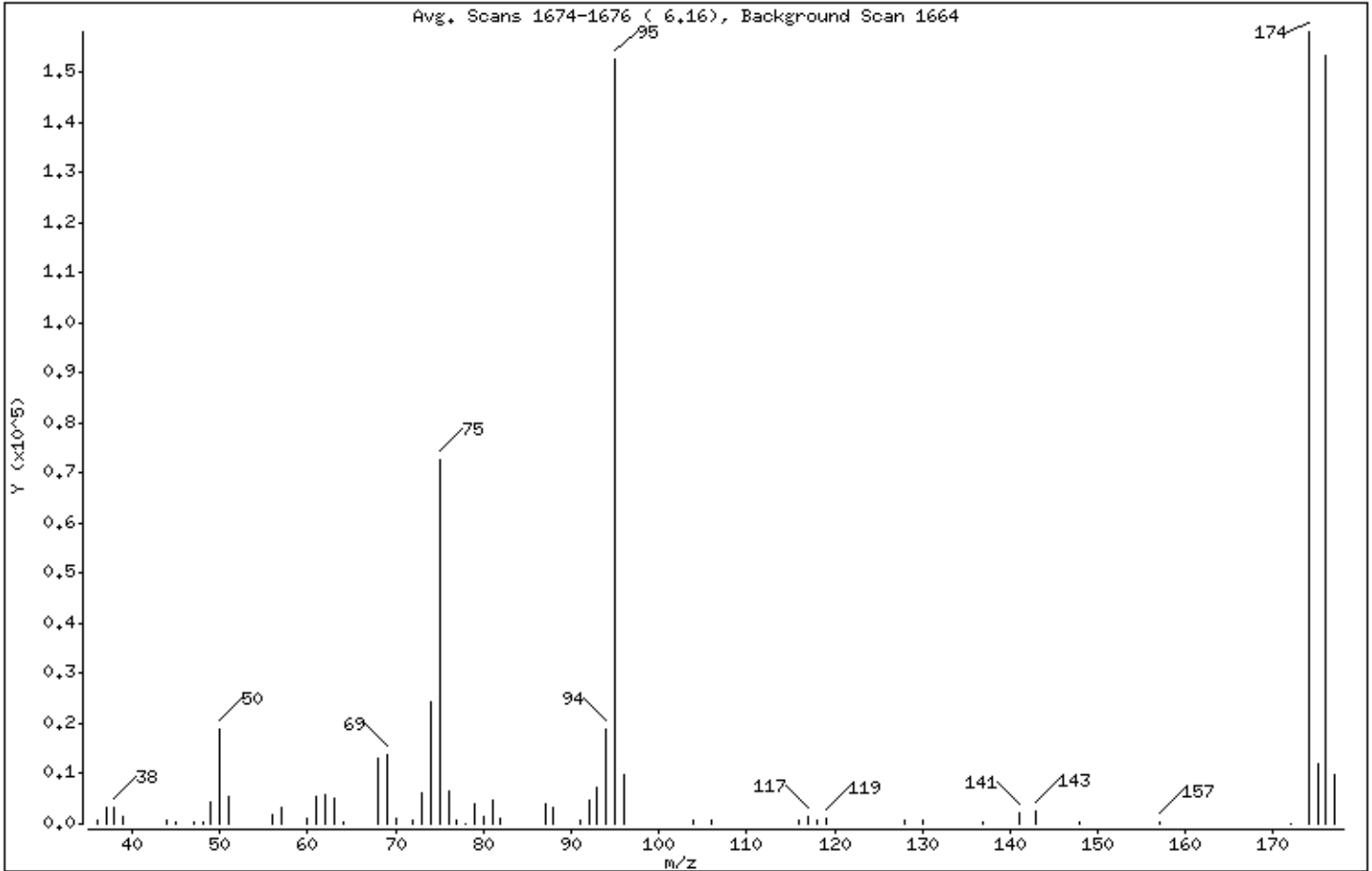
Sample Info: 50NGBFB;;;BFB;0;;;

Operator: jbs01304

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	12,31
75	30,00 - 66,00% of mass 95	47,51
96	5,00 - 9,00% of mass 95	6,39
173	Less than 2,00% of mass 174	0,00 ( 0,00)
174	50,00 - 120,00% of mass 95	103,48
175	4,00 - 9,00% of mass 174	7,80 ( 7,53)
176	93,00 - 101,00% of mass 174	100,29 ( 96,92)
177	5,00 - 9,00% of mass 176	6,39 ( 6,37)

Digitally signed by Jacob E. Bailey on 10/19/2015 at 18:16.  
Target 3.5 esignature user ID: jeb07445

Date : 19-OCT-2015 11:17

Client ID: 50NGBFB

Instrument: HP09464.i

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

Operator: jbs01304

Column phase: DB-624

Column diameter: 0,25

Data File: cj00380.d

Spectrum: Avg. Scans 1674-1676 ( 6.16), Background Scan 1664

Location of Maximum: 174.00

Number of points: 58

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	721	62.00	5989	81.00	4550	119.00	1089
37.00	3151	63.00	5092	82.00	1188	128.00	662
38.00	3380	64.00	194	87.00	3872	130.00	723
39.00	1321	68.00	13085	88.00	3432	137.00	192
44.00	695	69.00	13677	91.00	589	141.00	2319
45.00	477	70.00	1092	92.00	4615	143.00	2453
47.00	432	72.00	803	93.00	7200	148.00	207
48.00	380	73.00	6189	94.00	19008	157.00	213
49.00	4321	74.00	24424	95.00	152704	172.00	174
50.00	18792	75.00	72544	96.00	9751	174.00	158016
51.00	5320	76.00	6549	104.00	566	175.00	11905
56.00	1761	77.00	595	106.00	750	176.00	153152
57.00	3247	78.00	177	116.00	660	177.00	9755
60.00	1075	79.00	4172	117.00	1539		
61.00	5536	80.00	1556	118.00	748		

Digitally signed by Jacob E. Bailey on 10/19/2015 at 18:16.  
Target 3.5 esignature user ID: jeb07445

VBLKC06

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Volatiles in Air VBLKC06

Data file: /chem/HP09464.i/15oct15.b/cj00339.d Injection date and time: 16-OCT-2015 12:23
Data file Sample Info. Line: VBLKC06;250;C1528830AA;VBLKC06;0;3;BLANK; Instrument ID: HP09464.i Batch: C1528830AA
Date, time and analyst ID of latest file update: 16-Oct-2015 13:51 jbs01304

Blank Data file reference: /chem/HP09464.i/15oct15.b/cj00339.d

Method used: /chem/HP09464.i/15oct15.b/to-15.m Sublist used: all
Calibration date and time (Last Method Edit): 16-OCT-2015 13:51
Mid Level Daily Calibration Standard Reference: /chem/HP09464.i/15oct15.b/cj00327.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:

Table with 8 columns: Internal Standards, RT (+/-RT), Scan, QIon, Area(+/- %Change), Conc. (on column), QC Flag, QC Limits. Contains data for Bromochloromethane, 1,4-Difluorobenzene, and Chlorobenzene-d5.

Table with 12 columns: Target Compounds, I.S. Ref., RT (+/-RRT), QIon, Area, Conc. (on-column), Conc. (in sample), Blank Conc., Qual., Reporting Limit (in sample), LOQ. Lists 44 target compounds and their detection status.

Data file: /chem/HP09464.i/15oct15.b/cj00339.d Injection date and time: 16-OCT-2015 12:23  
 Data file Sample Info. Line: VBLKC06;250;C1528830AA;VBLKC06;0;3;BLANK; Instrument ID: HP09464.i Batch: C1528830AA  
 Date, time and analyst ID of latest file update: 16-Oct-2015 13:51 jbs01304

Blank Data file reference: /chem/HP09464.i/15oct15.b/cj00339.d

Method used: /chem/HP09464.i/15oct15.b/to-15.m Sublist used: all  
 Calibration date and time (Last Method Edit): 16-OCT-2015 13:51  
 Mid Level Daily Calibration Standard Reference: /chem/HP09464.i/15oct15.b/cj00327.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

VBLKC06

Lancaster Laboratories, Inc.  
Analysis Summary for GC/MS Volatiles in Air VBLKC06

Data file: /chem/HP09464.i/15oct15.b/cj00339.d Injection date and time: 16-OCT-2015 12:23  
Data file Sample Info. Line: VBLKC06;250;C1528830AA;VBLKC06;0;3;BLANK; Instrument ID: HP09464.i Batch: C1528830AA  
Date, time and analyst ID of latest file update: 16-Oct-2015 13:51 jbs01304

Blank Data file reference: /chem/HP09464.i/15oct15.b/cj00339.d

Method used: /chem/HP09464.i/15oct15.b/to-15.m Sublist used: all  
Calibration date and time (Last Method Edit): 16-OCT-2015 13:51  
Mid Level Daily Calibration Standard Reference: /chem/HP09464.i/15oct15.b/cj00327.d

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

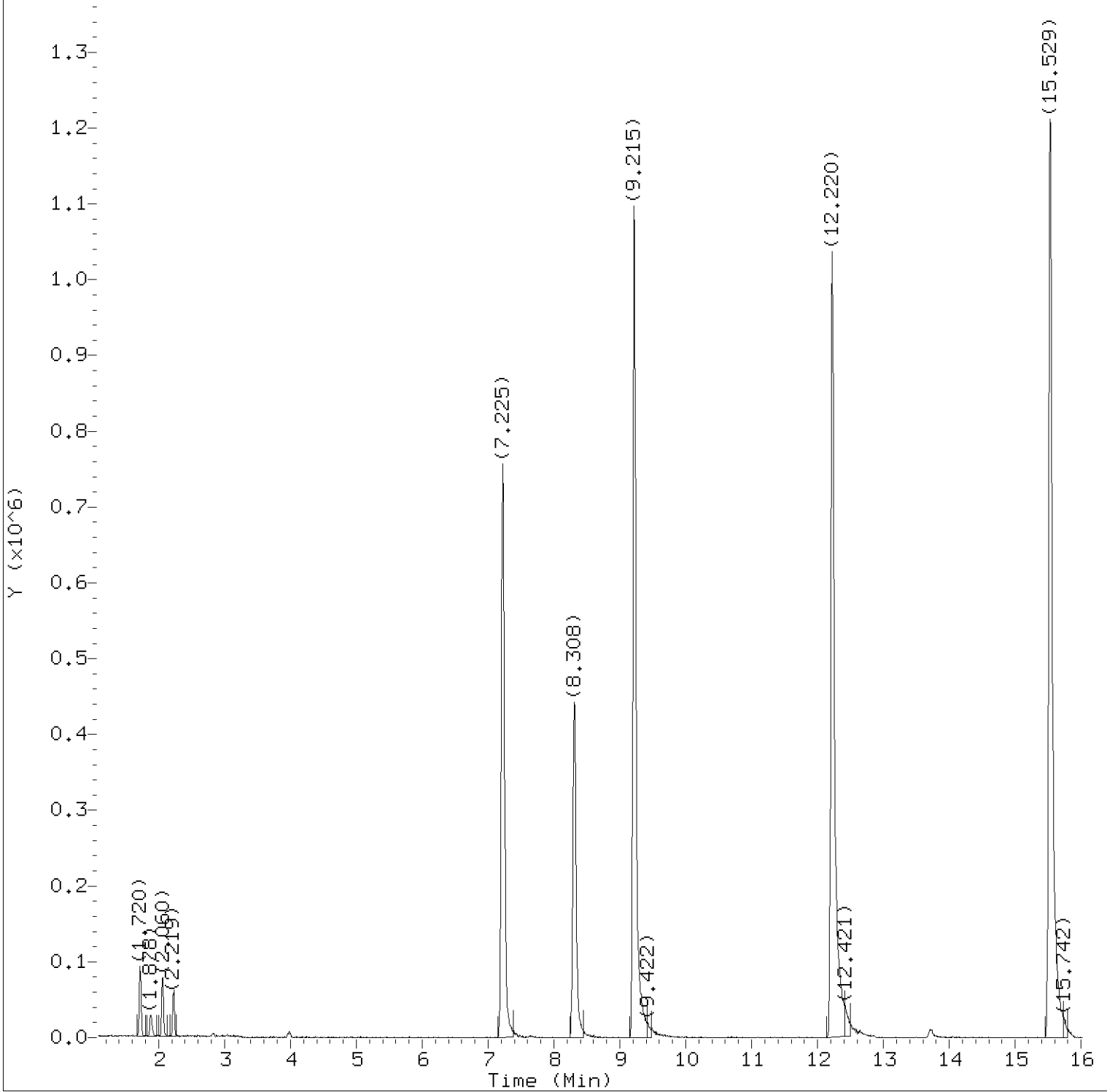
Sample Concentration Formula: On-Column Amount \* DF \* (Xa/Ya)\*(IVn/IVa) Dilution Factor (DF): 1  
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia  
Nominal Injection Volume (IVn): 250 cc Actual injection Volume (IVa): 250 cc

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	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 10/16/2015 at 14:37. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Christine M. Ratcliff on 10/22/2015 at 08:57. Parallax ID: cmr00412



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct15.b/cj00339.d  
Injection date and time: 16-OCT-2015 12:23

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
Calibration date and time: 16-OCT-2015 13:51

Sublist used: all

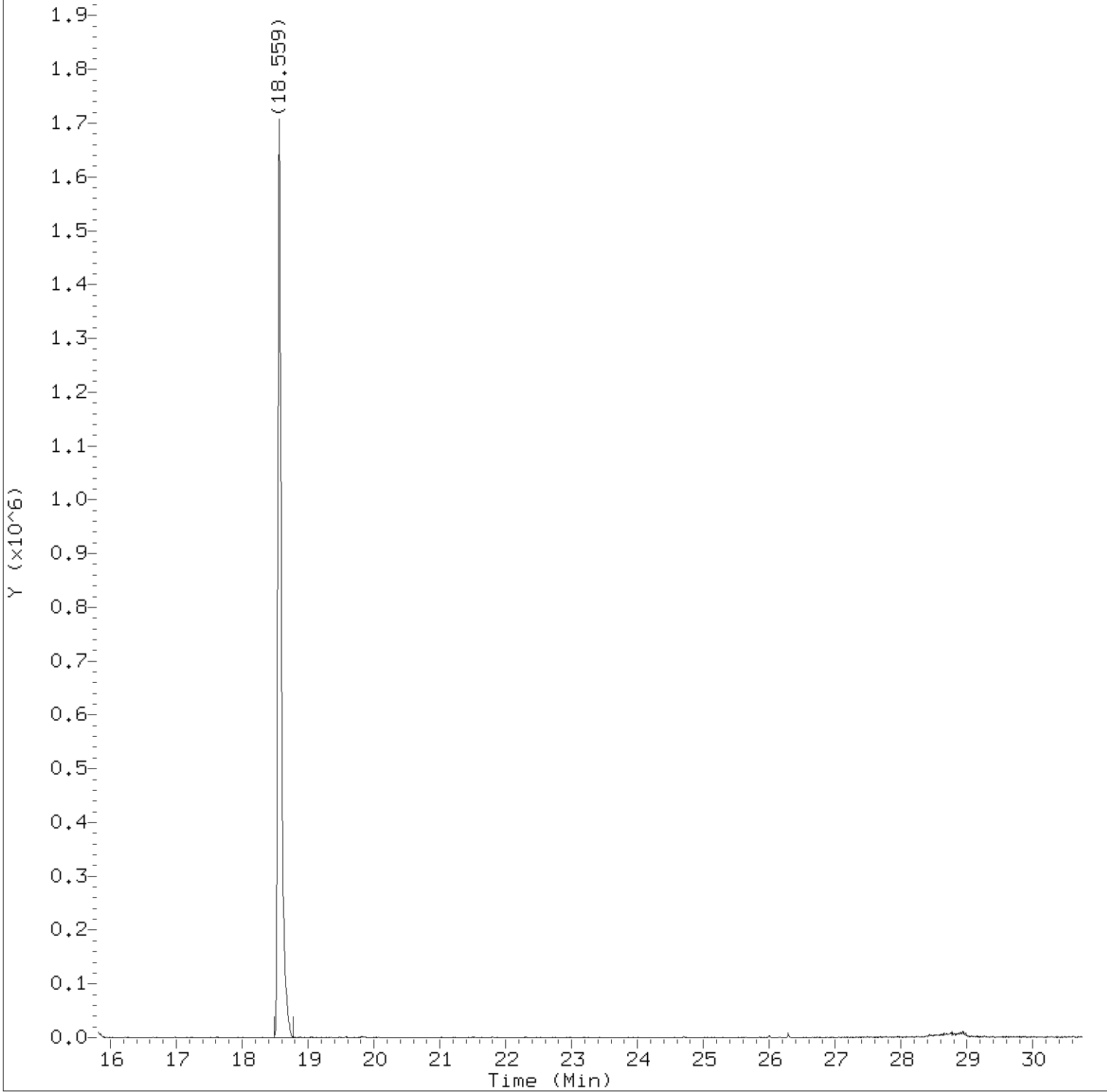
Date, time and analyst ID of latest file update: 16-Oct-2015 13:51 jbs01304

Sample Name: VBLKC06

Lab Sample ID: VBLKC06

Digitally signed by Jacob E. Bailey  
on 10/16/2015 at 14:37.

Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct15.b/cj00339.d  
Injection date and time: 16-OCT-2015 12:23

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
Calibration date and time: 16-OCT-2015 13:51

Sublist used: all

Date, time and analyst ID of latest file update: 16-Oct-2015 13:51 jbs01304

Sample Name: VBLKC06

Lab Sample ID: VBLKC06

Digitally signed by Jacob E. Bailey  
on 10/16/2015 at 14:37.

Target 3.5 esignature user ID: jeb07445



Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct15.b/cj00339.d  
Injection date and time: 16-OCT-2015 12:23

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
Calibration date and time: 16-OCT-2015 13:51

Sublist used: all

Date, time and analyst ID of latest file update: 16-Oct-2015 13:51 jbs01304

Sample Name: VBLKC06

Lab Sample ID: VBLKC06

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
===== 40)*Bromochloromethane	(1)	7.225	130	608341	10.000
51)*1,4-Difluorobenzene	(2)	9.215	114	1761339	10.000
71)*Chlorobenzene-d5	(3)	15.536	117	1753512	10.000

\* = Compound is an internal standard.

page 1 of 1

Digitally signed by Jacob E. Bailey  
on 10/16/2015 at 14:37.  
Target 3.5 esignature user ID: jeb07445

VBLKC07

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Volatiles in Air VBLKC07

Data file: /chem/HP09464.i/15oct16.b/cj00353.d Injection date and time: 16-OCT-2015 17:03
Data file Sample Info. Line: VBLKC07;250;C1528830AB;VBLKC07;0;3;BLANK; Instrument ID: HP09464.i Batch: C1528830AB
Date, time and analyst ID of latest file update: 26-Oct-2015 14:20 jbs01304

Blank Data file reference: /chem/HP09464.i/15oct16.b/cj00353.d

Method used: /chem/HP09464.i/15oct16.b/to-15.m Sublist used: all
Calibration date and time (Last Method Edit): 19-OCT-2015 15:33
Mid Level Daily Calibration Standard Reference: /chem/HP09464.i/15oct16.b/cj00351.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:

Table with 8 columns: Internal Standards, RT (+/-RT), Scan, QIon, Area(+/- %Change), Conc. (on column), QC Flag, QC Limits. Contains data for Bromochloromethane, 1,4-Difluorobenzene, and Chlorobenzene-d5.

Table with 12 columns: Target Compounds, I.S. Ref., RT (+/-RRT), QIon, Area, Conc. (on-column), Conc. (in sample), Blank Conc., Qual., Reporting Limit (in sample), LOQ. Lists 44 target compounds and their detection status.

VBLKC07

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Volatiles in Air VBLKC07

Data file: /chem/HP09464.i/15oct16.b/cj00353.d Injection date and time: 16-OCT-2015 17:03
Data file Sample Info. Line: VBLKC07;250;C1528830AB;VBLKC07;0;3;BLANK; Instrument ID: HP09464.i Batch: C1528830AB
Date, time and analyst ID of latest file update: 26-Oct-2015 14:20 jbs01304

Blank Data file reference: /chem/HP09464.i/15oct16.b/cj00353.d

Method used: /chem/HP09464.i/15oct16.b/to-15.m Sublist used: all
Calibration date and time (Last Method Edit): 19-OCT-2015 15:33
Mid Level Daily Calibration Standard Reference: /chem/HP09464.i/15oct16.b/cj00351.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

Table with columns: Target Compounds, I.S. Ref., RT (+/-RRT), QIon, Area, Conc. (on-column), Conc. (in sample), Blank Conc., Qual., Reporting Limit (in sample), LOQ. Lists 100 compounds such as Carbon Tetrachloride, Benzene, 1,2-Dichloroethane, etc., all marked as 'Not Detected'.

VBLKC07

Lancaster Laboratories, Inc.  
Analysis Summary for GC/MS Volatiles in Air VBLKC07

Data file: /chem/HP09464.i/15oct16.b/cj00353.d Injection date and time: 16-OCT-2015 17:03  
Data file Sample Info. Line: VBLKC07;250;C1528830AB;VBLKC07;0;3;BLANK; Instrument ID: HP09464.i Batch: C1528830AB  
Date, time and analyst ID of latest file update: 26-Oct-2015 14:20 jbs01304

Blank Data file reference: /chem/HP09464.i/15oct16.b/cj00353.d

Method used: /chem/HP09464.i/15oct16.b/to-15.m Sublist used: all  
Calibration date and time (Last Method Edit): 19-OCT-2015 15:33  
Mid Level Daily Calibration Standard Reference: /chem/HP09464.i/15oct16.b/cj00351.d

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

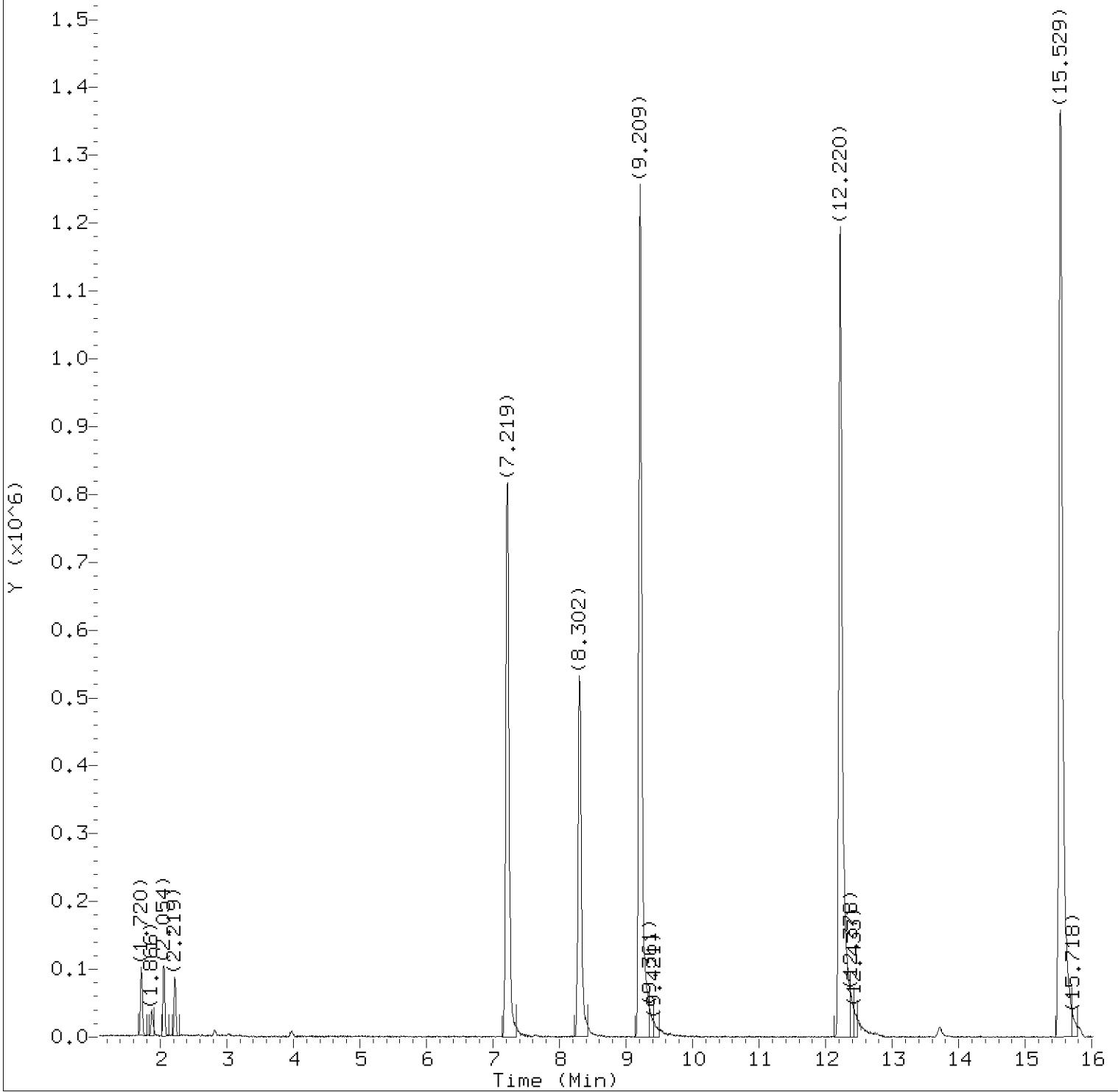
Sample Concentration Formula: On-Column Amount \* DF \* (Xa/Ya)\*(IVn/IVa) Dilution Factor (DF): 1  
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia  
Nominal Injection Volume (IVn): 250 cc Actual injection Volume (IVa): 250 cc

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	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 10/29/2015 at 11:41. Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Michele J. Smith on 10/30/2015 at 15:42. Parallax ID: mjs00758



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct16.b/cj00353.d  
Injection date and time: 16-OCT-2015 17:03

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct16.b/to-15.m  
Calibration date and time: 19-OCT-2015 15:33

Sublist used: all

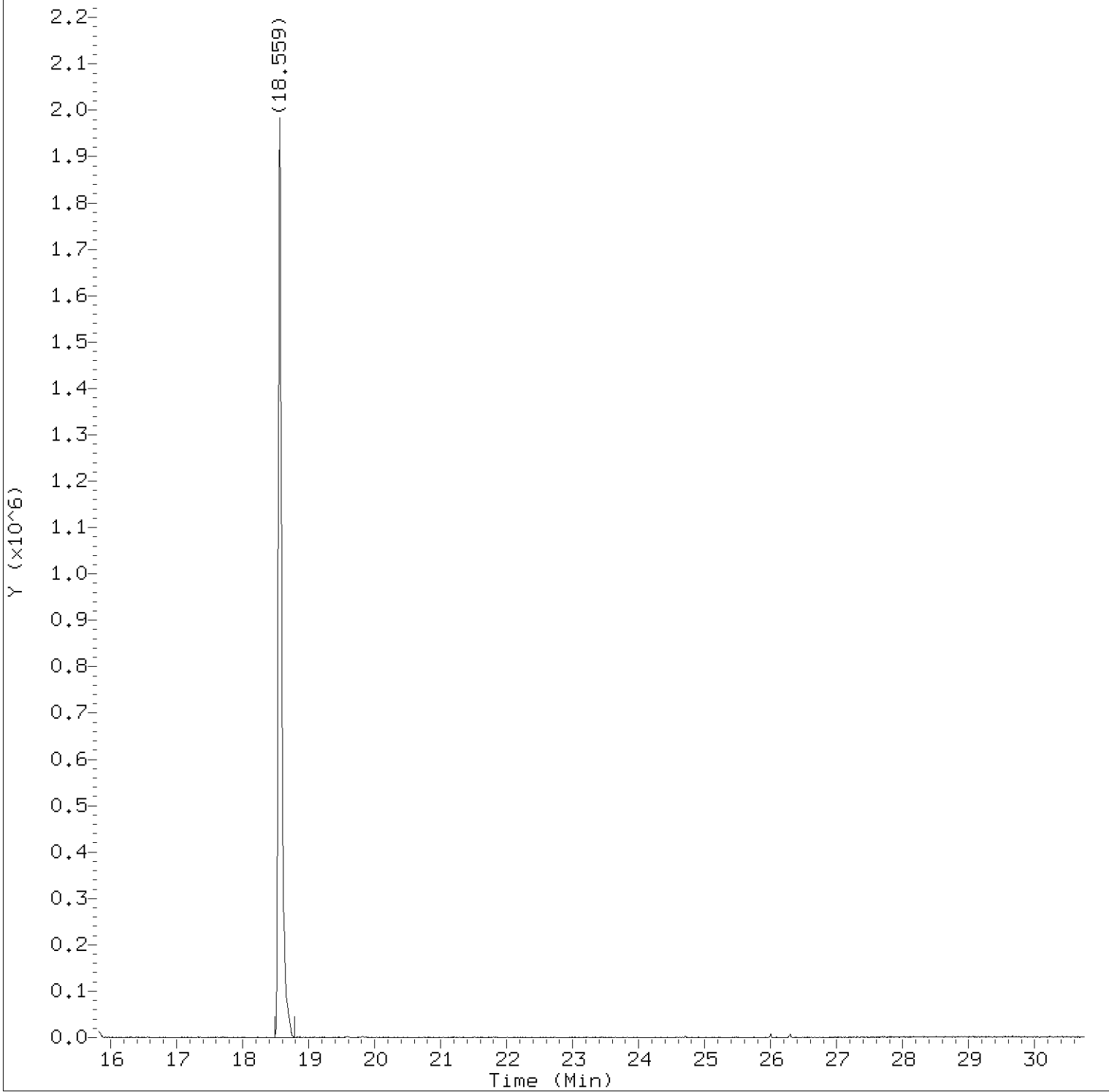
Date, time and analyst ID of latest file update: 26-Oct-2015 14:20 jbs01304

Sample Name: VBLKC07

Lab Sample ID: VBLKC07

Digitally signed by Jeffrey B. Smith  
on 10/29/2015 at 11:41.

Target 3.5 esignature user ID: jbs01304



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct16.b/cj00353.d  
Injection date and time: 16-OCT-2015 17:03

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct16.b/to-15.m  
Calibration date and time: 19-OCT-2015 15:33

Sublist used: all

Date, time and analyst ID of latest file update: 26-Oct-2015 14:20 jbs01304

Sample Name: VBLKC07

Lab Sample ID: VBLKC07

Digitally signed by Jeffrey B. Smith  
on 10/29/2015 at 11:41.

Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct16.b/cj00353.d  
Injection date and time: 16-OCT-2015 17:03

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct16.b/to-15.m  
Calibration date and time: 19-OCT-2015 15:33

Sublist used: all

Date, time and analyst ID of latest file update: 26-Oct-2015 14:20 jbs01304

Sample Name: VBLKC07

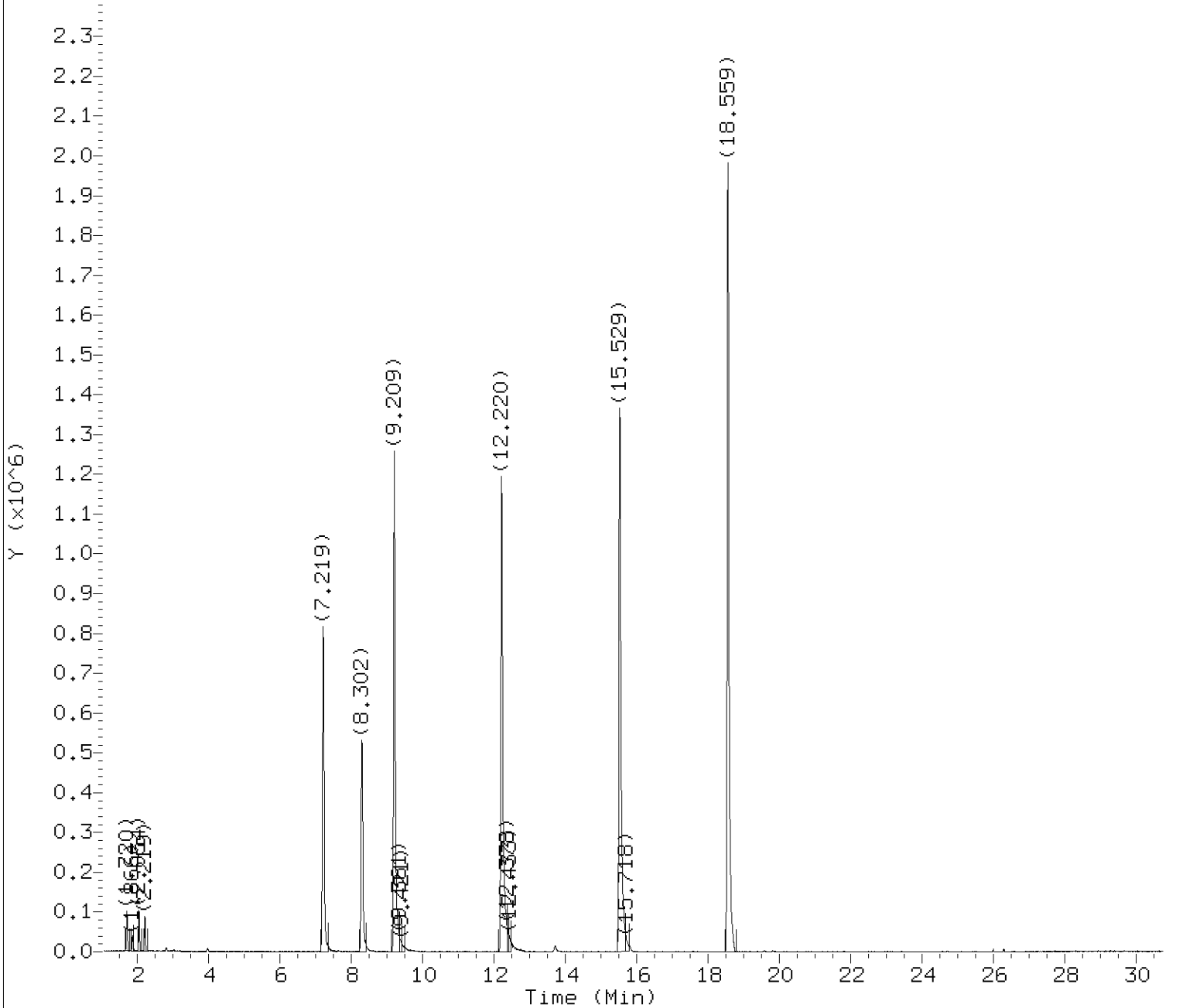
Lab Sample ID: VBLKC07

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
===== 40)*Bromochloromethane	(1)	7.219	130	653208	10.000
51)*1,4-Difluorobenzene	(2)	9.215	114	2074918	10.000
71)*Chlorobenzene-d5	(3)	15.529	117	1982784	10.000

\* = Compound is an internal standard.

page 1 of 1

Digitally signed by Jeffrey B. Smith  
on 10/29/2015 at 11:41.  
Target 3.5 esignature user ID: jbs01304



Tentatively Identified Compounds (TICs) Chromatograms

Target Revision 3.5

Data File: /chem/HP09464.i/15oct16.b/cj00353.d  
Injection date and time: 16-OCT-2015 17:03

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct16.b/to-15.m  
Calibration date and time: 19-OCT-2015 15:33

Sublist used: all

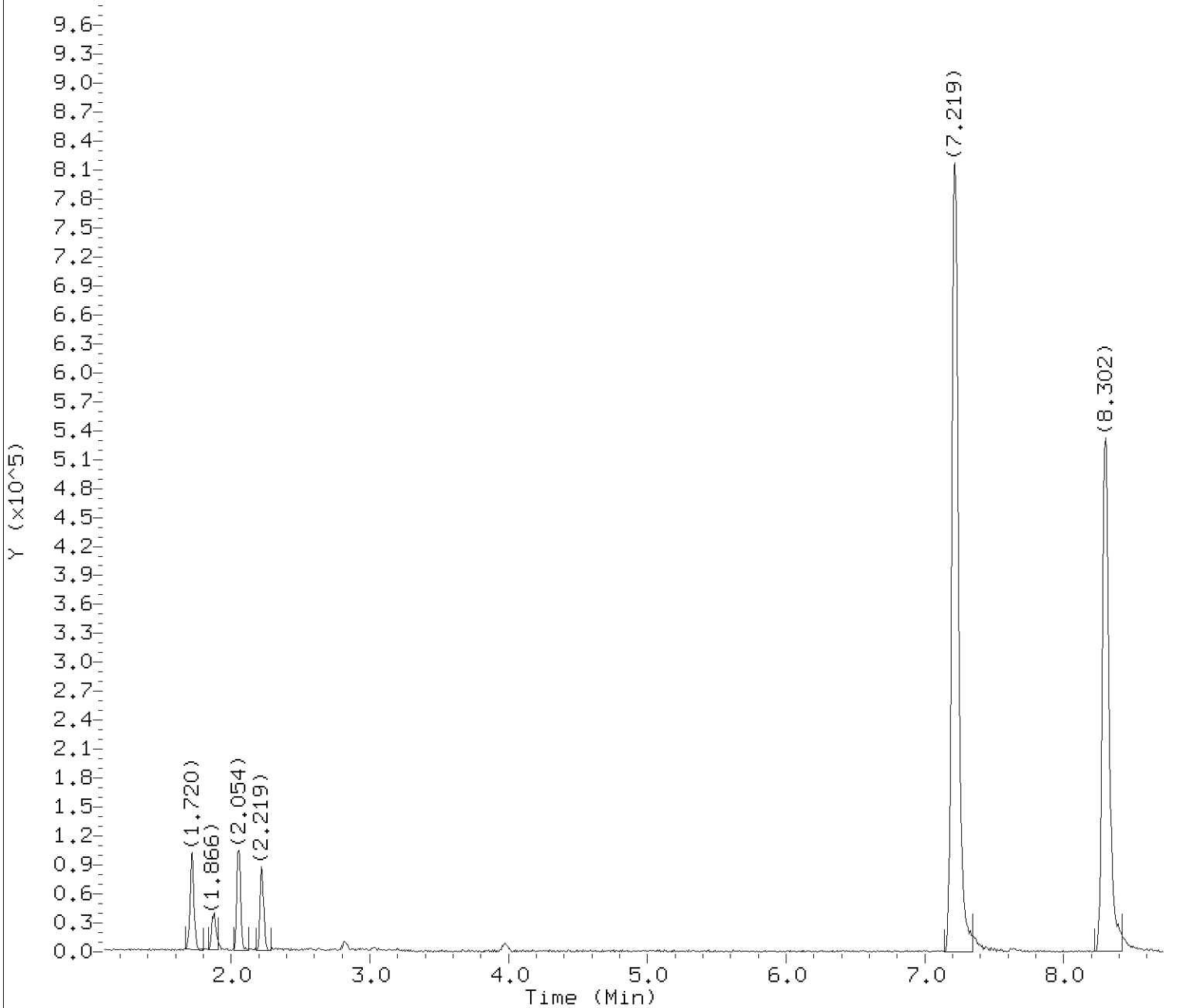
Date, time and analyst ID of latest file update: 26-Oct-2015 14:20 jbs01304

Sample Name: VBLKC07

Lab Sample ID: VBLKC07

Chromatogram Start Time (min.): 1.087  
Chromatogram End Time (min.): 30.750





Tentatively Identified Compounds (TICs) Chromatograms

Target Revision 3.5

Data File: /chem/HP09464.i/15oct16.b/cj00353.d  
Injection date and time: 16-OCT-2015 17:03

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct16.b/to-15.m  
Calibration date and time: 19-OCT-2015 15:33

Sublist used: all

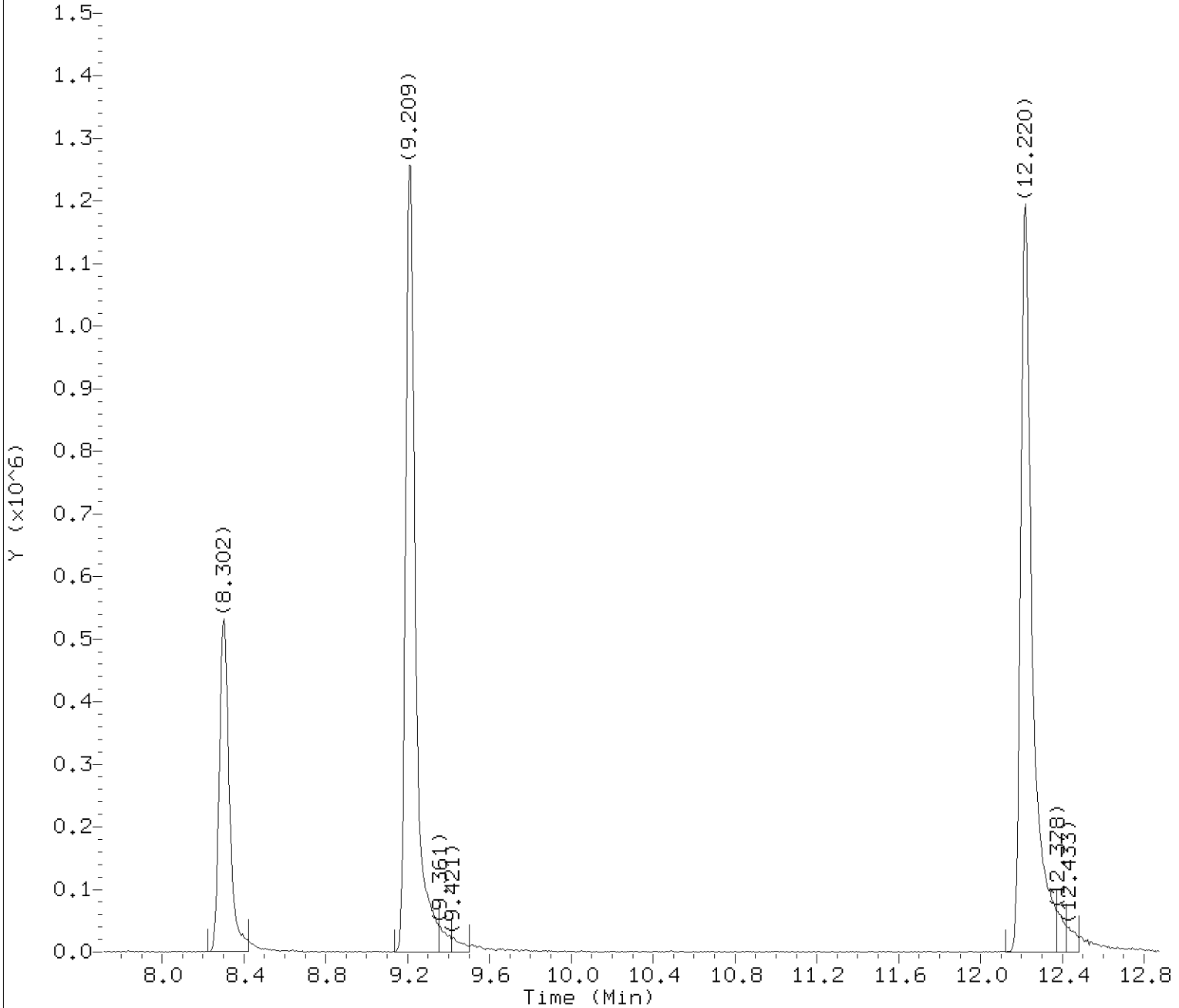
Date, time and analyst ID of latest file update: 26-Oct-2015 14:20 jbs01304

Sample Name: VBLKC07

Lab Sample ID: VBLKC07

Internal Standard referenced: Bromochloromethane at 7.219 minutes  
Chromatogram Start Time (min.): 1.087  
Chromatogram End Time (min.): 8.217

Digitally signed by Jeffrey B. Smith on 10/29/2015 at 11:36.  
Target 3.5 esignature user ID: jbs01304



Tentatively Identified Compounds (TICs) Chromatograms

Target Revision 3.5

Data File: /chem/HP09464.i/15oct16.b/cj00353.d  
Injection date and time: 16-OCT-2015 17:03

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct16.b/to-15.m  
Calibration date and time: 19-OCT-2015 15:33

Sublist used: all

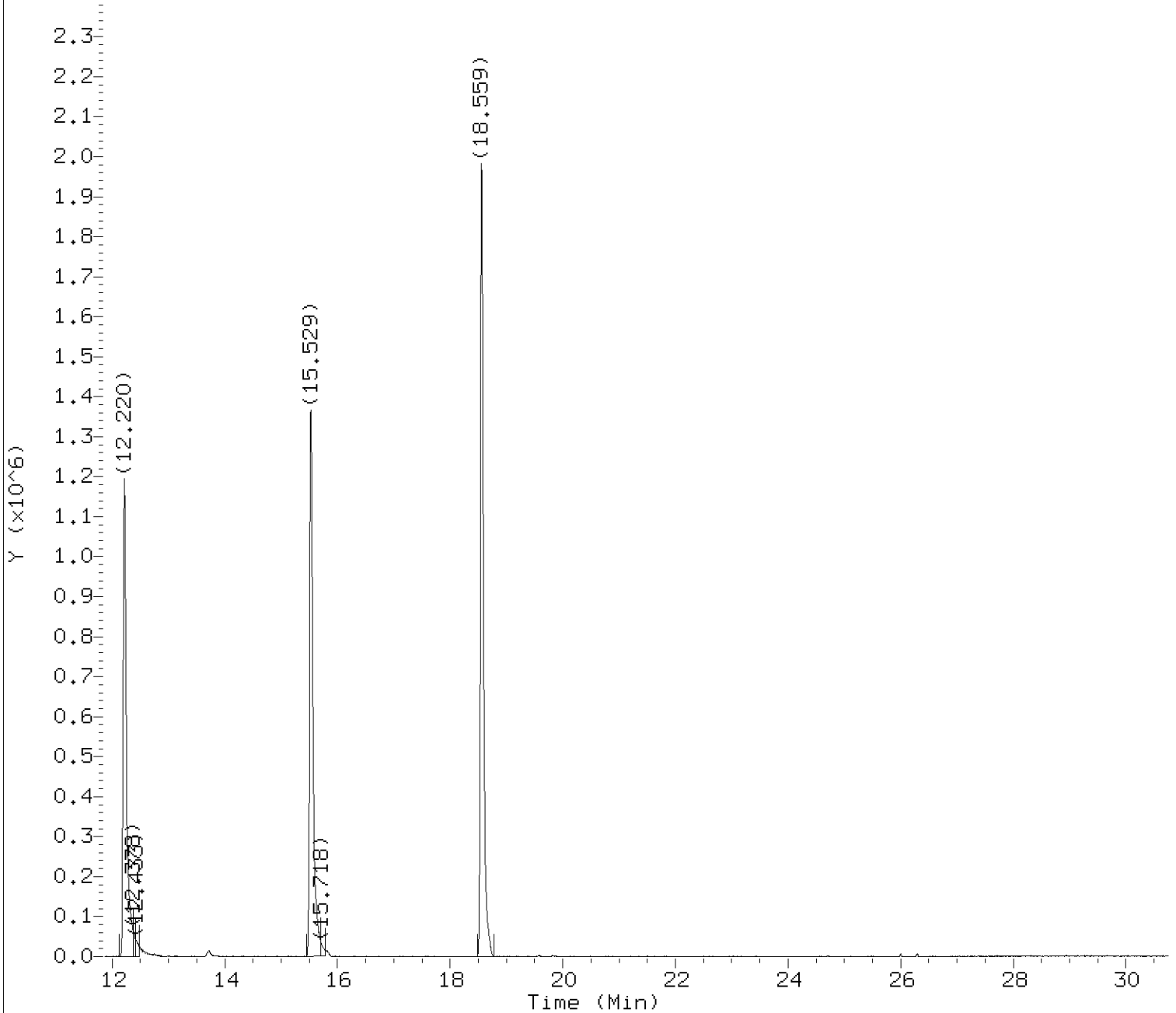
Date, time and analyst ID of latest file update: 26-Oct-2015 14:20 jbs01304

Sample Name: VBLKC07

Lab Sample ID: VBLKC07

Internal Standard referenced: 1,4-Difluorobenzene at 9.215 minutes  
Chromatogram Start Time (min.): 8.217  
Chromatogram End Time (min.): 12.372

Digitally signed by Jeffrey B. Smith on 10/29/2015 at 11:36.  
Target 3.5 esignature user ID: jbs01304



Tentatively Identified Compounds (TICs) Chromatograms

Target Revision 3.5

Data File: /chem/HP09464.i/15oct16.b/cj00353.d  
Injection date and time: 16-OCT-2015 17:03

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct16.b/to-15.m  
Calibration date and time: 19-OCT-2015 15:33

Sublist used: all

Date, time and analyst ID of latest file update: 26-Oct-2015 14:20 jbs01304

Sample Name: VBLKC07

Lab Sample ID: VBLKC07

Internal Standard referenced: Chlorobenzene-d5 at 15.529 minutes  
Chromatogram Start Time (min.): 12.372  
Chromatogram End Time (min.): 30.750

Digitally signed by Jeffrey B. Smith on 10/29/2015 at 11:36.  
Target 3.5 esignature user ID: jbs01304

Lancaster Laboratories, Inc.

Data file : /chem/HP09464.i/15oct16.b/cj00353.d  
Lab Smp Id: VBLKC07 Client Smp ID: VBLKC07  
Inj Date : 16-OCT-2015 17:03  
Operator : jeb07445 Inst ID: HP09464.i  
Smp Info : VBLKC07;250;C1528830AB;VBLKC07;0;3;BLANK;  
Misc Info : ;;250;;;;  
Comment :  
Method : /chem/HP09464.i/15oct16.b/to-15.m  
Meth Date : 26-Oct-2015 14:20 jbs01304 Quant Type: ISTD  
Cal Date : 16-OCT-2015 10:21 Cal File: cj00337.d  
Als bottle: 3 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: all.sub  
Target Version: 3.50  
Processing Host: d30cs01

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

# VBLKC15

# Lancaster Laboratories, Inc. Analysis Summary for GC/MS Volatiles in Air VBLKC15

Data file: /chem/HP09464.i/15oct19.b/cj00386.d Injection date and time: 19-OCT-2015 15:59  
 Data file Sample Info. Line: VBLKC15;;C1528830AC;VBLKC15;0;3;BLANK; Instrument ID: HP09464.i Batch: C1528830AC  
 Date, time and analyst ID of latest file update: 26-Oct-2015 12:33 jbs01304

Blank Data file reference: /chem/HP09464.i/15oct19.b/cj00386.d

Method used: /chem/HP09464.i/15oct19.b/to-15.m Sublist used: all  
 Calibration date and time (Last Method Edit): 19-OCT-2015 16:04  
 Mid Level Daily Calibration Standard Reference: /chem/HP09464.i/15oct19.b/cj00385.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(-0.006)	1008	130	638502 ( 4)	10.00		367235 - 856879
51) 1,4-Difluorobenzene	9.209(-0.006)	1336	114	1684047 ( -12)	10.00		1151629 - 2687133
71) Chlorobenzene-d5	15.523( 0.000)	2374	117	1459692 ( -14)	10.00		1021898 - 2384428

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	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

Data file: /chem/HP09464.i/15oct19.b/cj00386.d Injection date and time: 19-OCT-2015 15:59  
 Data file Sample Info. Line: VBLKC15;;C1528830AC;VBLKC15;0;3;BLANK; Instrument ID: HP09464.i Batch: C1528830AC  
 Date, time and analyst ID of latest file update: 26-Oct-2015 12:33 jbs01304

Blank Data file reference: /chem/HP09464.i/15oct19.b/cj00386.d

Method used: /chem/HP09464.i/15oct19.b/to-15.m Sublist used: all  
 Calibration date and time (Last Method Edit): 19-OCT-2015 16:04  
 Mid Level Daily Calibration Standard Reference: /chem/HP09464.i/15oct19.b/cj00385.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

VBLKC15

Lancaster Laboratories, Inc.  
Analysis Summary for GC/MS Volatiles in Air VBLKC15

Data file: /chem/HP09464.i/15oct19.b/cj00386.d Injection date and time: 19-OCT-2015 15:59  
Data file Sample Info. Line: VBLKC15;;C1528830AC;VBLKC15;0;3;BLANK; Instrument ID: HP09464.i Batch: C1528830AC  
Date, time and analyst ID of latest file update: 26-Oct-2015 12:33 jbs01304

Blank Data file reference: /chem/HP09464.i/15oct19.b/cj00386.d

Method used: /chem/HP09464.i/15oct19.b/to-15.m Sublist used: all  
Calibration date and time (Last Method Edit): 19-OCT-2015 16:04  
Mid Level Daily Calibration Standard Reference: /chem/HP09464.i/15oct19.b/cj00385.d

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

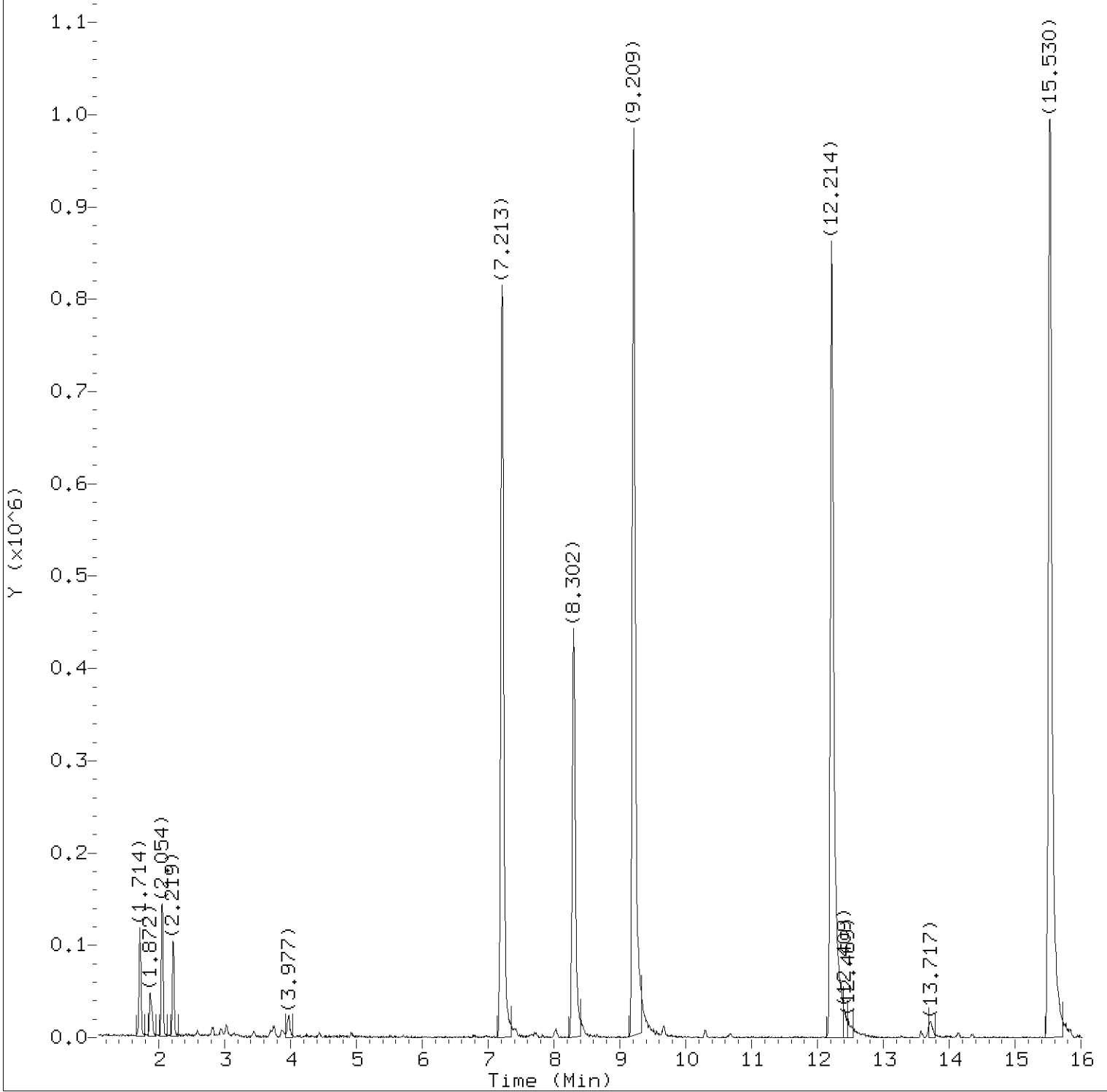
Sample Concentration Formula: On-Column Amount \* DF \* (Xa/Ya)\*(IVn/IVa) Dilution Factor (DF): 1  
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia  
Nominal Injection Volume (IVn): 250 cc Actual injection Volume (IVa): 250 cc

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	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 10/26/2015 at 12:35. Target 3.5 esignature user ID: jbs01304

Secondary review performed and digitally signed by Mark A. Ratcliff on 10/27/2015 at 10:01. Parallax ID: mar00486



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct19.b/cj00386.d  
Injection date and time: 19-OCT-2015 15:59

Instrument ID: HP09464.i  
Analyst ID: jbs01304

Method used: /chem/HP09464.i/15oct19.b/to-15.m  
Calibration date and time: 19-OCT-2015 16:04

Sublist used: all

Date, time and analyst ID of latest file update: 26-Oct-2015 12:33 jbs01304

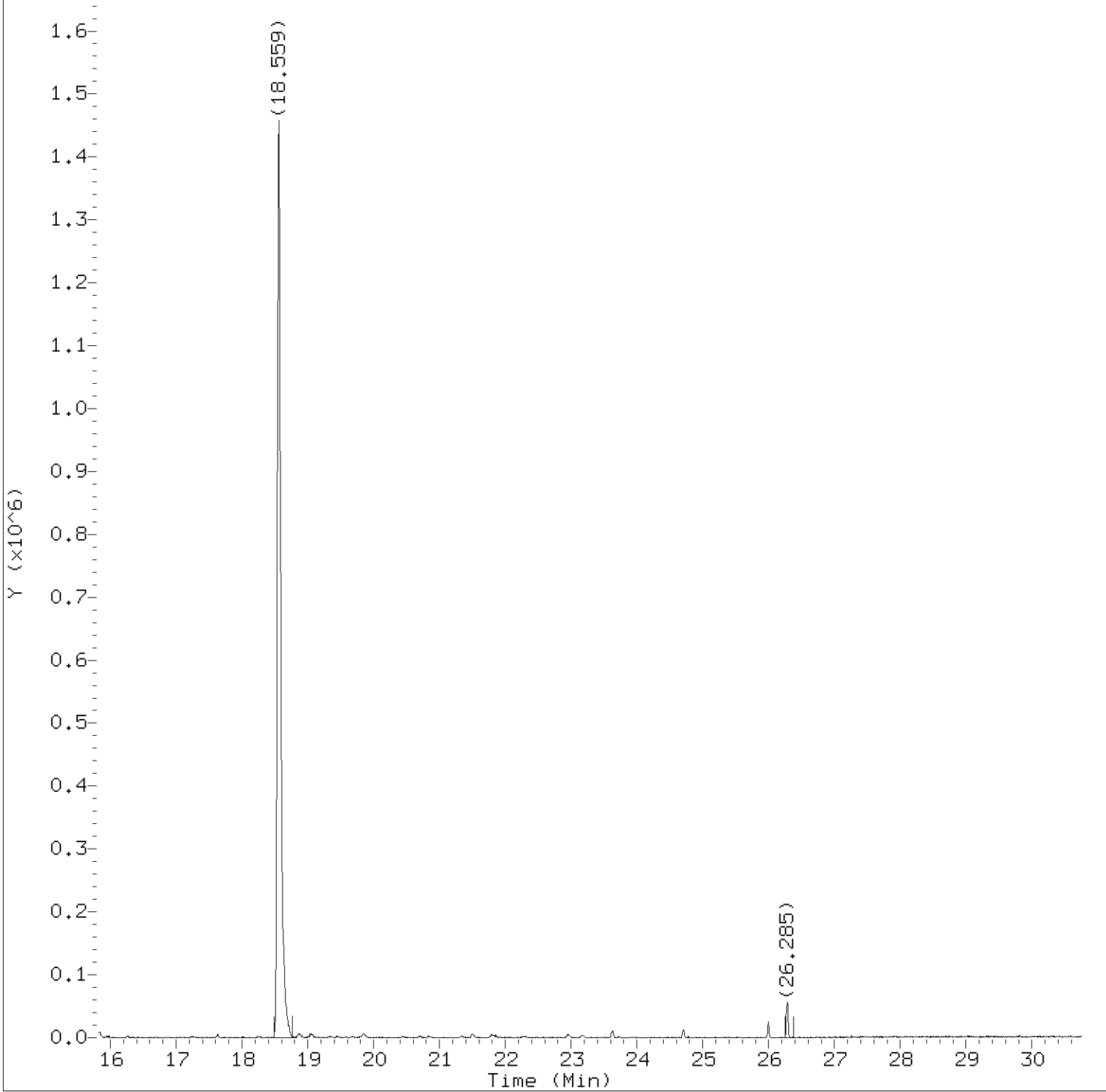
Sample Name: VBLKC15

Lab Sample ID: VBLKC15

Digitally signed by Jeffrey B. Smith  
on 10/26/2015 at 12:35.

Target 3.5 esignature user ID: jbs01304





Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct19.b/cj00386.d  
Injection date and time: 19-OCT-2015 15:59

Instrument ID: HP09464.i  
Analyst ID: jbs01304

Method used: /chem/HP09464.i/15oct19.b/to-15.m  
Calibration date and time: 19-OCT-2015 16:04

Sublist used: all

Date, time and analyst ID of latest file update: 26-Oct-2015 12:33 jbs01304

Sample Name: VBLKC15

Lab Sample ID: VBLKC15

Digitally signed by Jeffrey B. Smith  
on 10/26/2015 at 12:35.

Target 3.5 esignature user ID: jbs01304

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct19.b/cj00386.d  
Injection date and time: 19-OCT-2015 15:59

Instrument ID: HP09464.i  
Analyst ID: jbs01304

Method used: /chem/HP09464.i/15oct19.b/to-15.m  
Calibration date and time: 19-OCT-2015 16:04

Sublist used: all

Date, time and analyst ID of latest file update: 26-Oct-2015 12:33 jbs01304

Sample Name: VBLKC15

Lab Sample ID: VBLKC15

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
===== 40)*Bromochloromethane	(1)	7.213	130	638502	10.000
51)*1,4-Difluorobenzene	(2)	9.209	114	1684047	10.000
71)*Chlorobenzene-d5	(3)	15.523	117	1459692	10.000

\* = Compound is an internal standard.

page 1 of 1

Digitally signed by Jeffrey B. Smith  
on 10/26/2015 at 12:35.  
Target 3.5 esignature user ID: jbs01304

LCSC06

Lancaster Laboratories, Inc.  
 Analysis Summary for GC/MS Volatiles in Air LCSC06

Data file: /chem/HP09464.i/15oct15.b/cj00340.d Injection date and time: 16-OCT-2015 13:09  
 Data file Sample Info. Line: LCSC06;250;C1528830AA;LCSC06;0;3;LCS; Instrument ID: HP09464.i Batch: C1528830AA  
 Date, time and analyst ID of latest file update: 21-Oct-2015 16:35 jeb07445

Blank Data file reference: /chem/HP09464.i/15oct15.b/cj00339.d

Method used: /chem/HP09464.i/15oct15.b/to-15.m Sublist used: all  
 Calibration date and time (Last Method Edit): 21-OCT-2015 16:32  
 Mid Level Daily Calibration Standard Reference: /chem/HP09464.i/15oct15.b/cj00327.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	674186 (-11)	10.00		454938 - 1061520
51) 1,4-Difluorobenzene	9.196( 0.006)	1334	114	2236255 (-13)	10.00		1538215 - 3589167
71) Chlorobenzene-d5	15.523( 0.000)	2374	117	2080241 (-10)	10.00		1383609 - 3228419

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Reporting Limit (in sample)	LOQ
1) Propene	(1)	1.866( 0.000)	41	134315	8.384	8.38		0.5	1
2) Dichlorodifluoromethane	(1)	1.902( 0.000)	85	1728982	8.715	8.71		0.2	1
3) Chlorodifluoromethane	(1)	1.908( 0.000)	51	545352	8.601	8.60		0.2	1
4) Freon 114	(1)	2.042( 0.000)	85	1324434	7.418	7.42		0.2	1
5) Chloromethane	(1)	2.091( 0.000)	52	86515	9.187	9.19		0.2	1
6) Vinyl Chloride	(1)	2.212( 0.001)	62	347021	8.257	8.26		0.2	1
7) 1,3-Butadiene	(1)	2.261( 0.001)	54	221096	8.547	8.55		0.4	2
8) Bromomethane	(1)	2.583( 0.000)	94	493397	8.062	8.06		0.2	1
9) Chloroethane	(1)	2.705( 0.000)	64	183883	7.742	7.74		0.2	1
10) Bromoethene	(1)	2.924( 0.001)	106	516724	8.886	8.89		0.4	2
11) Dichlorofluoromethane	(1)	2.948( 0.000)	67	922134	8.320	8.32		0.2	1
12) Trichlorofluoromethane	(1)	3.022( 0.000)	101	1882216	8.800	8.80		0.2	1
13) Pentane	(1)	3.131( 0.001)	43	325364	8.950	8.95		0.5	1
14) Ethanol	(1)	3.314(-0.001)	45	31930	3.727	3.73		0.5	2
15) Freon123a	(1)	3.423( 0.001)	67	622565	7.974	7.97		0.2	1
16) Acrolein	(1)	3.575(-0.002)	56	35206	4.397	4.40		1	2
17) 1,1-Dichloroethene	(1)	3.691(-0.000)	61	585494	8.399	8.40		0.2	1
18) Freon 113	(1)	3.733( 0.000)	103	647517	7.636	7.64		0.5	2
19) Acetone	(1)	3.788( 0.000)	43	206359	7.443	7.44		0.5	2
20) Methyl Iodide	(1)	3.873( 0.000)	142	1348908	7.376	7.38		0.2	1
21) Carbon Disulfide	(1)	3.964( 0.000)	76	1117226	7.797	7.80		0.5	1
22) Isopropanol	(1)	4.068( 0.000)	45	219126	6.685	6.68		0.5	2
23) Acetonitrile	(1)	4.183(-0.000)	40	32853M	5.207	5.21		0.5	2
24) 3-Chloropropene	(1)	4.238( 0.000)	76	163844	8.292	8.29		0.2	1
25) Methylene Chloride	(1)	4.427( 0.000)	84	358571	8.293	8.29		0.2	1
26) tert-Butyl Alcohol	(1)	4.755(-0.000)	59	425879	8.641	8.64		0.5	1
27) Acrylonitrile	(1)	4.853(-0.000)	53	99869	6.704	6.70		0.5	2
28) trans-1,2-Dichloroethene	(1)	4.914( 0.001)	61	483641	8.191	8.19		0.2	1
29) Methyl t-Butyl Ether	(1)	4.986( 0.000)	73	592140	7.758	7.76		0.2	1
30) Hexane	(1)	5.498( 0.001)	57	363550	8.408	8.41		0.2	1
31) 1,1-Dichloroethane	(1)	5.692(-0.000)	63	573683	7.872	7.87		0.2	1
32) Vinyl Acetate	(1)	5.881( 0.000)	86	37355	4.924	4.92		1	1
33) Di-Isopropyl Ether	(1)	5.966(-0.000)	45	357595	8.220	8.22		0.2	1
34) Ethyl Tert-Butyl Ether	(1)	6.641( 0.000)	59	500212	8.246	8.25		0.2	1
35) cis-1,2-Dichloroethene	(1)	6.775( 0.001)	61	454015	8.356	8.36		0.2	1
36) 1,2-Dichloroethene (total)	(1)		61	937656	16.547	16.55		0.2	1
37) 2-Butanone	(1)	6.872( 0.000)	72	109318	8.117	8.12		0.5	2
38) Ethyl Acetate	(1)	7.061(-0.000)	70	64475	10.533	10.53		0.5	1
39) Methyl Acrylate	(1)	7.085(-0.000)	55	259502	7.604	7.60		0.2	1
41) Tetrahydrofuran	(1)	7.353( 0.000)	42	114669	7.832	7.83		0.5	1
42) Chloroform	(1)	7.408( 0.000)	83	1006543	7.877	7.88		0.2	1
43) 1,1,1-Trichloroethane	(1)	7.712( 0.000)	97	1226372	8.447	8.45		0.2	1
44) Cyclohexane	(1)	7.815( 0.000)	56	426702	9.014	9.01		0.2	1

M = Compound was manually integrated.

Data file: /chem/HP09464.i/15oct15.b/cj00340.d Injection date and time: 16-OCT-2015 13:09  
 Data file Sample Info. Line: LCSC06;250;C1528830AA;LCSC06;0;3;LCS; Instrument ID: HP09464.i Batch: C1528830AA  
 Date, time and analyst ID of latest file update: 21-Oct-2015 16:35 jeb07445

Blank Data file reference: /chem/HP09464.i/15oct15.b/cj00339.d

Method used: /chem/HP09464.i/15oct15.b/to-15.m Sublist used: all  
 Calibration date and time (Last Method Edit): 21-OCT-2015 16:32  
 Mid Level Daily Calibration Standard Reference: /chem/HP09464.i/15oct15.b/cj00327.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	LOQ
45) Carbon Tetrachloride	(1)	8.022( 0.000)	117	1503026	9.157	9.16			0.2	1
46) Benzene	(2)	8.399(-0.000)	78	1072050	7.832	7.83			0.2	1
47) 1,2-Dichloroethane	(2)	8.424( 0.000)	62	623072	7.849	7.85			0.2	1
48) Isooctane	(2)	8.655(-0.000)	57	1119207	8.690	8.69			0.2	1
49) Tert-Amyl Methyl Ether	(2)	8.740(-0.000)	73	646122	8.635	8.63			0.2	1
50) Heptane	(2)	9.056( 0.000)	43	301082	8.484	8.48			0.5	1
52) Trichloroethene	(2)	9.665(-0.000)	130	732325	7.815	7.82			0.2	1
53) Ethyl Acrylate	(2)	10.024(-0.000)	55	330555	8.603	8.60			0.2	1
54) 1,2-Dichloropropane	(2)	10.078(-0.001)	63	288660	7.605	7.60			0.2	1
55) Dibromomethane	(2)	10.285(-0.000)	174	707290	7.579	7.58			0.2	1
56) 1,4-Dioxane	(2)	10.450(-0.000)	88	226117	8.091	8.09			0.5	1
57) Methyl Methacrylate	(2)	10.480(-0.000)	69	229549	7.907	7.91			0.2	1
58) Bromodichloromethane	(2)	10.668(-0.000)	83	1120999	8.029	8.03			0.2	1
59) cis-1,3-Dichloropropene	(2)	11.642(-0.000)	75	480746	6.474	6.47			0.2	1
60) 4-Methyl-2-Pentanone	(2)	12.068(-0.000)	43	297214	8.341	8.34			0.5	2
61) Toluene	(3)	12.348( 0.000)	91	1320017	8.127	8.13			0.2	1
62) Octane	(3)	12.810( 0.000)	43	377619	8.822	8.82			0.5	1
63) trans-1,3-Dichloropropene	(3)	12.889( 0.000)	75	596263	6.981	6.98			0.2	1
64) 1,3-Dichloropropene (total)	(3)		75	1077009	13.455	13.45			0.2	1
65) Ethyl Methacrylate	(3)	13.260( 0.000)	69	382712	8.403	8.40			0.2	1
66) 1,1,2-Trichloroethane	(3)	13.272( 0.000)	97	553239	7.988	7.99			0.2	1
67) Tetrachloroethene	(3)	13.570( 0.000)	166	1011815	7.317	7.32			0.2	1
68) 2-Hexanone	(3)	13.996(-0.000)	43	329147	8.759	8.76			0.5	2
69) Dibromochloromethane	(3)	14.136( 0.000)	127	1047047	7.844	7.84			0.2	1
70) 1,2-Dibromoethane	(3)	14.337( 0.000)	107	851078	7.183	7.18			0.2	1
72) Chlorobenzene	(3)	15.590(-0.000)	112	1266956	7.844	7.84			0.2	1
73) 1,1,1,2-Tetrachloroethane	(3)	15.834(-0.000)	131	792548	7.873	7.87			0.2	1
74) Ethylbenzene	(3)	15.949(-0.000)	91	1485873	8.280	8.28			0.2	1
75) m/p-Xylene	(3)	16.265(-0.000)	91	1095363	7.381	7.38			0.2	1
76) o-Xylene	(3)	17.233( 0.000)	91	1248967	7.996	8.00			0.2	1
77) Xylene (total)	(3)		91	2344330	15.377	15.38			0.2	1
78) Styrene	(3)	17.275( 0.000)	104	1094420	7.816	7.82			0.2	1
79) Bromoform	(3)	17.634(-0.000)	173	1294198	7.505	7.51			0.2	1
80) Cumene	(3)	18.249(-0.000)	105	1601699	7.984	7.98			0.2	1
81) Bromobenzene	(3)	18.863( 0.000)	156	869210	7.714	7.71			0.2	1
82) 1,1,2,2-Tetrachloroethane	(3)	19.046(-0.000)	83	1030227	7.810	7.81			0.2	1
83) 1,2,3-Trichloropropane	(3)	19.076( 0.000)	110	383230	7.592	7.59			0.2	1
84) n-Propylbenzene	(3)	19.338(-0.000)	120	510069	7.649	7.65			0.5	1
85) 2-Chlorotoluene	(3)	19.453( 0.000)	126	580956	7.844	7.84			0.2	1
86) 4-Ethyltoluene	(3)	19.666(-0.000)	105	1800497	8.048	8.05			0.2	1
87) 1,3,5-Trimethylbenzene	(3)	19.855( 0.000)	105	1518041	7.881	7.88			0.2	1
88) Alpha Methyl Styrene	(3)	20.445(-0.000)	118	817517	7.479	7.48			0.2	1
89) tert-Butylbenzene	(3)	20.700(-0.000)	119	1405914	7.387	7.39			0.2	1
90) 1,2,4-Trimethylbenzene	(3)	20.840(-0.000)	105	1598507	7.993	7.99			0.2	1
91) sec-Butylbenzene	(3)	21.339(-0.000)	105	1945840	7.363	7.36			0.2	1
92) 1,3-Dichlorobenzene	(3)	21.503(-0.000)	146	1528764	7.709	7.71			0.2	1
93) 1,4-Dichlorobenzene	(3)	21.795( 0.000)	146	1530858	7.348	7.35			0.2	1
94) p-Isopropyltoluene	(3)	21.856(-0.000)	119	1855357	7.704	7.70			0.2	1
95) Benzyl Chloride	(3)	22.288( 0.000)	91	1172305	5.943	5.94			0.5	1
96) 1,2-Dichlorobenzene	(3)	22.957(-0.000)	146	1340601	7.139	7.14			0.2	1
97) n-Butylbenzene	(3)	23.170(-0.000)	91	1404005	7.156	7.16			0.2	1
98) Hexachloroethane	(3)	23.626(-0.000)	117	775007	7.791	7.79			0.5	2
99) 1,2-Dibromo-3-chloropropane	(3)	24.709(-0.000)	157	555878	5.447	5.45			0.2	1
100) 1,2,4-Trichlorobenzene	(3)	25.999(-0.000)	180	426484	4.110	4.11			0.5	2

LCSC06

Lancaster Laboratories, Inc.  
 Analysis Summary for GC/MS Volatiles in Air LCSC06

Data file: /chem/HP09464.i/15oct15.b/cj00340.d Injection date and time: 16-OCT-2015 13:09  
 Data file Sample Info. Line: LCSC06;250;C1528830AA;LCSC06;0;3;LCS; Instrument ID: HP09464.i Batch: C1528830AA  
 Date, time and analyst ID of latest file update: 21-Oct-2015 16:35 jeb07445

Blank Data file reference: /chem/HP09464.i/15oct15.b/cj00339.d

Method used: /chem/HP09464.i/15oct15.b/to-15.m Sublist used: all  
 Calibration date and time (Last Method Edit): 21-OCT-2015 16:32  
 Mid Level Daily Calibration Standard Reference: /chem/HP09464.i/15oct15.b/cj00327.d

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

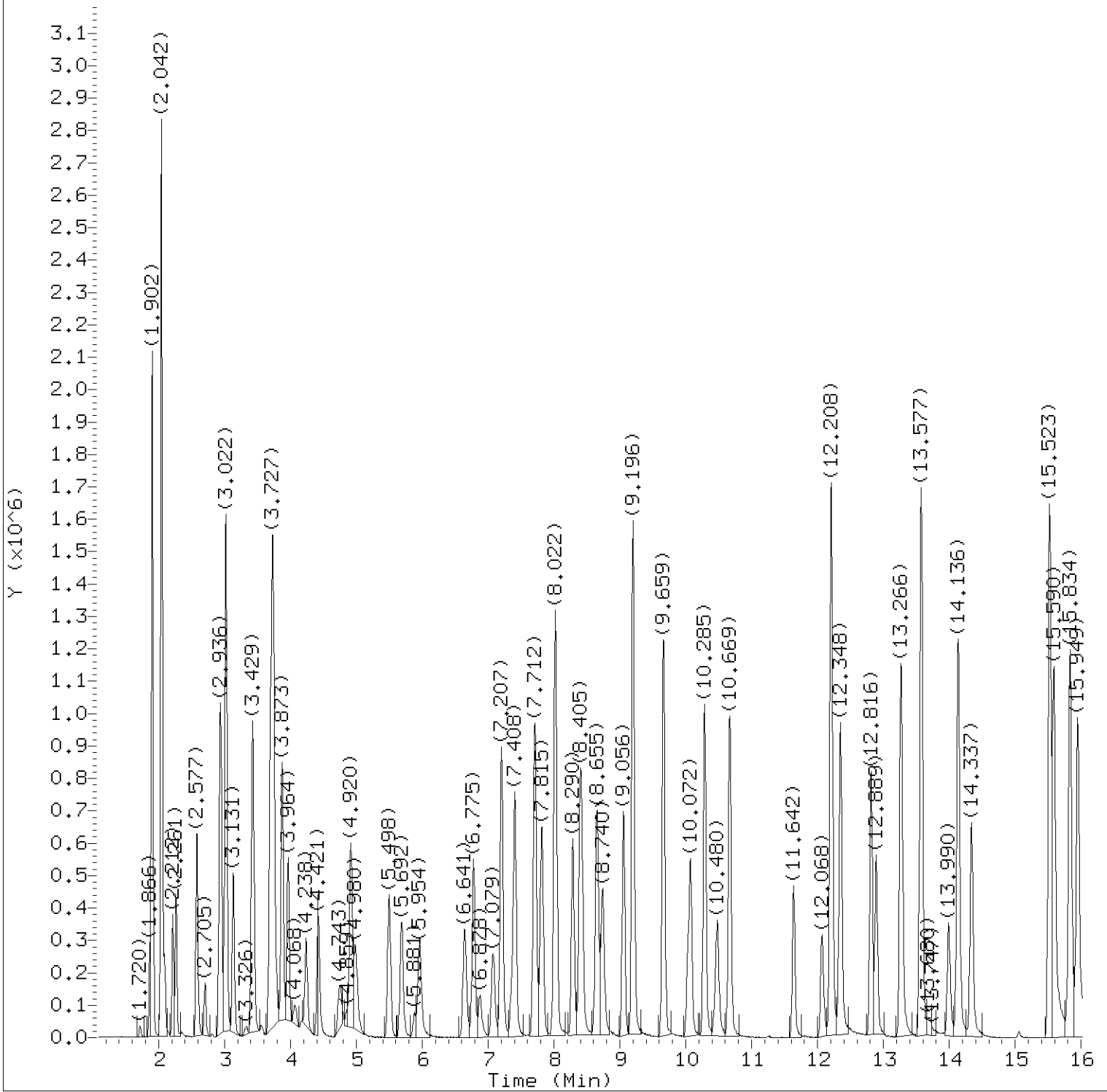
Sample Concentration Formula: On-Column Amount \* DF \* (Xa/Ya)\*(IVn/IVa) Dilution Factor (DF): 1  
 Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia  
 Nominal Injection Volume (IVn): 250 cc Actual injection Volume (IVa): 250 cc

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)	26.279(-0.000)	225	505492	4.454	4.45			0.4	2
102) Naphthalene	(3)	26.291( 0.000)	128	915788	4.266	4.27			0.4	1

Total number of targets = 99

Digitally signed by Jacob E. Bailey on 10/21/2015 at 16:37. Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Christine M. Ratcliff on 10/22/2015 at 08:57. Parallax ID: cmr00412



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct15.b/cj00340.d  
Injection date and time: 16-OCT-2015 13:09

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
Calibration date and time: 21-OCT-2015 16:32

Sublist used: all

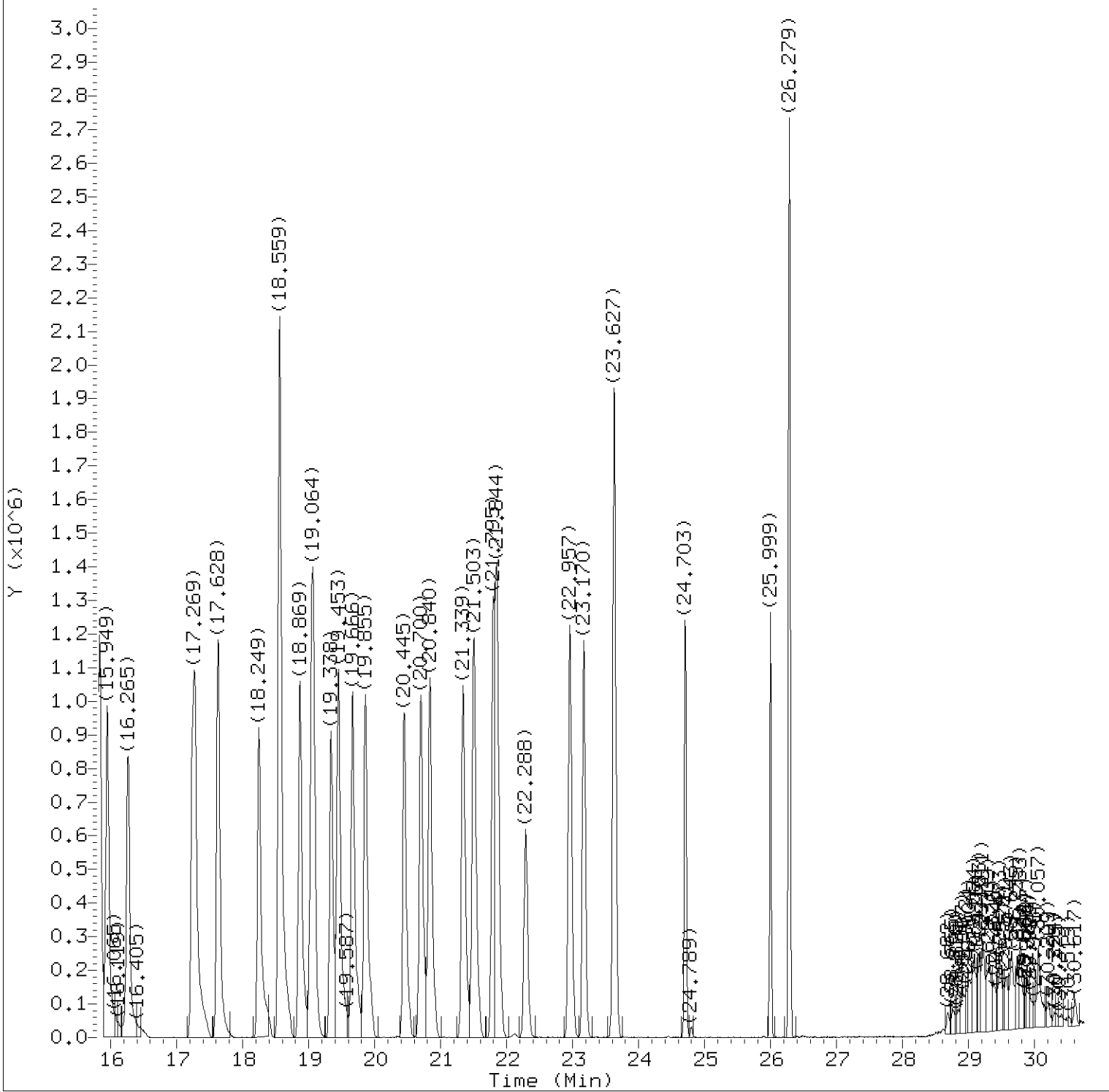
Date, time and analyst ID of latest file update: 21-Oct-2015 16:35 jeb07445

Sample Name: LCSC06

Lab Sample ID: LCSC06

Digitally signed by Jacob E. Bailey  
on 10/21/2015 at 16:37.

Target 3.5 esignature user ID: jeb07445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct15.b/cj00340.d  
Injection date and time: 16-OCT-2015 13:09

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
Calibration date and time: 21-OCT-2015 16:32

Sublist used: all

Date, time and analyst ID of latest file update: 21-Oct-2015 16:35 jeb07445

Sample Name: LCSC06

Lab Sample ID: LCSC06

Digitally signed by Jacob E. Bailey  
on 10/21/2015 at 16:37.

Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct15.b/cj00340.d  
 Injection date and time: 16-OCT-2015 13:09

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
 Calibration date and time: 21-OCT-2015 16:32  
 Date, time and analyst ID of latest file update: 21-Oct-2015 16:35 jeb07445

Sublist used: all

Sample Name: LCSC06

Lab Sample ID: LCSC06

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.866	41	134315	8.384
2) Dichlorodifluoromethane	(1)	1.902	85	1728982	8.715
3) Chlorodifluoromethane	(1)	1.908	51	545352	8.601
4) Freon 114	(1)	2.042	85	1324434	7.418
5) Chloromethane	(1)	2.091	52	86515	9.187
6) Vinyl Chloride	(1)	2.212	62	347021	8.257
7) 1,3-Butadiene	(1)	2.261	54	221096	8.547
8) Bromomethane	(1)	2.583	94	493397	8.062
9) Chloroethane	(1)	2.705	64	183883	7.742
10) Bromoethene	(1)	2.924	106	516724	8.886
11) Dichlorofluoromethane	(1)	2.949	67	922134	8.320
12) Trichlorofluoromethane	(1)	3.022	101	1882216	8.800
13) Pentane	(1)	3.131	43	325364	8.950
14) Ethanol	(1)	3.314	45	31930	3.727
15) Freon123a	(1)	3.423	67	622565	7.974
16) Acrolein	(1)	3.575	56	35206	4.397
17) 1,1-Dichloroethene	(1)	3.691	61	585494	8.399
18) Freon 113	(1)	3.733	103	647517	7.636
19) Acetone	(1)	3.788	43	206359	7.443
20) Methyl Iodide	(1)	3.873	142	1348908	7.376
21) Carbon Disulfide	(1)	3.964	76	1117226	7.797
22) Isopropanol	(1)	4.068	45	219126	6.685
23) Acetonitrile	(1)	4.183	40	32853M	5.207
24) 3-Chloropropene	(1)	4.238	76	163844	8.292
25) Methylene Chloride	(1)	4.427	84	358571	8.293
26) tert-Butyl Alcohol	(1)	4.755	59	425879	8.641
27) Acrylonitrile	(1)	4.853	53	99869	6.704
28) trans-1,2-Dichloroethene	(1)	4.914	61	483641	8.191
29) Methyl t-Butyl Ether	(1)	4.987	73	592140	7.758
30) Hexane	(1)	5.498	57	363550	8.408
31) 1,1-Dichloroethane	(1)	5.692	63	573683	7.872
32) Vinyl Acetate	(1)	5.881	86	37355	4.924
33) Di-Isopropyl Ether	(1)	5.966	45	357595	8.220
36) 1,2-Dichloroethene (total)	(1)		61	937656	16.547
34) Ethyl Tert-Butyl Ether	(1)	6.641	59	500212	8.246
35) cis-1,2-Dichloroethene	(1)	6.775	61	454015	8.356
37) 2-Butanone	(1)	6.872	72	109318	8.117
38) Ethyl Acetate	(1)	7.061	70	64475	10.533

M = Compound was manually integrated.

Digitally signed by Jacob E. Bailey  
 on 10/21/2015 at 16:37.

Target 3.5 esignature user ID: jeb07445



Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct15.b/cj00340.d  
 Injection date and time: 16-OCT-2015 13:09

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
 Calibration date and time: 21-OCT-2015 16:32  
 Date, time and analyst ID of latest file update: 21-Oct-2015 16:35 jeb07445

Sublist used: all

Sample Name: LCSC06

Lab Sample ID: LCSC06

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Methyl Acrylate	(1)	7.085	55	259502	7.604
40)*Bromochloromethane	(1)	7.207	130	674186	10.000
41) Tetrahydrofuran	(1)	7.353	42	114669	7.832
42) Chloroform	(1)	7.408	83	1006543	7.877
43) 1,1,1-Trichloroethane	(1)	7.712	97	1226372	8.447
44) Cyclohexane	(1)	7.815	56	426702	9.014
45) Carbon Tetrachloride	(1)	8.022	117	1503026	9.157
46) Benzene	(2)	8.399	78	1072050	7.832
47) 1,2-Dichloroethane	(2)	8.424	62	623072	7.849
48) Isooctane	(2)	8.655	57	1119207	8.690
49) Tert-Amyl Methyl Ether	(2)	8.740	73	646122	8.635
50) Heptane	(2)	9.056	43	301082	8.484
51)*1,4-Difluorobenzene	(2)	9.196	114	2236255	10.000
52) Trichloroethene	(2)	9.665	130	732325	7.815
53) Ethyl Acrylate	(2)	10.024	55	330555	8.603
54) 1,2-Dichloropropane	(2)	10.078	63	288660	7.605
55) Dibromomethane	(2)	10.285	174	707290	7.579
56) 1,4-Dioxane	(2)	10.450	88	226117	8.091
57) Methyl Methacrylate	(2)	10.480	69	229549	7.907
58) Bromodichloromethane	(2)	10.669	83	1120999	8.029
59) cis-1,3-Dichloropropene	(2)	11.642	75	480746	6.474
60) 4-Methyl-2-Pentanone	(2)	12.068	43	297214	8.341
61) Toluene	(3)	12.348	91	1320017	8.127
64) 1,3-Dichloropropene (total)	(3)		75	1077009	13.455
62) Octane	(3)	12.810	43	377619	8.822
63) trans-1,3-Dichloropropene	(3)	12.889	75	596263	6.981
65) Ethyl Methacrylate	(3)	13.260	69	382712	8.403
66) 1,1,2-Trichloroethane	(3)	13.272	97	553239	7.988
67) Tetrachloroethene	(3)	13.570	166	1011815	7.317
68) 2-Hexanone	(3)	13.996	43	329147	8.759
69) Dibromochloromethane	(3)	14.136	127	1047047	7.844
70) 1,2-Dibromoethane	(3)	14.337	107	851078	7.183
71)*Chlorobenzene-d5	(3)	15.523	117	2080241	10.000
72) Chlorobenzene	(3)	15.590	112	1266956	7.844
73) 1,1,1,2-Tetrachloroethane	(3)	15.834	131	792548	7.873
74) Ethylbenzene	(3)	15.949	91	1485873	8.280
75) m/p-Xylene	(3)	16.265	91	1095363	7.381
77) Xylene (total)	(3)		91	2344330	15.377

\* = Compound is an internal standard.

Digitally signed by Jacob E. Bailey  
 on 10/21/2015 at 16:37.

Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct15.b/cj00340.d  
 Injection date and time: 16-OCT-2015 13:09

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
 Calibration date and time: 21-OCT-2015 16:32  
 Date, time and analyst ID of latest file update: 21-Oct-2015 16:35 jeb07445

Sublist used: all

Sample Name: LCSC06

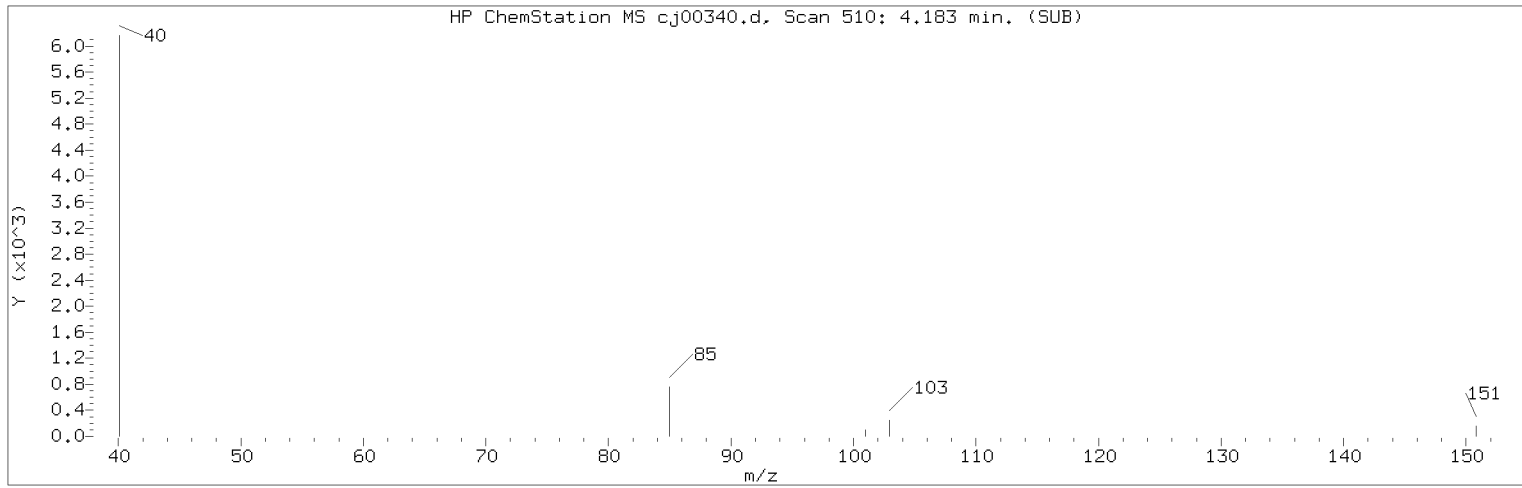
Lab Sample ID: LCSC06

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
76) o-Xylene	(3)	17.233	91	1248967	7.996
78) Styrene	(3)	17.275	104	1094420	7.816
79) Bromoform	(3)	17.634	173	1294198	7.505
80) Cumene	(3)	18.249	105	1601699	7.984
81) Bromobenzene	(3)	18.863	156	869210	7.714
82) 1,1,2,2-Tetrachloroethane	(3)	19.046	83	1030227	7.810
83) 1,2,3-Trichloropropane	(3)	19.076	110	383230	7.592
84) n-Propylbenzene	(3)	19.338	120	510069	7.649
85) 2-Chlorotoluene	(3)	19.453	126	580956	7.844
86) 4-Ethyltoluene	(3)	19.666	105	1800497	8.048
87) 1,3,5-Trimethylbenzene	(3)	19.855	105	1518041	7.881
88) Alpha Methyl Styrene	(3)	20.445	118	817517	7.479
89) tert-Butylbenzene	(3)	20.700	119	1405914	7.387
90) 1,2,4-Trimethylbenzene	(3)	20.840	105	1598507	7.993
91) sec-Butylbenzene	(3)	21.339	105	1945840	7.363
92) 1,3-Dichlorobenzene	(3)	21.503	146	1528764	7.709
93) 1,4-Dichlorobenzene	(3)	21.795	146	1530858	7.348
94) p-Isopropyltoluene	(3)	21.856	119	1855357	7.704
95) Benzyl Chloride	(3)	22.288	91	1172305	5.943
96) 1,2-Dichlorobenzene	(3)	22.957	146	1340601	7.139
97) n-Butylbenzene	(3)	23.170	91	1404005	7.156
98) Hexachloroethane	(3)	23.627	117	775007	7.791
99) 1,2-Dibromo-3-chloropropane	(3)	24.709	157	555878	5.447
100) 1,2,4-Trichlorobenzene	(3)	25.999	180	426484	4.110
101) Hexachlorobutadiene	(3)	26.279	225	505492	4.454
102) Naphthalene	(3)	26.291	128	915788	4.266

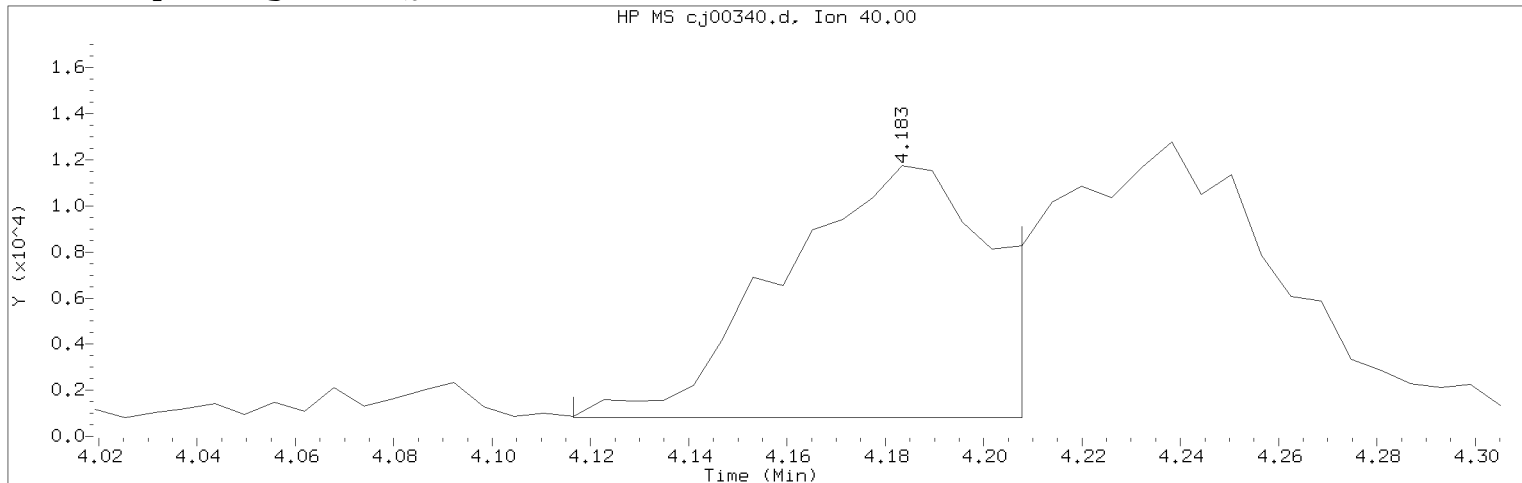
Digitally signed by Jacob E. Bailey  
 on 10/21/2015 at 16:37.

Target 3.5 esignature user ID: jeb07445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09464.i/15oct15.b/cj00340.d                      Instrument ID: HP09464.i  
Injection date and time: 16-OCT-2015 13:09                      Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m                      Sublist used: all  
Calibration date and time: 21-OCT-2015 16:32  
Date, time and analyst ID of latest file update: 21-Oct-2015 16:35 jeb07445

Sample Name: LCSC06                      Lab Sample ID: LCSC06

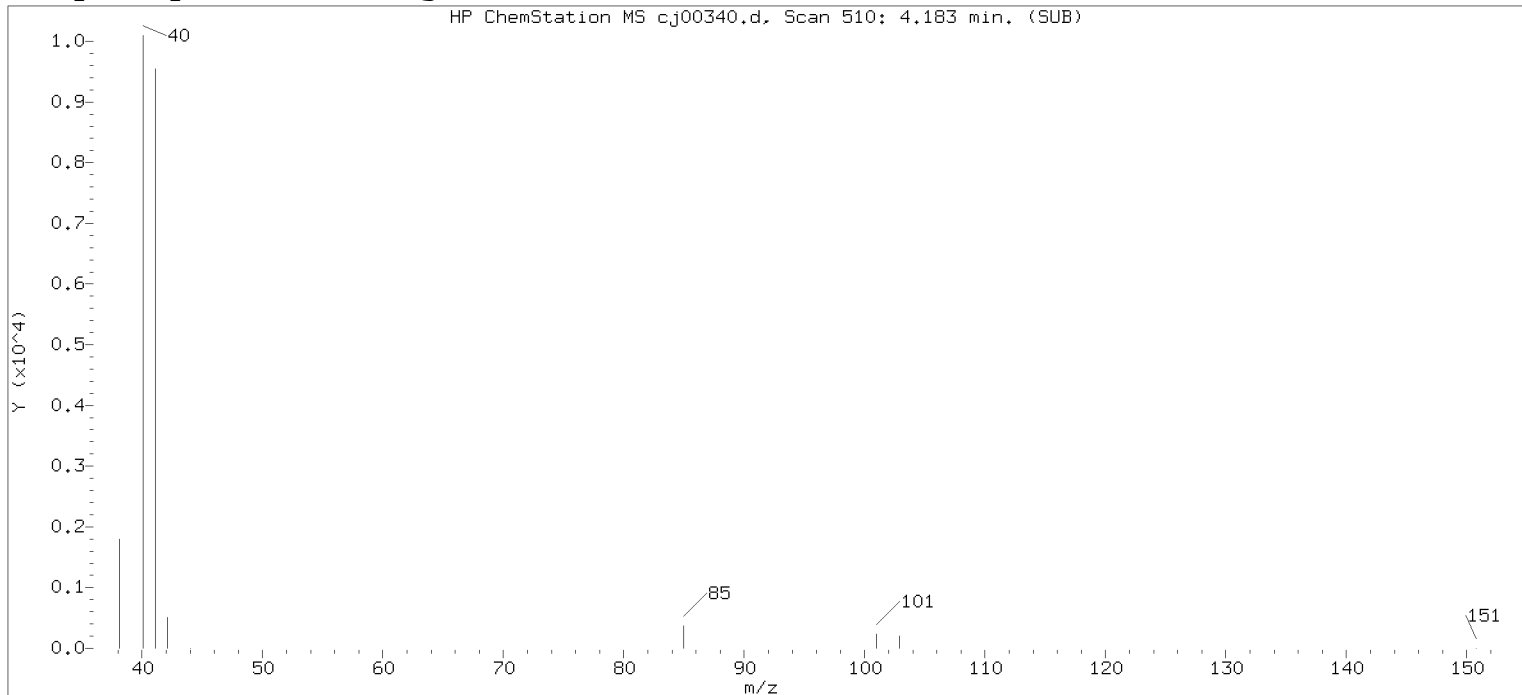
Compound Number                      : 23  
Compound Name                         : Acetonitrile  
Scan Number                            : 510  
Retention Time (minutes): 4.183  
Quant Ion                               : 40.00  
Area (flag)                             : 32853M  
Concentration (ppb(v))                : 5.2069  
Integration start scan                 : 498                      Integration stop scan: 513  
Y at integration start                 : 820                      Y at integration end: 820

Reason for manual integration: improper integration

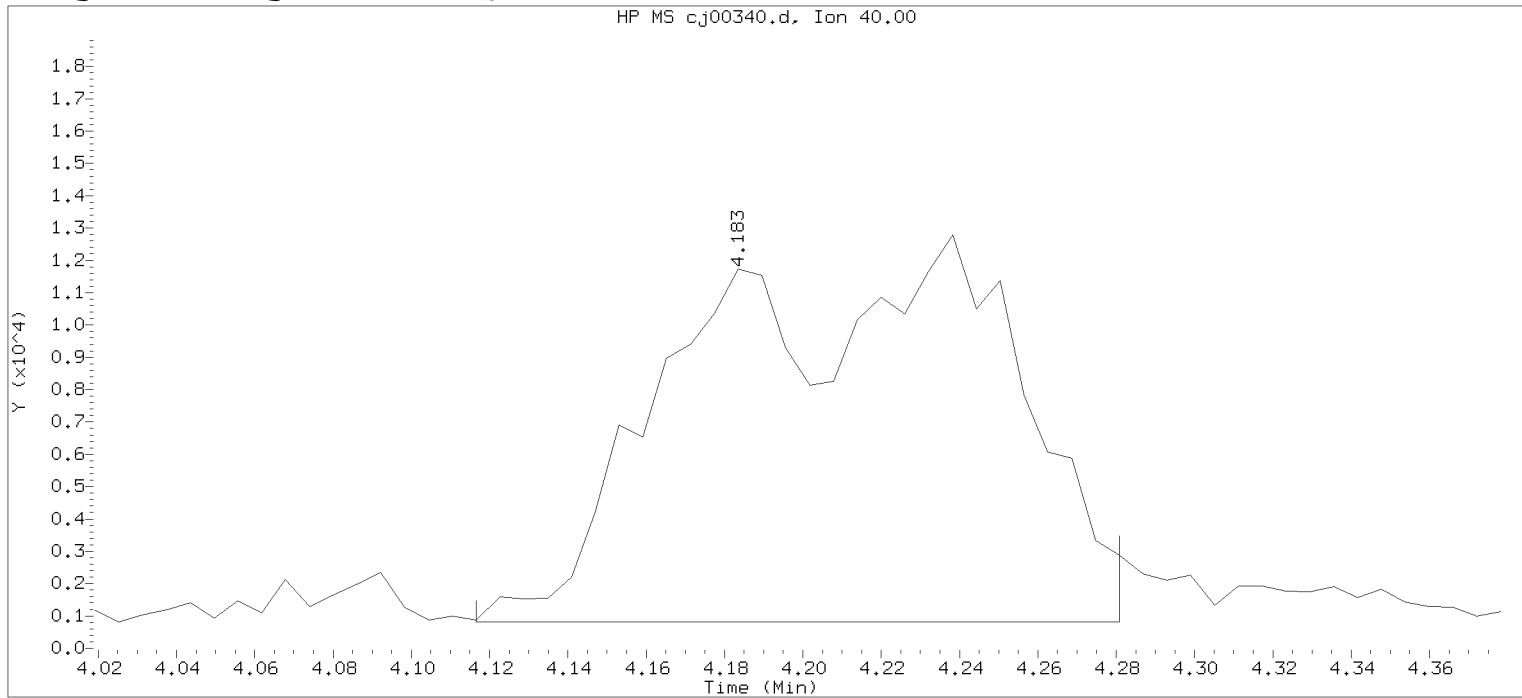
Analyst responsible for change: Digitally signed by Jacob E. Bailey  
on 10/21/2015 at 16:37.  
Target 3.5 esignature user ID: jeb07445

Secondary review performed and digitally signed by Christine M. Ratcliff on 10/22/2015 at 08:57.  
Parallax ID: cmr00412

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15oct15.b/cj00340.d      Instrument ID: HP09464.i  
 Injection date and time: 16-OCT-2015 13:09      Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m      Sublist used: all  
 Calibration date and time: 16-OCT-2015 13:49  
 Date, time and analyst ID of latest file update: 16-Oct-2015 13:50 Automation

Sample Name: LCSC06      Lab Sample ID: LCSC06

Compound Number : 23  
 Compound Name : Acetonitrile  
 Scan Number : 510  
 Retention Time (minutes): 4.183  
 Quant Ion : 40.00  
 Area : 66721  
 Concentration (ppb(v)) : 10.5749  
 Integration start scan : 498      Integration stop scan: 525  
 Y at integration start : 820      Y at integration end: 820

Data file: /chem/HP09464.i/15oct15.b/cj00341.d Injection date and time: 16-OCT-2015 13:54  
 Data file Sample Info. Line: LCSDC06;250;C1528830AA;LCSDC06;0;3;LCSD; Instrument ID: HP09464.i Batch: C1528830AA  
 Date, time and analyst ID of latest file update: 21-Oct-2015 16:35 jeb07445

Blank Data file reference: /chem/HP09464.i/15oct15.b/cj00339.d

Method used: /chem/HP09464.i/15oct15.b/to-15.m Sublist used: all  
 Calibration date and time (Last Method Edit): 21-OCT-2015 16:32  
 Mid Level Daily Calibration Standard Reference: /chem/HP09464.i/15oct15.b/cj00327.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	672950 (-11)	10.00		454938 - 1061520
51) 1,4-Difluorobenzene	9.196( 0.006)	1334	114	2106045 (-18)	10.00		1538215 - 3589167
71) Chlorobenzene-d5	15.523( 0.000)	2374	117	1893441 (-18)	10.00		1383609 - 3228419

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Reporting Limit (in sample)	LOQ
1) Propene	(1)	1.866( 0.000)	41	167188	10.455	10.46		0.5	1
2) Dichlorodifluoromethane	(1)	1.902( 0.000)	85	1927981	9.736	9.74		0.2	1
3) Chlorodifluoromethane	(1)	1.914(-0.000)	51	617973	9.764	9.76		0.2	1
4) Freon 114	(1)	2.042( 0.000)	85	1548052	8.687	8.69		0.2	1
5) Chloromethane	(1)	2.091( 0.000)	52	104596	11.127	11.13		0.2	1
6) Vinyl Chloride	(1)	2.219( 0.000)	62	422194	10.064	10.06		0.2	1
7) 1,3-Butadiene	(1)	2.267( 0.000)	54	259337	10.043	10.04		0.4	2
8) Bromomethane	(1)	2.584( 0.000)	94	586841	9.606	9.61		0.2	1
9) Chloroethane	(1)	2.705( 0.000)	64	219715	9.267	9.27		0.2	1
10) Bromoethene	(1)	2.930( 0.000)	106	600236	10.341	10.34		0.4	2
11) Dichlorofluoromethane	(1)	2.949( 0.000)	67	1061791	9.598	9.60		0.2	1
12) Trichlorofluoromethane	(1)	3.022( 0.000)	101	2095363	9.815	9.81		0.2	1
13) Pentane	(1)	3.137( 0.000)	43	374419	10.318	10.32		0.5	1
14) Ethanol	(1)	3.308(-0.000)	45	36500	4.268	4.27		0.5	2
15) Freon123a	(1)	3.423( 0.001)	67	725398	9.308	9.31		0.2	1
16) Acrolein	(1)	3.557( 0.000)	56	40211	5.031	5.03		1	2
17) 1,1-Dichloroethene	(1)	3.691(-0.000)	61	676343	9.720	9.72		0.2	1
18) Freon 113	(1)	3.733( 0.000)	103	742118	8.767	8.77		0.5	2
19) Acetone	(1)	3.794(-0.000)	43	239495	8.654	8.65		0.5	2
20) Methyl Iodide	(1)	3.873( 0.000)	142	1506370	8.252	8.25		0.2	1
21) Carbon Disulfide	(1)	3.965( 0.000)	76	1271251	8.889	8.89		0.5	1
22) Isopropanol	(1)	4.068( 0.000)	45	263378	8.050	8.05		0.5	2
23) Acetonitrile	(1)	4.184(-0.000)	40	38262	6.075	6.08		0.5	2
24) 3-Chloropropene	(1)	4.232( 0.001)	76	182749	9.266	9.27		0.2	1
25) Methylene Chloride	(1)	4.421( 0.001)	84	403196	9.342	9.34		0.2	1
26) tert-Butyl Alcohol	(1)	4.762(-0.001)	59	490772	9.976	9.98		0.5	1
27) Acrylonitrile	(1)	4.853(-0.000)	53	115753	7.784	7.78		0.5	2
28) trans-1,2-Dichloroethene	(1)	4.914( 0.001)	61	548846	9.312	9.31		0.2	1
29) Methyl t-Butyl Ether	(1)	5.005(-0.001)	73	698570	9.169	9.17		0.2	1
30) Hexane	(1)	5.504( 0.000)	57	407728	9.448	9.45		0.2	1
31) 1,1-Dichloroethane	(1)	5.680( 0.001)	63	629468	8.653	8.65		0.2	1
32) Vinyl Acetate	(1)	5.881( 0.000)	86	48668	6.427	6.43		1	1
33) Di-Isopropyl Ether	(1)	5.966(-0.000)	45	421582	9.709	9.71		0.2	1
34) Ethyl Tert-Butyl Ether	(1)	6.641( 0.000)	59	582102	9.613	9.61		0.2	1
35) cis-1,2-Dichloroethene	(1)	6.781( 0.000)	61	508441	9.374	9.37		0.2	1
36) 1,2-Dichloroethene (total)	(1)		61	1057287	18.687	18.69		0.2	1
37) 2-Butanone	(1)	6.872( 0.000)	72	128690	9.573	9.57		0.5	2
38) Ethyl Acetate	(1)	7.067(-0.000)	70	77351	12.659	12.66		0.5	1
39) Methyl Acrylate	(1)	7.079( 0.000)	55	300475	8.821	8.82		0.2	1
41) Tetrahydrofuran	(1)	7.359(-0.000)	42	132659	9.078	9.08		0.5	1
42) Chloroform	(1)	7.408( 0.000)	83	1107742	8.685	8.69		0.2	1
43) 1,1,1-Trichloroethane	(1)	7.712( 0.000)	97	1317465	9.091	9.09		0.2	1
44) Cyclohexane	(1)	7.809( 0.000)	56	473443	10.020	10.02		0.2	1

Data file: /chem/HP09464.i/15oct15.b/cj00341.d Injection date and time: 16-OCT-2015 13:54  
 Data file Sample Info. Line: LCSDC06;250;C1528830AA;LCSDC06;0;3;LCSD; Instrument ID: HP09464.i Batch: C1528830AA  
 Date, time and analyst ID of latest file update: 21-Oct-2015 16:35 jeb07445

Blank Data file reference: /chem/HP09464.i/15oct15.b/cj00339.d

Method used: /chem/HP09464.i/15oct15.b/to-15.m Sublist used: all  
 Calibration date and time (Last Method Edit): 21-OCT-2015 16:32  
 Mid Level Daily Calibration Standard Reference: /chem/HP09464.i/15oct15.b/cj00327.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	LOQ
45) Carbon Tetrachloride	(1)	8.022( 0.000)	117	1578522	9.635	9.64		0.2	1	
46) Benzene	(2)	8.393( 0.000)	78	1213186	9.411	9.41		0.2	1	
47) 1,2-Dichloroethane	(2)	8.430(-0.000)	62	692928	9.269	9.27		0.2	1	
48) Isooctane	(2)	8.649( 0.000)	57	1222931	10.083	10.08		0.2	1	
49) Tert-Amyl Methyl Ether	(2)	8.740(-0.000)	73	750384	10.648	10.65		0.2	1	
50) Heptane	(2)	9.063(-0.000)	43	341049	10.205	10.20		0.5	1	
52) Trichloroethene	(2)	9.665(-0.000)	130	801807	9.086	9.09		0.2	1	
53) Ethyl Acrylate	(2)	10.030(-0.001)	55	370942	10.252	10.25		0.2	1	
54) 1,2-Dichloropropane	(2)	10.072(-0.000)	63	331810	9.282	9.28		0.2	1	
55) Dibromomethane	(2)	10.285(-0.000)	174	771699	8.780	8.78		0.2	1	
56) 1,4-Dioxane	(2)	10.456(-0.001)	88	271427	10.313	10.31		0.5	1	
57) Methyl Methacrylate	(2)	10.486(-0.001)	69	257139	9.405	9.40		0.2	1	
58) Bromodichloromethane	(2)	10.669(-0.000)	83	1236941	9.407	9.41		0.2	1	
59) cis-1,3-Dichloropropene	(2)	11.642(-0.000)	75	559189	7.996	8.00		0.2	1	
60) 4-Methyl-2-Pentanone	(2)	12.074(-0.001)	43	336391	10.024	10.02		0.5	2	
61) Toluene	(3)	12.348(-0.000)	91	1488120	10.066	10.07		0.2	1	
62) Octane	(3)	12.816(-0.000)	43	414566	10.641	10.64		0.5	1	
63) trans-1,3-Dichloropropene	(3)	12.895(-0.000)	75	687598	8.844	8.84		0.2	1	
64) 1,3-Dichloropropene (total)	(3)		75	1246787	16.840	16.84		0.2	1	
65) Ethyl Methacrylate	(3)	13.260( 0.000)	69	449684	10.848	10.85		0.2	1	
66) 1,1,2-Trichloroethane	(3)	13.272(-0.000)	97	620173	9.838	9.84		0.2	1	
67) Tetrachloroethene	(3)	13.577(-0.000)	166	1109020	8.811	8.81		0.2	1	
68) 2-Hexanone	(3)	13.990(-0.000)	43	376477	11.007	11.01		0.5	2	
69) Dibromochloromethane	(3)	14.130( 0.000)	127	1141134	9.392	9.39		0.2	1	
70) 1,2-Dibromoethane	(3)	14.337( 0.000)	107	964863	8.946	8.95		0.2	1	
72) Chlorobenzene	(3)	15.590( 0.000)	112	1446337	9.838	9.84		0.2	1	
73) 1,1,1,2-Tetrachloroethane	(3)	15.834( 0.000)	131	870340	9.499	9.50		0.2	1	
74) Ethylbenzene	(3)	15.955(-0.000)	91	1619866	9.917	9.92		0.2	1	
75) m/p-Xylene	(3)	16.260( 0.000)	91	1230306	9.108	9.11		0.2	1	
76) o-Xylene	(3)	17.233( 0.000)	91	1399242	9.842	9.84		0.2	1	
77) Xylene (total)	(3)		91	2629548	18.950	18.95		0.2	1	
78) Styrene	(3)	17.275( 0.000)	104	1236055	9.698	9.70		0.2	1	
79) Bromoform	(3)	17.628( 0.000)	173	1435801	9.148	9.15		0.2	1	
80) Cumene	(3)	18.249(-0.000)	105	1813922	9.934	9.93		0.2	1	
81) Bromobenzene	(3)	18.869( 0.000)	156	962106	9.381	9.38		0.2	1	
82) 1,1,2,2-Tetrachloroethane	(3)	19.046(-0.000)	83	1159487	9.657	9.66		0.2	1	
83) 1,2,3-Trichloropropane	(3)	19.070( 0.000)	110	420374	9.150	9.15		0.2	1	
84) n-Propylbenzene	(3)	19.338( 0.000)	120	564619	9.302	9.30		0.5	1	
85) 2-Chlorotoluene	(3)	19.447( 0.000)	126	648435	9.619	9.62		0.2	1	
86) 4-Ethyltoluene	(3)	19.666( 0.000)	105	1990720	9.777	9.78		0.2	1	
87) 1,3,5-Trimethylbenzene	(3)	19.861(-0.000)	105	1713322	9.773	9.77		0.2	1	
88) Alpha Methyl Styrene	(3)	20.451(-0.000)	118	868998	8.734	8.73		0.2	1	
89) tert-Butylbenzene	(3)	20.694( 0.000)	119	1513353	8.736	8.74		0.2	1	
90) 1,2,4-Trimethylbenzene	(3)	20.834( 0.000)	105	1737602	9.545	9.55		0.2	1	
91) sec-Butylbenzene	(3)	21.333( 0.000)	105	2139426	8.894	8.89		0.2	1	
92) 1,3-Dichlorobenzene	(3)	21.504(-0.000)	146	1675385	9.281	9.28		0.2	1	
93) 1,4-Dichlorobenzene	(3)	21.802( 0.000)	146	1669975	8.806	8.81		0.2	1	
94) p-Isopropyltoluene	(3)	21.850( 0.000)	119	2047571	9.341	9.34		0.2	1	
95) Benzyl Chloride	(3)	22.294(-0.000)	91	1333978	7.429	7.43		0.5	1	
96) 1,2-Dichlorobenzene	(3)	22.958(-0.000)	146	1529706	8.949	8.95		0.2	1	
97) n-Butylbenzene	(3)	23.170(-0.000)	91	1553014	8.697	8.70		0.2	1	
98) Hexachloroethane	(3)	23.627(-0.000)	117	839087	9.268	9.27		0.5	2	
99) 1,2-Dibromo-3-chloropropane	(3)	24.710( 0.000)	157	652238	7.021	7.02		0.2	1	
100) 1,2,4-Trichlorobenzene	(3)	25.999( 0.000)	180	652577	6.909	6.91		0.5	2	

Data file: /chem/HP09464.i/15oct15.b/cj00341.d Injection date and time: 16-OCT-2015 13:54  
 Data file Sample Info. Line: LCSDC06;250;C1528830AA;LCSDC06;0;3;LCSD; Instrument ID: HP09464.i Batch: C1528830AA  
 Date, time and analyst ID of latest file update: 21-Oct-2015 16:35 jeb07445

Blank Data file reference: /chem/HP09464.i/15oct15.b/cj00339.d

Method used: /chem/HP09464.i/15oct15.b/to-15.m Sublist used: all  
 Calibration date and time (Last Method Edit): 21-OCT-2015 16:32  
 Mid Level Daily Calibration Standard Reference: /chem/HP09464.i/15oct15.b/cj00327.d

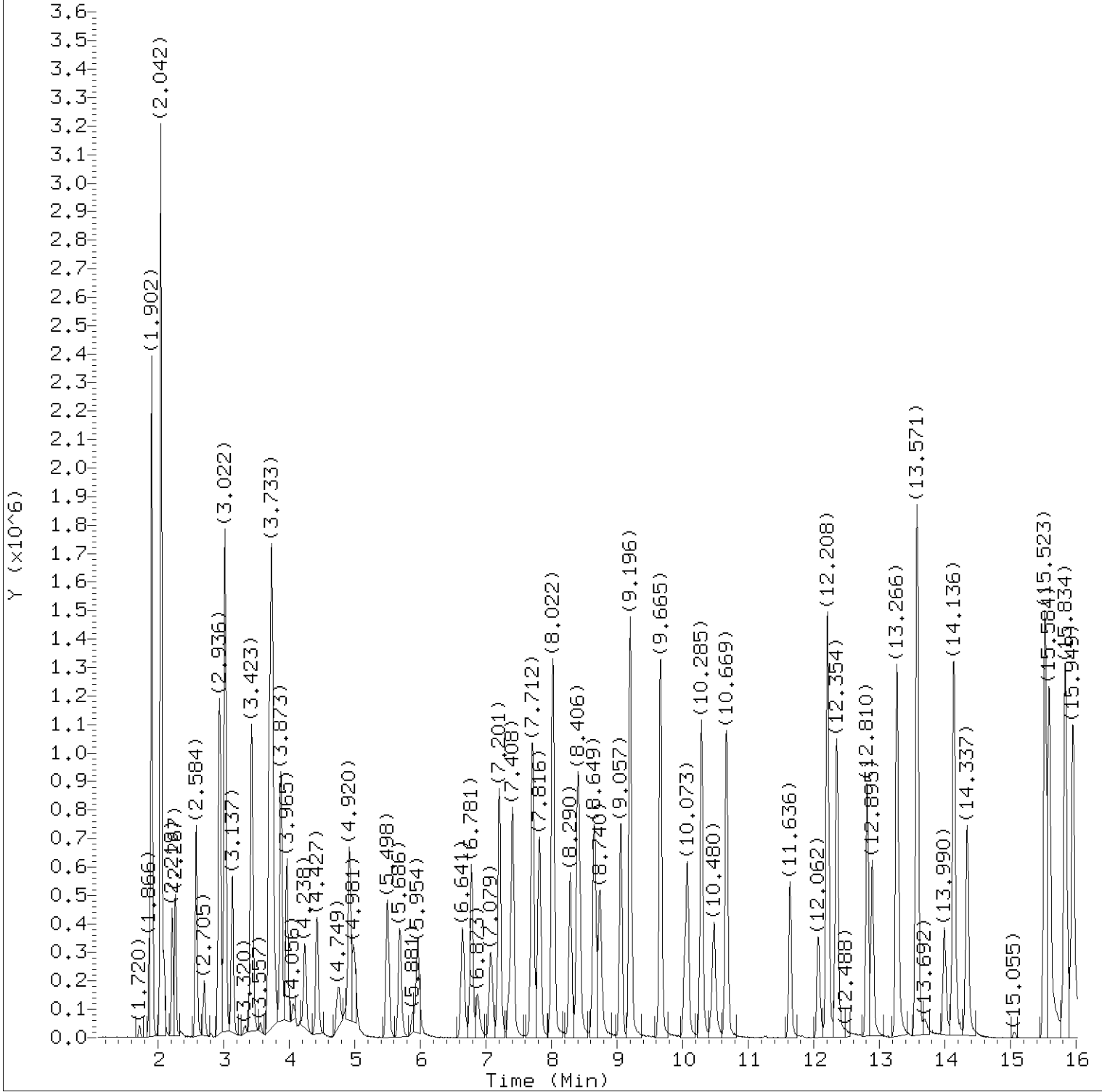
Sampling Media: Summa Canister Matrix: AIR On-Column Amount units: ppb(v) In Sample Concentration units: ppb(v)

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)	26.279( 0.000)	225	750191	7.261	7.26			0.4	2
102) Naphthalene	(3)	26.291( 0.000)	128	1371995	7.021	7.02			0.4	1

Total number of targets = 99

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Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct15.b/cj00341.d  
Injection date and time: 16-OCT-2015 13:54

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
Calibration date and time: 21-OCT-2015 16:32

Sublist used: all

Date, time and analyst ID of latest file update: 21-Oct-2015 16:35 jeb07445

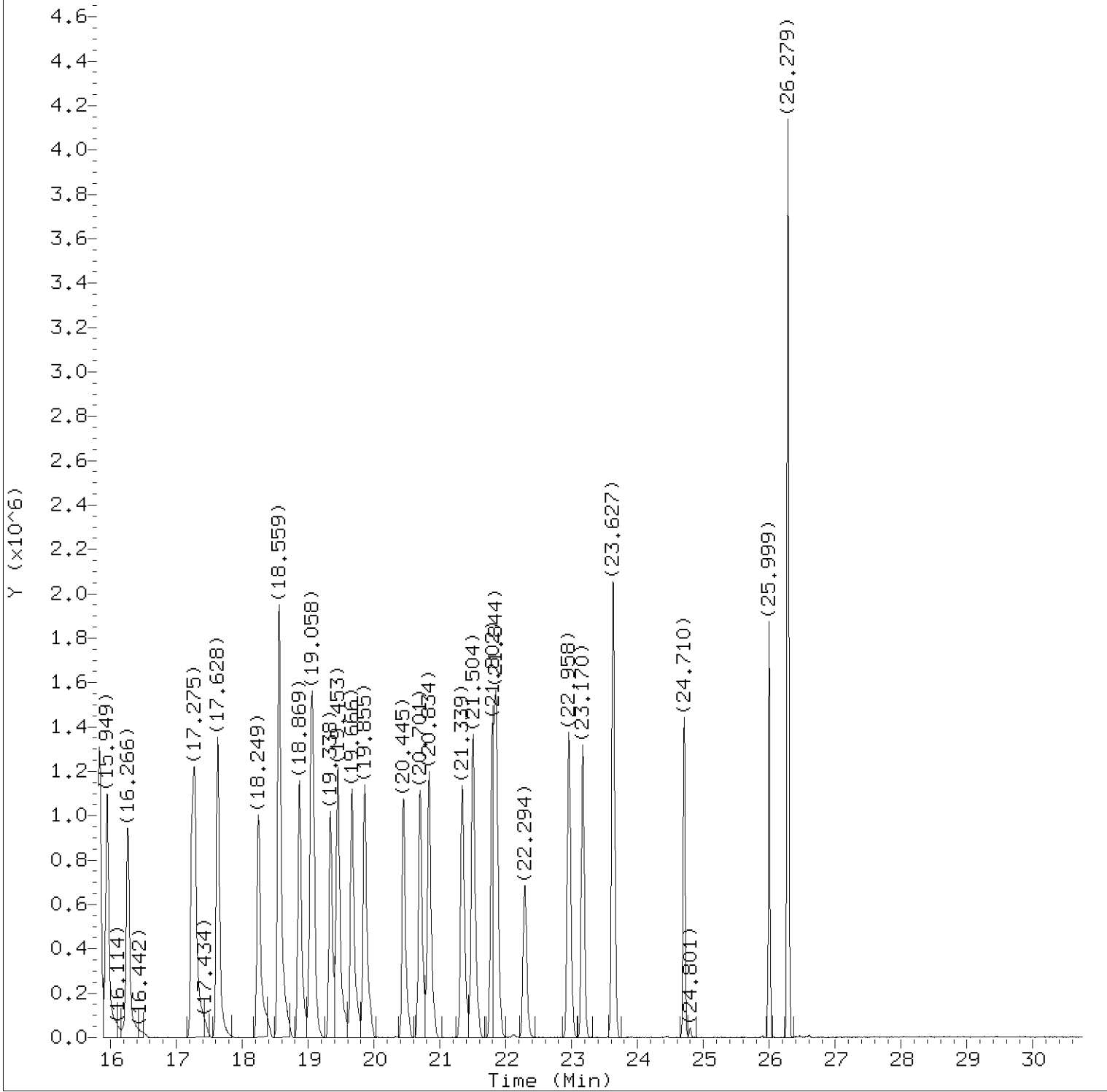
Sample Name: LCSDC06

Lab Sample ID: LCSDC06

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on 10/21/2015 at 16:37.

Target 3.5 esignature user ID: jeb07445





Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15oct15.b/cj00341.d  
Injection date and time: 16-OCT-2015 13:54

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
Calibration date and time: 21-OCT-2015 16:32

Sublist used: all

Date, time and analyst ID of latest file update: 21-Oct-2015 16:35 jeb07445

Sample Name: LCSDC06

Lab Sample ID: LCSDC06

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Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct15.b/cj00341.d  
 Injection date and time: 16-OCT-2015 13:54

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
 Calibration date and time: 21-OCT-2015 16:32  
 Date, time and analyst ID of latest file update: 21-Oct-2015 16:35 jeb07445

Sublist used: all

Sample Name: LCSDC06

Lab Sample ID: LCSDC06

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.866	41	167188	10.455
2) Dichlorodifluoromethane	(1)	1.902	85	1927981	9.736
3) Chlorodifluoromethane	(1)	1.914	51	617973	9.764
4) Freon 114	(1)	2.042	85	1548052	8.687
5) Chloromethane	(1)	2.091	52	104596	11.127
6) Vinyl Chloride	(1)	2.219	62	422194	10.064
7) 1,3-Butadiene	(1)	2.267	54	259337	10.043
8) Bromomethane	(1)	2.584	94	586841	9.606
9) Chloroethane	(1)	2.705	64	219715	9.267
10) Bromoethene	(1)	2.930	106	600236	10.341
11) Dichlorofluoromethane	(1)	2.949	67	1061791	9.598
12) Trichlorofluoromethane	(1)	3.022	101	2095363	9.815
13) Pentane	(1)	3.137	43	374419	10.318
14) Ethanol	(1)	3.308	45	36500	4.268
15) Freon123a	(1)	3.423	67	725398	9.308
16) Acrolein	(1)	3.557	56	40211	5.031
17) 1,1-Dichloroethene	(1)	3.691	61	676343	9.720
18) Freon 113	(1)	3.733	103	742118	8.767
19) Acetone	(1)	3.794	43	239495	8.654
20) Methyl Iodide	(1)	3.873	142	1506370	8.252
21) Carbon Disulfide	(1)	3.965	76	1271251	8.889
22) Isopropanol	(1)	4.068	45	263378	8.050
23) Acetonitrile	(1)	4.184	40	38262	6.075
24) 3-Chloropropene	(1)	4.232	76	182749	9.266
25) Methylene Chloride	(1)	4.421	84	403196	9.342
26) tert-Butyl Alcohol	(1)	4.762	59	490772	9.976
27) Acrylonitrile	(1)	4.853	53	115753	7.784
28) trans-1,2-Dichloroethene	(1)	4.914	61	548846	9.312
29) Methyl t-Butyl Ether	(1)	5.005	73	698570	9.169
30) Hexane	(1)	5.504	57	407728	9.448
31) 1,1-Dichloroethane	(1)	5.680	63	629468	8.653
32) Vinyl Acetate	(1)	5.881	86	48668	6.427
33) Di-Isopropyl Ether	(1)	5.966	45	421582	9.709
36) 1,2-Dichloroethene (total)	(1)		61	1057287	18.687
34) Ethyl Tert-Butyl Ether	(1)	6.641	59	582102	9.613
35) cis-1,2-Dichloroethene	(1)	6.781	61	508441	9.374
37) 2-Butanone	(1)	6.873	72	128690	9.573
38) Ethyl Acetate	(1)	7.067	70	77351	12.659

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 on 10/21/2015 at 16:37.  
 Target 3.5 esignature user ID: jeb07445  
 SSX26 Page 284 of 507

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct15.b/cj00341.d  
 Injection date and time: 16-OCT-2015 13:54

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
 Calibration date and time: 21-OCT-2015 16:32  
 Date, time and analyst ID of latest file update: 21-Oct-2015 16:35 jeb07445

Sublist used: all

Sample Name: LCSDC06

Lab Sample ID: LCSDC06

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Methyl Acrylate	(1)	7.079	55	300475	8.821
40)*Bromochloromethane	(1)	7.207	130	672950	10.000
41) Tetrahydrofuran	(1)	7.359	42	132659	9.078
42) Chloroform	(1)	7.408	83	1107742	8.685
43) 1,1,1-Trichloroethane	(1)	7.712	97	1317465	9.091
44) Cyclohexane	(1)	7.809	56	473443	10.020
45) Carbon Tetrachloride	(1)	8.022	117	1578522	9.635
46) Benzene	(2)	8.393	78	1213186	9.411
47) 1,2-Dichloroethane	(2)	8.430	62	692928	9.269
48) Isooctane	(2)	8.649	57	1222931	10.083
49) Tert-Amyl Methyl Ether	(2)	8.740	73	750384	10.648
50) Heptane	(2)	9.063	43	341049	10.205
51)*1,4-Difluorobenzene	(2)	9.196	114	2106045	10.000
52) Trichloroethene	(2)	9.665	130	801807	9.086
53) Ethyl Acrylate	(2)	10.030	55	370942	10.252
54) 1,2-Dichloropropane	(2)	10.073	63	331810	9.282
55) Dibromomethane	(2)	10.285	174	771699	8.780
56) 1,4-Dioxane	(2)	10.456	88	271427	10.313
57) Methyl Methacrylate	(2)	10.486	69	257139	9.405
58) Bromodichloromethane	(2)	10.669	83	1236941	9.407
59) cis-1,3-Dichloropropene	(2)	11.642	75	559189	7.996
60) 4-Methyl-2-Pentanone	(2)	12.074	43	336391	10.024
61) Toluene	(3)	12.348	91	1488120	10.066
64) 1,3-Dichloropropene (total)	(3)		75	1246787	16.840
62) Octane	(3)	12.816	43	414566	10.641
63) trans-1,3-Dichloropropene	(3)	12.895	75	687598	8.844
65) Ethyl Methacrylate	(3)	13.260	69	449684	10.848
66) 1,1,2-Trichloroethane	(3)	13.272	97	620173	9.838
67) Tetrachloroethene	(3)	13.577	166	1109020	8.811
68) 2-Hexanone	(3)	13.990	43	376477	11.007
69) Dibromochloromethane	(3)	14.130	127	1141134	9.392
70) 1,2-Dibromoethane	(3)	14.337	107	964863	8.946
71)*Chlorobenzene-d5	(3)	15.523	117	1893441	10.000
72) Chlorobenzene	(3)	15.590	112	1446337	9.838
73) 1,1,1,2-Tetrachloroethane	(3)	15.834	131	870340	9.499
74) Ethylbenzene	(3)	15.955	91	1619866	9.917
75) m/p-Xylene	(3)	16.260	91	1230306	9.108
77) Xylene (total)	(3)		91	2629548	18.950

\* = Compound is an internal standard.

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 on 10/21/2015 at 16:37.

Target 3.5 esignature user ID: jeb07445

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15oct15.b/cj00341.d  
 Injection date and time: 16-OCT-2015 13:54

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct15.b/to-15.m  
 Calibration date and time: 21-OCT-2015 16:32  
 Date, time and analyst ID of latest file update: 21-Oct-2015 16:35 jeb07445

Sublist used: all

Sample Name: LCSDC06

Lab Sample ID: LCSDC06

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
76) o-Xylene	(3)	17.233	91	1399242	9.842
78) Styrene	(3)	17.275	104	1236055	9.698
79) Bromoform	(3)	17.628	173	1435801	9.148
80) Cumene	(3)	18.249	105	1813922	9.934
81) Bromobenzene	(3)	18.869	156	962106	9.381
82) 1,1,2,2-Tetrachloroethane	(3)	19.046	83	1159487	9.657
83) 1,2,3-Trichloropropane	(3)	19.070	110	420374	9.150
84) n-Propylbenzene	(3)	19.338	120	564619	9.302
85) 2-Chlorotoluene	(3)	19.447	126	648435	9.619
86) 4-Ethyltoluene	(3)	19.666	105	1990720	9.777
87) 1,3,5-Trimethylbenzene	(3)	19.861	105	1713322	9.773
88) Alpha Methyl Styrene	(3)	20.451	118	868998	8.734
89) tert-Butylbenzene	(3)	20.694	119	1513353	8.736
90) 1,2,4-Trimethylbenzene	(3)	20.834	105	1737602	9.545
91) sec-Butylbenzene	(3)	21.333	105	2139426	8.894
92) 1,3-Dichlorobenzene	(3)	21.504	146	1675385	9.281
93) 1,4-Dichlorobenzene	(3)	21.802	146	1669975	8.806
94) p-Isopropyltoluene	(3)	21.850	119	2047571	9.341
95) Benzyl Chloride	(3)	22.294	91	1333978	7.429
96) 1,2-Dichlorobenzene	(3)	22.958	146	1529706	8.949
97) n-Butylbenzene	(3)	23.170	91	1553014	8.697
98) Hexachloroethane	(3)	23.627	117	839087	9.268
99) 1,2-Dibromo-3-chloropropane	(3)	24.710	157	652238	7.021
100) 1,2,4-Trichlorobenzene	(3)	25.999	180	652577	6.909
101) Hexachlorobutadiene	(3)	26.279	225	750191	7.261
102) Naphthalene	(3)	26.291	128	1371995	7.021

Digitally signed by Jacob E. Bailey  
 on 10/21/2015 at 16:37.

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\15oct15\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
jeb07445	CJ00305.D	VBLKC05	10/15/2015	13:06	C1528630AB	
jeb07445	CJ00306.D	VBLKC05	10/15/2015	13:50	C1528630AB	
jeb07445	CJ00307.D	VBLKC05	10/15/2015	14:33	C1528630AB	
jeb07445	CJ00310.D	50NGBFB	10/15/2015	15:35		
jeb07445	CJ00311.D	VSTD010	10/15/2015	16:03		
jeb07445	CJ00312.D	VSTD010	10/15/2015	16:55		
jeb07445	CJ00313.D	VSTD010	10/15/2015	17:46		
jeb07445	CJ00314.D	VSTD010	10/15/2015	18:39		
jeb07445	CJ00315.D	VBLKC06	10/15/2015	19:30	C1528830AA	
jeb07445	CJ00316.D	VBLKC06	10/15/2015	20:13	C1528830AA	
jeb07445	CJ00320.D	50NGBFB	10/15/2015	21:05		
jeb07445	CJ00321.D	VSTD0.50	10/15/2015	22:12		
jeb07445	CJ00322.D	VSTD0.50	10/15/2015	22:56		
jeb07445	CJ00323.D	VSTD001	10/15/2015	23:42		
jeb07445	CJ00324.D	VSTD001	10/16/2015	00:26		
jeb07445	CJ00325.D	VSTD002	10/16/2015	01:09		
jeb07445	CJ00326.D	VSTD005	10/16/2015	01:51		
jeb07445	CJ00327.D	VSTD010	10/16/2015	02:34		
jeb07445	CJ00328.D	VSTD025	10/16/2015	03:17		
jeb07445	CJ00329.D	VSTD070	10/16/2015	04:03		
jeb07445	CJ00330.D	VBLKC06	10/16/2015	04:49	C1528830AA	
jeb07445	CJ00331.D	VBLKC06	10/16/2015	05:35	C1528830AA	
jeb07445	CJ00332.D	LCSC06	10/16/2015	06:21	C1528830AA	
jeb07445	CJ00333.D	LCSC06	10/16/2015	07:06	C1528830AA	
jeb07445	CJ00334.D	LCSC06	10/16/2015	07:51	C1528830AA	
jeb07445	CJ00335.D	mdlv0.5	10/16/2015	08:37	C1528830AA	
jeb07445	CJ00336.D	mdlv0.2	10/16/2015	09:19	C1528830AA	
jeb07445	CJ00337.D	VSTD001	10/16/2015	10:21		
jeb07445	CJ00338.D	VBLKC06	10/16/2015	11:35	C1528830AA	
jeb07445	CJ00339.D	VBLKC06	10/16/2015	12:23	C1528830AA	
jeb07445	CJ00340.D	LCSC06	10/16/2015	13:09	C1528830AA	
jeb07445	CJ00341.D	LCSC06	10/16/2015	13:54	C1528830AA	

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

Data Directory Path is - C:\msdchem\1\data\15oct16\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
jeb07445	CJ00350.D	50NGBFB	10/16/2015	14:59		
jeb07445	CJ00351.D	VSTD010	10/16/2015	15:29		
jeb07445	CJ00352.D	VBLKC07	10/16/2015	16:20	C1528830AB	
jeb07445	CJ00353.D	VBLKC07	10/16/2015	17:03	C1528830AB	
jeb07445	CJ00354.D	8080655	10/16/2015	17:53	C1528830AB	
jeb07445	CJ00355.D	8080656	10/16/2015	18:37	C1528830AB	
jeb07445	CJ00356.D	8082701	10/16/2015	19:20	C1528830AB	
jeb07445	CJ00357.D	8082701	10/16/2015	20:13	C1528830AB	
jeb07445	CJ00358.D	8084057	10/16/2015	21:36	C1528830AB	
jeb07445	CJ00359.D	8084058	10/16/2015	22:24	C1528830AB	
jeb07445	CJ00360.D	8086674	10/16/2015	23:12	C1528830AB	
jeb07445	CJ00361.D	8086675	10/16/2015	23:59	C1528830AB	
jeb07445	CJ00362.D	8087194	10/17/2015	00:46	C1528830AB	100
jeb07445	CJ00363.D	8087710	10/17/2015	01:33	C1528830AB	
jeb07445	CJ00364.D	8087711	10/17/2015	02:21	C1528830AB	
jeb07445	CJ00365.D	8087712	10/17/2015	03:08	C1528830AB	
jeb07445	CJ00366.D	8087713	10/17/2015	03:56	C1528830AB	
jeb07445	CJ00367.D	8087714	10/17/2015	04:43	C1528830AB	
jeb07445	CJ00368.D	8087715	10/17/2015	05:30	C1528830AB	
jeb07445	CJ00369.D	8087716	10/17/2015	06:17	C1528830AB	
jeb07445	CJ00370.D	8089423	10/17/2015	07:01	C1528830AB	
jeb07445	CJ00371.D	8085446	10/17/2015	07:44	C1528830AB	100
jeb07445	CJ00372.D	8085447	10/17/2015	08:31	C1528830AB	
jeb07445	CJ00373.D	8085448	10/17/2015	09:18	C1528830AB	10000
jeb07445	CJ00374.D	8084057	10/17/2015	10:02	C1528830AB	

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

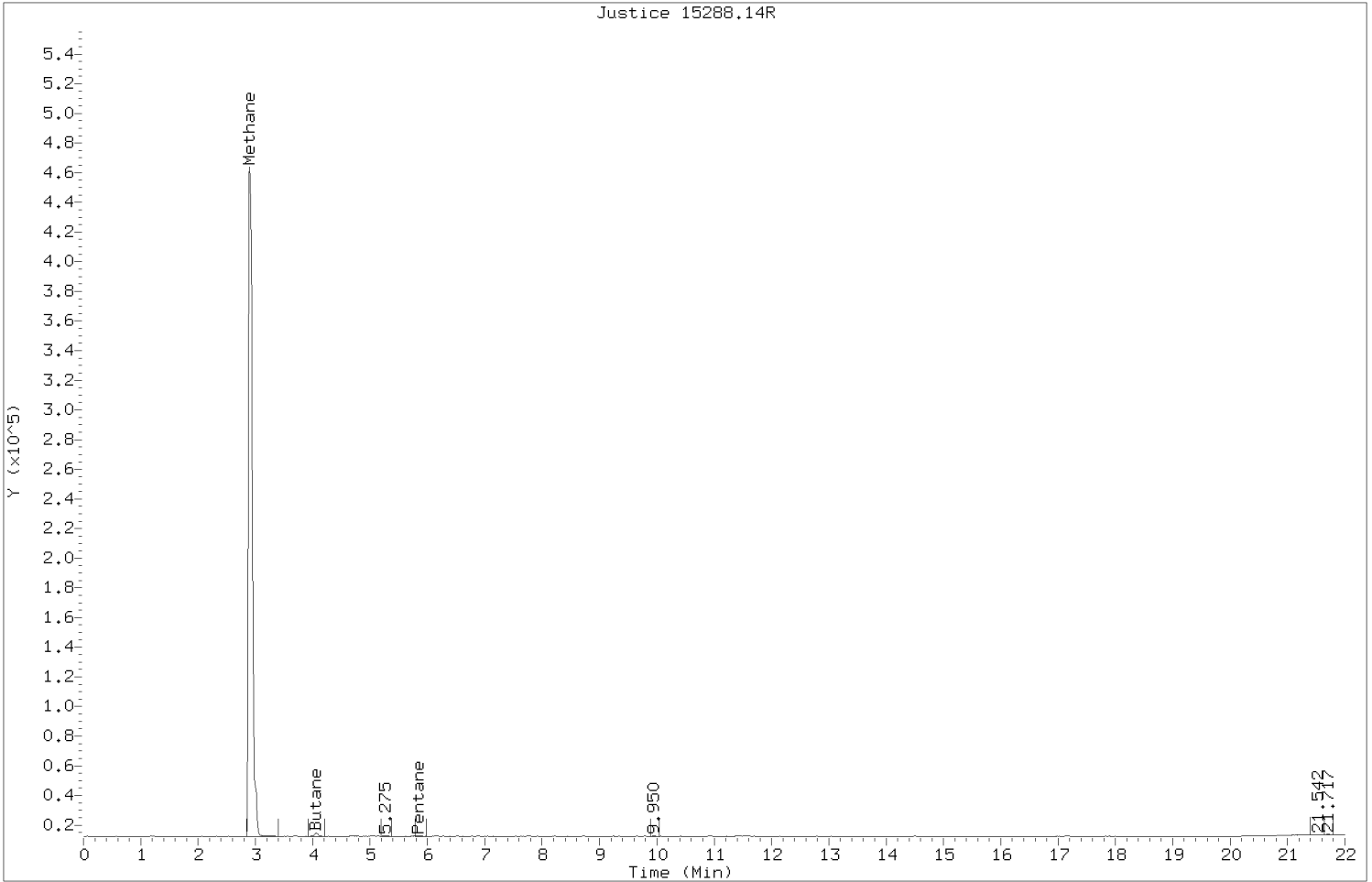
Data Directory Path is - C:\msdchem\1\data\15oct19\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
jbs01304	CJ00375.D	VBLKC14	10/19/2015	09:08	C1528830AB	
jbs01304	CJ00376.D	VBLKC14	10/19/2015	09:51	C1528830AB	
jbs01304	CJ00380.D	50NGBFB	10/19/2015	11:17		
jbs01304	CJ00381.D	VSTD010	10/19/2015	11:47		
jbs01304	CJ00382.D	VBLKC15	10/19/2015	12:30	C1528830AC	
jbs01304	CJ00383.D	VBLKC15	10/19/2015	13:43	C1528830AC	
jbs01304	CJ00384.D	VBLKC15	10/19/2015	14:27	C1528830AC	
jbs01304	CJ00385.D	VSTD010	10/19/2015	15:16		
jbs01304	CJ00386.D	VBLKC15	10/19/2015	15:59	C1528830AC	
jeb07445	CJ00387.D	8084058	10/19/2015	17:21	C1528830AC	
jeb07445	CJ00388.D	8086675	10/19/2015	18:07	C1528830AC	
jeb07445	CJ00389.D	8087194	10/19/2015	18:53	C1528830AC	100
jeb07445	CJ00390.D	8087712	10/19/2015	19:35	C1528830AC	
jeb07445	CJ00391.D	8087713DL	10/19/2015	20:18	C1528830AC	
jeb07445	CJ00392.D	8087714DL	10/19/2015	21:00	C1528830AC	
jeb07445	CJ00393.D	8089423DL	10/19/2015	21:47	C1528830AC	100
jeb07445	CJ00394.D	8079039DL	10/19/2015	22:33	C1528830AC	200
jeb07445	CJ00395.D	8079040DL	10/19/2015	23:20	C1528830AC	200
jeb07445	CJ00396.D	8079041DL	10/20/2015	00:07	C1528830AC	200
jeb07445	CJ00397.D	8081439DL	10/20/2015	00:50	C1528830AC	
jeb07445	CJ00398.D	8081440DL	10/20/2015	01:33	C1528830AC	
jeb07445	CJ00399.D	8081442DL	10/20/2015	02:16	C1528830AC	
jeb07445	CJ00400.D	8087194DL	10/20/2015	03:00	C1528830AC	100
jeb07445	CJ00401.D	cc1042	10/20/2015	03:44	C1528830ACcc1042	
jeb07445	CJ00402.D	cc880	10/20/2015	04:29	C1528830ACcc880	
jeb07445	CJ00403.D	mdlv0.5	10/20/2015	10:13		
jeb07445	CJ00404.D	FC1	10/20/2015	10:56		

# **Screening Data**

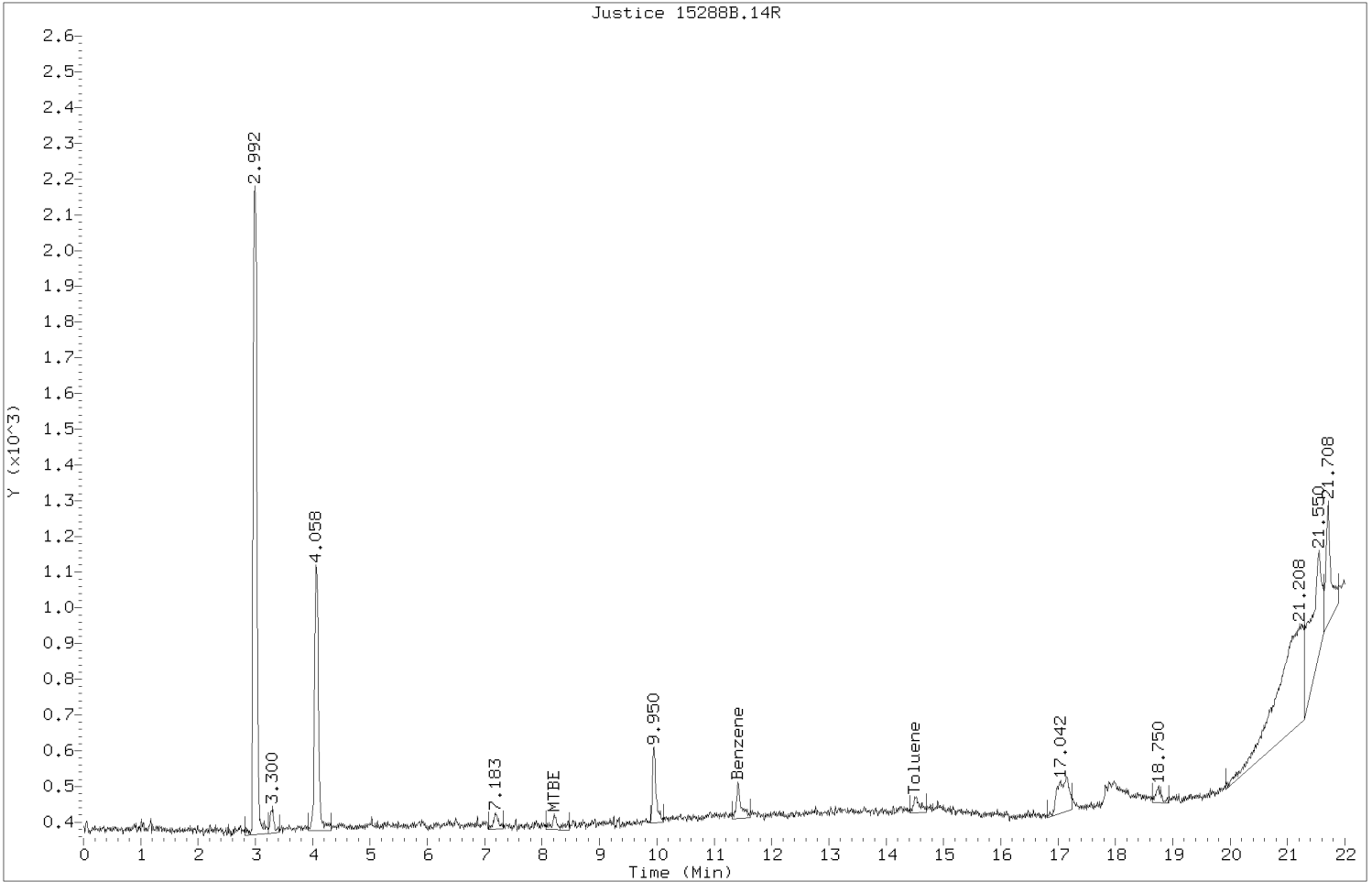
## **Volatile Organics in Air by GC/MS**





Lancaster Laboratories  
 Analysis Data Sheet  
 ADS07818 Analysis:  
 Sample No:  
 Lab Sample: 8089423 BC095A +PRE  
 Date Analyzed: 15-OCT-2015 19:56  
 Nominal Vol: 100 uL  
 Instr. ID: A58309--FID  
 Lab File ID: /chem/A58309.i/15oct15.b/15288-14R.d  
 Calibration File: /chem/A58309.i/15oct15.b/gc\_fid.m  
 Calibration Version: 15-OCT-2015 11:30

Ret Time (min)	Peak Area	Peak Name	Amount ppm
2.900	2153729	Methane	1289.8163
4.058	9548	Butane	1.6112
5.275	1234		
5.850	992	Pentane	0.1390
9.950	924		
21.542	1732		
21.717	1602		
Total Area: 2169761.2500			



Lancaster Laboratories  
 Analysis Data Sheet  
 ADS07818 Analysis:  
 Sample No:  
 Lab Sample: 8089423 BC095A +PRE  
 Date Analyzed: 15-OCT-2015 19:56  
 Nominal Vol: 100 uL  
 Instr. ID: A58309--PID  
 Lab File ID: /chem/A58309.i/15oct15.b/15288B-14R.d  
 Calibration File: /chem/A58309.i/15oct15.b/gc\_pid.m  
 Calibration Version: 15-OCT-2015 11:30

Ret Time (min)	Peak Area	Peak Name	Amount ppm
2.992	8434		
3.300	334		
4.058	3676		
7.183	287		
8.208	375	MTBE	0.1502
9.950	919		
11.417	595	Benzene	0.1473
14.500	372	Toluene	0.1318
17.042	1366		
18.750	304		
21.208	9083		
21.550	4339		
21.708	2089		
Total Area: 32173.2500			

# **Canister Dilution Calc/Pressure Gauge Readings**

## **Volatile Organics in Air by GC/MS**

## Summa Sample Prep Worksheet

---

<u>Sample</u>	<u>Can_ID</u>	<u>Initial Pressure</u>	<u>Units</u>	<u>Final Pressure (PSIG)</u>	<u>Dilution Factor</u>	<u>SDG</u>
8089423	994	-3.0	"Hg	11.8	2	SSX26

**Clean Canister Certification Data**  
**Volatile Organics in Air by GC/MS**

Cleaning Data Summary  
SDG# SSX26

Sample #	Can ID	Certified File	Instrument #
8089423	994	cj00051	HP09464

runlog

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

Data Directory Path is - C:\msdchem\1\data\15sep22\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
jeb07445	CI00449.D	VBKLC74	09/22/2015	10:57	C1525930AC	
jeb07445	CI00450.D	VBKLC74	09/22/2015	11:40	C1525930AC	
jeb07445	CI00451.D	VBKLC74	09/22/2015	12:24	C1525930AC	
jeb07445	CI00452.D	VBKLC74	09/22/2015	13:07	C1525930AC	
jeb07445	CI00460.D	50NGBFB	09/22/2015	14:07		
jeb07445	CI00461.D	50NGBFB	09/22/2015	14:43		
jeb07445	CI00462.D	VSTD001	09/22/2015	15:13		
jeb07445	CI00463.D	VSTD001	09/22/2015	15:55		
jeb07445	CI00464.D	VSTD002	09/22/2015	16:39		
jeb07445	CI00465.D	VSTD005	09/22/2015	17:21		
jeb07445	CI00466.D	VSTD010	09/22/2015	18:04		
jeb07445	CI00467.D	VSTD025	09/22/2015	18:47		
jeb07445	CI00468.D	VSTD010	09/22/2015	19:30		
jeb07445	CI00469.D	VSTD070	09/22/2015	20:15		
jeb07445	CI00470.D	VBKLC75	09/22/2015	21:07	C1526530AA	
jeb07445	CI00471.D	VBKLC75	09/22/2015	21:51	C1526530AA	
jeb07445	CI00472.D	LCSC75	09/22/2015	22:35	C1526530AA	
jeb07445	CI00473.D	LCSDC75	09/22/2015	23:20	C1526530AA	
jeb07445	CI00474.D	LCSC75	09/23/2015	00:06	C1526530AA	
jeb07445	CI00475.D	LCSC75	09/23/2015	00:51	C1526530AA	
jeb07445	CI00476.D	md1v0.5	09/23/2015	01:36	C1526530AA	
jeb07445	CI00477.D	md1v0.2	09/23/2015	02:19	C1526530AA	
jeb07445	CI00478.D	cc68	09/23/2015	03:03	C1526530AA	
jeb07445	CI00479.D	cc518	09/23/2015	03:48	C1526530AA	
jeb07445	CI00480.D	cc856	09/23/2015	04:32	C1526530AA	
jeb07445	CI00481.D	cc1028	09/23/2015	05:16	C1526530AA	
jeb07445	CI00482.D	cc1039	09/23/2015	06:02	C1526530AA	
jeb07445	CI00483.D	cc1160	09/23/2015	06:47	C1526530AA	
jeb07445	CI00484.D	cc1176	09/23/2015	07:33	C1526530AA	
jeb07445	CI00485.D	cc1243	09/23/2015	08:19	C1526530AA	
jeb07445	CI00486.D	cc328	09/23/2015	09:04	C1526530AA	
jeb07445	CI00487.D	cc517	09/23/2015	09:48	C1526530AA	
jeb07445	CI00488.D	cc524	09/23/2015	10:35	C1526530AA	



Lancaster Laboratories  
Environmental

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

SDG No.:

Lab File ID: ci00461.d

BFB Injection Date: 09/22/2015

Instrument ID: 09464

BFB Injection Time: 14:43

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0% - 40.0% of mass 95	26.3
75	30.0% - 66.0% of mass 95	59.9
95	Base peak, 100% relative abundance	100.0
96	5.0% - 9.0% of mass 95	6.8
173	< 2.0% of mass 174	0.0 (0.0)
174	> 50.0% of mass 95	51.7
175	4.0% - 9.0% of mass 174	4.1 (7.9)
176	93.0% - 101.0% of mass 174	49.3 (95.4)
177	5.0% - 9.0% of mass 176	3.4 (6.9)

THIS CHECK APPLIES TO THE FOLLOWING:

LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD001	ci00462.d	09/22/2015	15:13
VSTD002	ci00464.d	09/22/2015	16:39
VSTD005	ci00465.d	09/22/2015	17:21
VSTD025	ci00467.d	09/22/2015	18:47
VSTD010	ci00468.d	09/22/2015	19:30
VSTD070	ci00469.d	09/22/2015	20:15
VBLKC75	ci00471.d	09/22/2015	21:51
LCSC75	ci00472.d	09/22/2015	22:35
LCSDC75	ci00473.d	09/22/2015	23:20
mdlv0.5	ci00476.d	09/23/2015	01:36
mdlv0.2	ci00477.d	09/23/2015	02:19



SDG No.:

Instrument ID: 09464 Calibration Start Date: 09/22/2015 Calibration End Date: 09/22/2015  
 Calibration Start Time: 15:13 Calibration End Time: 20:15

LAB FILE IDs:

RRF 1 = ci00462.d RRF 2 = ci00464.d RRF 5 = ci00465.d RRF 10 = ci00468.d RRF 25 = ci00467.d  
 RRF 70 = ci00469.d

COMPOUND	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF 70	RRF	% RSD	CAL. METHOD
Propene	2.216	1.435	1.605	1.656	1.899	1.295	1.684	20	AVG
Dichlorodifluoromethane	5.854	4.036	4.141	3.595	3.834	****	4.292	21	AVG
Chlorodifluoromethane	5.161	3.493	3.377	3.004	3.217	****	3.651	24	AVG
Freon 114	5.292	3.463	3.631	3.240	3.625	****	3.850	21	AVG
Chloromethane	1.033	0.740	0.723	0.670	0.785	0.694	0.774	17	AVG
Vinyl Chloride	2.554	1.815	1.886	1.812	2.124	1.511	1.951	18	AVG
1,3-Butadiene	2.003	1.368	1.546	1.508	1.788	****	1.643	15	AVG
Bromomethane	2.084	1.440	1.400	1.269	1.520	****	1.543	20	AVG
Chloroethane	1.675	1.135	1.105	1.048	1.222	****	1.237	20	AVG
Bromoethene	1.634	1.103	1.156	1.148	1.441	1.301	1.297	16	AVG
Dichlorofluoromethane	6.725	4.684	4.346	3.938	4.202	****	4.779	23	AVG
Trichlorofluoromethane	6.395	4.144	4.214	3.627	3.979	****	4.472	25	AVG
Pentane	5.912	3.995	4.122	3.927	4.093	2.348	4.066	28	AVG
Ethanol	1.261	1.049	0.975	1.094	0.897	0.859	1.023	14	AVG
Freon123a	5.202	4.294	3.578	3.285	3.227	****	3.917	21	AVG
Acrolein	0.561	0.487	0.476	0.627	0.513	****	0.533	12	AVG
1,1-Dichloroethene	4.756	3.302	3.357	3.130	3.536	2.378	3.410	23	AVG
Freon 113	2.804	2.085	1.920	1.763	2.117	****	2.138	19	AVG
Acetone	3.021	2.139	1.963	2.320	1.359	1.487	2.048	30	AVG
Methyl Iodide	3.198	2.217	2.253	2.206	2.575	****	2.490	17	AVG
Carbon Disulfide	7.364	5.217	5.225	4.683	4.950	****	5.488	20	AVG
Isopropanol	3.934	2.834	2.664	2.970	3.045	2.624	3.011	16	AVG
Acetonitrile	1.659	1.286	0.605	0.695	0.477	0.555	0.880	55	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.

SDG No.:

Instrument ID: 09464      Calibration Start Date: 09/22/2015      Calibration End Date: 09/22/2015  
Calibration Start Time: 15:13      Calibration End Time: 20:15

LAB FILE IDs:

RRF 1 = ci00462.d    RRF 2 = ci00464.d    RRF 5 = ci00465.d    RRF 10 = ci00468.d    RRF 25 = ci00467.d  
RRF 70 = ci00469.d

COMPOUND	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF 70	RRF	% RSD	CAL. METHOD
3-Chloropropene	1.065	0.807	0.776	0.756	0.881	****	0.857	15	AVG
Methylene Chloride	2.079	1.597	1.451	1.322	1.438	1.246	1.522	20	AVG
tert-Butyl Alcohol	2.711	2.522	2.469	2.622	2.764	2.648	2.623	4	AVG
Acrylonitrile	1.936	1.657	1.486	1.633	1.228	****	1.588	16	AVG
trans-1,2-Dichloroethene	5.650	4.257	3.852	3.338	3.582	2.430	3.851	28	AVG
Methyl t-Butyl Ether	3.085	2.687	2.772	3.521	2.215	2.658	2.823	16	AVG
Hexane	2.669	2.321	2.310	2.397	2.668	2.291	2.443	7	AVG
1,1-Dichloroethane	4.312	3.574	3.014	2.825	2.817	2.348	3.148	22	AVG
Vinyl Acetate	0.082	0.113	0.140	0.214	0.131	0.201	0.147	35	AVG*
Di-Isopropyl Ether	3.405	3.052	3.321	4.492	2.910	3.091	3.379	17	AVG
Ethyl Tert-Butyl Ether	2.122	1.877	2.032	3.000	2.033	2.560	2.271	19	AVG
cis-1,2-Dichloroethene	2.763	2.573	2.271	2.170	2.118	1.906	2.300	14	AVG
2-Butanone	0.359	0.352	0.370	0.490	0.321	0.416	0.385	16	AVG
Ethyl Acetate	0.215	0.198	0.197	0.280	0.175	0.262	0.221	19	AVG
Methyl Acrylate	1.708	1.550	1.645	2.274	1.280	1.831	1.715	19	AVG
Tetrahydrofuran	1.320	1.202	1.249	1.743	1.098	1.451	1.344	17	AVG
Chloroform	4.339	3.680	3.088	2.788	2.589	2.232	3.119	25	AVG
1,1,1-Trichloroethane	3.668	3.158	2.666	2.438	2.374	2.188	2.749	20	AVG
Cyclohexane	3.112	2.693	2.656	2.645	2.797	2.412	2.719	8	AVG
Carbon Tetrachloride	3.872	3.133	2.668	2.371	2.345	2.095	2.747	24	AVG
Benzene	1.388	1.213	1.042	1.039	1.124	0.867	1.112	16	AVG
1,2-Dichloroethane	0.982	0.811	0.675	0.631	0.650	0.563	0.719	21	AVG
Isooctane	2.025	1.960	1.879	2.008	2.087	1.314	1.879	15	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.



Lancaster Laboratories  
Environmental

FORM 06  
VOLATILE ORGANICS IN AIR  
INITIAL CALIBRATION DATA

SDG No.:

Instrument ID: 09464 Calibration Start Date: 09/22/2015 Calibration End Date: 09/22/2015  
Calibration Start Time: 15:13 Calibration End Time: 20:15

LAB FILE IDs:

RRF 1 = ci00462.d RRF 2 = ci00464.d RRF 5 = ci00465.d RRF 10 = ci00468.d RRF 25 = ci00467.d  
RRF 70 = ci00469.d

COMPOUND	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF 70	RRF	% RSD	CAL. METHOD
Tert-Amyl Methyl Ether	0.532	0.443	0.448	0.635	0.517	0.647	0.537	16	AVG
Heptane	0.924	0.883	0.870	0.943	1.007	0.748	0.896	10	AVG
Trichloroethene	0.538	0.431	0.359	0.347	0.409	0.410	0.415	16	AVG
Ethyl Acrylate	0.484	0.435	0.462	0.677	0.543	0.616	0.536	18	AVG
1,2-Dichloropropane	0.564	0.468	0.435	0.463	0.426	0.496	0.475	11	AVG
Dibromomethane	0.349	0.291	0.245	0.241	0.265	0.318	0.285	15	AVG
1,4-Dioxane	0.134	0.129	0.142	0.166	0.180	****	0.151	15	AVG
Methyl Methacrylate	0.233	0.222	0.233	0.325	0.244	0.326	0.264	18	AVG
Bromodichloromethane	1.281	1.069	0.849	0.837	0.874	0.730	0.940	21	AVG
cis-1,3-Dichloropropene	0.516	0.447	0.478	0.547	0.538	0.601	0.521	10	AVG
4-Methyl-2-Pentanone	0.640	0.604	0.682	0.893	0.917	0.785	0.754	18	AVG
Toluene	1.183	0.988	0.995	1.030	0.850	0.825	0.978	13	AVG
Octane	1.011	1.029	1.166	1.287	1.237	0.887	1.103	14	AVG
trans-1,3-Dichloropropene	0.734	0.614	0.599	0.623	0.539	0.591	0.617	10	AVG
Ethyl Methacrylate	0.360	0.338	0.410	0.538	0.505	0.581	0.455	22	AVG
1,1,2-Trichloroethane	0.537	0.435	0.405	0.399	0.352	0.450	0.430	15	AVG
Tetrachloroethene	0.492	0.414	0.373	0.364	0.385	0.487	0.419	14	AVG
2-Hexanone	0.668	0.680	0.848	0.987	0.931	0.753	0.811	16	AVG
Dibromochloromethane	0.771	0.630	0.575	0.533	0.547	0.591	0.608	14	AVG
1,2-Dibromoethane	0.698	0.585	0.576	0.564	0.512	0.577	0.585	10	AVG
Chlorobenzene	0.989	0.804	0.734	0.764	0.690	0.745	0.788	13	AVG
1,1,1,2-Tetrachloroethane	0.528	0.409	0.383	0.379	0.351	0.454	0.417	15	AVG
Ethylbenzene	1.059	0.974	1.073	1.254	0.990	0.945	1.049	11	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.

SDG No.:

Instrument ID: 09464 Calibration Start Date: 09/22/2015 Calibration End Date: 09/22/2015  
 Calibration Start Time: 15:13 Calibration End Time: 20:15

LAB FILE IDs:

RRF 1 = ci00462.d RRF 2 = ci00464.d RRF 5 = ci00465.d RRF 10 = ci00468.d RRF 25 = ci00467.d  
 RRF 70 = ci00469.d

COMPOUND	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF 70	RRF	% RSD	CAL. METHOD
m/p-Xylene	0.770	0.726	0.799	0.998	0.789	0.918	0.833	12	AVG
o-Xylene	0.841	0.775	0.867	1.061	0.837	0.939	0.887	11	AVG
Styrene	0.670	0.630	0.694	0.810	0.648	0.804	0.709	11	AVG
Bromoform	0.689	0.507	0.507	0.525	0.509	0.625	0.560	14	AVG
Cumene	0.988	0.811	0.955	1.219	0.965	0.996	0.989	13	AVG
Bromobenzene	0.411	0.351	0.345	0.375	0.332	0.453	0.378	12	AVG
1,1,2,2-Tetrachloroethane	1.182	0.990	0.948	1.018	0.801	0.819	0.960	15	AVG
1,2,3-Trichloropropane	0.322	0.230	0.221	0.240	0.187	0.259	0.243	19	AVG
n-Propylbenzene	0.294	0.252	0.274	0.345	0.274	****	0.288	12	AVG
2-Chlorotoluene	0.356	0.293	0.297	0.327	0.279	****	0.310	10	AVG
4-Ethyltoluene	1.095	0.949	1.069	1.298	1.013	1.011	1.072	11	AVG
1,3,5-Trimethylbenzene	0.873	0.761	0.880	1.074	0.858	0.911	0.893	11	AVG
Alpha Methyl Styrene	0.421	0.371	0.442	0.533	0.426	****	0.439	13	AVG
tert-Butylbenzene	0.801	0.658	0.755	0.934	0.761	0.909	0.803	13	AVG
1,2,4-Trimethylbenzene	1.028	0.876	0.953	1.121	0.902	0.936	0.969	9	AVG
sec-Butylbenzene	1.287	1.081	1.247	1.527	1.254	****	1.279	13	AVG
1,3-Dichlorobenzene	0.890	0.694	0.683	0.699	0.608	0.757	0.722	13	AVG
1,4-Dichlorobenzene	0.855	0.687	0.691	0.722	0.630	0.817	0.734	12	AVG
p-Isopropyltoluene	1.050	0.871	0.989	1.227	1.039	1.110	1.048	11	AVG
Benzyl Chloride	1.186	1.006	1.081	1.240	0.980	1.106	1.100	9	AVG
1,2-Dichlorobenzene	0.817	0.629	0.626	0.666	0.558	0.711	0.668	13	AVG
n-Butylbenzene	1.255	1.008	1.131	1.391	1.154	0.961	1.150	14	AVG
Hexachloroethane	0.576	0.452	0.452	0.468	0.460	0.569	0.496	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.

SDG No.:

Instrument ID: 09464      Calibration Start Date: 09/22/2015      Calibration End Date: 09/22/2015  
 Calibration Start Time: 15:13      Calibration End Time: 20:15

LAB FILE IDs:

RRF 1 = ci00462.d      RRF 2 = ci00464.d      RRF 5 = ci00465.d      RRF 10 = ci00468.d      RRF 25 = ci00467.d  
 RRF 70 = ci00469.d

COMPOUND	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF 70	RRF	% RSD	CAL. METHOD
1,2-Dibromo-3-chloropropane	0.375	0.303	0.291	0.345	0.275	****	0.318	13	AVG
1,2,4-Trichlorobenzene	0.380	0.343	0.352	0.377	0.318	0.259	0.338	13	AVG
Hexachlorobutadiene	0.363	0.261	0.311	0.385	0.330	****	0.330	14	AVG
Naphthalene	0.919	0.987	1.011	1.074	0.804	****	0.959	11	AVG

Average % RSD: 16

\* 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.

SDG No.:

Instrument ID: 09464      LCS File ID: ci00472.d      LCSD File ID: ci00473.d  
 Batch: C1526530AA      LCS Injected: 09/22/2015      LCSD Injected: 09/22/2015  
 Method: EPA TO-15      LCS Client ID: LCSC75      LCSD Client ID: LCSDC75  
 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	10.94	11.22	99	102	41-129	3	25	YES
Dichlorodifluoromethane	10.00	9.14	9.68	91	97	61-149	6	25	YES
Freon 114	10.20	9.47	9.96	93	98	63-123	5	25	YES
Chloromethane	10.30	8.37	8.82	81	86	54-118	5	25	YES
Vinyl Chloride	10.20	10.27	10.57	101	104	70-130	3	25	YES
1,3-Butadiene	10.50	10.15	10.46	97	100	57-138	3	25	YES
Bromomethane	10.10	8.64	9.04	86	89	70-130	4	25	YES
Chloroethane	10.00	8.80	9.02	88	90	63-119	3	25	YES
Trichlorofluoromethane	10.00	8.62	8.96	86	90	70-130	4	25	YES
Ethanol	10.60	7.73	7.65	73	72	10-175	1	25	YES
Acrolein	10.90	10.57	8.96	97	82	43-141	16	25	YES
1,1-Dichloroethene	10.60	10.16	10.15	96	96	61-128	0	25	YES
Freon 113	10.50	8.73	8.73	83	83	63-114	0	25	YES
Acetone	10.70	9.76	9.57	91	89	61-134	2	25	YES
Carbon Disulfide	10.20	9.23	9.31	91	91	55-121	1	25	YES
Isopropanol	11.00	10.23	9.69	93	88	55-152	5	25	YES
Methylene Chloride	10.60	10.22	9.79	96	92	70-130	4	25	YES
trans-1,2-Dichloroethene	10.50	9.18	8.82	87	84	66-121	4	25	YES
Methyl t-Butyl Ether	10.70	9.92	8.96	93	84	52-129	10	25	YES
Hexane	10.80	11.10	11.09	103	103	63-117	0	25	YES
1,1-Dichloroethane	10.50	9.82	9.68	94	92	67-124	1	25	YES
Vinyl Acetate	10.80	11.76	10.99	109	102	45-162	7	25	YES
cis-1,2-Dichloroethene	10.60	10.08	9.92	95	94	65-121	2	25	YES
2-Butanone	10.80	10.69	10.82	99	100	60-135	1	25	YES
Ethyl Acetate	10.60	8.27	8.19	78	77	51-131	1	25	YES
Tetrahydrofuran	10.90	10.51	10.57	96	97	53-134	1	25	YES
Chloroform	10.60	9.53	9.35	90	88	70-130	2	25	YES
1,1,1-Trichloroethane	10.50	9.46	9.53	90	91	70-130	1	25	YES
Cyclohexane	10.60	10.50	10.90	99	103	63-123	4	25	YES
Carbon Tetrachloride	10.40	9.35	9.62	90	93	70-130	3	25	YES
Benzene	10.50	9.91	10.23	94	97	70-130	3	25	YES
1,2-Dichloroethane	10.50	9.47	9.68	90	92	70-130	2	25	YES
Heptane	10.70	11.09	11.31	104	106	56-123	2	25	YES
Trichloroethene	10.50	8.64	8.98	82	86	70-130	4	25	YES
1,2-Dichloropropane	10.70	9.77	9.15	91	86	70-130	6	25	YES
1,4-Dioxane	10.50	11.23	11.85	107	113	43-149	5	25	YES

COMMENTS:

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SDG No.:

Instrument ID: 09464      LCS File ID: ci00472.d      LCSD File ID: ci00473.d  
 Batch: C1526530AA      LCS Injected: 09/22/2015      LCSD Injected: 09/22/2015  
 Method: EPA TO-15      LCS Client ID: LCSC75      LCSD Client ID: LCSDC75  
 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	8.85	9.48	86	92	59-146	7	25	YES
Bromodichloromethane	10.50	8.97	9.05	85	86	62-129	1	25	YES
cis-1,3-Dichloropropene	10.90	11.97	11.32	110	104	64-136	6	25	YES
4-Methyl-2-Pentanone	10.80	10.76	11.29	100	105	53-140	5	25	YES
Toluene	10.70	11.58	10.23	108	96	70-130	12	25	YES
trans-1,3-Dichloropropene	10.00	10.02	9.05	100	90	61-126	10	25	YES
1,1,2-Trichloroethane	10.70	9.50	8.74	89	82	59-131	8	25	YES
Tetrachloroethene	10.40	9.40	8.97	90	86	70-130	5	25	YES
2-Hexanone	11.00	12.57	12.43	114	113	47-150	1	25	YES
Dibromochloromethane	10.80	9.11	8.66	84	80	65-127	5	25	YES
1,2-Dibromoethane	10.50	11.12	9.81	106	93	65-126	12	25	YES
Chlorobenzene	10.80	10.48	9.51	97	88	70-130	10	25	YES
Ethylbenzene	10.80	10.28	10.17	95	94	70-130	1	25	YES
m/p-Xylene	21.20	19.91	19.59	94	92	70-130	2	25	YES
o-Xylene	10.90	10.14	10.01	93	92	70-130	1	25	YES
Xylene (total)	32.10	30.05	29.60	94	92	70-130	1	25	YES
Styrene	10.80	9.64	9.63	89	89	64-130	0	25	YES
Bromoform	10.60	8.64	8.57	82	81	64-141	1	25	YES
1,1,2,2-Tetrachloroethane	10.90	8.67	8.90	80	82	58-133	3	25	YES
4-Ethyltoluene	10.70	8.91	9.03	83	84	59-126	1	25	YES
1,3,5-Trimethylbenzene	10.70	9.22	9.39	86	88	61-132	2	25	YES
1,2,4-Trimethylbenzene	10.80	8.38	8.43	78	78	60-128	1	25	YES
1,3-Dichlorobenzene	10.90	7.81	7.86	72	72	63-125	1	25	YES
1,4-Dichlorobenzene	10.70	7.68	7.66	72	72	63-127	0	25	YES
Benzyl Chloride	10.30	8.20	8.22	80	80	50-160	0	25	YES
1,2-Dichlorobenzene	10.80	7.56	7.67	70	71	62-132	1	25	YES
1,2,4-Trichlorobenzene	11.00	7.14	6.70	65	61	37-119	6	25	YES
Hexachlorobutadiene	11.00	6.99	6.59	64	60	43-120	6	25	YES
Naphthalene	10.40	8.02	7.63	77	73	35-153	5	25	YES

COMMENTS:

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Date : 22-SEP-2015 14:43

Client ID: 50NGBFB

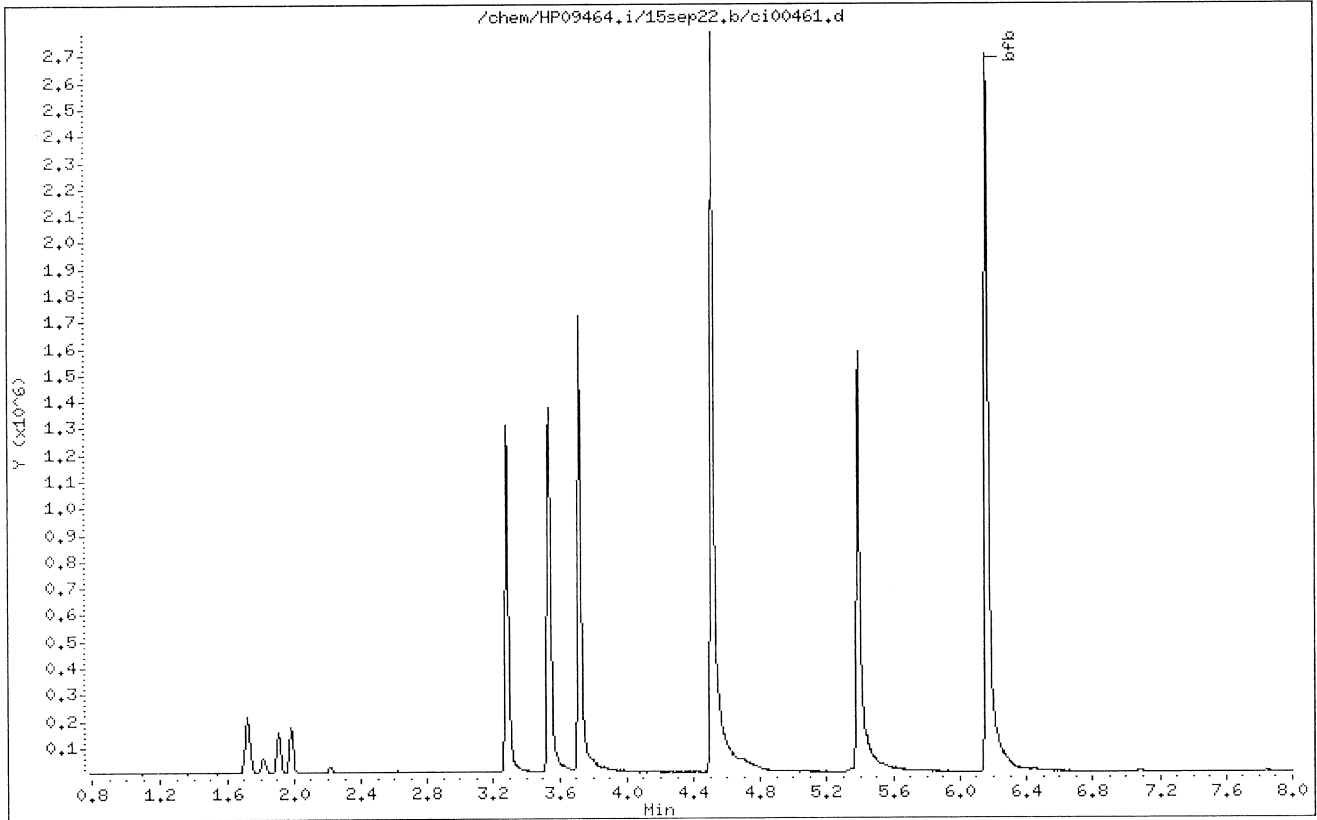
Instrument: HP09464.i

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

Operator: jeb07445

Column phase: DB-624

Column diameter: 0.25



Digitally signed by Jeffrey B. Smith on 09/23/2015 at 09:31.  
Target 3.5 esignature user ID: jbs01304



Date : 22-SEP-2015 14:43

Client ID: 50NGBFB

Instrument: HP09464.i

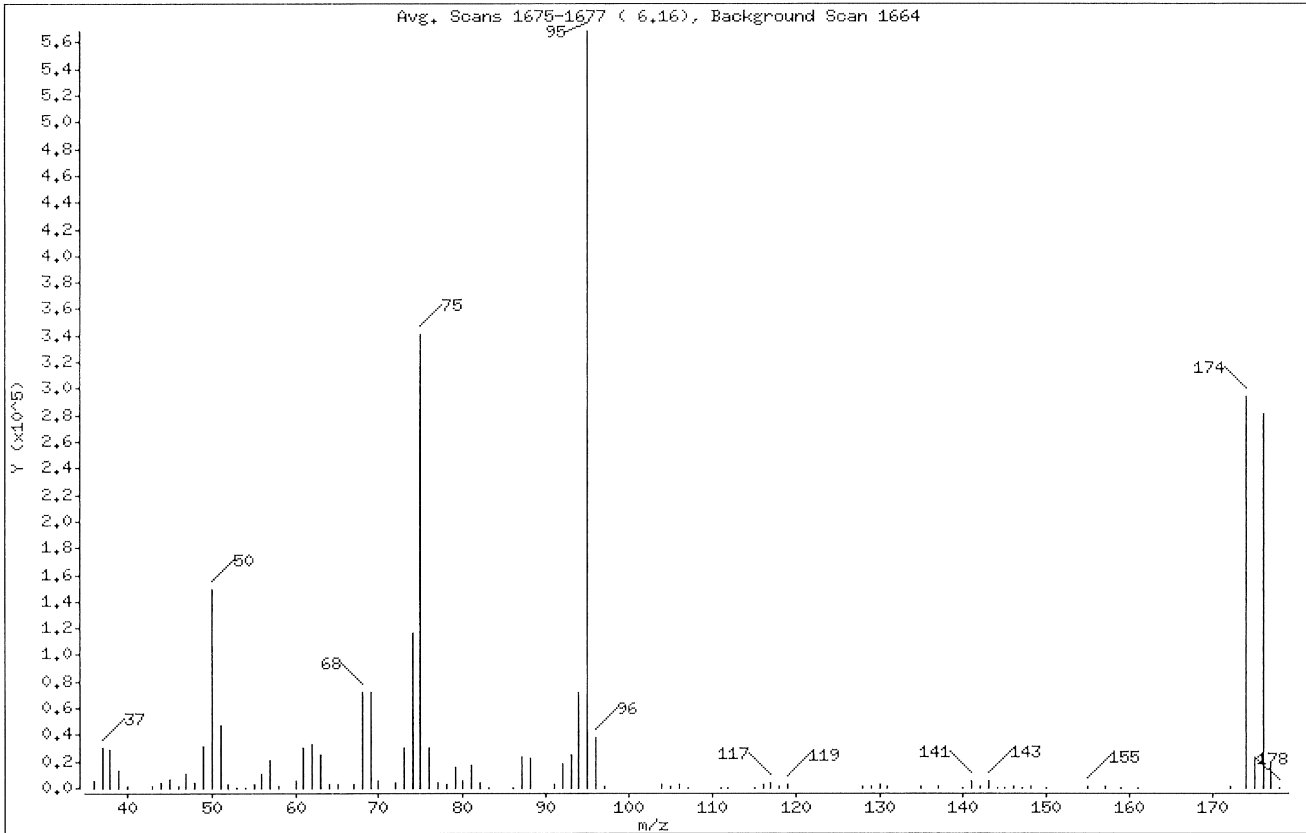
Sample Info: 50NGBFB;;;BFB;0;;;

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	26.25
75	30.00 - 66.00% of mass 95	59.93
96	5.00 - 9.00% of mass 95	6.77
173	Less than 2.00% of mass 174	0.00 ( 0.00)
174	50.00 - 120.00% of mass 95	51.69
175	4.00 - 9.00% of mass 174	4.07 ( 7.88)
176	93.00 - 101.00% of mass 174	49.31 ( 95.40)
177	5.00 - 9.00% of mass 176	3.38 ( 6.86)

Digitally signed by Jeffrey B. Smith on 09/23/2015 at 09:31.  
Target 3.5 esignature user ID: jbs01304

Date : 22-SEP-2015 14:43

Client ID: 50NCBFB

Instrument: HP09464.i

Sample Info: 50NCBFB;;BFB;0;;

Operator: jeb07445

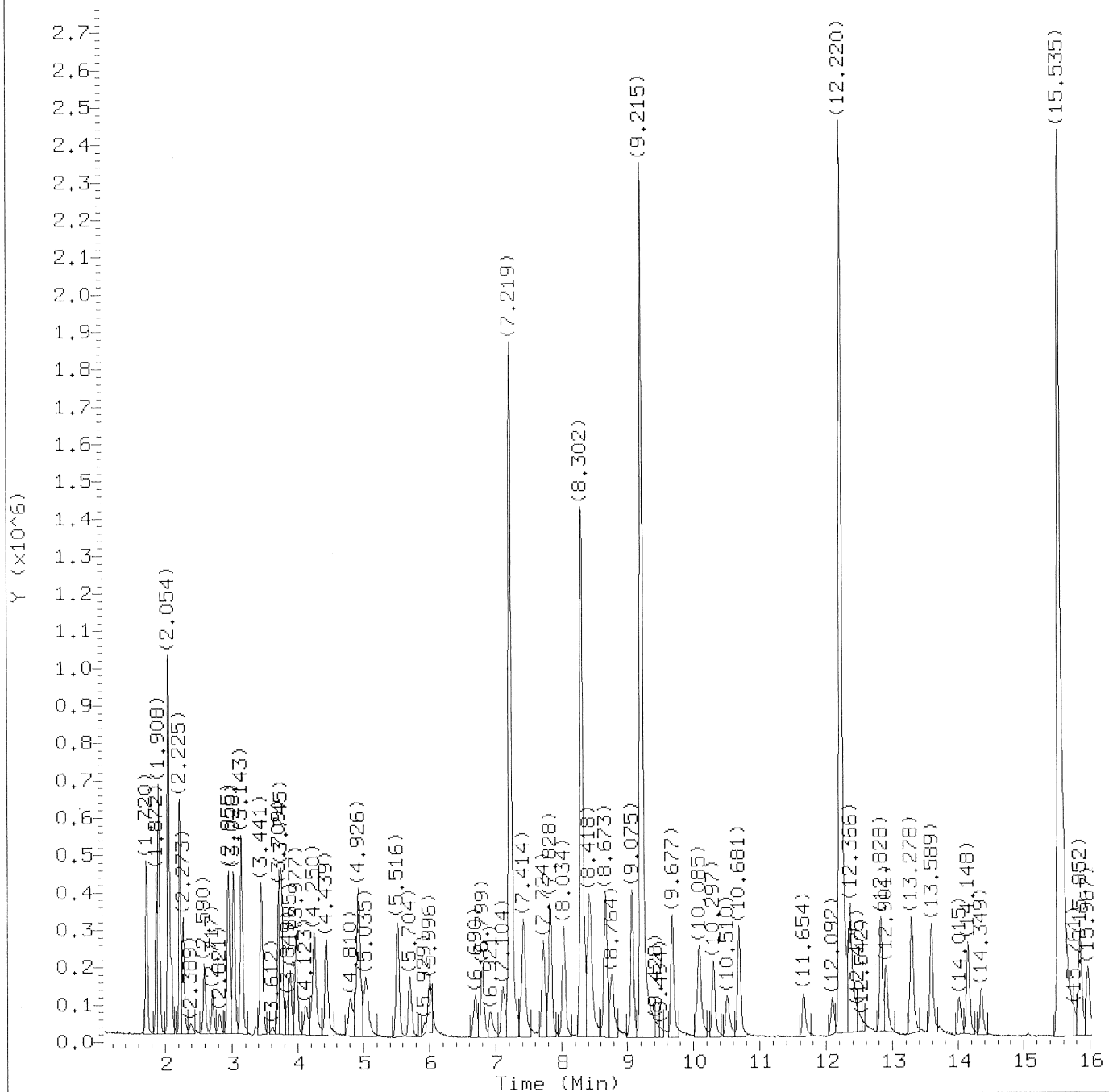
Column phase: DB-624

Column diameter: 0.25

Data File: ci00461.d  
 Spectrum: Avg. Scans 1675-1677 ( 6.16), Background Scan 1664  
 Location of Maximum: 95.00  
 Number of points: 90

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	4936	62.00	32488	91.00	2081	137.00	661
37.00	29944	63.00	25208	92.00	17728	140.00	386
38.00	28320	64.00	2797	93.00	25400	141.00	5285
39.00	12496	65.00	2064	94.00	72088	142.00	813
40.00	723	67.00	2173	95.00	568320	143.00	5439
43.00	657	68.00	72032	96.00	38464	144.00	357
44.00	3740	69.00	71648	97.00	1391	145.00	438
45.00	6500	70.00	5134	104.00	2292	146.00	661
46.00	688	72.00	3609	105.00	932	147.00	363
47.00	10043	73.00	30264	106.00	2289	148.00	1001
48.00	3984	74.00	116216	107.00	442	150.00	365
49.00	30736	75.00	340608	111.00	558	155.00	1046
50.00	149184	76.00	29608	112.00	192	157.00	774
51.00	47176	77.00	3871	115.00	412	159.00	488
52.00	2391	78.00	2538	116.00	2256	161.00	647
53.00	396	79.00	15523	117.00	4342	172.00	1442
54.00	205	80.00	4720	118.00	1682	174.00	293760
55.00	2188	81.00	16366	119.00	2908	175.00	23136
56.00	10165	82.00	3828	128.00	1660	176.00	280256
57.00	20304	83.00	194	129.00	783	177.00	19216
58.00	1021	86.00	252	130.00	1975	178.00	173
60.00	5684	87.00	23472	131.00	733		
61.00	30312	88.00	22720	135.00	921		

Digitally signed by Jeffrey B. Smith on 09/23/2015 at 09:31.  
Target 3.5 esignature user ID: jbs01304



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00462.d  
Injection date and time: 22-SEP-2015 15:13

Instrument ID: HP09464.i  
Analyst ID: jeb07445

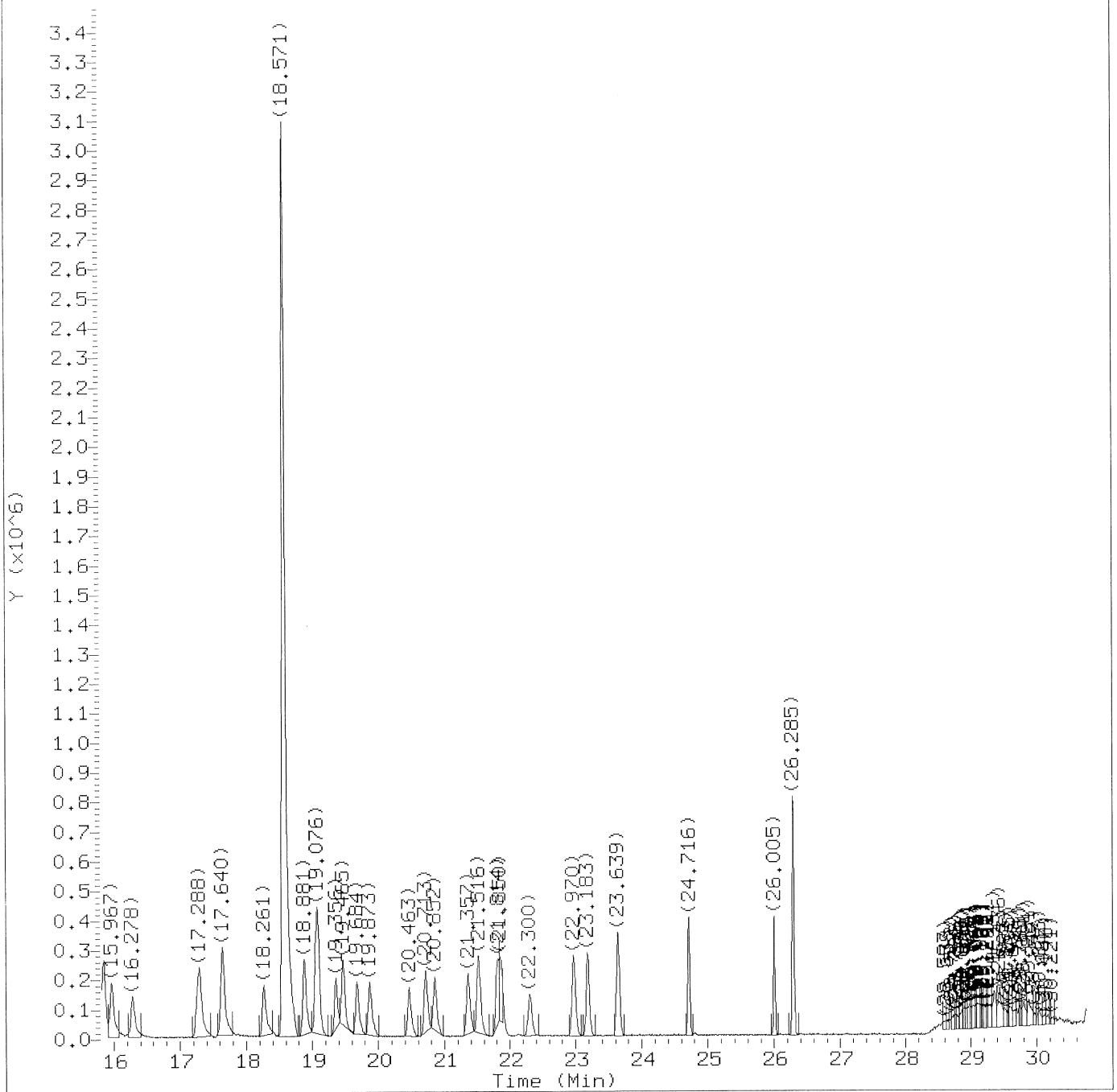
Method used: /chem/HP09464.i/15sep22.b/to-15.m  
Calibration date and time: 23-SEP-2015 09:08  
Date, time and analyst ID of latest file update: 23-Sep-2015 09:08 jbs01304

Sublist used: all

Sample Name: VSTD001

Lab Sample ID: VSTD001

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/ci00462.d  
Injection date and time: 22-SEP-2015 15:13

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD001

Lab Sample ID: VSTD001

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/ci00462.d  
 Injection date and time: 22-SEP-2015 15:13

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
 Calibration date and time: 23-SEP-2015 09:08

Sublist used: all

Date, time and analyst ID of latest file update: 23-Sep-2015 09:08 jbs01304

Sample Name: VSTD001

Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.866	41	160431	1.342
2) Dichlorodifluoromethane	(1)	1.902	85	419663	1.377
3) Chlorodifluoromethane	(1)	1.914	51	392018	1.513
4) Freon 114	(1)	2.048	85	386954	1.416
5) Chloromethane	(1)	2.097	52	75530	1.374
6) Vinyl Chloride	(1)	2.225	62	183123	1.323
7) 1,3-Butadiene	(1)	2.273	54	145046	1.244
8) Bromomethane	(1)	2.590	94	145001	1.324
9) Chloroethane	(1)	2.717	64	115311	1.313
10) Bromoethene	(1)	2.936	106	122916	1.335
11) Dichlorofluoromethane	(1)	2.955	67	501238	1.478
12) Trichlorofluoromethane	(1)	3.034	101	458466	1.444
13) Pentane	(1)	3.143	43	440656	1.527
14) Ethanol	(1)	3.374	45	51901M	0.715
15) Freon123a	(1)	3.441	67	406208	1.461
16) Acrolein	(1)	3.599	56	29856M	0.790
17) 1,1-Dichloroethene	(1)	3.703	61	337585	1.395
18) Freon 113	(1)	3.745	103	193037	1.272
19) Acetone	(1)	3.849	43	229436MA	1.578
20) Methyl Iodide	(1)	3.891	142	238343	1.349
21) Carbon Disulfide	(1)	3.977	76	522715	1.342
22) Isopropanol	(1)	4.123	45	268061M	1.254
23) Acetonitrile	(1)	4.232	40	116558	1.867
24) 3-Chloropropene	(1)	4.256	76	83187	1.367
25) Methylene Chloride	(1)	4.445	84	162349	1.503
26) tert-Butyl Alcohol	(1)	4.810	59	211660M	1.137
27) Acrylonitrile	(1)	4.895	53	136052	1.207
28) trans-1,2-Dichloroethene	(1)	4.932	61	401071	1.467
29) Methyl t-Butyl Ether	(1)	5.035	73	223334	1.115
30) Hexane	(1)	5.516	57	193222	1.114
31) 1,1-Dichloroethane	(1)	5.704	63	306119	1.370
32) Vinyl Acetate	(1)	5.929	86	4428	0.425
33) Di-Isopropyl Ether	(1)	6.009	45	251365	1.048
36) 1,2-Dichloroethene (total)	(1)		61	606997	2.728
34) Ethyl Tert-Butyl Ether	(1)	6.690	59	152162	0.944
35) cis-1,2-Dichloroethene	(1)	6.793	61	205926	1.261
37) 2-Butanone	(1)	6.915	72	26480M	0.970
38) Ethyl Acetate	(1)	7.104	70	16806M	1.070

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

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/ci00462.d  
 Injection date and time: 22-SEP-2015 15:13

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD001

Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Methyl Acrylate	(1)	7.116	55	126108	1.036
40) *Bromochloromethane	(1)	7.219	130	709842	10.000
41) Tetrahydrofuran	(1)	7.402	42	93664	0.982
42) Chloroform	(1)	7.426	83	311094	1.405
43) 1,1,1-Trichloroethane	(1)	7.730	97	268190	1.375
44) Cyclohexane	(1)	7.828	56	227548	1.179
45) Carbon Tetrachloride	(1)	8.040	117	285880	1.466
46) Benzene	(2)	8.418	78	371737	1.323
47) 1,2-Dichloroethane	(2)	8.448	62	257971	1.421
48) Isooctane	(2)	8.667	57	537236	1.132
49) Tert-Amyl Methyl Ether	(2)	8.764	73	143716	1.060
50) Heptane	(2)	9.075	43	245084	1.083
51) *1,4-Difluorobenzene	(2)	9.215	114	2526267	10.000
52) Trichloroethene	(2)	9.683	130	139878	1.333
53) Ethyl Acrylate	(2)	10.048	55	132114	0.975
54) 1,2-Dichloropropane	(2)	10.091	63	149634	1.246
55) Dibromomethane	(2)	10.304	174	92638	1.288
57) Methyl Methacrylate	(2)	10.510	69	59383	0.891
56) 1,4-Dioxane	(2)	10.517	88	34944M	0.919
58) Bromodichloromethane	(2)	10.681	83	333237	1.403
59) cis-1,3-Dichloropropene	(2)	11.654	75	123801	0.941
60) 4-Methyl-2-Pentanone	(2)	12.092	43	164811	0.866
61) Toluene	(3)	12.366	91	293224	1.282
64) 1,3-Dichloropropene (total)	(3)		75	297044	2.142
62) Octane	(3)	12.828	43	243408	0.944
63) trans-1,3-Dichloropropene	(3)	12.907	75	173243	1.202
65) Ethyl Methacrylate	(3)	13.278	69	84966	0.798
66) 1,1,2-Trichloroethane	(3)	13.278	97	133124	1.325
67) Tetrachloroethene	(3)	13.595	166	123200M	1.257
68) 2-Hexanone	(3)	14.015	43	170157	0.897
69) Dibromochloromethane	(3)	14.148	127	176756	1.243
70) 1,2-Dibromoethane	(3)	14.349	107	163329	1.193
71) *Chlorobenzene-d5	(3)	15.535	117	2338421	10.000
72) Chlorobenzene	(3)	15.602	112	245193	1.331
73) 1,1,1,2-Tetrachloroethane	(3)	15.858	131	130931	1.341
74) Ethylbenzene	(3)	15.973	91	262434	1.070
75) m/p-Xylene	(3)	16.284	91	176422	0.905
77) Xylene (total)	(3)		91	386925	1.920

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/ci00462.d  
 Injection date and time: 22-SEP-2015 15:13

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
 Calibration date and time: 23-SEP-2015 09:08

Sublist used: all

Date, time and analyst ID of latest file update: 23-Sep-2015 09:08 jbs01304

Sample Name: VSTD001

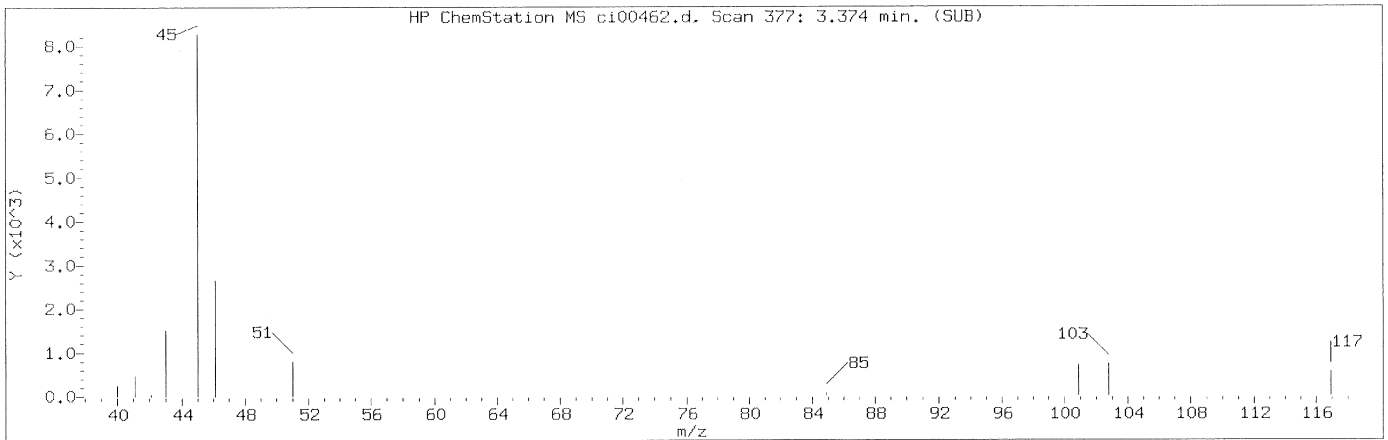
Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
76) o-Xylene	(3)	17.263	91	210503	1.015
78) Styrene	(3)	17.294	104	162828	0.982
79) Bromoform	(3)	17.646	173	161191	1.231
80) Cumene	(3)	18.267	105	240321	1.039
81) Bromobenzene	(3)	18.881	156	101913	1.153
82) 1,1,2,2-Tetrachloroethane	(3)	19.058	83	295673	1.318
83) 1,2,3-Trichloropropane	(3)	19.094	110	76868	1.351
84) n-Propylbenzene	(3)	19.356	120	68820	1.022
85) 2-Chlorotoluene	(3)	19.465	126	85700	1.182
86) 4-Ethyltoluene	(3)	19.678	105	258676	1.031
87) 1,3,5-Trimethylbenzene	(3)	19.879	105	210193	1.007
88) Alpha Methyl Styrene	(3)	20.469	118	97387	0.950
89) tert-Butylbenzene	(3)	20.713	119	191129	1.018
90) 1,2,4-Trimethylbenzene	(3)	20.852	105	245167	1.082
91) sec-Butylbenzene	(3)	21.357	105	304060	1.016
92) 1,3-Dichlorobenzene	(3)	21.516	146	218636	1.295
93) 1,4-Dichlorobenzene	(3)	21.808	146	203859	1.188
94) p-Isopropyltoluene	(3)	21.868	119	247957	1.012
95) Benzyl Chloride	(3)	22.294	91	235674	0.916
96) 1,2-Dichlorobenzene	(3)	22.970	146	192932	1.235
97) n-Butylbenzene	(3)	23.183	91	299240	1.113
98) Hexachloroethane	(3)	23.639	117	146718	1.265
99) 1,2-Dibromo-3-chloropropane	(3)	24.709	157	84077	1.132
100) 1,2,4-Trichlorobenzene	(3)	26.005	180	85262	1.078
101) Hexachlorobutadiene	(3)	26.285	225	83933	1.088
102) Naphthalene	(3)	26.297	128	223616	0.997

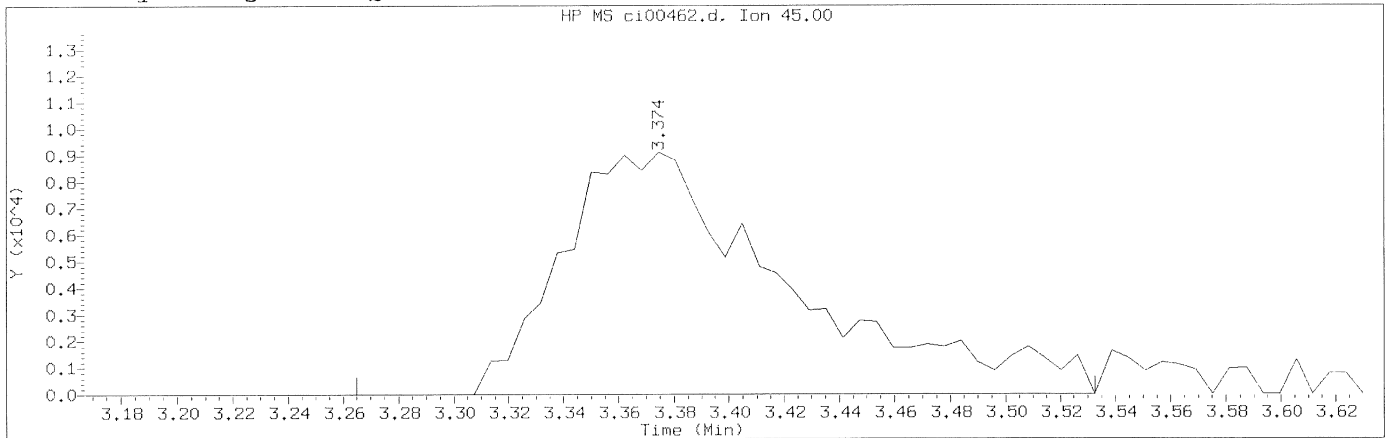
page 3 of 3

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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/ci00462.d                      Instrument ID: HP09464.i  
Injection date and time: 22-SEP-2015 15:13                      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: VSTD001                      Lab Sample ID: VSTD001

Compound Number                      : 14  
Compound Name                        : Ethanol  
Scan Number                            : 377  
Retention Time (minutes): 3.374  
Quant Ion                                : 45.00  
Area (flag)                             : 51901M  
Concentration (ppb(v))                : 0.7151  
Integration start scan                : 358                      Integration stop scan: 402  
Y at integration start                : 0                        Y at integration end: 0

Reason for manual integration: improper integration

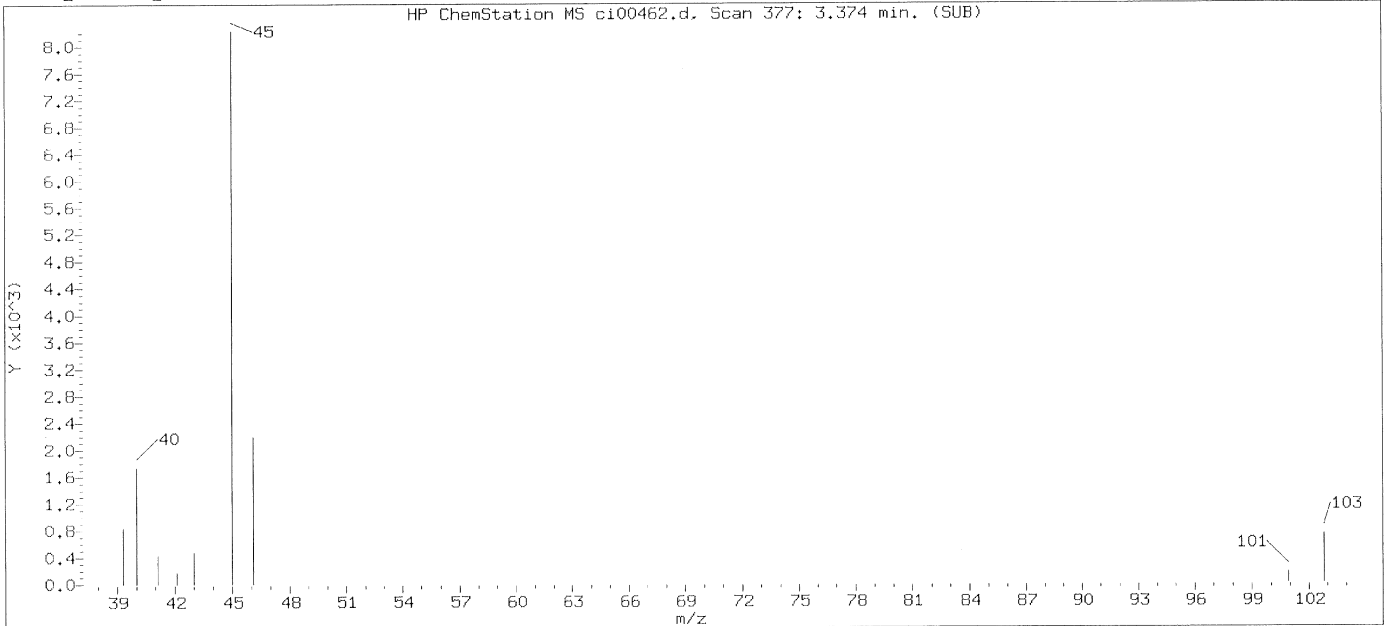
Analyst responsible for change: Digitally signed by Jeffrey B. Smith on 09/23/2015 at 09:32.  
Target 3.374 minutes signature user ID: jbs01304

*Mark A. Ratcliff*  
Senior Specialist  
**SEP 25 2015**

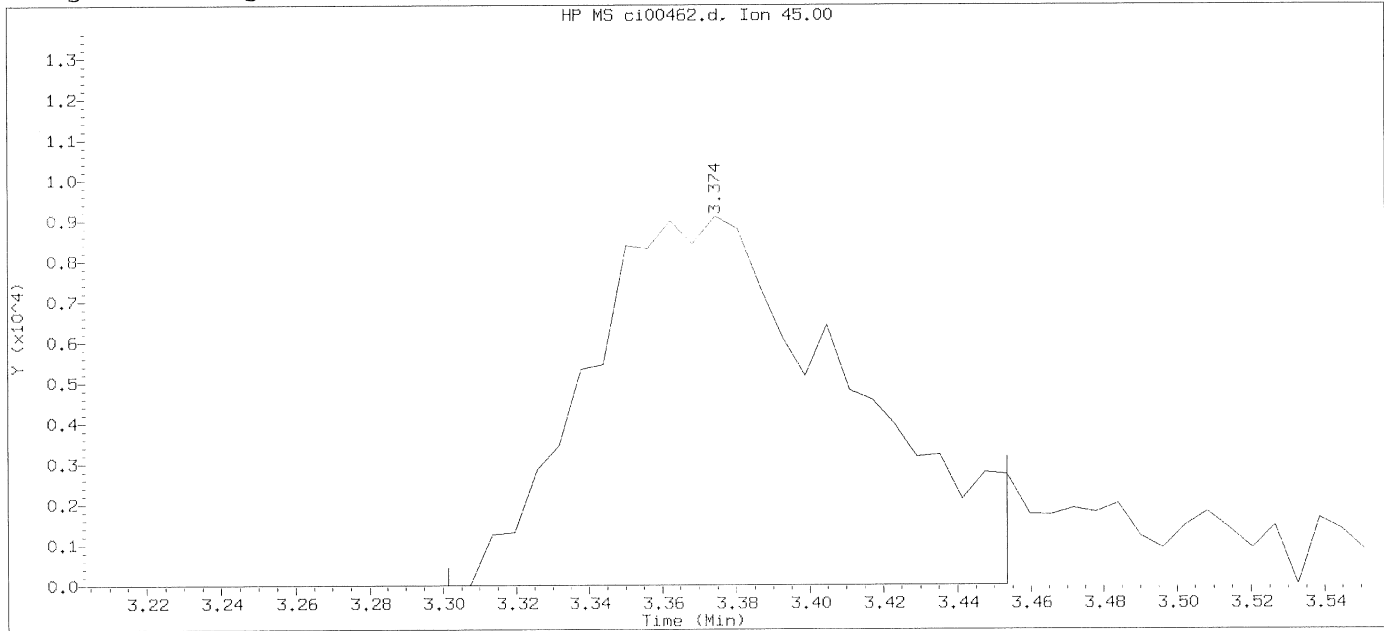
GC/MS audit/management approval: \_\_\_\_\_



Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00462.d  
 Injection date and time: 22-SEP-2015 15:13

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
 Calibration date and time: 22-SEP-2015 11:37  
 Date, time and analyst ID of latest file update: 22-Sep-2015 15:53 Automation

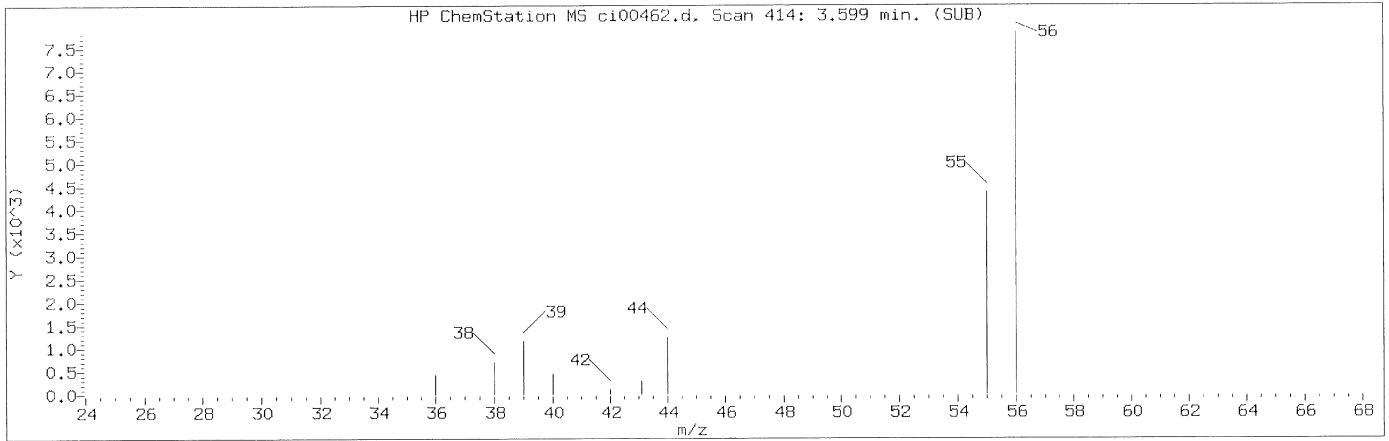
Sample Name: VSTD001

Lab Sample ID: VSTD001

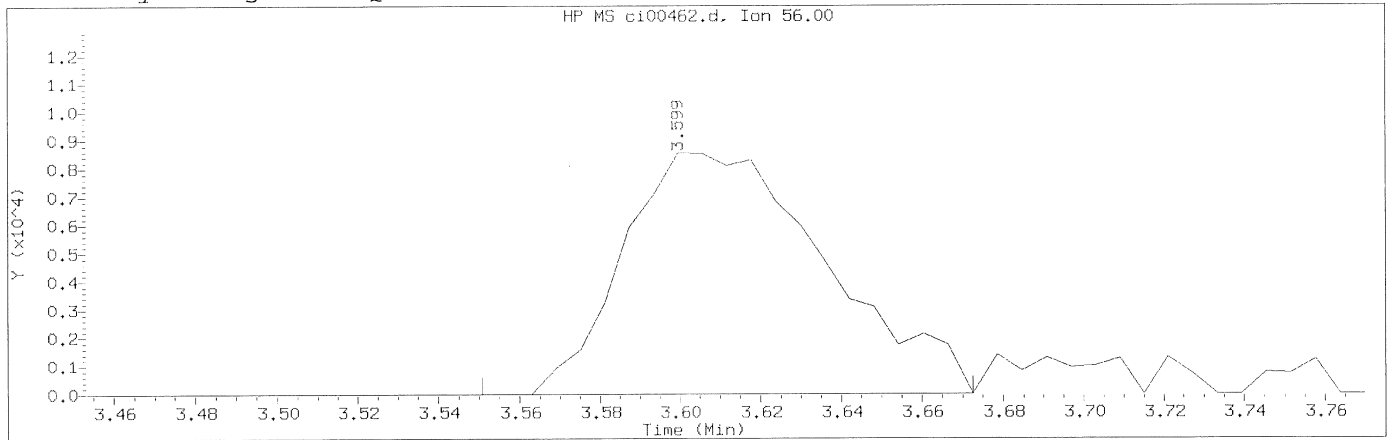
Compound Number	: 14		
Compound Name	: Ethanol		
Scan Number	: 377		
Retention Time (minutes)	: 3.374		
Quant Ion	: 45.00		
Area	: 44748		
Concentration (ppb(v))	: 0.6892		
Integration start scan	: 364	Integration stop scan:	389
Y at integration start	: 0	Y at integration end:	0

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 Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00462.d  
Injection date and time: 22-SEP-2015 15:13

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD001

Lab Sample ID: VSTD001

Compound Number : 16  
Compound Name : Acrolein  
Scan Number : 414  
Retention Time (minutes): 3.599  
Quant Ion : 56.00  
Area (flag) : 29856M  
Concentration (ppb(v)) : 0.7896  
Integration start scan : 405      Integration stop scan: 425  
Y at integration start : 0      Y at integration end: 0

Reason for manual integration: improper integration

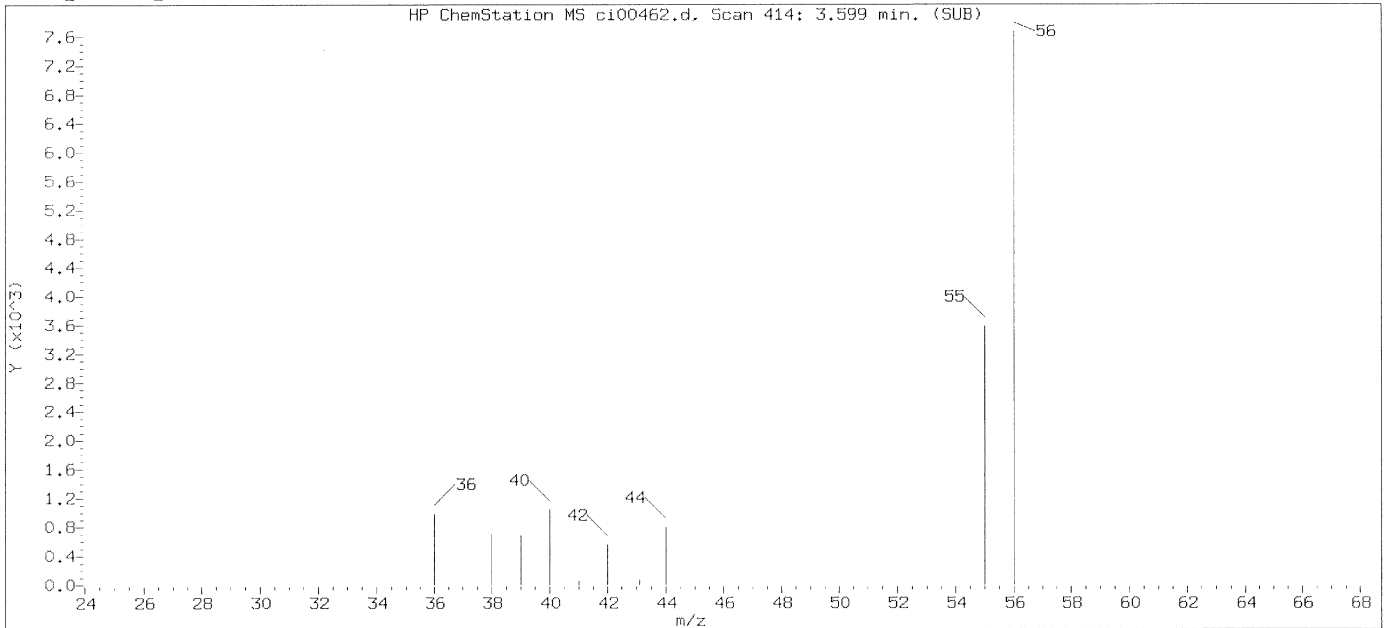
Analyst responsible for change: Digitally signed by Jeffrey B. Smith  
on 09/23/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304

*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

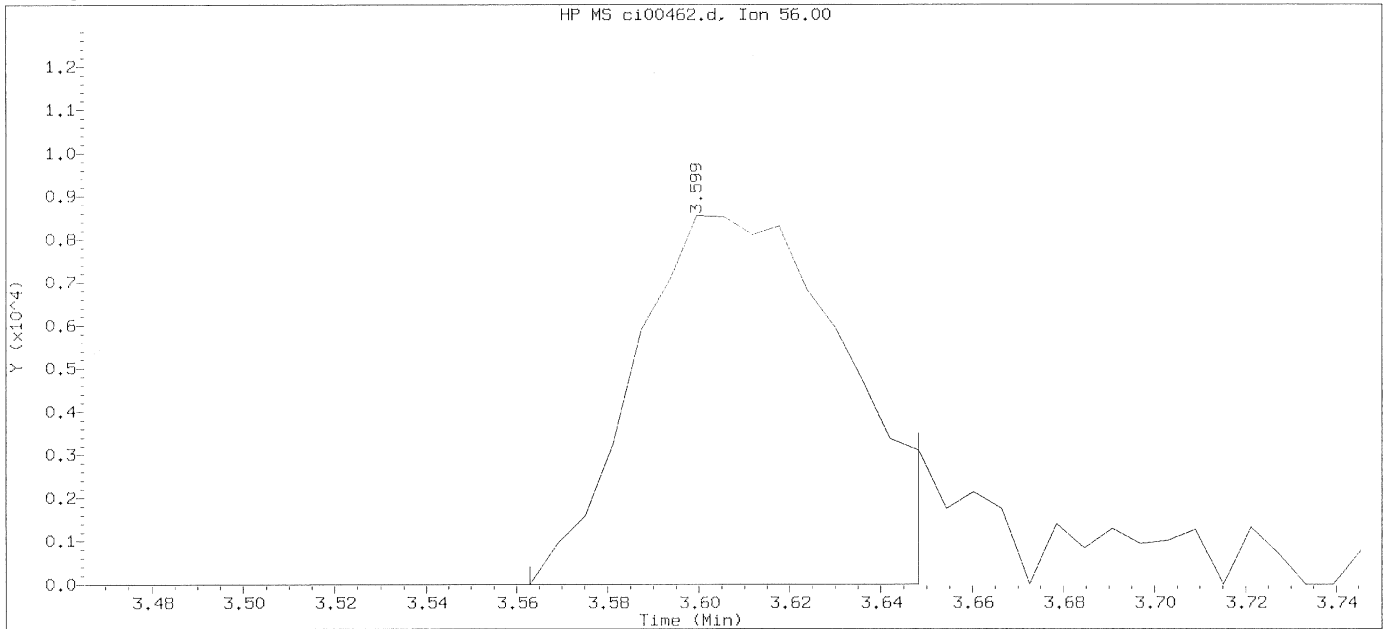
SEP 25 2015

GC/MS audit/management approval: \_\_\_\_\_

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00462.d  
Injection date and time: 22-SEP-2015 15:13

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
Calibration date and time: 22-SEP-2015 11:37  
Date, time and analyst ID of latest file update: 22-Sep-2015 15:53 Automation

Sublist used: all

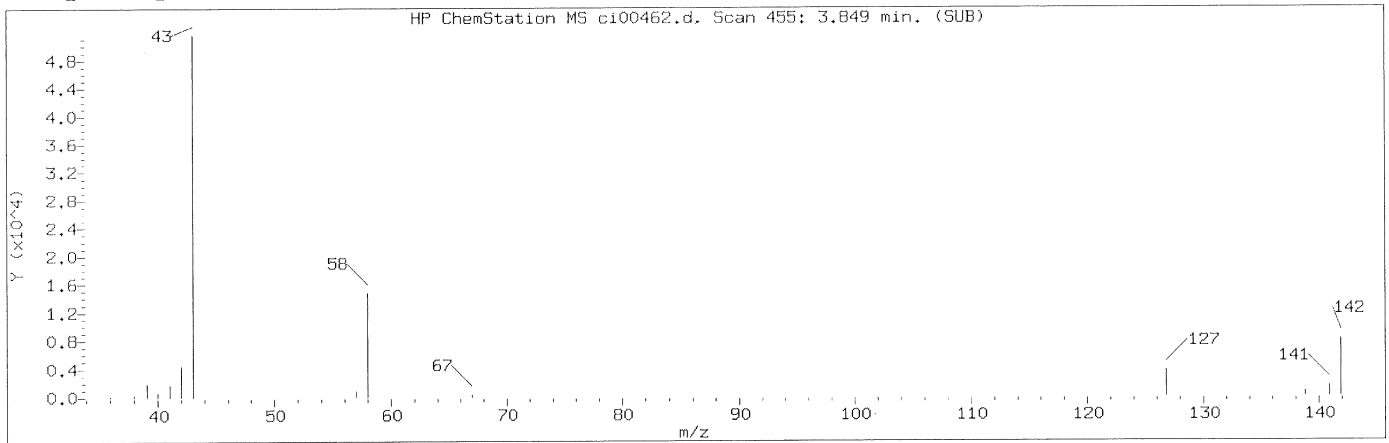
Sample Name: VSTD001

Lab Sample ID: VSTD001

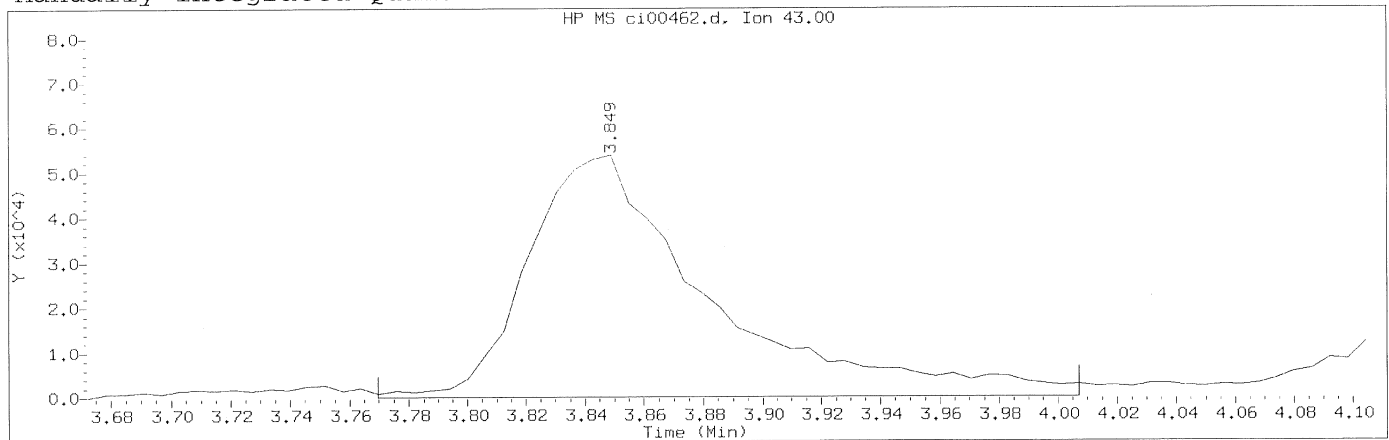
Compound Number : 16  
Compound Name : Acrolein  
Scan Number : 414  
Retention Time (minutes): 3.599  
Quant Ion : 56.00  
Area : 27239  
Concentration (ppb(v)) : 1.0983  
Integration start scan : 407      Integration stop scan: 421  
Y at integration start : 0      Y at integration end: 0

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Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00462.d                      Instrument ID: HP09464.i  
 Injection date and time: 22-SEP-2015 15:13                      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: VSTD001                      Lab Sample ID: VSTD001

Compound Number                      : 19  
 Compound Name                        : Acetone  
 Scan Number                            : 455  
 Retention Time (minutes): 3.849  
 Quant Ion                                : 43.00  
 Area (flag)                             : 229436MA  
 Concentration (ppb(v))               : 1.5782  
 Integration start scan                : 441                      Integration stop scan: 480  
 Y at integration start                : 0                        Y at integration end: 0

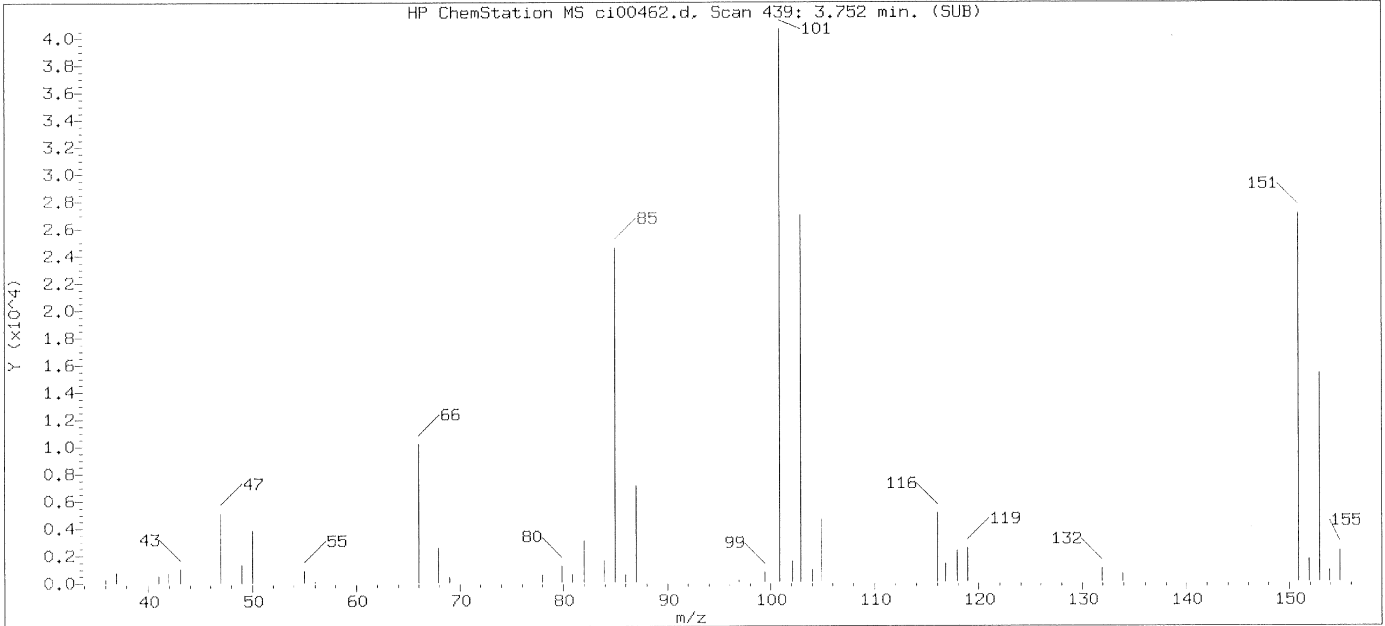
Reason for manual integration: improper integration

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

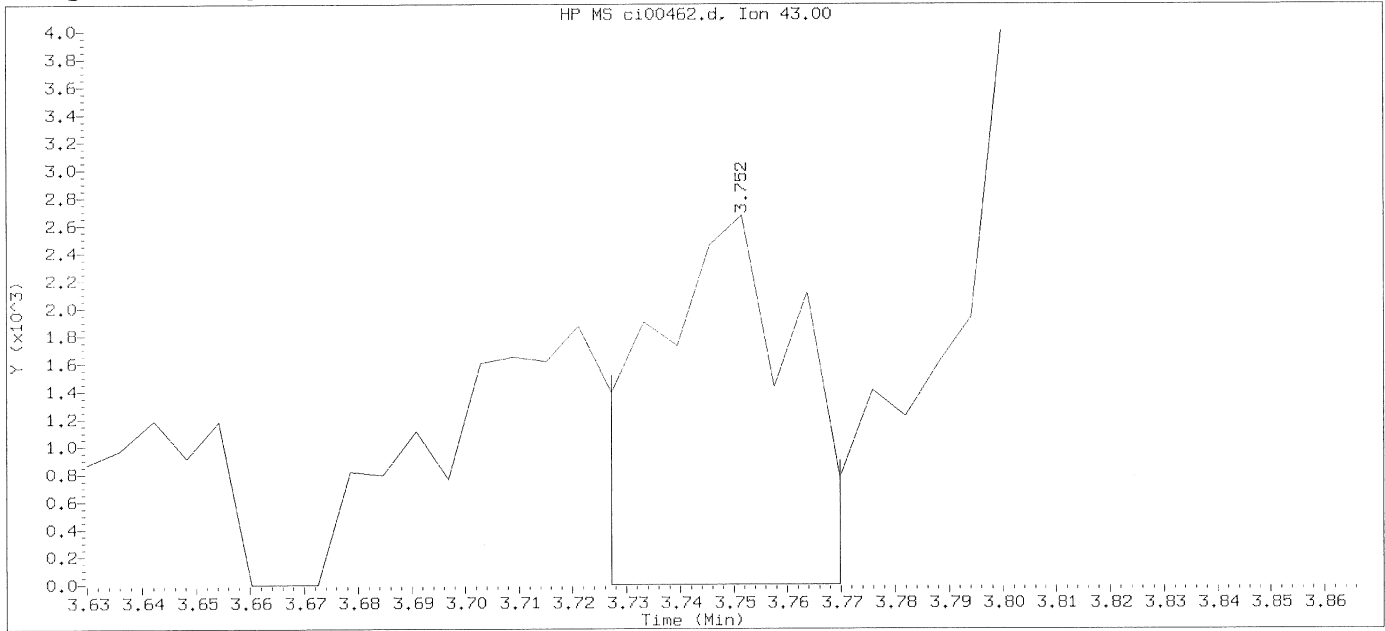
*Mark A. Ratcliff*  
 Mark A. Ratcliff  
 Senior Specialist  
**SEP 25 2015**

GC/MS audit/management approval: \_\_\_\_\_

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00462.d  
 Injection date and time: 22-SEP-2015 15:13

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
 Calibration date and time: 22-SEP-2015 11:37  
 Date, time and analyst ID of latest file update: 22-Sep-2015 15:53 Automation

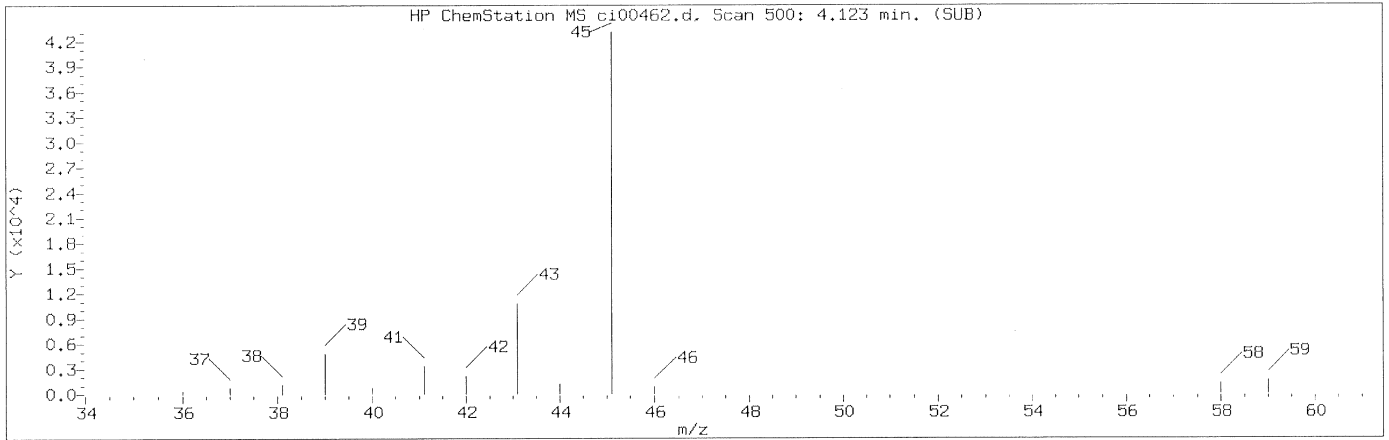
Sample Name: VSTD001

Lab Sample ID: VSTD001

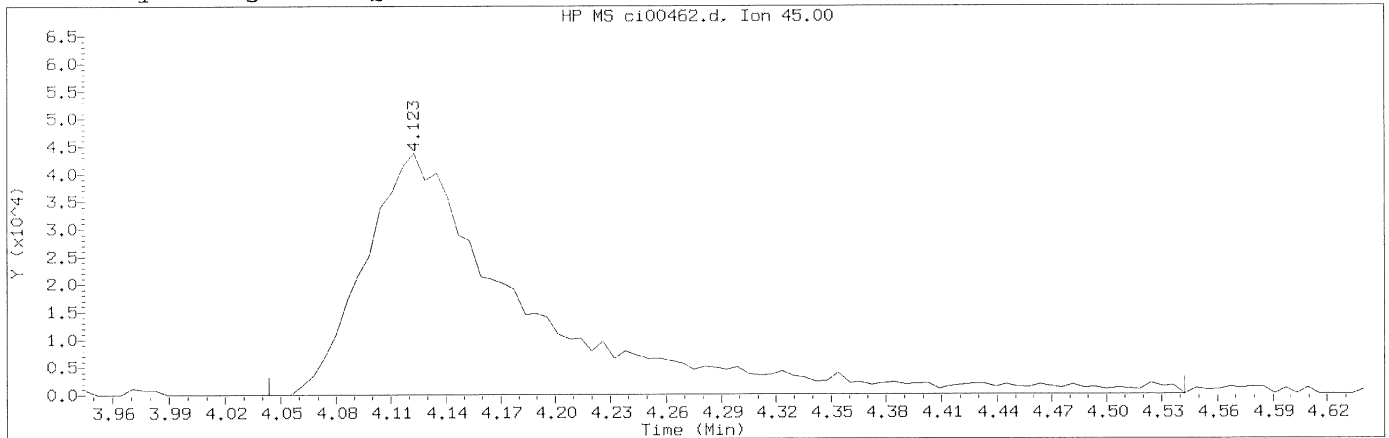
Compound Number	: 19	Integration start scan	: 434	Integration stop scan	: 441
Compound Name	: Acetone	Y at integration start	: 0	Y at integration end	: 0
Scan Number	: 439				
Retention Time (minutes)	: 3.752				
Quant Ion	: 43.00				
Area	: 4879				
Concentration (ppb(v))	: 0.0694				

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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/ci00462.d                      Instrument ID: HP09464.i  
Injection date and time: 22-SEP-2015 15:13                      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: VSTD001                      Lab Sample ID: VSTD001

Compound Number                      : 22  
Compound Name                         : Isopropanol  
Scan Number                            : 500  
Retention Time (minutes): 4.123  
Quant Ion                                : 45.00  
Area (flag)                             : 268061M  
Concentration (ppb(v))                : 1.2540  
Integration start scan                : 486                      Integration stop scan: 568  
Y at integration start                 : 0                        Y at integration end: 0

Reason for manual integration: improper integration

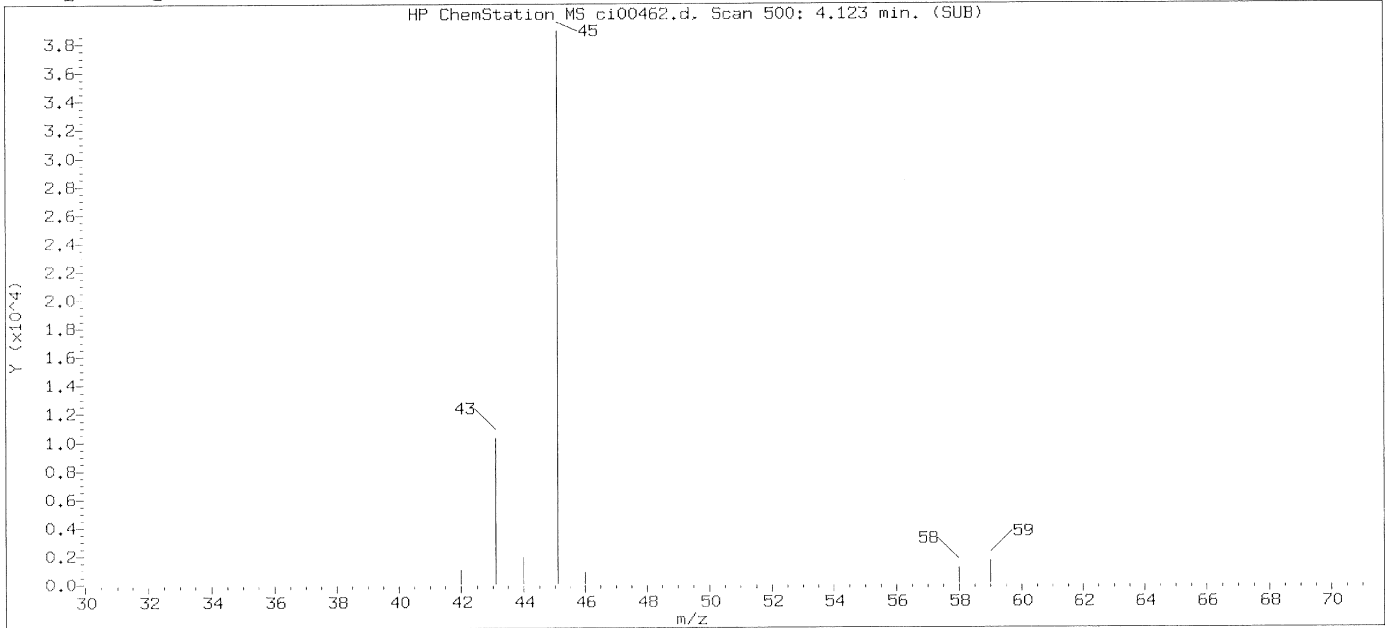
Analyst responsible for change: Digitally signed by Jeffrey B. Smith  
on 09/23/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304

*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

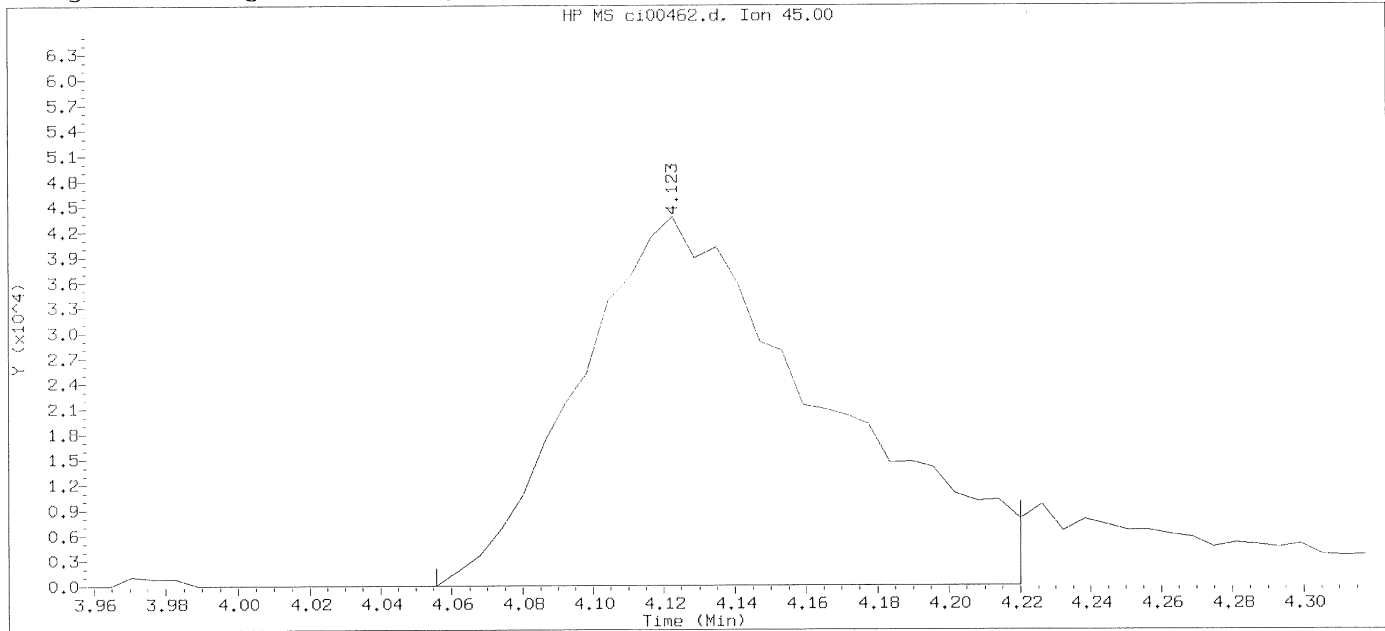
GC/MS audit/management approval: \_\_\_\_\_

SEP 25 2015

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00462.d

Instrument ID: HP09464.i

Injection date and time: 22-SEP-2015 15:13

Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m

Sublist used: all

Calibration date and time: 22-SEP-2015 11:37

Date, time and analyst ID of latest file update: 22-Sep-2015 15:53 Automation

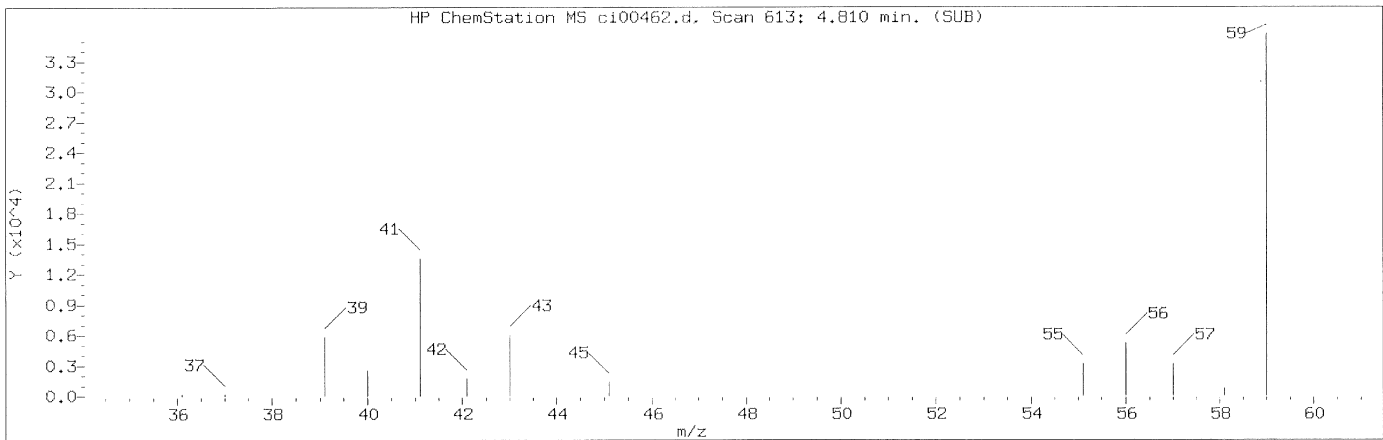
Sample Name: VSTD001

Lab Sample ID: VSTD001

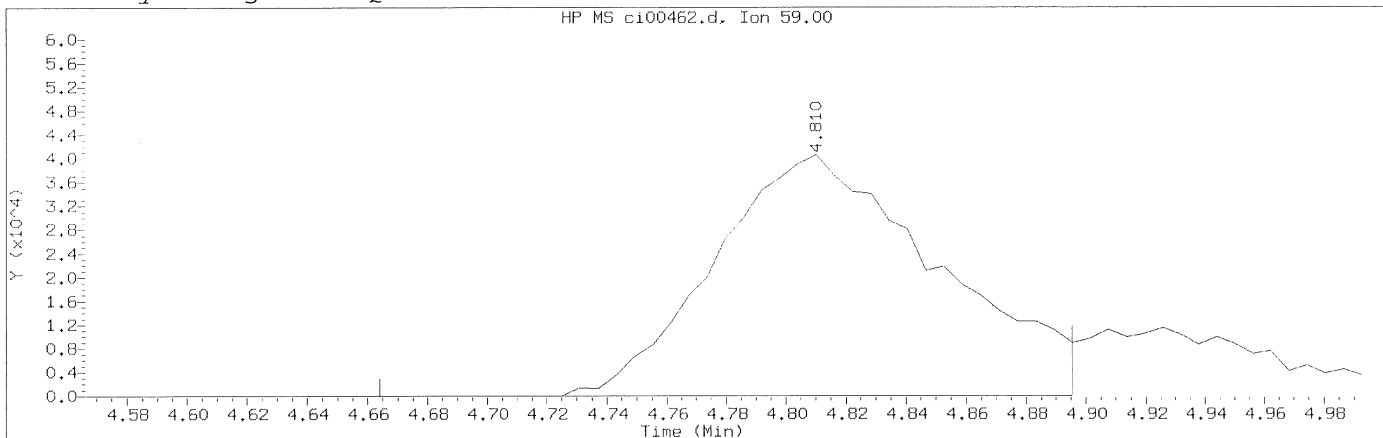
Compound Number : 22  
Compound Name : Isopropanol  
Scan Number : 500  
Retention Time (minutes): 4.123  
Quant Ion : 45.00  
Area : 209464  
Concentration (ppb(v)) : 1.2305  
Integration start scan : 488 Integration stop scan: 515  
Y at integration start : 0 Y at integration end: 0

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/ci00462.d      Instrument ID: HP09464.i  
 Injection date and time: 22-SEP-2015 15:13      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: VSTD001      Lab Sample ID: VSTD001

Compound Number : 26  
 Compound Name : tert-Butyl Alcohol  
 Scan Number : 613  
 Retention Time (minutes): 4.810  
 Quant Ion : 59.00  
 Area (flag) : 211660M  
 Concentration (ppb(v)) : 1.1370  
 Integration start scan : 588      Integration stop scan: 626  
 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

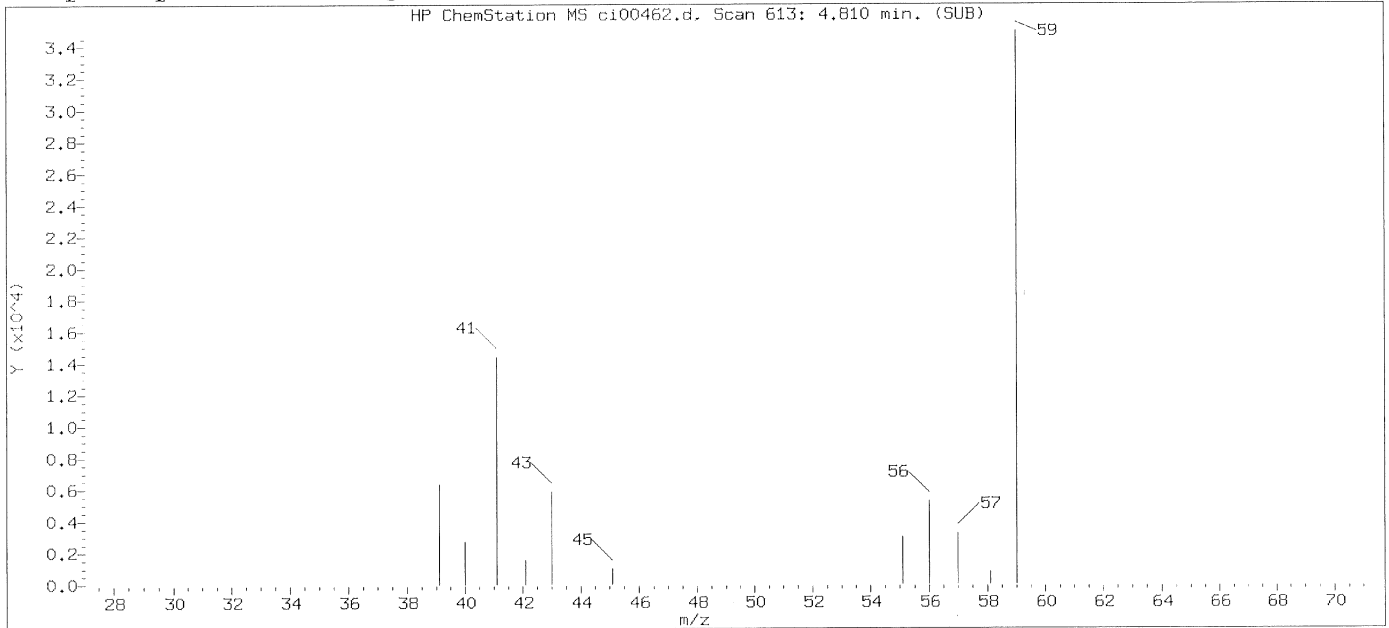
*Mark A. Ratcliff*  
 Mark A. Ratcliff  
 Senior Specialist

SEP 25 2015

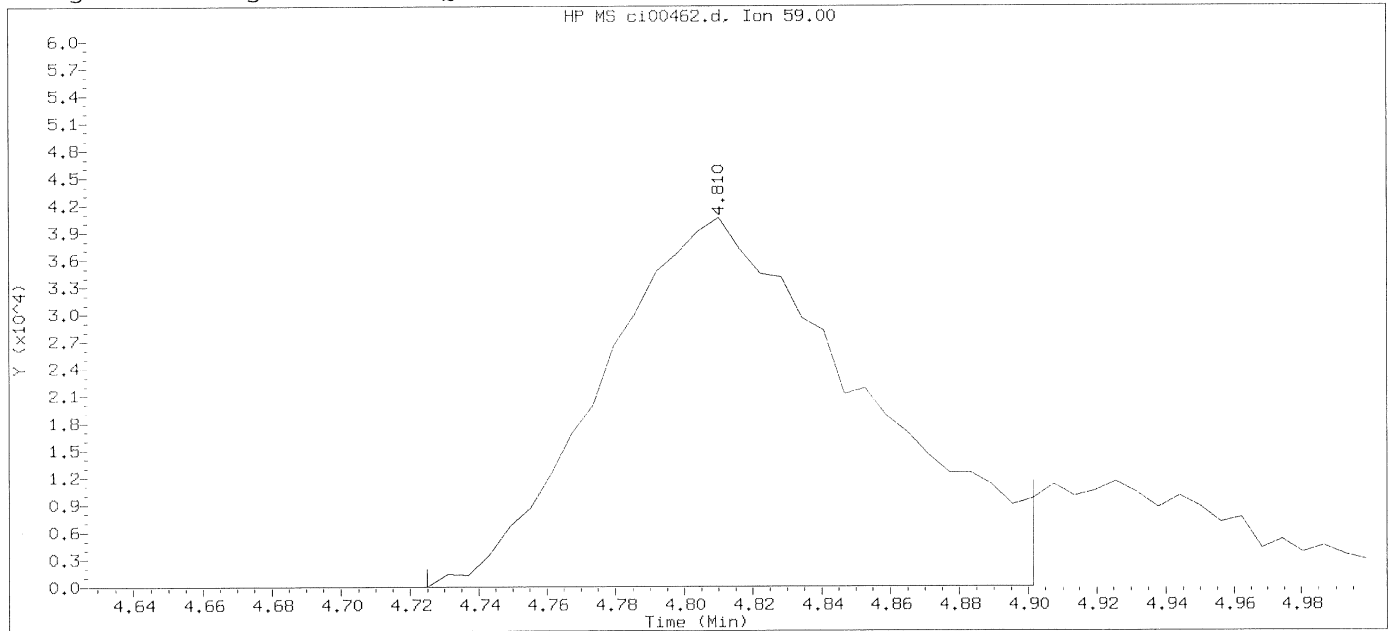
GC/MS audit/management approval: \_\_\_\_\_



Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00462.d

Instrument ID: HP09464.i

Injection date and time: 22-SEP-2015 15:13

Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m

Sublist used: all

Calibration date and time: 22-SEP-2015 11:37

Date, time and analyst ID of latest file update: 22-Sep-2015 15:53 Automation

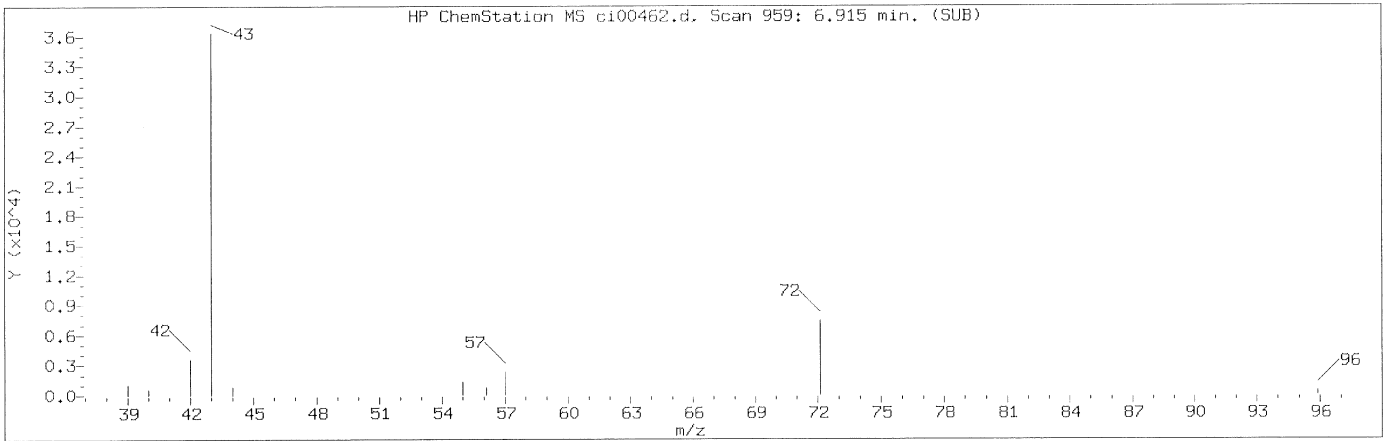
Sample Name: VSTD001

Lab Sample ID: VSTD001

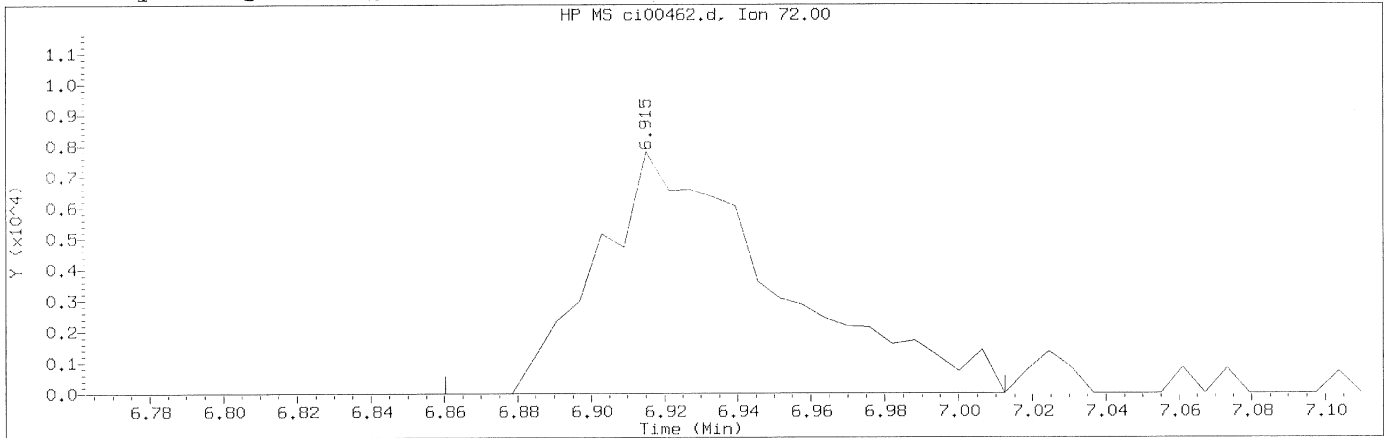
Compound Number : 26  
Compound Name : tert-Butyl Alcohol  
Scan Number : 613  
Retention Time (minutes): 4.810  
Quant Ion : 59.00  
Area : 213428  
Concentration (ppb(v)) : 1.4913  
Integration start scan : 598      Integration stop scan: 627  
Y at integration start : 0      Y at integration end: 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/ci00462.d  
Injection date and time: 22-SEP-2015 15:13

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD001

Lab Sample ID: VSTD001

Compound Number : 37  
Compound Name : 2-Butanone  
Scan Number : 959  
Retention Time (minutes): 6.915  
Quant Ion : 72.00  
Area (flag) : 26480M  
Concentration (ppb(v)) : 0.9702  
Integration start scan : 949      Integration stop scan: 974  
Y at integration start : 0      Y at integration end: 0

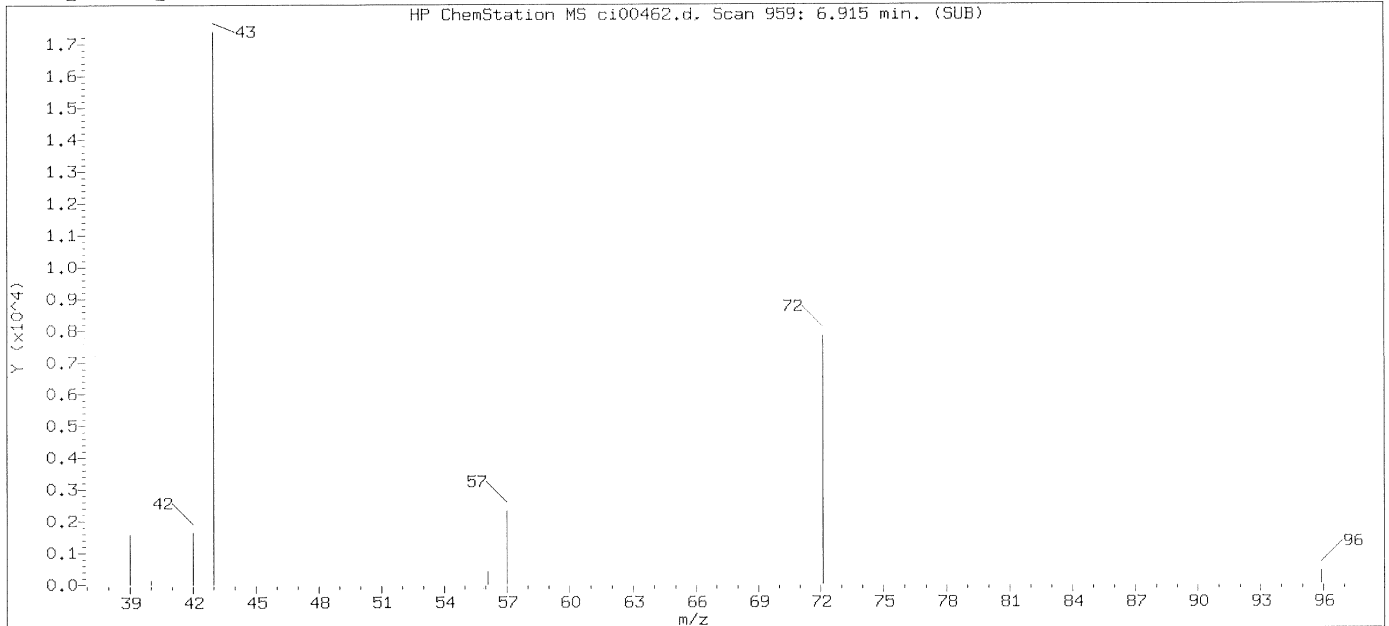
Reason for manual integration: improper integration

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

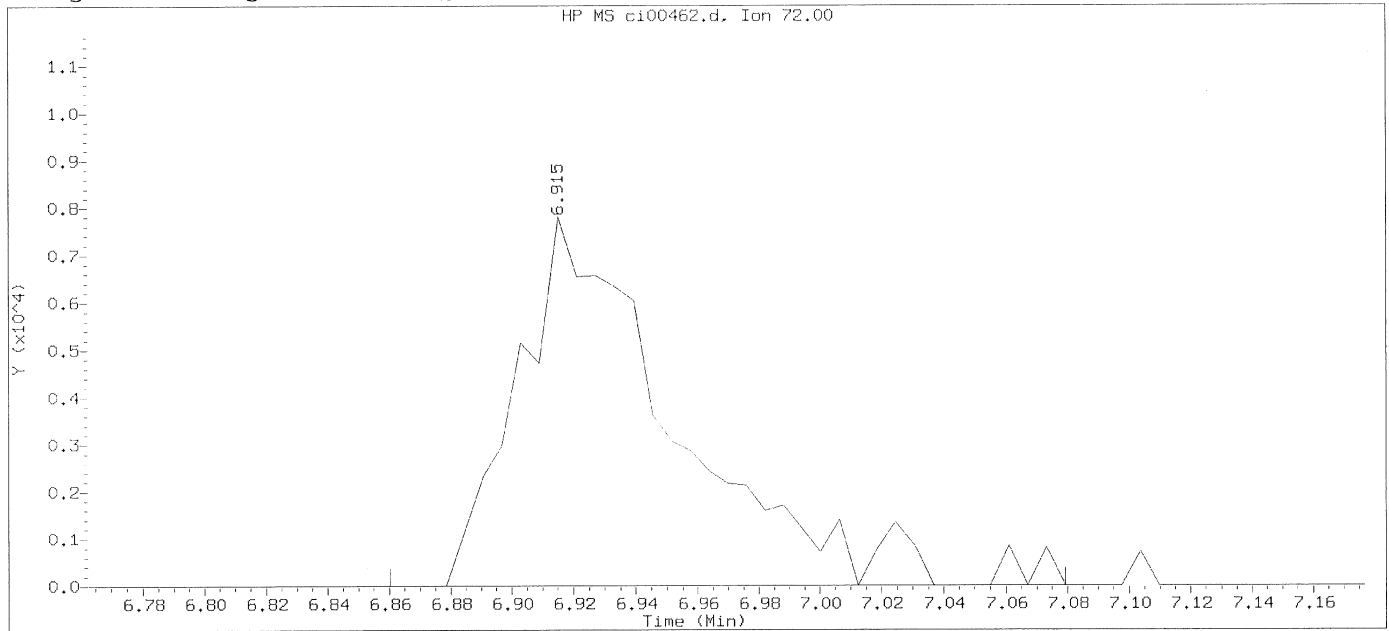
*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist  
SEP 25 2015

GC/MS audit/management approval: \_\_\_\_\_

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00462.d

Instrument ID: HP09464.i

Injection date and time: 22-SEP-2015 15:13

Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m

Sublist used: all

Calibration date and time: 22-SEP-2015 11:37

Date, time and analyst ID of latest file update: 22-Sep-2015 15:53 Automation

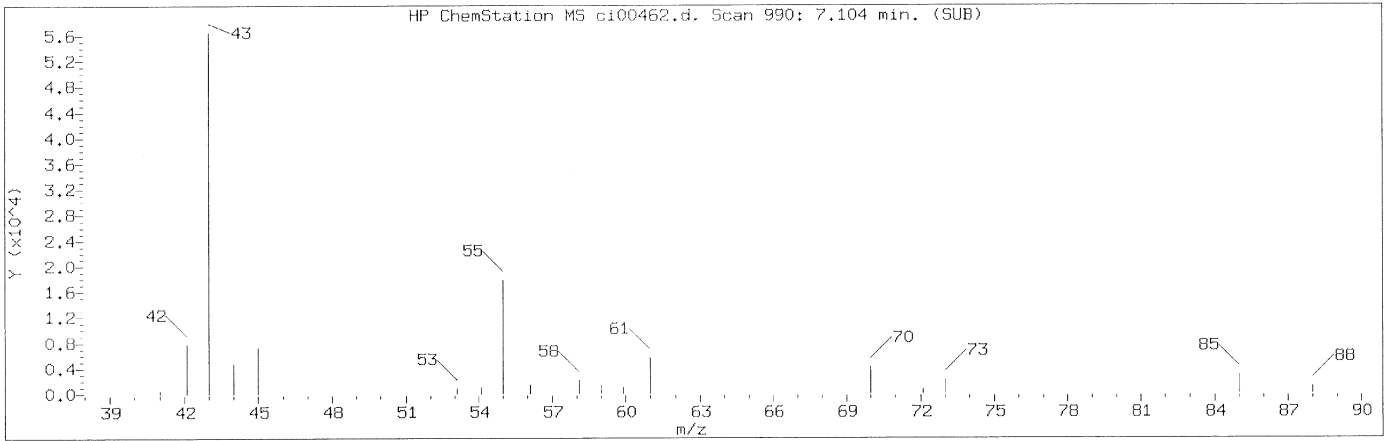
Sample Name: VSTD001

Lab Sample ID: VSTD001

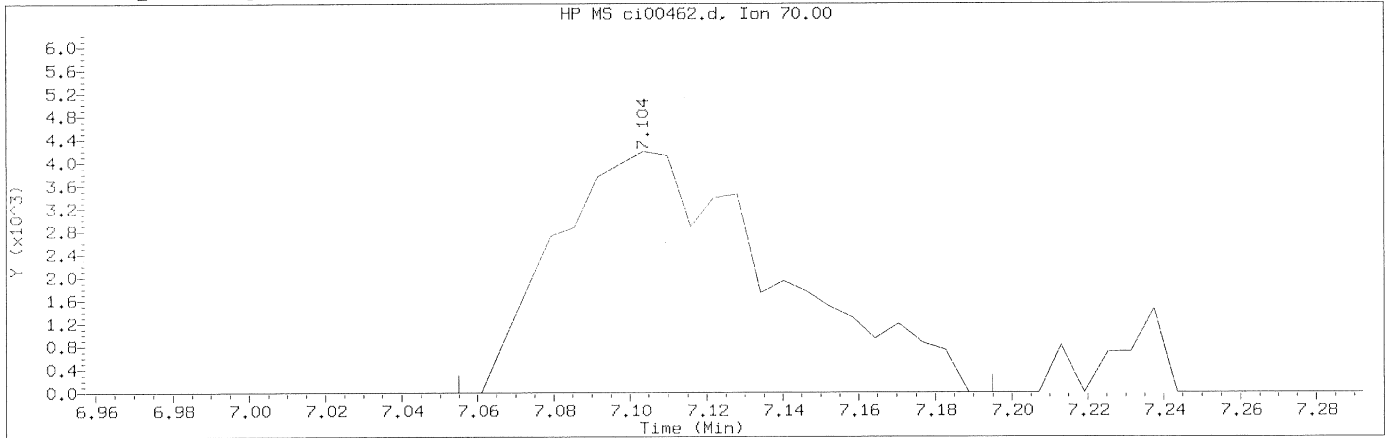
Compound Number : 37  
Compound Name : 2-Butanone  
Scan Number : 959  
Retention Time (minutes): 6.915  
Quant Ion : 72.00  
Area : 28156  
Concentration (ppb(v)) : 1.0850  
Integration start scan : 949 Integration stop scan: 985  
Y at integration start : 0 Y at integration end: 0

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/ci00462.d  
Injection date and time: 22-SEP-2015 15:13

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD001

Lab Sample ID: VSTD001

Compound Number : 38  
Compound Name : Ethyl Acetate  
Scan Number : 990  
Retention Time (minutes): 7.104  
Quant Ion : 70.00  
Area (flag) : 16806M  
Concentration (ppb(v)) : 1.0703  
Integration start scan : 981      Integration stop scan: 1004  
Y at integration start : 0      Y at integration end: 0

Reason for manual integration: improper integration

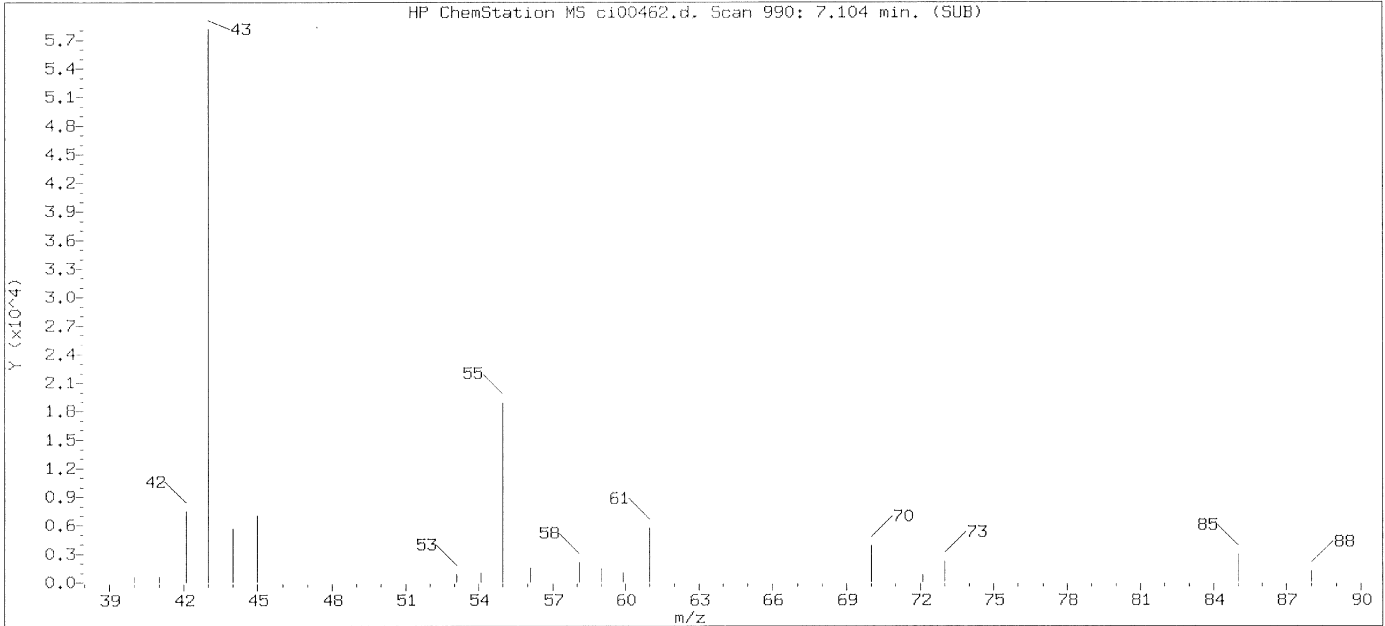
Analyst responsible for change: Digitally signed by Jeffrey B. Smith  
on 09/23/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304

*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

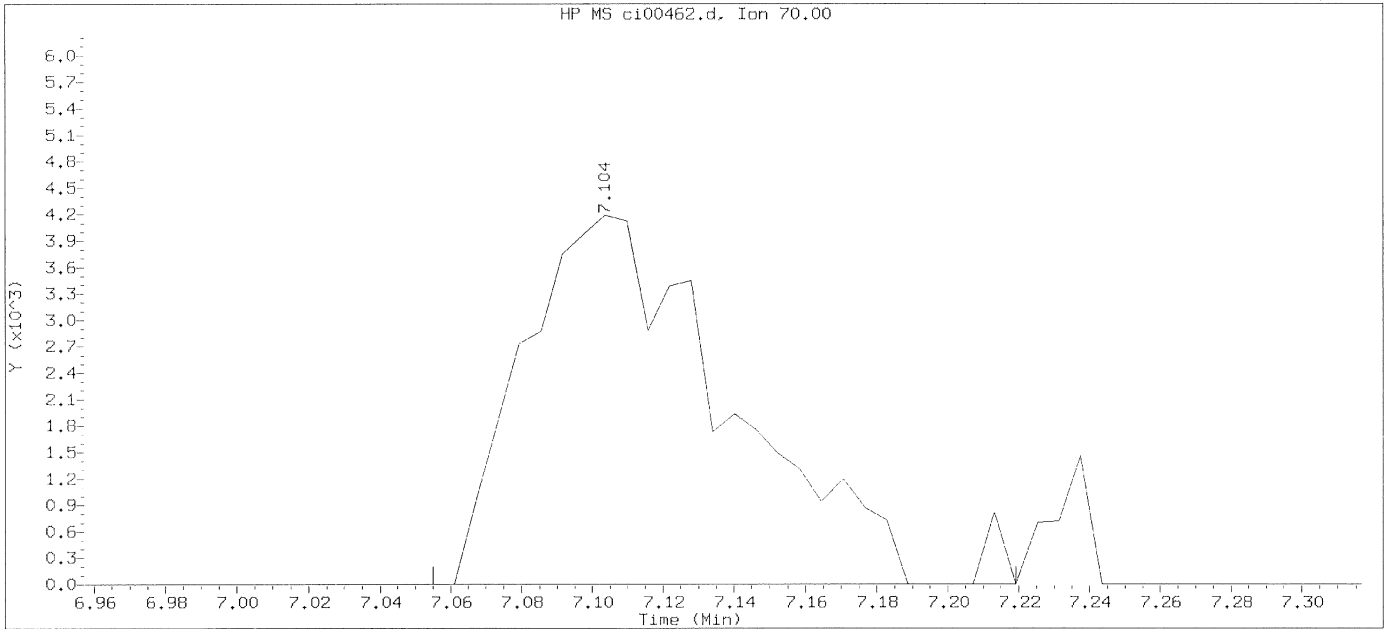
GC/MS audit/management approval: \_\_\_\_\_

SEP 25 2015

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00462.d  
Injection date and time: 22-SEP-2015 15:13

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
Calibration date and time: 22-SEP-2015 11:37  
Date, time and analyst ID of latest file update: 22-Sep-2015 15:53 Automation

Sublist used: all

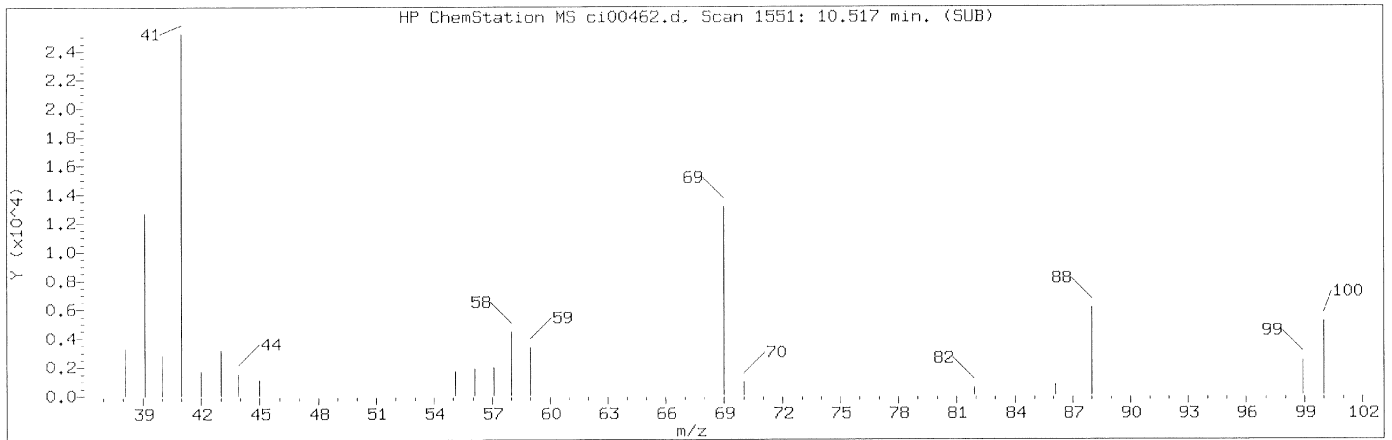
Sample Name: VSTD001

Lab Sample ID: VSTD001

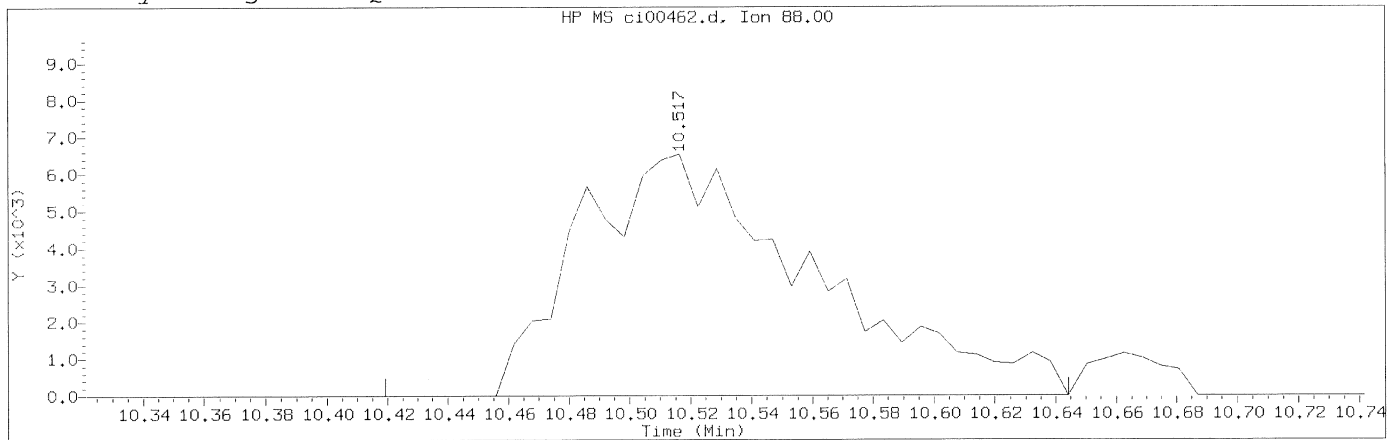
Compound Number : 38  
Compound Name : Ethyl Acetate  
Scan Number : 990  
Retention Time (minutes): 7.104  
Quant Ion : 70.00  
Area : 17106  
Concentration (ppb(v)) : 1.2648  
Integration start scan : 981 Integration stop scan: 1008  
Y at integration start : 0 Y at integration end: 0

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/ci00462.d Instrument ID: HP09464.i  
Injection date and time: 22-SEP-2015 15:13 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: VSTD001 Lab Sample ID: VSTD001

Compound Number : 56  
Compound Name : 1,4-Dioxane  
Scan Number : 1551  
Retention Time (minutes): 10.517  
Quant Ion : 88.00  
Area (flag) : 34944M  
Concentration (ppb(v)) : 0.9190  
Integration start scan : 1534 Integration stop scan: 1571  
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

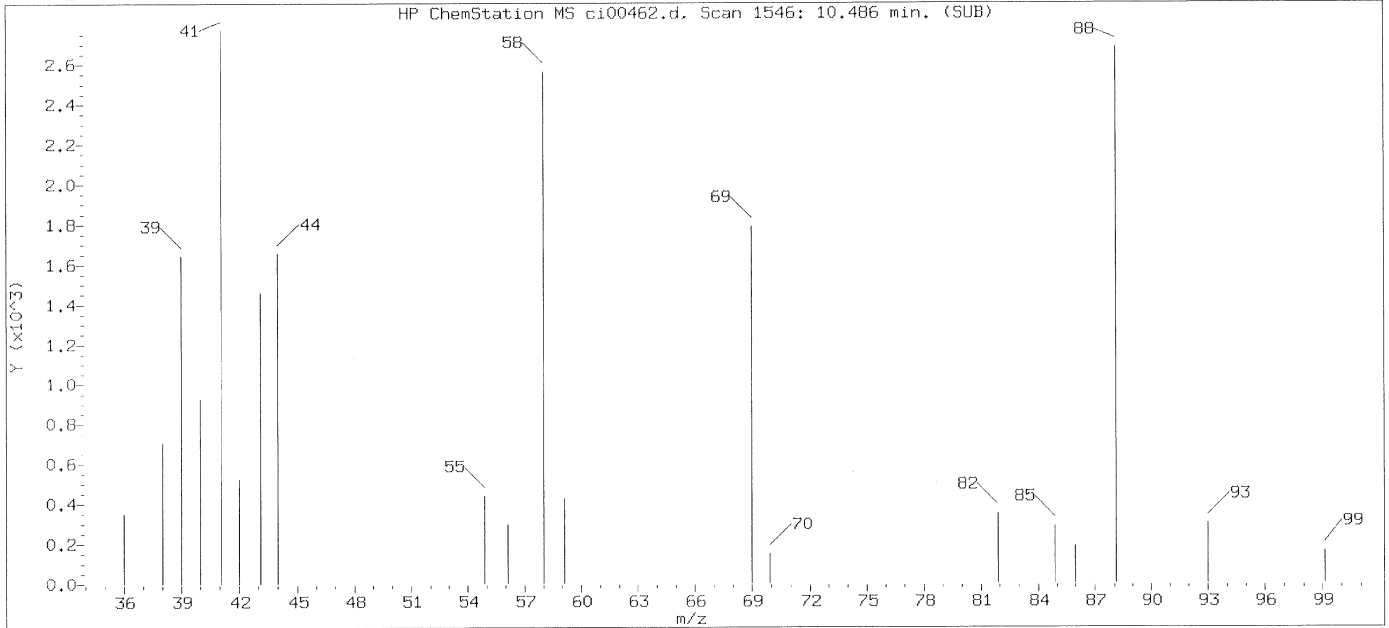
Analyst responsible for change: Digitally signed by Jeffrey B. Smith  
on 09/23/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304

*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

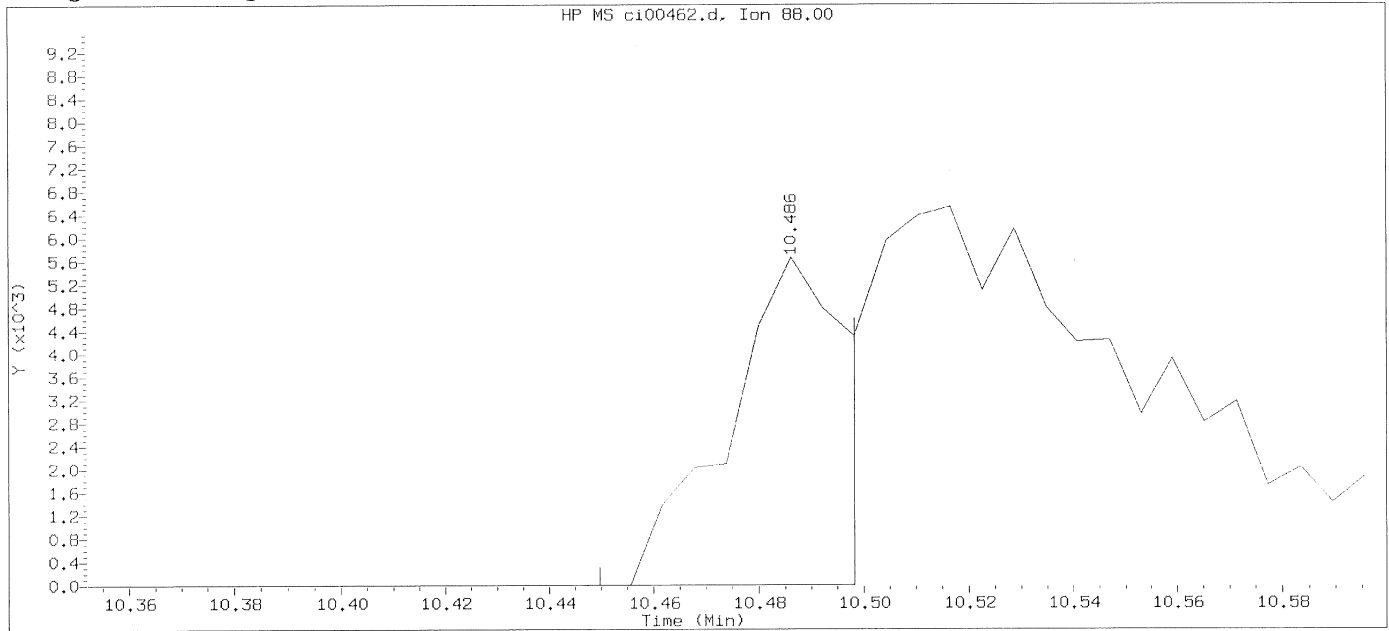
GC/MS audit/management approval: \_\_\_\_\_

SEP 25 2015

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00462.d Instrument ID: HP09464.i  
 Injection date and time: 22-SEP-2015 15:13 Analyst ID: jeb07445

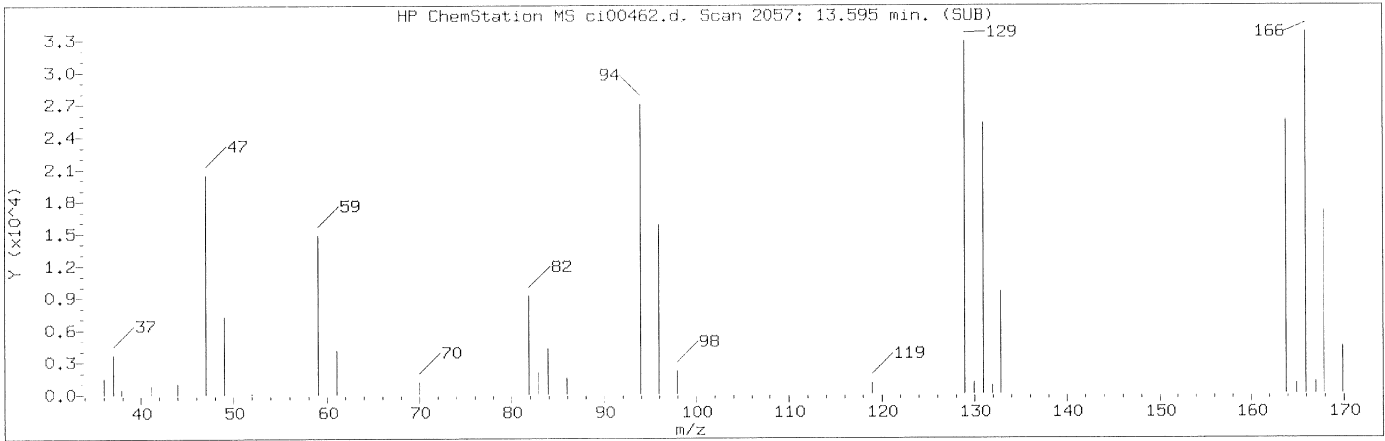
Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all  
 Calibration date and time: 22-SEP-2015 11:37  
 Date, time and analyst ID of latest file update: 22-Sep-2015 15:53 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

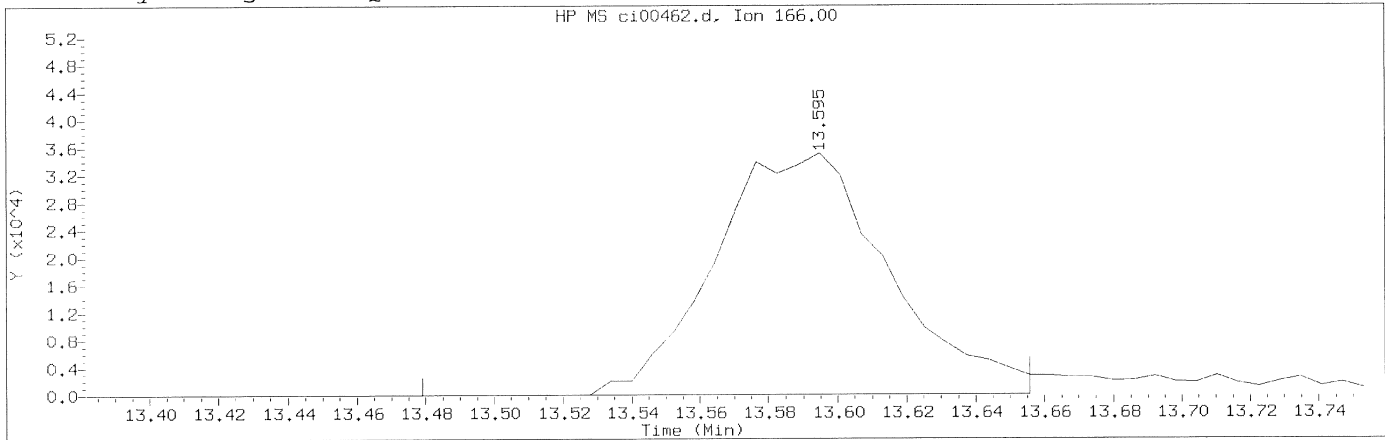
Compound Number : 56  
 Compound Name : 1,4-Dioxane  
 Scan Number : 1546  
 Retention Time (minutes): 10.486  
 Quant Ion : 88.00  
 Area : 8239  
 Concentration (ppb(v)) : 0.2061  
 Integration start scan : 1539 Integration stop scan: 1547  
 Y at integration start : 0 Y at integration end: 0

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 Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00462.d  
Injection date and time: 22-SEP-2015 15:13

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD001

Lab Sample ID: VSTD001

Compound Number : 67  
Compound Name : Tetrachloroethene  
Scan Number : 2057  
Retention Time (minutes): 13.595  
Quant Ion : 166.00  
Area (flag) : 123200M  
Concentration (ppb(v)) : 1.2572  
Integration start scan : 2037      Integration stop scan: 2066  
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

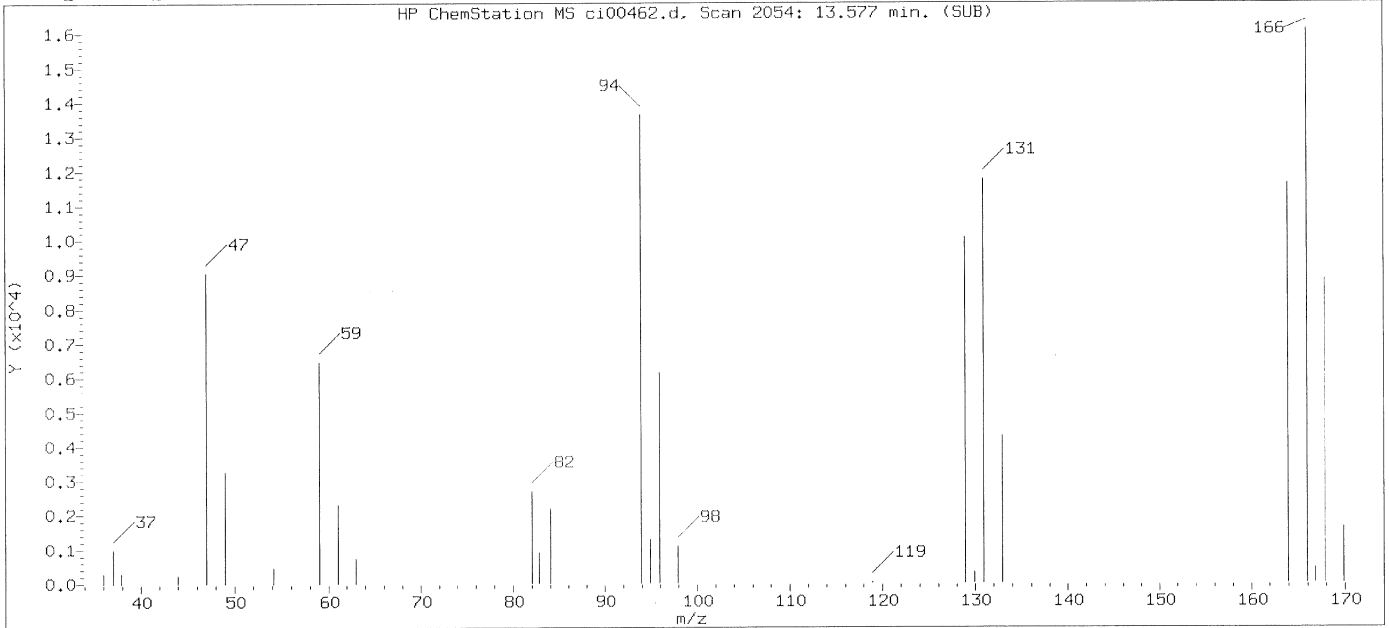
*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

SEP 25 2015

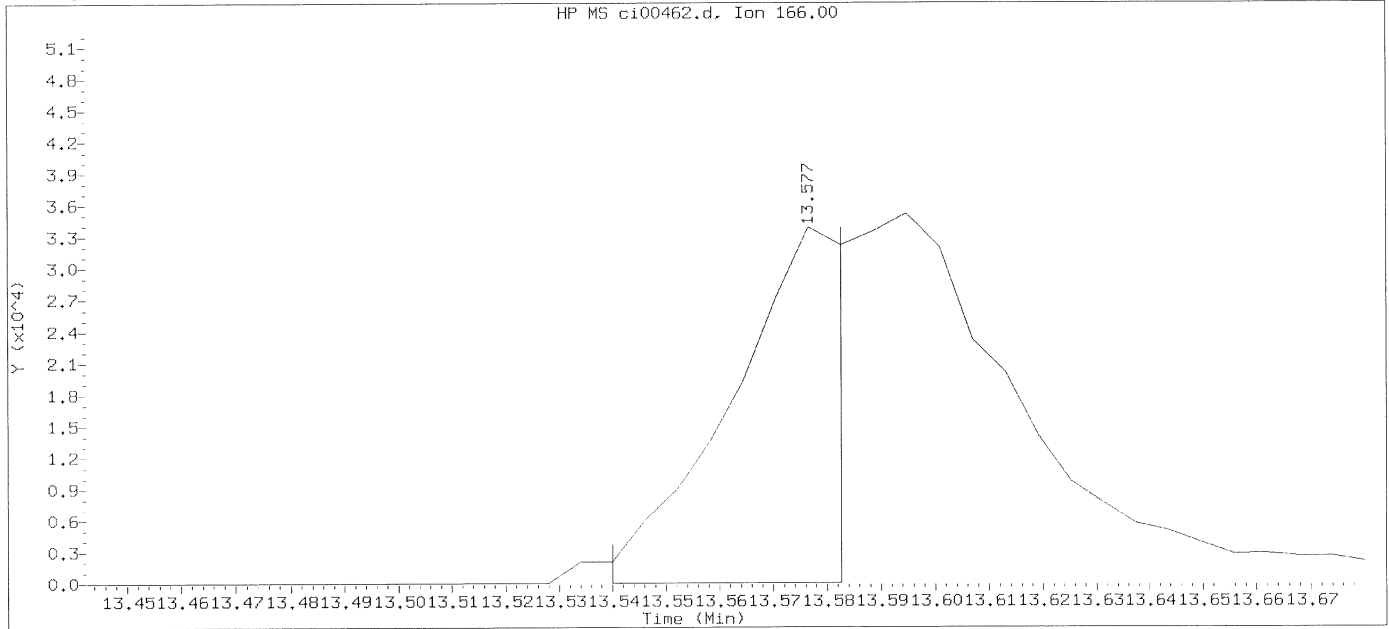
GC/MS audit/management approval: \_\_\_\_\_



Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00462.d  
 Injection date and time: 22-SEP-2015 15:13

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

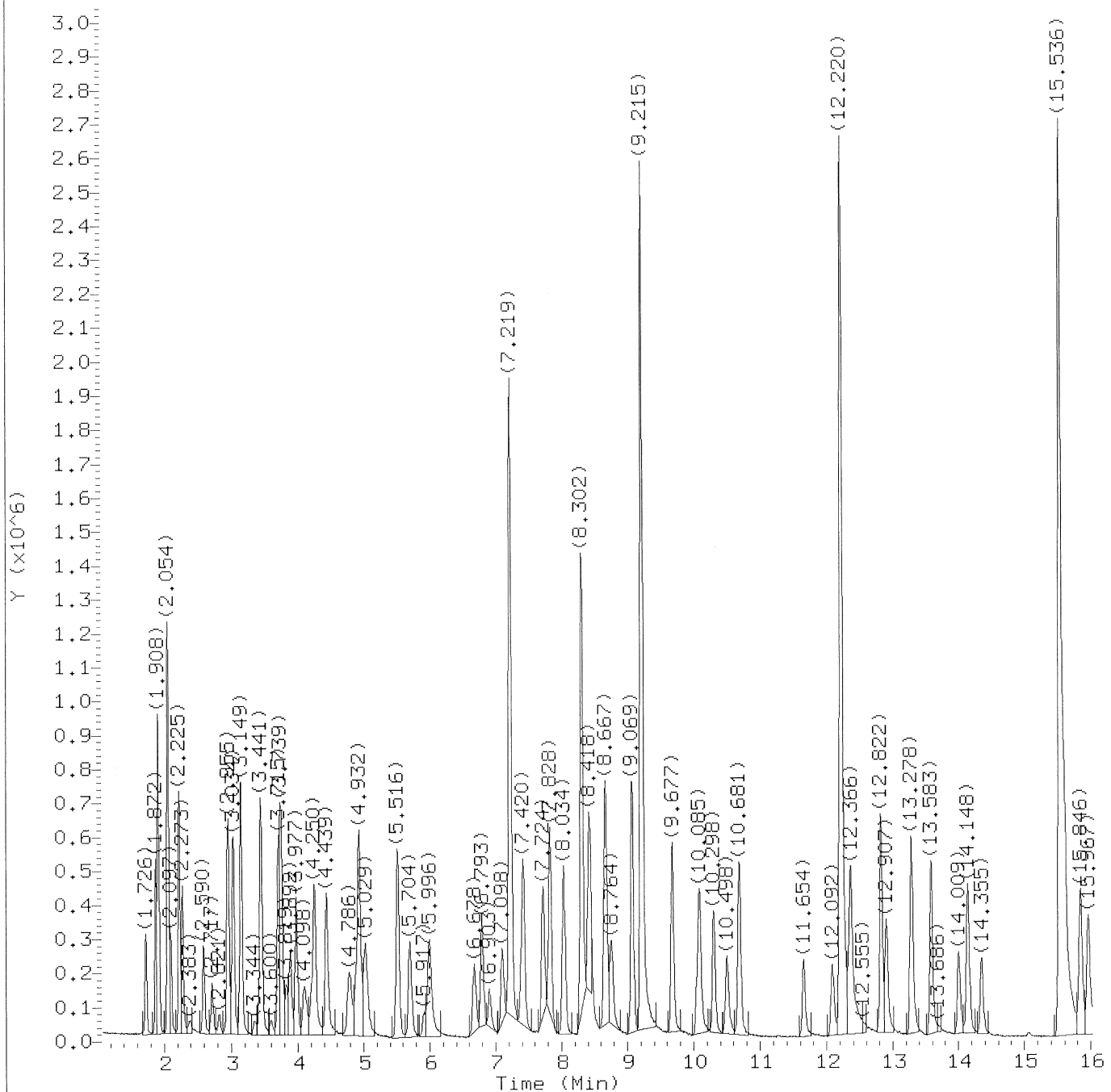
Method used: /chem/HP09464.i/15sep22.b/to-15.m  
 Calibration date and time: 22-SEP-2015 11:37  
 Date, time and analyst ID of latest file update: 22-Sep-2015 15:53 Automation

Sample Name: VSTD001

Lab Sample ID: VSTD001

Compound Number : 67  
 Compound Name : Tetrachloroethene  
 Scan Number : 2054  
 Retention Time (minutes): 13.577  
 Quant Ion : 166.00  
 Area : 45916  
 Concentration (ppb(v)) : 0.5744  
 Integration start scan : 2047  
 Integration stop scan: 2054  
 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/ci00464.d

Injection date and time: 22-SEP-2015 16:39

Instrument ID: HP09464.i

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

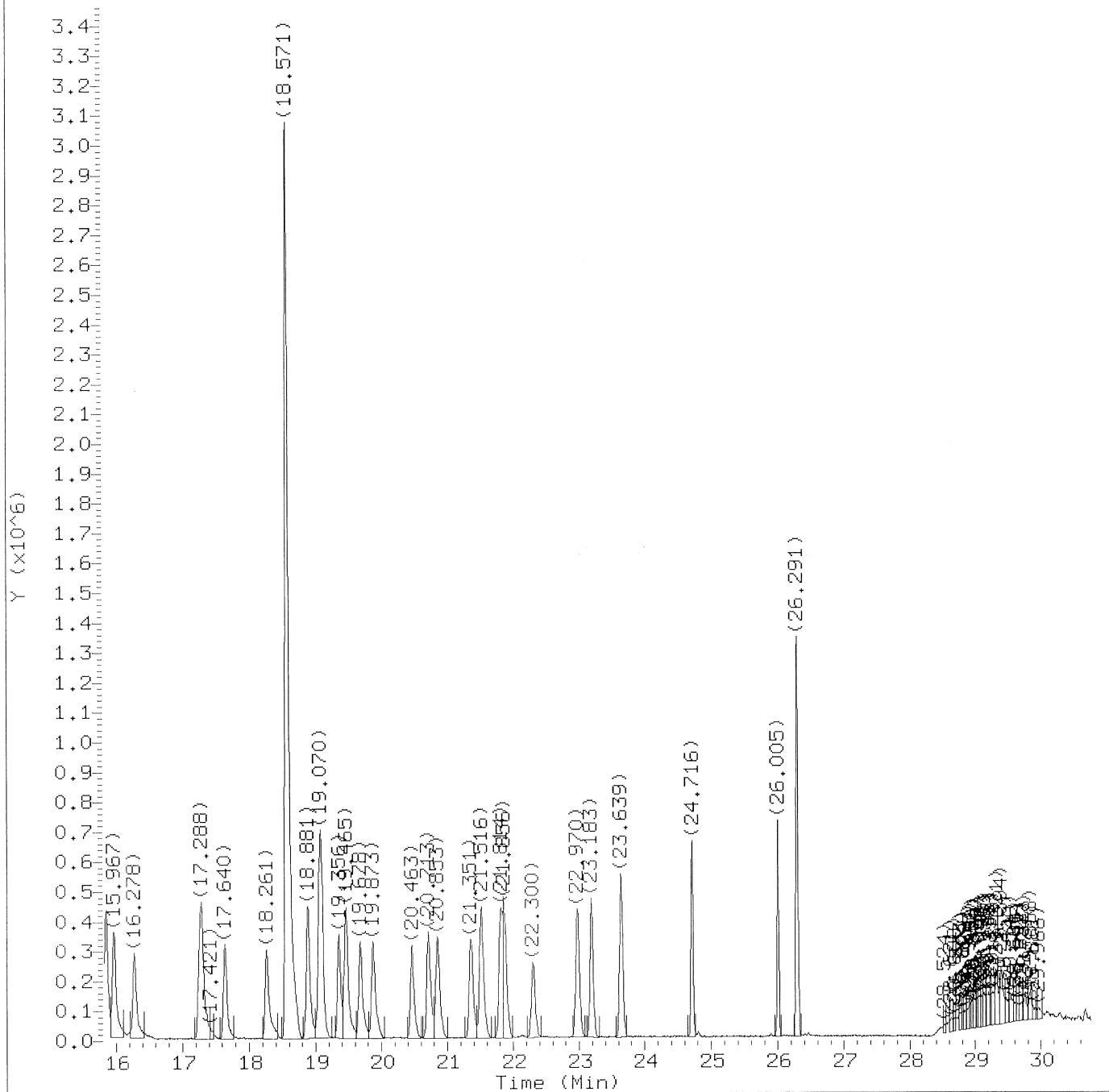
Sample Name: VSTD002

Lab Sample ID: VSTD002

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/ci00464.d

Injection date and time: 22-SEP-2015 16:39

Instrument ID: HP09464.i

Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m

Calibration date and time: 23-SEP-2015 09:08

Sublist used: all

Date, time and analyst ID of latest file update: 23-Sep-2015 09:08 jbs01304

Sample Name: VSTD002

Lab Sample ID: VSTD002

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/ci00464.d  
 Injection date and time: 22-SEP-2015 16:39

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD002

Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.872	41	213069	1.738
2) Dichlorodifluoromethane	(1)	1.908	85	593325	1.899
3) Chlorodifluoromethane	(1)	1.914	51	544036	2.048
4) Freon 114	(1)	2.048	85	519148	1.853
5) Chloromethane	(1)	2.103	52	110966	1.969
6) Vinyl Chloride	(1)	2.225	62	266885	1.880
7) 1,3-Butadiene	(1)	2.273	54	203156	1.699
8) Bromomethane	(1)	2.590	94	205345	1.829
9) Chloroethane	(1)	2.717	64	160320	1.781
10) Bromoethene	(1)	2.936	106	170224	1.803
11) Dichlorofluoromethane	(1)	2.961	67	715860	2.058
12) Trichlorofluoromethane	(1)	3.034	101	609181	1.872
13) Pentane	(1)	3.143	43	610553	2.063
14) Ethanol	(1)	3.344	45	88532M	1.190
15) Freon123a	(1)	3.441	67	687535	2.412
16) Acrolein	(1)	3.600	56	53186M	1.372
17) 1,1-Dichloroethene	(1)	3.703	61	480623	1.937
18) Freon 113	(1)	3.746	103	294382	1.892
19) Acetone	(1)	3.831	43	333219	2.236
20) Methyl Iodide	(1)	3.892	142	338894	1.870
21) Carbon Disulfide	(1)	3.977	76	759370	1.901
22) Isopropanol	(1)	4.098	45	395945M	1.807
23) Acetonitrile	(1)	4.208	40	185366	2.896
24) 3-Chloropropene	(1)	4.257	76	129257	2.072
25) Methylene Chloride	(1)	4.439	84	255709	2.308
26) tert-Butyl Alcohol	(1)	4.780	59	403843	2.116
27) Acrylonitrile	(1)	4.883	53	238813	2.066
28) trans-1,2-Dichloroethene	(1)	4.932	61	619711	2.211
29) Methyl t-Butyl Ether	(1)	5.029	73	398893	1.942
30) Hexane	(1)	5.516	57	344578	1.938
31) 1,1-Dichloroethane	(1)	5.704	63	520213	2.270
32) Vinyl Acetate	(1)	5.923	86	12481	1.169
33) Di-Isopropyl Ether	(1)	5.996	45	462011	1.879
36) 1,2-Dichloroethene (total)	(1)		61	1012894	4.560
34) Ethyl Tert-Butyl Ether	(1)	6.678	59	275949	1.670
35) cis-1,2-Dichloroethene	(1)	6.793	61	393183	2.349
37) 2-Butanone	(1)	6.909	72	53268M	1.904
38) Ethyl Acetate	(1)	7.085	70	31728M	1.971

M = Compound was manually integrated.

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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/ci00464.d  
 Injection date and time: 22-SEP-2015 16:39

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD002

Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Methyl Acrylate	(1)	7.116	55	234649	1.880
40) *Bromochloromethane	(1)	7.219	130	727793	10.000
41) Tetrahydrofuran	(1)	7.390	42	174940	1.789
42) Chloroform	(1)	7.420	83	540982	2.383
43) 1,1,1-Trichloroethane	(1)	7.718	97	473534	2.367
44) Cyclohexane	(1)	7.828	56	403721	2.040
45) Carbon Tetrachloride	(1)	8.034	117	474221	2.372
46) Benzene	(2)	8.412	78	685005	2.313
47) 1,2-Dichloroethane	(2)	8.442	62	449014	2.346
48) Isooctane	(2)	8.667	57	1095775	2.190
49) Tert-Amyl Methyl Ether	(2)	8.764	73	252286	1.765
50) Heptane	(2)	9.075	43	493995	2.071
51) *1,4-Difluorobenzene	(2)	9.215	114	2662834	10.000
52) Trichloroethene	(2)	9.677	130	236608	2.139
53) Ethyl Acrylate	(2)	10.048	55	250273	1.752
54) 1,2-Dichloropropane	(2)	10.091	63	261778	2.068
55) Dibromomethane	(2)	10.304	174	162457	2.143
56) 1,4-Dioxane	(2)	10.486	88	70954	1.770
57) Methyl Methacrylate	(2)	10.498	69	119602	1.702
58) Bromodichloromethane	(2)	10.687	83	586487	2.343
59) cis-1,3-Dichloropropene	(2)	11.660	75	225910	1.628
60) 4-Methyl-2-Pentanone	(2)	12.092	43	328132	1.635
61) Toluene	(3)	12.366	91	514287	2.140
64) 1,3-Dichloropropene (total)	(3)		75	530712	3.641
62) Octane	(3)	12.822	43	520625	1.922
63) trans-1,3-Dichloropropene	(3)	12.907	75	304802	2.013
65) Ethyl Methacrylate	(3)	13.278	69	167482	1.498
66) 1,1,2-Trichloroethane	(3)	13.291	97	226322	2.145
67) Tetrachloroethene	(3)	13.583	166	217528	2.113
68) 2-Hexanone	(3)	14.009	43	364196	1.828
69) Dibromochloromethane	(3)	14.148	127	303082	2.030
70) 1,2-Dibromoethane	(3)	14.355	107	287553	2.000
71) *Chlorobenzene-d5	(3)	15.536	117	2456324	10.000
72) Chlorobenzene	(3)	15.602	112	418703	2.164
73) 1,1,1,2-Tetrachloroethane	(3)	15.846	131	213108	2.079
74) Ethylbenzene	(3)	15.967	91	507020	1.968
75) m/p-Xylene	(3)	16.278	91	349753	1.708
77) Xylene (total)	(3)		91	757280	3.579

\* = 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/ci00464.d  
 Injection date and time: 22-SEP-2015 16:39

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD002

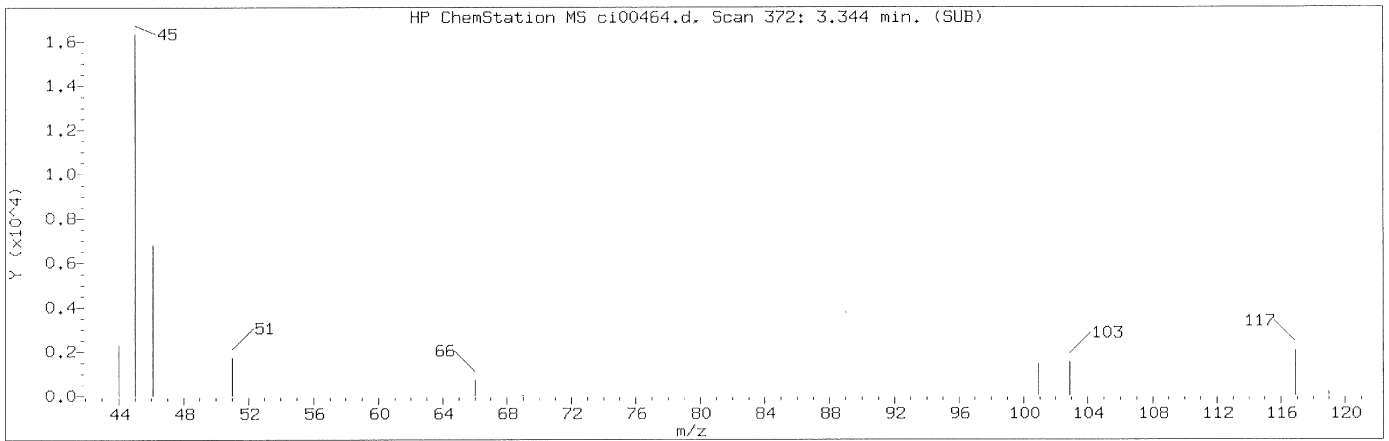
Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
76) o-Xylene	(3)	17.251	91	407527	1.871
78) Styrene	(3)	17.294	104	321971	1.848
79) Bromoform	(3)	17.640	173	248858	1.809
80) Cumene	(3)	18.267	105	414505	1.706
81) Bromobenzene	(3)	18.888	156	182799	1.969
82) 1,1,2,2-Tetrachloroethane	(3)	19.046	83	520539	2.208
83) 1,2,3-Trichloropropane	(3)	19.082	110	115475	1.932
84) n-Propylbenzene	(3)	19.350	120	123586	1.747
85) 2-Chlorotoluene	(3)	19.465	126	148288	1.946
86) 4-Ethyltoluene	(3)	19.684	105	470757	1.787
87) 1,3,5-Trimethylbenzene	(3)	19.879	105	384879	1.755
88) Alpha Methyl Styrene	(3)	20.469	118	180372	1.674
89) tert-Butylbenzene	(3)	20.713	119	329872	1.672
90) 1,2,4-Trimethylbenzene	(3)	20.853	105	438938	1.844
91) sec-Butylbenzene	(3)	21.364	105	536354	1.707
92) 1,3-Dichlorobenzene	(3)	21.510	146	358166	2.020
93) 1,4-Dichlorobenzene	(3)	21.808	146	344249	1.910
94) p-Isopropyltoluene	(3)	21.869	119	432409	1.680
95) Benzyl Chloride	(3)	22.300	91	419919	1.554
96) 1,2-Dichlorobenzene	(3)	22.982	146	312253	1.904
97) n-Butylbenzene	(3)	23.183	91	505303	1.789
98) Hexachloroethane	(3)	23.645	117	241796	1.985
99) 1,2-Dibromo-3-chloropropane	(3)	24.716	157	142885	1.831
100) 1,2,4-Trichlorobenzene	(3)	26.005	180	161820	1.948
101) Hexachlorobutadiene	(3)	26.285	225	127178	1.570
102) Naphthalene	(3)	26.297	128	504039	2.140

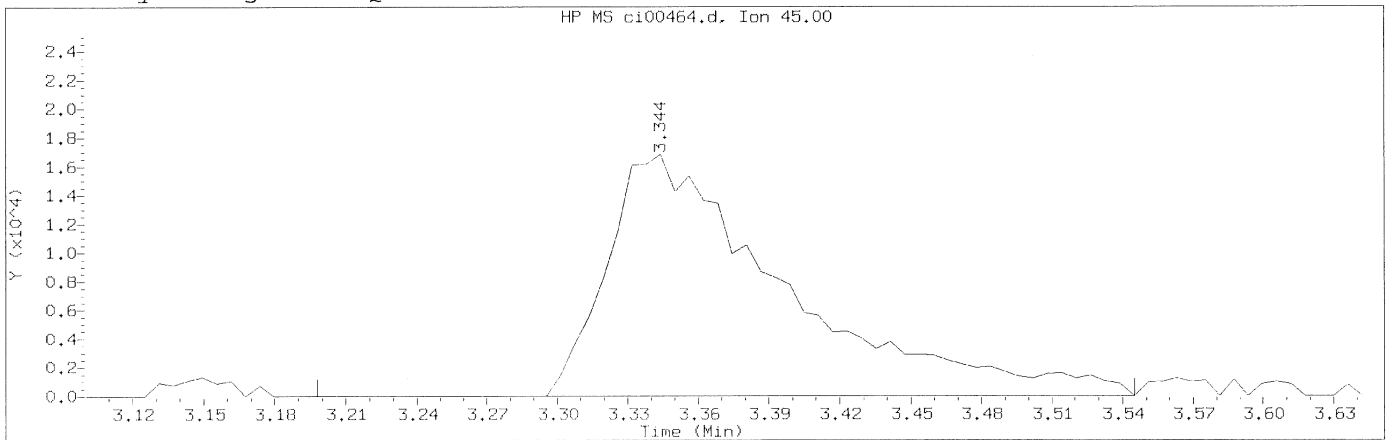
page 3 of 3

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/ci00464.d  
Injection date and time: 22-SEP-2015 16:39

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD002

Lab Sample ID: VSTD002

Compound Number : 14  
Compound Name : Ethanol  
Scan Number : 372  
Retention Time (minutes): 3.344  
Quant Ion : 45.00  
Area (flag) : 88532M  
Concentration (ppb(v)) : 1.1897  
Integration start scan : 347      Integration stop scan: 404  
Y at integration start : 0      Y at integration end: 0

Reason for manual integration: improper integration

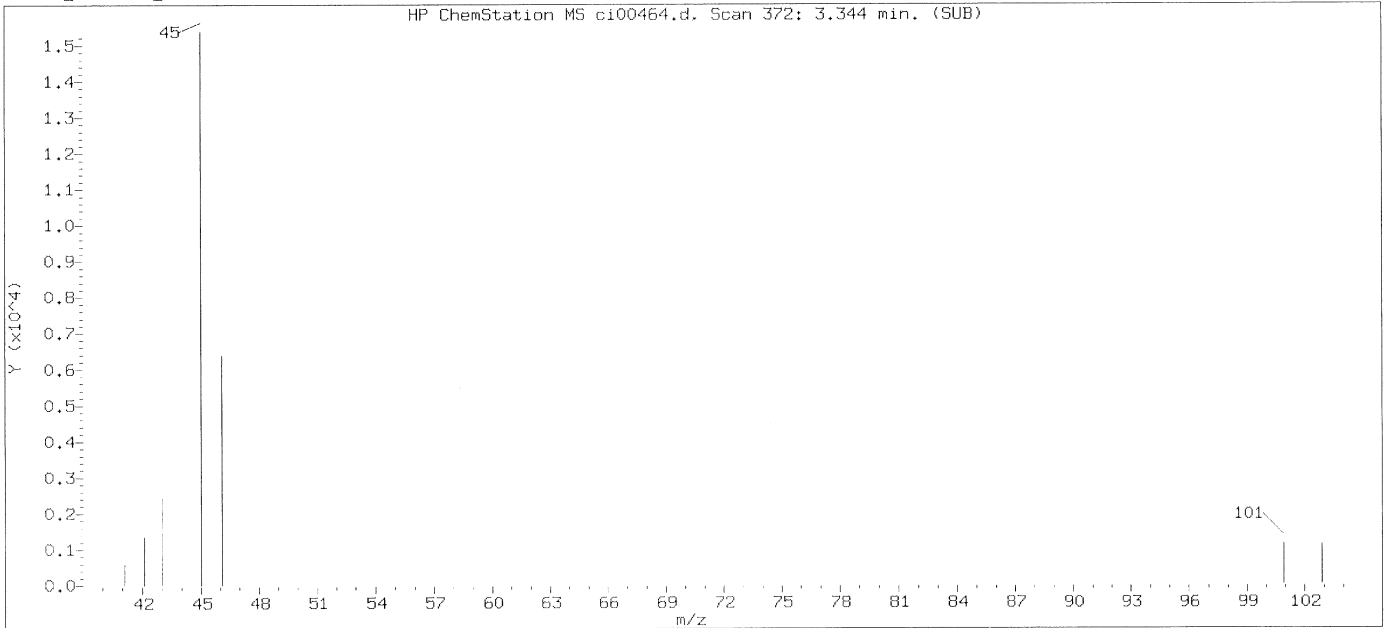
Analyst responsible for change: Digitally signed by Jeffrey B. Smith  
on 09/23/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304

GC/MS audit/management approval: \_\_\_\_\_

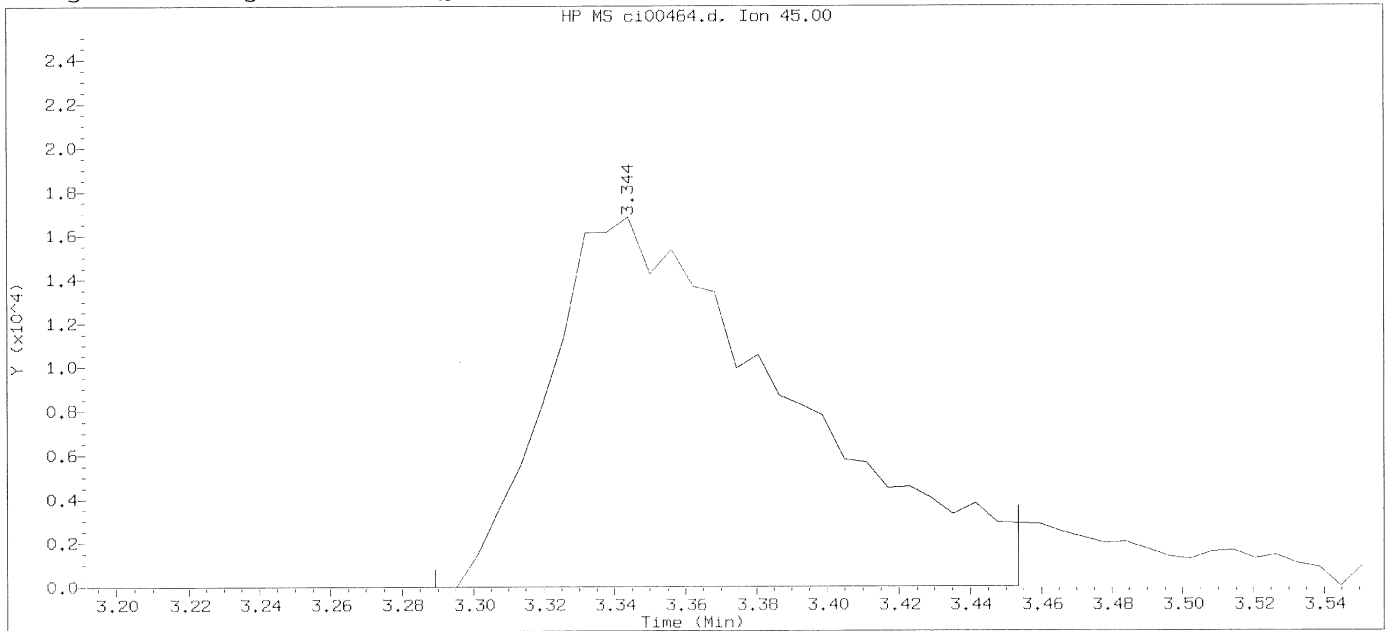
*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

SEP 25 2015

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00464.d

Instrument ID: HP09464.i

Injection date and time: 22-SEP-2015 16:39

Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m

Sublist used: all

Calibration date and time: 22-SEP-2015 11:37

Date, time and analyst ID of latest file update: 22-Sep-2015 17:18 Automation

Sample Name: VSTD002

Lab Sample ID: VSTD002

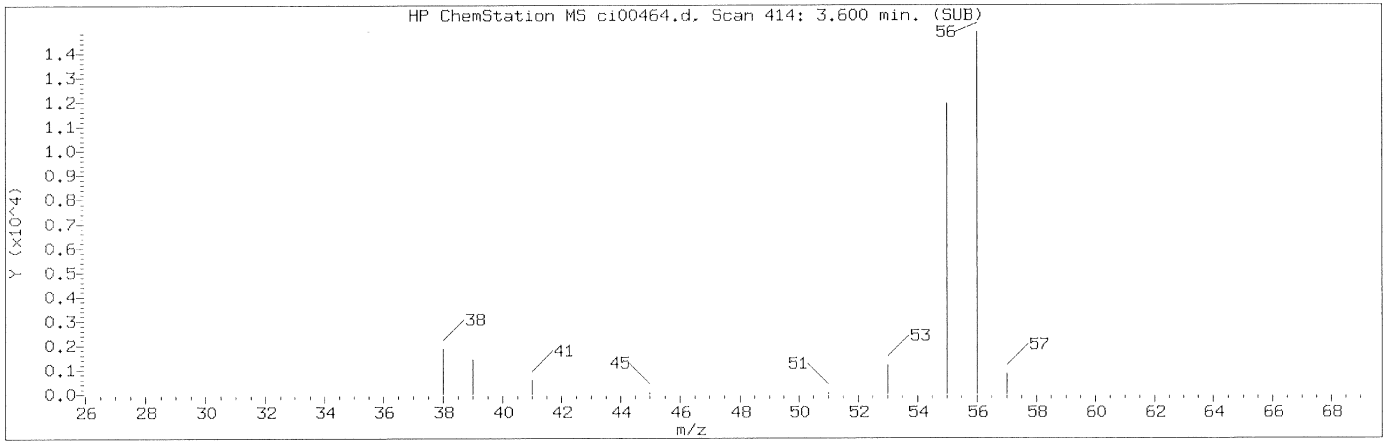
Compound Number : 14  
Compound Name : Ethanol  
Scan Number : 372  
Retention Time (minutes): 3.344  
Quant Ion : 45.00  
Area : 79316  
Concentration (ppb(v)) : 1.1914  
Integration start scan : 362  
Y at integration start : 0

Integration stop scan: 389  
Y at integration end: 0

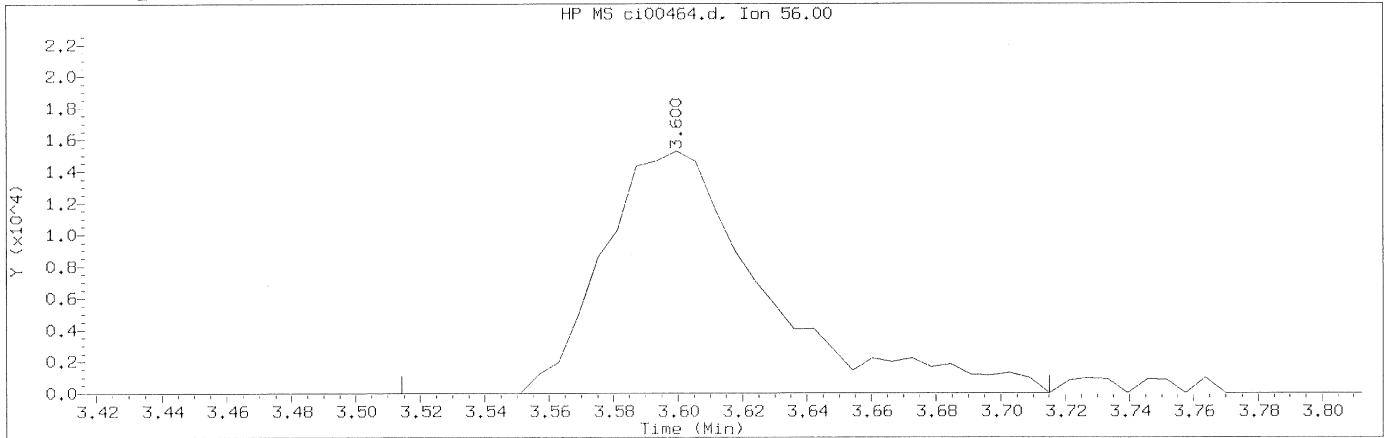
Digitally signed by Jeffrey B. Smith on 09/23/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304



Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00464.d                      Instrument ID: HP09464.i  
Injection date and time: 22-SEP-2015 16:39                      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: VSTD002    Lab Sample ID: VSTD002

Compound Number                      : 16  
Compound Name                         : Acrolein  
Scan Number                            : 414  
Retention Time (minutes): 3.600  
Quant Ion                                : 56.00  
Area (flag)                             : 53186M  
Concentration (ppb(v))                : 1.3720  
Integration start scan                 : 399                      Integration stop scan: 432  
Y at integration start                 : 0                        Y at integration end: 0

Reason for manual integration: improper integration

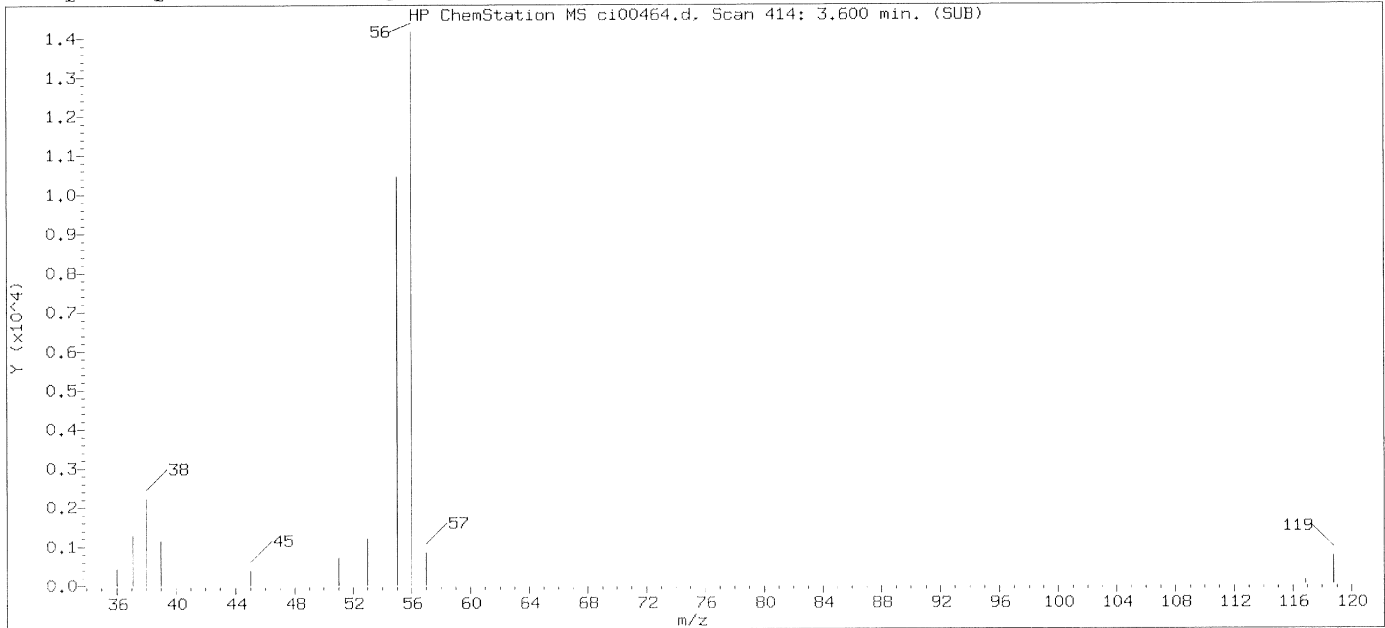
Analyst responsible for change: Digitally signed by Jeffrey B. Smith  
on 09/23/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304

*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

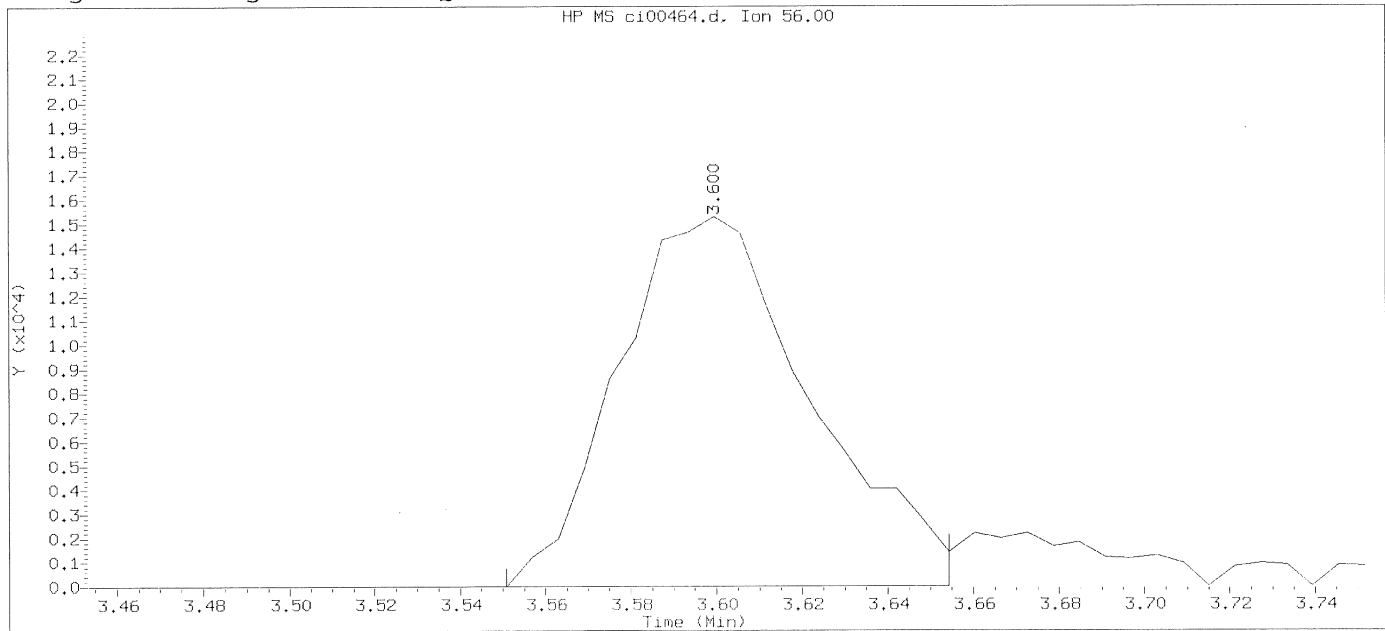
GC/MS audit/management approval: \_\_\_\_\_

SEP 25 2015

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00464.d

Instrument ID: HP09464.i

Injection date and time: 22-SEP-2015 16:39

Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m

Sublist used: all

Calibration date and time: 22-SEP-2015 11:37

Date, time and analyst ID of latest file update: 22-Sep-2015 17:18 Automation

Sample Name: VSTD002

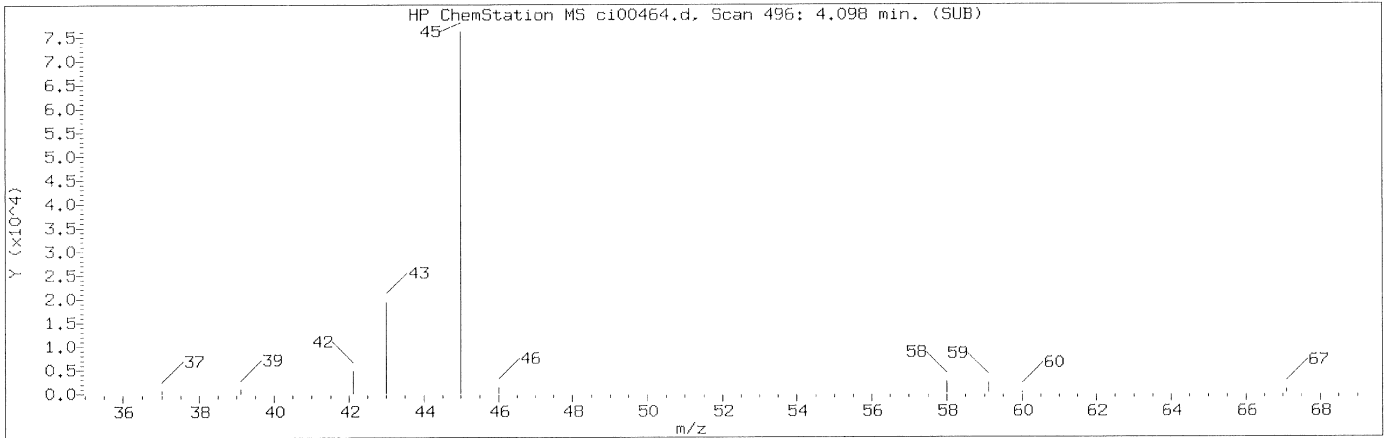
Lab Sample ID: VSTD002

Compound Number : 16  
Compound Name : Acrolein  
Scan Number : 414  
Retention Time (minutes): 3.600  
Quant Ion : 56.00  
Area : 47661  
Concentration (ppb(v)) : 1.8743  
Integration start scan : 405  
Y at integration start : 0

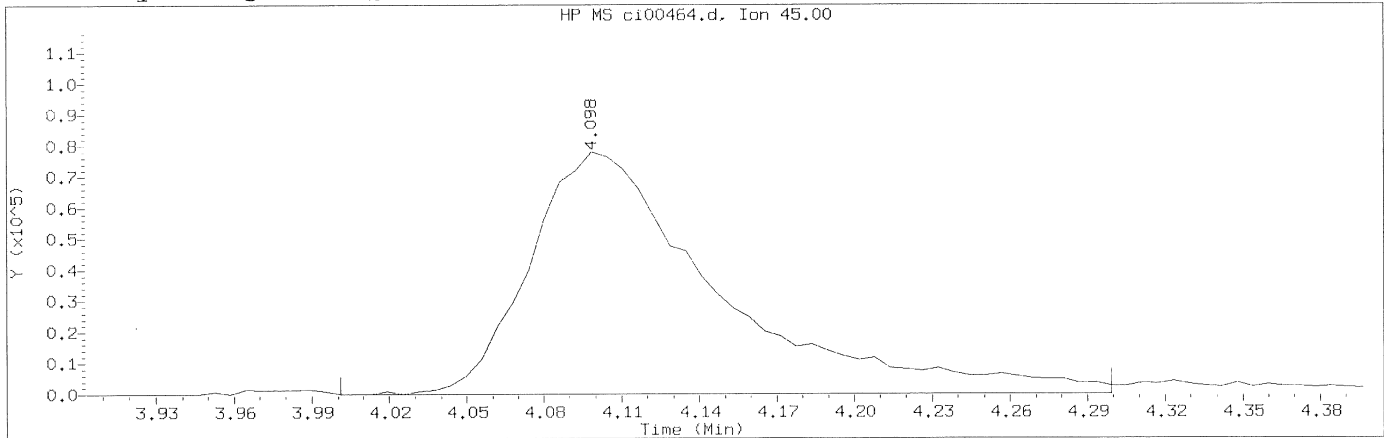
Integration stop scan: 422  
Y at integration end: 0

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Target 3.5 esignature user ID: jbs01304

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00464.d      Instrument ID: HP09464.i  
Injection date and time: 22-SEP-2015 16:39      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: VSTD002      Lab Sample ID: VSTD002

Compound Number : 22  
Compound Name : Isopropanol  
Scan Number : 496  
Retention Time (minutes): 4.098  
Quant Ion : 45.00  
Area (flag) : 395945M  
Concentration (ppb(v)) : 1.8066  
Integration start scan : 479      Integration stop scan: 528  
Y at integration start : 0      Y at integration end: 0

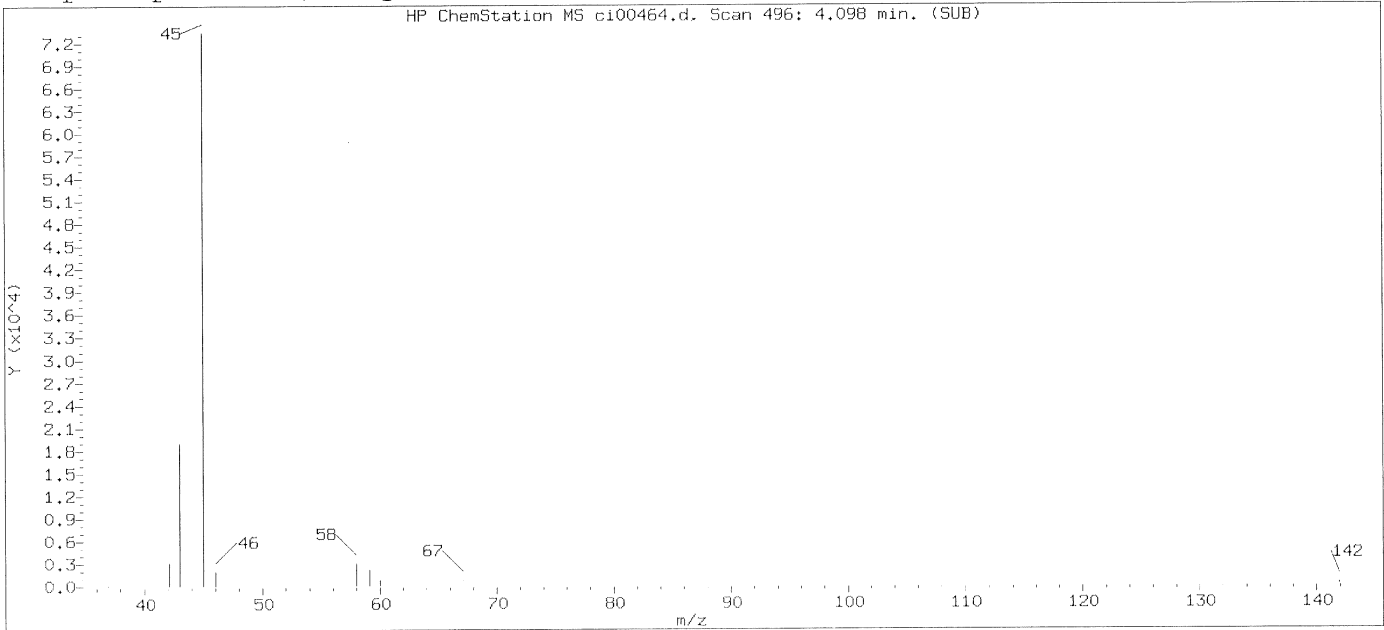
Reason for manual integration: improper integration

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

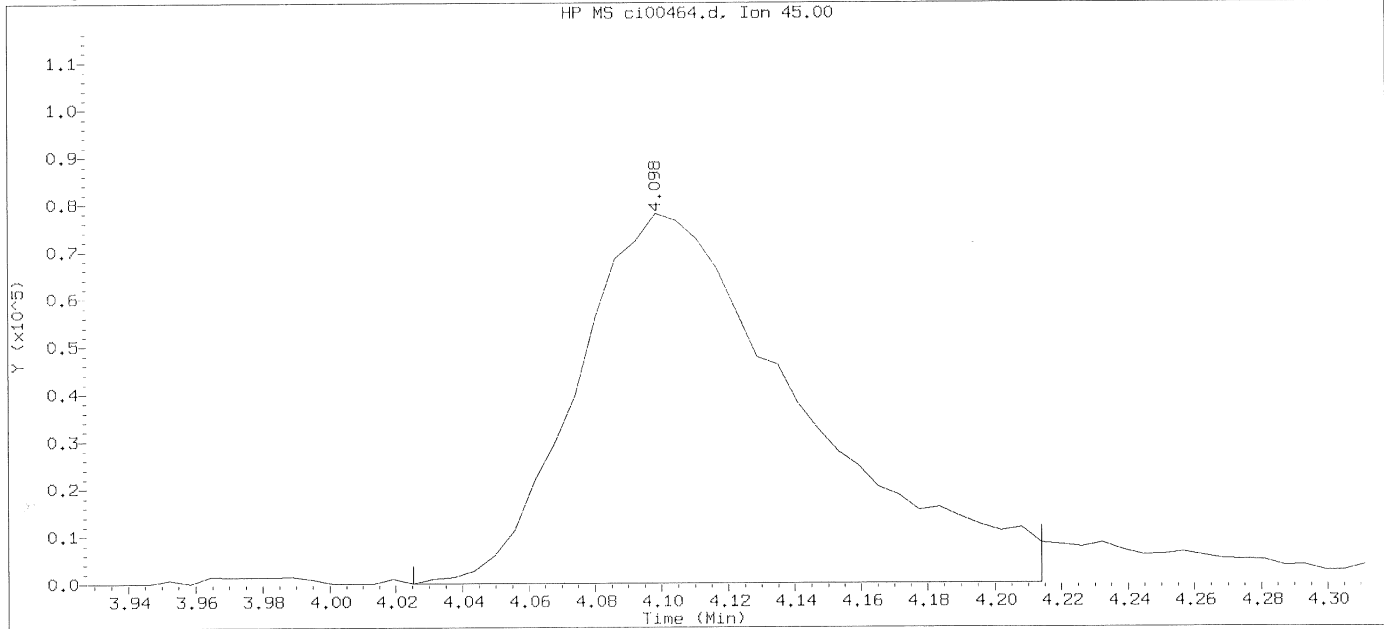
*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist  
SEP 25 2015

GC/MS audit/management approval: \_\_\_\_\_

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00464.d  
Injection date and time: 22-SEP-2015 16:39

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
Calibration date and time: 22-SEP-2015 11:37  
Date, time and analyst ID of latest file update: 22-Sep-2015 17:18 Automation

Sublist used: all

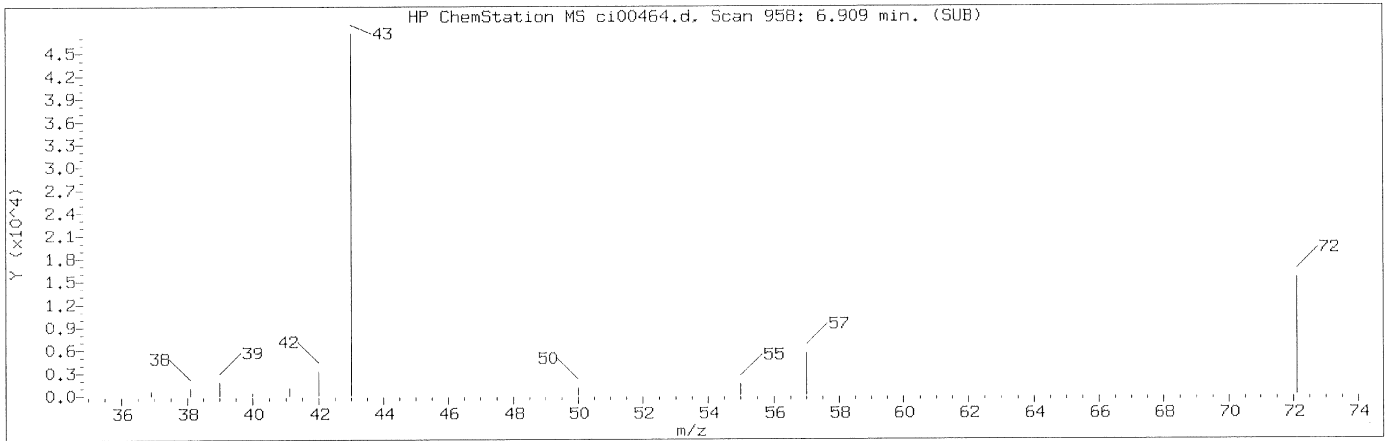
Sample Name: VSTD002

Lab Sample ID: VSTD002

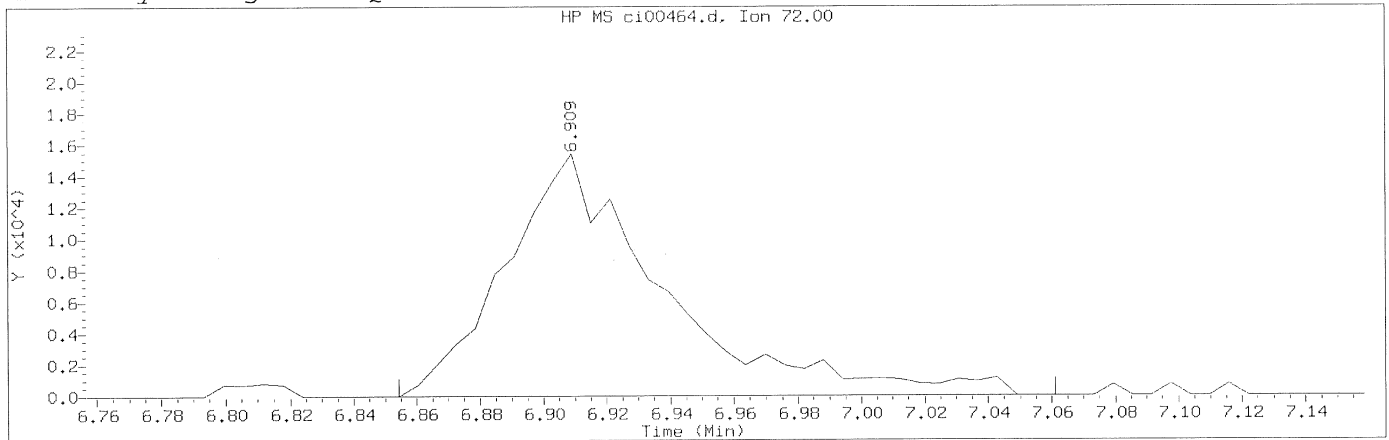
Compound Number : 22  
Compound Name : Isopropanol  
Scan Number : 496  
Retention Time (minutes): 4.098  
Quant Ion : 45.00  
Area : 365005  
Concentration (ppb(v)) : 2.0913  
Integration start scan : 483 Integration stop scan: 514  
Y at integration start : 0 Y at integration end: 0

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/ci00464.d  
 Injection date and time: 22-SEP-2015 16:39

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD002

Lab Sample ID: VSTD002

Compound Number : 37  
 Compound Name : 2-Butanone  
 Scan Number : 958  
 Retention Time (minutes): 6.909  
 Quant Ion : 72.00  
 Area (flag) : 53268M  
 Concentration (ppb(v)) : 1.9035  
 Integration start scan : 948      Integration stop scan: 982  
 Y at integration start : 0      Y at integration end: 0

Reason for manual integration: improper integration

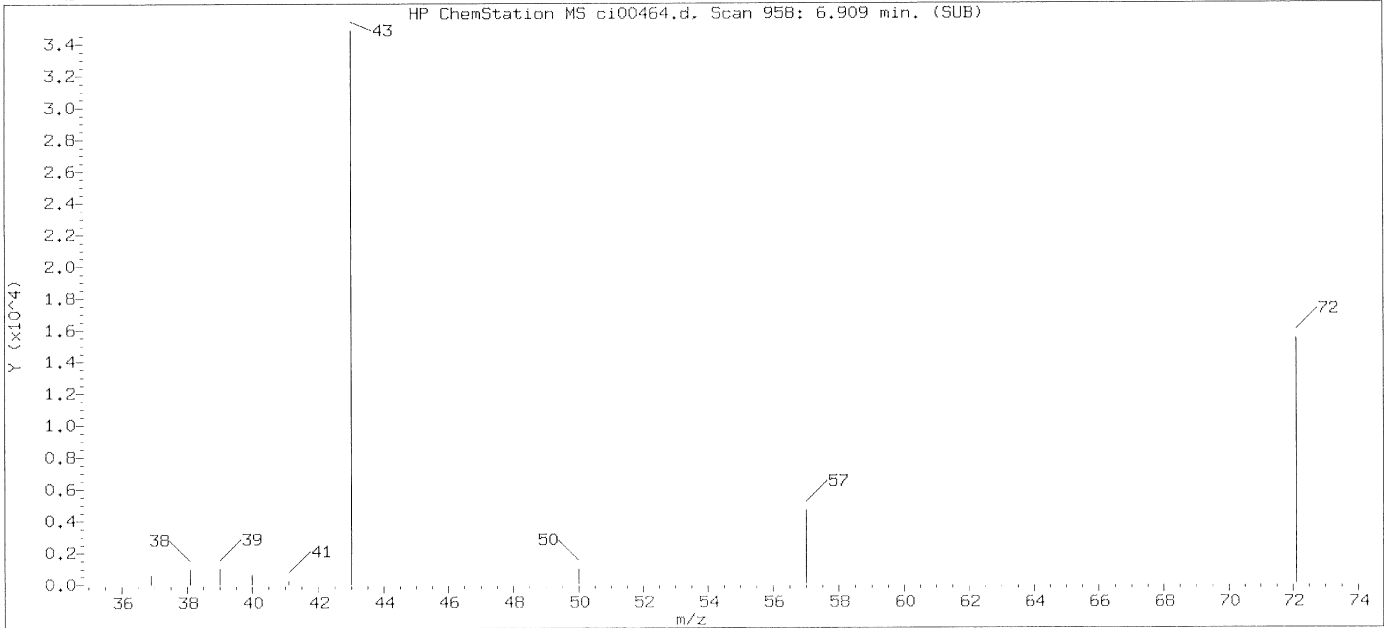
Analyst responsible for change: Digitally signed by Jeffrey B. Smith  
 on 09/23/2015 at 09:32.  
 Target 3.5 esignature user ID: jbs01304

*Mark A. Ratcliff*  
 Mark A. Ratcliff  
 Senior Specialist

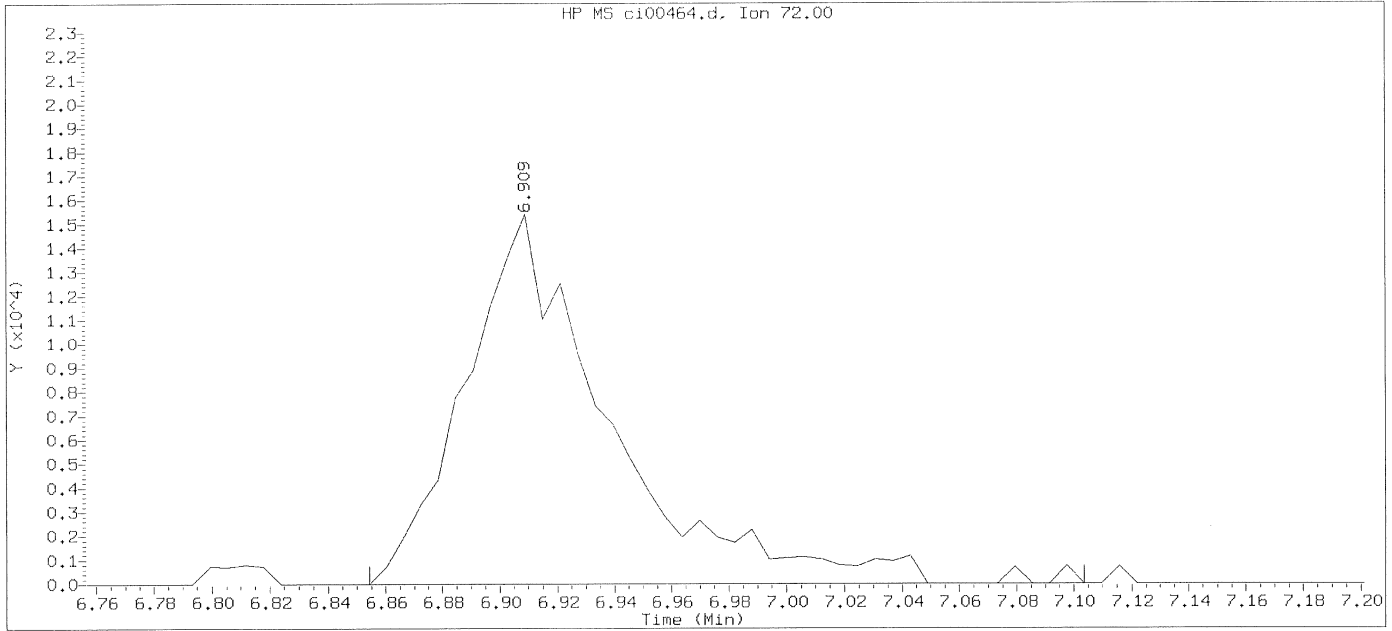
GC/MS audit/management approval: \_\_\_\_\_

SEP 25 2015

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00464.d

Instrument ID: HP09464.i

Injection date and time: 22-SEP-2015 16:39

Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m

Sublist used: all

Calibration date and time: 22-SEP-2015 11:37

Date, time and analyst ID of latest file update: 22-Sep-2015 17:18 Automation

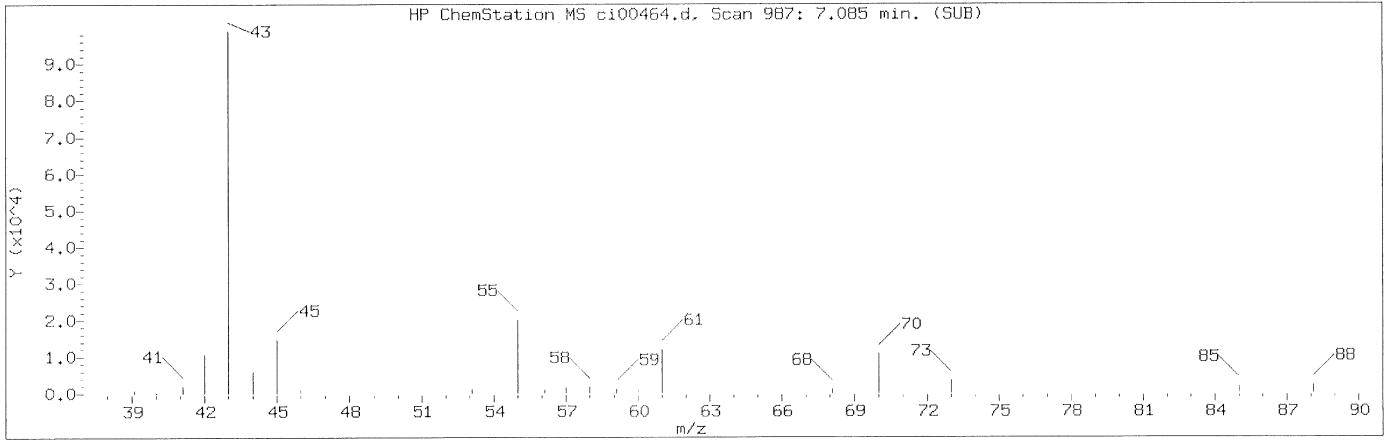
Sample Name: VSTD002

Lab Sample ID: VSTD002

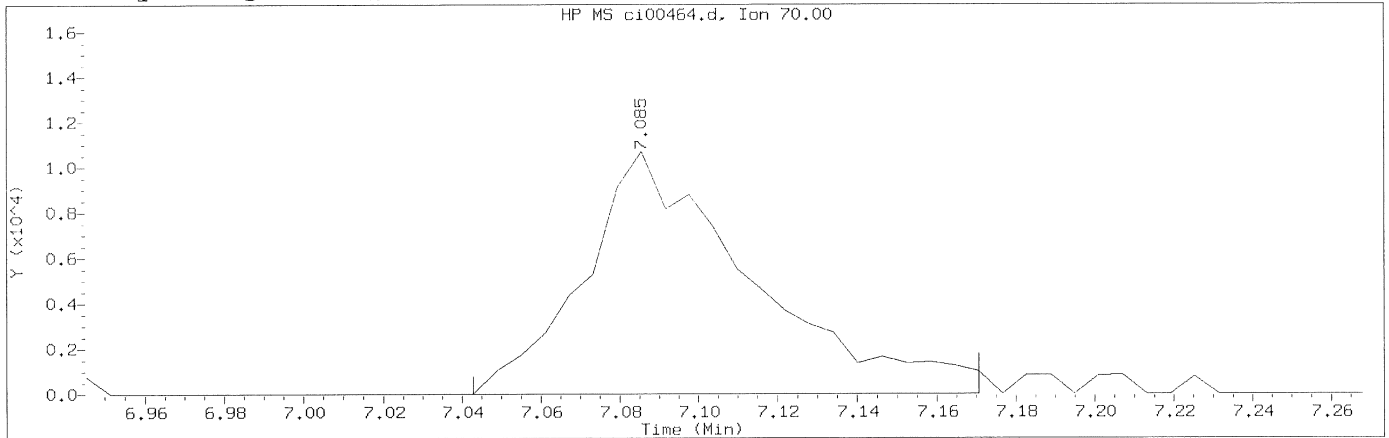
Compound Number : 37  
Compound Name : 2-Butanone  
Scan Number : 958  
Retention Time (minutes): 6.909  
Quant Ion : 72.00  
Area : 53797  
Concentration (ppb(v)) : 2.0219  
Integration start scan : 948 Integration stop scan: 989  
Y at integration start : 0 Y at integration end: 0

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/ci00464.d      Instrument ID: HP09464.i  
Injection date and time: 22-SEP-2015 16:39      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: VSTD002      Lab Sample ID: VSTD002

Compound Number : 38  
Compound Name : Ethyl Acetate  
Scan Number : 987  
Retention Time (minutes): 7.085  
Quant Ion : 70.00  
Area (flag) : 31728M  
Concentration (ppb(v)) : 1.9707  
Integration start scan : 979      Integration stop scan: 1000  
Y at integration start : 0      Y at integration end: 0

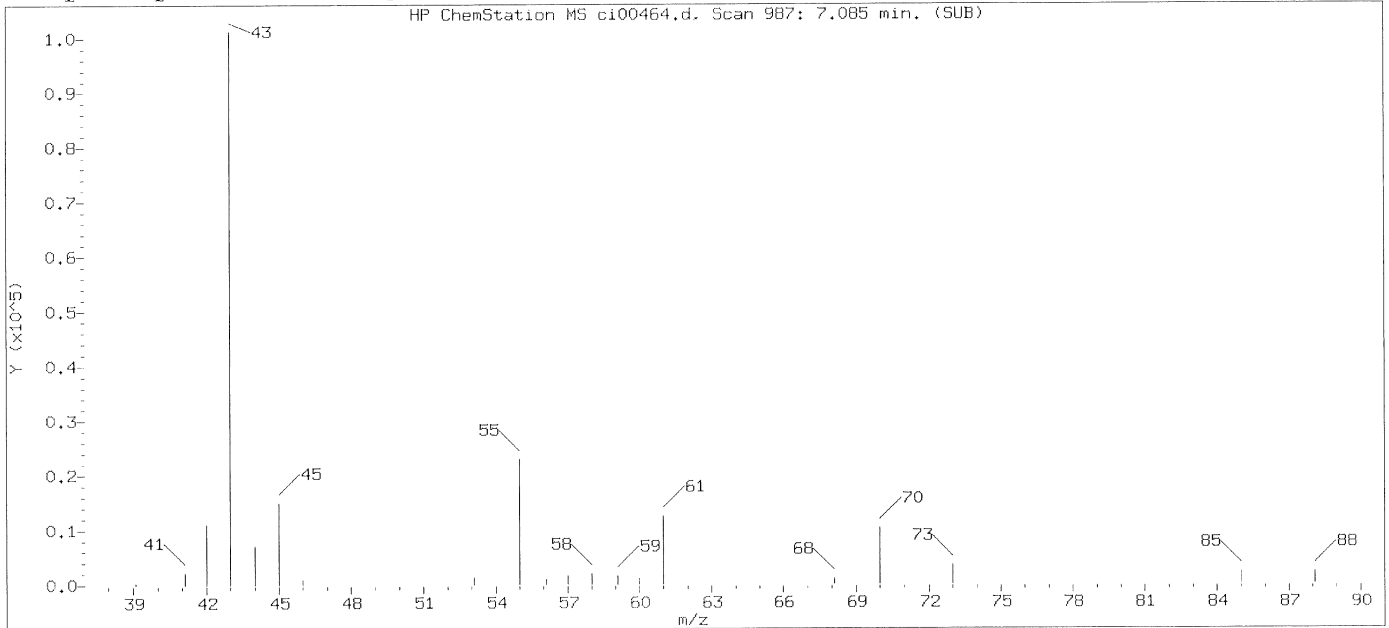
Reason for manual integration: improper integration

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

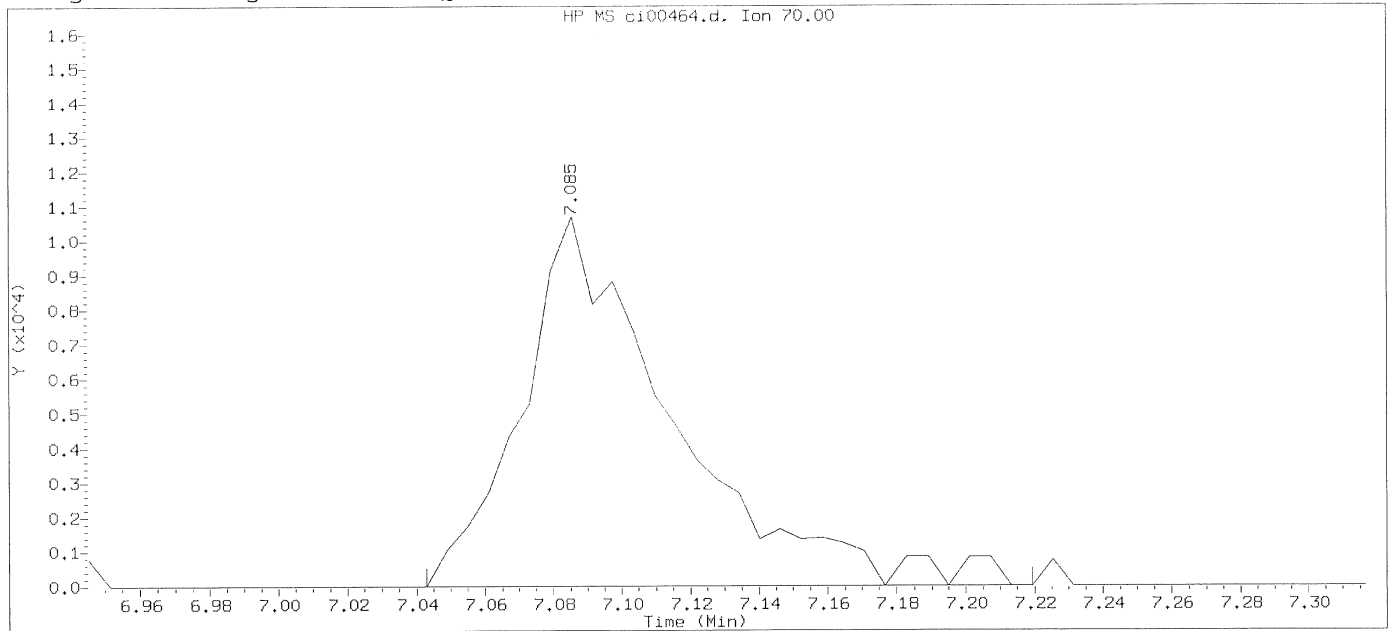
*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist  
SEP 25 2015

GC/MS audit/management approval: \_\_\_\_\_

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00464.d

Instrument ID: HP09464.i

Injection date and time: 22-SEP-2015 16:39

Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m

Sublist used: all

Calibration date and time: 22-SEP-2015 11:37

Date, time and analyst ID of latest file update: 22-Sep-2015 17:18 Automation

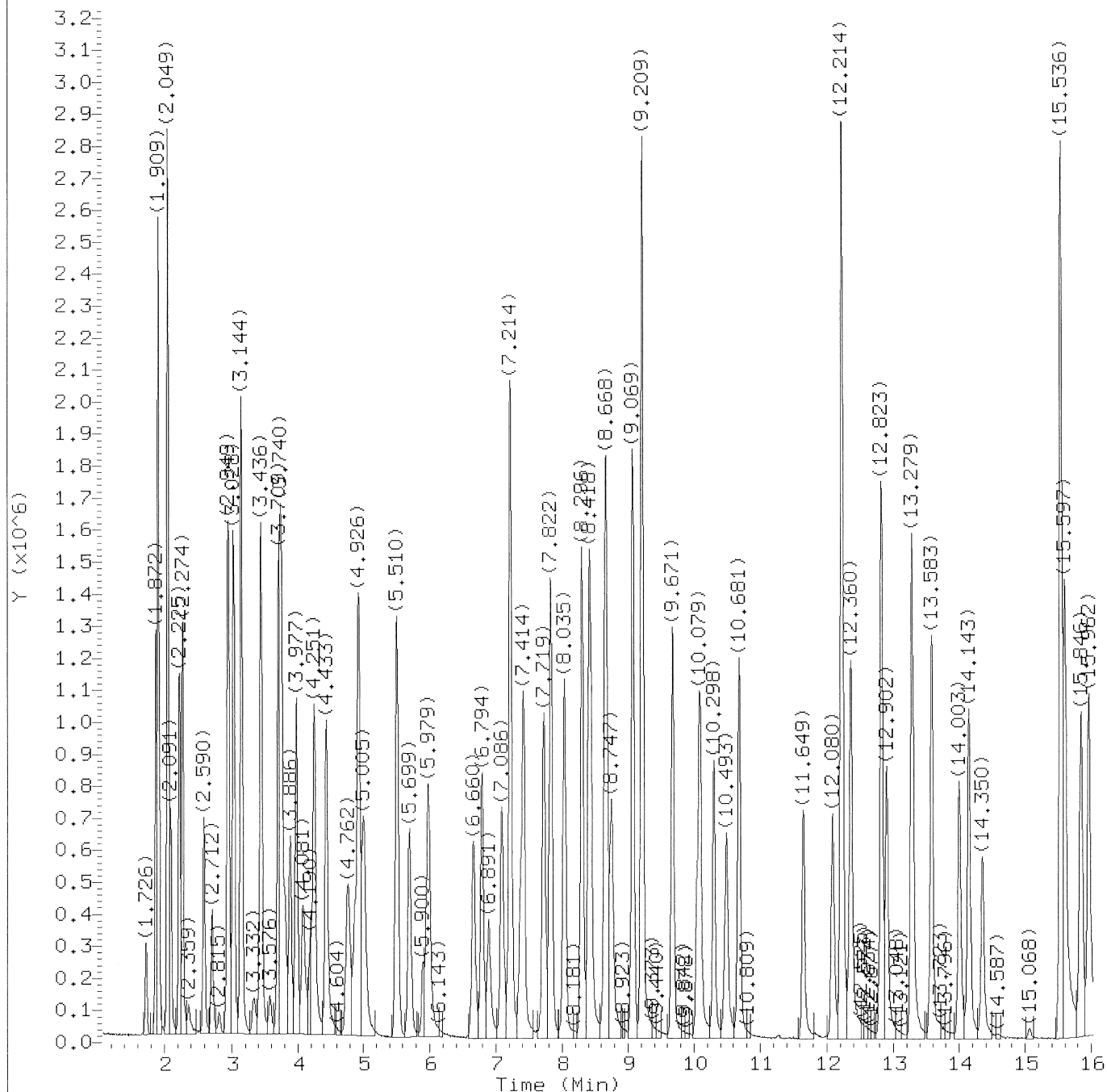
Sample Name: VSTD002

Lab Sample ID: VSTD002

Compound Number	: 38	
Compound Name	: Ethyl Acetate	
Scan Number	: 987	
Retention Time (minutes)	: 7.085	
Quant Ion	: 70.00	
Area	: 32963	
Concentration (ppb(v))	: 2.3771	
Integration start scan	: 979	Integration stop scan: 1008
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/ci00465.d  
 Injection date and time: 22-SEP-2015 17:21

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

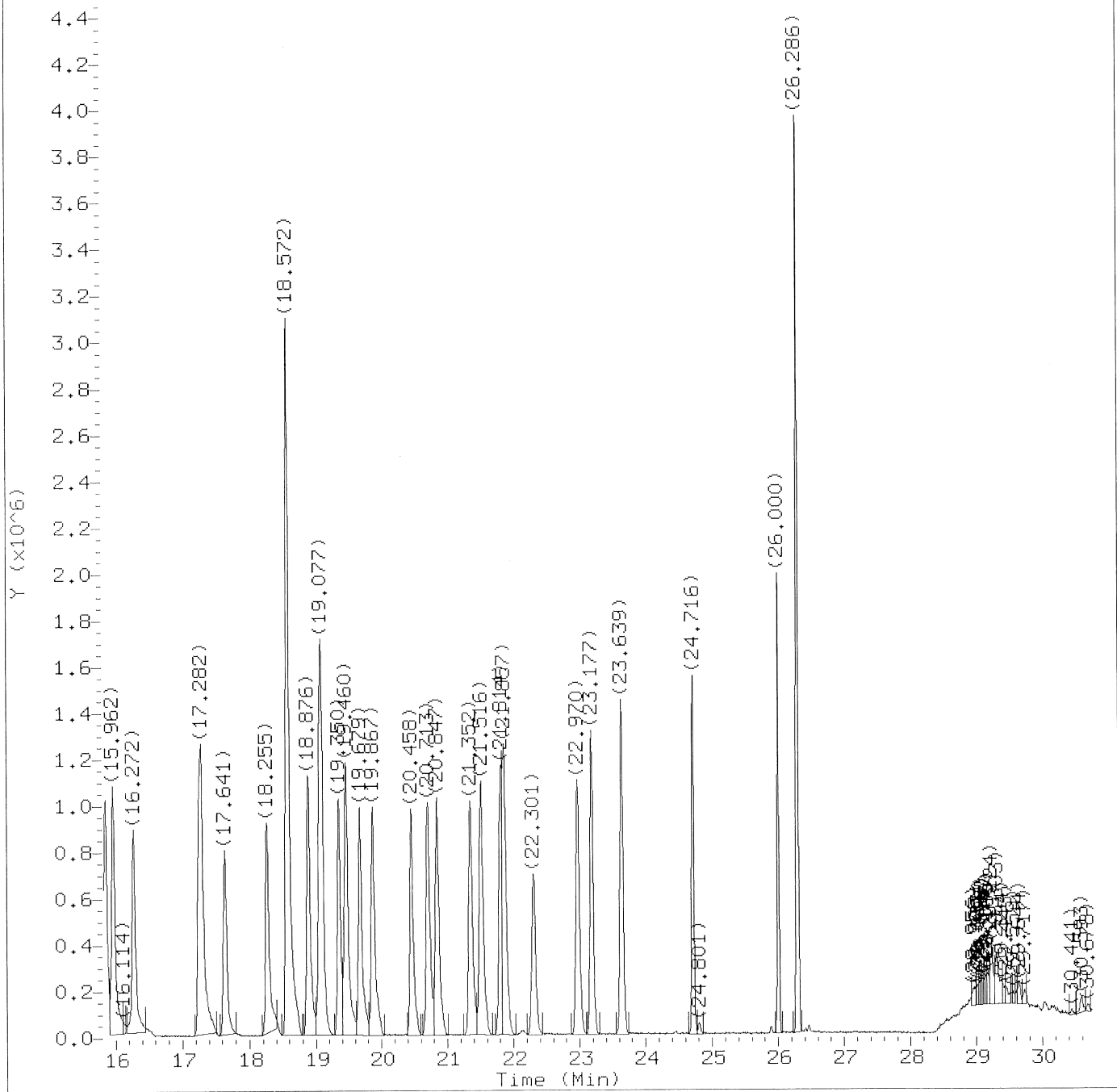
Method used: /chem/HP09464.i/15sep22.b/to-15.m  
 Calibration date and time: 23-SEP-2015 09:08  
 Date, time and analyst ID of latest file update: 23-Sep-2015 09:08 jbs01304

Sublist used: all

Sample Name: VSTD005

Lab Sample ID: VSTD005

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/ci00465.d  
Injection date and time: 22-SEP-2015 17:21

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD005

Lab Sample ID: VSTD005

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/ci00465.d  
 Injection date and time: 22-SEP-2015 17:21

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD005

Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.872	41	629513	4.860
2) Dichlorodifluoromethane	(1)	1.903	85	1608437	4.873
3) Chlorodifluoromethane	(1)	1.915	51	1389652	4.950
4) Freon 114	(1)	2.049	85	1437944	4.856
5) Chloromethane	(1)	2.091	52	286340	4.809
6) Vinyl Chloride	(1)	2.225	62	732504	4.883
7) 1,3-Butadiene	(1)	2.274	54	606446	4.800
8) Bromomethane	(1)	2.590	94	527733	4.448
9) Chloroethane	(1)	2.712	64	411996	4.331
10) Bromoethene	(1)	2.937	106	471254	4.724
11) Dichlorofluoromethane	(1)	2.955	67	1754770	4.774
12) Trichlorofluoromethane	(1)	3.028	101	1636741	4.759
13) Pentane	(1)	3.144	43	1664203	5.322
14) Ethanol	(1)	3.320	45	217423	2.765
15) Freon123a	(1)	3.436	67	1513574	5.024
16) Acrolein	(1)	3.576	56	137284M	3.351
17) 1,1-Dichloroethene	(1)	3.697	61	1290834	4.922
18) Freon 113	(1)	3.740	103	716343	4.357
19) Acetone	(1)	3.807	43	807499	5.127
20) Methyl Iodide	(1)	3.886	142	909572	4.750
21) Carbon Disulfide	(1)	3.977	76	2009359	4.761
22) Isopropanol	(1)	4.081	45	983302	4.246
23) Acetonitrile	(1)	4.190	40	230173M	3.403
24) 3-Chloropropene	(1)	4.245	76	328362	4.981
25) Methylene Chloride	(1)	4.433	84	613821	5.243
26) tert-Butyl Alcohol	(1)	4.768	59	1044205	5.177
27) Acrylonitrile	(1)	4.871	53	565738	4.632
28) trans-1,2-Dichloroethene	(1)	4.926	61	1481049	5.000
29) Methyl t-Butyl Ether	(1)	5.005	73	1087338	5.008
30) Hexane	(1)	5.510	57	906226	4.824
31) 1,1-Dichloroethane	(1)	5.699	63	1158970	4.787
32) Vinyl Acetate	(1)	5.893	86	40847	3.621
33) Di-Isopropyl Ether	(1)	5.979	45	1328166	5.112
36) 1,2-Dichloroethene (total)	(1)		61	2397818	10.183
34) Ethyl Tert-Butyl Ether	(1)	6.666	59	789235	4.519
35) cis-1,2-Dichloroethene	(1)	6.794	61	916769	5.183
37) 2-Butanone	(1)	6.891	72	147839M	4.999
38) Ethyl Acetate	(1)	7.080	70	83492	4.908

M = Compound was manually integrated.

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/ci00465.d  
 Injection date and time: 22-SEP-2015 17:21

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
 Calibration date and time: 23-SEP-2015 09:08

Sublist used: all

Date, time and analyst ID of latest file update: 23-Sep-2015 09:08 jbs01304

Sample Name: VSTD005

Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Methyl Acrylate	(1)	7.104	55	657934	4.989
40) *Bromochloromethane	(1)	7.220	130	769073	10.000
41) Tetrahydrofuran	(1)	7.372	42	480453	4.649
42) Chloroform	(1)	7.420	83	1199187	4.999
43) 1,1,1-Trichloroethane	(1)	7.719	97	1055846	4.995
44) Cyclohexane	(1)	7.822	56	1051851	5.030
45) Carbon Tetrachloride	(1)	8.035	117	1067120	5.050
46) Benzene	(2)	8.406	78	1580705	4.964
47) 1,2-Dichloroethane	(2)	8.436	62	1005547	4.887
48) Isooctane	(2)	8.668	57	2823903	5.250
49) Tert-Amyl Methyl Ether	(2)	8.747	73	685498	4.460
50) Heptane	(2)	9.069	43	1308269M	5.101
51) *1,4-Difluorobenzene	(2)	9.209	114	2862913	10.000
52) Trichloroethene	(2)	9.671	130	528782	4.446
53) Ethyl Acrylate	(2)	10.036	55	714998	4.656
54) 1,2-Dichloropropane	(2)	10.085	63	653852	4.805
55) Dibromomethane	(2)	10.298	174	367956	4.514
56) 1,4-Dioxane	(2)	10.462	88	209363	4.859
57) Methyl Methacrylate	(2)	10.487	69	336751	4.457
58) Bromodichloromethane	(2)	10.675	83	1252107	4.653
59) cis-1,3-Dichloropropene	(2)	11.649	75	649959	4.358
60) 4-Methyl-2-Pentanone	(2)	12.080	43	995651	4.615
61) Toluene	(3)	12.360	91	1311336	5.389
64) 1,3-Dichloropropene (total)	(3)		75	1402853	9.267
62) Octane	(3)	12.823	43	1494062	5.447
63) trans-1,3-Dichloropropene	(3)	12.902	75	752894	4.909
65) Ethyl Methacrylate	(3)	13.267	69	515191	4.550
66) 1,1,2-Trichloroethane	(3)	13.279	97	533697	4.995
67) Tetrachloroethene	(3)	13.583	166	496035	4.759
68) 2-Hexanone	(3)	14.003	43	1149942	5.699
69) Dibromochloromethane	(3)	14.149	127	701043	4.636
70) 1,2-Dibromoethane	(3)	14.350	107	715926	4.916
71) *Chlorobenzene-d5	(3)	15.536	117	2487441	10.000
72) Chlorobenzene	(3)	15.597	112	967658	4.939
73) 1,1,1,2-Tetrachloroethane	(3)	15.846	131	505185	4.866
74) Ethylbenzene	(3)	15.962	91	1414041	5.419
75) m/p-Xylene	(3)	16.272	91	974069	4.698
77) Xylene (total)	(3)		91	2127768	9.929

M = Compound was manually integrated.

\* = Compound is an internal standard.

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00465.d  
 Injection date and time: 22-SEP-2015 17:21

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
 Calibration date and time: 23-SEP-2015 09:08

Sublist used: all

Date, time and analyst ID of latest file update: 23-Sep-2015 09:08 jbs01304

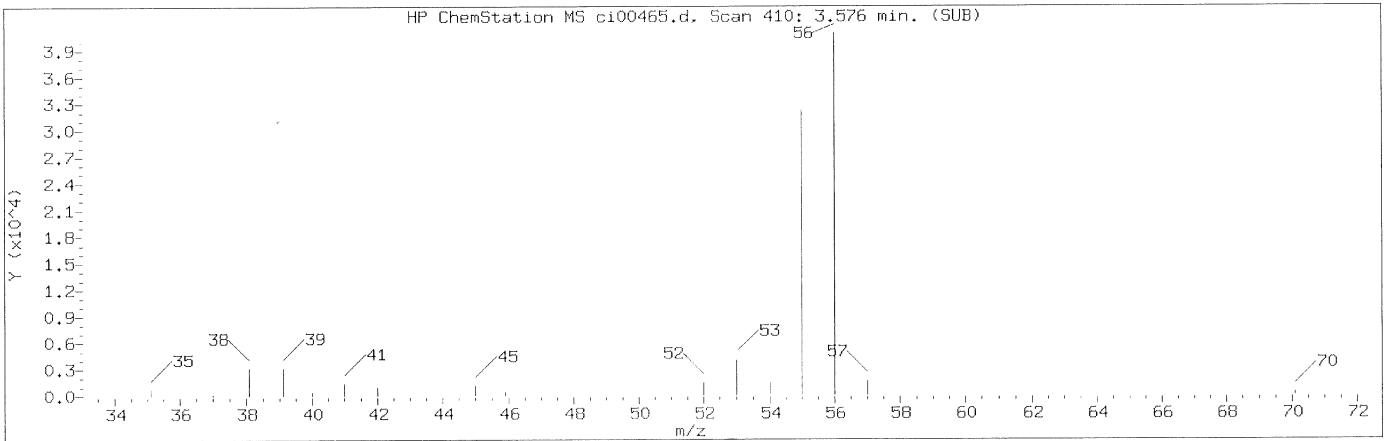
Sample Name: VSTD005

Lab Sample ID: VSTD005

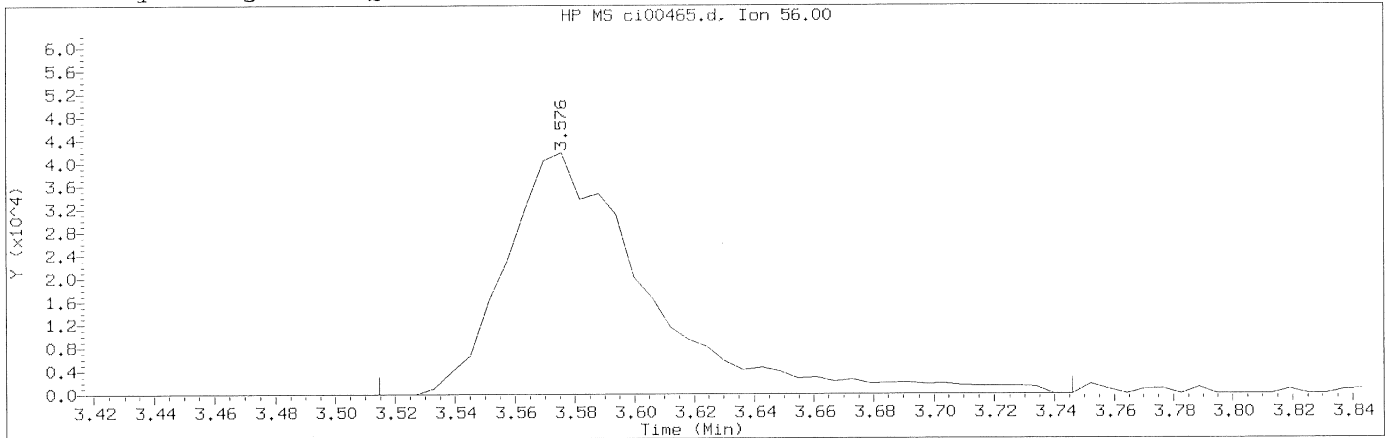
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
76) o-Xylene	(3)	17.245	91	1153699	5.231
78) Styrene	(3)	17.294	104	897199	5.086
79) Bromoform	(3)	17.641	173	630326	4.524
80) Cumene	(3)	18.255	105	1235134	5.020
81) Bromobenzene	(3)	18.876	156	455316	4.844
82) 1,1,2,2-Tetrachloroethane	(3)	19.052	83	1261368	5.284
83) 1,2,3-Trichloropropane	(3)	19.083	110	280666	4.636
84) n-Propylbenzene	(3)	19.350	120	341265	4.765
85) 2-Chlorotoluene	(3)	19.460	126	380317	4.929
86) 4-Ethyltoluene	(3)	19.679	105	1342961	5.034
87) 1,3,5-Trimethylbenzene	(3)	19.867	105	1127722	5.079
88) Alpha Methyl Styrene	(3)	20.464	118	544178	4.988
89) tert-Butylbenzene	(3)	20.707	119	957243	4.793
90) 1,2,4-Trimethylbenzene	(3)	20.853	105	1209293	5.016
91) sec-Butylbenzene	(3)	21.352	105	1566869	4.924
92) 1,3-Dichlorobenzene	(3)	21.516	146	891432	4.964
93) 1,4-Dichlorobenzene	(3)	21.808	146	877218	4.807
94) p-Isopropyltoluene	(3)	21.869	119	1242758	4.769
95) Benzyl Chloride	(3)	22.301	91	1142714	4.177
96) 1,2-Dichlorobenzene	(3)	22.970	146	786445	4.734
97) n-Butylbenzene	(3)	23.177	91	1434956	5.016
98) Hexachloroethane	(3)	23.639	117	612102	4.963
99) 1,2-Dibromo-3-chloropropane	(3)	24.716	157	346980	4.391
100) 1,2,4-Trichlorobenzene	(3)	26.006	180	420341	4.996
101) Hexachlorobutadiene	(3)	26.286	225	382895	4.667
102) Naphthalene	(3)	26.298	128	1307865	5.482

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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/ci00465.d  
Injection date and time: 22-SEP-2015 17:21

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD005

Lab Sample ID: VSTD005

Compound Number : 16  
Compound Name : Acrolein  
Scan Number : 410  
Retention Time (minutes): 3.576  
Quant Ion : 56.00  
Area (flag) : 137284M  
Concentration (ppb(v)) : 3.3512  
Integration start scan : 399      Integration stop scan: 437  
Y at integration start : 0      Y at integration end: 0

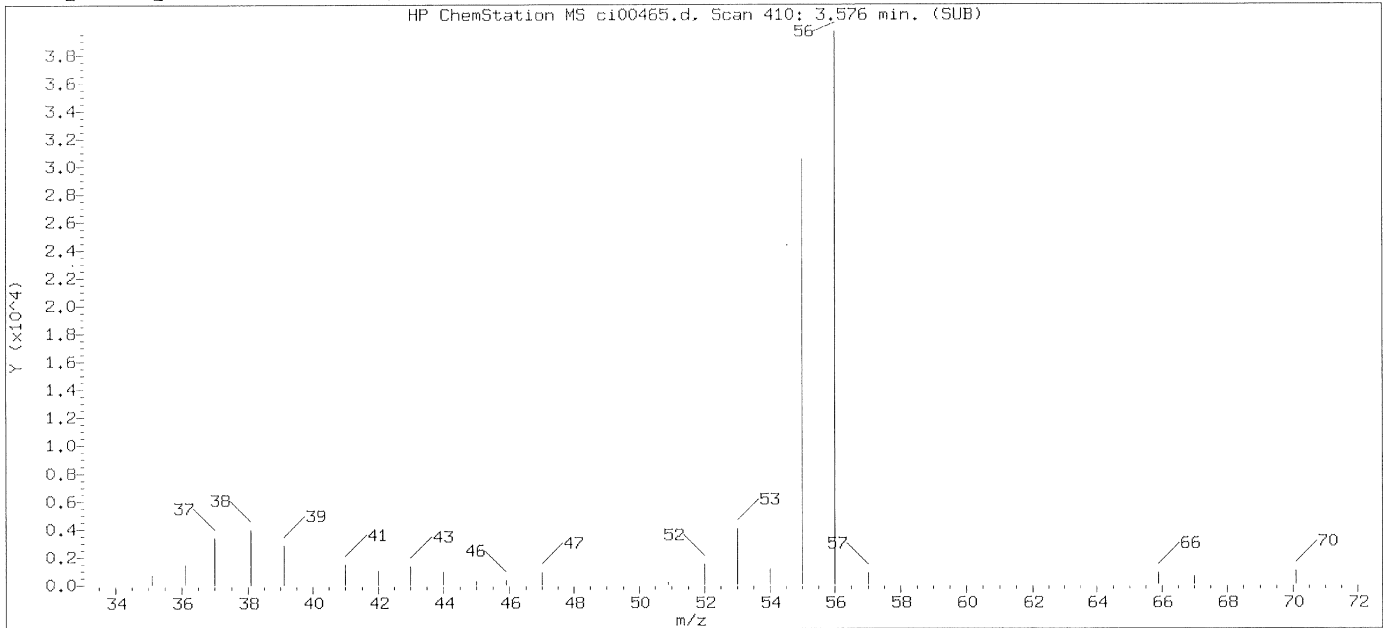
Reason for manual integration: improper integration

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

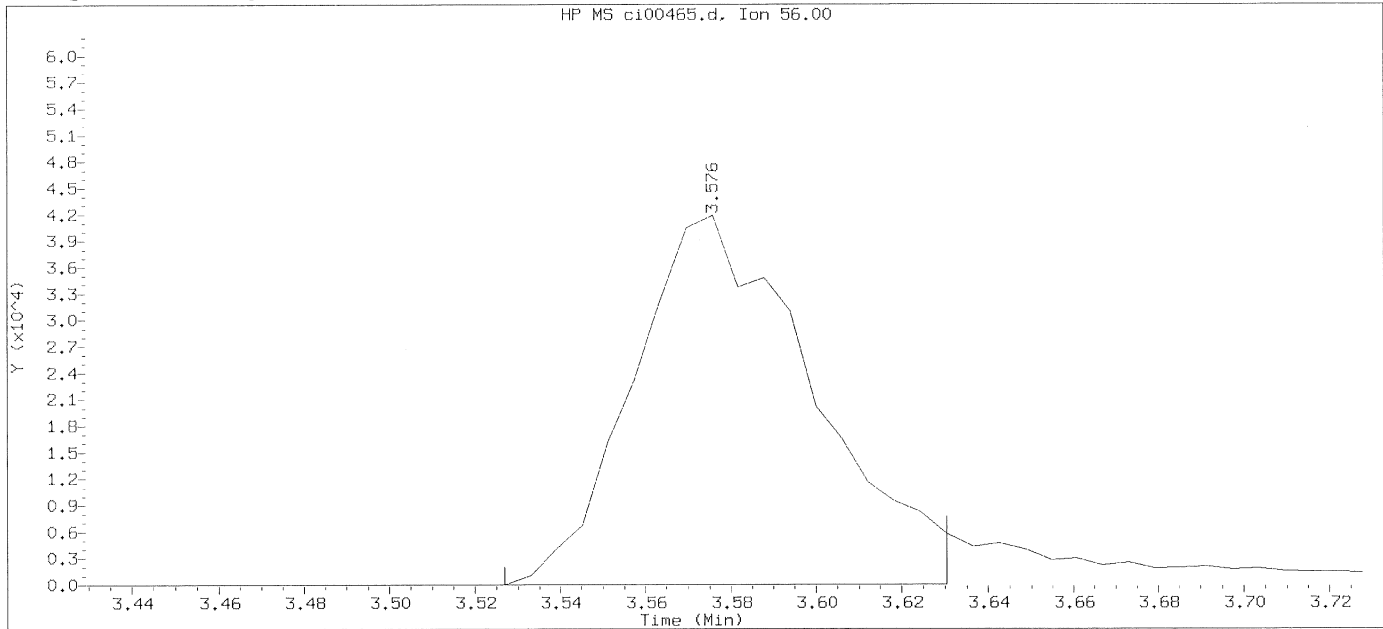
*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist  
SEP 25 2015

GC/MS audit/management approval: \_\_\_\_\_

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00465.d  
Injection date and time: 22-SEP-2015 17:21

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
Calibration date and time: 22-SEP-2015 11:37  
Date, time and analyst ID of latest file update: 22-Sep-2015 18:01 Automation

Sublist used: all

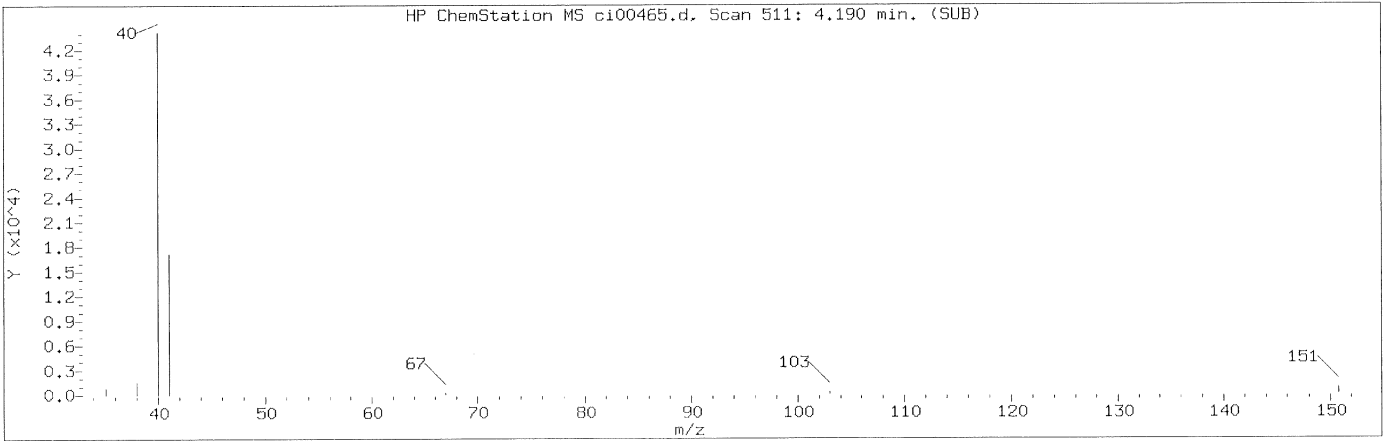
Sample Name: VSTD005

Lab Sample ID: VSTD005

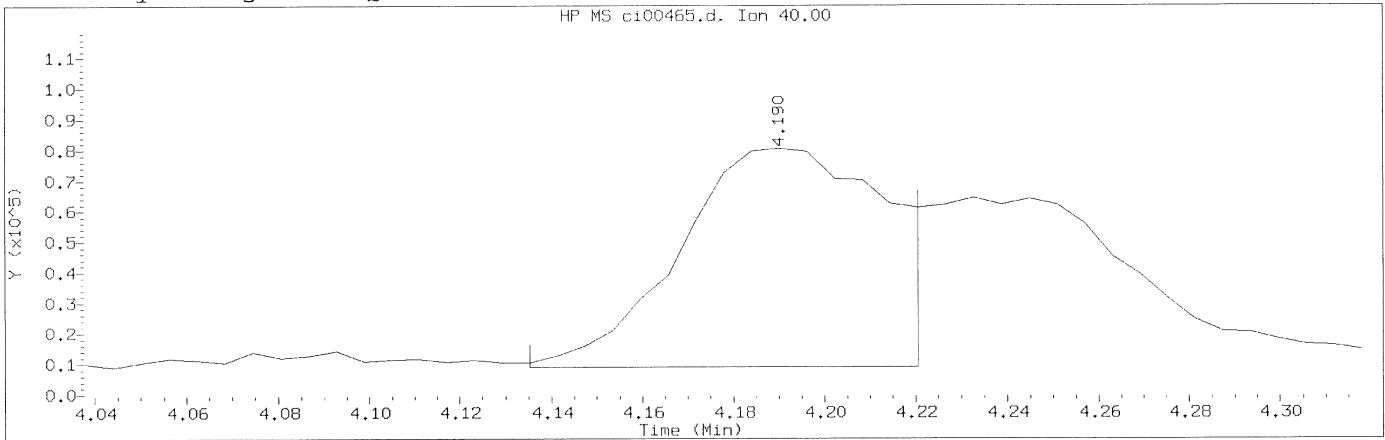
Compound Number : 16  
Compound Name : Acrolein  
Scan Number : 410  
Retention Time (minutes): 3.576  
Quant Ion : 56.00  
Area : 121843  
Concentration (ppb(v)) : 4.5345  
Integration start scan : 401 Integration stop scan: 418  
Y at integration start : 0 Y at integration end: 0

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/ci00465.d  
Injection date and time: 22-SEP-2015 17:21

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD005

Lab Sample ID: VSTD005

Compound Number : 23  
Compound Name : Acetonitrile  
Scan Number : 511  
Retention Time (minutes): 4.190  
Quant Ion : 40.00  
Area (flag) : 230173M  
Concentration (ppb(v)) : 3.4026  
Integration start scan : 501      Integration stop scan: 515  
Y at integration start : 8813      Y at integration end: 8813

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

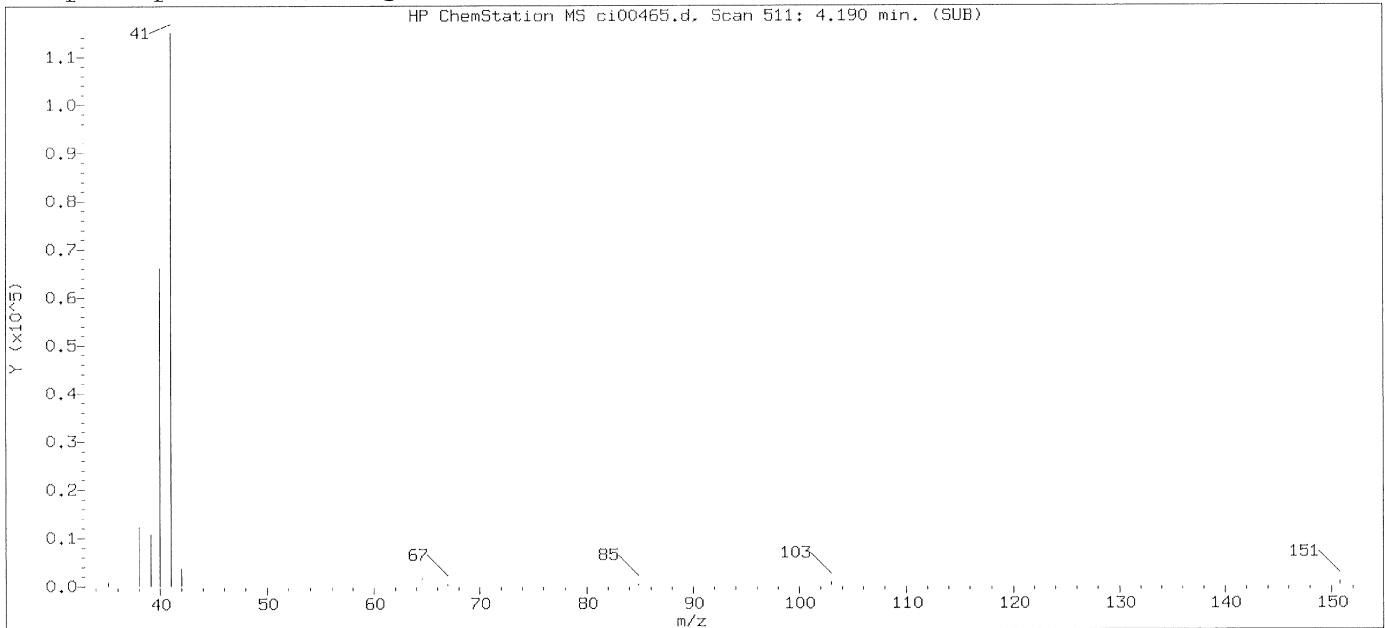
GC/MS audit/management approval: \_\_\_\_\_

*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

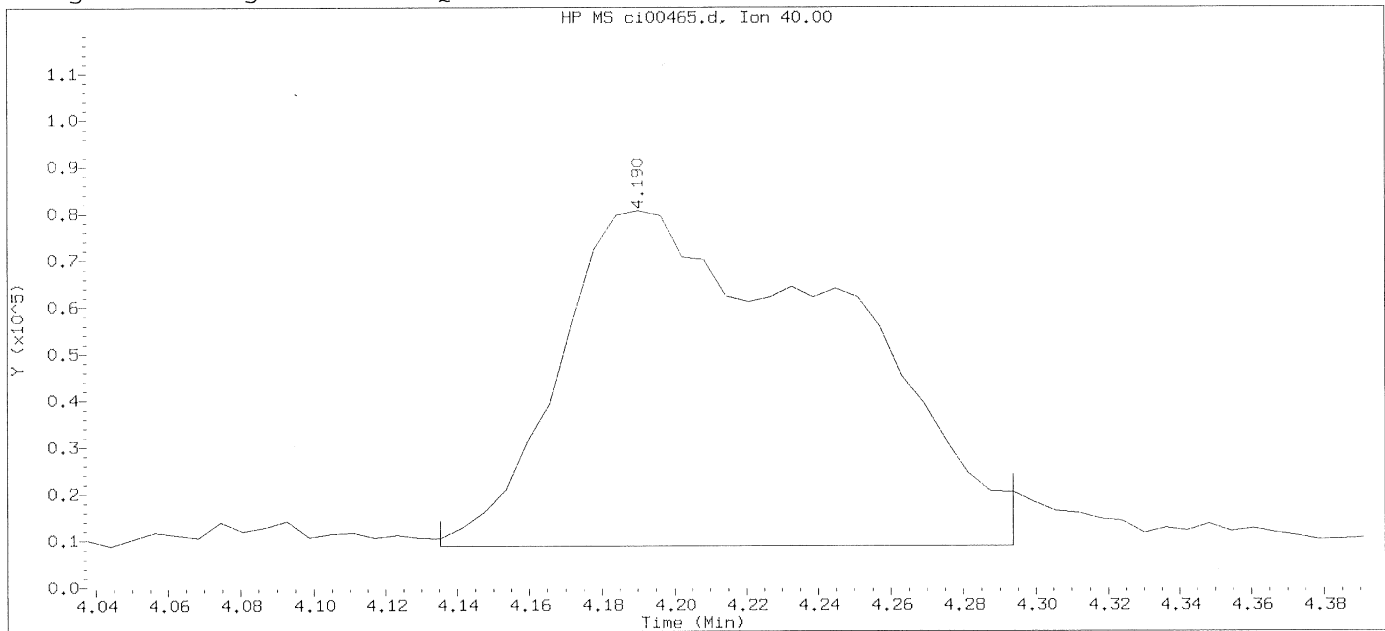
SEP 25 2015



Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00465.d

Instrument ID: HP09464.i

Injection date and time: 22-SEP-2015 17:21

Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m

Sublist used: all

Calibration date and time: 22-SEP-2015 11:37

Date, time and analyst ID of latest file update: 22-Sep-2015 18:01 Automation

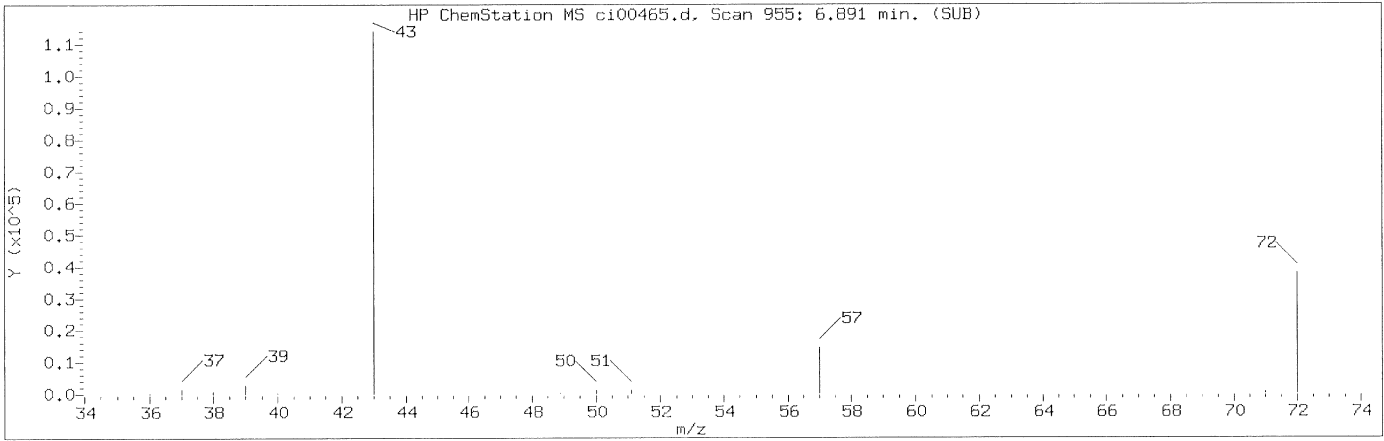
Sample Name: VSTD005

Lab Sample ID: VSTD005

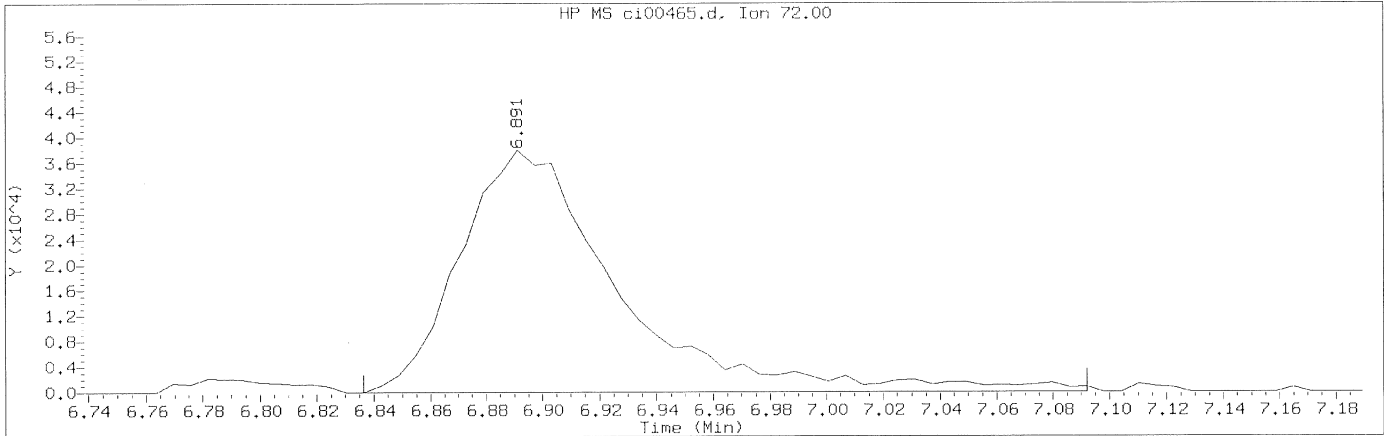
Compound Number : 23  
Compound Name : Acetonitrile  
Scan Number : 511  
Retention Time (minutes): 4.190  
Quant Ion : 40.00  
Area : 390216  
Concentration (ppb(v)) : 12.9508  
Integration start scan : 501 Integration stop scan: 527  
Y at integration start : 8813 Y at integration end: 8813

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/ci00465.d  
Injection date and time: 22-SEP-2015 17:21

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD005

Lab Sample ID: VSTD005

Compound Number : 37  
Compound Name : 2-Butanone  
Scan Number : 955  
Retention Time (minutes): 6.891  
Quant Ion : 72.00  
Area (flag) : 147839M  
Concentration (ppb(v)) : 4.9994  
Integration start scan : 945      Integration stop scan: 987  
Y at integration start : 0      Y at integration end: 0

Reason for manual integration: improper integration

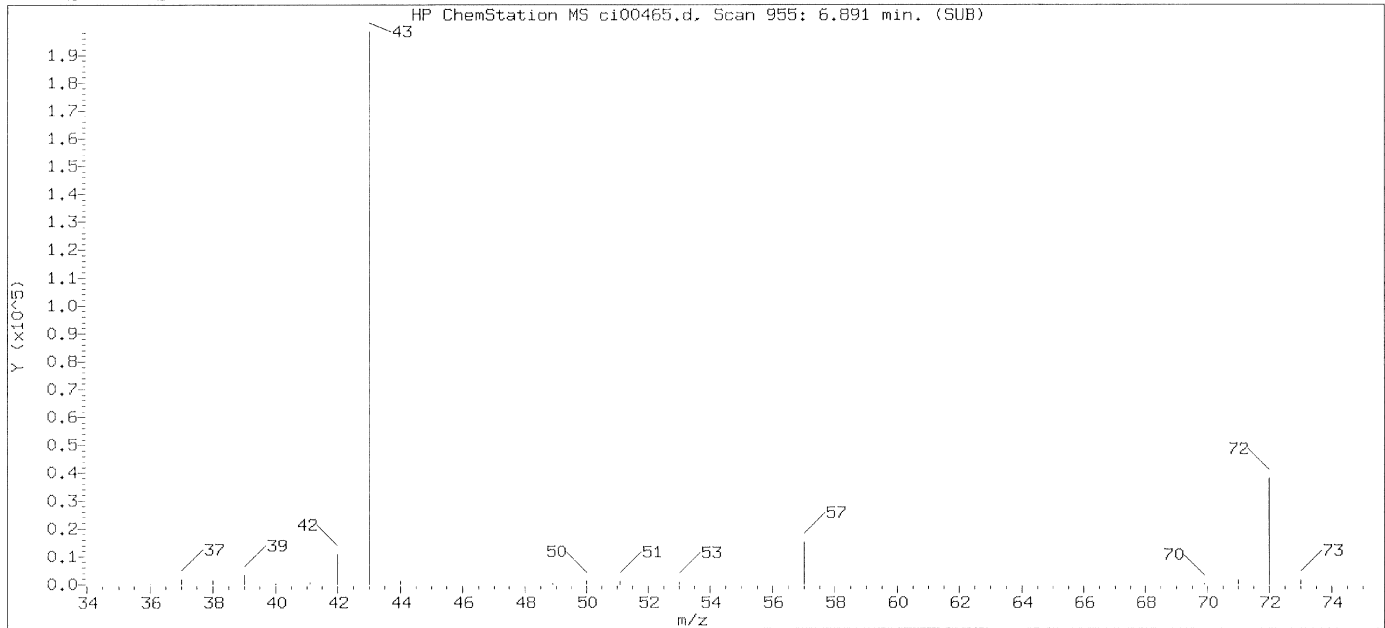
Analyst responsible for change: Digitally signed by Jeffrey B. Smith  
on 09/23/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304

*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

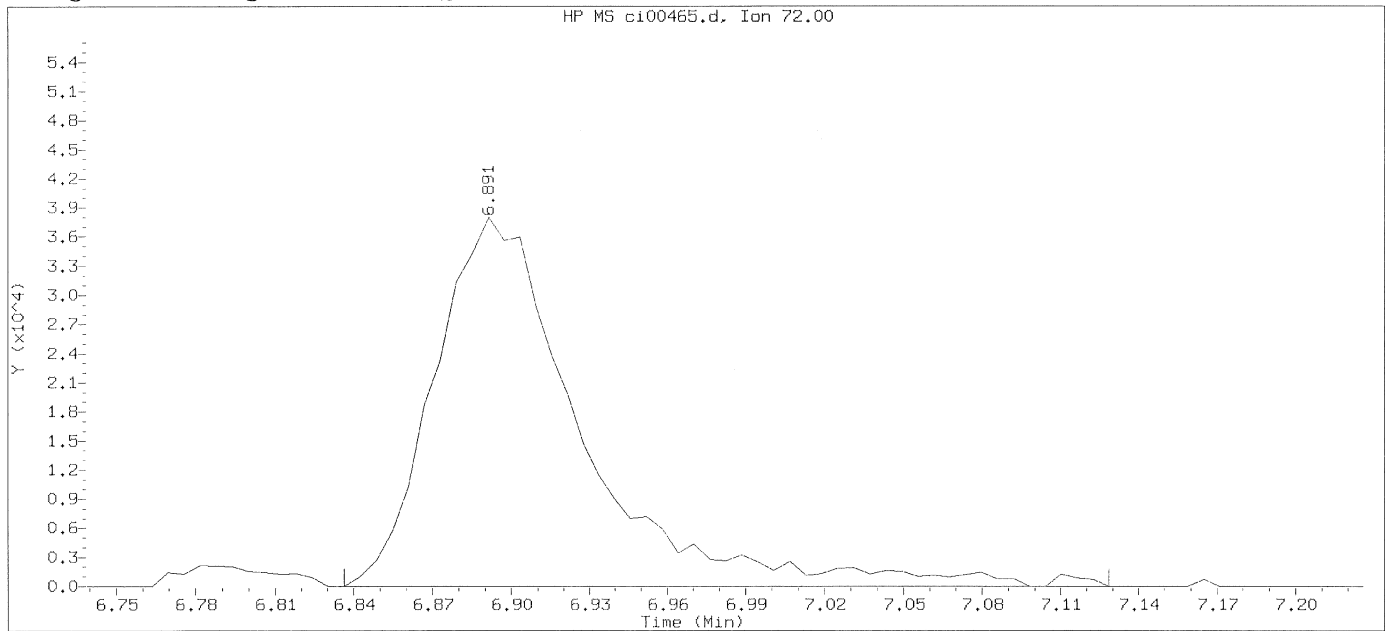
GC/MS audit/management approval: \_\_\_\_\_

SEP 25 2015

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00465.d  
 Injection date and time: 22-SEP-2015 17:21

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
 Calibration date and time: 22-SEP-2015 11:37  
 Date, time and analyst ID of latest file update: 22-Sep-2015 18:01 Automation

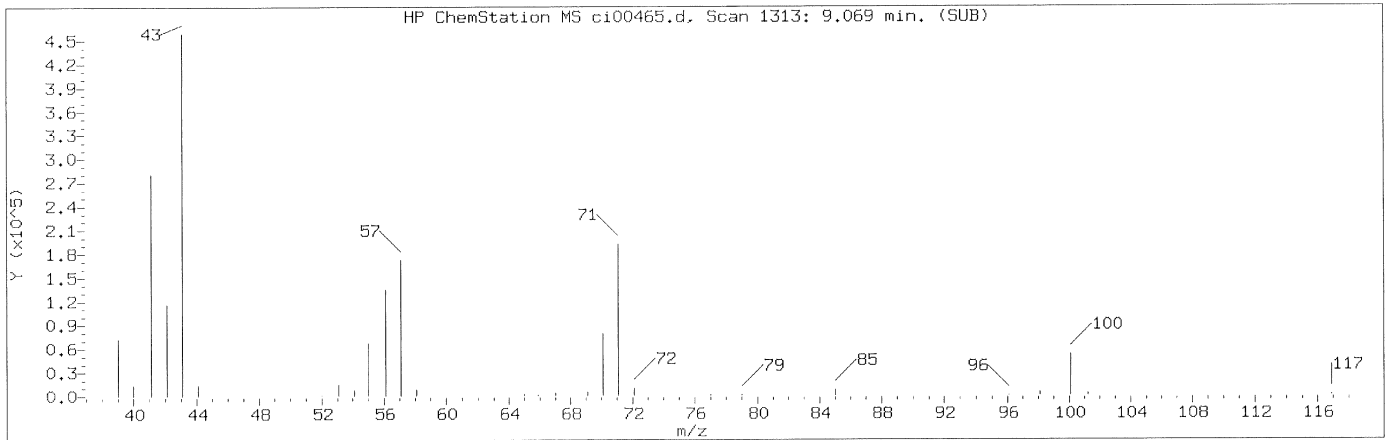
Sample Name: VSTD005

Lab Sample ID: VSTD005

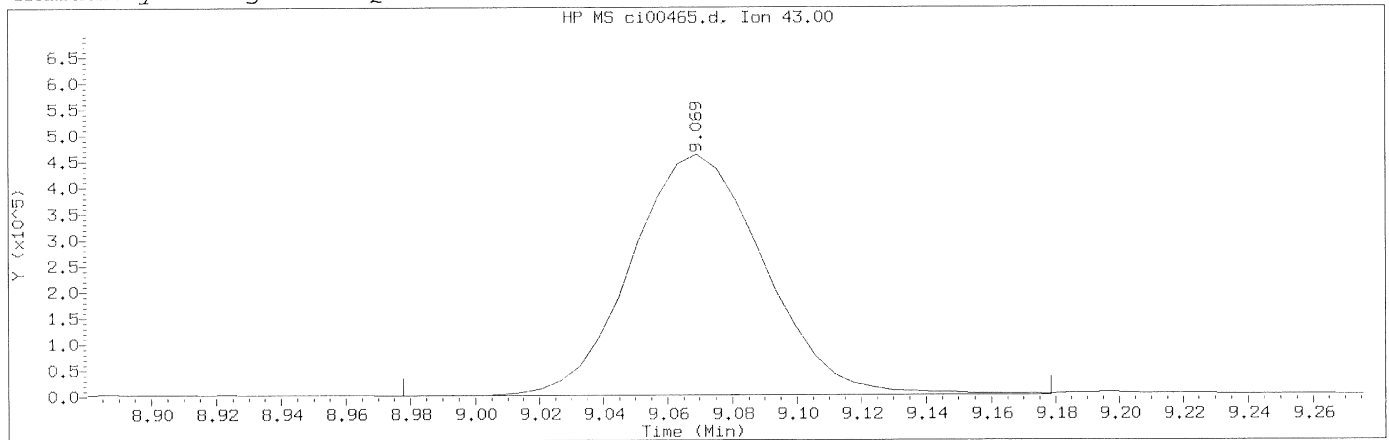
Compound Number : 37  
 Compound Name : 2-Butanone  
 Scan Number : 955  
 Retention Time (minutes): 6.891  
 Quant Ion : 72.00  
 Area : 148894  
 Concentration (ppb(v)) : 5.2955  
 Integration start scan : 945  
 Integration stop scan: 993  
 Y at integration start : 0  
 Y at integration end: 0

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/ci00465.d      Instrument ID: HP09464.i  
Injection date and time: 22-SEP-2015 17:21      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: VSTD005      Lab Sample ID: VSTD005

Compound Number : 50  
Compound Name : Heptane  
Scan Number : 1313  
Retention Time (minutes): 9.069  
Quant Ion : 43.00  
Area (flag) : 1308269M  
Concentration (ppb(v)) : 5.1006  
Integration start scan : 1297      Integration stop scan: 1330  
Y at integration start : 1660      Y at integration end: 1627

Reason for manual integration: improper integration

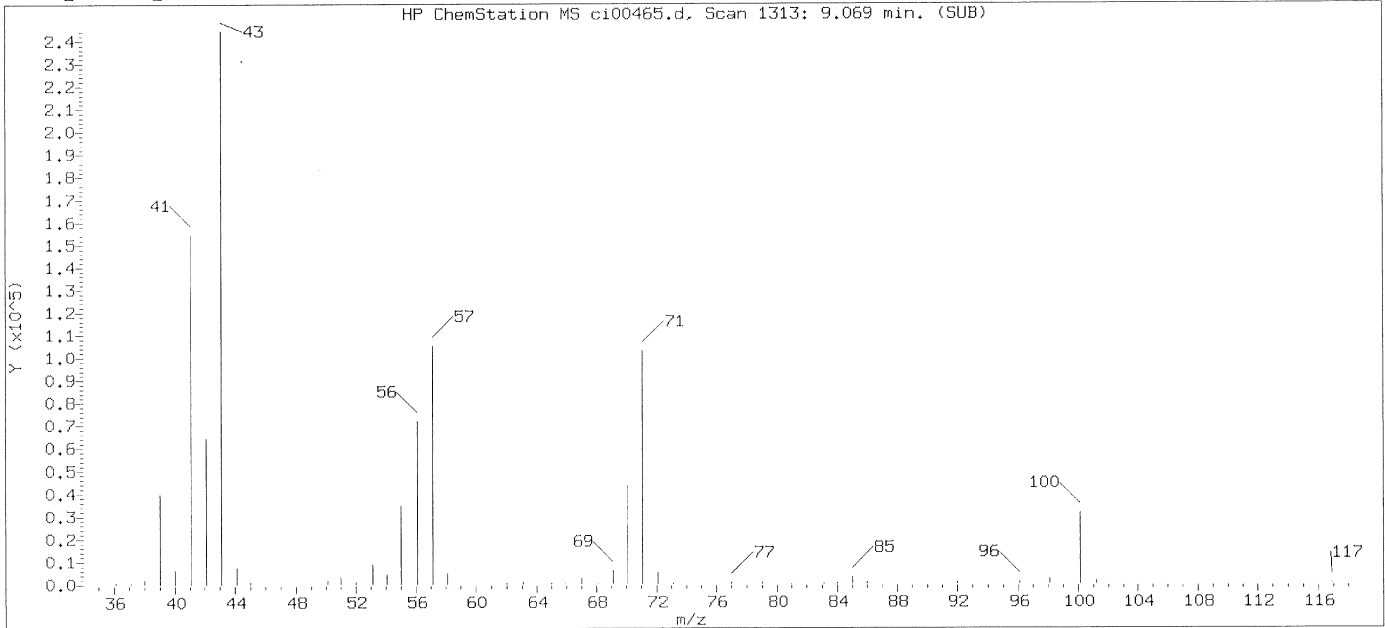
Analyst responsible for change: Digitally signed by Jeffrey B. Smith  
on 09/23/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304

*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

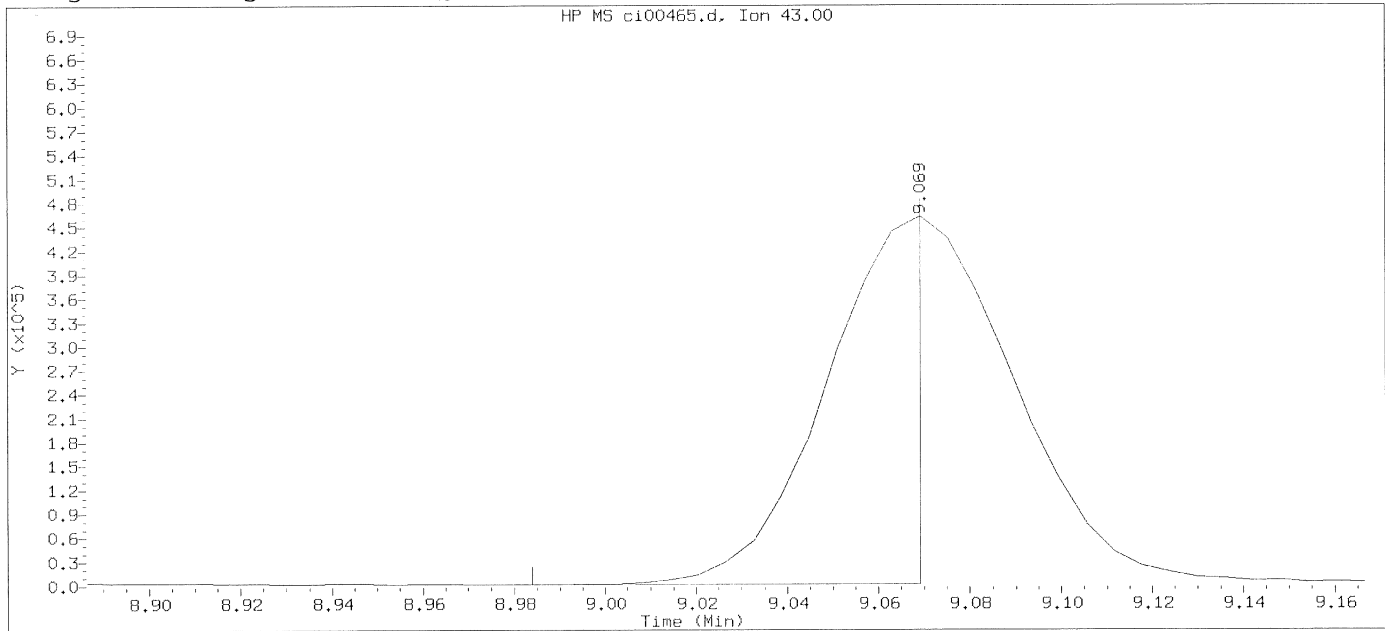
GC/MS audit/management approval: \_\_\_\_\_

SEP 25 2015

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00465.d  
Injection date and time: 22-SEP-2015 17:21

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
Calibration date and time: 22-SEP-2015 11:37  
Date, time and analyst ID of latest file update: 22-Sep-2015 18:01 Automation

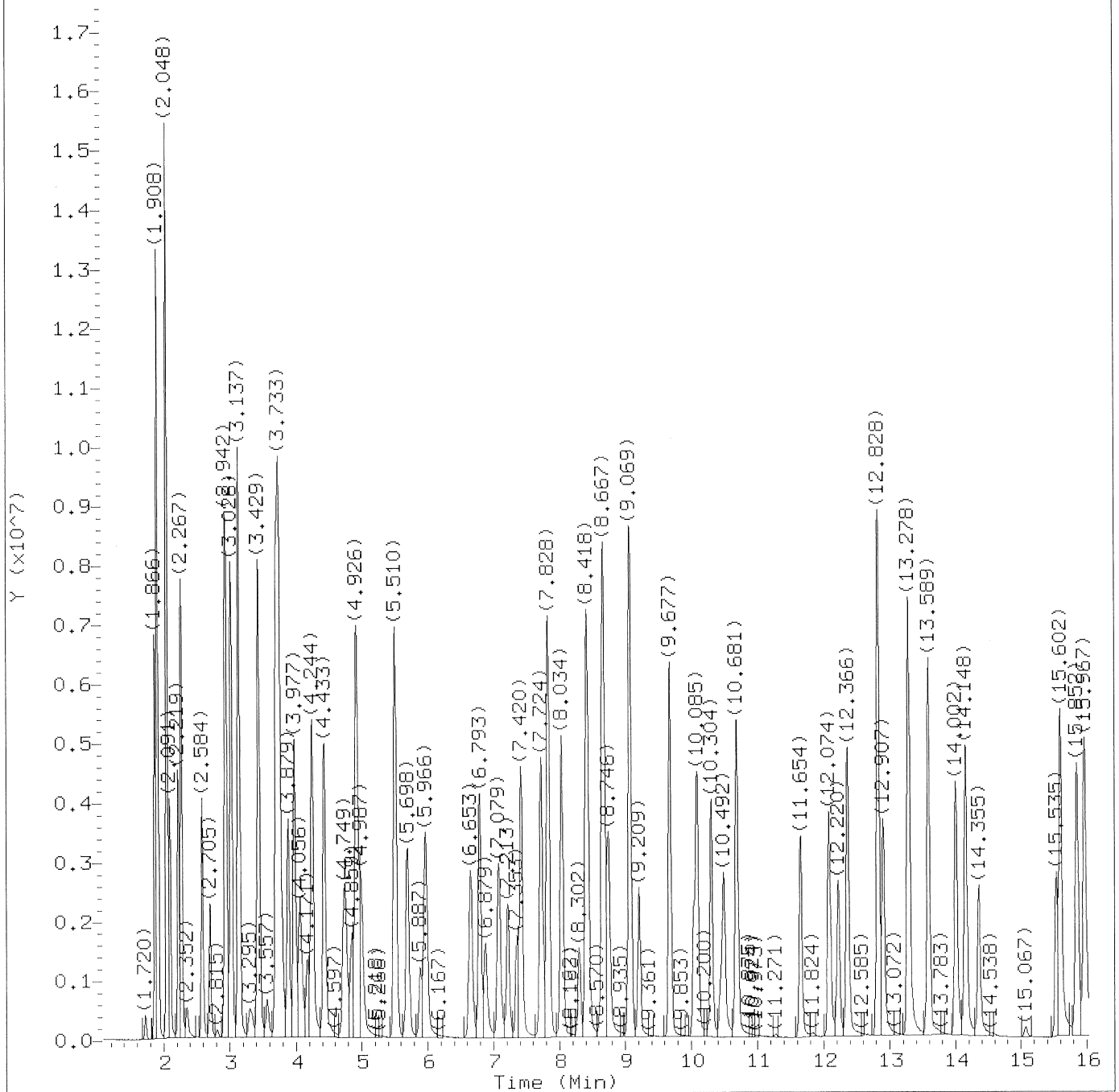
Sublist used: all

Sample Name: VSTD005

Lab Sample ID: VSTD005

Compound Number : 50  
Compound Name : Heptane  
Scan Number : 1313  
Retention Time (minutes): 9.069  
Quant Ion : 43.00  
Area : 637177  
Concentration (ppb(v)) : 3.2553  
Integration start scan : 1298 Integration stop scan: 1312  
Y at integration start : 1317 Y at integration end: 1317

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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/ci00467.d  
Injection date and time: 22-SEP-2015 18:47

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

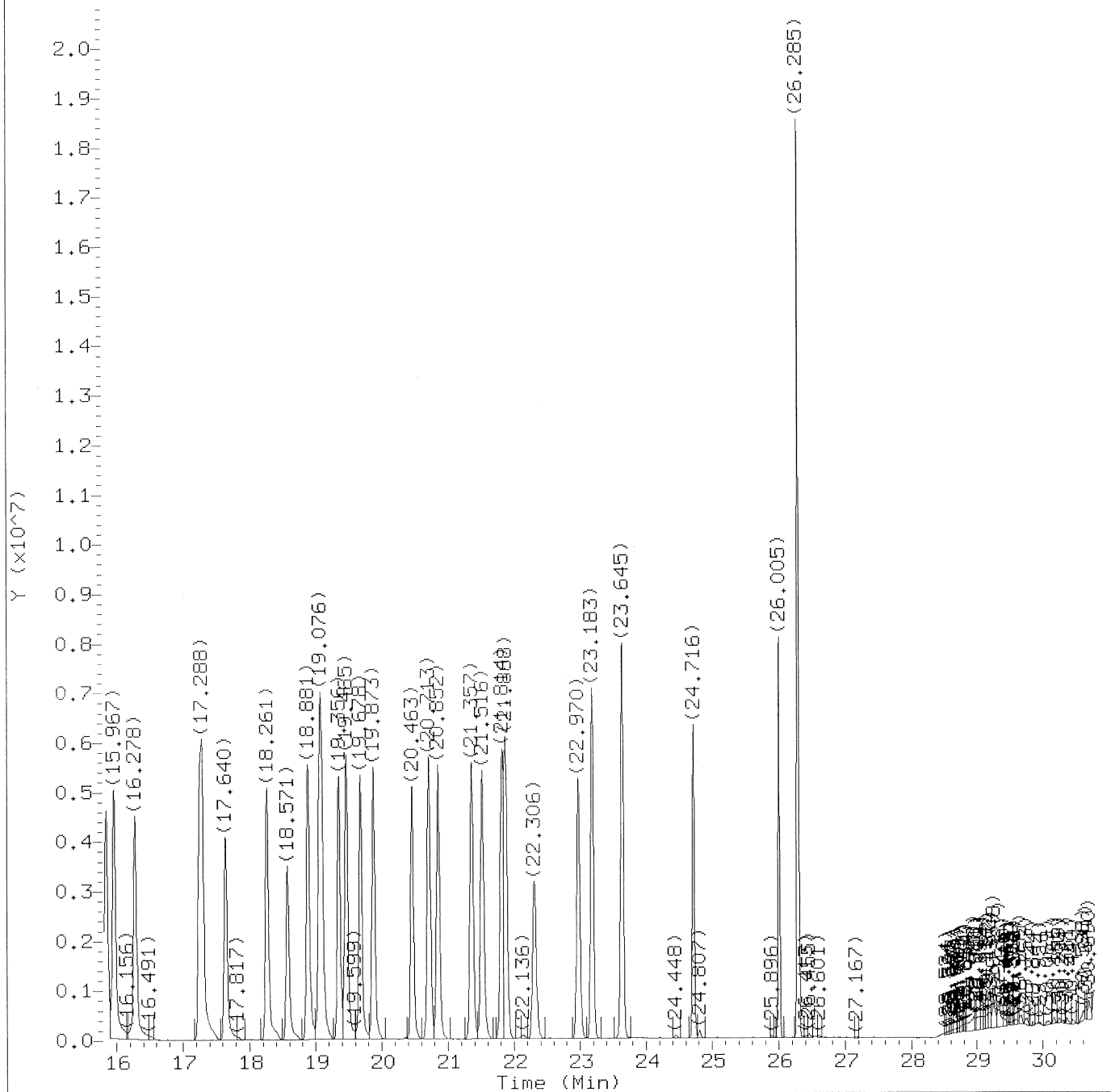
Sublist used: all

Sample Name: VSTD025

Lab Sample ID: VSTD025

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/ci00467.d  
Injection date and time: 22-SEP-2015 18:47

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD025

Lab Sample ID: VSTD025

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/ci00467.d  
 Injection date and time: 22-SEP-2015 18:47

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD025

Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.866	41	3875837	28.749
2) Dichlorodifluoromethane	(1)	1.908	85	7749075	22.558
3) Chlorodifluoromethane	(1)	1.914	51	6887307	23.572
4) Freon 114	(1)	2.048	85	7471105	24.244
5) Chloromethane	(1)	2.091	52	1617865	26.109
6) Vinyl Chloride	(1)	2.219	62	4293334	27.500
7) 1,3-Butadiene	(1)	2.267	54	3650050	27.758
8) Bromomethane	(1)	2.584	94	2980132	24.135
9) Chloroethane	(1)	2.711	64	2372005	23.960
10) Bromoethene	(1)	2.930	106	3056581	29.442
11) Dichlorofluoromethane	(1)	2.949	67	8827374	23.079
12) Trichlorofluoromethane	(1)	3.028	101	8041265	22.468
13) Pentane	(1)	3.137	43	8599937	26.425
14) Ethanol	(1)	3.295	45	1041506	12.726
15) Freon123a	(1)	3.429	67	7103229	22.656
16) Acrolein	(1)	3.563	56	769487	18.049
17) 1,1-Dichloroethene	(1)	3.697	61	7075403	25.925
18) Freon 113	(1)	3.739	103	4108192	24.010
19) Acetone	(1)	3.782	43	2909171	17.747
20) Methyl Iodide	(1)	3.879	142	5409106	27.144
21) Carbon Disulfide	(1)	3.977	76	9905479	22.552
22) Isopropanol	(1)	4.056	45	5848498	24.265
23) Acetonitrile	(1)	4.171	40	945118	13.425
24) 3-Chloropropene	(1)	4.244	76	1938752	28.258
25) Methylene Chloride	(1)	4.433	84	3165278	25.980
26) tert-Butyl Alcohol	(1)	4.749	59	6082885	28.980
27) Acrylonitrile	(1)	4.859	53	2433205M	19.144
28) trans-1,2-Dichloroethene	(1)	4.926	61	7168128	23.253
29) Methyl t-Butyl Ether	(1)	4.993	73	4520457	20.007
30) Hexane	(1)	5.510	57	5445006	27.851
31) 1,1-Dichloroethane	(1)	5.698	63	5636948	22.370
32) Vinyl Acetate	(1)	5.893	86	199158	16.965
33) Di-Isopropyl Ether	(1)	5.966	45	6056510	22.397
36) 1,2-Dichloroethene (total)	(1)		61	11618499	47.428
34) Ethyl Tert-Butyl Ether	(1)	6.653	59	4109039	22.608
35) cis-1,2-Dichloroethene	(1)	6.793	61	4450371	24.175
37) 2-Butanone	(1)	6.879	72	667427	21.687
38) Ethyl Acetate	(1)	7.067	70	384338	21.708

M = Compound was manually integrated.

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/ci00467.d  
 Injection date and time: 22-SEP-2015 18:47

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD025

Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Methyl Acrylate	(1)	7.091	55	2664225	19.411
40) *Bromochloromethane	(1)	7.219	130	800379	10.000
41) Tetrahydrofuran	(1)	7.353	42	2196293	20.422
42) Chloroform	(1)	7.420	83	5232423	20.958
43) 1,1,1-Trichloroethane	(1)	7.724	97	4892330	22.238
44) Cyclohexane	(1)	7.828	56	5764769	26.487
45) Carbon Tetrachloride	(1)	8.034	117	4880794	22.196
46) Benzene	(2)	8.412	78	7401850	26.778
47) 1,2-Dichloroethane	(2)	8.442	62	4201740	23.525
48) Isooctane	(2)	8.667	57	13615644	29.163
49) Tert-Amyl Methyl Ether	(2)	8.746	73	3433559M	25.740
50) Heptane	(2)	9.075	43	6570092M	29.511
51) *1,4-Difluorobenzene	(2)	9.215	114	2484929	10.000
52) Trichloroethene	(2)	9.677	130	2613956	25.320
53) Ethyl Acrylate	(2)	10.036	55	3643048	27.332
54) 1,2-Dichloropropane	(2)	10.091	63	2776853	23.509
55) Dibromomethane	(2)	10.304	174	1725826	24.393
56) 1,4-Dioxane	(2)	10.450	88	1154440	30.867
57) Methyl Methacrylate	(2)	10.492	69	1533447	23.384
58) Bromodichloromethane	(2)	10.681	83	5589341	23.931
59) cis-1,3-Dichloropropene	(2)	11.654	75	3174794	24.524
60) 4-Methyl-2-Pentanone	(2)	12.074	43	5811702	31.037
61) Toluene	(3)	12.366	91	5592486	23.012
64) 1,3-Dichloropropene (total)	(3)		75	6555202	46.594
62) Octane	(3)	12.828	43	7912135	28.883
63) trans-1,3-Dichloropropene	(3)	12.907	75	3380408	22.071
65) Ethyl Methacrylate	(3)	13.272	69	3168435	28.020
66) 1,1,2-Trichloroethane	(3)	13.285	97	2315541	21.701
67) Tetrachloroethene	(3)	13.589	166	2555916	24.553
68) 2-Hexanone	(3)	14.002	43	6303983	31.283
69) Dibromochloromethane	(3)	14.148	127	3331434	22.059
70) 1,2-Dibromoethane	(3)	14.355	107	3178912	21.860
71) *Chlorobenzene-d5	(3)	15.535	117	2484075	10.000
72) Chlorobenzene	(3)	15.602	112	4540500	23.206
73) 1,1,1,2-Tetrachloroethane	(3)	15.846	131	2313629	22.314
74) Ethylbenzene	(3)	15.967	91	6513748	24.998
75) m/p-Xylene	(3)	16.278	91	4802785	23.197
77) Xylene (total)	(3)		91	10364865	48.449

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/ci00467.d  
 Injection date and time: 22-SEP-2015 18:47

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

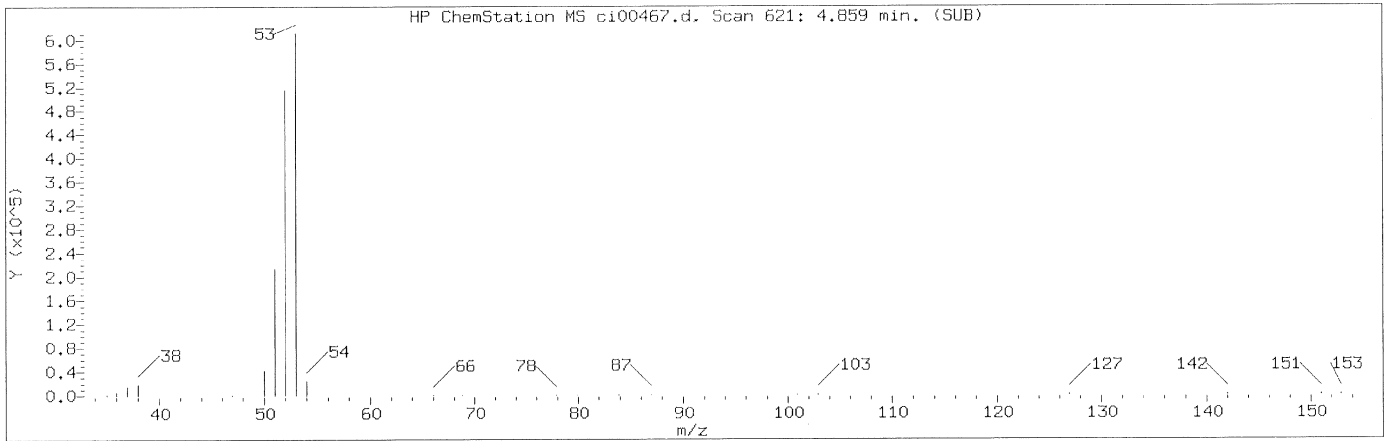
Sample Name: VSTD025

Lab Sample ID: VSTD025

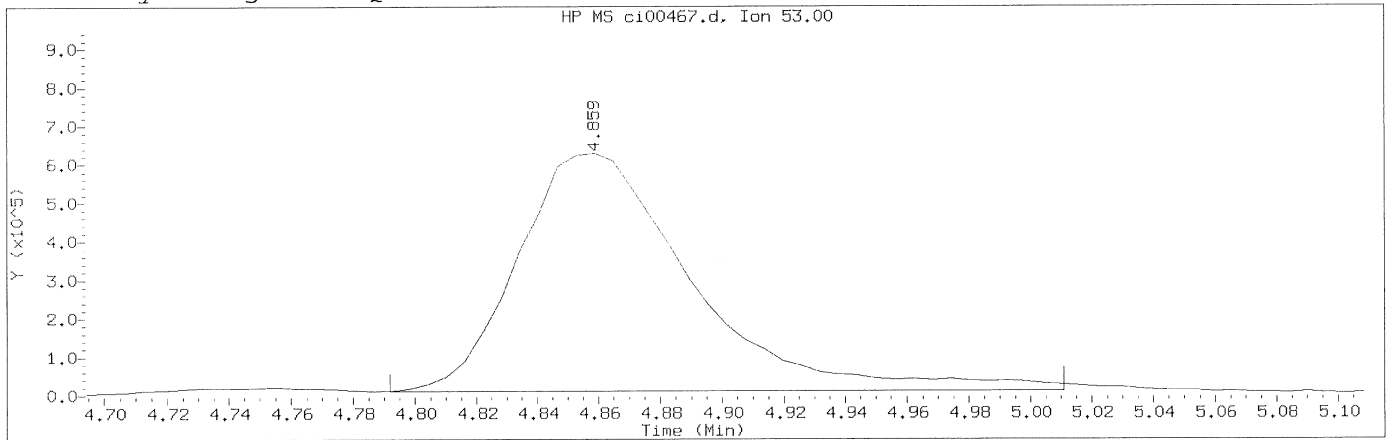
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
76) o-Xylene	(3)	17.251	91	5562080	25.252
78) Styrene	(3)	17.294	104	4184322	23.752
79) Bromoform	(3)	17.640	173	3158767	22.704
80) Cumene	(3)	18.261	105	6234827	25.373
81) Bromobenzene	(3)	18.881	156	2185652	23.283
82) 1,1,2,2-Tetrachloroethane	(3)	19.058	83	5322963	22.330
83) 1,2,3-Trichloropropane	(3)	19.088	110	1181511	19.543
84) n-Propylbenzene	(3)	19.356	120	1702622	23.804
85) 2-Chlorotoluene	(3)	19.465	126	1781725	23.124
86) 4-Ethyltoluene	(3)	19.684	105	6352656	23.845
87) 1,3,5-Trimethylbenzene	(3)	19.873	105	5486873	24.743
88) Alpha Methyl Styrene	(3)	20.463	118	2621155	24.060
89) tert-Butylbenzene	(3)	20.713	119	4820275	24.166
90) 1,2,4-Trimethylbenzene	(3)	20.852	105	5713249	23.728
91) sec-Butylbenzene	(3)	21.357	105	7866856	24.754
92) 1,3-Dichlorobenzene	(3)	21.516	146	3967382	22.123
93) 1,4-Dichlorobenzene	(3)	21.814	146	3992559	21.909
94) p-Isopropyltoluene	(3)	21.868	119	6513923	25.030
95) Benzyl Chloride	(3)	22.306	91	5173225	18.936
96) 1,2-Dichlorobenzene	(3)	22.970	146	3502238	21.112
97) n-Butylbenzene	(3)	23.183	91	7307261	25.577
98) Hexachloroethane	(3)	23.645	117	3111332	25.260
99) 1,2-Dibromo-3-chloropropane	(3)	24.716	157	1640920	20.795
100) 1,2,4-Trichlorobenzene	(3)	26.005	180	1894033	22.544
101) Hexachlorobutadiene	(3)	26.285	225	2027039	24.738
102) Naphthalene	(3)	26.297	128	5195630	21.808

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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/ci00467.d  
Injection date and time: 22-SEP-2015 18:47

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD025

Lab Sample ID: VSTD025

Compound Number : 27  
Compound Name : Acrylonitrile  
Scan Number : 621  
Retention Time (minutes): 4.859  
Quant Ion : 53.00  
Area (flag) : 2433205M  
Concentration (ppb(v)) : 19.1436  
Integration start scan : 609 Integration stop scan: 645  
Y at integration start : 9984 Y at integration end: 9984

Reason for manual integration: improper integration

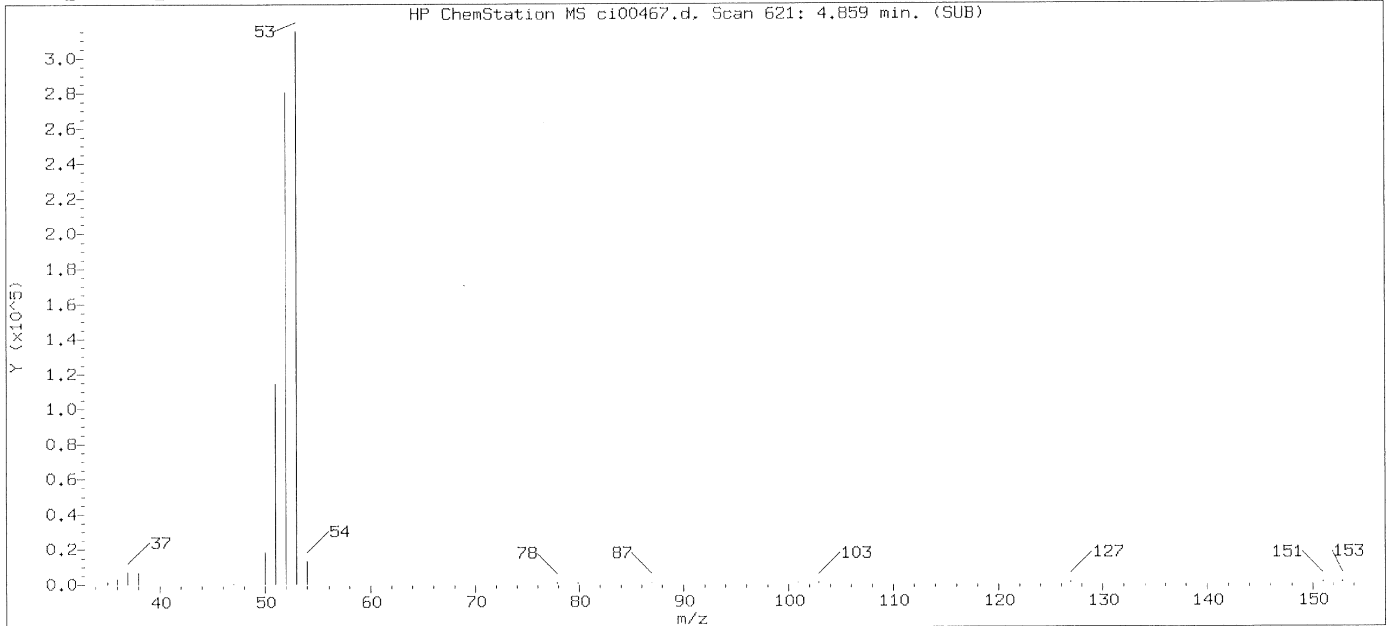
Analyst responsible for change: Digitally signed by Jeffrey B. Smith  
on 09/23/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304

GC/MS audit/management approval: \_\_\_\_\_

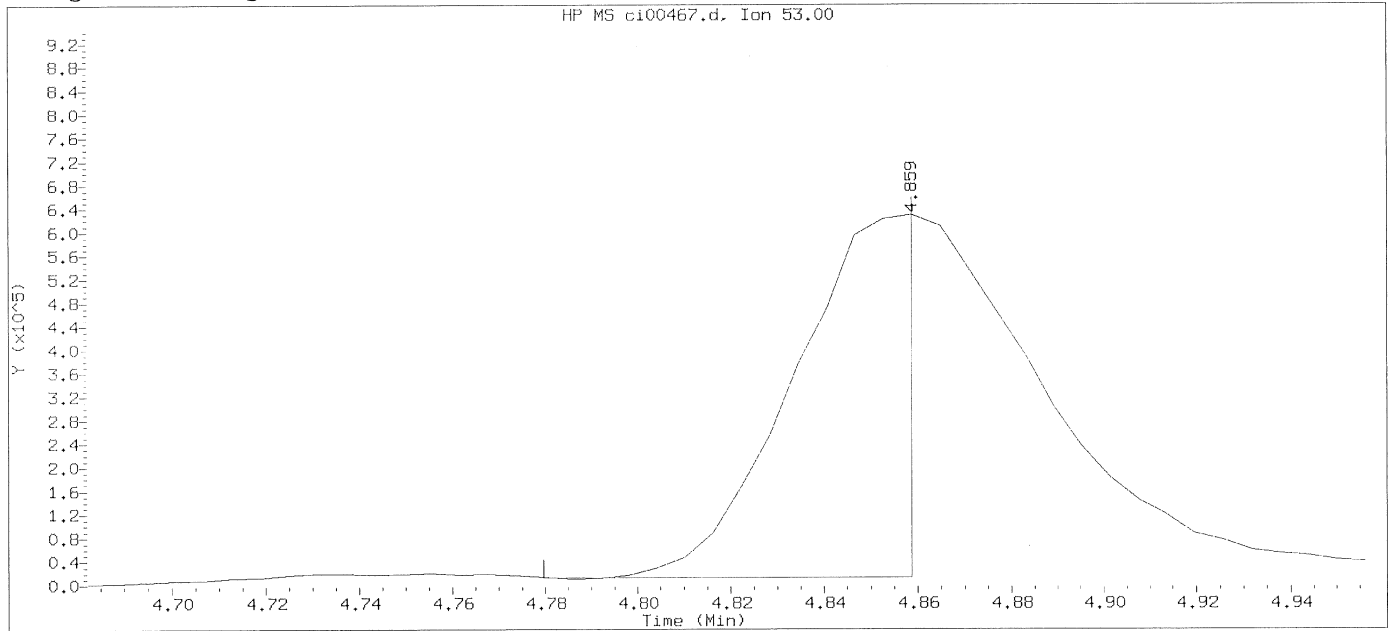
*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

SEP 25 2015

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00467.d Instrument ID: HP09464.i  
Injection date and time: 22-SEP-2015 18:47 Analyst ID: jeb07445

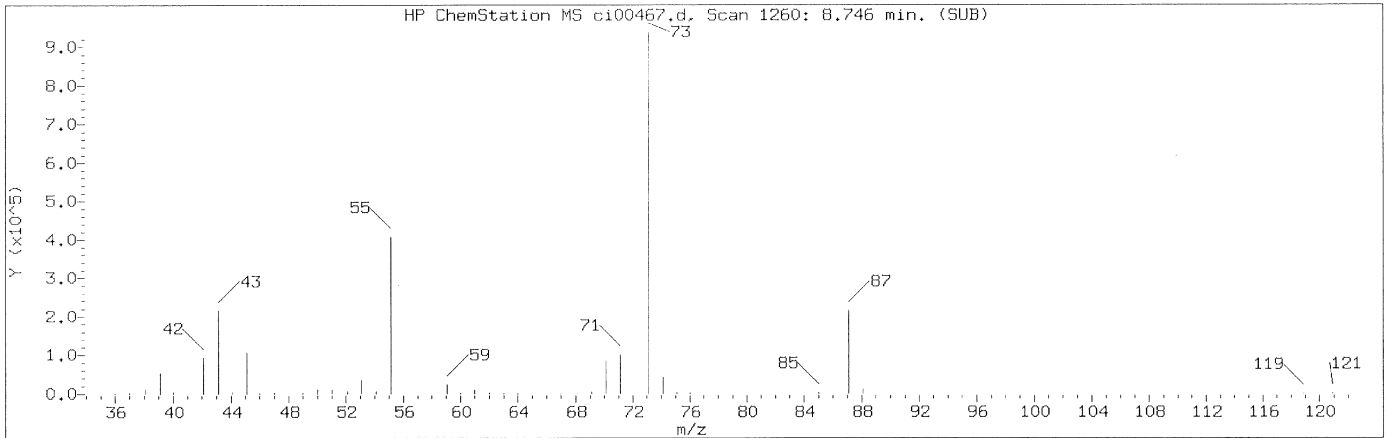
Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all  
Calibration date and time: 22-SEP-2015 18:48  
Date, time and analyst ID of latest file update: 22-Sep-2015 19:26 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

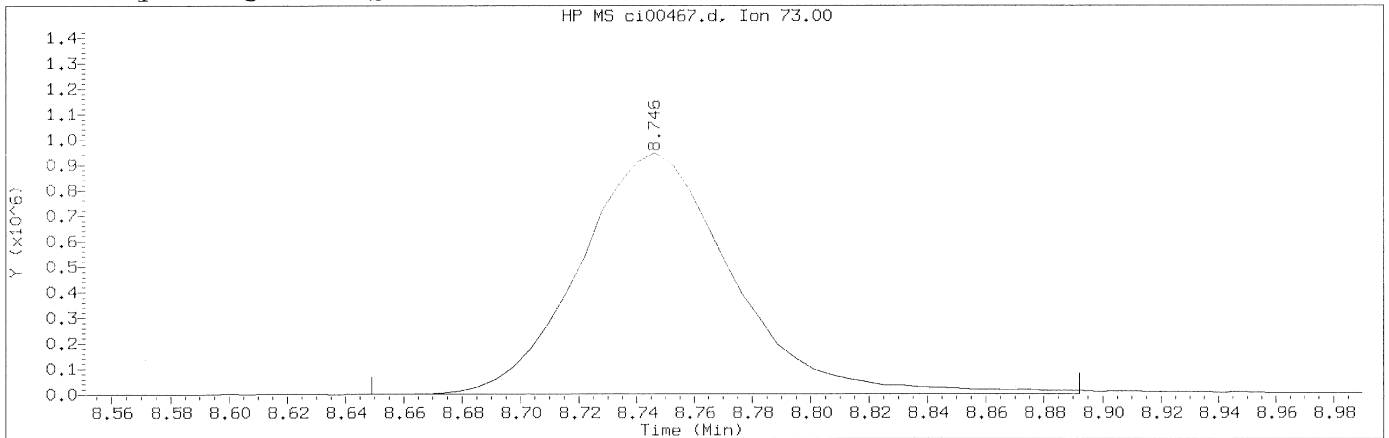
Compound Number : 27  
Compound Name : Acrylonitrile  
Scan Number : 621  
Retention Time (minutes): 4.859  
Quant Ion : 53.00  
Area : 1038189  
Concentration (ppb(v)) : 7.9462  
Integration start scan : 607 Integration stop scan: 620  
Y at integration start : 12949 Y at integration end: 12949

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/ci00467.d                      Instrument ID: HP09464.i  
Injection date and time: 22-SEP-2015 18:47                      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: VSTD025    Lab Sample ID: VSTD025

Compound Number                      : 49  
Compound Name                         : Tert-Amyl Methyl Ether  
Scan Number                            : 1260  
Retention Time (minutes): 8.746  
Quant Ion                                : 73.00  
Area (flag)                             : 3433559M  
Concentration (ppb(v))                : 25.7402  
Integration start scan                 : 1243                      Integration stop scan: 1283  
Y at integration start                 : 1661                     Y at integration end: 3278

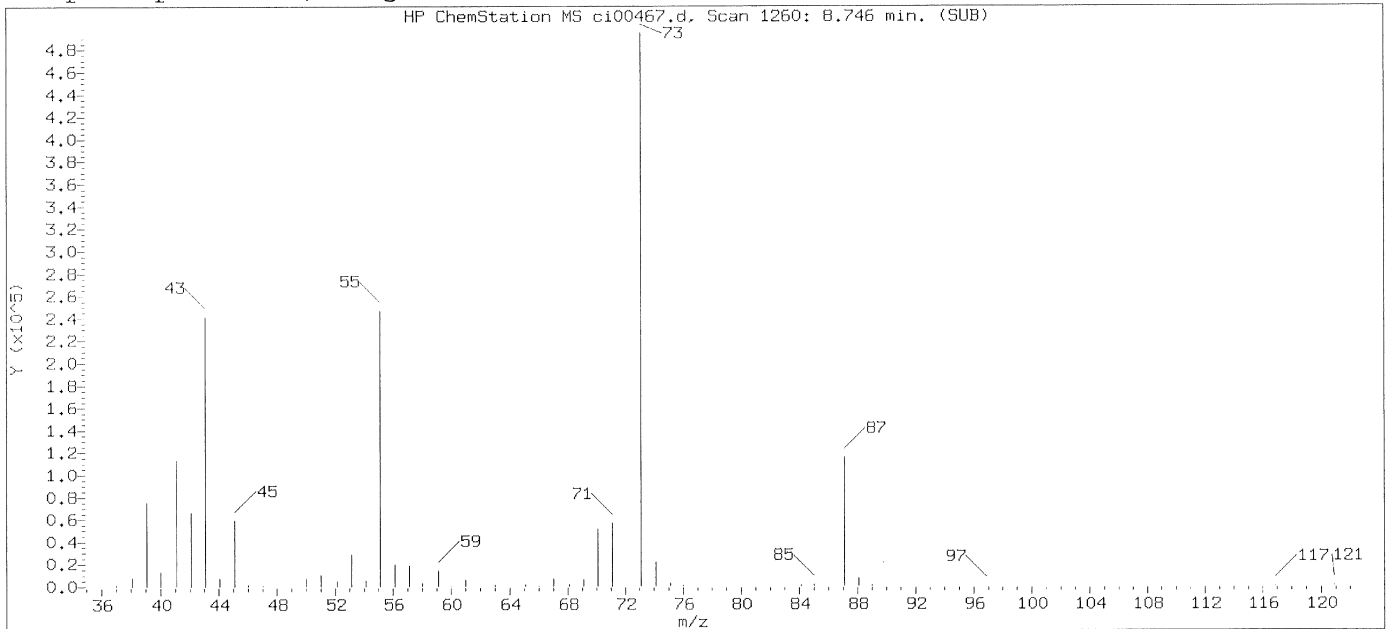
Reason for manual integration: improper integration

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

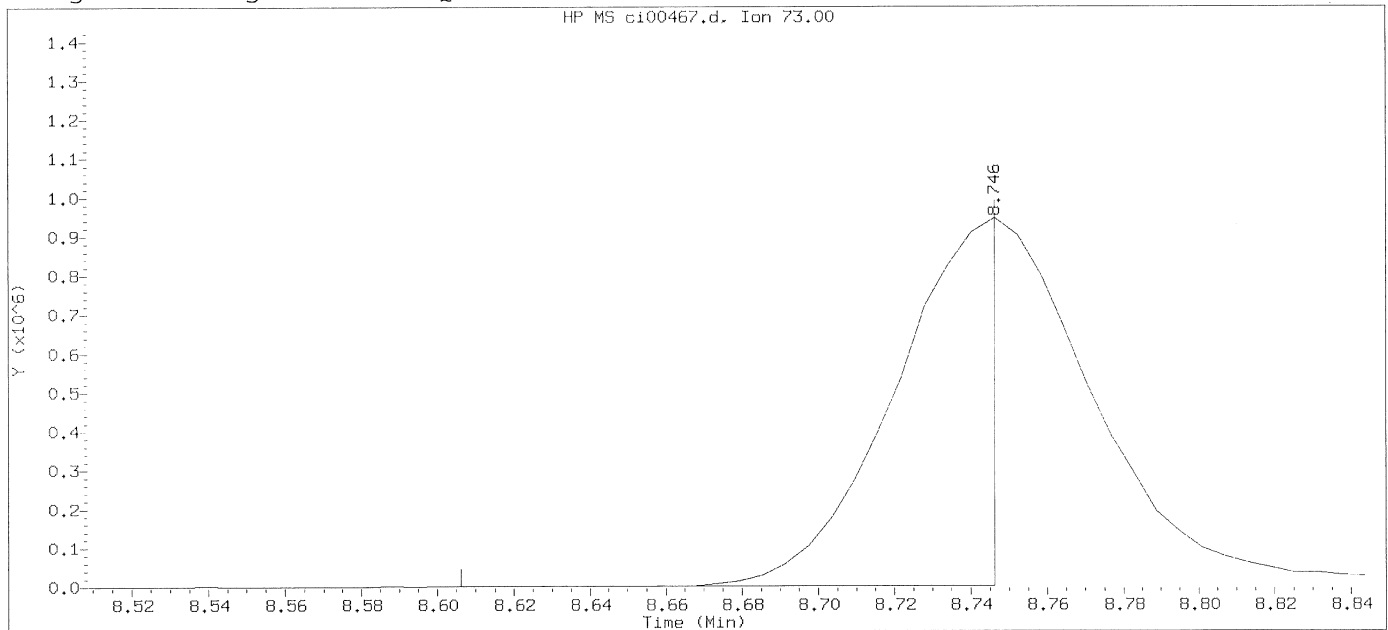
GC/MS audit/management approval: \_\_\_\_\_

*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist  
SEP 25 2015

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00467.d

Instrument ID: HP09464.i

Injection date and time: 22-SEP-2015 18:47

Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m

Sublist used: all

Calibration date and time: 22-SEP-2015 18:48

Date, time and analyst ID of latest file update: 22-Sep-2015 19:26 Automation

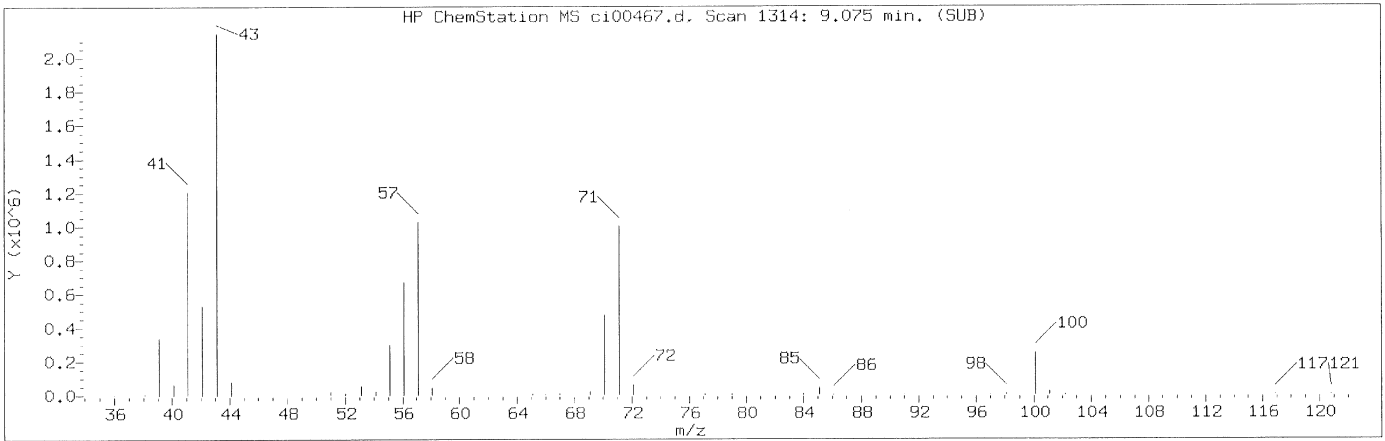
Sample Name: VSTD025

Lab Sample ID: VSTD025

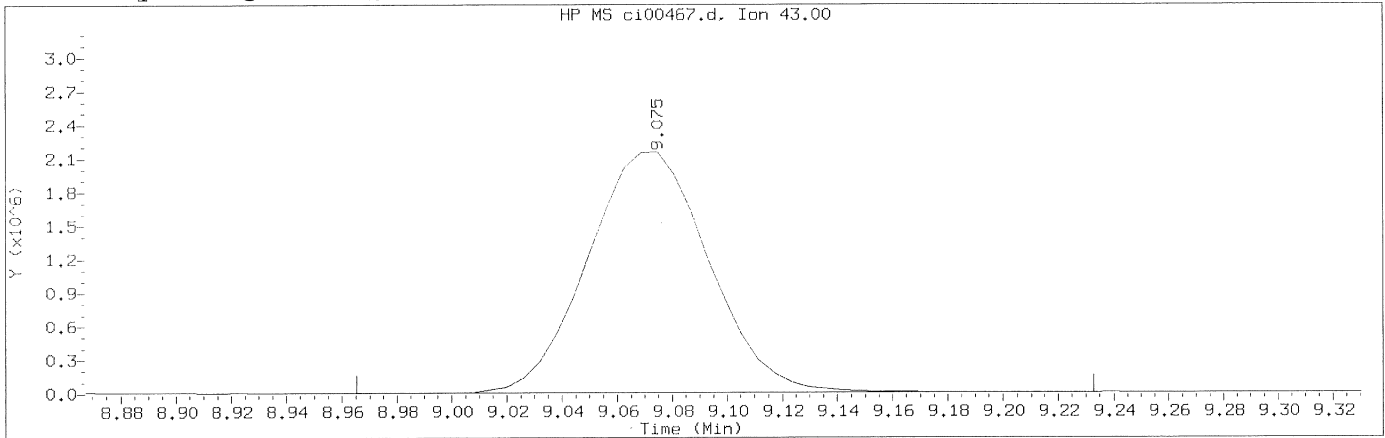
Compound Number	: 49
Compound Name	: Tert-Amyl Methyl Ether
Scan Number	: 1260
Retention Time (minutes)	: 8.746
Quant Ion	: 73.00
Area	: 1655961
Concentration (ppb(v))	: 12.9030
Integration start scan	: 1236
Integration stop scan	: 1259
Y at integration start	: 1121
Y at integration end	: 1121

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/ci00467.d                      Instrument ID: HP09464.i  
Injection date and time: 22-SEP-2015 18:47                      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: VSTD025    Lab Sample ID: VSTD025

Compound Number                      : 50  
Compound Name                         : Heptane  
Scan Number                            : 1314  
Retention Time (minutes)             : 9.075  
Quant Ion                                : 43.00  
Area (flag)                             : 6570092M  
Concentration (ppb(v))               : 29.5112  
Integration start scan                : 1295                      Integration stop scan: 1339  
Y at integration start                : 5560                     Y at integration end: 6743

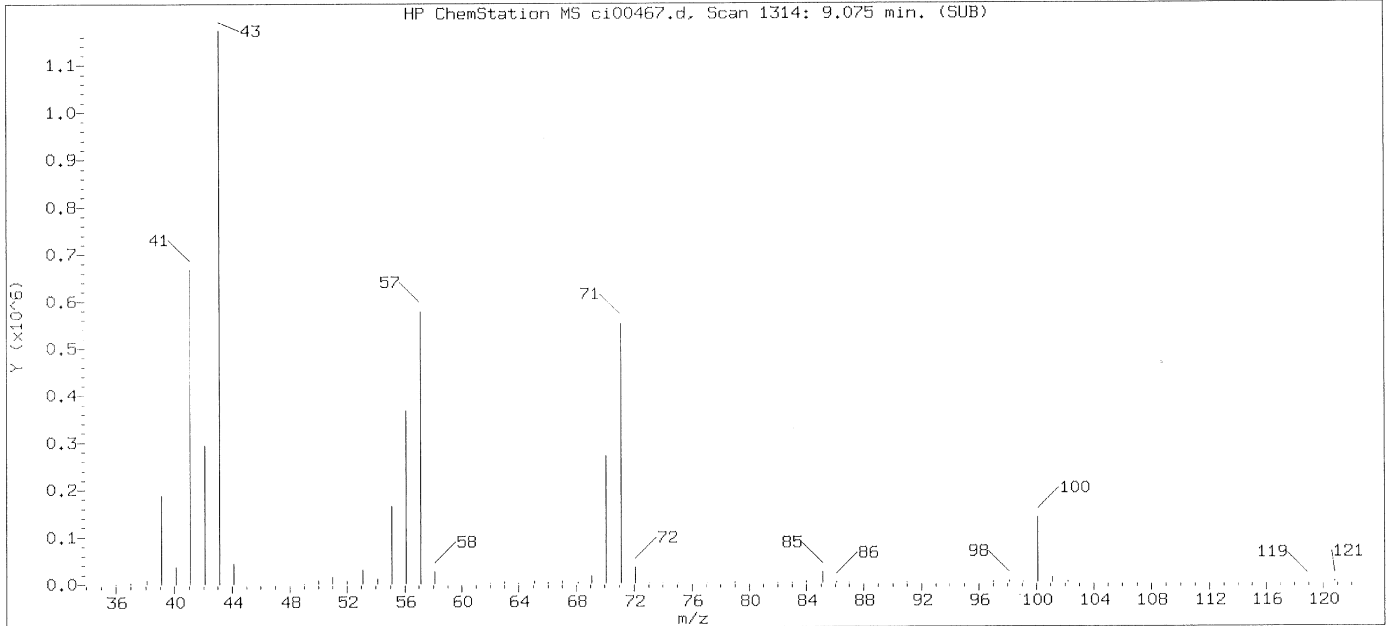
Reason for manual integration: improper integration

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

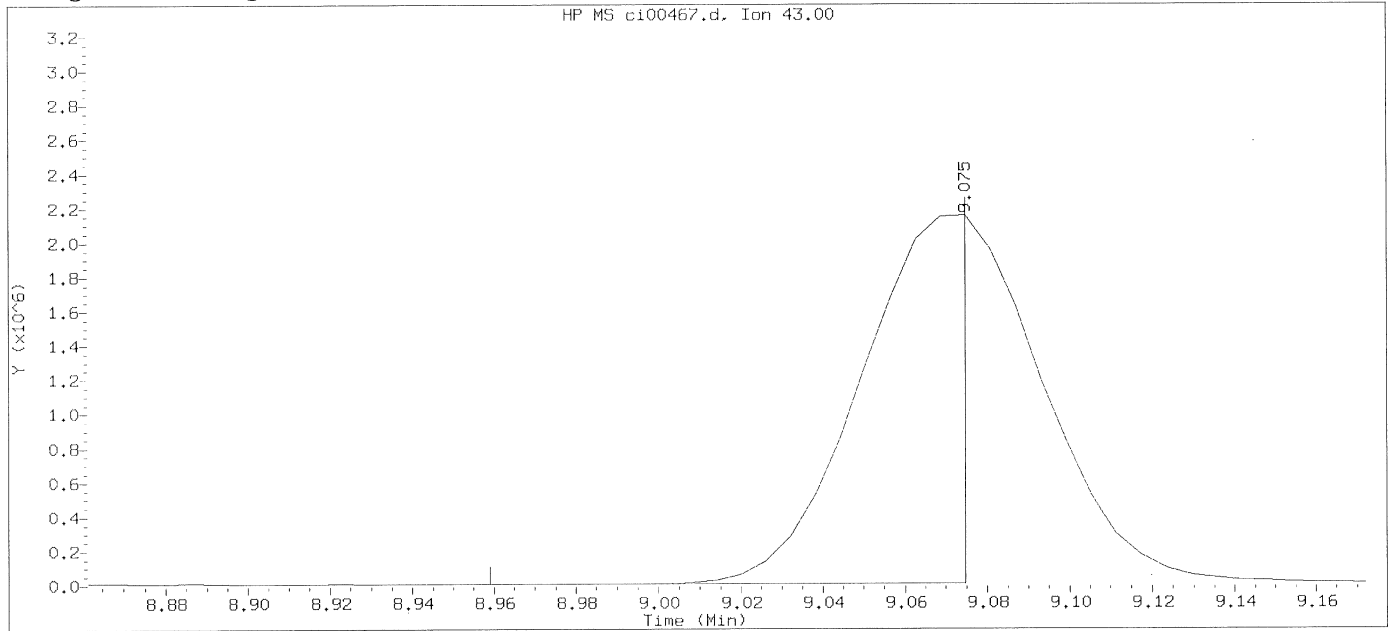
*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist  
**SEP 25 2015**

GC/MS audit/management approval: \_\_\_\_\_

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00467.d  
Injection date and time: 22-SEP-2015 18:47

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
Calibration date and time: 22-SEP-2015 18:48  
Date, time and analyst ID of latest file update: 22-Sep-2015 19:26 Automation

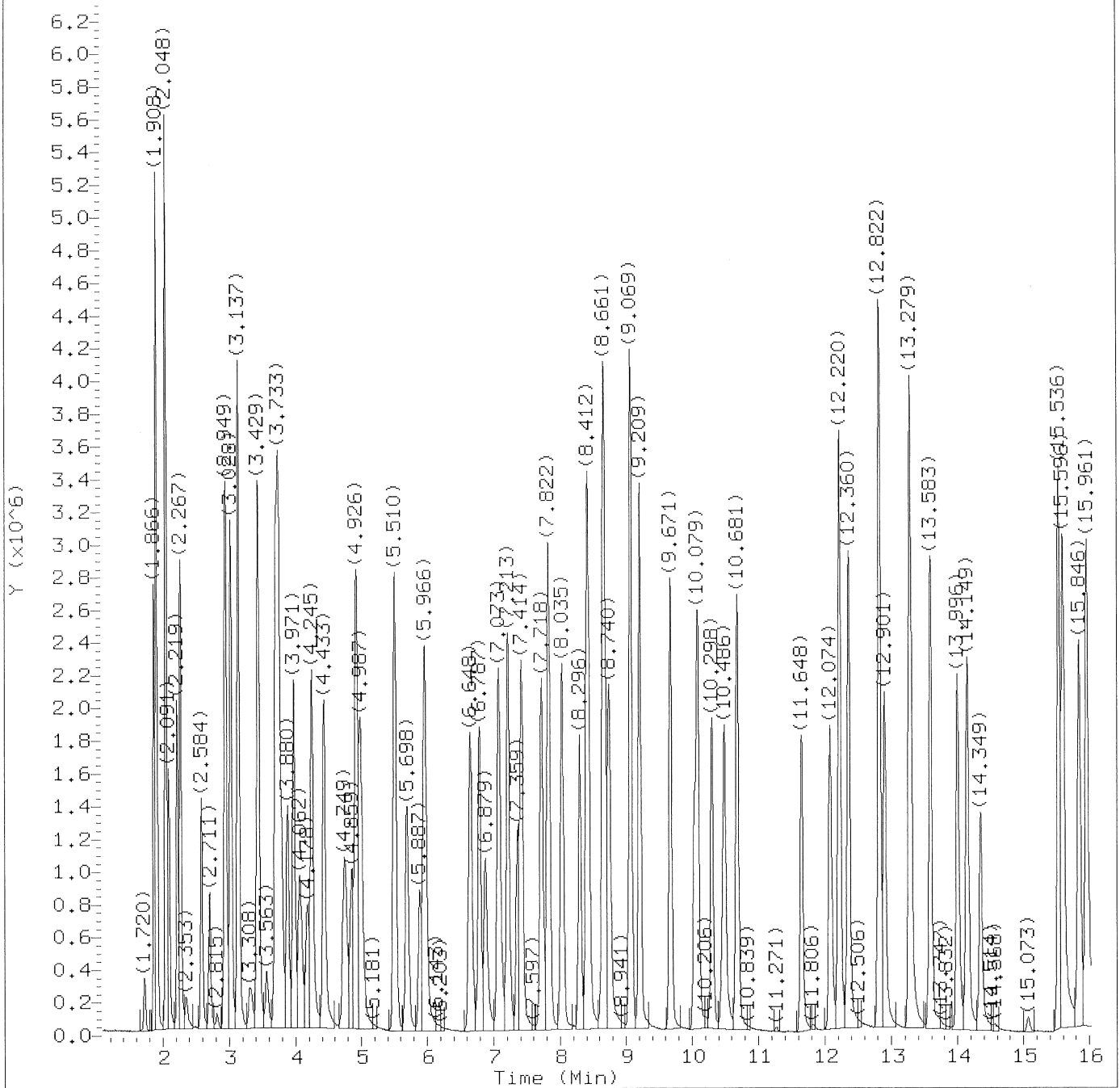
Sample Name: VSTD025

Lab Sample ID: VSTD025

Compound Number : 50  
Compound Name : Heptane  
Scan Number : 1314  
Retention Time (minutes): 9.075  
Quant Ion : 43.00  
Area : 3669752  
Concentration (ppb(v)) : 16.1267  
Integration start scan : 1294  
Y at integration start : 5538  
Integration stop scan: 1313  
Y at integration end: 5538

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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/ci00468.d  
Injection date and time: 22-SEP-2015 19:30

Instrument ID: HP09464.i  
Analyst ID: jeb07445

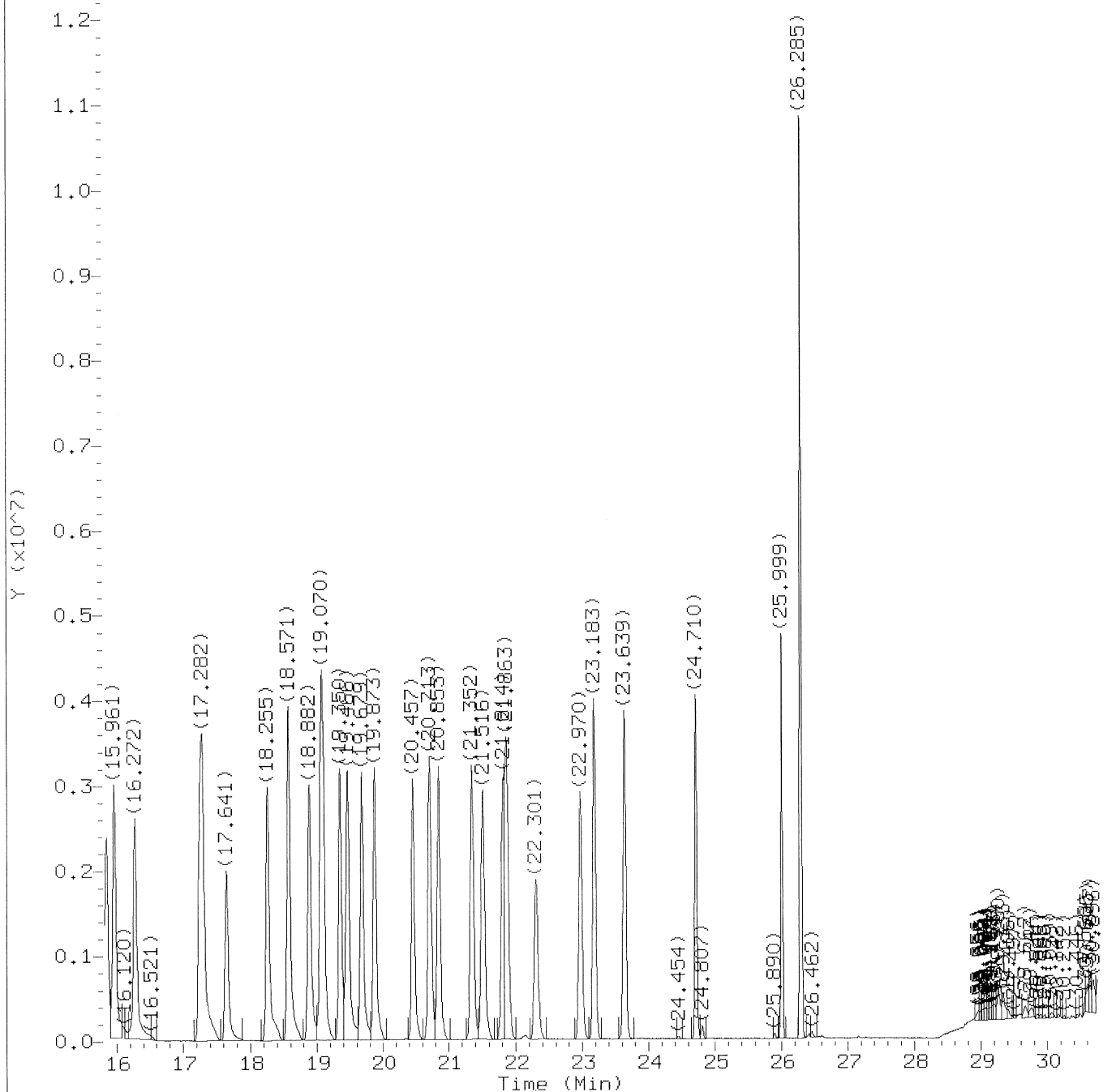
Method used: /chem/HP09464.i/15sep22.b/to-15.m  
Calibration date and time: 23-SEP-2015 09:08  
Date, time and analyst ID of latest file update: 23-Sep-2015 09:08 jbs01304

Sublist used: all

Sample Name: VSTD010

Lab Sample ID: VSTD010

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/ci00468.d  
Injection date and time: 22-SEP-2015 19:30

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD010

Lab Sample ID: VSTD010

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/ci00468.d  
 Injection date and time: 22-SEP-2015 19:30

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

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	1508822	10.030
2) Dichlorodifluoromethane	(1)	1.902	85	3242321	8.459
3) Chlorodifluoromethane	(1)	1.915	51	2870488	8.805
4) Freon 114	(1)	2.048	85	2980399	8.668
5) Chloromethane	(1)	2.091	52	616048	8.910
6) Vinyl Chloride	(1)	2.219	62	1634673	9.384
7) 1,3-Butadiene	(1)	2.267	54	1373965	9.364
8) Bromomethane	(1)	2.584	94	1111048	8.064
9) Chloroethane	(1)	2.711	64	907566	8.216
10) Bromoethene	(1)	2.930	106	1086632	9.380
11) Dichlorofluoromethane	(1)	2.949	67	3692828	8.653
12) Trichlorofluoromethane	(1)	3.028	101	3271447	8.192
13) Pentane	(1)	3.143	43	3682522	10.141
14) Ethanol	(1)	3.308	45	566700	6.206
15) Freon123a	(1)	3.429	67	3226663	9.223
16) Acrolein	(1)	3.563	56	419659	8.822
17) 1,1-Dichloroethene	(1)	3.697	61	2795139	9.179
18) Freon 113	(1)	3.740	103	1527598	8.001
19) Acetone	(1)	3.788	43	2216970	12.121
20) Methyl Iodide	(1)	3.880	142	2068908	9.305
21) Carbon Disulfide	(1)	3.971	76	4181827	8.533
22) Isopropanol	(1)	4.068	45	2545900	9.466
23) Acetonitrile	(1)	4.178	40	614874	7.828
24) 3-Chloropropene	(1)	4.245	76	742955	9.705
25) Methylene Chloride	(1)	4.433	84	1298319	9.550
26) tert-Butyl Alcohol	(1)	4.749	59	2575448	10.996
27) Acrylonitrile	(1)	4.859	53	1443391	10.177
28) trans-1,2-Dichloroethene	(1)	4.926	61	2980624	8.666
29) Methyl t-Butyl Ether	(1)	4.993	73	3207605	12.723
30) Hexane	(1)	5.510	57	2183429	10.009
31) 1,1-Dichloroethane	(1)	5.692	63	2522758	8.972
32) Vinyl Acetate	(1)	5.893	86	145072	11.075
33) Di-Isopropyl Ether	(1)	5.966	45	4172404	13.828
36) 1,2-Dichloroethene (total)	(1)		61	5015239	18.571
34) Ethyl Tert-Butyl Ether	(1)	6.648	59	2706448	13.346
35) cis-1,2-Dichloroethene	(1)	6.787	61	2034615	9.905
37) 2-Butanone	(1)	6.879	72	455123	13.254
38) Ethyl Acetate	(1)	7.067	70	275345	13.938

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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/ci00468.d  
Injection date and time: 22-SEP-2015 19:30

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Methyl Acrylate	(1)	7.092	55	2112506	13.794
40) *Bromochloromethane	(1)	7.213	130	893069	10.000
41) Tetrahydrofuran	(1)	7.359	42	1556637	12.972
42) Chloroform	(1)	7.420	83	2515000	9.028
43) 1,1,1-Trichloroethane	(1)	7.718	97	2242618	9.136
44) Cyclohexane	(1)	7.822	56	2433158	10.019
45) Carbon Tetrachloride	(1)	8.035	117	2202324	8.976
46) Benzene	(2)	8.406	78	3555769	9.903
47) 1,2-Dichloroethane	(2)	8.436	62	2119321	9.135
48) Isooctane	(2)	8.661	57	6805624	11.222
49) Tert-Amyl Methyl Ether	(2)	8.746	73	2192912	12.656
50) Heptane	(2)	9.069	43	3196128	11.052
51) *1,4-Difluorobenzene	(2)	9.209	114	3227842	10.000
52) Trichloroethene	(2)	9.671	130	1153536	8.602
53) Ethyl Acrylate	(2)	10.030	55	2361623	13.640
54) 1,2-Dichloropropane	(2)	10.085	63	1569667	10.230
55) Dibromomethane	(2)	10.298	174	815949	8.878
56) 1,4-Dioxane	(2)	10.456	88	553521	11.393
57) Methyl Methacrylate	(2)	10.492	69	1058642	12.428
58) Bromodichloromethane	(2)	10.681	83	2783321	9.174
59) cis-1,3-Dichloropropene	(2)	11.648	75	1676803	9.971
60) 4-Methyl-2-Pentanone	(2)	12.074	43	2940764	12.090
61) Toluene	(3)	12.360	91	3296731	11.162
64) 1,3-Dichloropropene (total)	(3)		75	3575522	20.171
62) Octane	(3)	12.822	43	4000682	12.016
63) trans-1,3-Dichloropropene	(3)	12.901	75	1898719	10.200
65) Ethyl Methacrylate	(3)	13.273	69	1640075	11.934
66) 1,1,2-Trichloroethane	(3)	13.279	97	1277628	9.852
67) Tetrachloroethene	(3)	13.583	166	1176776	9.301
68) 2-Hexanone	(3)	13.996	43	3248558	13.264
69) Dibromochloromethane	(3)	14.149	127	1576984	8.592
70) 1,2-Dibromoethane	(3)	14.355	107	1701862	9.629
71) *Chlorobenzene-d5	(3)	15.536	117	3019123	10.000
72) Chlorobenzene	(3)	15.603	112	2445130	10.282
73) 1,1,1,2-Tetrachloroethane	(3)	15.846	131	1212082	9.618
74) Ethylbenzene	(3)	15.961	91	4013528	12.673
75) m/p-Xylene	(3)	16.272	91	2952659M	11.734
77) Xylene (total)	(3)		91	6378600	24.531

M = Compound was manually integrated.

\* = Compound is an internal standard.

Quant Report

Target Revision 3.5

Data File: /chem/HP09464.i/15sep22.b/ci00468.d  
 Injection date and time: 22-SEP-2015 19:30

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

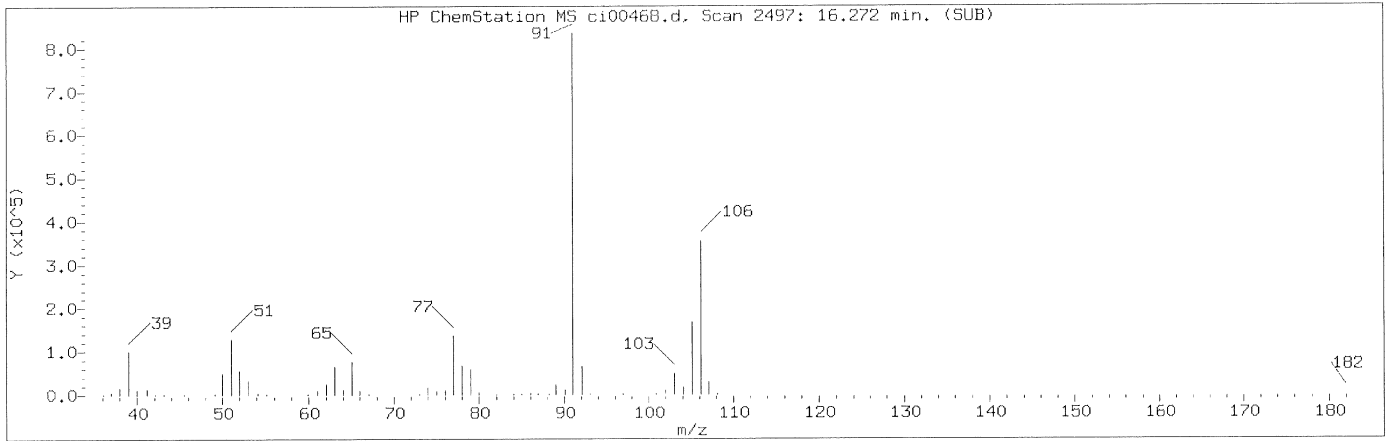
Sample Name: VSTD010

Lab Sample ID: VSTD010

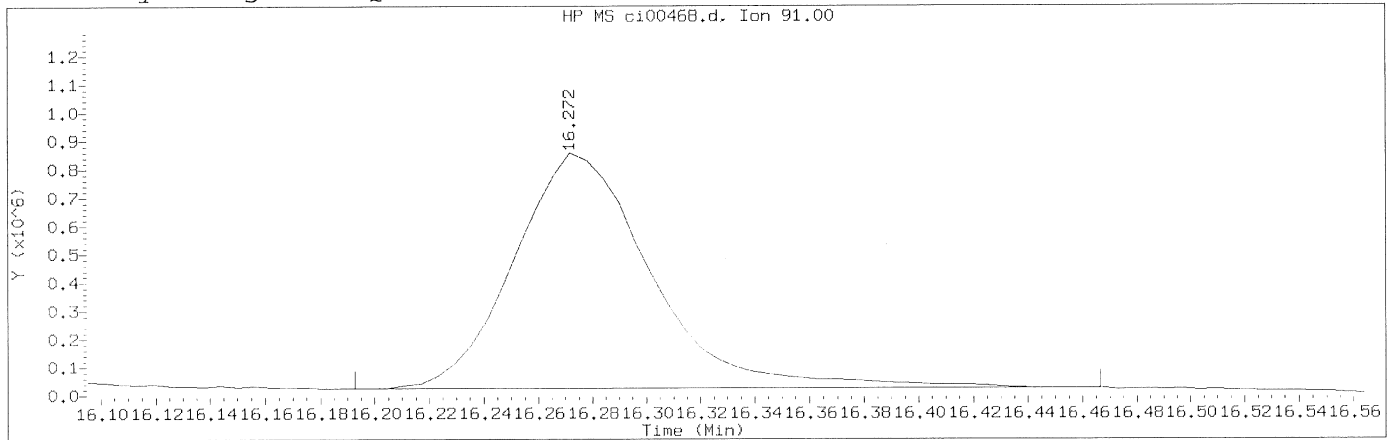
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
76) o-Xylene	(3)	17.251	91	3425941	12.798
78) Styrene	(3)	17.294	104	2544402	11.884
79) Bromoform	(3)	17.641	173	1583603	9.365
80) Cumene	(3)	18.255	105	3827853	12.817
81) Bromobenzene	(3)	18.888	156	1199804	10.516
82) 1,1,2,2-Tetrachloroethane	(3)	19.058	83	3288406	11.350
83) 1,2,3-Trichloropropane	(3)	19.095	110	740547	10.078
84) n-Propylbenzene	(3)	19.350	120	1042481	11.992
85) 2-Chlorotoluene	(3)	19.460	126	1015576	10.845
86) 4-Ethyltoluene	(3)	19.679	105	3958685	12.226
87) 1,3,5-Trimethylbenzene	(3)	19.873	105	3339145	12.389
88) Alpha Methyl Styrene	(3)	20.457	118	1593021	12.031
89) tert-Butylbenzene	(3)	20.713	119	2875225	11.860
90) 1,2,4-Trimethylbenzene	(3)	20.853	105	3450595	11.791
91) sec-Butylbenzene	(3)	21.352	105	4656061	12.054
92) 1,3-Dichlorobenzene	(3)	21.516	146	2214582	10.160
93) 1,4-Dichlorobenzene	(3)	21.808	146	2222291	10.034
94) p-Isopropyltoluene	(3)	21.869	119	3740687	11.826
95) Benzyl Chloride	(3)	22.301	91	3182938	9.586
96) 1,2-Dichlorobenzene	(3)	22.970	146	2029590	10.066
97) n-Butylbenzene	(3)	23.183	91	4284857	12.340
98) Hexachloroethane	(3)	23.639	117	1540565	10.291
99) 1,2-Dibromo-3-chloropropane	(3)	24.716	157	999736	10.424
100) 1,2,4-Trichlorobenzene	(3)	26.005	180	1093266	10.707
101) Hexachlorobutadiene	(3)	26.285	225	1149513	11.542
102) Naphthalene	(3)	26.297	128	3371949	11.645

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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/ci00468.d  
Injection date and time: 22-SEP-2015 19:30

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compound Number : 75  
Compound Name : m/p-Xylene  
Scan Number : 2497  
Retention Time (minutes): 16.272  
Quant Ion : 91.00  
Area (flag) : 2952659M  
Concentration (ppb(v)) : 11.7335  
Integration start scan : 2483      Integration stop scan: 2528  
Y at integration start : 23655      Y at integration end: 23655

Reason for manual integration: improper integration

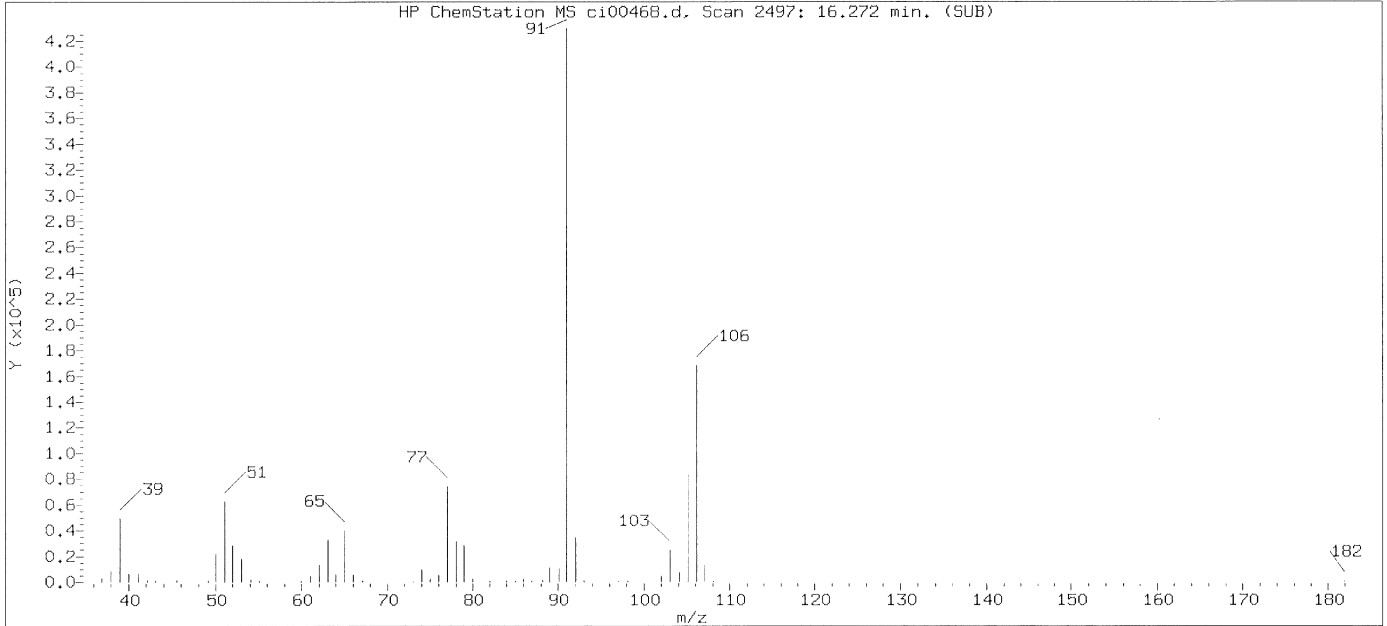
Analyst responsible for change: Digitally signed by Jeffrey B. Smith  
on 09/23/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304

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Mark A. Ratcliff  
Senior Specialist

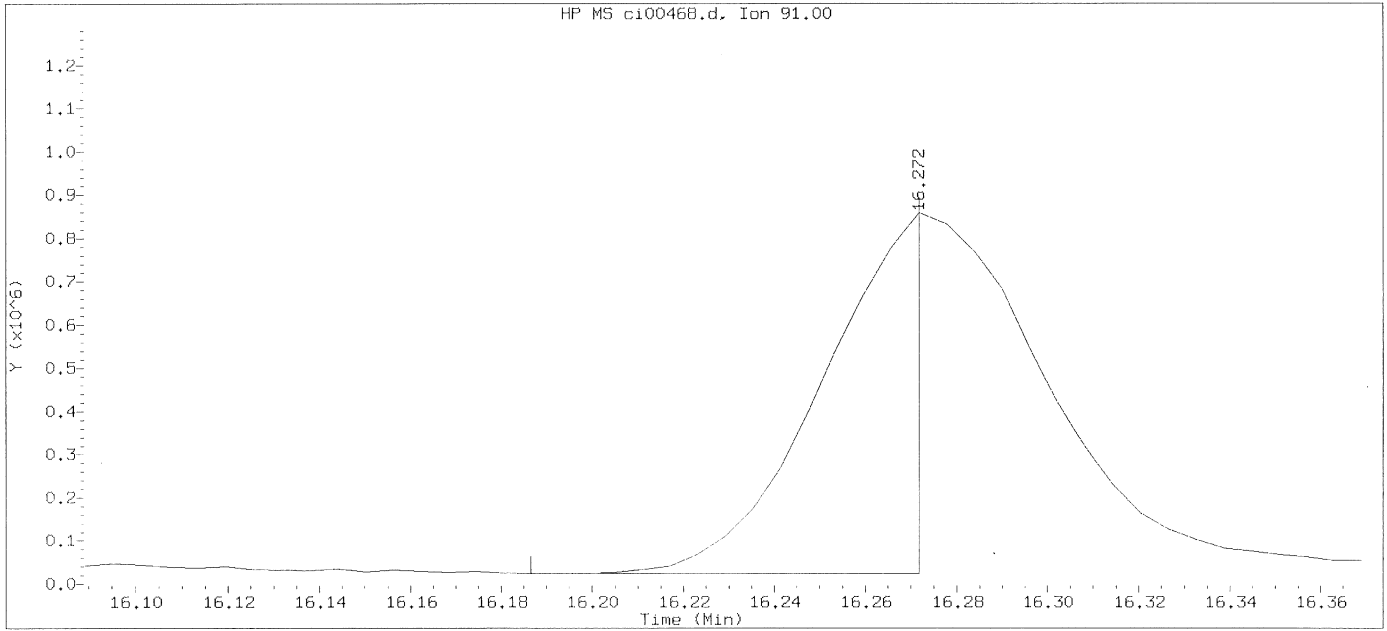
GC/MS audit/management approval: \_\_\_\_\_

SEP 25 2015

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00468.d

Instrument ID: HP09464.i

Injection date and time: 22-SEP-2015 19:30

Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m

Sublist used: all

Calibration date and time: 22-SEP-2015 19:38

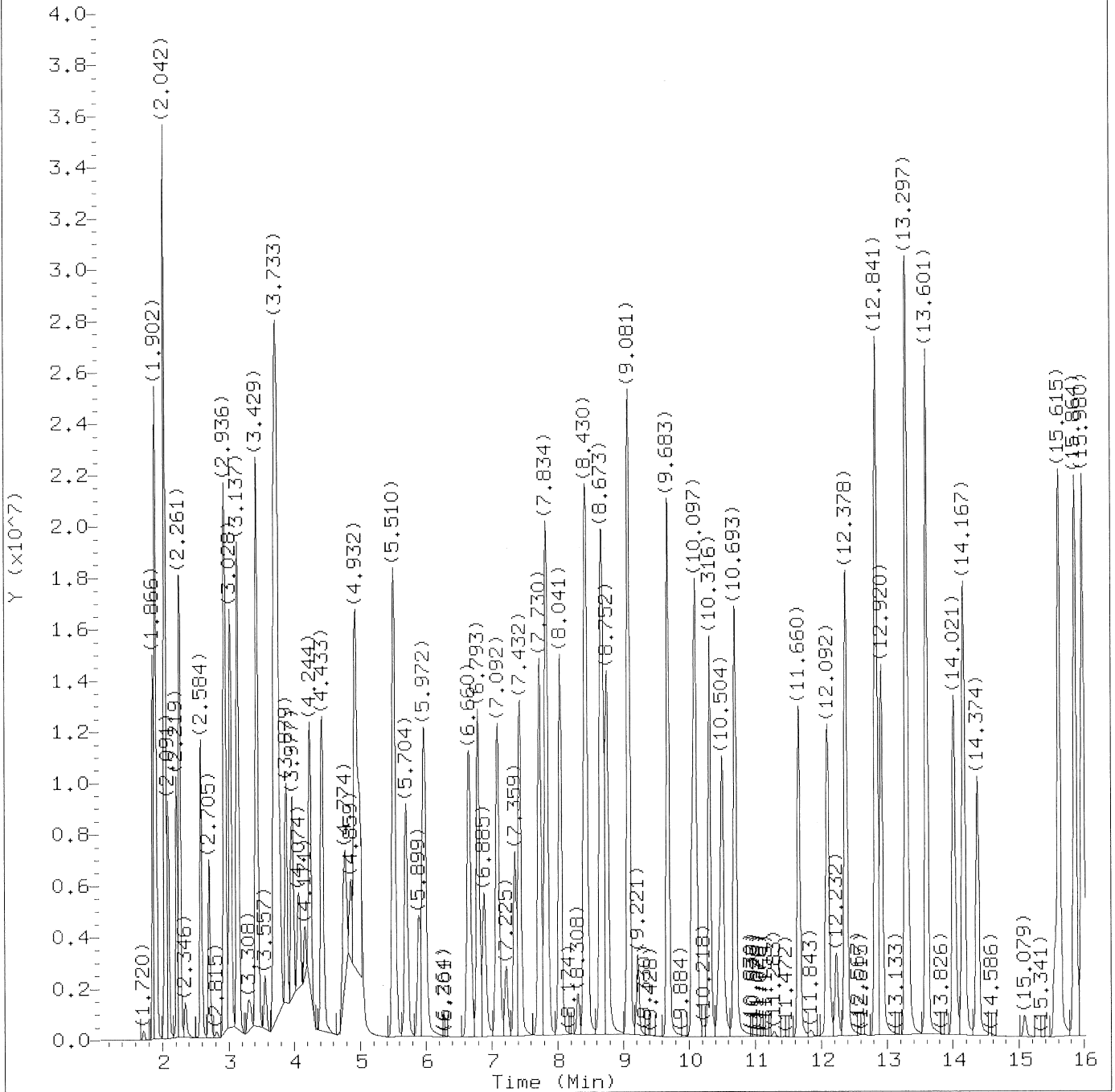
Date, time and analyst ID of latest file update: 22-Sep-2015 20:10 Automation

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compound Number : 75  
Compound Name : m/p-Xylene  
Scan Number : 2497  
Retention Time (minutes): 16.272  
Quant Ion : 91.00  
Area : 1188833  
Concentration (ppb(v)) : 4.5855  
Integration start scan : 2482 Integration stop scan: 2496  
Y at integration start : 24552 Y at integration end: 24552

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/ci00469.d  
Injection date and time: 22-SEP-2015 20:15

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

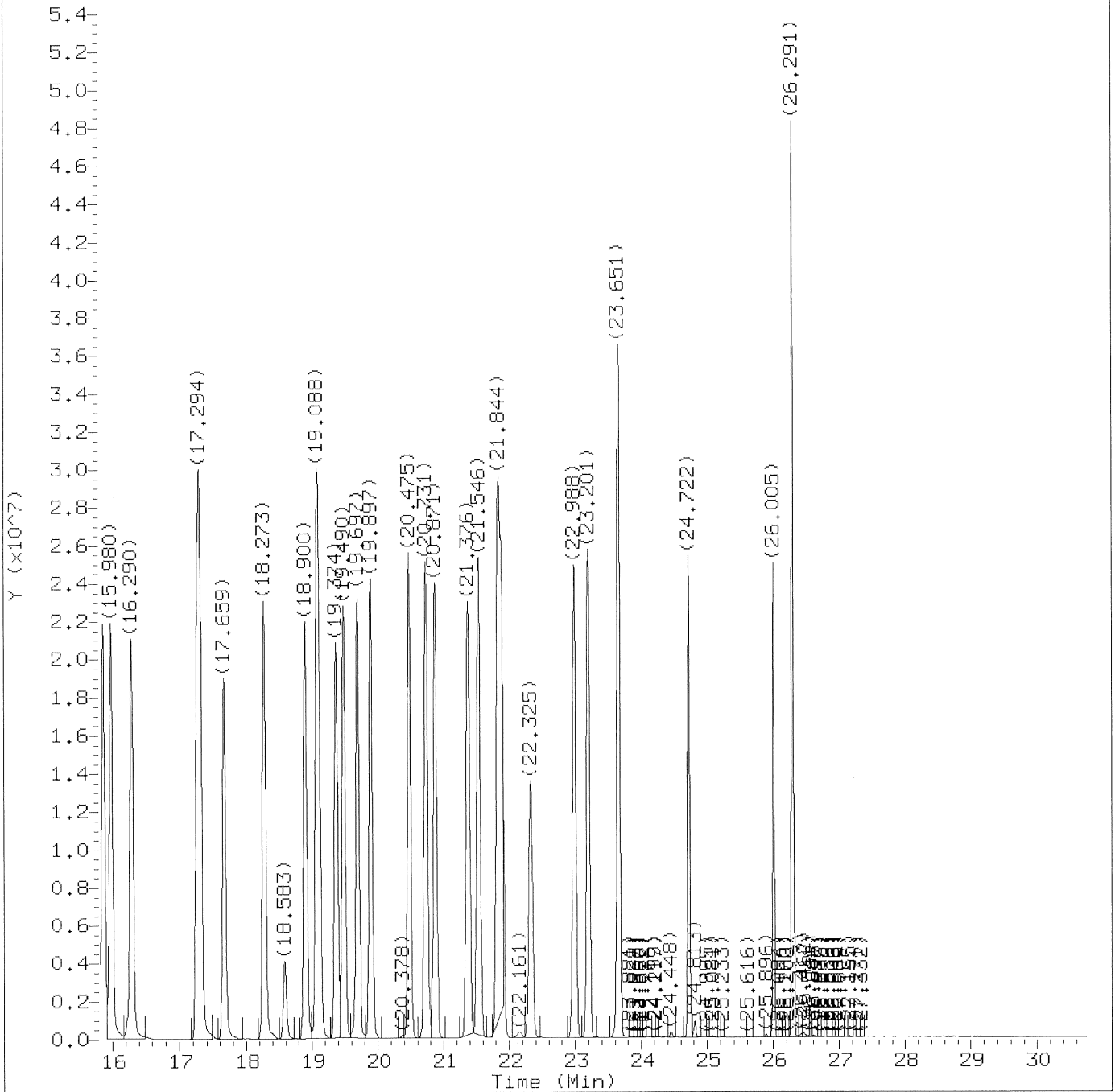
Sample Name: VSTD070

Lab Sample ID: VSTD070

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/ci00469.d  
Injection date and time: 22-SEP-2015 20:15

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD070

Lab Sample ID: VSTD070

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/ci00469.d  
 Injection date and time: 22-SEP-2015 20:15

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD070

Lab Sample ID: VSTD070

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
1) Propene	(1)	1.860	41	8608132	54.899
2) Dichlorodifluoromethane	(1)	1.902	85	12648799	31.659
3) Chlorodifluoromethane	(1)	1.914	51	11996278	35.301
4) Freon 114	(1)	2.042	85	12837642	35.818
5) Chloromethane	(1)	2.091	52	4660891	64.671
6) Vinyl Chloride	(1)	2.219	62	9947211	54.781
7) 1,3-Butadiene	(1)	2.267	54	9109941	59.567
8) Bromomethane	(1)	2.584	94	8172825	56.910
9) Chloroethane	(1)	2.705	64	6851544	59.505
10) Bromoethene	(1)	2.930	106	8984569	74.408
11) Dichlorofluoromethane	(1)	2.949	67	16252720	36.534
12) Trichlorofluoromethane	(1)	3.022	101	15638817	37.569
13) Pentane	(1)	3.137	43	16066160	42.445
14) Ethanol	(1)	3.308	45	3248386	34.127
15) Freon123a	(1)	3.429	67	16709557	45.823
16) Acrolein	(1)	3.557	56	2893393	58.352
17) 1,1-Dichloroethene	(1)	3.697	61	15498342	48.826
18) Freon 113	(1)	3.739	103	12306253	61.838
19) Acetone	(1)	3.782	43	10365492	54.369
20) Methyl Iodide	(1)	3.885	142	14534398	62.711
21) Carbon Disulfide	(1)	3.977	76	19199857	37.584
22) Isopropanol	(1)	4.080	45	16412998	58.548
23) Acetonitrile	(1)	4.171	40	3582188	43.750
24) 3-Chloropropene	(1)	4.244	76	5957975	74.664
25) Methylene Chloride	(1)	4.433	84	8932042	63.035
26) tert-Butyl Alcohol	(1)	4.774	59	18981773	77.754
27) Acrylonitrile	(1)	4.859	53	8408218	56.878
28) trans-1,2-Dichloroethene	(1)	4.926	61	15832605	44.160
29) Methyl t-Butyl Ether	(1)	4.999	73	17669521	67.238
30) Hexane	(1)	5.516	57	15227860	66.970
31) 1,1-Dichloroethane	(1)	5.698	63	15298746	52.200
32) Vinyl Acetate	(1)	5.899	86	993622M	72.775
33) Di-Isopropyl Ether	(1)	5.972	45	20944171	66.594
36) 1,2-Dichloroethene (total)	(1)		61	28875363	105.076
34) Ethyl Tert-Butyl Ether	(1)	6.660	59	16845203	79.689
35) cis-1,2-Dichloroethene	(1)	6.793	61	13042758	60.916
37) 2-Butanone	(1)	6.891	72	2819373	78.769
38) Ethyl Acetate	(1)	7.079	70	1874961	91.052

M = Compound was manually integrated.

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/ci00469.d  
 Injection date and time: 22-SEP-2015 20:15

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

Sample Name: VSTD070

Lab Sample ID: VSTD070

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
39) Methyl Acrylate	(1)	7.098	55	12409595	77.736
40)*Bromochloromethane	(1)	7.225	130	930895	10.000
41) Tetrahydrofuran	(1)	7.359	42	9452183	75.568
42) Chloroform	(1)	7.432	83	14686710	50.579
43) 1,1,1-Trichloroethane	(1)	7.730	97	14685839	57.394
44) Cyclohexane	(1)	7.834	56	16191225	63.964
45) Carbon Tetrachloride	(1)	8.041	117	14194698	55.501
46) Benzene	(2)	8.418	78	19869841	57.864
47) 1,2-Dichloroethane	(2)	8.448	62	12649645	57.010
48) Isooctane	(2)	8.679	57	29813660	51.402
49) Tert-Amyl Methyl Ether	(2)	8.752	73	14969722	90.334
50) Heptane	(2)	9.081	43	16961203M	61.325
51)*1,4-Difluorobenzene	(2)	9.221	114	3087072	10.000
52) Trichloroethene	(2)	9.683	130	9118145	71.096
53) Ethyl Acrylate	(2)	10.048	55	14378299	86.832
54) 1,2-Dichloropropane	(2)	10.097	63	11252539	76.683
55) Dibromomethane	(2)	10.316	174	7225523	82.205
56) 1,4-Dioxane	(2)	10.462	88	3893458	83.796
57) Methyl Methacrylate	(2)	10.510	69	7121072	87.410
58) Bromodichloromethane	(2)	10.693	83	16241134	55.974
59) cis-1,3-Dichloropropene	(2)	11.660	75	12333066	76.685
60) 4-Methyl-2-Pentanone	(2)	12.092	43	17310240	74.413
61) Toluene	(3)	12.372	91	19227034	62.566
64) 1,3-Dichloropropene (total)	(3)		75	25451699	144.417
62) Octane	(3)	12.841	43	20099263	58.022
63) trans-1,3-Dichloropropene	(3)	12.920	75	13118633	67.732
65) Ethyl Methacrylate	(3)	13.291	69	12899409	90.211
66) 1,1,2-Trichloroethane	(3)	13.303	97	10482954	77.692
67) Tetrachloroethene	(3)	13.601	166	11446293	86.954
68) 2-Hexanone	(3)	14.015	43	18045337	70.815
69) Dibromochloromethane	(3)	14.167	127	12742889	66.726
70) 1,2-Dibromoethane	(3)	14.374	107	12698023	69.051
71)*Chlorobenzene-d5	(3)	15.548	117	3141232	10.000
72) Chlorobenzene	(3)	15.621	112	17364377	70.180
73) 1,1,1,2-Tetrachloroethane	(3)	15.864	131	10570929	80.623
74) Ethylbenzene	(3)	15.980	91	22028606	66.854
75) m/p-Xylene	(3)	16.290	91	19790011	75.586
77) Xylene (total)	(3)		91	41884211	154.911

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/ci00469.d  
 Injection date and time: 22-SEP-2015 20:15

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

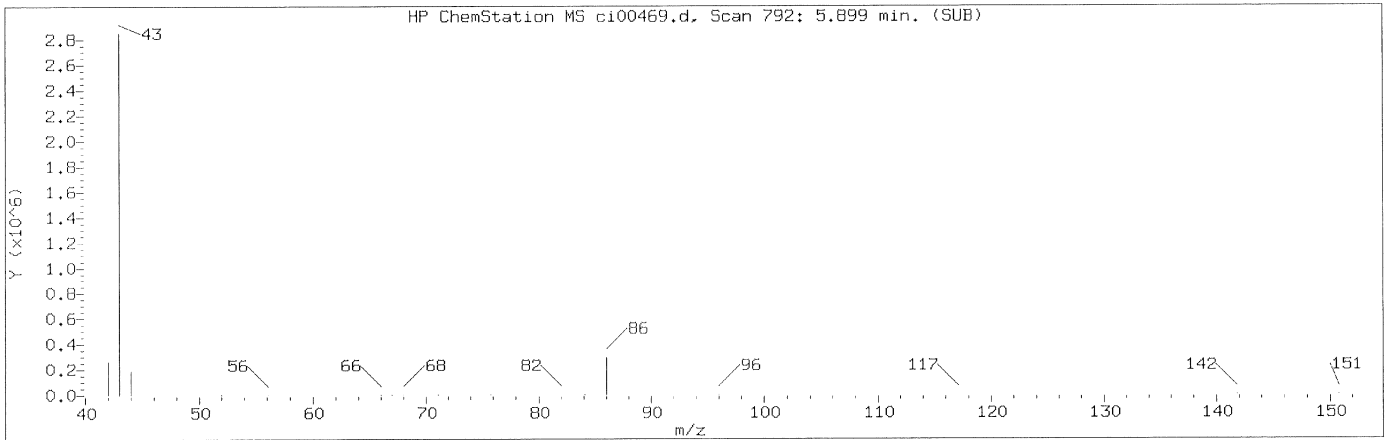
Sample Name: VSTD070

Lab Sample ID: VSTD070

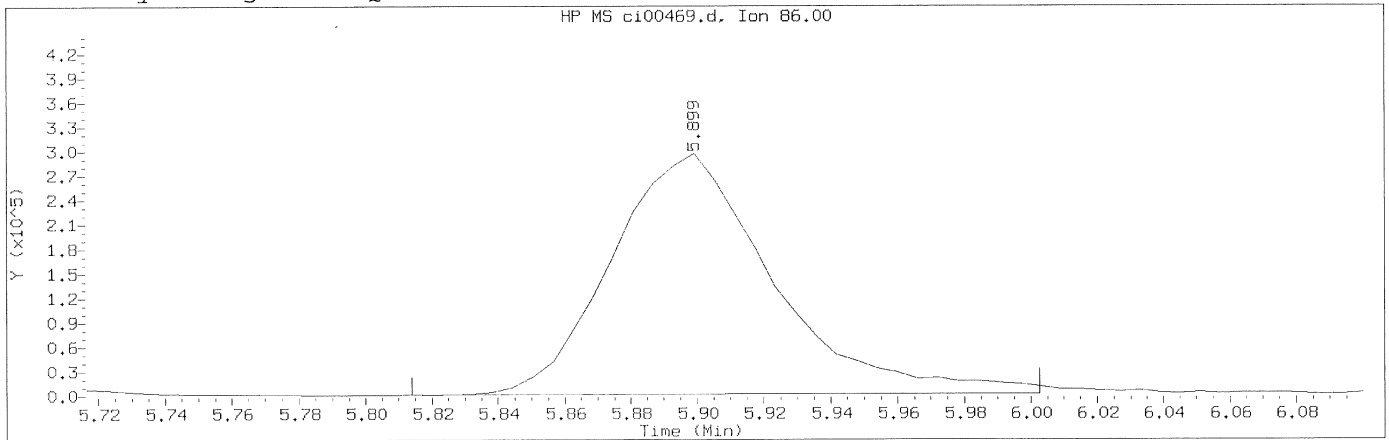
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
76) o-Xylene	(3)	17.269	91	22094200	79.324
78) Styrene	(3)	17.312	104	18375570	82.486
79) Bromoform	(3)	17.659	173	13734737	78.067
80) Cumene	(3)	18.279	105	22785954	73.330
81) Bromobenzene	(3)	18.900	156	10556849	88.931
82) 1,1,2,2-Tetrachloroethane	(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

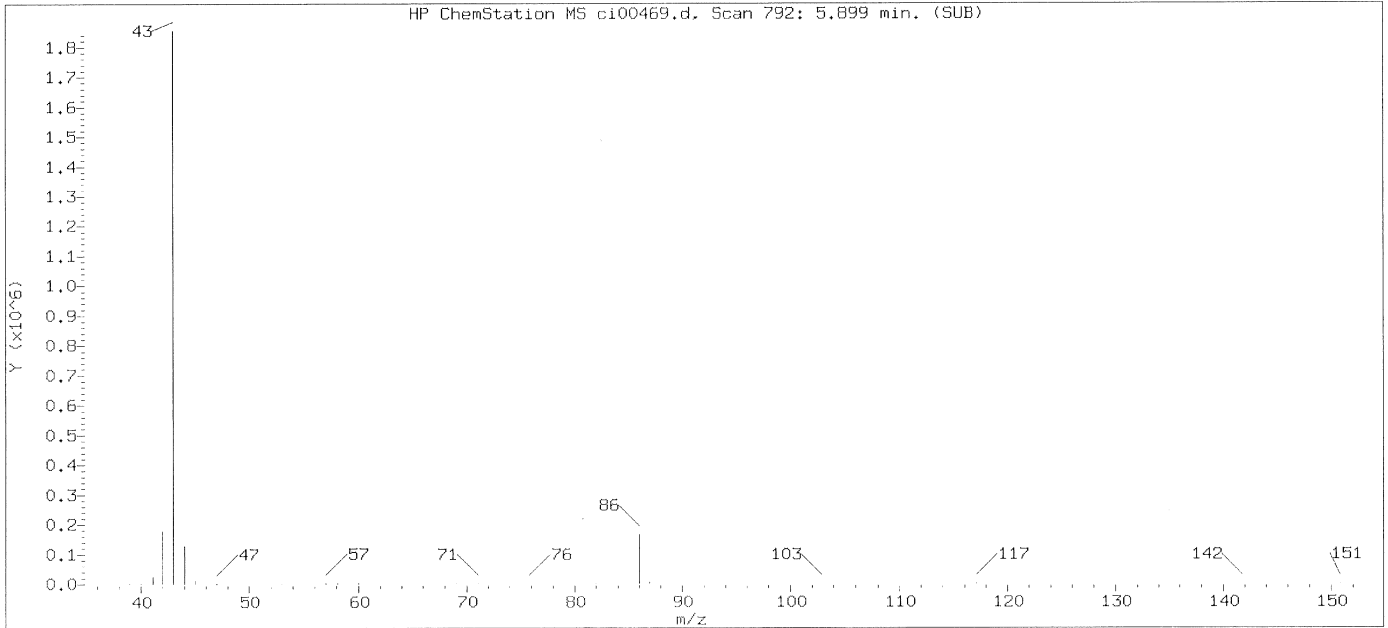
Analyst responsible for change: Digitally signed by Jeffrey B. Smith  
on 09/23/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304

*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

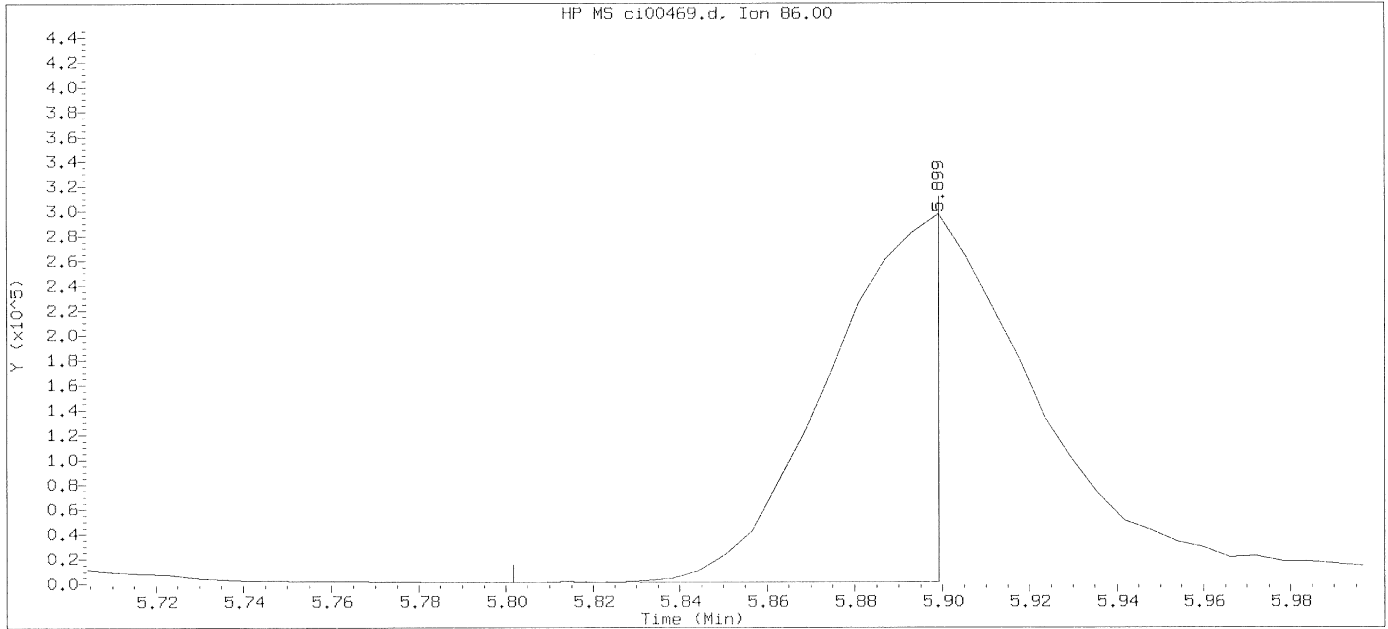
GC/MS audit/management approval: \_\_\_\_\_

SEP 25 2015

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/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

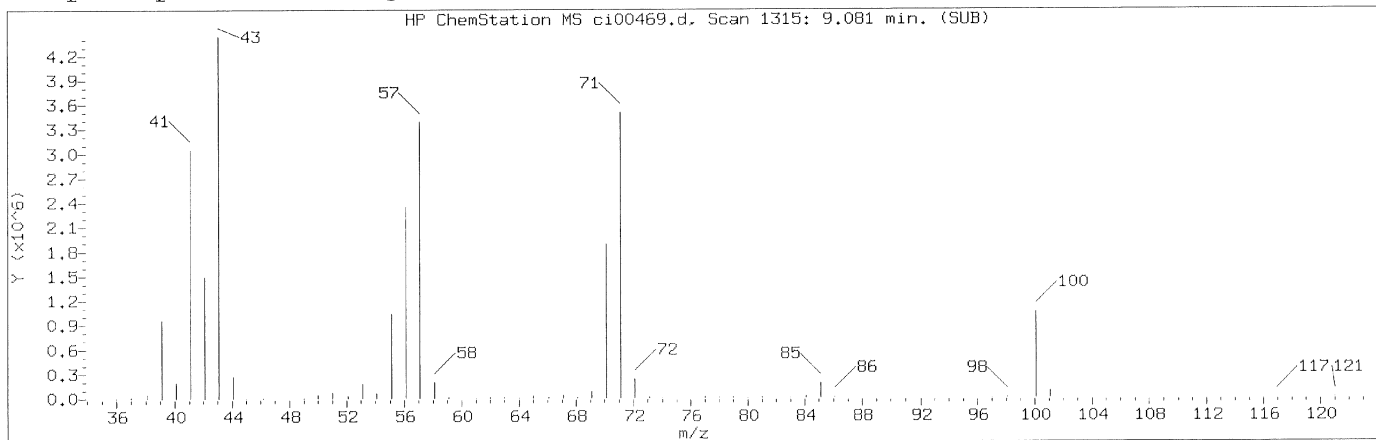
Sample Name: VSTD070

Lab Sample ID: VSTD070

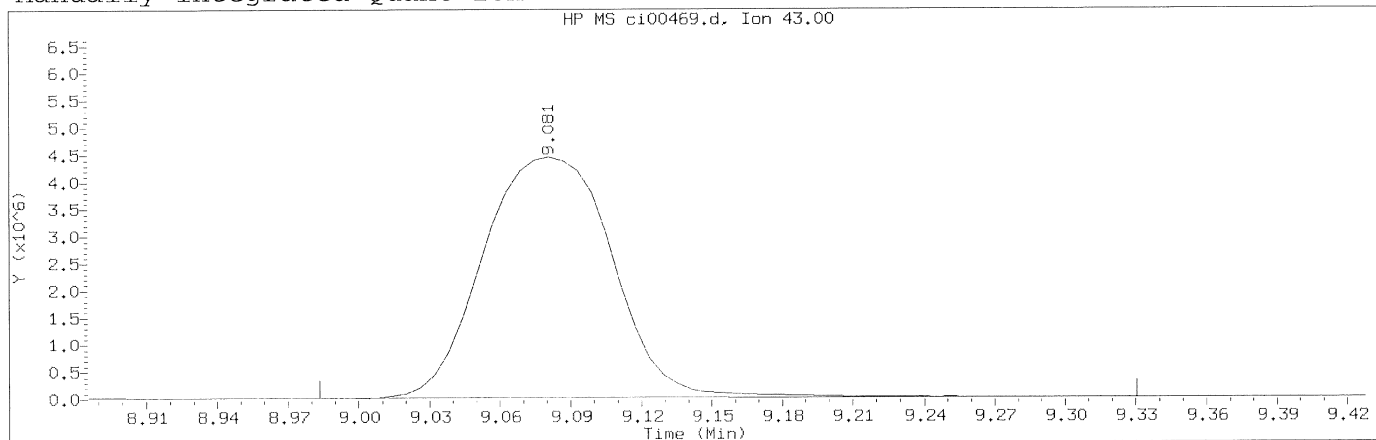
Compound Number : 32  
Compound Name : Vinyl Acetate  
Scan Number : 792  
Retention Time (minutes): 5.899  
Quant Ion : 86.00  
Area : 499125  
Concentration (ppb(v)) : 39.4612  
Integration start scan : 775 Integration stop scan: 791  
Y at integration start : 825 Y at integration end: 825

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/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

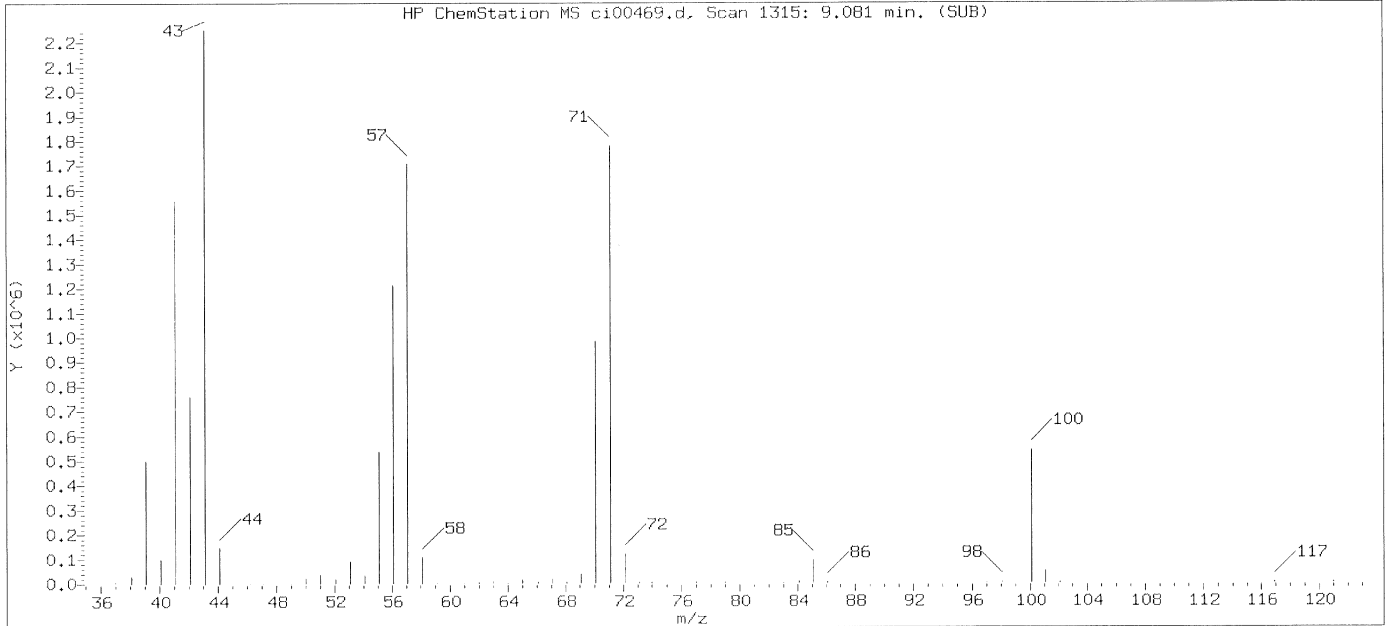
Reason for manual integration: improper integration

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

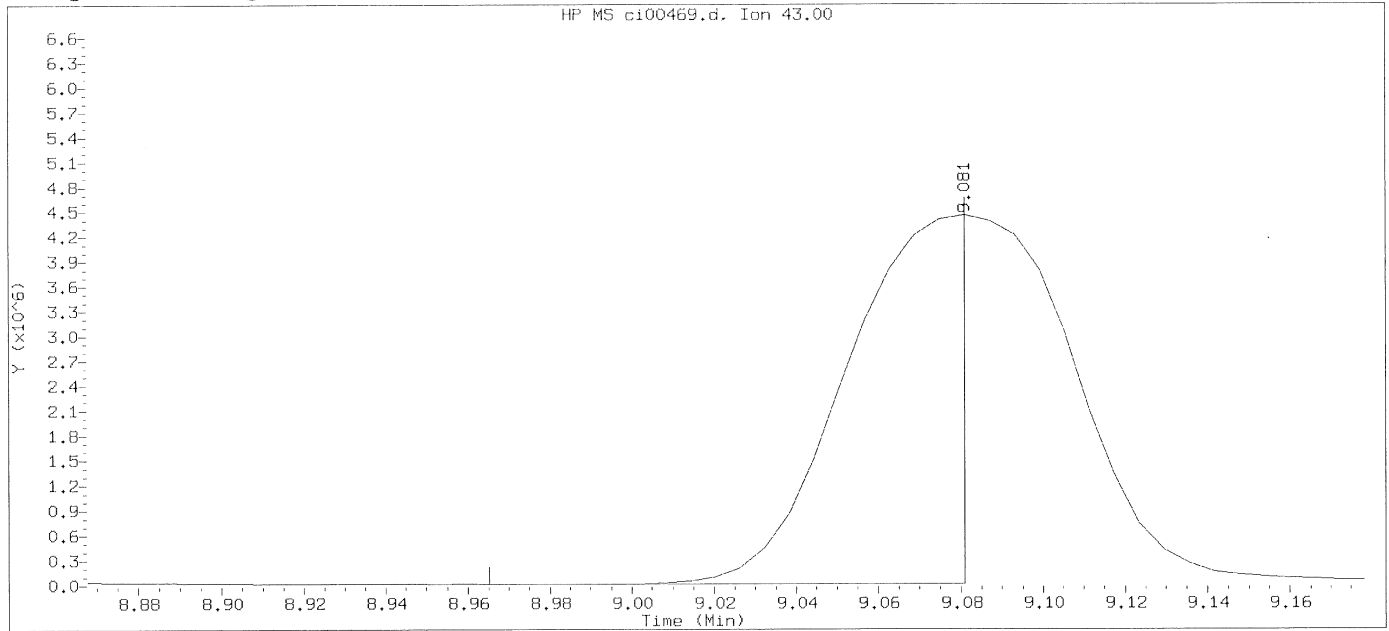
GC/MS audit/management approval: \_\_\_\_\_  
 Mark A. Ratcliff  
 Senior Specialist

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

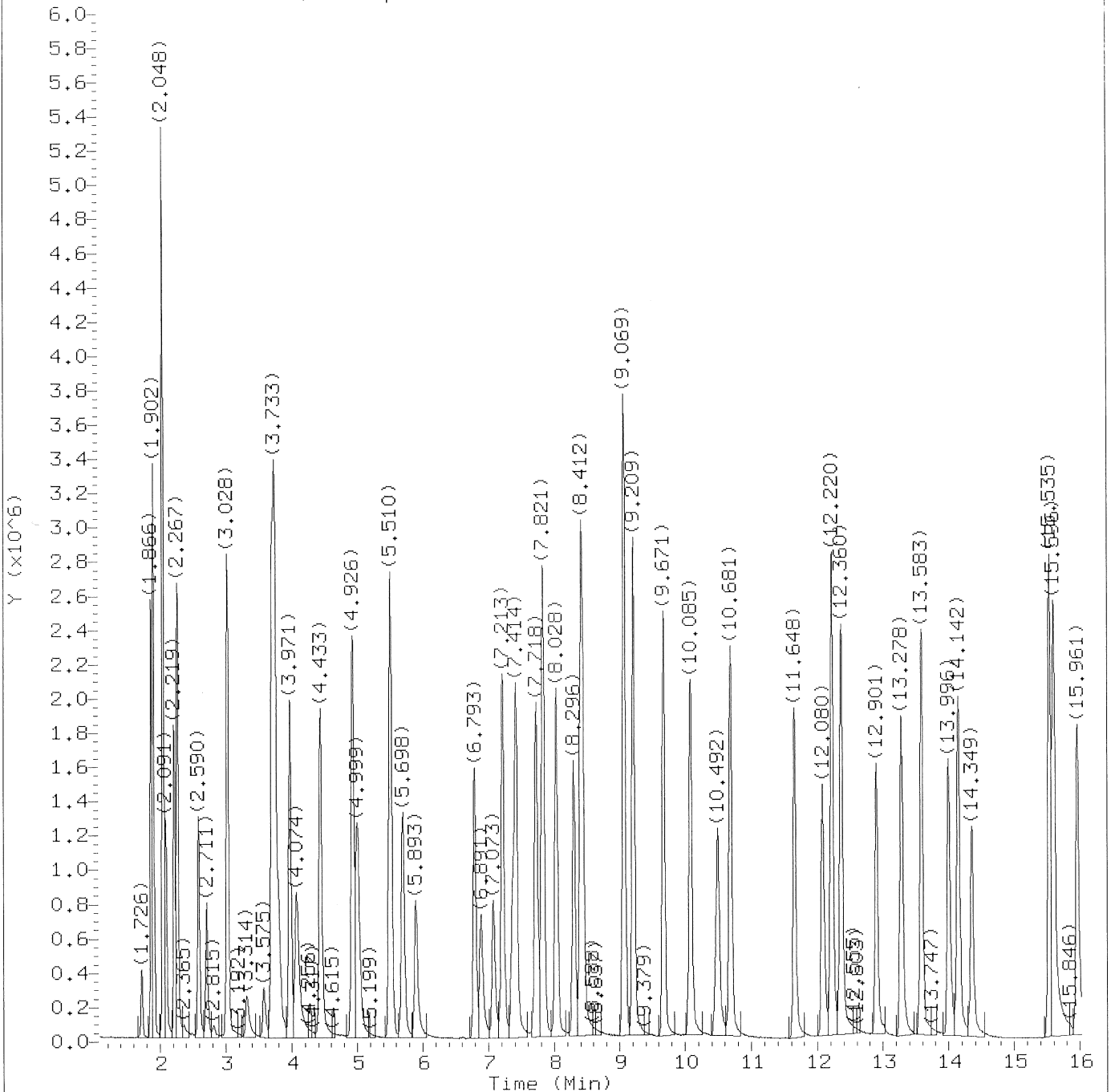
Sample Name: VSTD070

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

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/ci00472.d  
Injection date and time: 22-SEP-2015 22:35

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

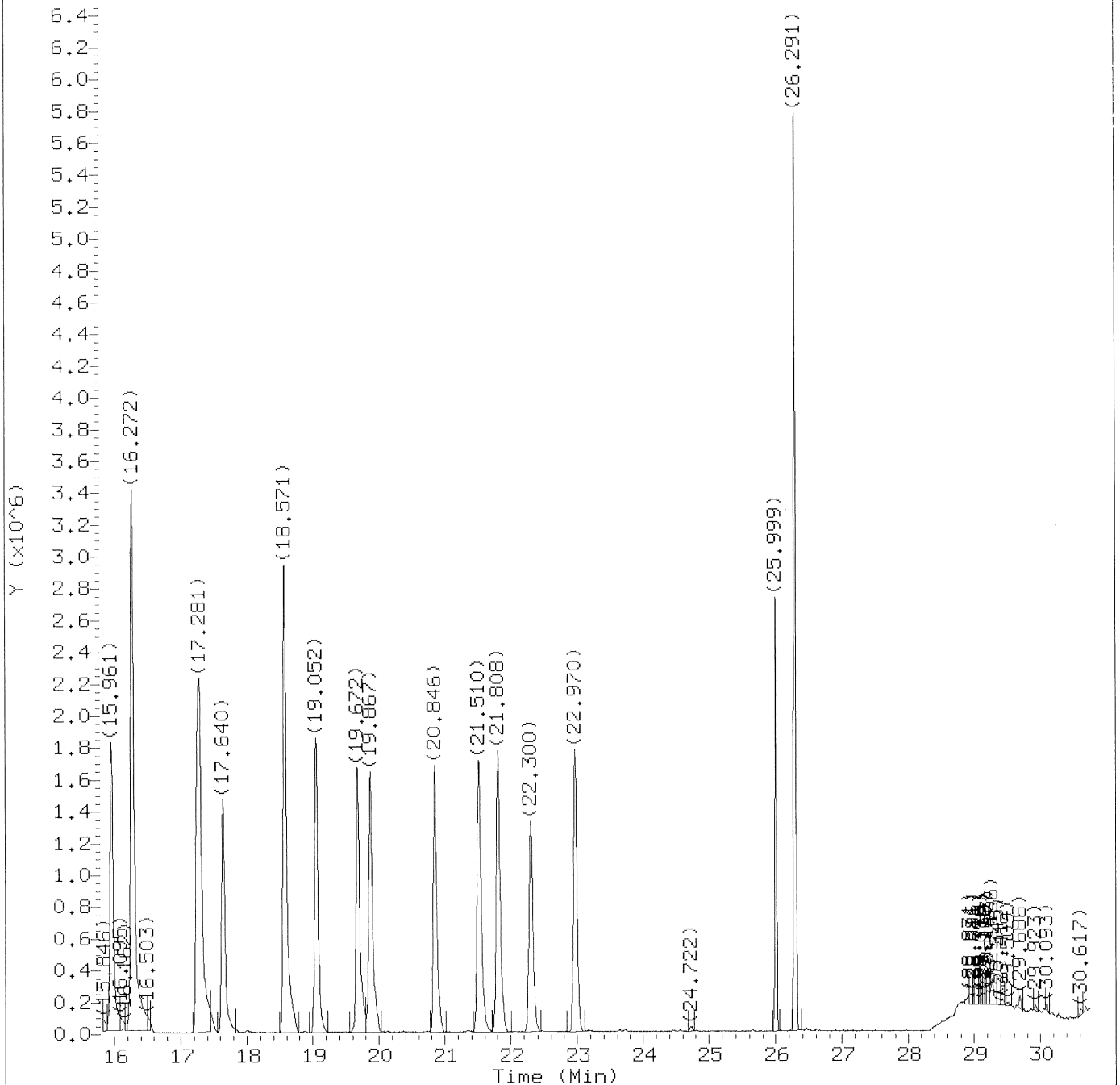
Sublist used: all

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  
Injection date and time: 22-SEP-2015 22:35

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

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  
 Injection date and time: 22-SEP-2015 22:35

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
 Calibration date and time: 23-SEP-2015 09:11

Sublist used: all

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.

Quant Report

Target Revision 3.5

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

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

Sample Name: LCSC75

Lab Sample ID: LCSC75

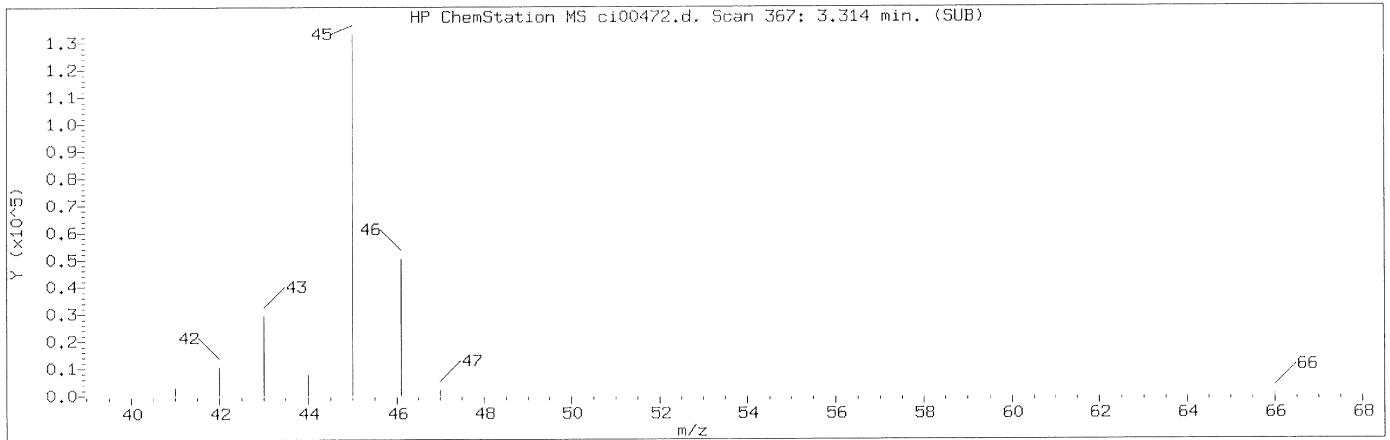
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb(v))
56) 1,4-Dioxane	(2)	10.456	88	488649M	11.232
57) Methyl Methacrylate	(2)	10.492	69	674928	8.848
58) Bromodichloromethane	(2)	10.681	83	2435765	8.965
59) cis-1,3-Dichloropropene	(2)	11.648	75	1803235	11.974
60) 4-Methyl-2-Pentanone	(2)	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.

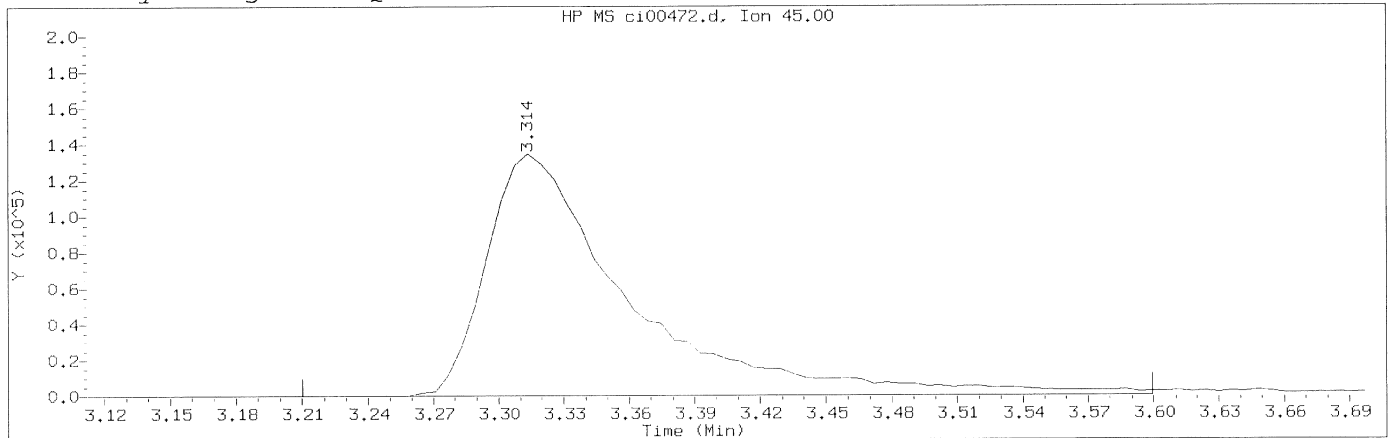
\* = Compound is an internal standard.

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

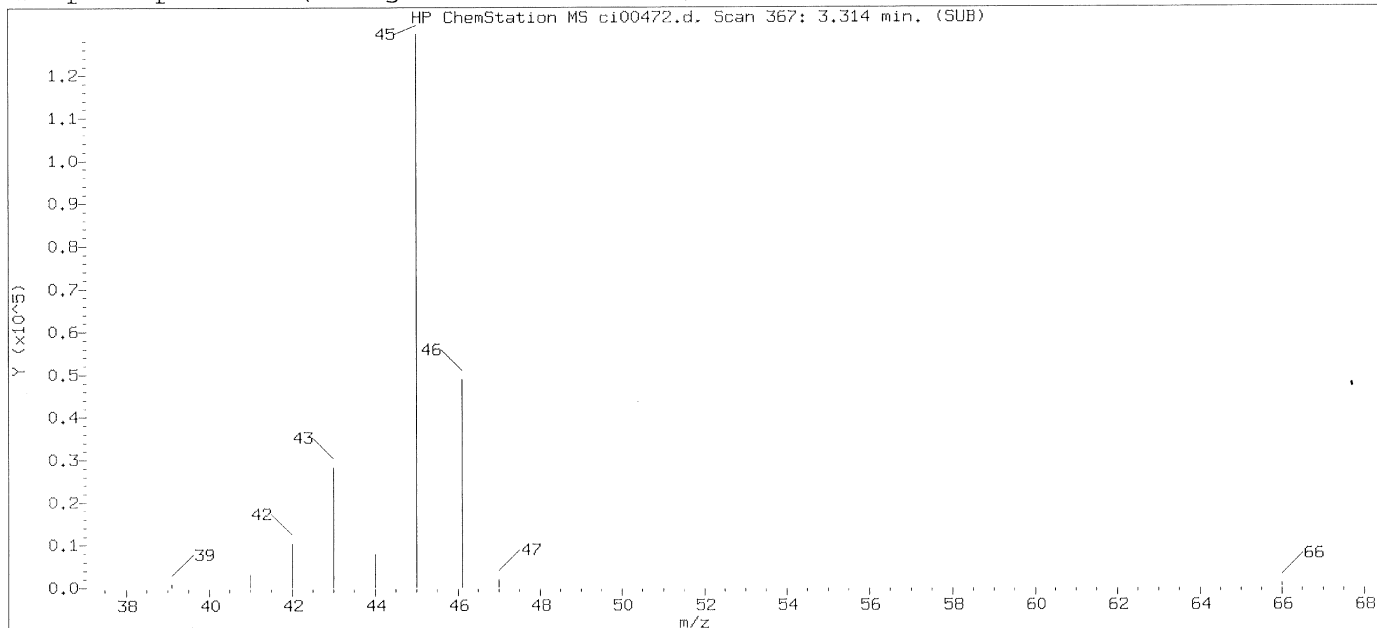
Analyst responsible for change: Digitally signed by Jeffrey B. Smith  
on 09/23/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304

GC/MS audit/management approval: \_\_\_\_\_

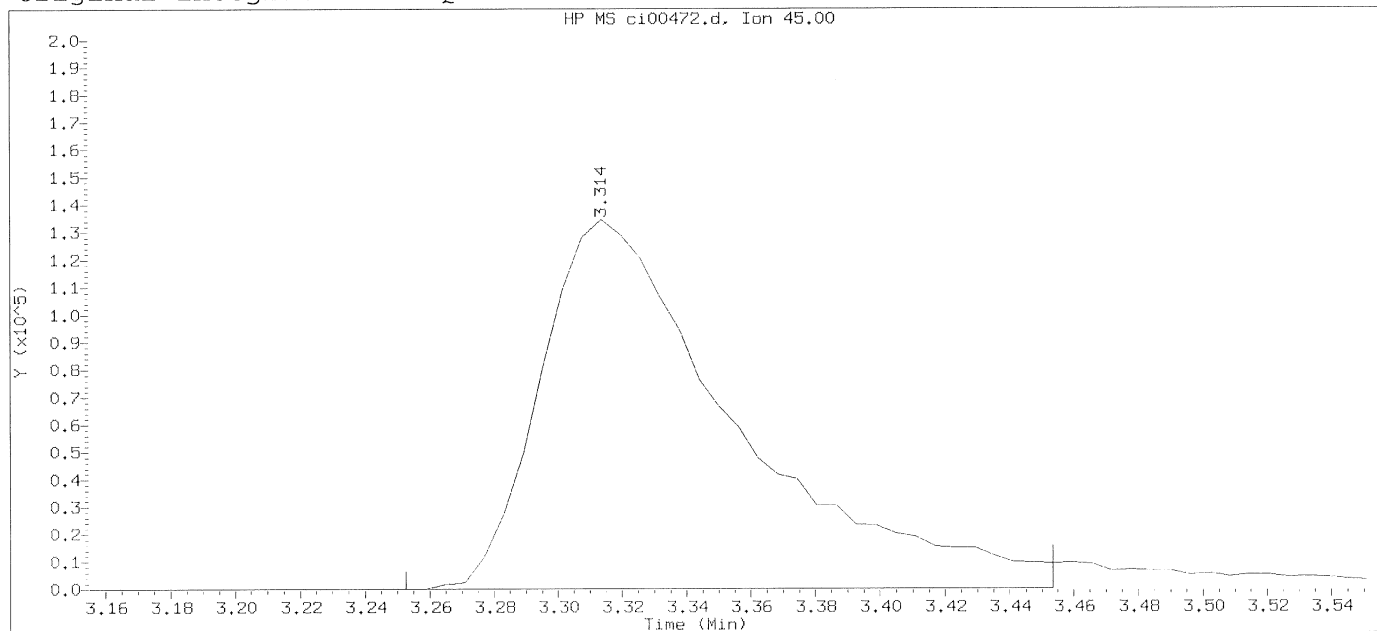
*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

SEP 25 2015

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09464.i/15sep22.b/ci00472.d

Injection date and time: 22-SEP-2015 22:35

Instrument ID: HP09464.i

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

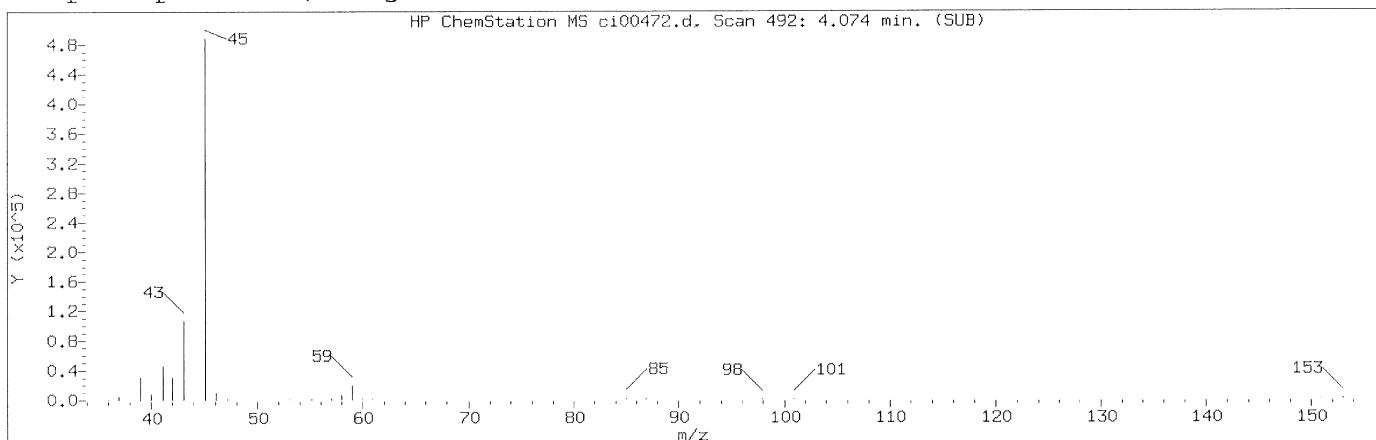
Lab Sample ID: LCSC75

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  
Y at integration start : 0

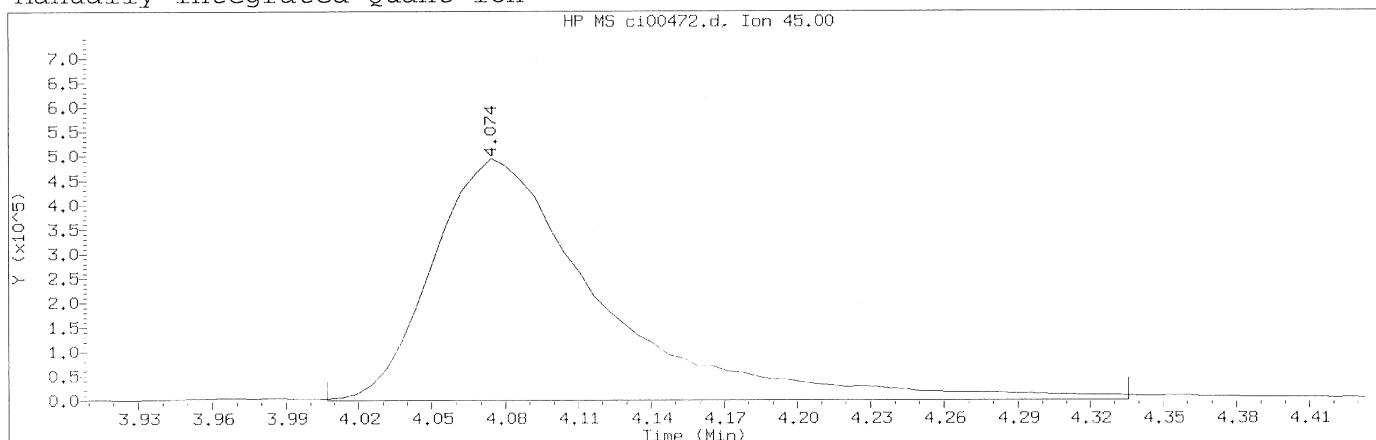
Integration stop scan: 389  
Y at integration end: 0

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

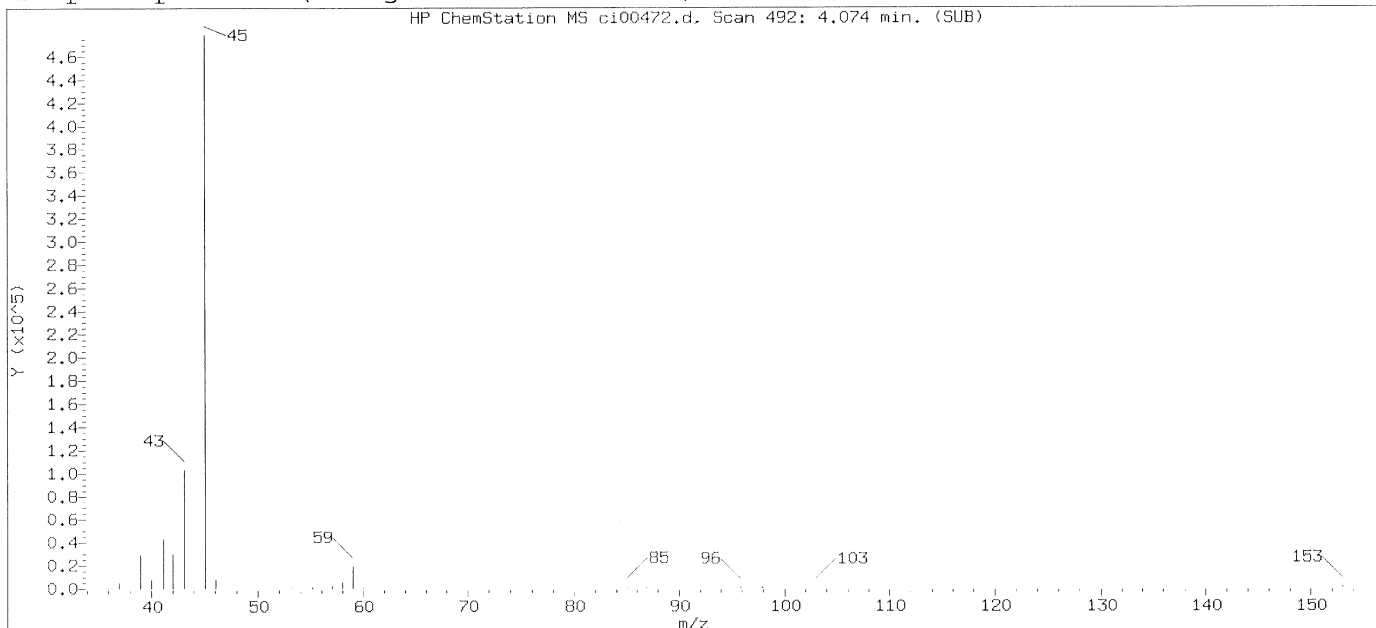
Analyst responsible for change: Digitally signed by Jeffrey B. Smith  
on 09/23/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304

*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

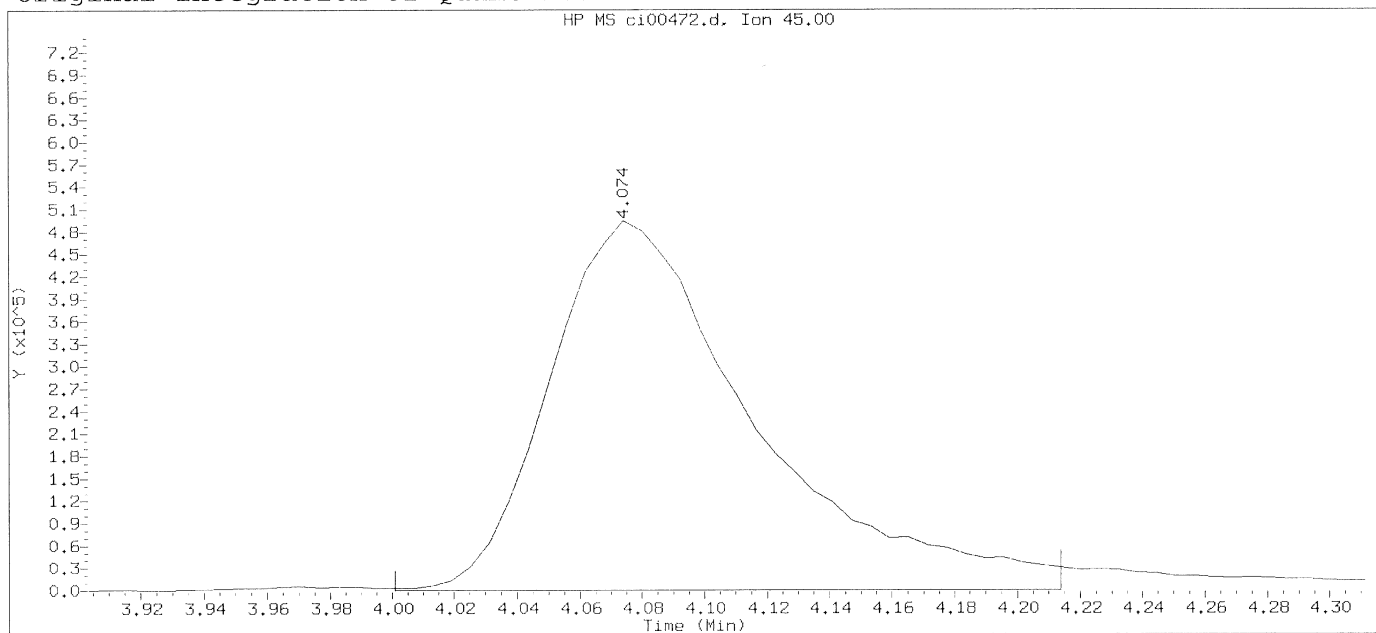
SEP 25 2015

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

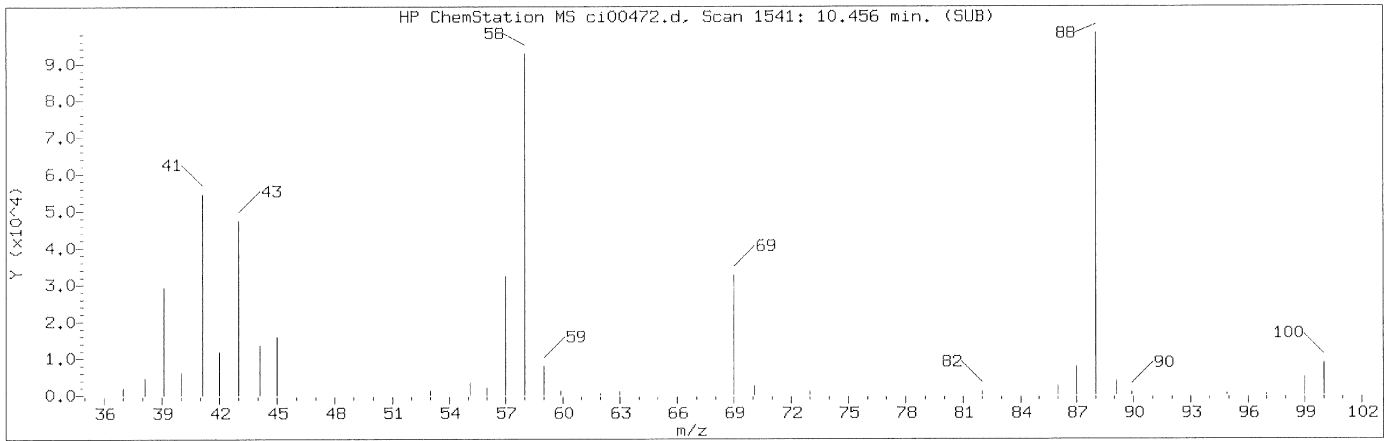
Lab Sample ID: LCSC75

Compound Number : 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

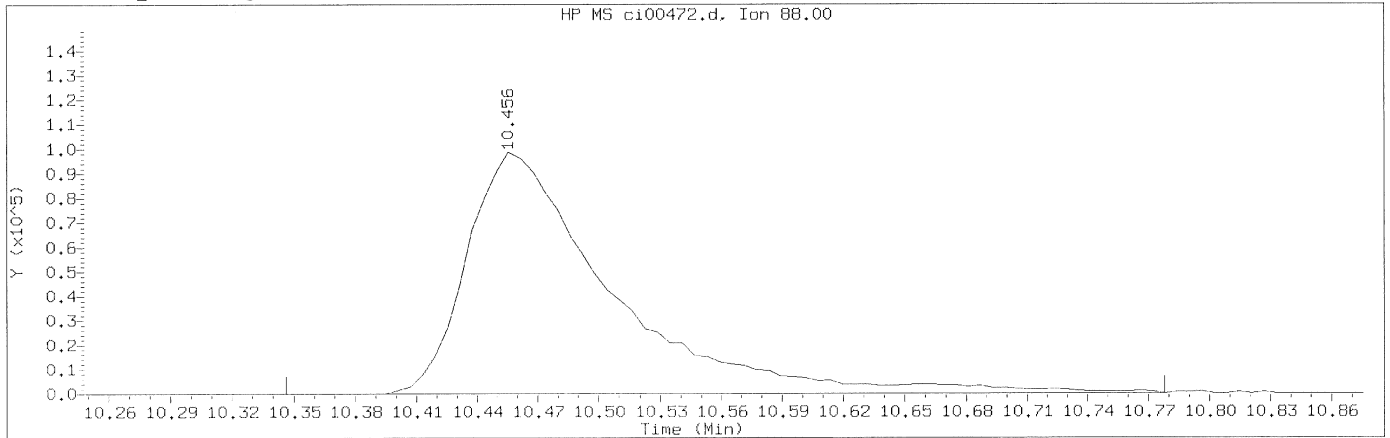
Digitally signed by Jeffrey B. Smith on 09/23/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304



Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

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

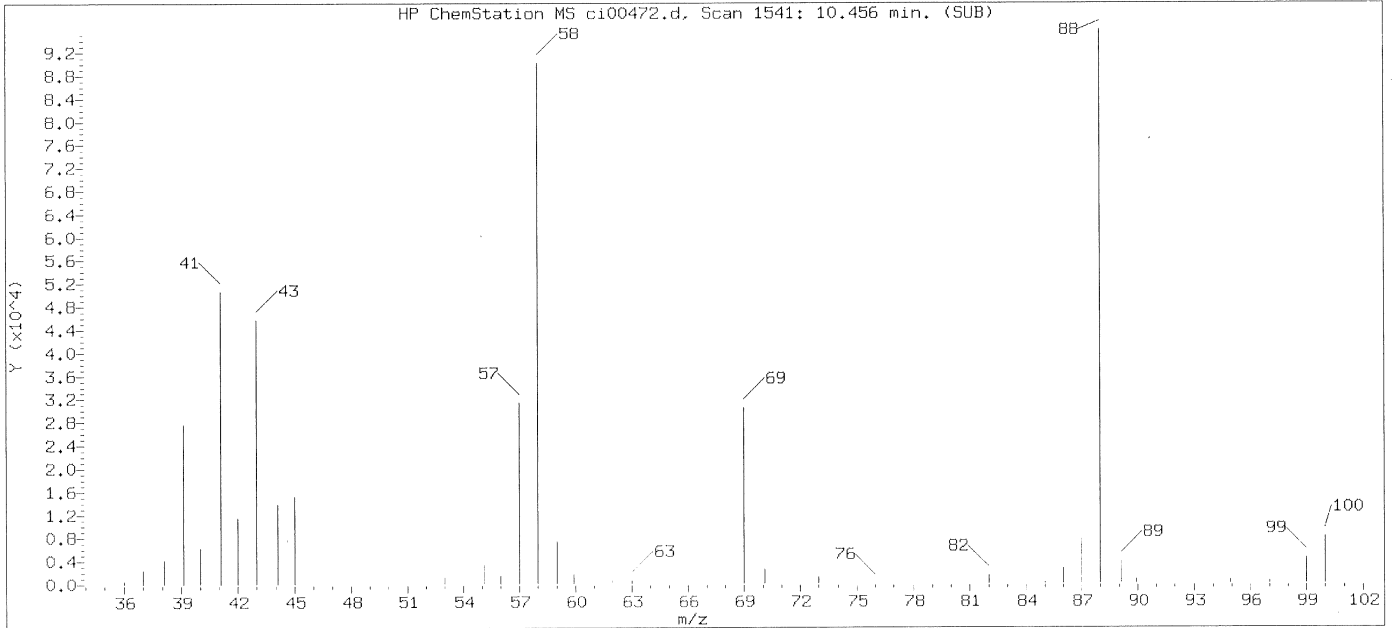
Reason for manual integration: improper integration

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

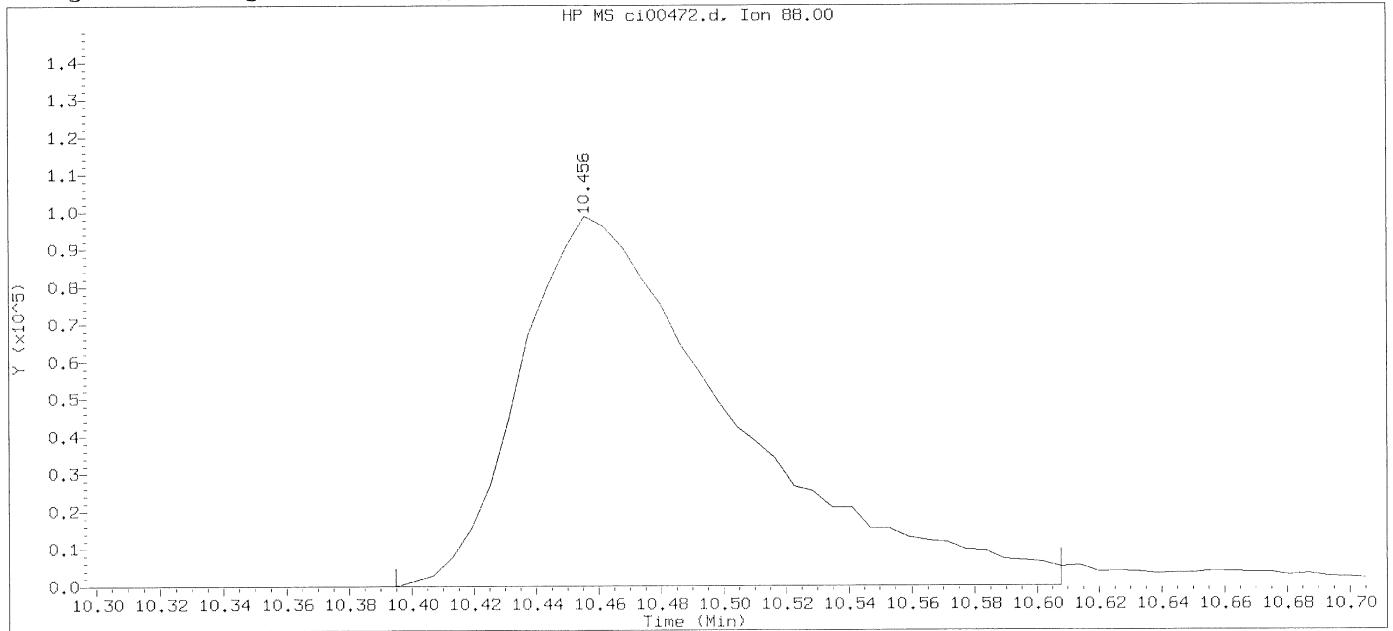
*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist  
SEP 25 2015

GC/MS audit/management approval: \_\_\_\_\_

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

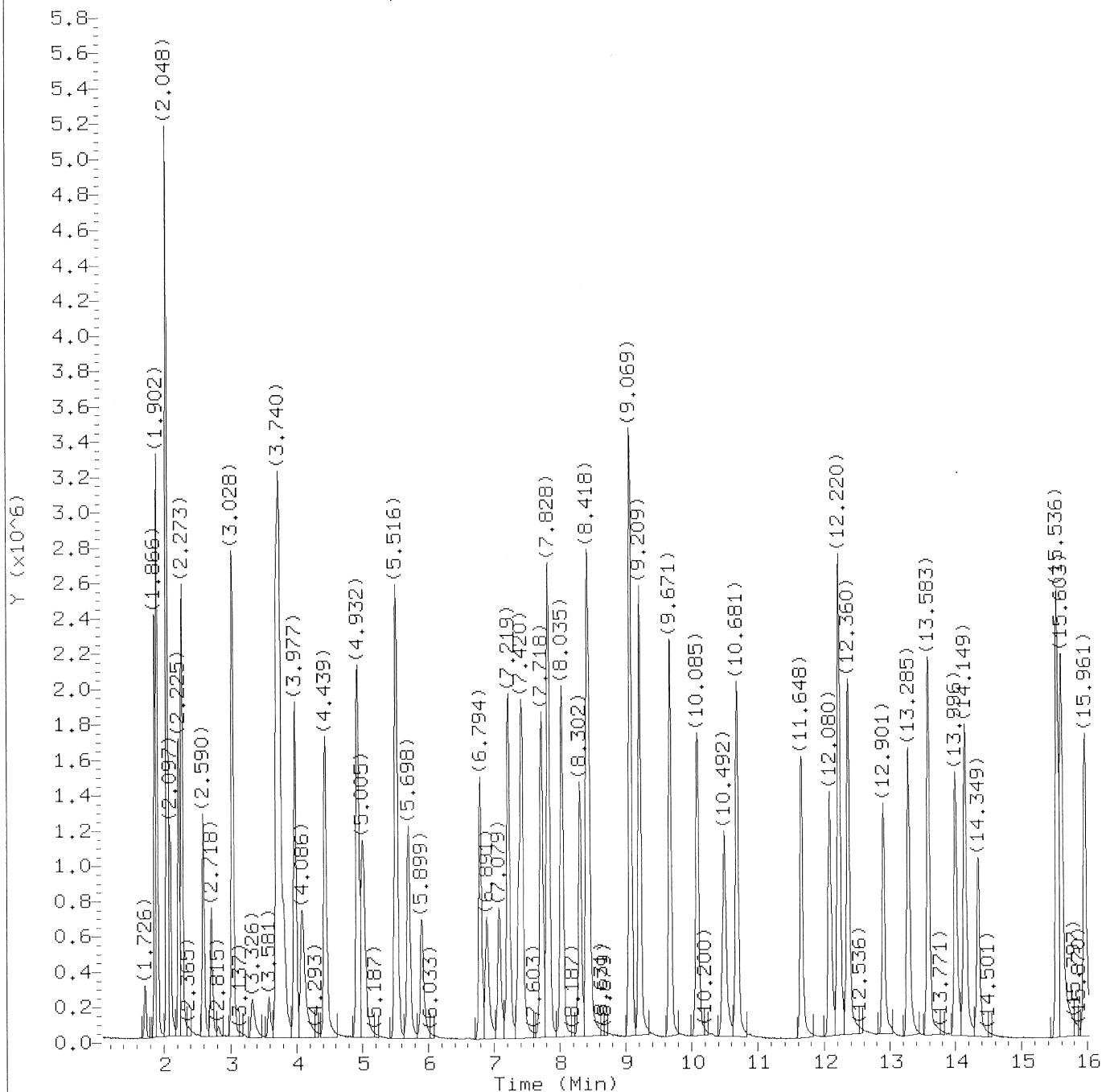
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 Calibration date and time: 22-SEP-2015 22:35  
 Date, time and analyst ID of latest file update: 22-Sep-2015 23:15 Automation

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  
Injection date and time: 22-SEP-2015 23:20

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

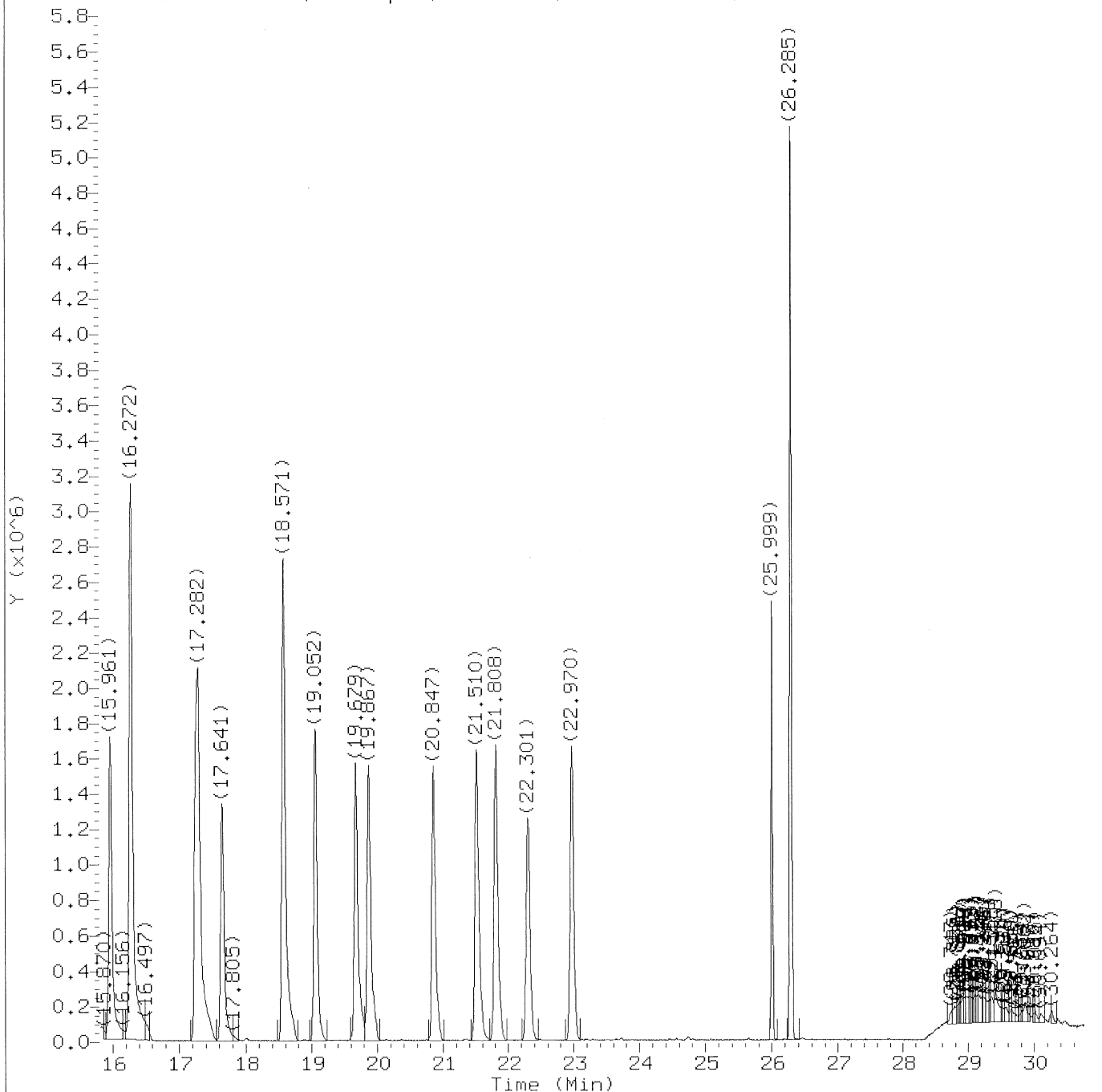
Sublist used: all

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

Injection date and time: 22-SEP-2015 23:20

Instrument ID: HP09464.i

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  
 Injection date and time: 22-SEP-2015 23:20

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
 Calibration date and time: 23-SEP-2015 09:11

Sublist used: all

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.

Quant Report

Target Revision 3.5

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

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

Sample Name: LCSDC75

Lab Sample ID: LCSDC75

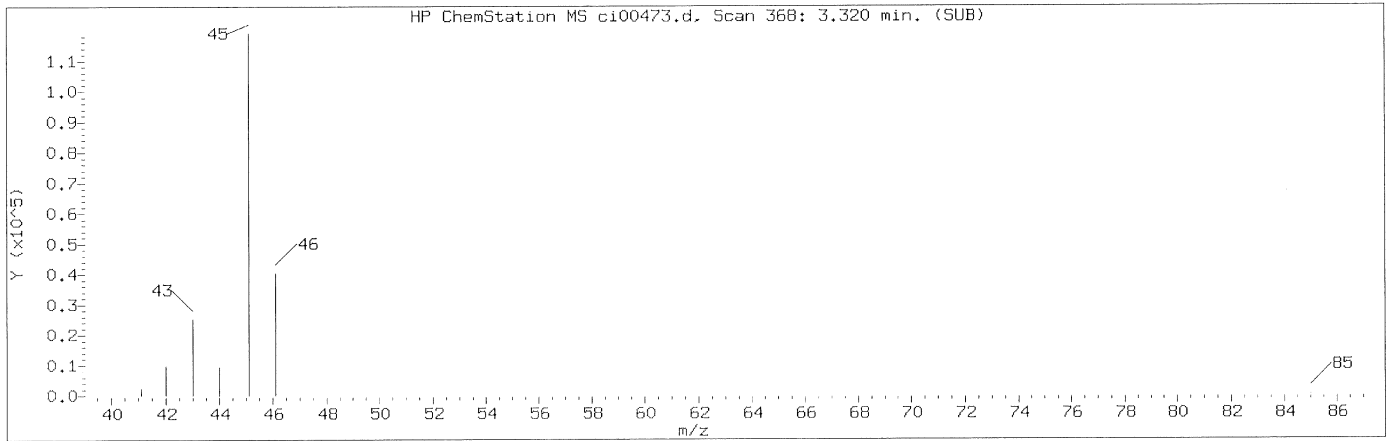
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Concentration (ppb (v))
56) 1,4-Dioxane	(2)	10.462	88	457094M	11.847
57) Methyl Methacrylate	(2)	10.498	69	641180	9.478
58) Bromodichloromethane	(2)	10.681	83	2180589	9.050
59) cis-1,3-Dichloropropene	(2)	11.654	75	1512106	11.322
60) 4-Methyl-2-Pentanone	(2)	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.

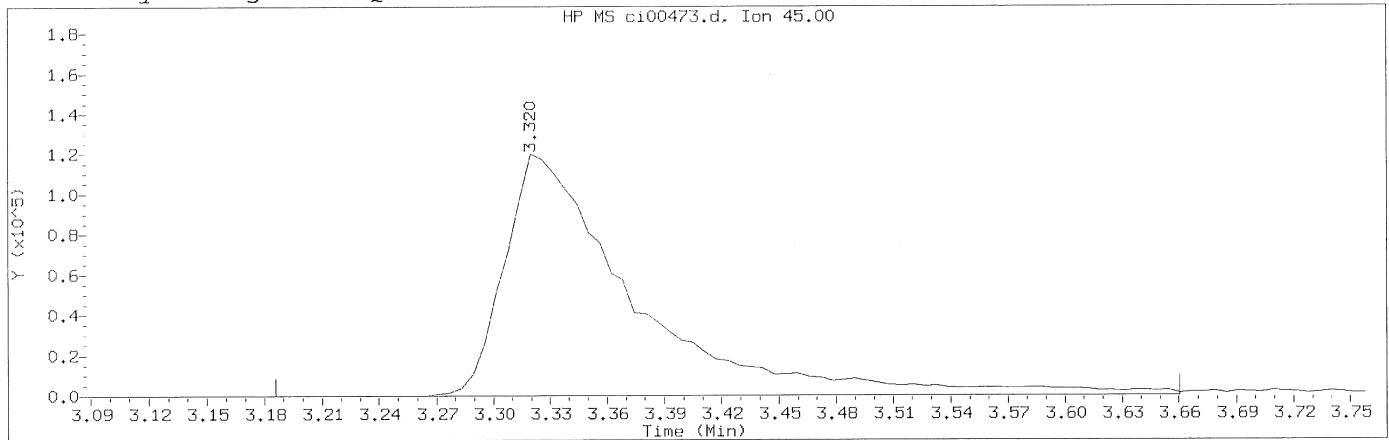
\* = Compound is an internal standard.

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

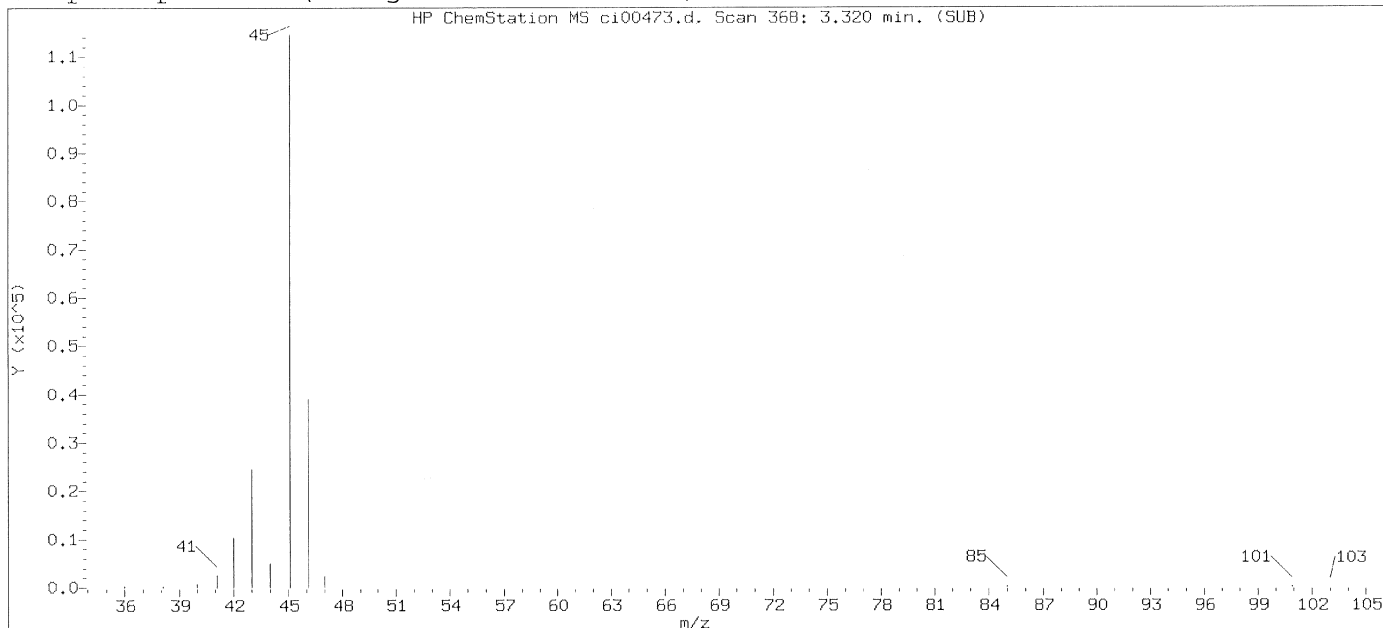
Analyst responsible for change: Digitally signed by Jeffrey B. Smith  
on 09/23/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304

  
Mark A. Ratcliff  
Senior Specialist

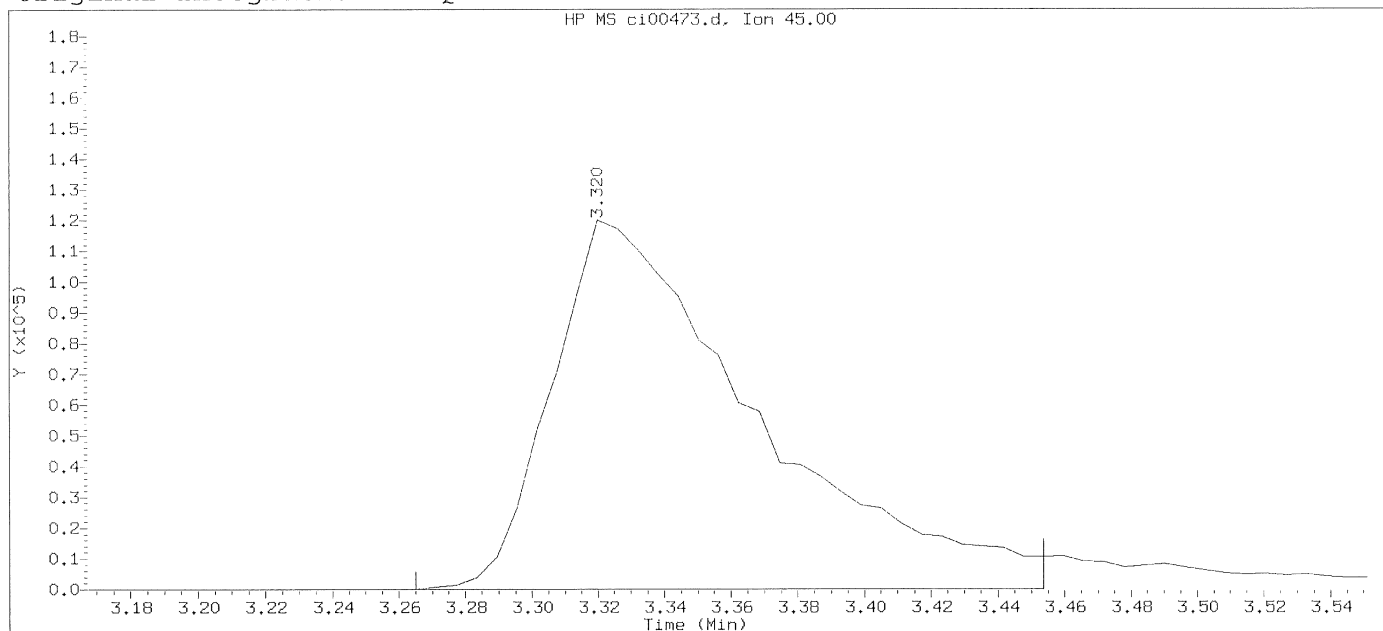
GC/MS audit/management approval: \_\_\_\_\_

SEP 25 2015

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
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

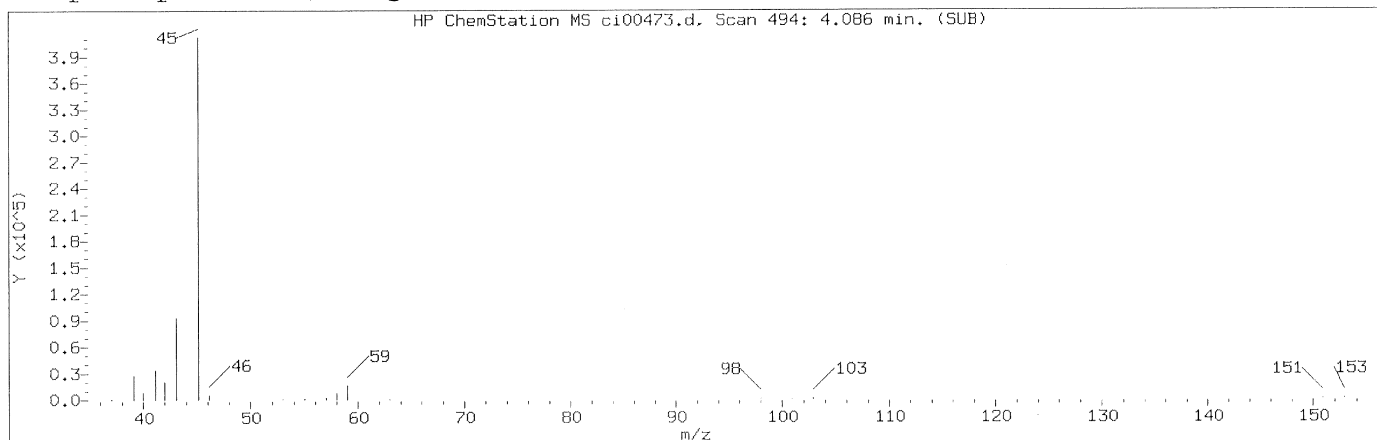
Lab Sample ID: LCSDC75

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

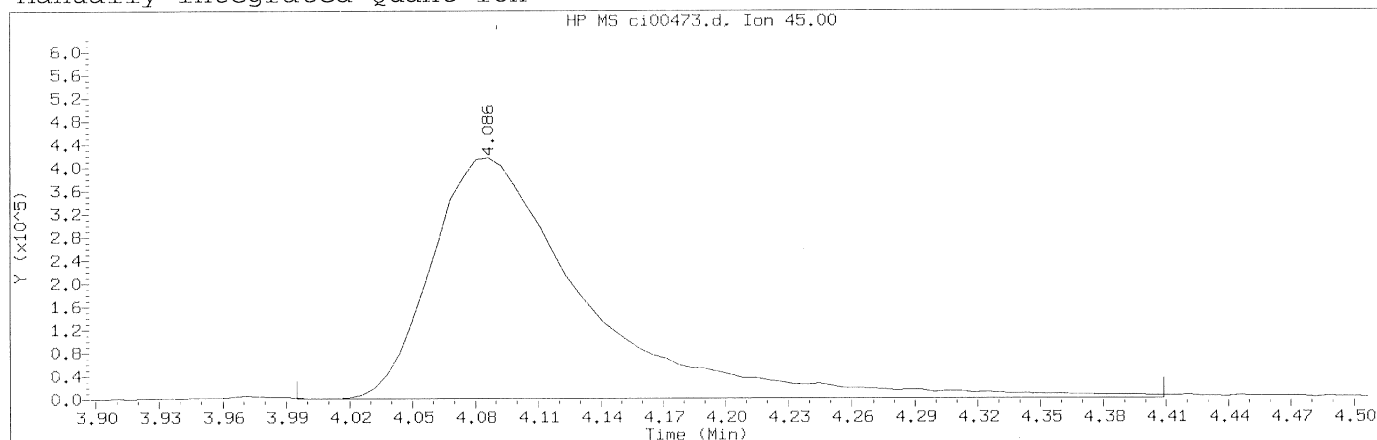
Digitally signed by Jeffrey B. Smith on 09/23/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304



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

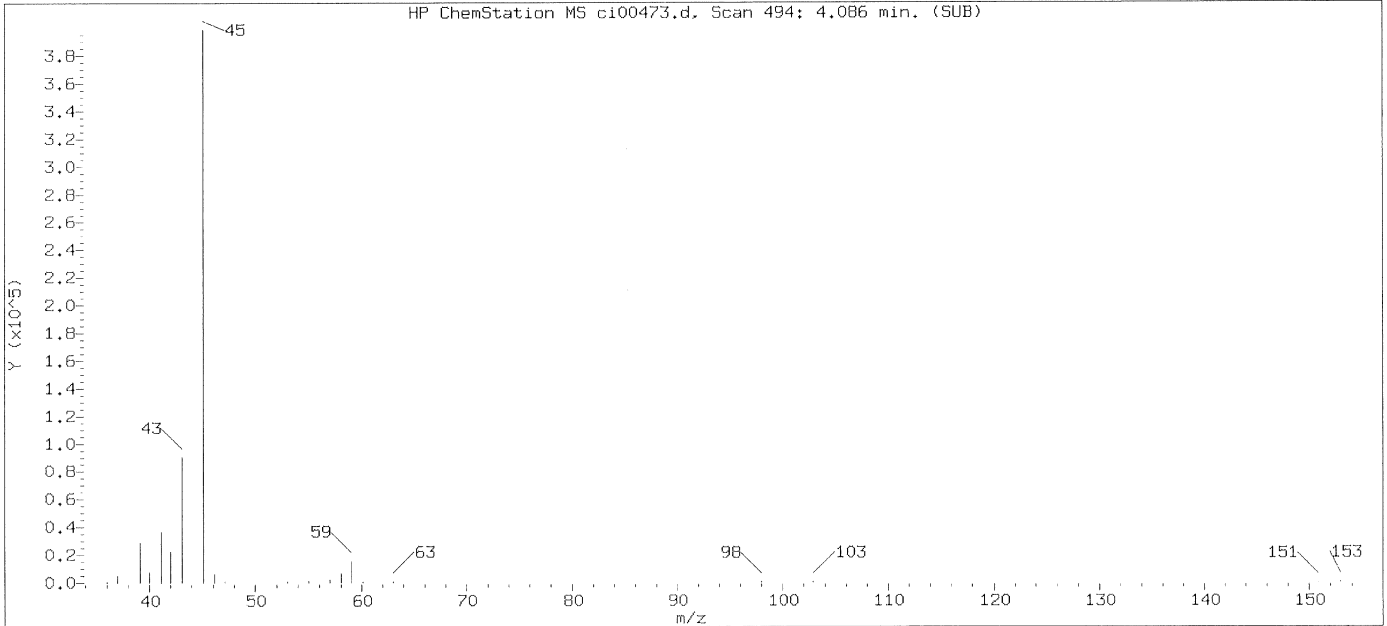
Compound Number                      : 22  
Compound Name                         : Isopropanol  
Scan Number                            : 494  
Retention Time (minutes): 4.086  
Quant Ion                                : 45.00  
Area (flag)                             : 2130241M  
Concentration (ppb(v))                : 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

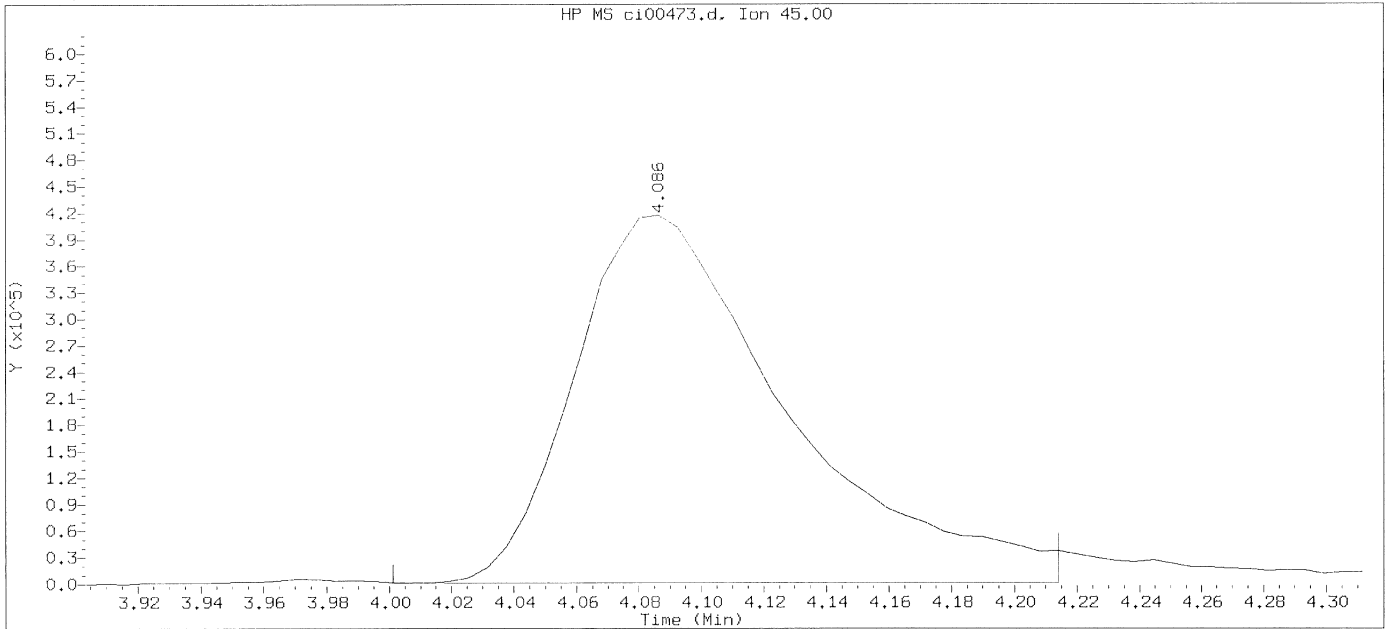
Analyst responsible for change: Digitally signed by Jeffrey B. Smith  
on 09/23/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304

GC/MS audit/management approval: \_\_\_\_\_  
*Mark A. Ratcliff*  
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

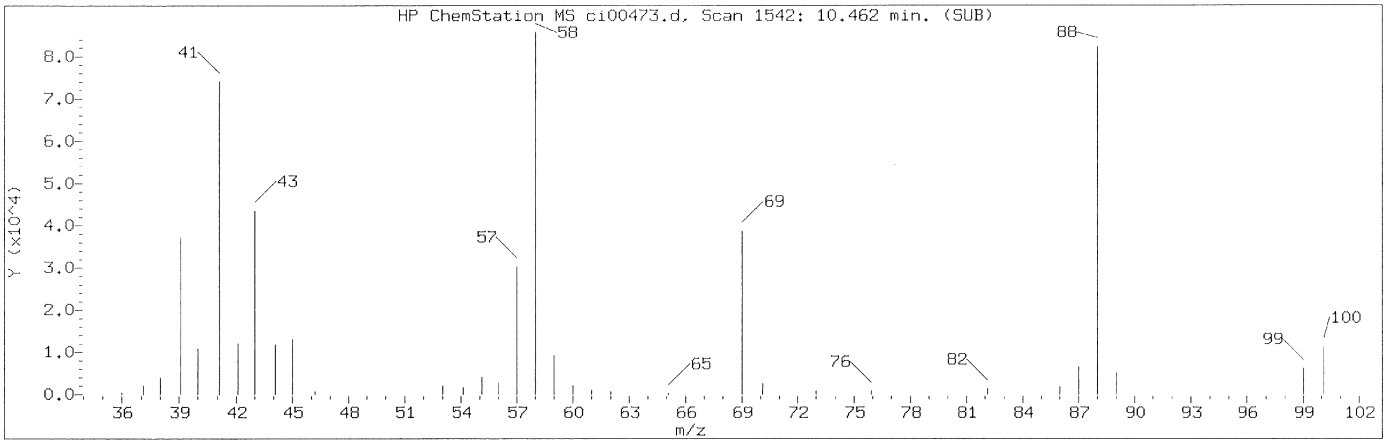
Sample Name: LCSDC75

Lab Sample ID: LCSDC75

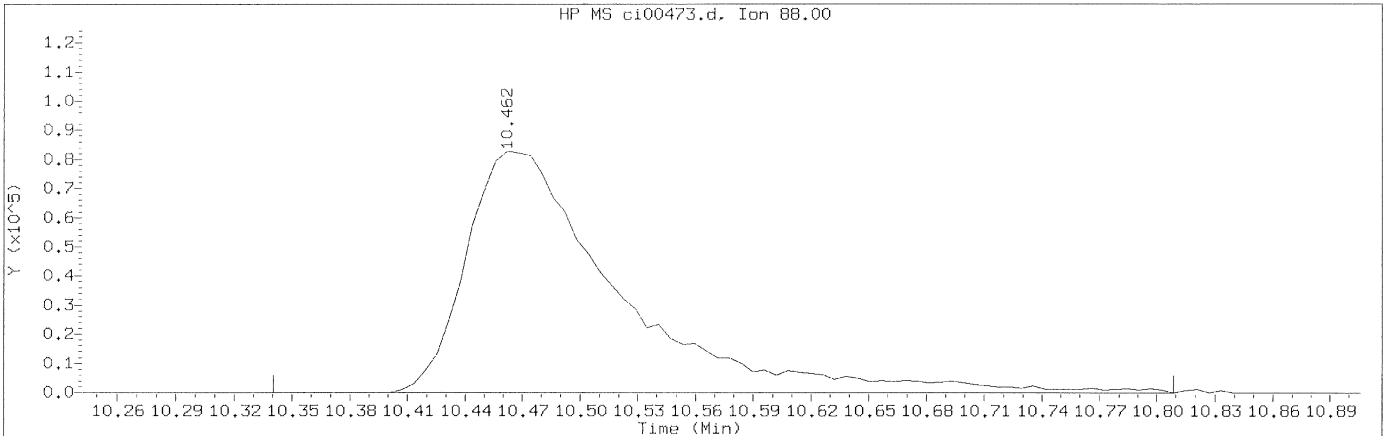
Compound Number : 22  
Compound Name : Isopropanol  
Scan Number : 494  
Retention Time (minutes): 4.086  
Quant Ion : 45.00  
Area : 1968278  
Concentration (ppb(v)) : 8.7315  
Integration start scan : 479 Integration stop scan: 514  
Y at integration start : 1024 Y at integration end: 1024

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

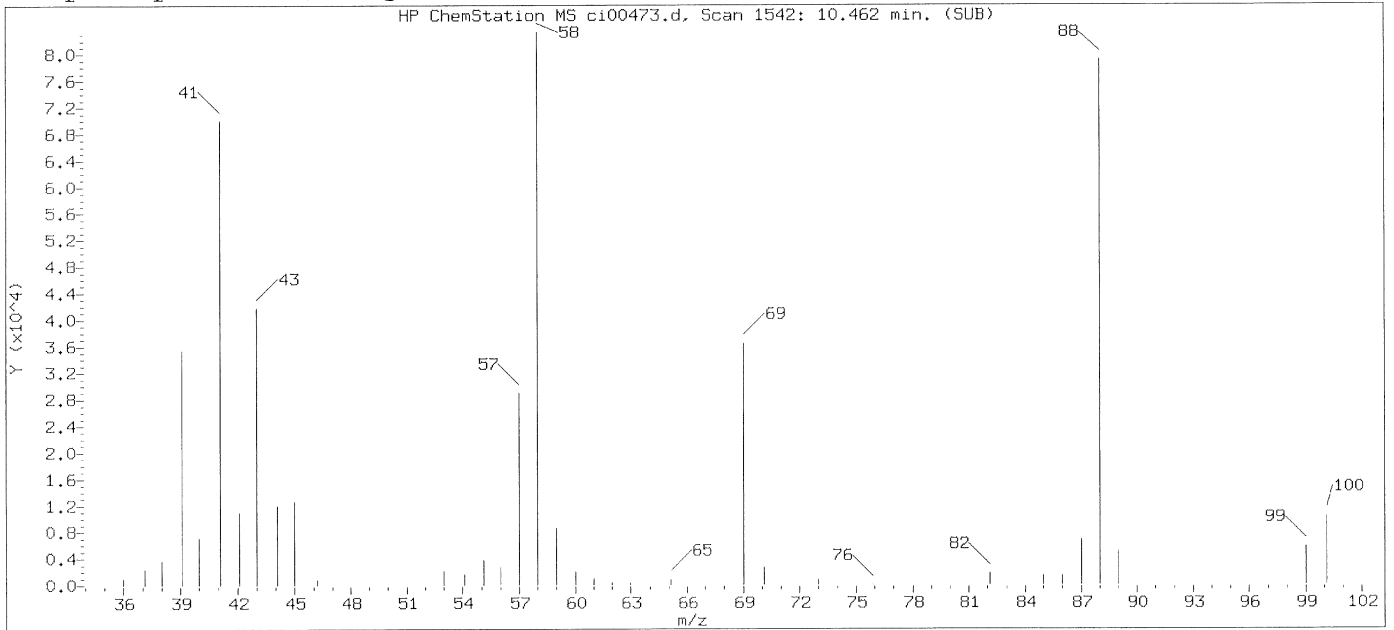
Analyst responsible for change: Digitally signed by Jeffrey B. Smith  
on 09/23/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304

GC/MS audit/management approval: \_\_\_\_\_

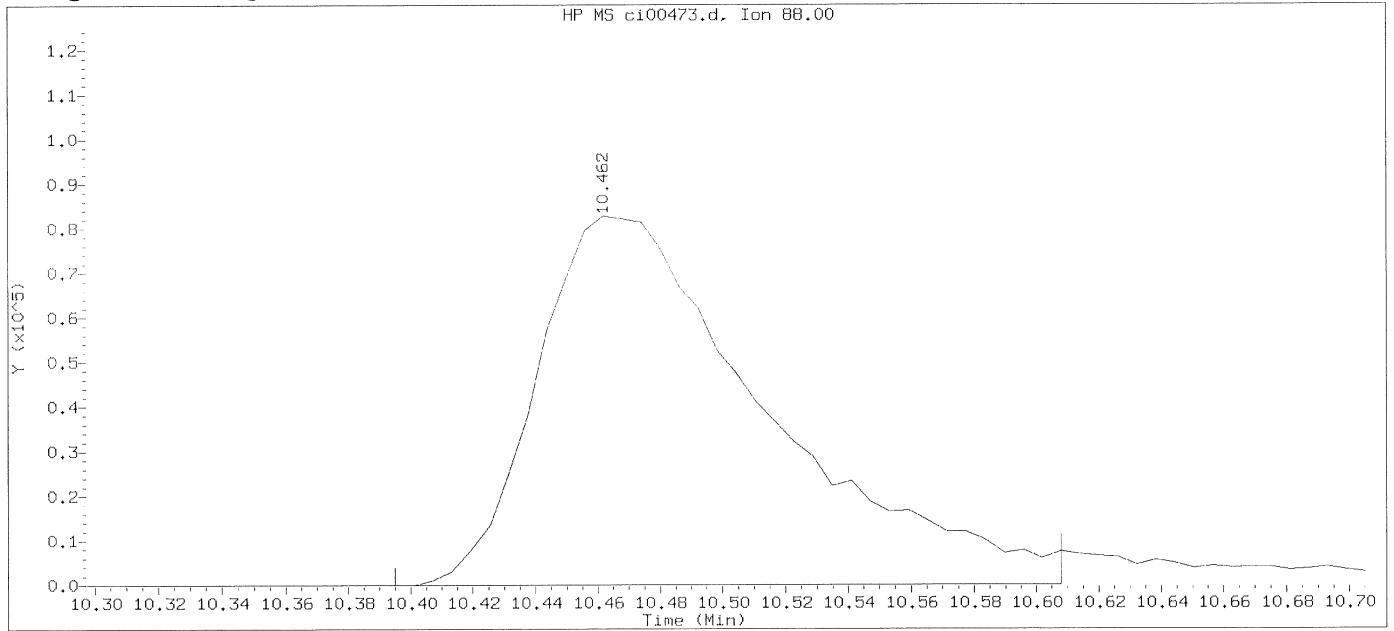
*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

SEP 25 2015

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

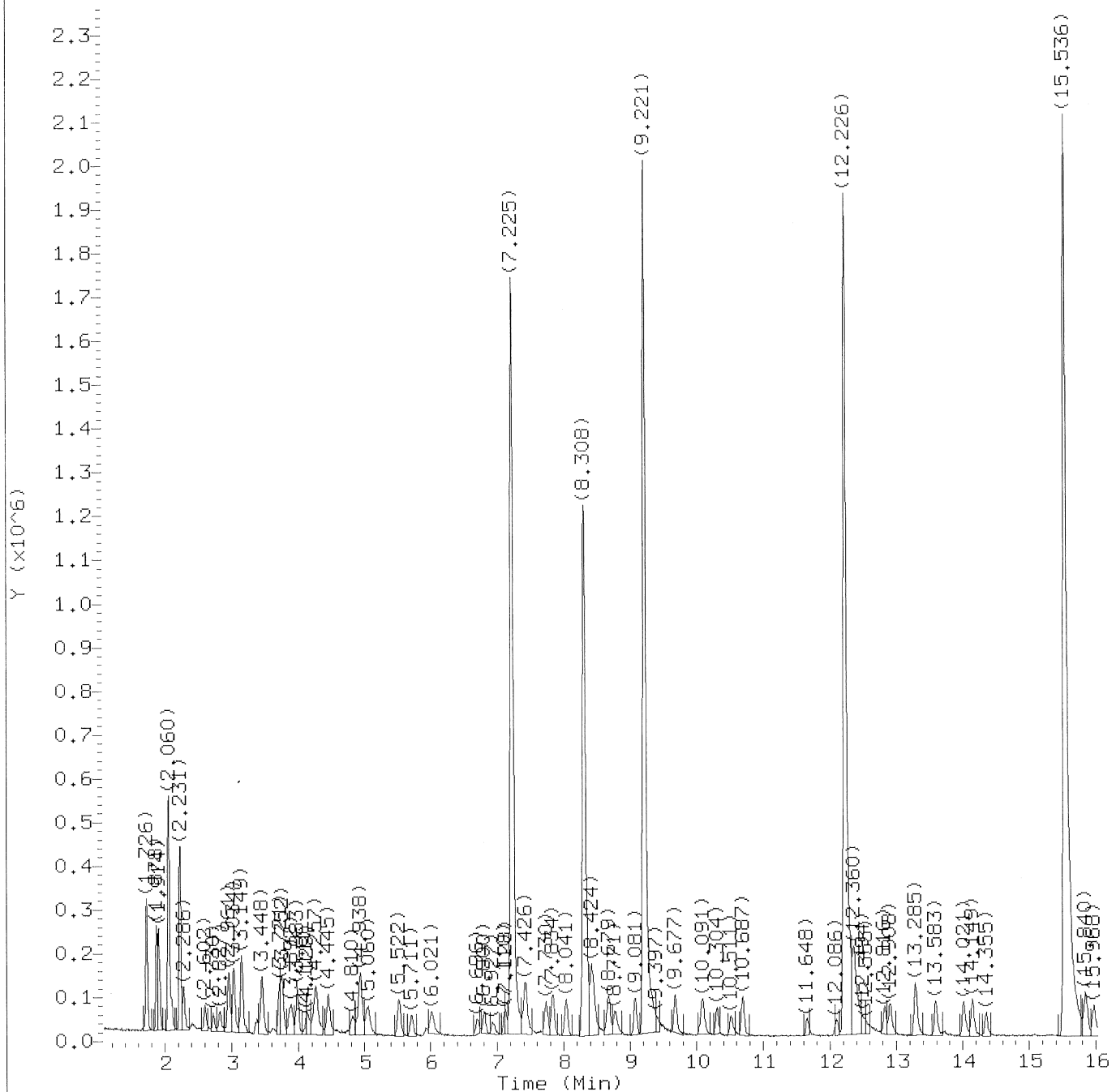
Sublist used: all

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

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/ci00476.d  
Injection date and time: 23-SEP-2015 01:36

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

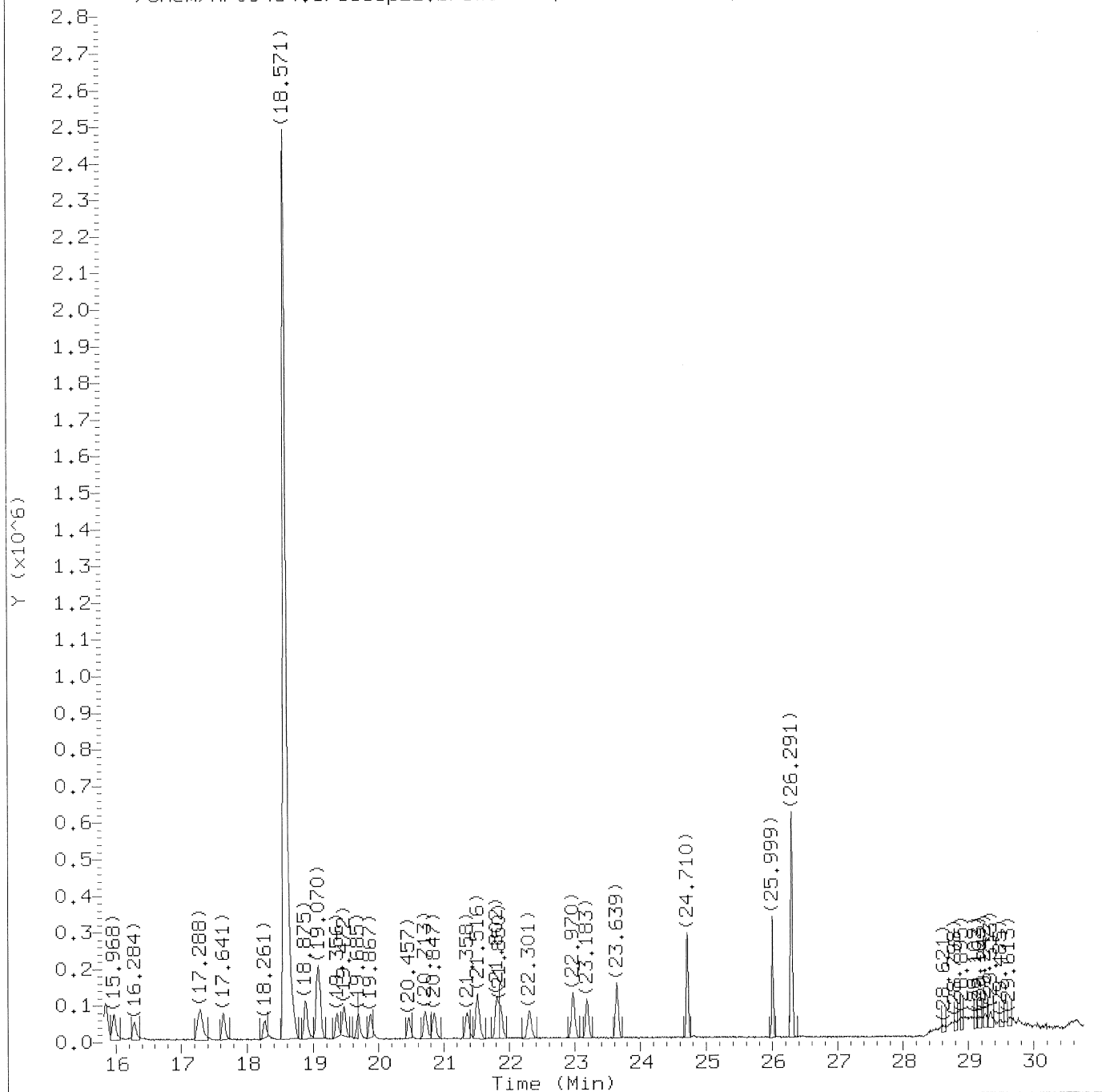
Sublist used: all

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  
Injection date and time: 23-SEP-2015 01:36

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

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  
 Injection date and time: 23-SEP-2015 01:36

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
 Calibration date and time: 23-SEP-2015 14:29

Sublist used: all

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.

Quant Report

Target Revision 3.5

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

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

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  
 Injection date and time: 23-SEP-2015 01:36

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
 Calibration date and time: 23-SEP-2015 14:29

Sublist used: all

Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.5

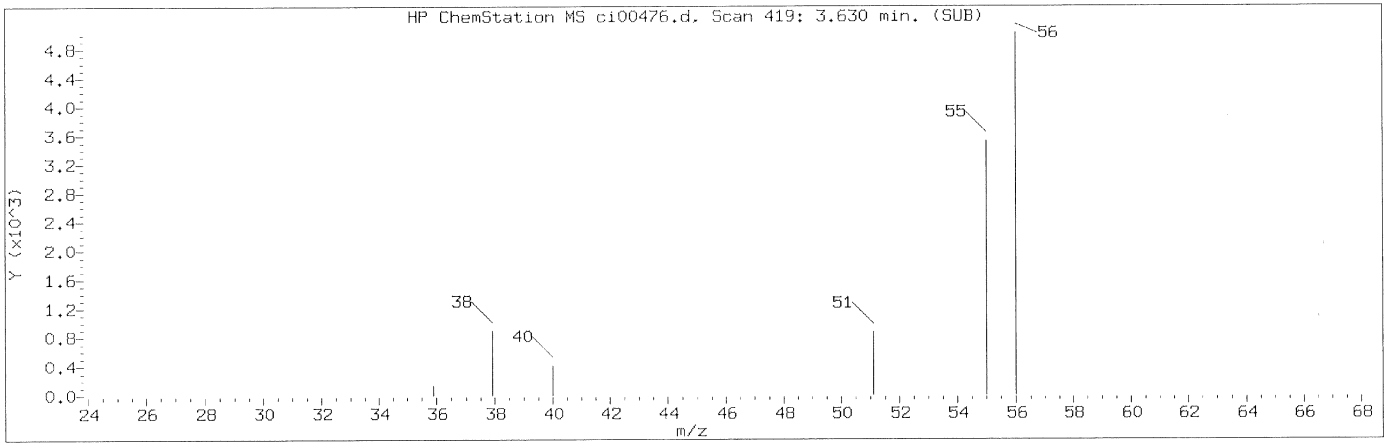
Lab Sample ID: mdlv0.5

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

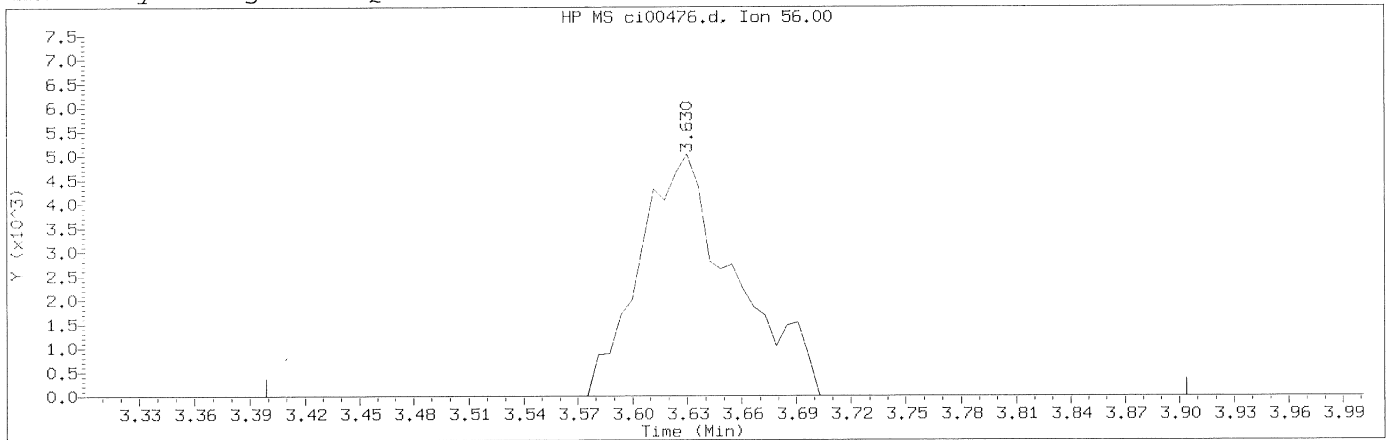
page 3 of 3

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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

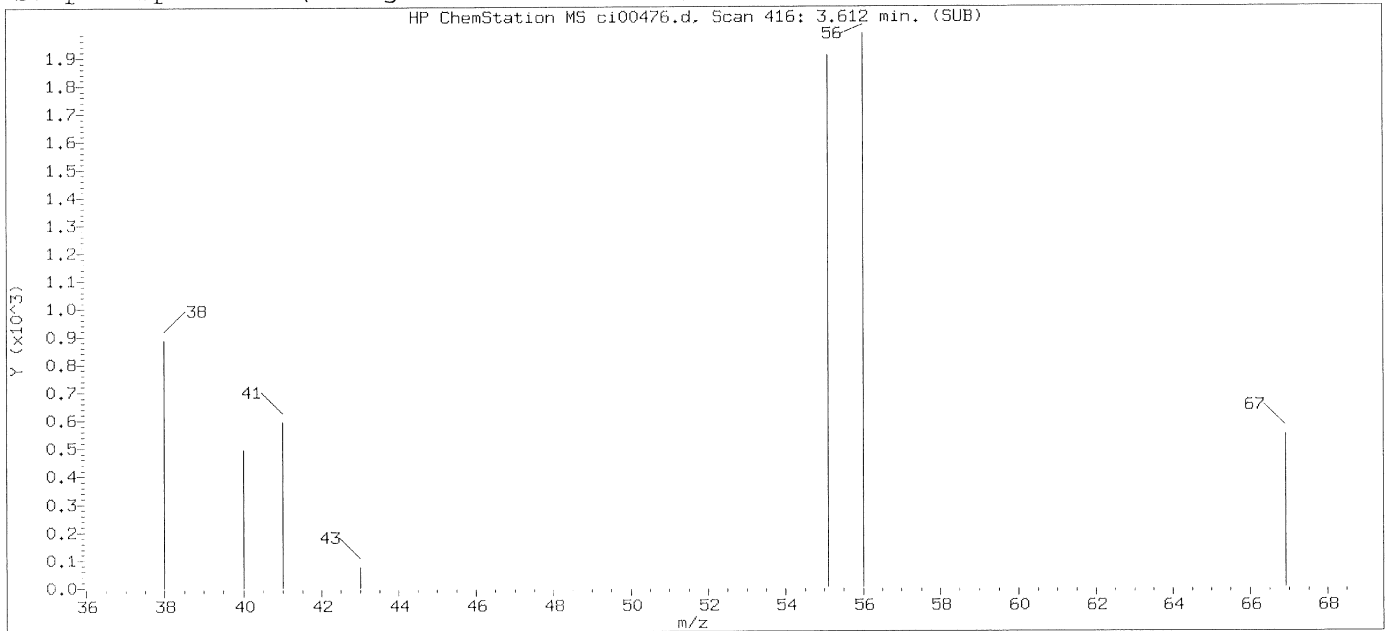
Analyst responsible for change: Digitally signed by Jacob E. Bailey  
on 09/23/2015 at 14:30.  
Target 3.5 esignature user ID: jeb07445

*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

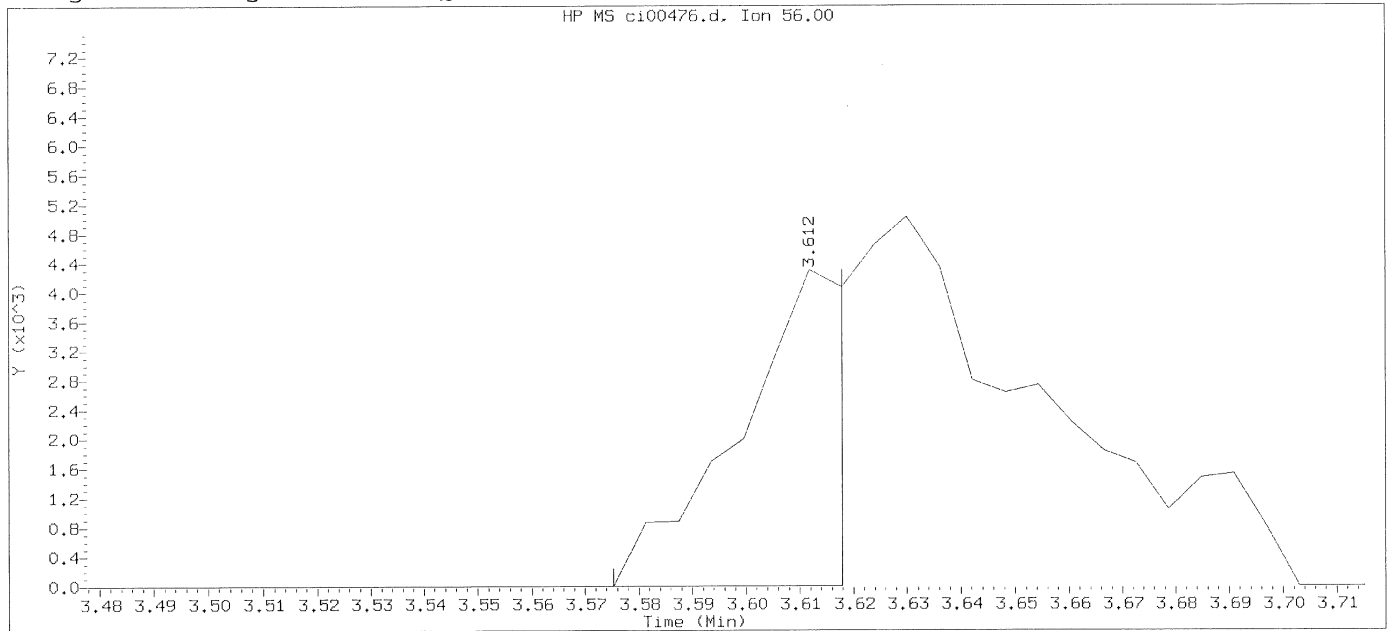
GC/MS audit/management approval: \_\_\_\_\_

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

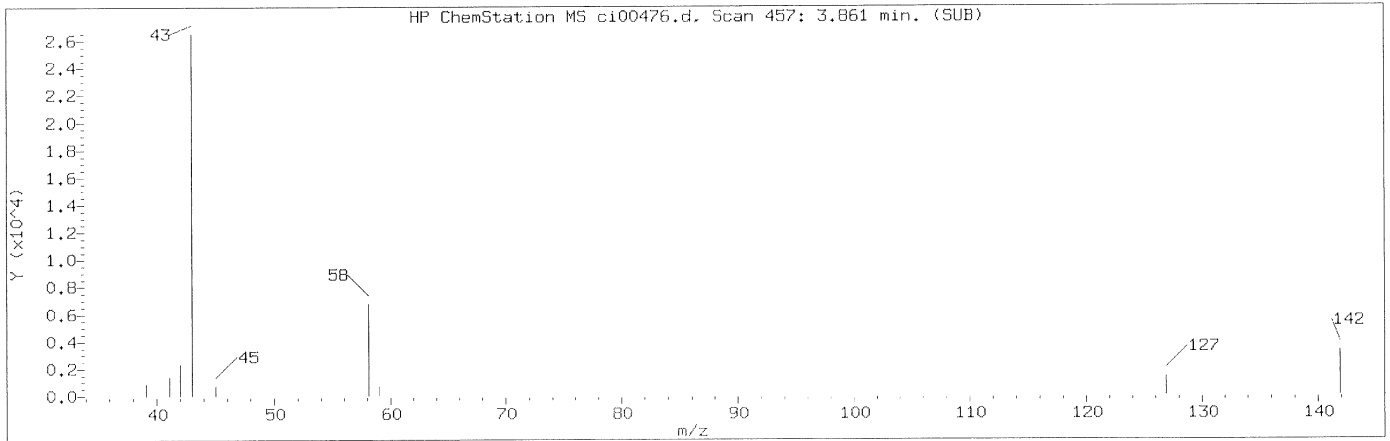
Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all  
Calibration date and time: 22-SEP-2015 22:35  
Date, time and analyst ID of latest file update: 23-Sep-2015 02:15 Automation

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

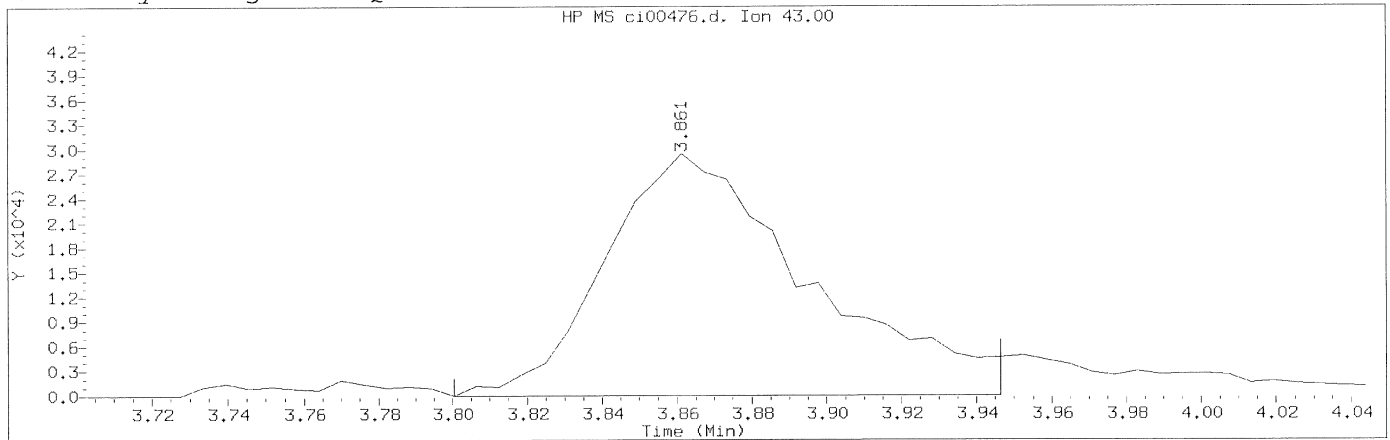
Compound Number : 16  
Compound Name : Acrolein  
Scan Number : 416  
Retention Time (minutes): 3.612  
Quant Ion : 56.00  
Area : 5462  
Concentration (ppb(v)) : 0.1619  
Integration start scan : 409 Integration stop scan: 416  
Y at integration start : 0 Y at integration end: 0

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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/ci00476.d  
Injection date and time: 23-SEP-2015 01:36

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

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

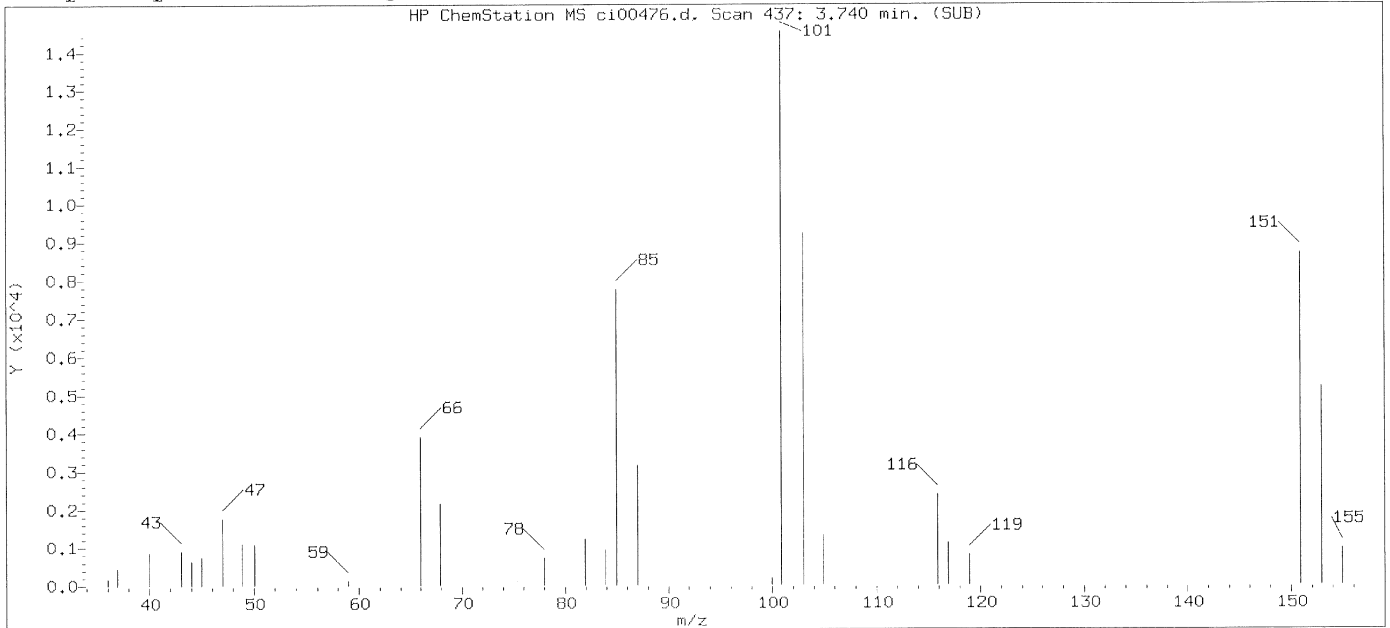
Analyst responsible for change: Digitally signed by Jacob E. Bailey  
on 09/23/2015 at 14:30.  
Target 3.5 esignature user ID: jeb07445

*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

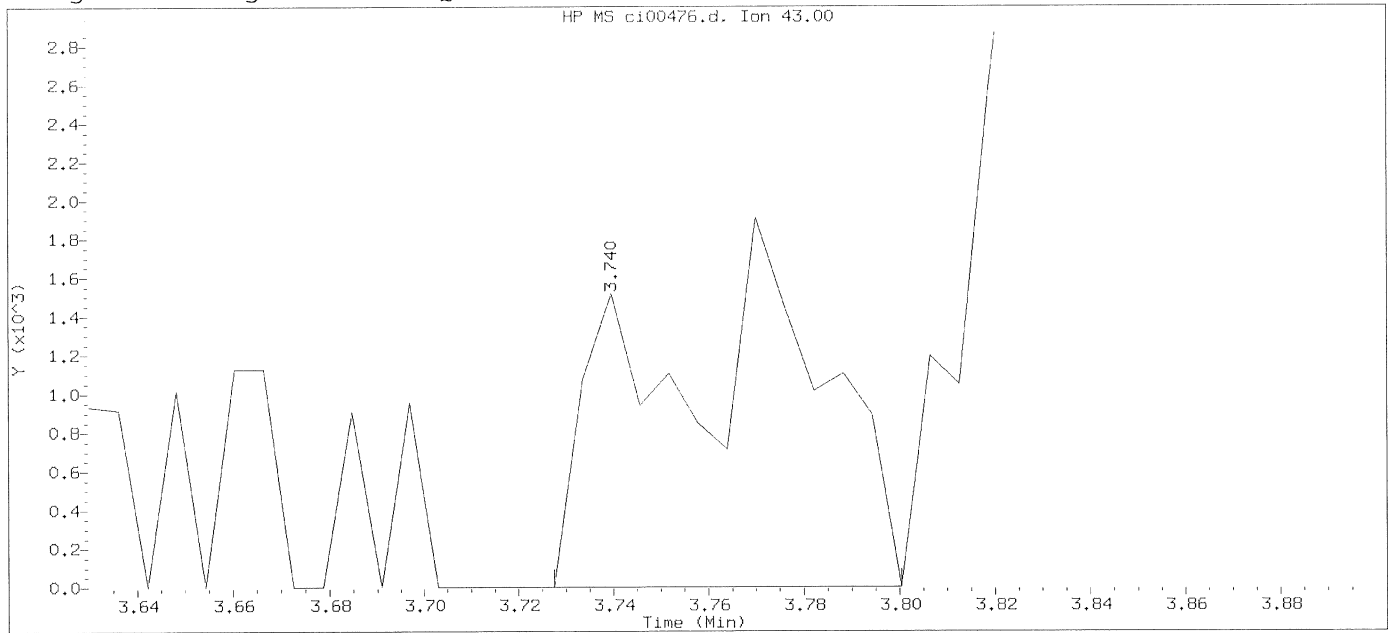
SEP 25 2015

GC/MS audit/management approval: \_\_\_\_\_

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

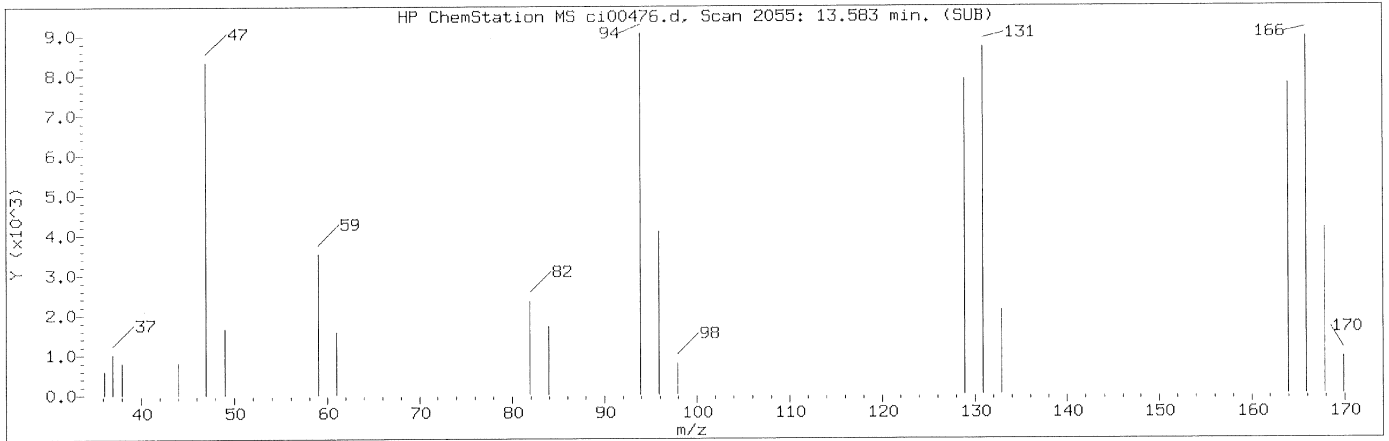
Sample Name: mdlv0.5

Lab Sample ID: mdlv0.5

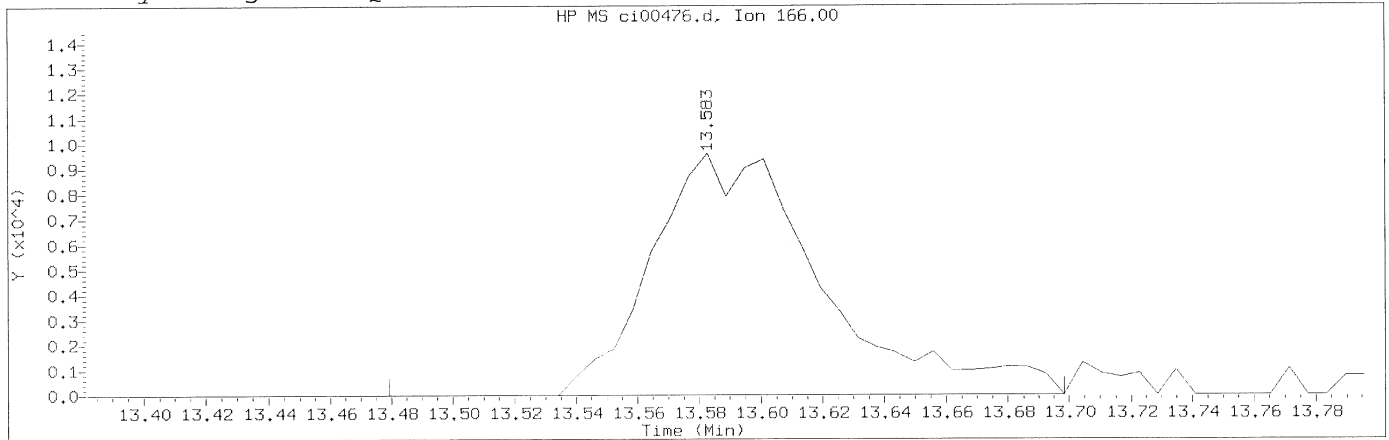
Compound Number : 19  
Compound Name : Acetone  
Scan Number : 437  
Retention Time (minutes): 3.740  
Quant Ion : 43.00  
Area : 4585  
Concentration (ppb(v)) : 0.0340  
Integration start scan : 434  
Integration stop scan: 446  
Y at integration start : 0  
Y at integration end: 0

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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/ci00476.d  
 Injection date and time: 23-SEP-2015 01:36

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

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

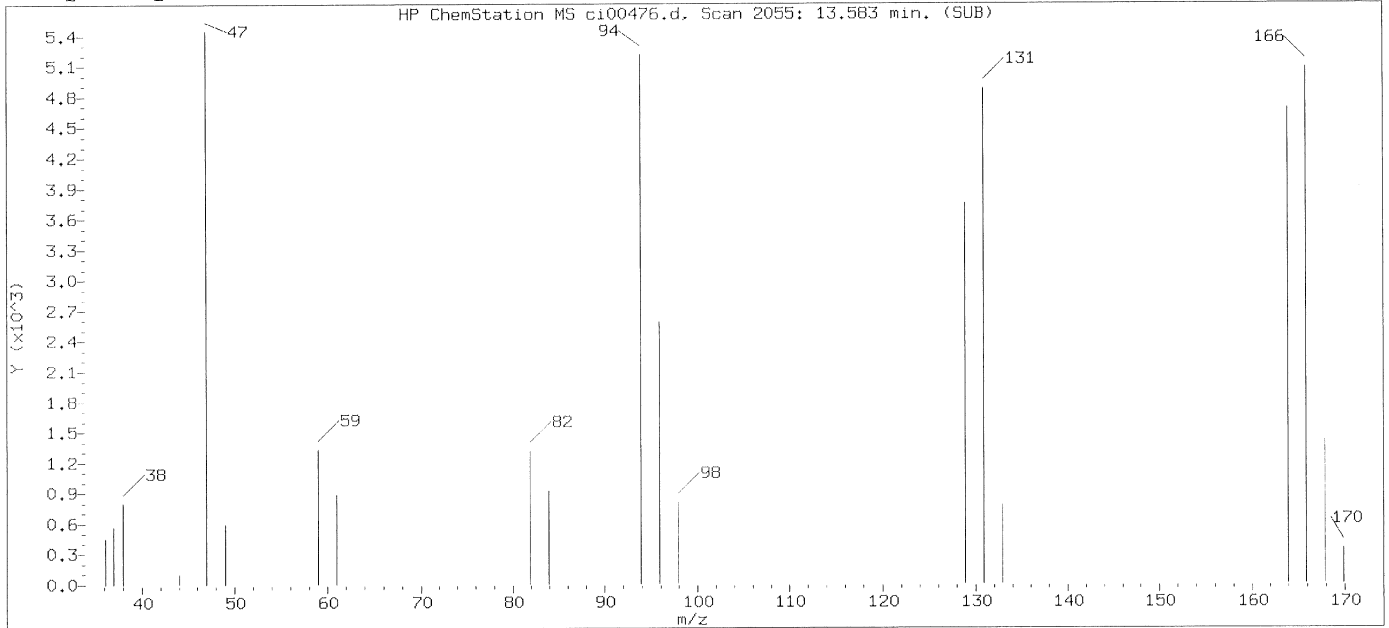
Reason for manual integration: improper integration

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

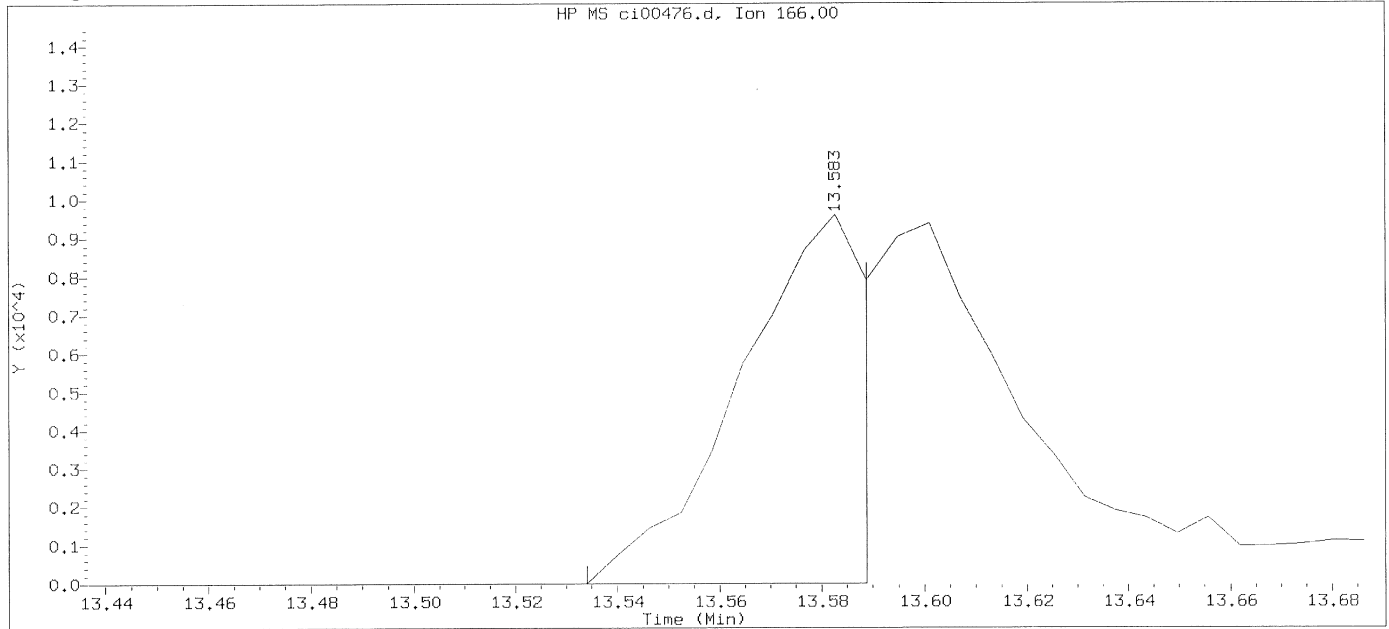
*Mark A. Ratcliff*  
 Mark A. Ratcliff  
 Senior Specialist  
**SEP 25 2015**

GC/MS audit/management approval: \_\_\_\_\_

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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

Instrument ID: HP09464.i  
Analyst ID: jeb07445

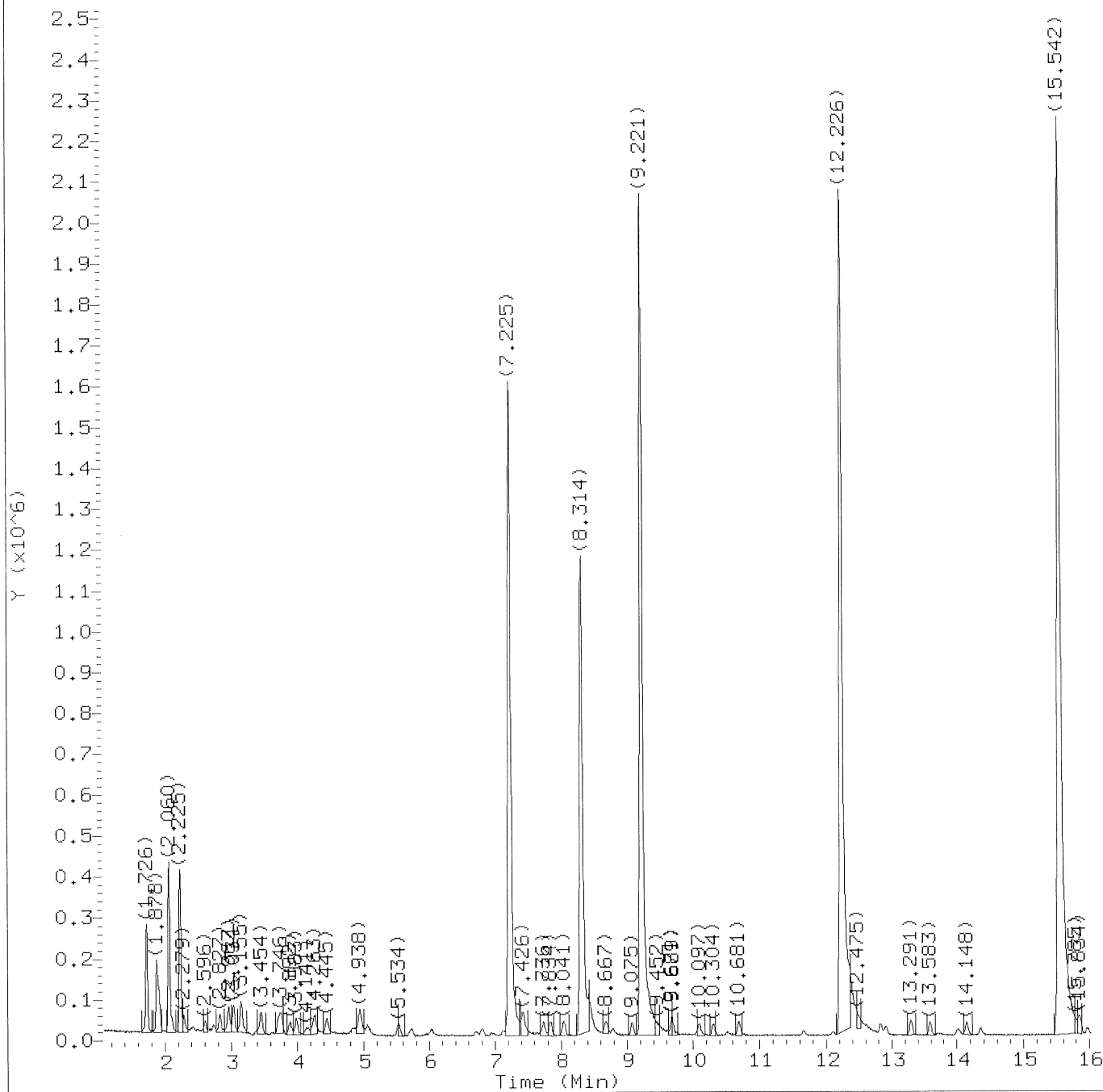
Method used: /chem/HP09464.i/15sep22.b/to-15.m  
Calibration date and time: 22-SEP-2015 22:35  
Date, time and analyst ID of latest file update: 23-Sep-2015 02:15 Automation

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  
Injection date and time: 23-SEP-2015 02:19

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

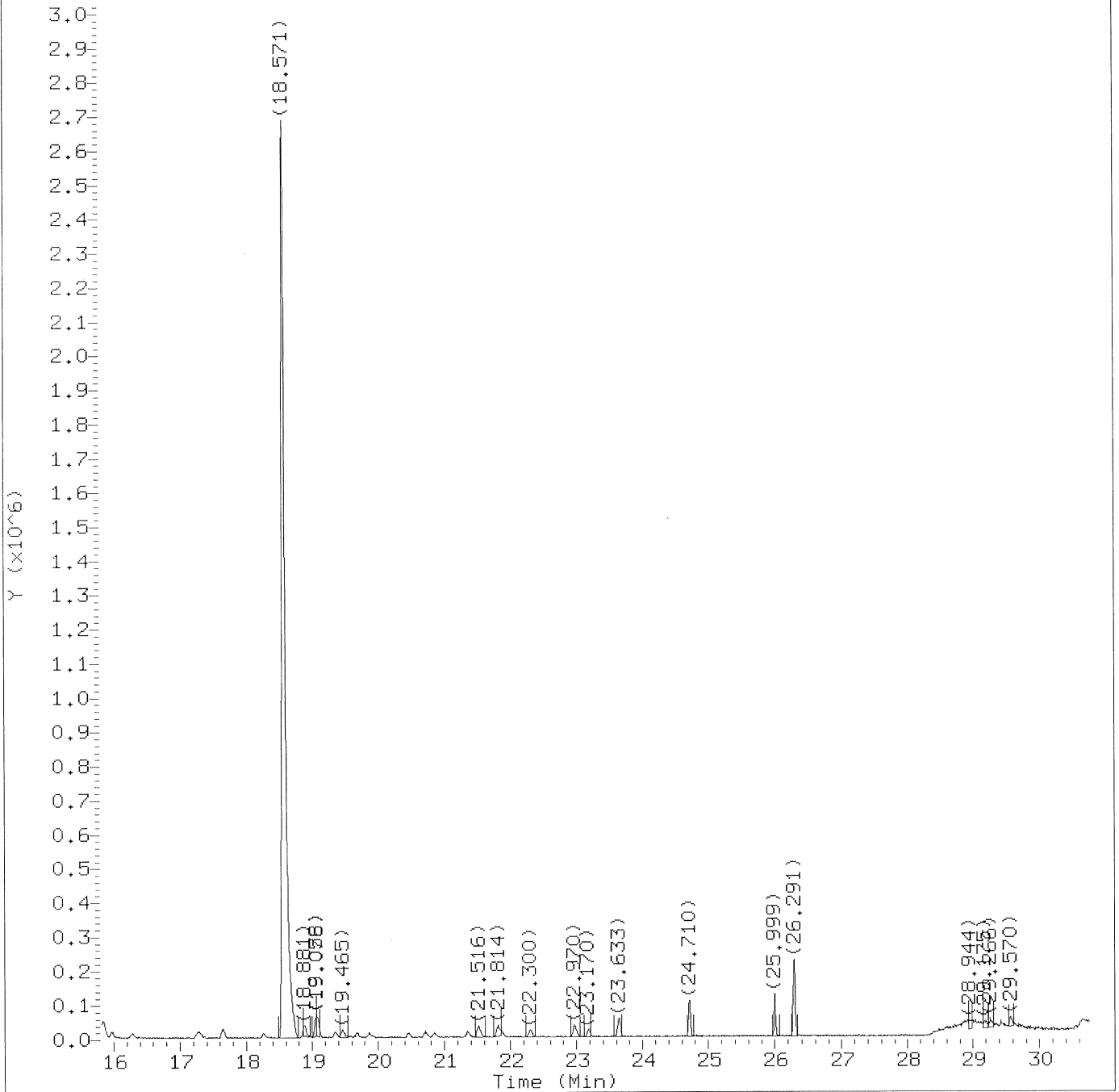
Sublist used: all

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  
Injection date and time: 23-SEP-2015 02:19

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

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  
 Injection date and time: 23-SEP-2015 02:19

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
 Calibration date and time: 23-SEP-2015 14:29

Sublist used: all

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.

Quant Report

Target Revision 3.5

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

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
 Calibration date and time: 23-SEP-2015 14:29

Sublist used: all

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.

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  
 Injection date and time: 23-SEP-2015 02:19

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
 Calibration date and time: 23-SEP-2015 14:29

Sublist used: all

Date, time and analyst ID of latest file update: 23-Sep-2015 14:29 jeb07445

Sample Name: mdlv0.2

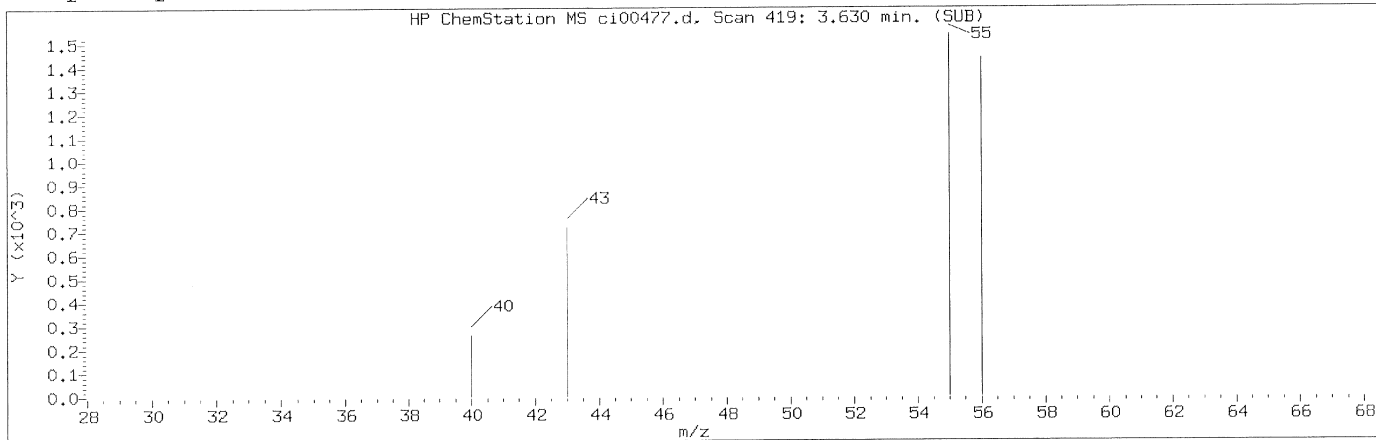
Lab Sample ID: mdlv0.2

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

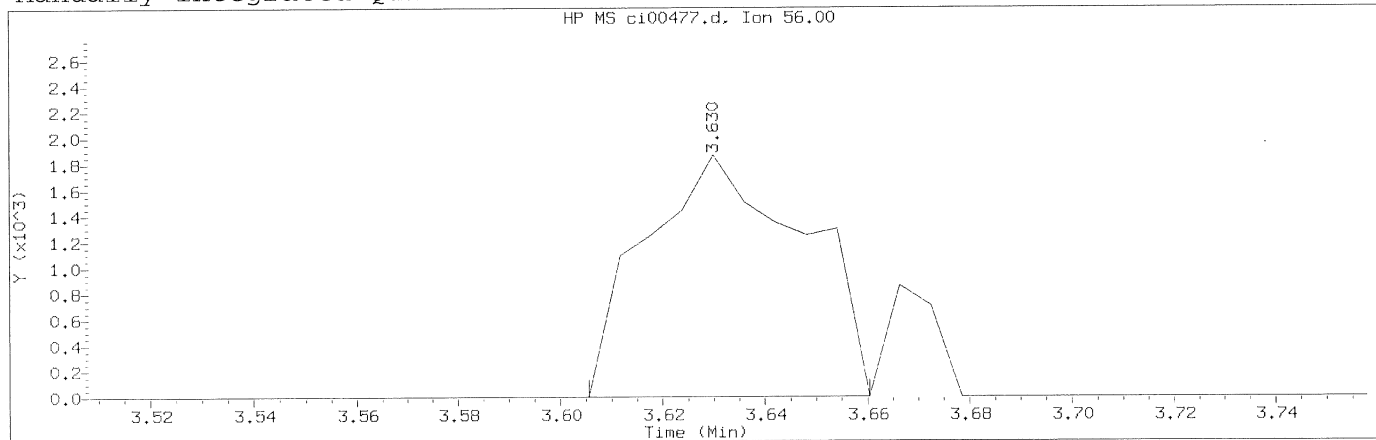
page 3 of 3

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                      : 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

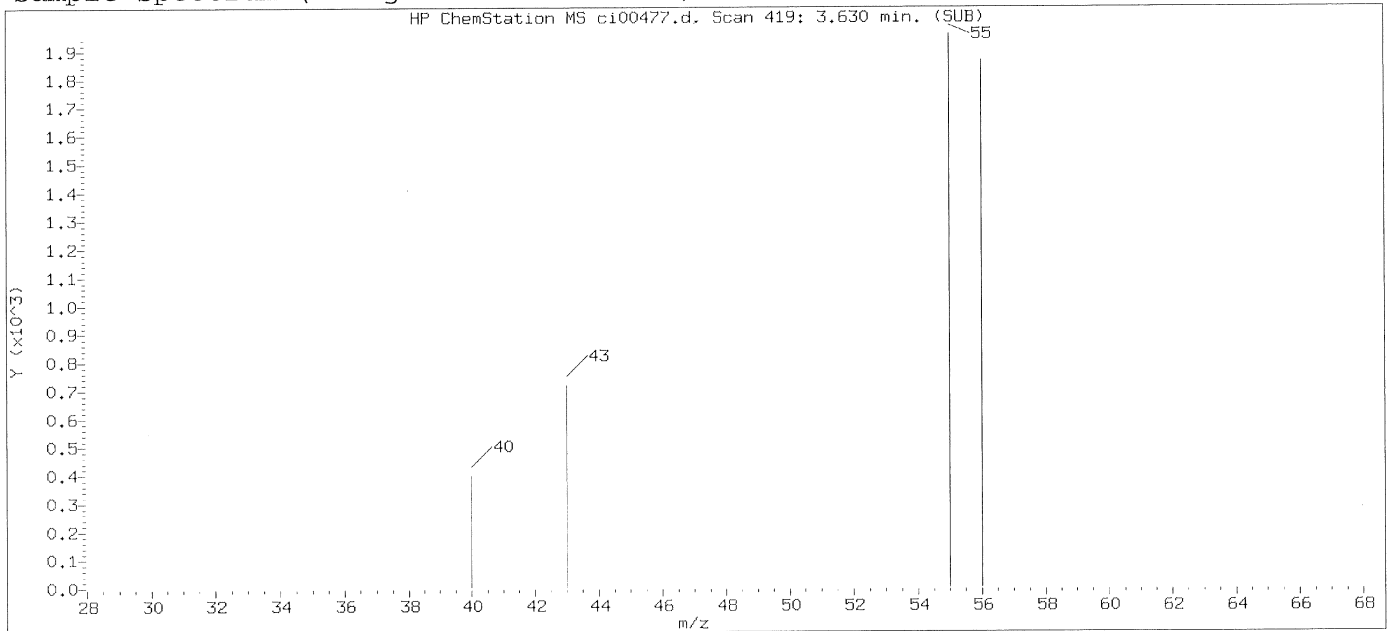
Digitally signed by Jacob E. Bailey  
Analyst responsible for change: on 09/23/2015 at 14:30.  
Target 3.5 esignature user ID: jeb07445

GC/MS audit/management approval: \_\_\_\_\_

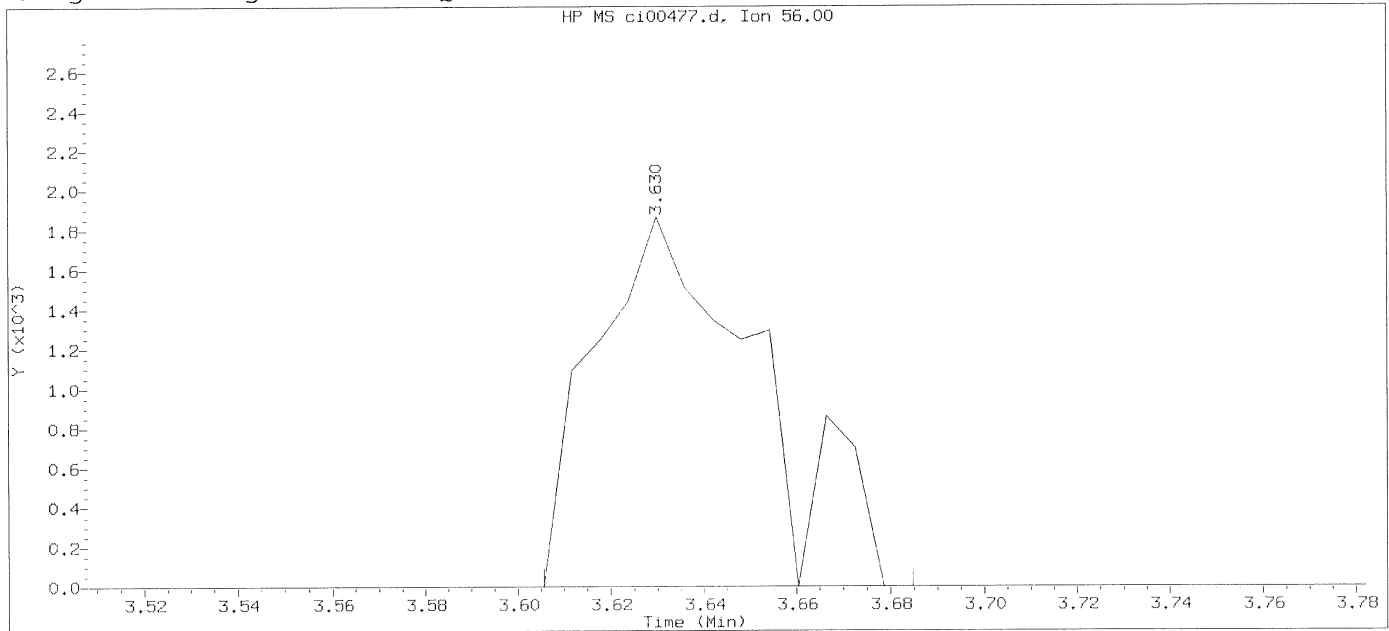
*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

SEP 25 2015

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

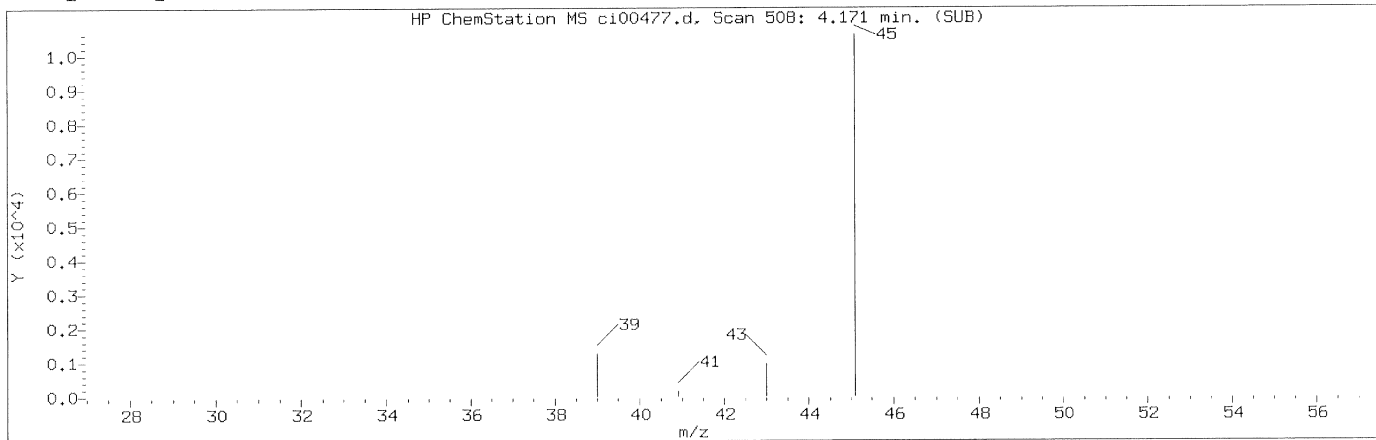
Sample Name: mdlv0.2

Lab Sample ID: mdlv0.2

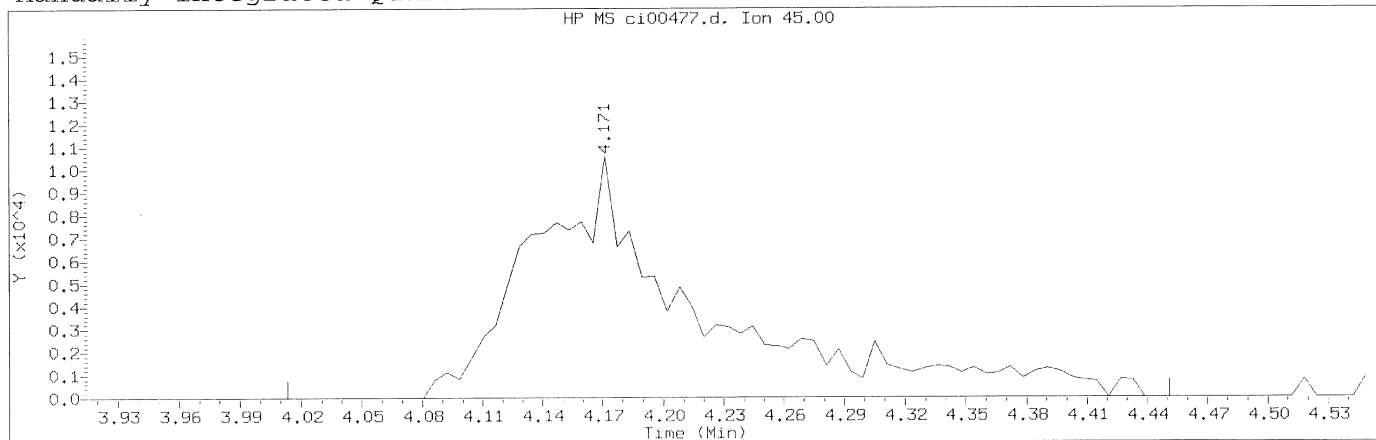
Compound Number	: 16		
Compound Name	: Acrolein		
Scan Number	: 419		
Retention Time (minutes)	: 3.630		
Quant Ion	: 56.00		
Area	: 4599		
Concentration (ppb(v))	: 0.1447		
Integration start scan	: 414	Integration stop scan:	427
Y at integration start	: 0	Y at integration end:	0

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                      : 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

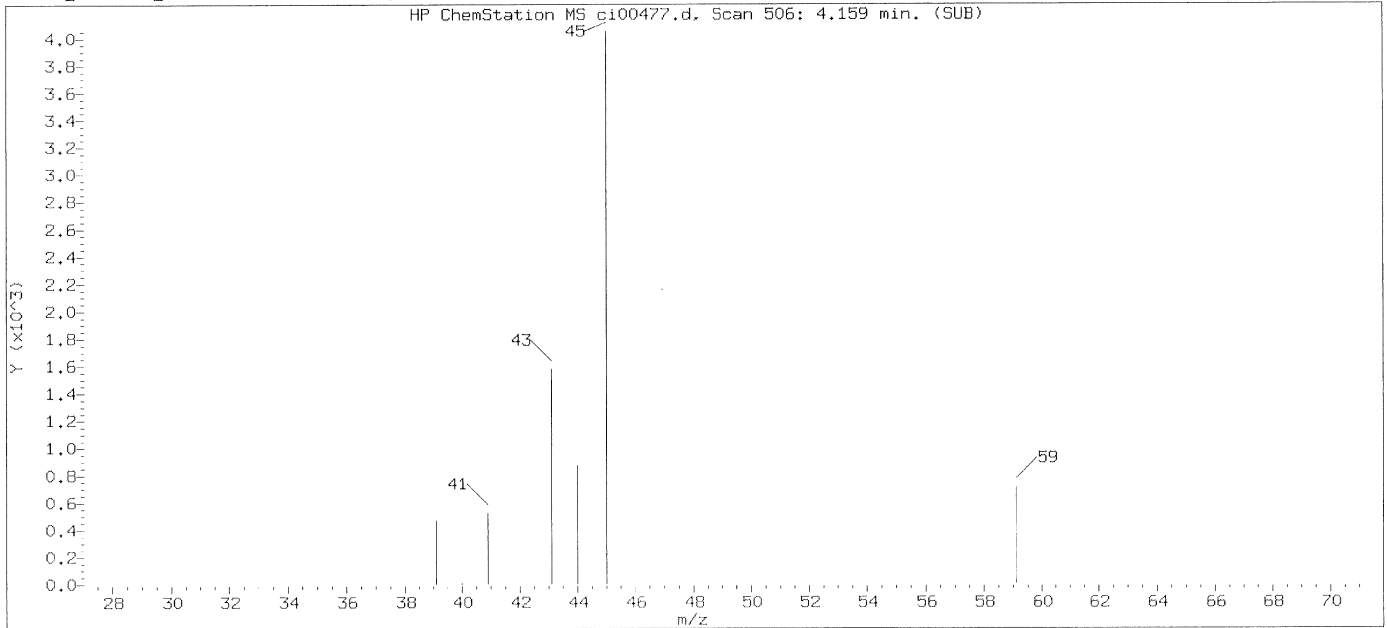
Reason for manual integration: improper integration

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

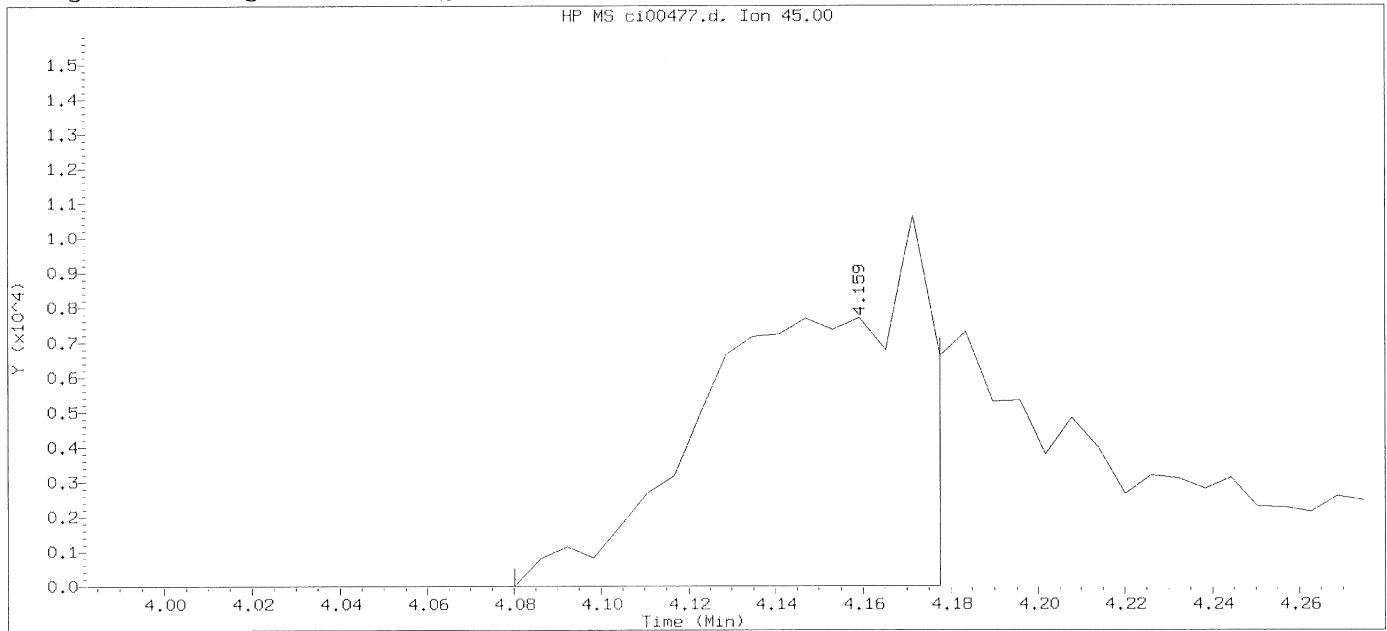
*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist  
SEP 25 2015

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

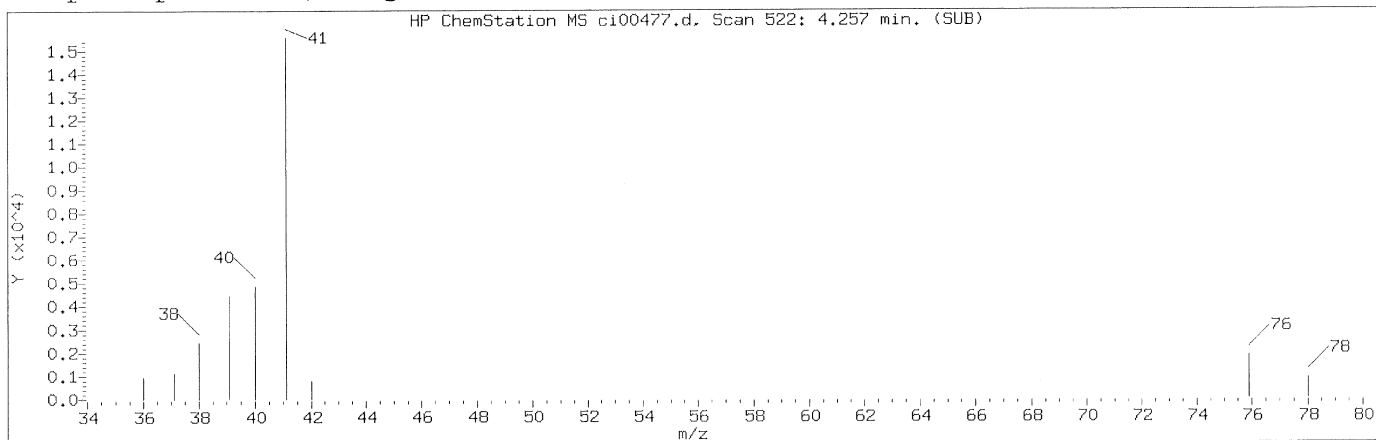
Lab Sample ID: mdlv0.2

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

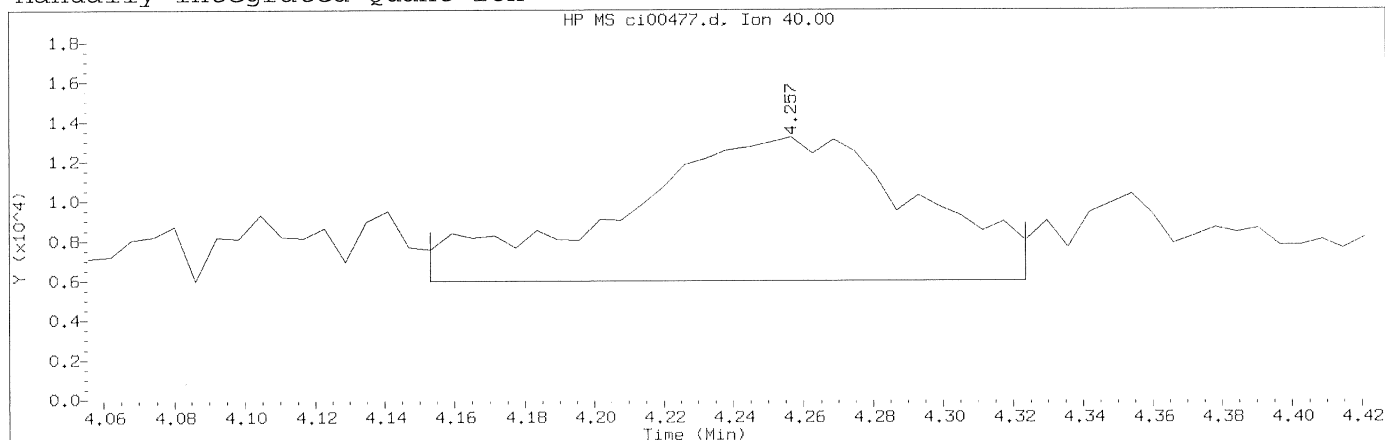
Digitally signed by Jacob E. Bailey on 09/23/2015 at 14:30.  
Target 3.5 esignature user ID: jeb07445



Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

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

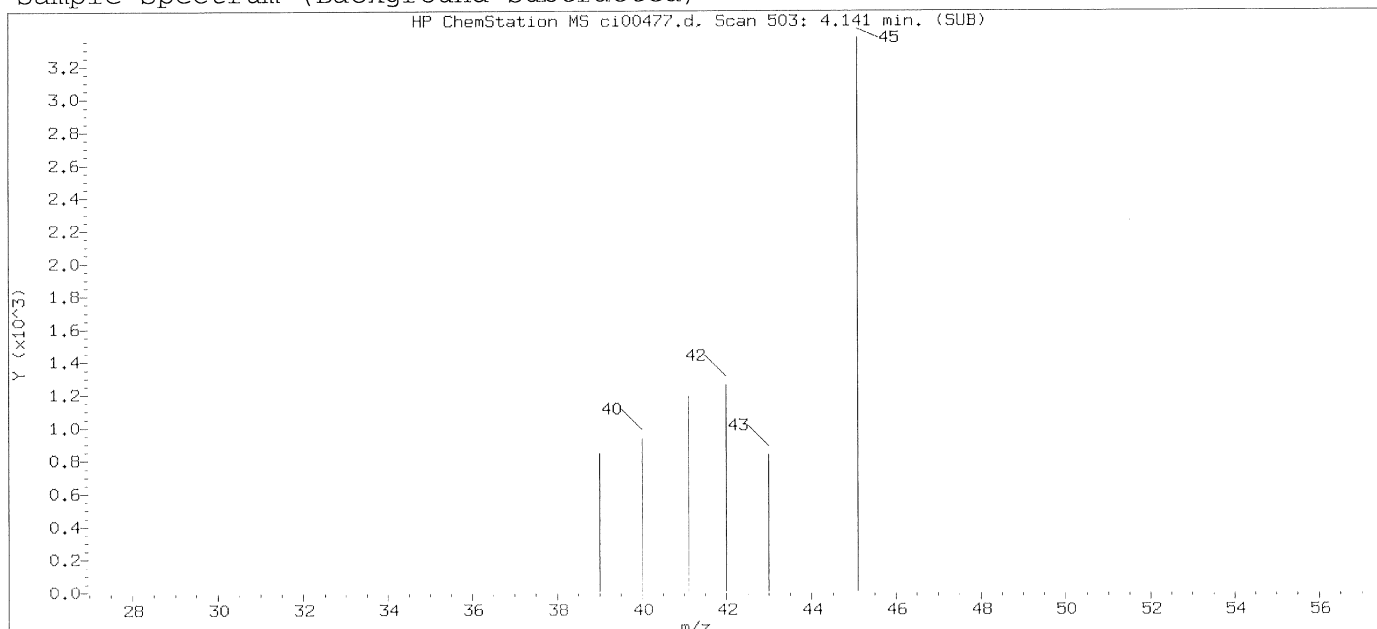
Reason for manual integration: improper integration

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

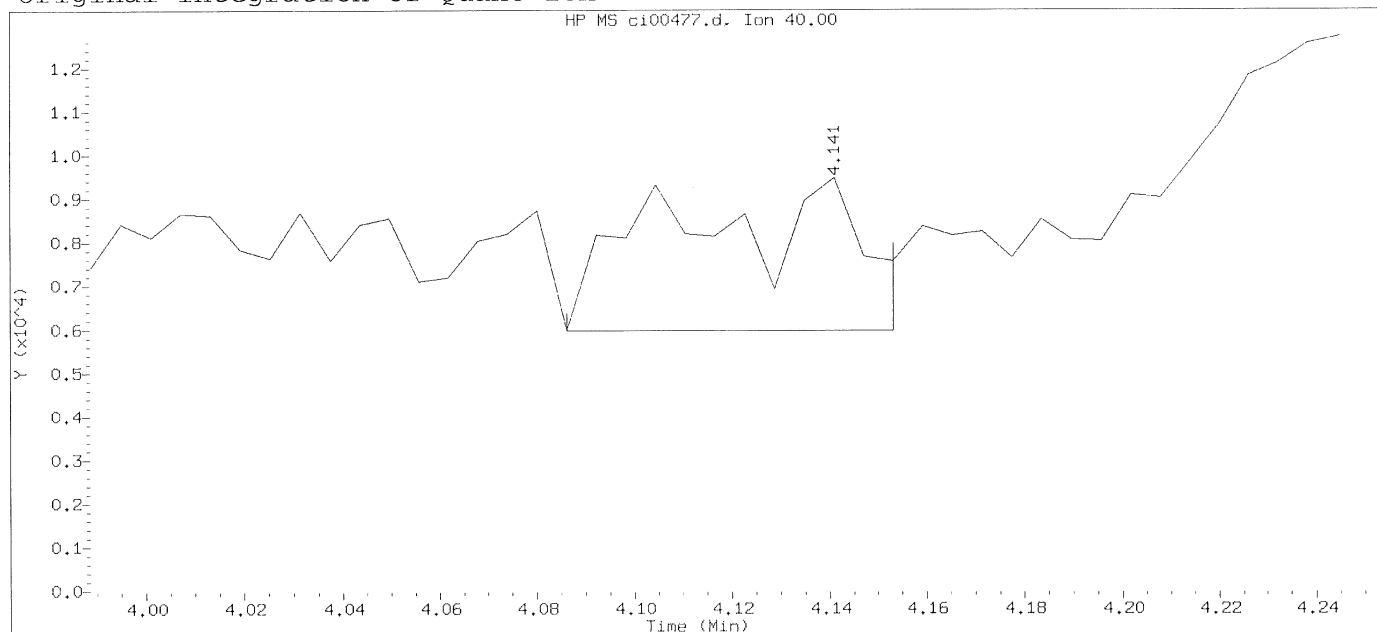
*Mark A. Ratcliff*  
 Mark A. Ratcliff  
 Senior Specialist  
**SEP 25 2015**

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

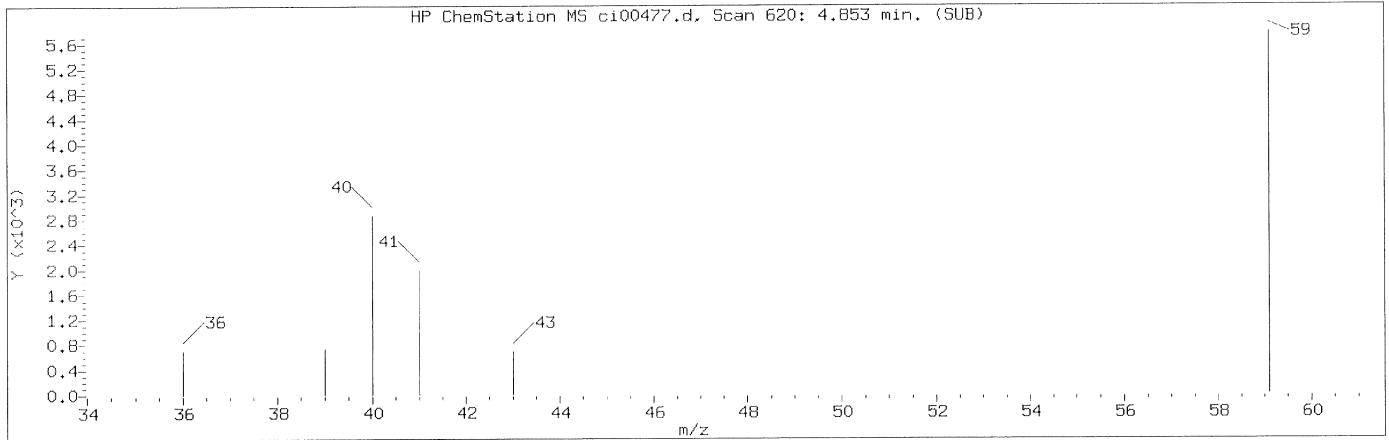
Method used: /chem/HP09464.i/15sep22.b/to-15.m Sublist used: all  
Calibration date and time: 22-SEP-2015 22:35  
Date, time and analyst ID of latest file update: 23-Sep-2015 02:58 Automation

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

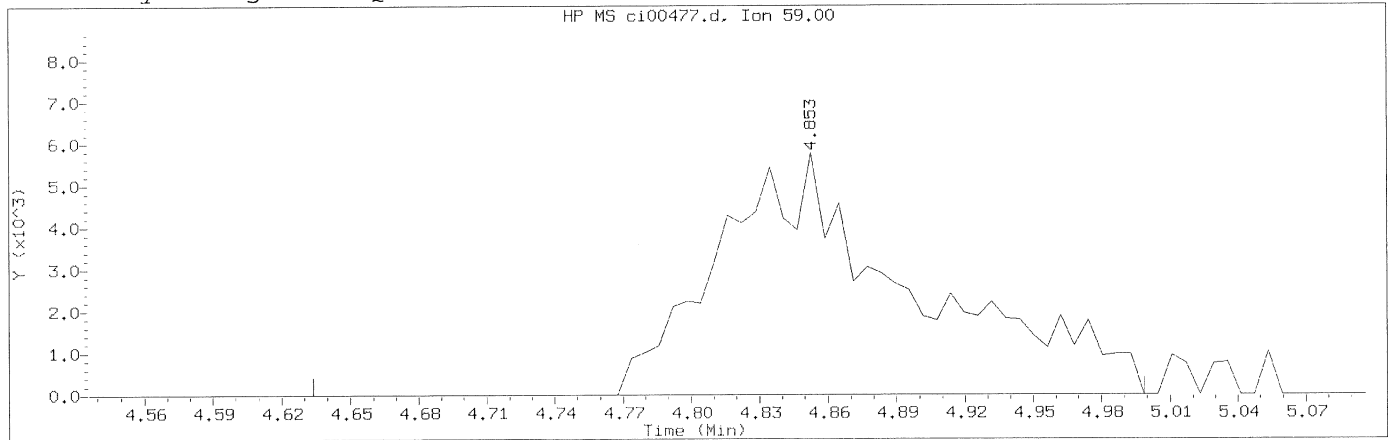
Compound Number : 23  
Compound Name : Acetonitrile  
Scan Number : 503  
Retention Time (minutes): 4.141  
Quant Ion : 40.00  
Area : 8999  
Concentration (ppb(v)) : 0.1616  
Integration start scan : 493 Integration stop scan: 504  
Y at integration start : 5971 Y at integration end: 5971

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

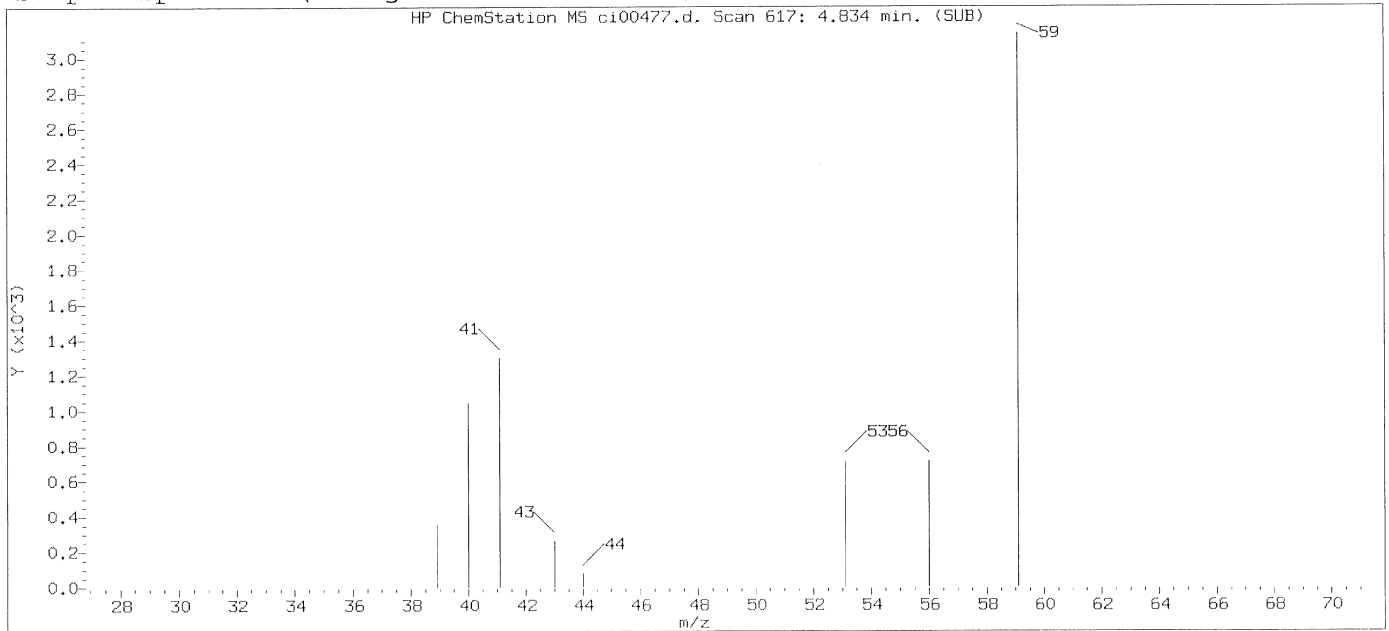
Reason for manual integration: improper integration

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

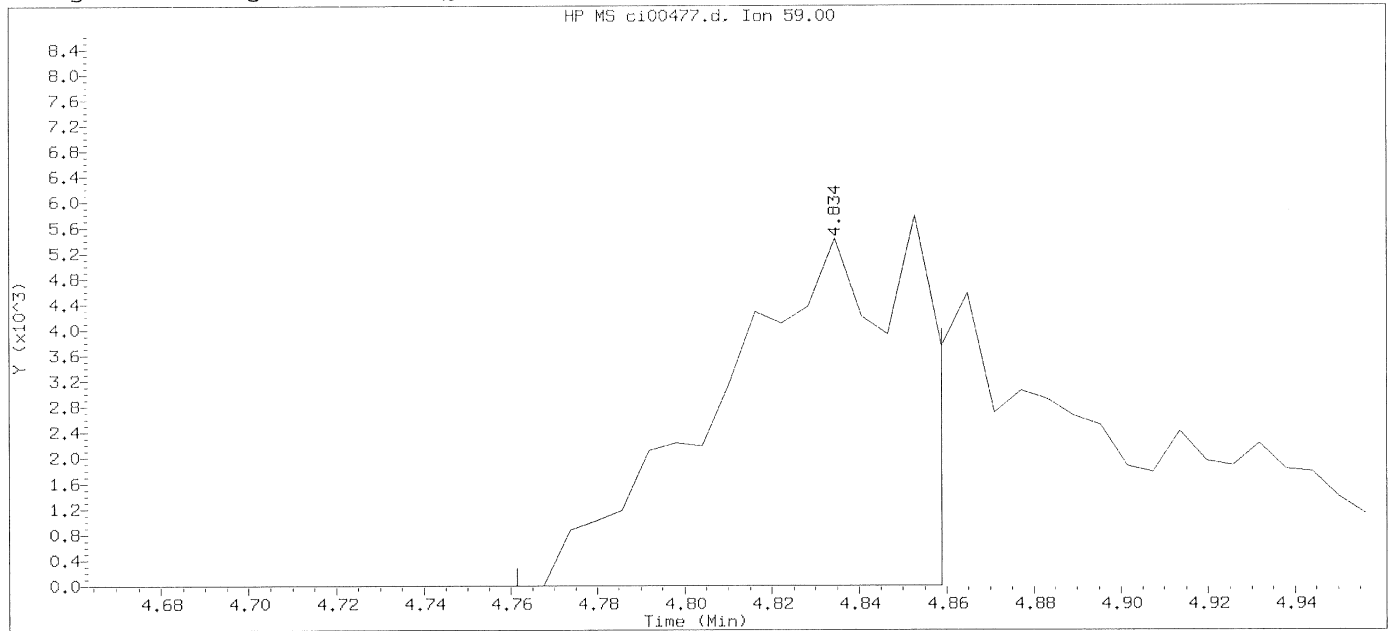
*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist  
SEP 25 2015

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

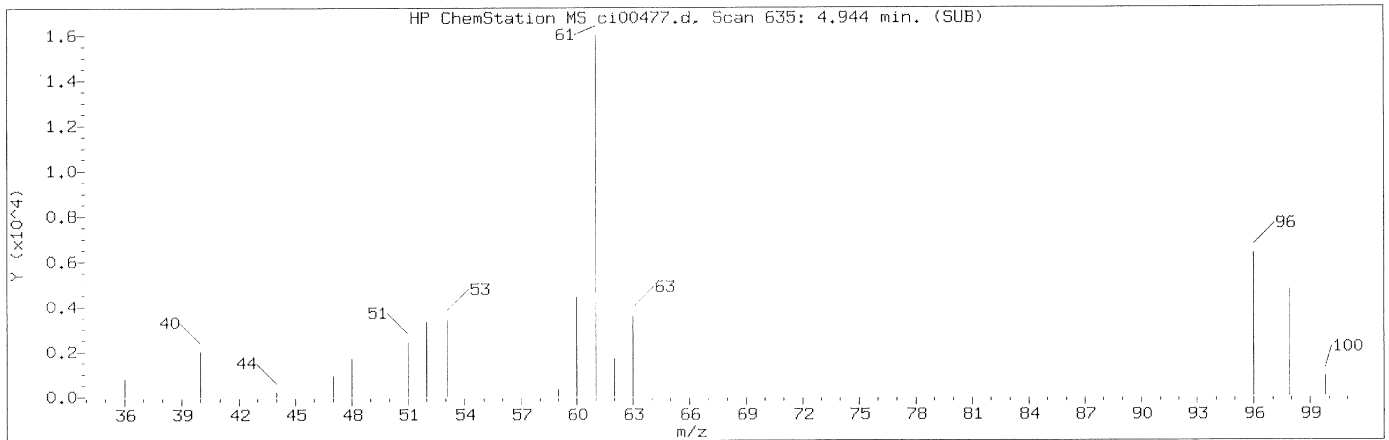
Method used: /chem/HP09464.i/15sep22.b/to-15.m      Sublist used: all  
 Calibration date and time: 22-SEP-2015 22:35  
 Date, time and analyst ID of latest file update: 23-Sep-2015 02:58 Automation

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

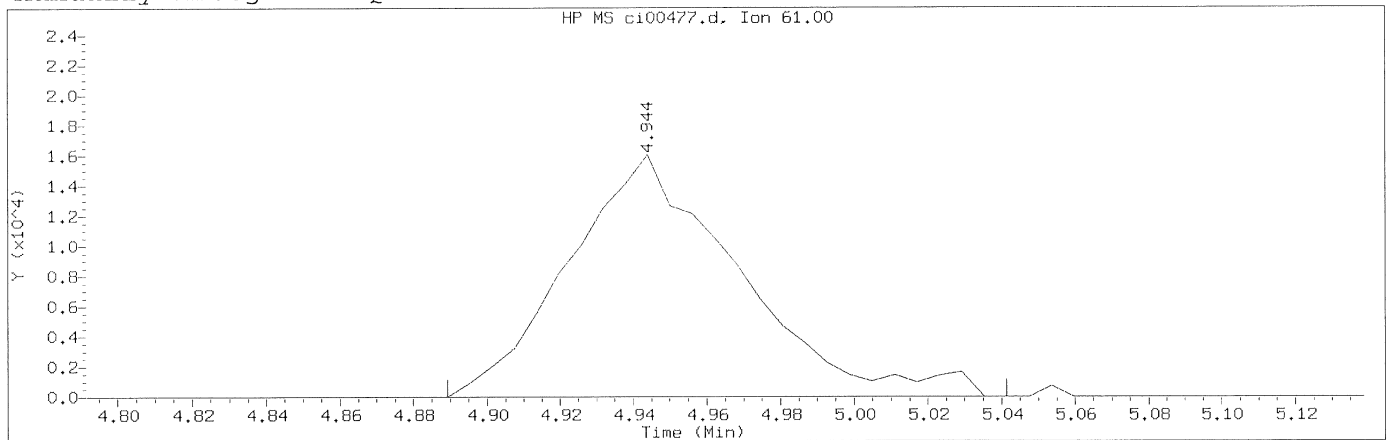
Compound Number : 26  
 Compound Name : tert-Butyl Alcohol  
 Scan Number : 617  
 Retention Time (minutes): 4.834  
 Quant Ion : 59.00  
 Area : 17036  
 Concentration (ppb(v)) : 0.1028  
 Integration start scan : 604      Integration stop scan: 620  
 Y at integration start : 0      Y at integration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

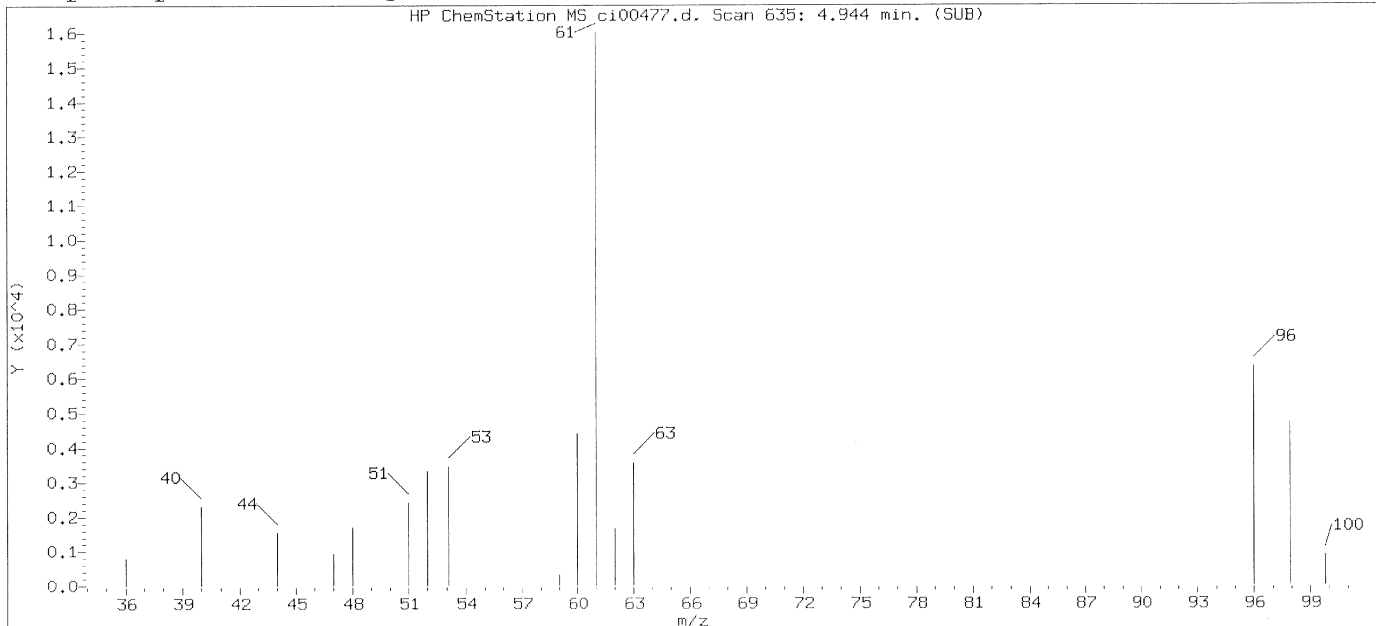
Compound Number                      : 28  
Compound Name                         : trans-1,2-Dichloroethene  
Scan Number                            : 635  
Retention Time (minutes): 4.944  
Quant Ion                                : 61.00  
Area (flag)                             : 51712M  
Concentration (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

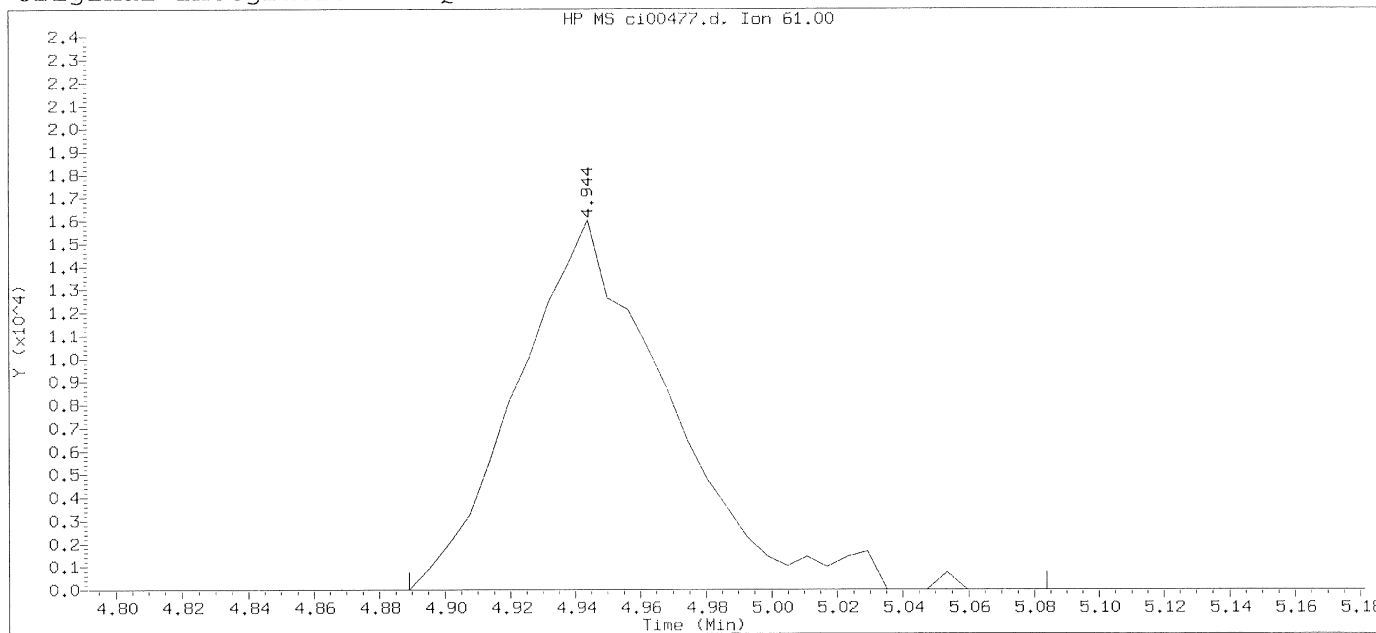
Analyst responsible for change: Digitally signed by Jacob E. Bailey  
on 09/23/2015 at 14:30.  
Target 3.5 esignature user ID: jeb07445

GC/MS audit/management approval: \_\_\_\_\_  
*Mark A. Ratcliff*  
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

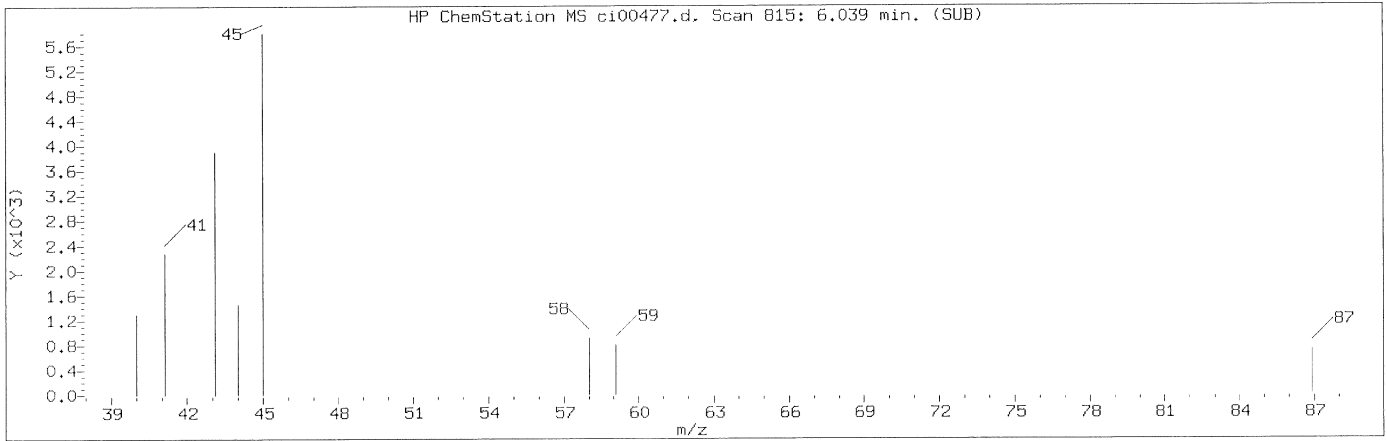
Method used: /chem/HP09464.i/15sep22.b/to-15.m      Sublist used: all  
 Calibration date and time: 22-SEP-2015 22:35  
 Date, time and analyst ID of latest file update: 23-Sep-2015 02:58 Automation

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

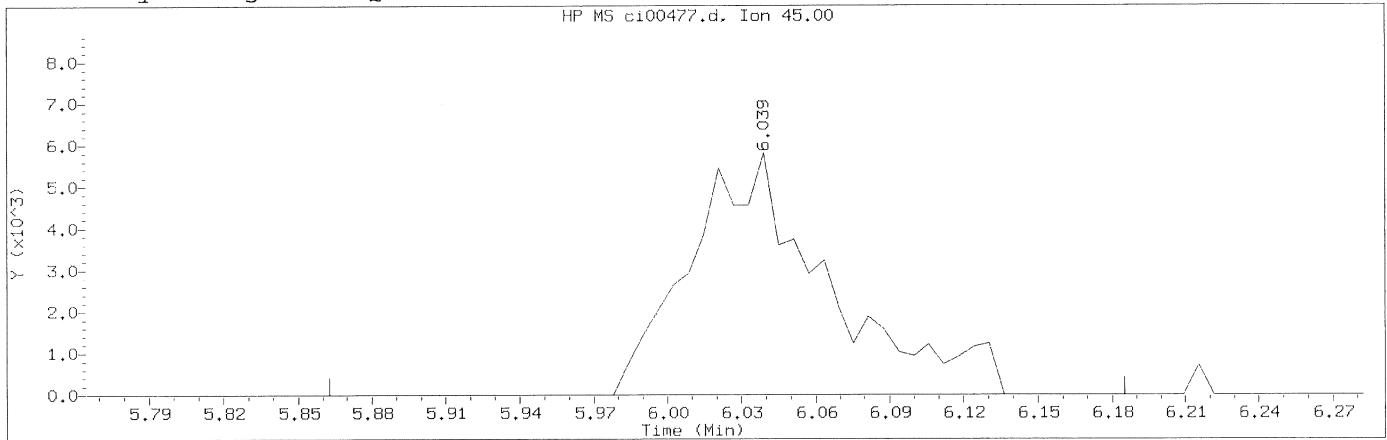
Compound Number : 28  
 Compound Name : trans-1,2-Dichloroethene  
 Scan Number : 635  
 Retention Time (minutes): 4.944  
 Quant Ion : 61.00  
 Area : 51981  
 Concentration (ppb(v)) : 0.1986  
 Integration start scan : 625      Integration stop scan: 657  
 Y at integration start : 0      Y at integration 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  
Injection date and time: 23-SEP-2015 02:19

Instrument ID: HP09464.i  
Analyst ID: jeb07445

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

Sublist used: all

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

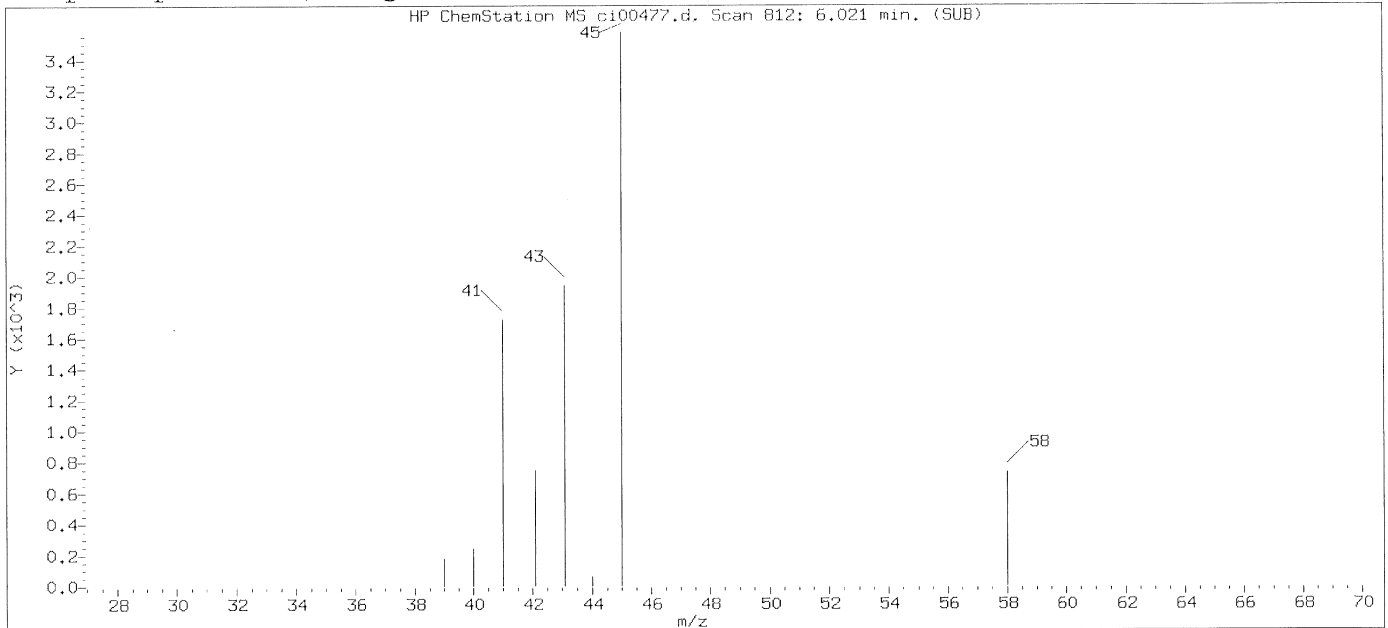
Analyst responsible for change: Digitally signed by Jacob E. Bailey  
on 09/23/2015 at 14:30.  
Target 3.5 esignature user ID: jeb07445

*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

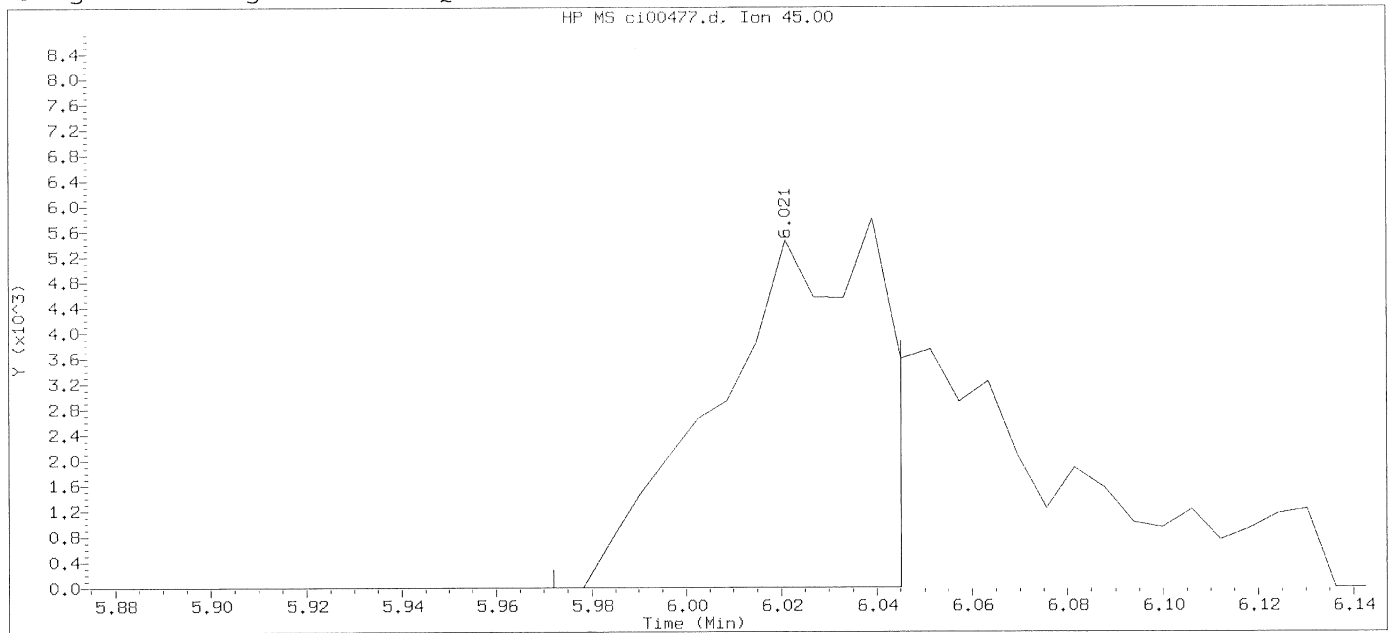
GC/MS audit/management approval: \_\_\_\_\_

SEP 25 2015

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
 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

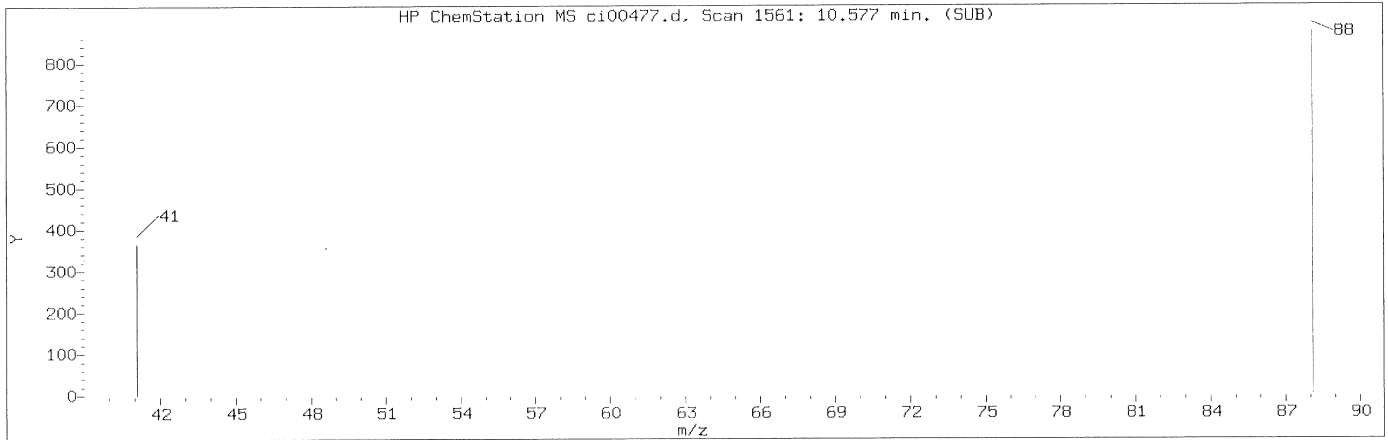
Lab Sample ID: mdlv0.2

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

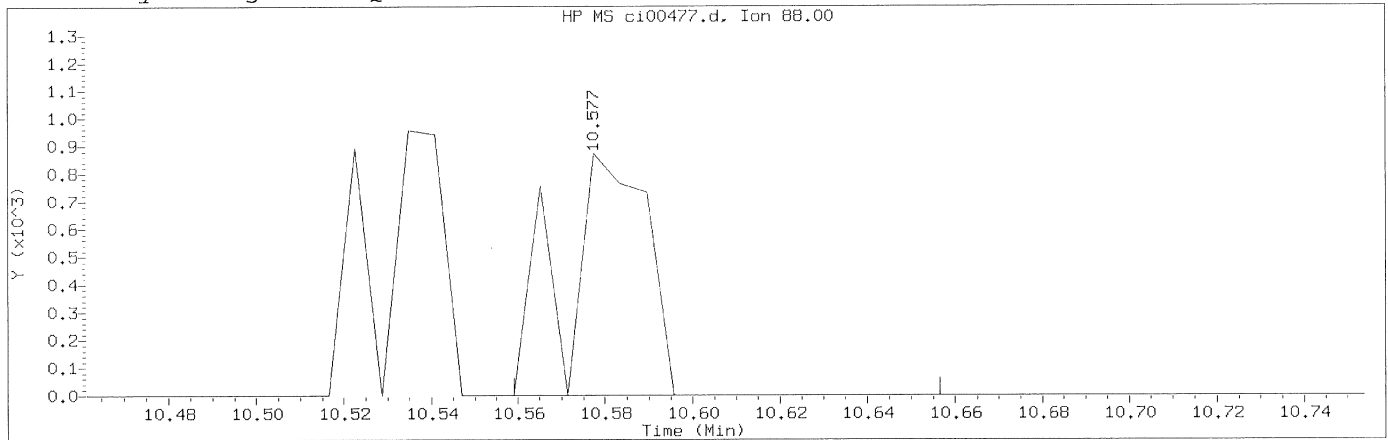
Digitally signed by Jacob E. Bailey on 09/23/2015 at 14:30.  
 Target 3.5 esignature user ID: jeb07445



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

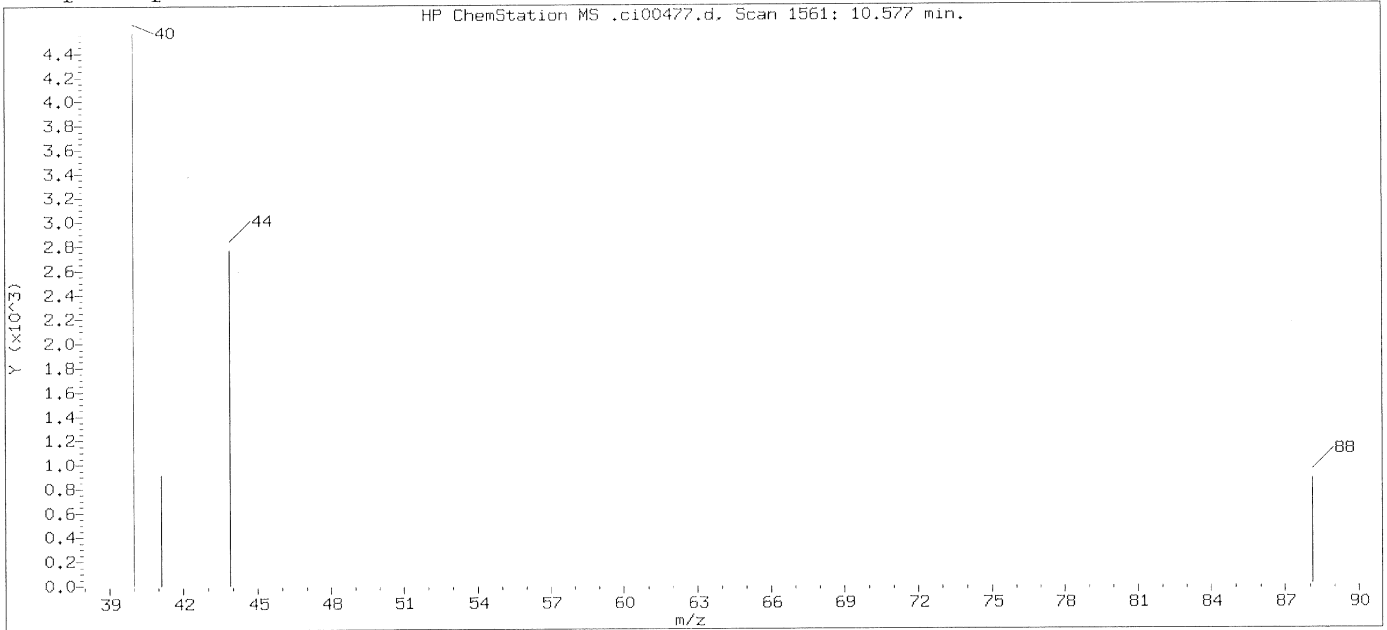
Analyst responsible for change: Digitally signed by Jacob E. Bailey  
on 09/23/2015 at 14:30.  
Target 3.5 signature user ID: jeb07445

*Mark A. Ratcliff*  
Mark A. Ratcliff  
Senior Specialist

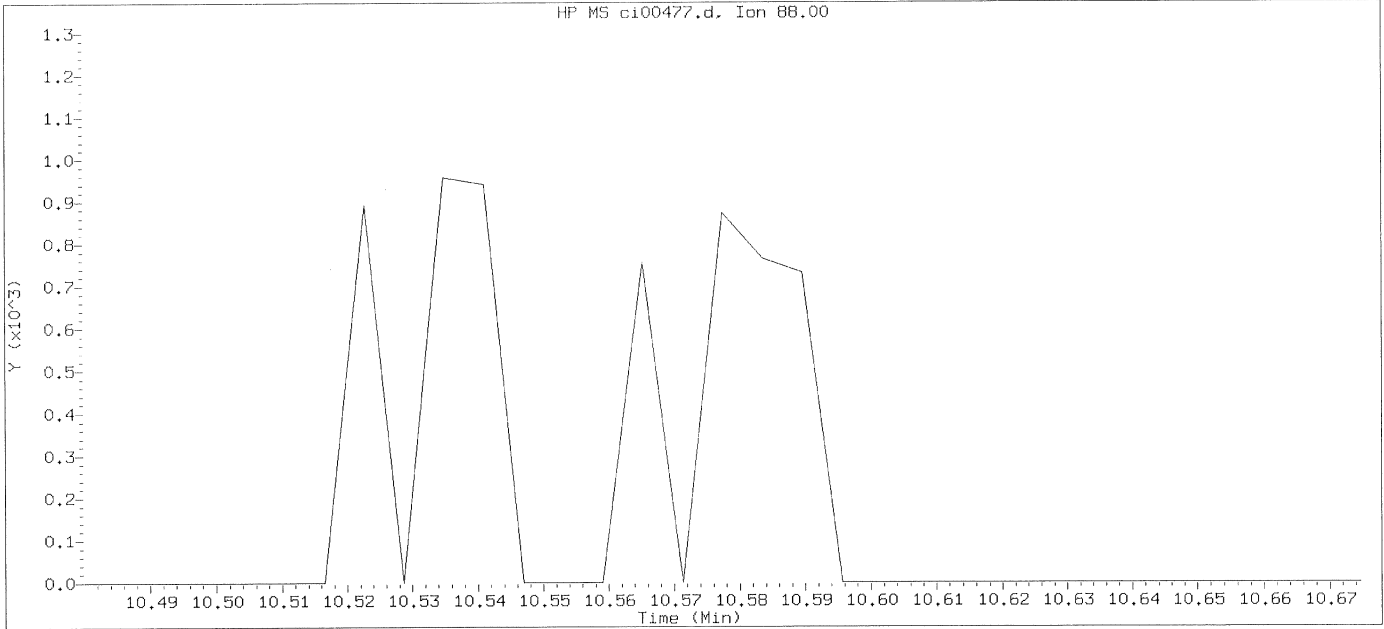
SEP 25 2015

GC/MS audit/management approval: \_\_\_\_\_

Sample Spectrum



Original Integration of Quant Ion



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

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15sep22.b/to-15.m  
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	



Lancaster Laboratories  
Environmental

FORM 01  
VOLATILE ORGANICS IN AIR  
SAMPLE DATA SHEET

SDG No.:

Sample Media:	N/A	Lab Sample ID:	VBKLC81
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.



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
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.
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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.



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
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.





Lancaster Laboratories  
Environmental

FORM 01  
VOLATILE ORGANICS IN AIR  
SAMPLE DATA SHEET

SDG No.:

Sample Media:	N/A	Lab Sample ID:	VLK81
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.



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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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

(i)  
(1)

COMMENTS:

① ME for 7445 10/1/15



Lancaster Laboratories  
Environmental

FORM 04  
VOLATILE ORGANICS IN AIR  
METHOD BLANK SUMMARY

SDG No.:

Lab Sample ID: VBLKC81

Analyzed Date: 10/01/2015

Lab File ID: cj00003.d

Analyzed Time: 16:53

Instrument ID: 09464

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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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

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	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.

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	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.



Lancaster Laboratories  
Environmental

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	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.



Lancaster Laboratories  
Environmental

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.



Date : 01-OCT-2015 14:53

Client ID: 50NGBFB

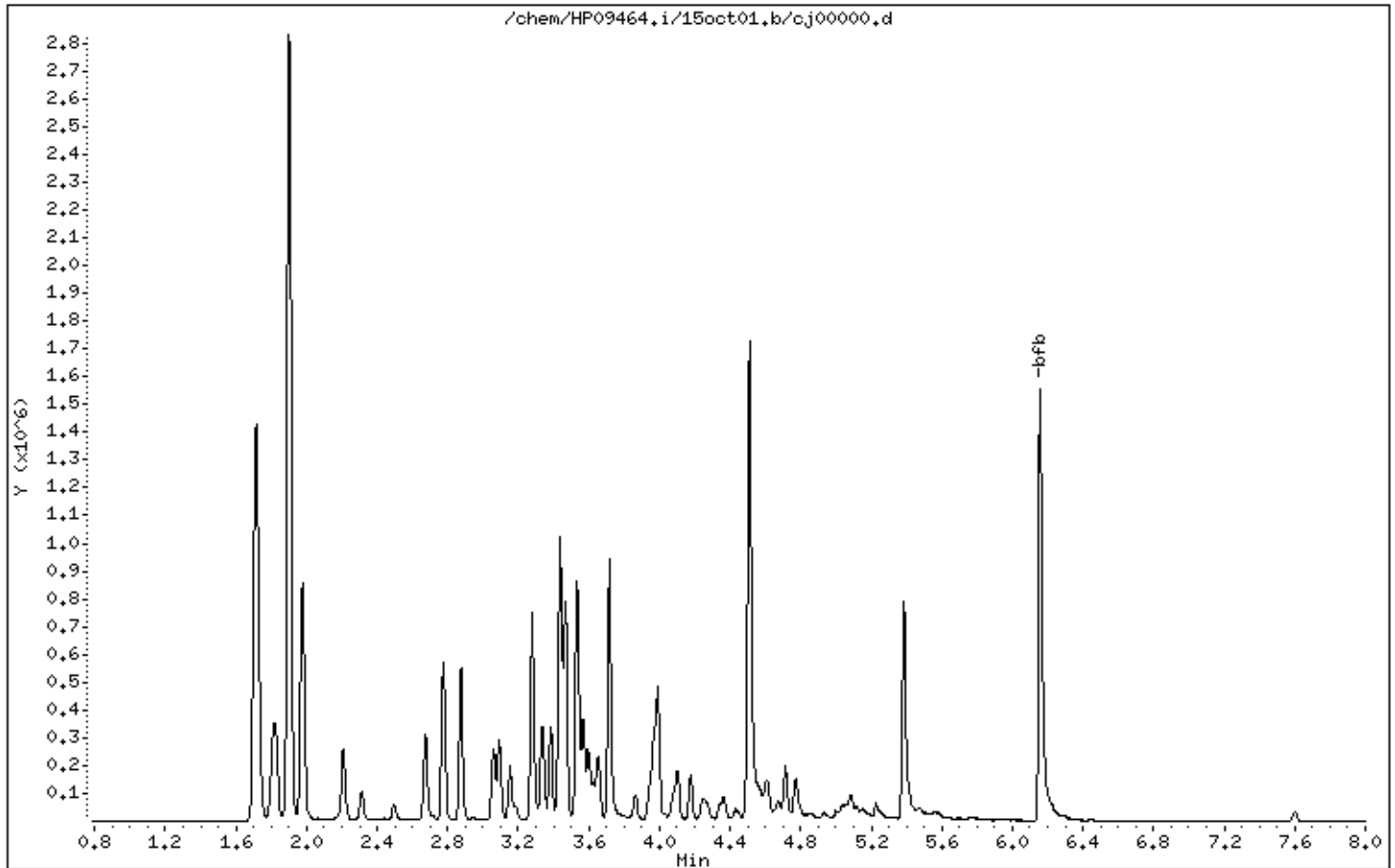
Instrument: HP09464.i

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

Date : 01-OCT-2015 14:53

Client ID: 50NGBFB

Instrument: HP09464.i

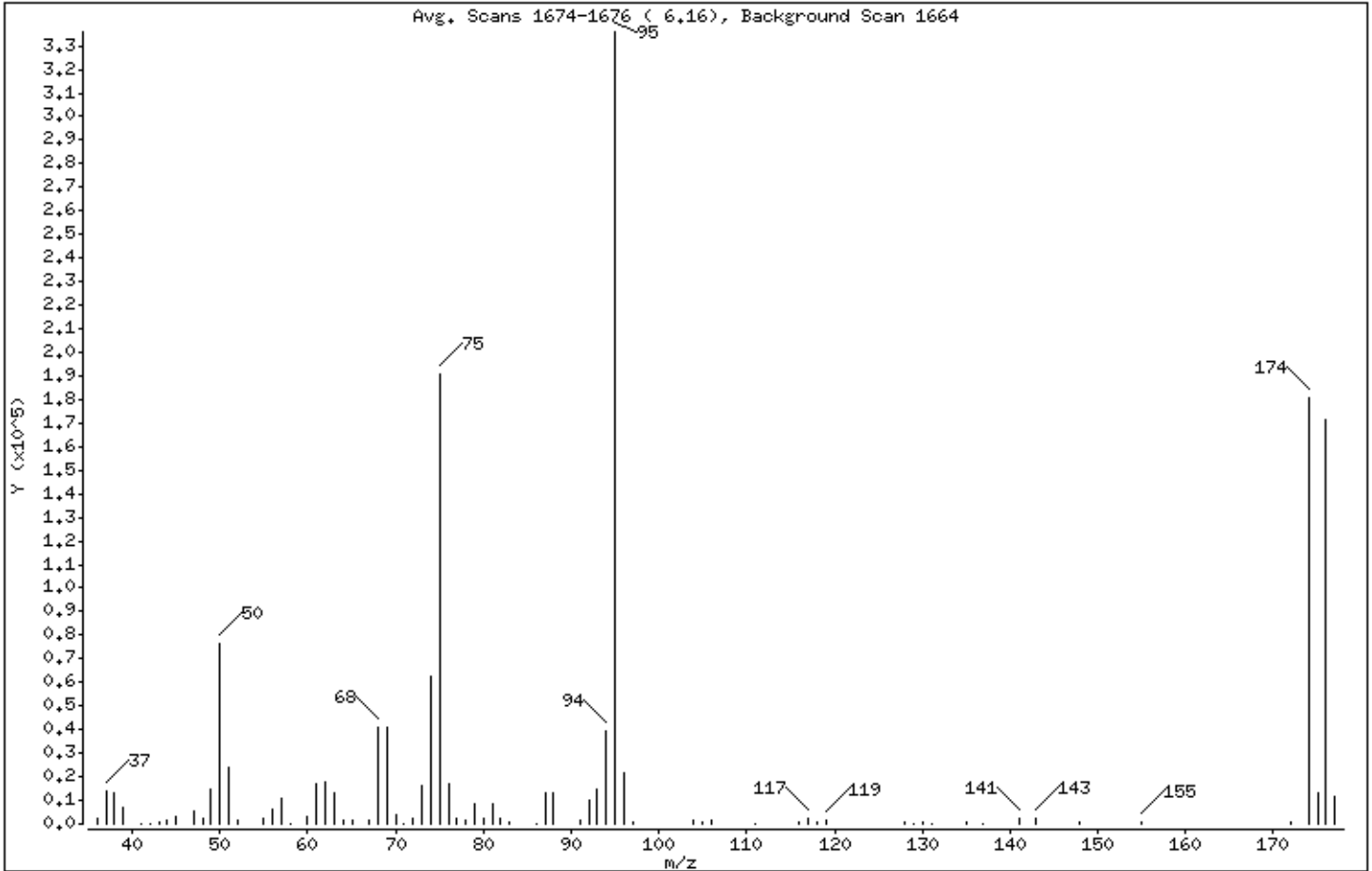
Sample Info: 50NGBFB;;;BFB;0;;;

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

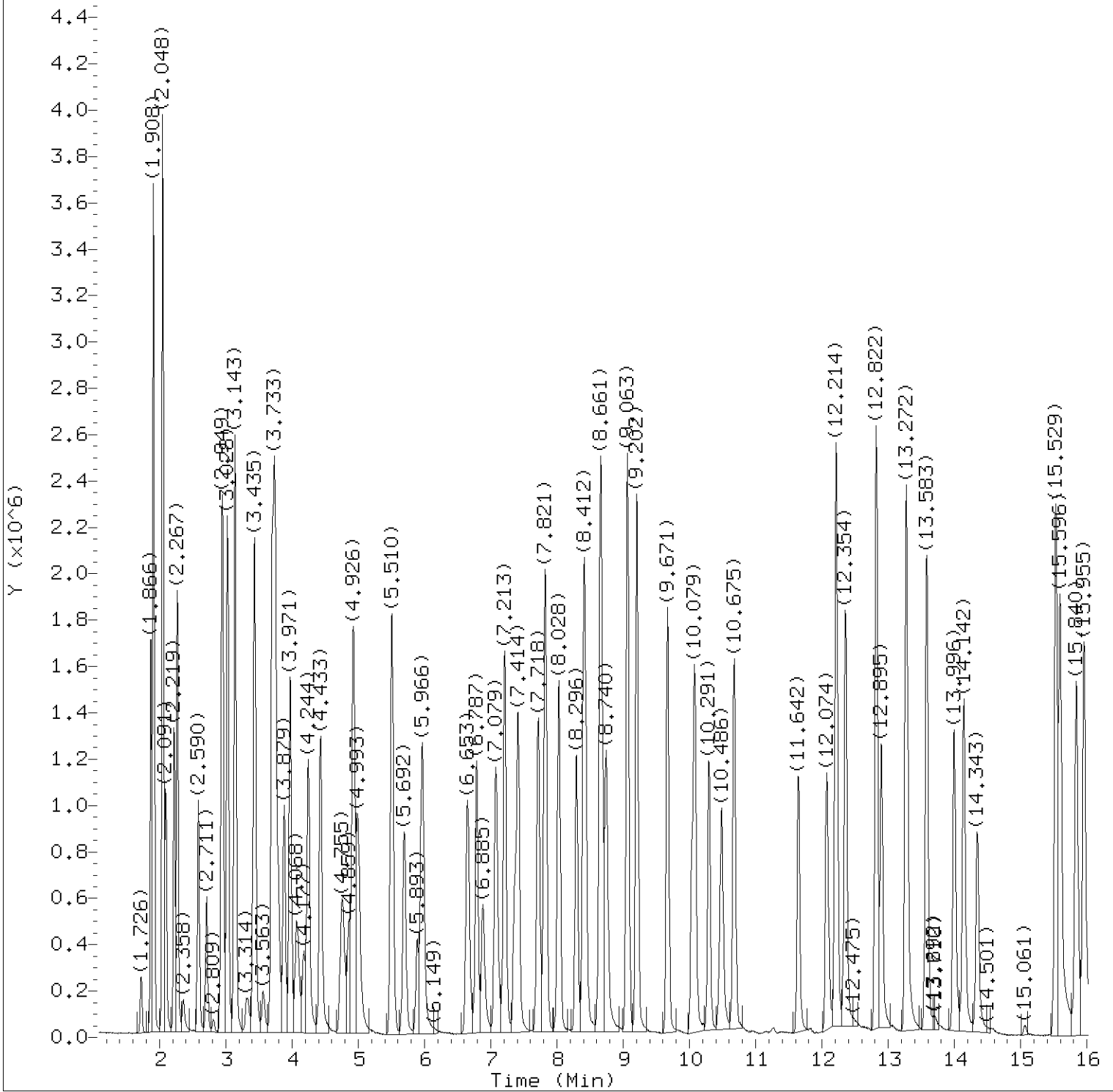
Spectrum: Avg. Scans 1674-1676 ( 6,16), Background Scan 1664

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		

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



Total Ion Chromatogram (TIC)

Target Revision 3.5

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

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m  
Calibration date and time: 01-OCT-2015 15:59

Sublist used: all

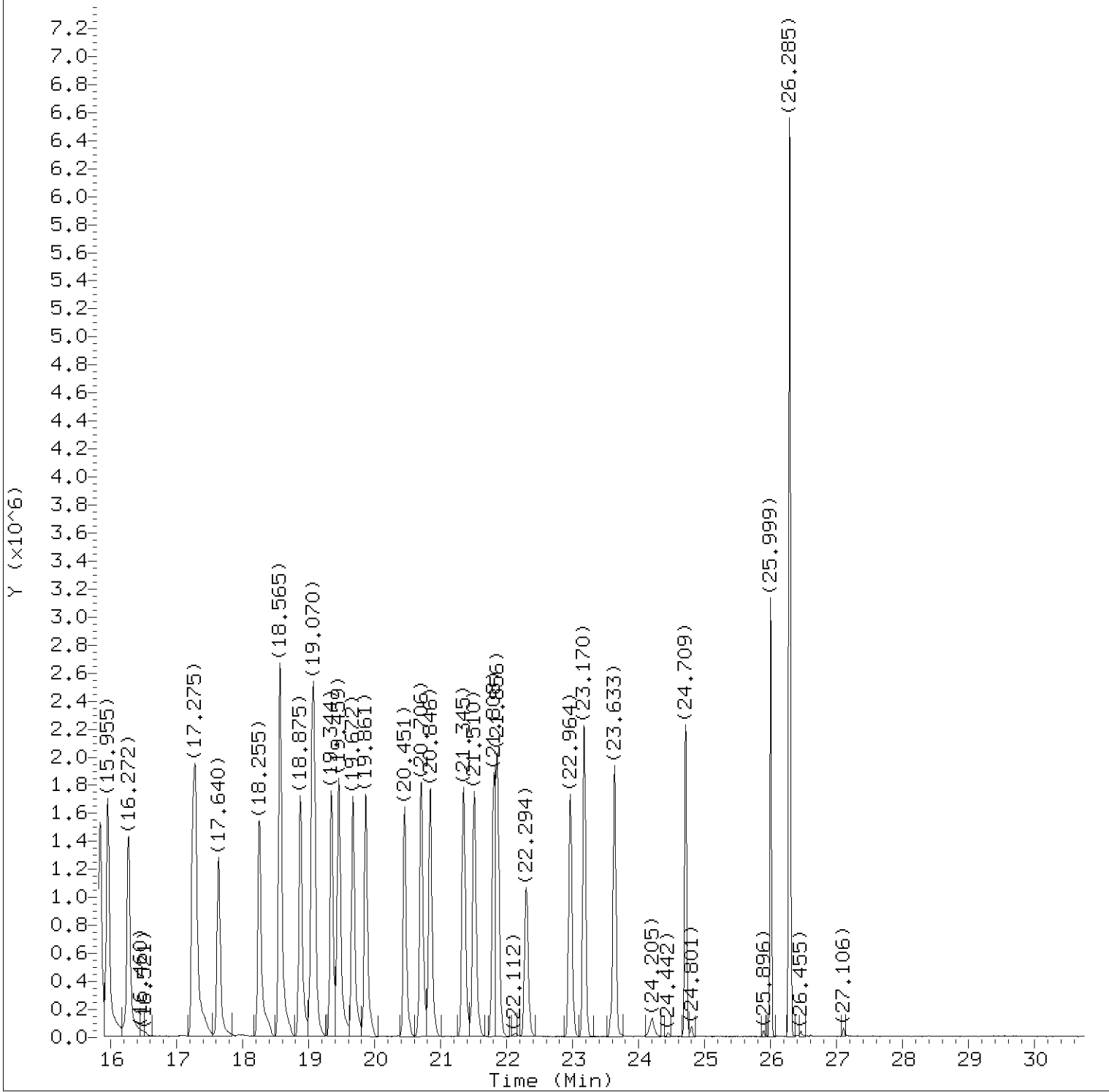
Date, time and analyst ID of latest file update: 01-Oct-2015 15:59 jeb07445

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  
Injection date and time: 01-OCT-2015 15:19

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m  
Calibration date and time: 01-OCT-2015 15:59

Sublist used: all

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  
 Injection date and time: 01-OCT-2015 15:19

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

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

Quant Report

Target Revision 3.5

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

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

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  
 Injection date and time: 01-OCT-2015 15:19

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

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



VBLKC81

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:

Table with 8 columns: Internal Standards, RT (+/-RT), Scan, QIon, Area(+/- %Change), Conc. (on column), QC Flag, QC Limits. Contains data for Bromochloromethane, 1,4-Difluorobenzene, and Chlorobenzene-d5.

Table with 12 columns: Target Compounds, I.S. Ref., RT (+/-RRT), QIon, Area, Conc. (on-column), Conc. (in sample), Blank Conc., Qual., Reporting Limit (in sample), LOQ. Lists 44 target compounds and their detection status.

VBLKC81

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

Table with columns: Target Compounds, I.S. Ref., RT (+/-RRT), QIon, Area, Conc. (on-column), Conc. (in sample), Blank Conc., Qual., Reporting Limit (in sample), LOQ. Lists 100 compounds such as Carbon Tetrachloride, Benzene, 1,2-Dichloroethane, etc., all marked as 'Not Detected'.

VBLKC81

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)

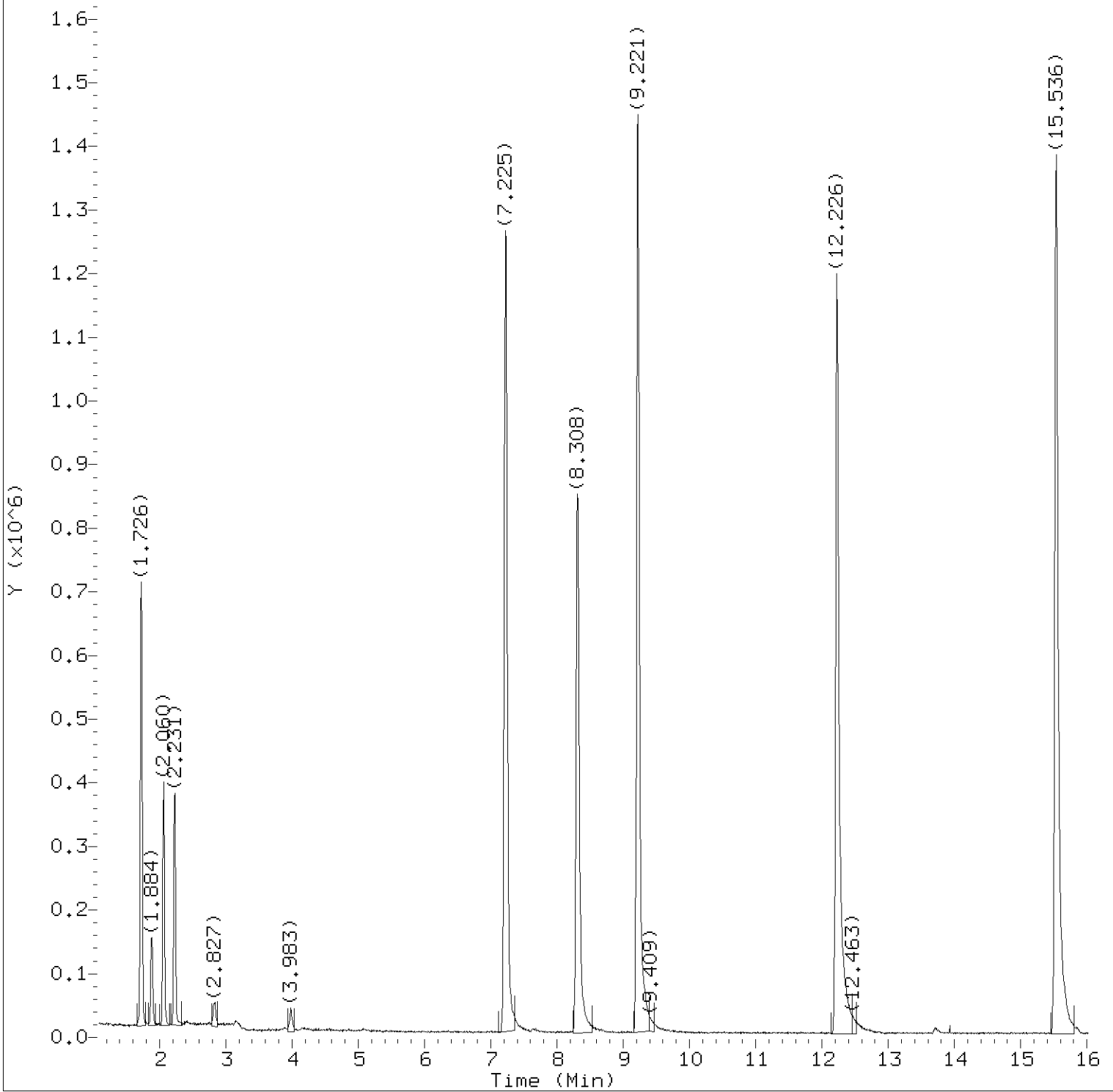
Sample Concentration Formula: On-Column Amount \* DF \* (Xa/Ya)\*(IVn/IVa) Dilution Factor (DF): 1  
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia  
Nominal Injection Volume (IVn): 250 cc Actual injection Volume (IVa): 250 cc

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

Total number of targets = 99

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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  
Injection date and time: 01-OCT-2015 16:53

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m  
Calibration date and time: 01-OCT-2015 15:59

Sublist used: all

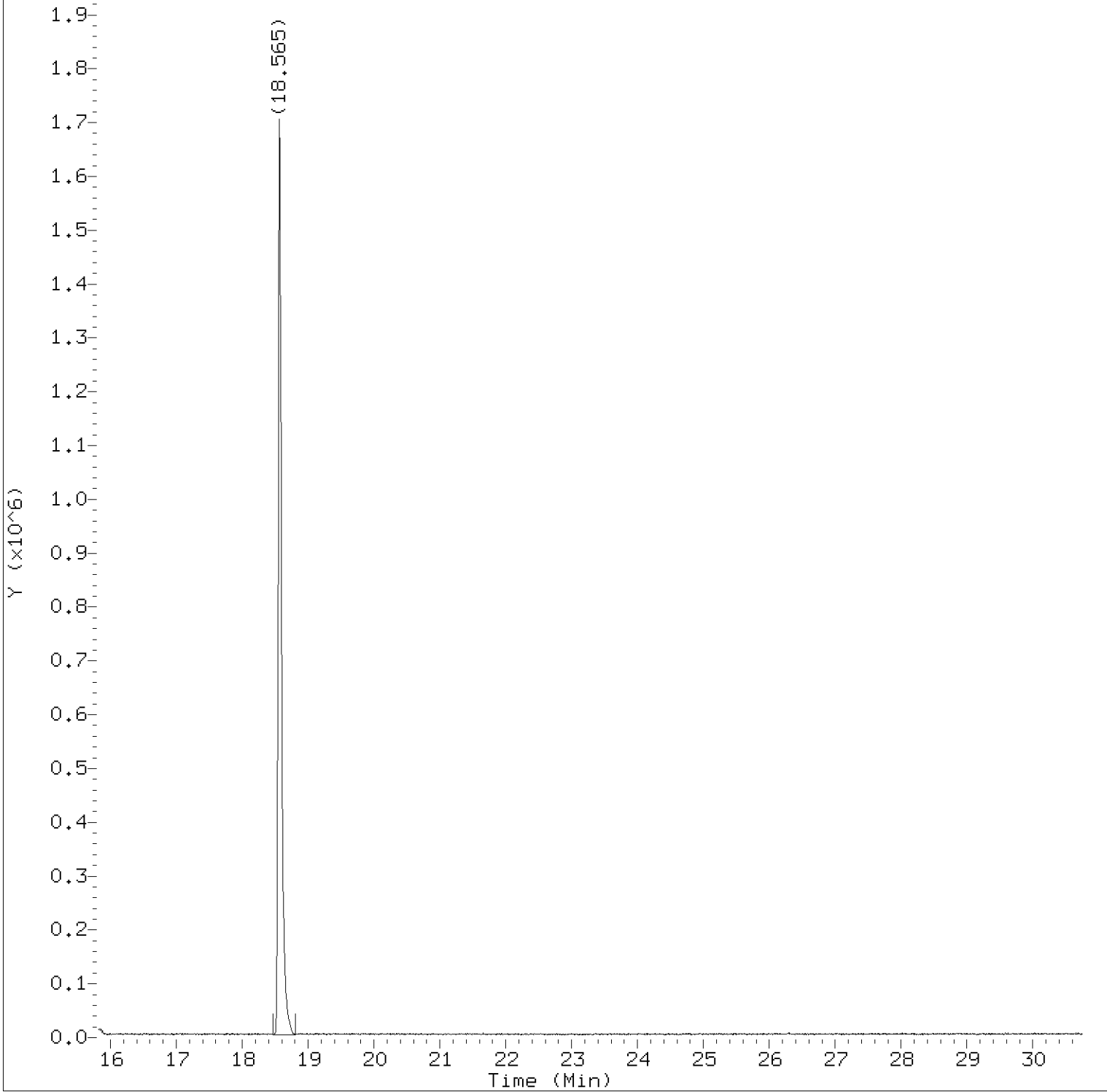
Date, time and analyst ID of latest file update: 01-Oct-2015 17:33 jeb07445

Sample Name: VBLKC81

Lab Sample ID: VBLKC81

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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  
Injection date and time: 01-OCT-2015 16:53

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m  
Calibration date and time: 01-OCT-2015 15:59

Sublist used: all

Date, time and analyst ID of latest file update: 01-Oct-2015 17:33 jeb07445

Sample Name: VBLKC81

Lab Sample ID: VBLKC81

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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  
Injection date and time: 01-OCT-2015 16:53

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m  
Calibration date and time: 01-OCT-2015 15:59

Sublist used: all

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.

page 1 of 1

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on 10/01/2015 at 17:38.

Target 3.5 esignature user ID: jeb07445

# LCSC81

# Lancaster Laboratories, Inc. Analysis Summary for GC/MS Volatiles in Air LCSC81

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)			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

# LCSC81

# Lancaster Laboratories, Inc. Analysis Summary for GC/MS Volatiles in Air LCSC81

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	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



LCSC81

Lancaster Laboratories, Inc.  
Analysis Summary for GC/MS Volatiles in Air LCSC81

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)

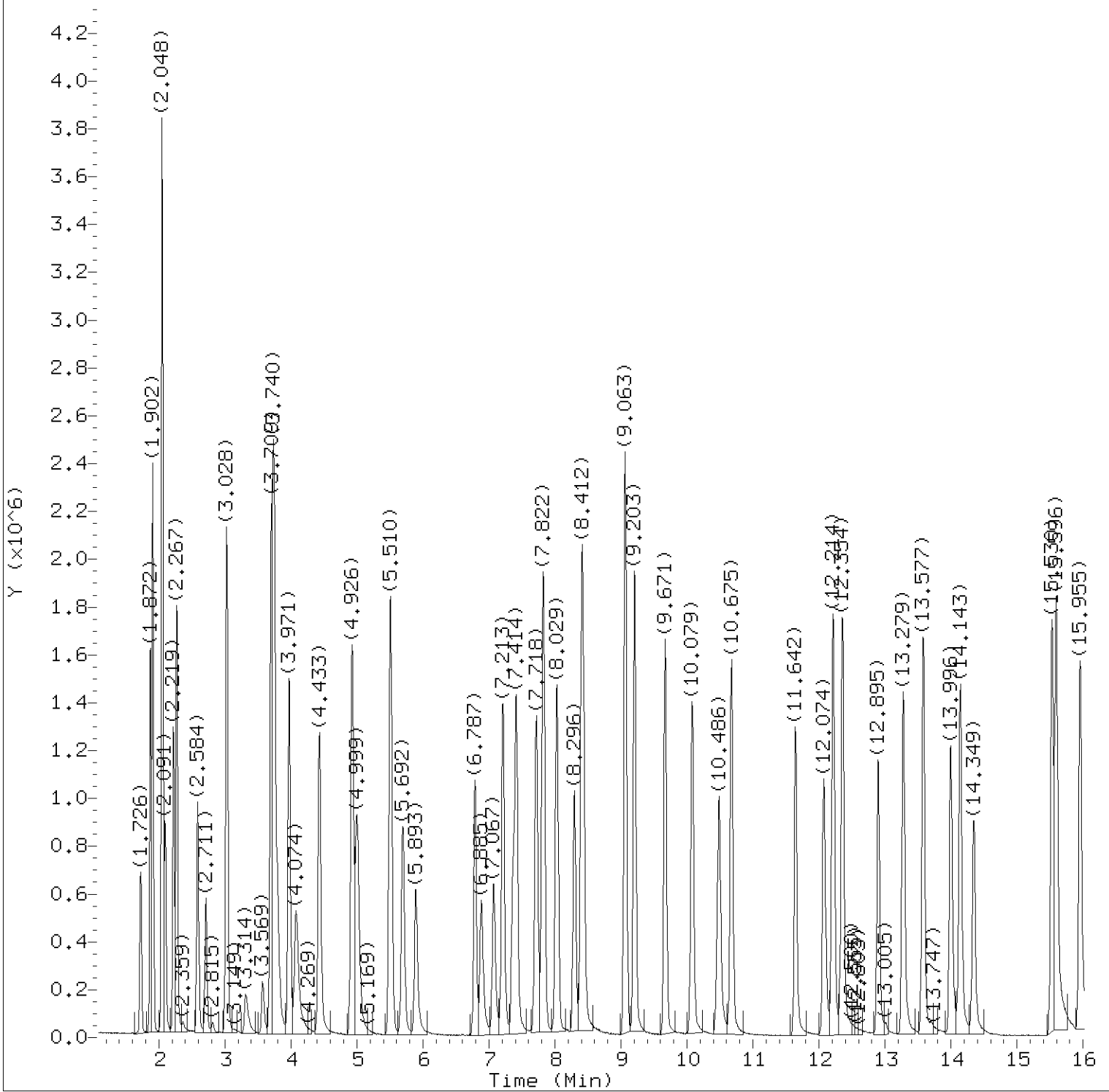
Sample Concentration Formula: On-Column Amount \* DF \* (Xa/Ya)\*(IVn/IVa) Dilution Factor (DF): 1  
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia  
Nominal Injection Volume (IVn): 250 cc Actual injection Volume (IVa): 250 cc

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  
Injection date and time: 01-OCT-2015 17:43

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m  
Calibration date and time: 01-OCT-2015 15:59

Sublist used: all

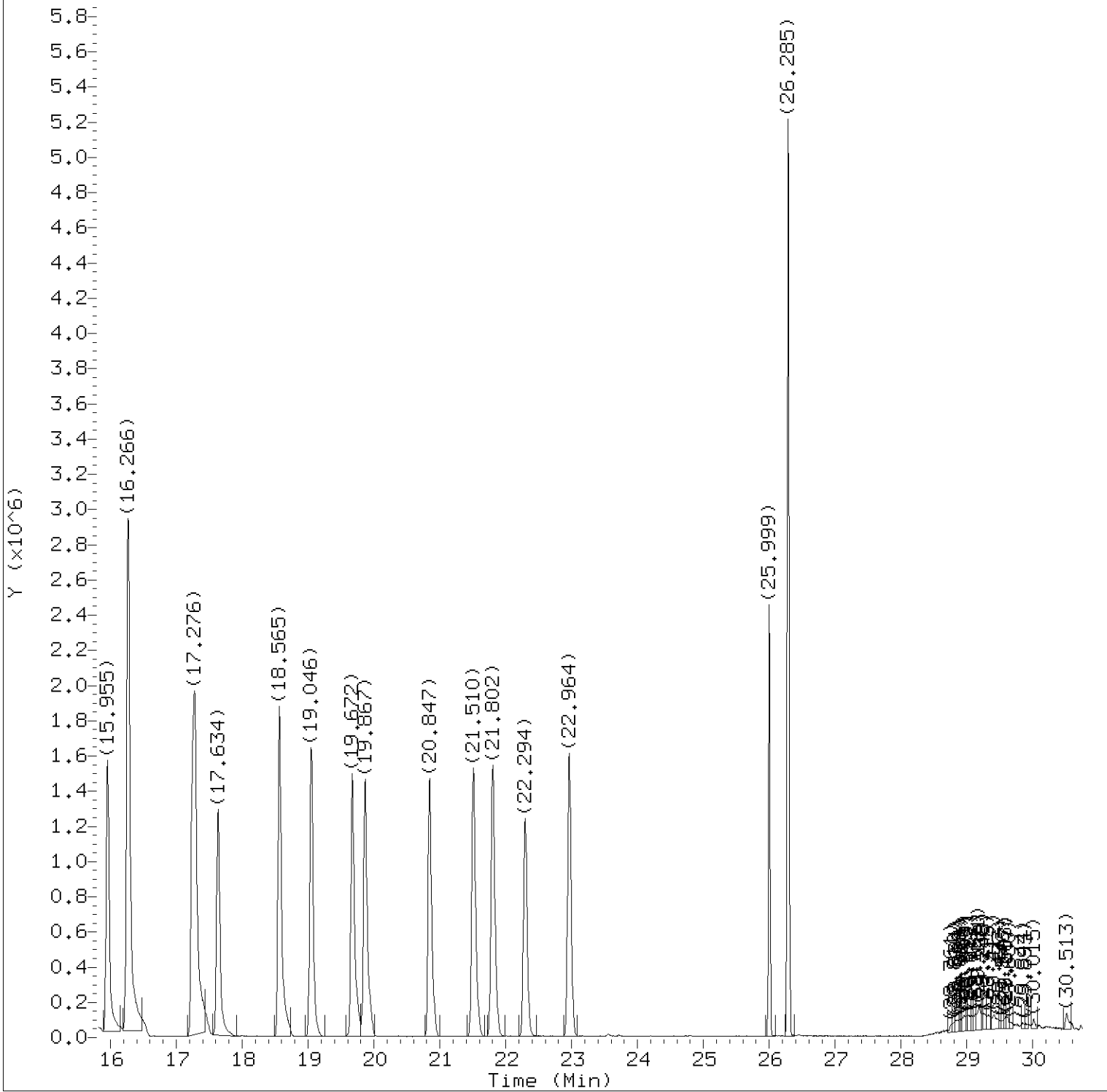
Date, time and analyst ID of latest file update: 02-Oct-2015 18:37 jeb07445

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  
Injection date and time: 01-OCT-2015 17:43

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m  
Calibration date and time: 01-OCT-2015 15:59

Sublist used: all

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  
 Injection date and time: 01-OCT-2015 17:43

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

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  
 Injection date and time: 01-OCT-2015 17:43

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

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  
 SSX26 Page 471 of 507

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;LCSDC; 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)			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

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	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

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

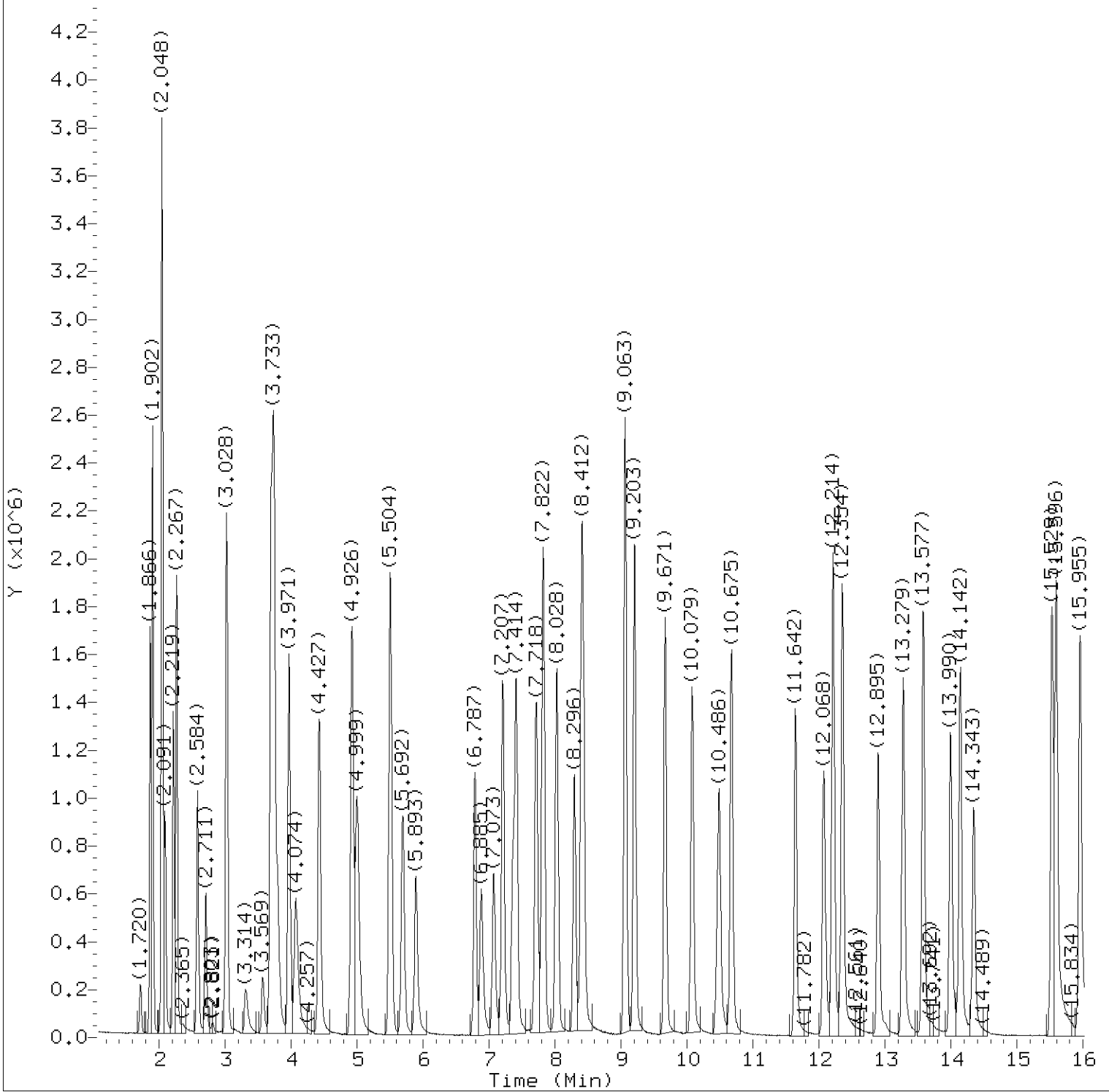
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
101) Hexachlorobutadiene	(3)	26.285( 0.000)	225	600938	11.108	11.11			0.4	2
102) Naphthalene	(3)	26.297( 0.000)	128	1749377	11.121	11.12			0.4	1

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  
Injection date and time: 01-OCT-2015 18:26

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m  
Calibration date and time: 01-OCT-2015 15:59

Sublist used: all

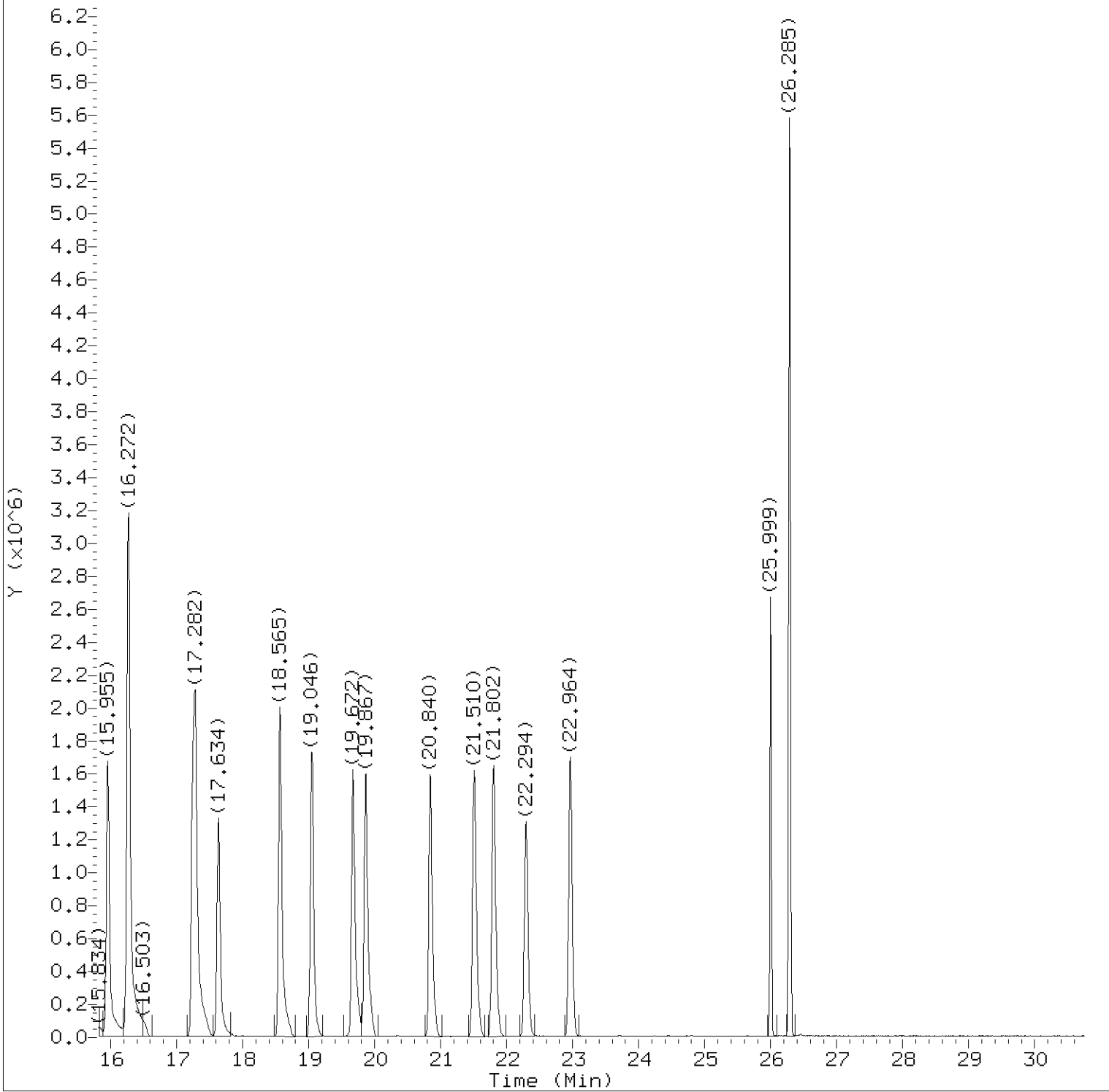
Date, time and analyst ID of latest file update: 02-Oct-2015 18:37 jeb07445

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  
Injection date and time: 01-OCT-2015 18:26

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct01.b/to-15.m  
Calibration date and time: 01-OCT-2015 15:59

Sublist used: all

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  
 Injection date and time: 01-OCT-2015 18:26

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

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  
 Injection date and time: 01-OCT-2015 18:26

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

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

Sublist used: all

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	



Lancaster Laboratories  
Environmental

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.



Lancaster Laboratories  
Environmental

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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- D = Analysis of diluted sample.
- J = The result is between the MDL and LOQ.



Lancaster Laboratories  
Environmental

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

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- J = The result is between the MDL and LOQ.





Lancaster Laboratories  
Environmental

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:

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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.



Lancaster Laboratories  
Environmental

FORM 01  
VOLATILE ORGANICS IN AIR  
SAMPLE DATA SHEET

SDG No.:

Sample Media:	N/A	Lab Sample ID:	VLK82
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

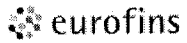
Concentration Units: ppb(v)

Limit: MDL

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

Abbreviations:

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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.



Lancaster Laboratories  
Environmental

FORM 04  
VOLATILE ORGANICS IN AIR  
METHOD BLANK SUMMARY

SDG No.:

Lab Sample ID: VBLKC82

Analyzed Date: 10/02/2015

Lab File ID: cj00039.d

Analyzed Time: 20:39

Instrument ID: 09464

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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Lancaster Laboratories  
Environmental

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



Lancaster Laboratories  
Environmental

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	$\overline{\text{RRF}}$	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.



Lancaster Laboratories  
Environmental

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.

Date : 02-OCT-2015 17:42

Client ID: 50NGBFB

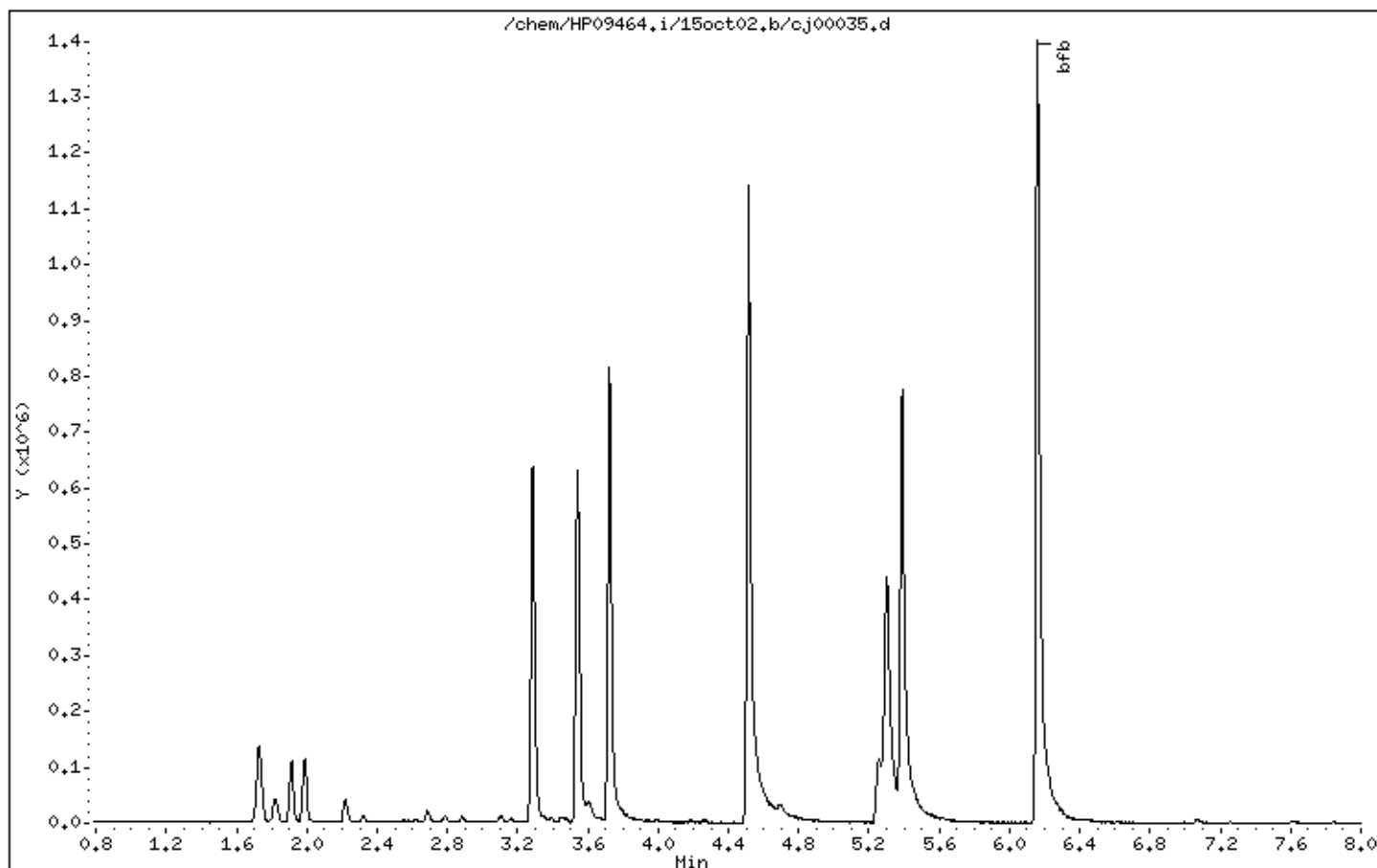
Instrument: HP09464.i

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

Date : 02-OCT-2015 17:42

Client ID: 50NGBFB

Instrument: HP09464.i

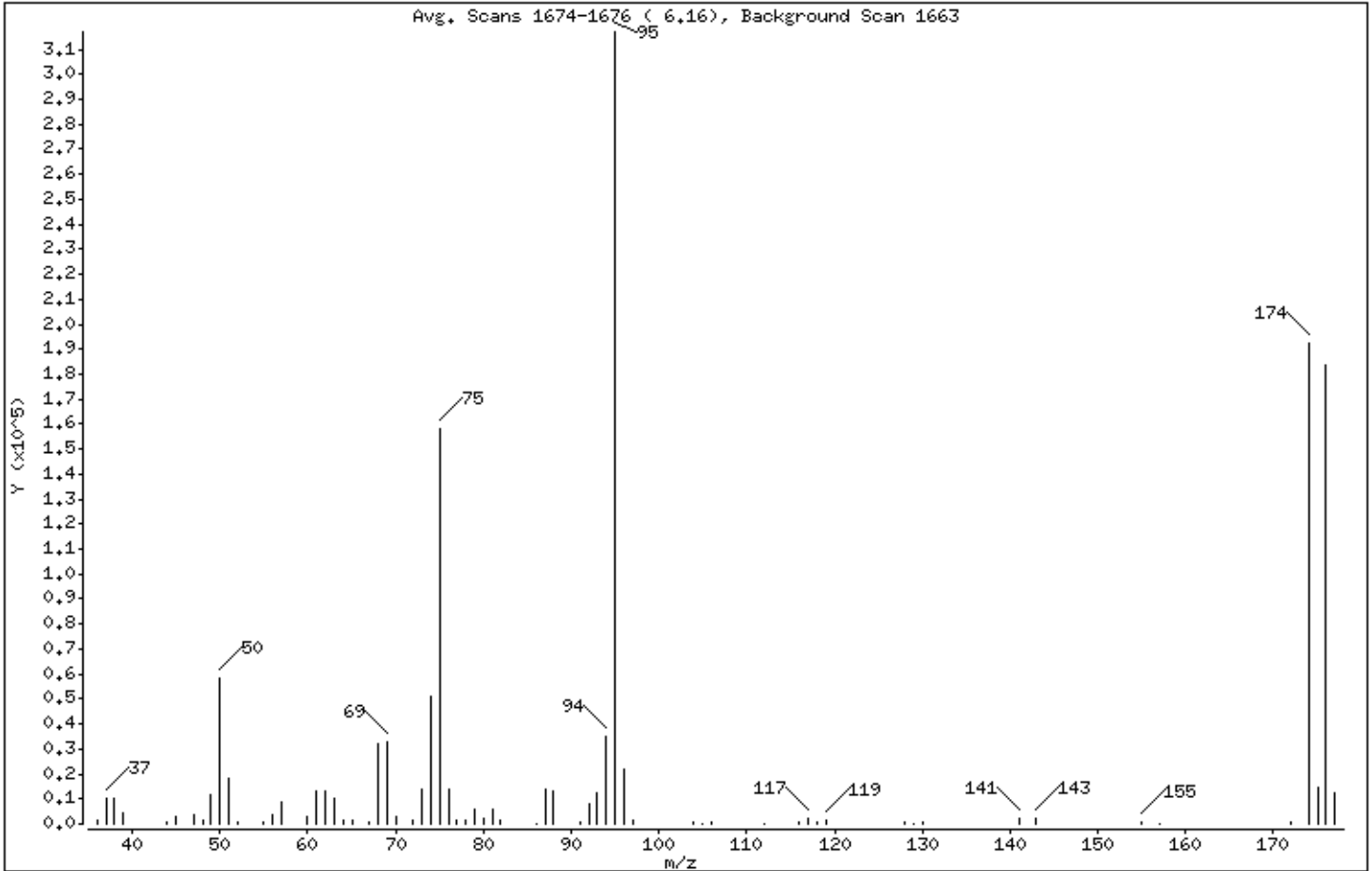
Sample Info: 50NGBFB;;;BFB;0;;;

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)

Digitally signed by Jacob E. Bailey on 10/02/2015 at 21:32.  
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

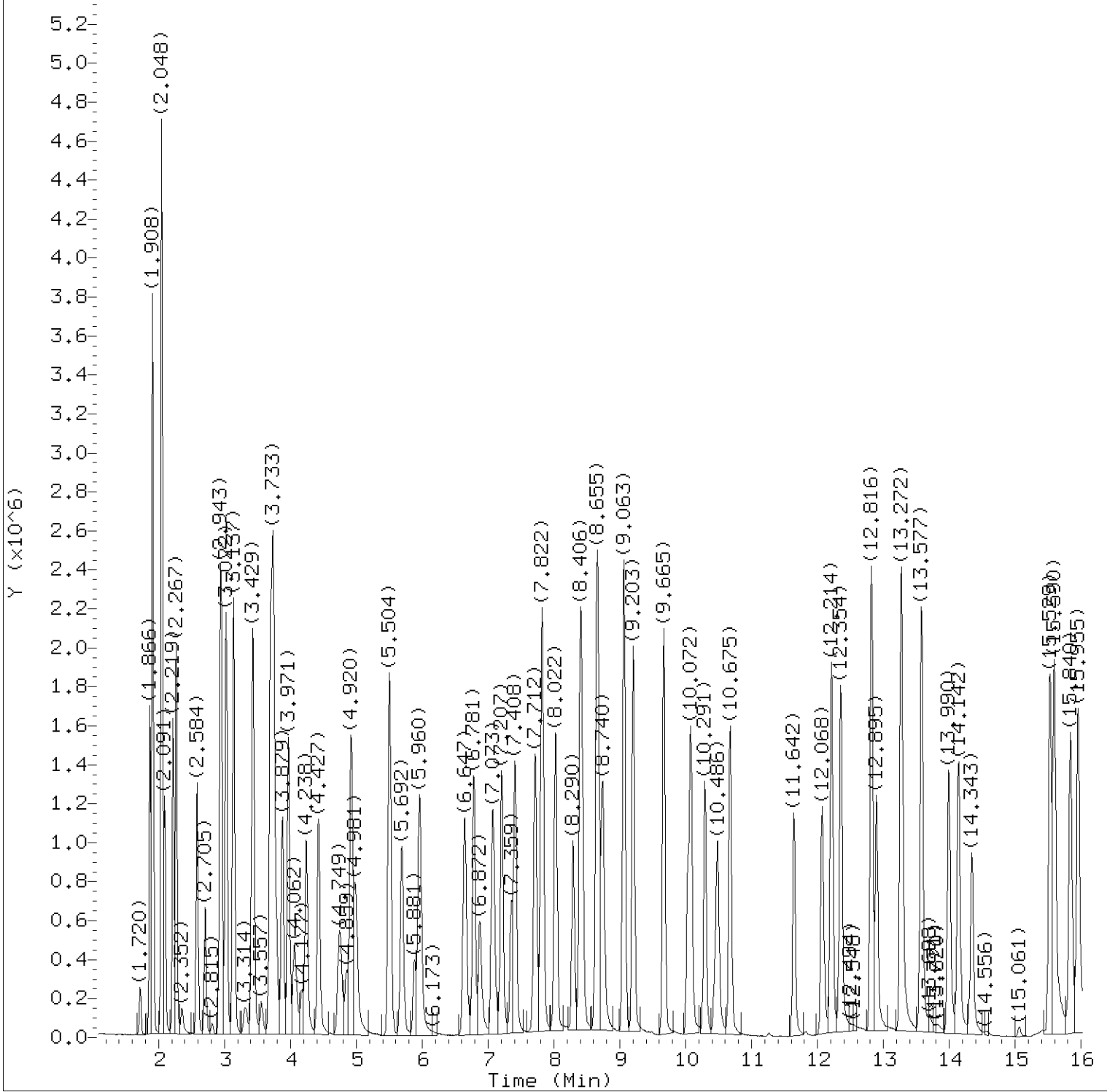
Spectrum: Avg. Scans 1674-1676 ( 6,16), Background Scan 1663

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		

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  
Injection date and time: 02-OCT-2015 18:59

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m  
Calibration date and time: 02-OCT-2015 19:53

Sublist used: 10215

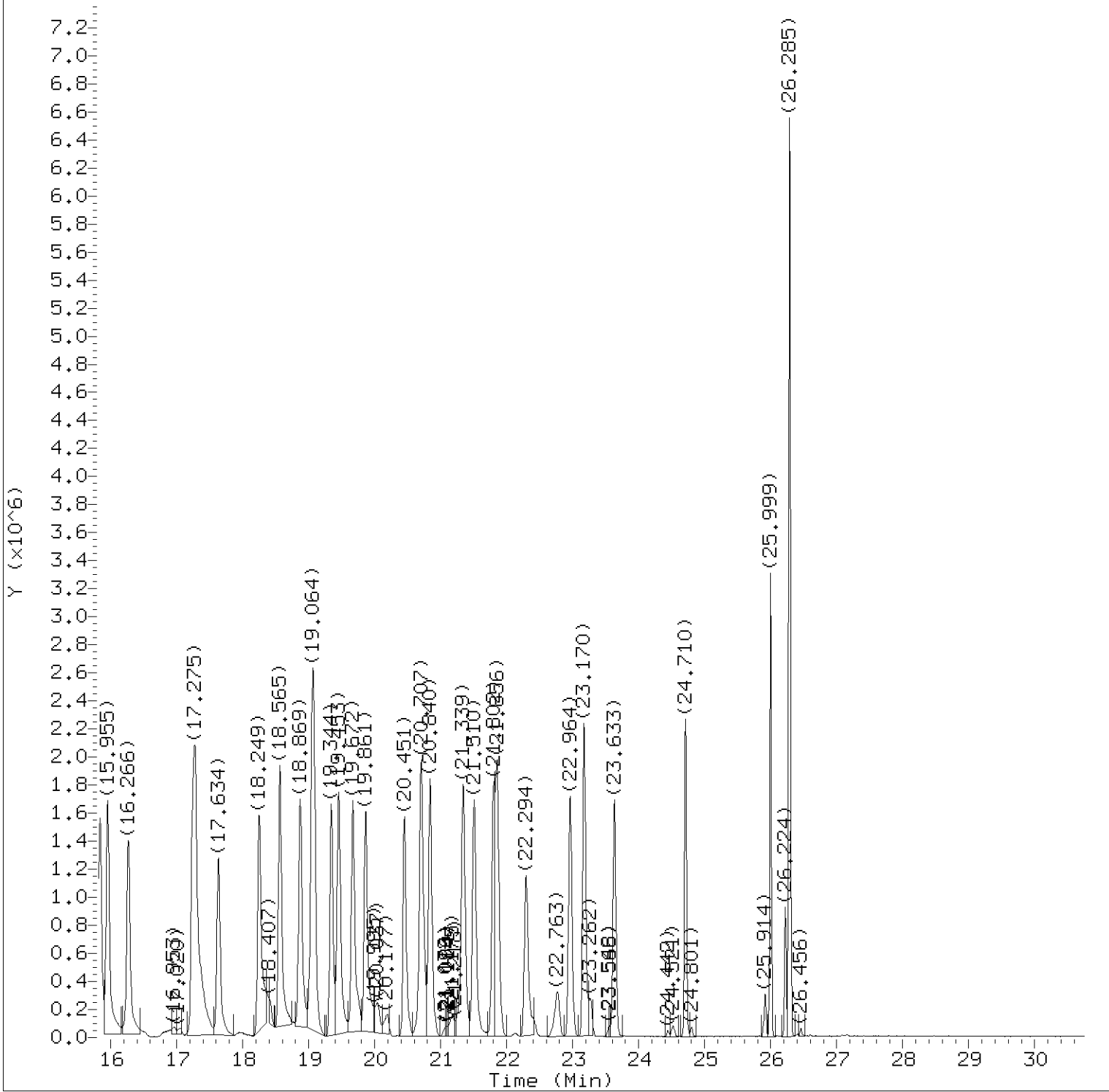
Date, time and analyst ID of latest file update: 02-Oct-2015 19:53 jeb07445

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  
Injection date and time: 02-OCT-2015 18:59

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m  
Calibration date and time: 02-OCT-2015 19:53

Sublist used: 10215

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

Quant Report

Target Revision 3.5

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

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m  
 Calibration date and time: 02-OCT-2015 19:53

Sublist used: 10215

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.

VBLKC82

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:

Table with 8 columns: Internal Standards, RT (+/-RT), Scan, QIon, Area(+/- %Change), Conc. (on column), QC Flag, QC Limits. Contains data for Bromochloromethane, 1,4-Difluorobenzene, and Chlorobenzene-d5.

Table with 12 columns: Target Compounds, I.S. Ref., RT (+/-RRT), QIon, Area, Conc. (on-column), Conc. (in sample), Blank Conc., Qual., Reporting Limit (in sample), LOQ. Lists 44 target compounds and their detection status.

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	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

VBLKC82

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)

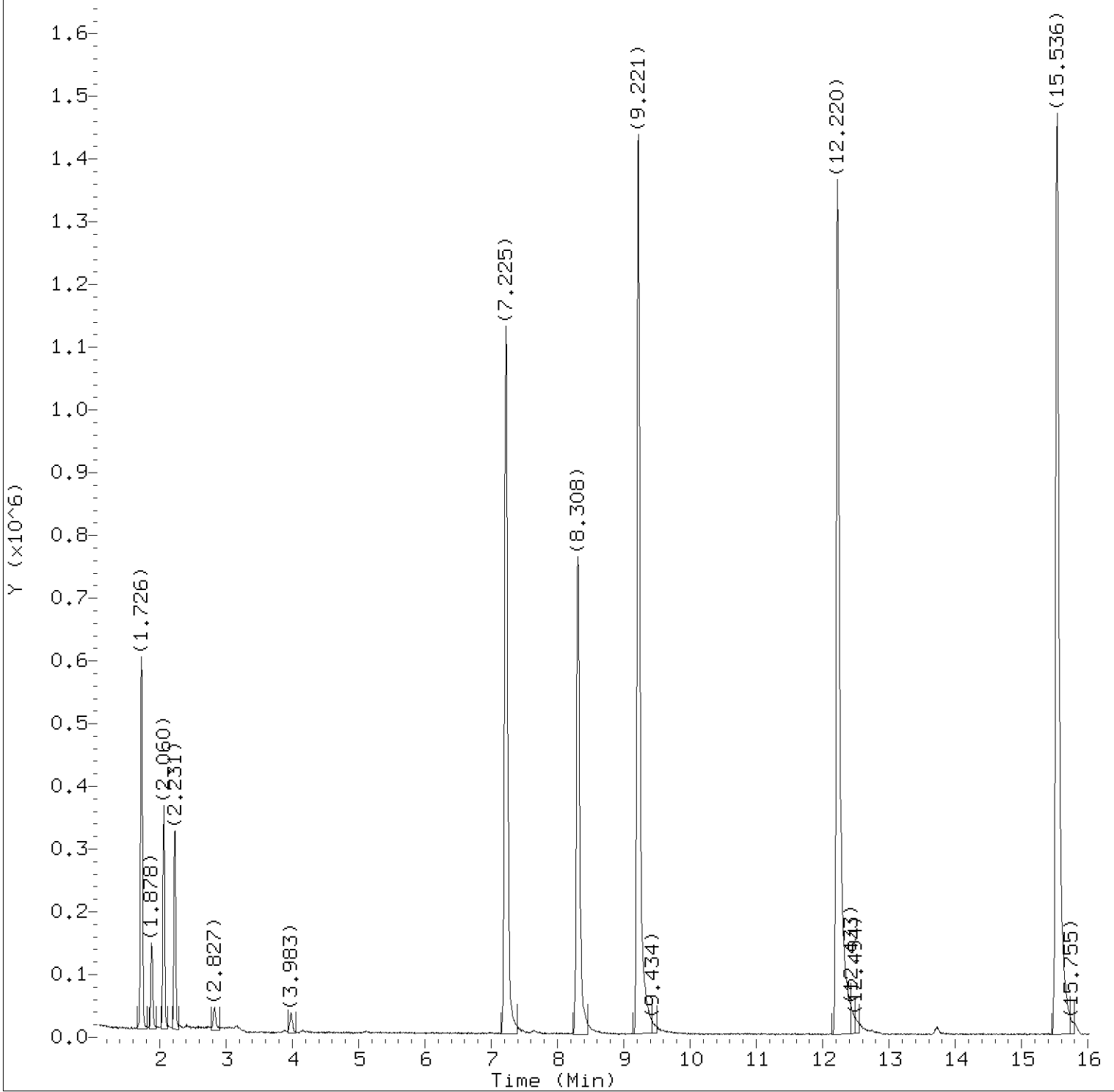
Sample Concentration Formula: On-Column Amount \* DF \* (Xa/Ya)\*(IVn/IVa) Dilution Factor (DF): 1  
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia  
Nominal Injection Volume (IVn): 250 cc Actual injection Volume (IVa): 250 cc

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	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  
Injection date and time: 02-OCT-2015 20:39

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m  
Calibration date and time: 02-OCT-2015 19:53

Sublist used: all

Date, time and analyst ID of latest file update: 02-Oct-2015 21:24 jeb07445

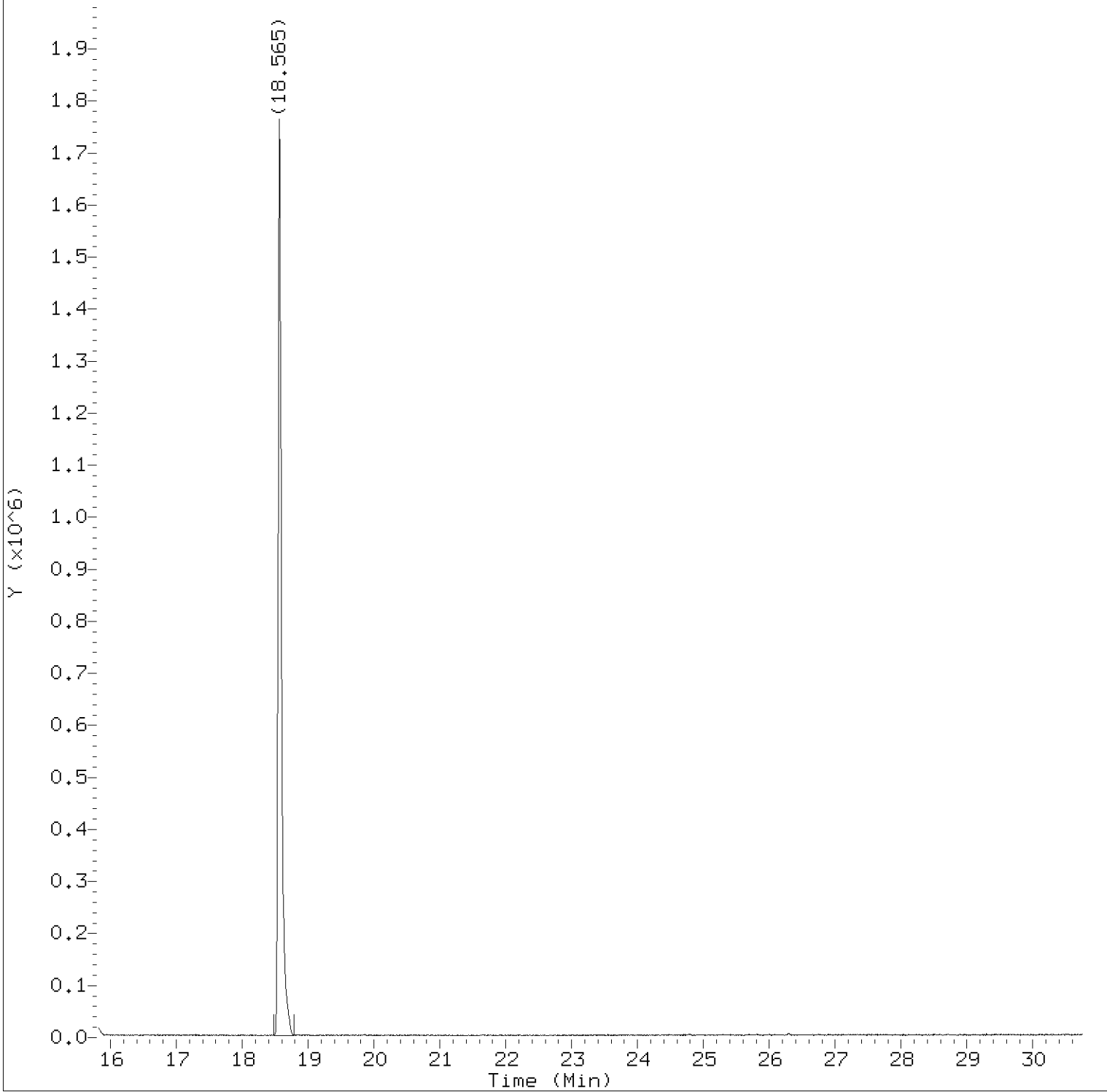
Sample Name: VBLKC82

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  
Injection date and time: 02-OCT-2015 20:39

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m  
Calibration date and time: 02-OCT-2015 19:53

Sublist used: all

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  
Injection date and time: 02-OCT-2015 20:39

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m  
Calibration date and time: 02-OCT-2015 19:53

Sublist used: all

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.

page 1 of 1

Digitally signed by Jacob E. Bailey  
on 10/02/2015 at 21:32.

Target 3.5 esignature user ID: jeb07445

CC988

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:

Table with 8 columns: Internal Standards, RT (+/-RT), Scan, QIon, Area(+/- %Change), Conc. (on column), QC Flag, QC Limits. Rows include Bromochloromethane, 1,4-Difluorobenzene, and Chlorobenzene-d5.

Table with 10 columns: Target Compounds, I.S. Ref., RT (+/-RRT), QIon, Area, Conc. (on-column), Conc. (in sample), Blank Conc., Qual., Reporting Limit, LOQ. Lists 44 target compounds and their detection status.

cc988

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

Table with columns: Target Compounds, I.S. Ref., RT (+/-RRT), QIon, Area, Conc. (on-column), Conc. (in sample), Blank Conc., Qual., Reporting Limit (in sample), LOQ. Lists 100 compounds such as Carbon Tetrachloride, Benzene, 1,2-Dichloroethane, etc., all marked as 'Not Detected'.

cc988

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)

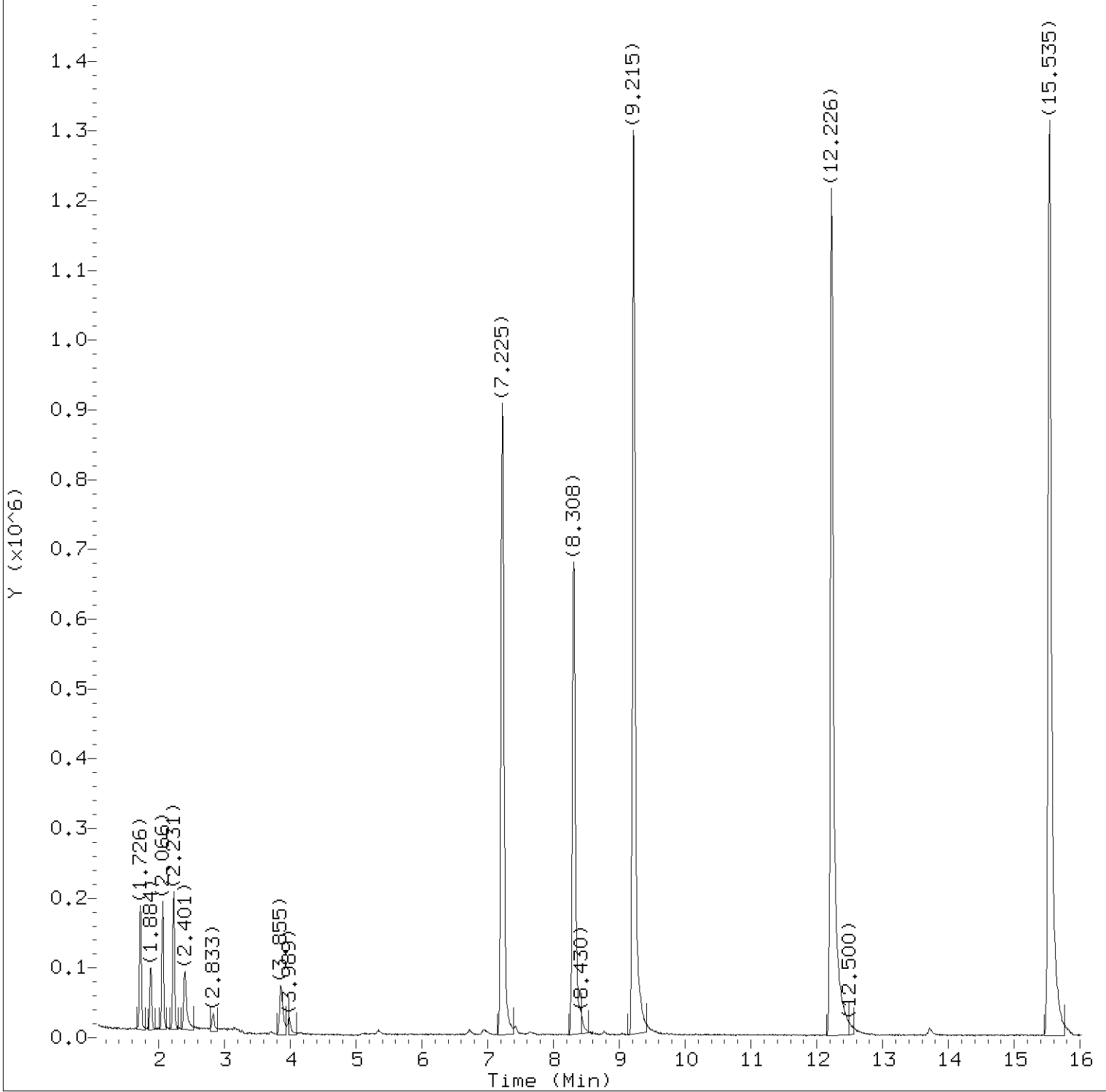
Sample Concentration Formula: On-Column Amount \* DF \* (Xa/Ya)\*(IVn/IVa) Dilution Factor (DF): 1  
Canister Pressure after dilution (Xa): 14.7 psia Canister Pressure before dilution (Ya): 14.7 psia  
Nominal Injection Volume (IVn): 250 cc Actual injection Volume (IVa): 250 cc

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	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  
Injection date and time: 03-OCT-2015 06:19

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m  
Calibration date and time: 05-OCT-2015 08:55

Sublist used: all

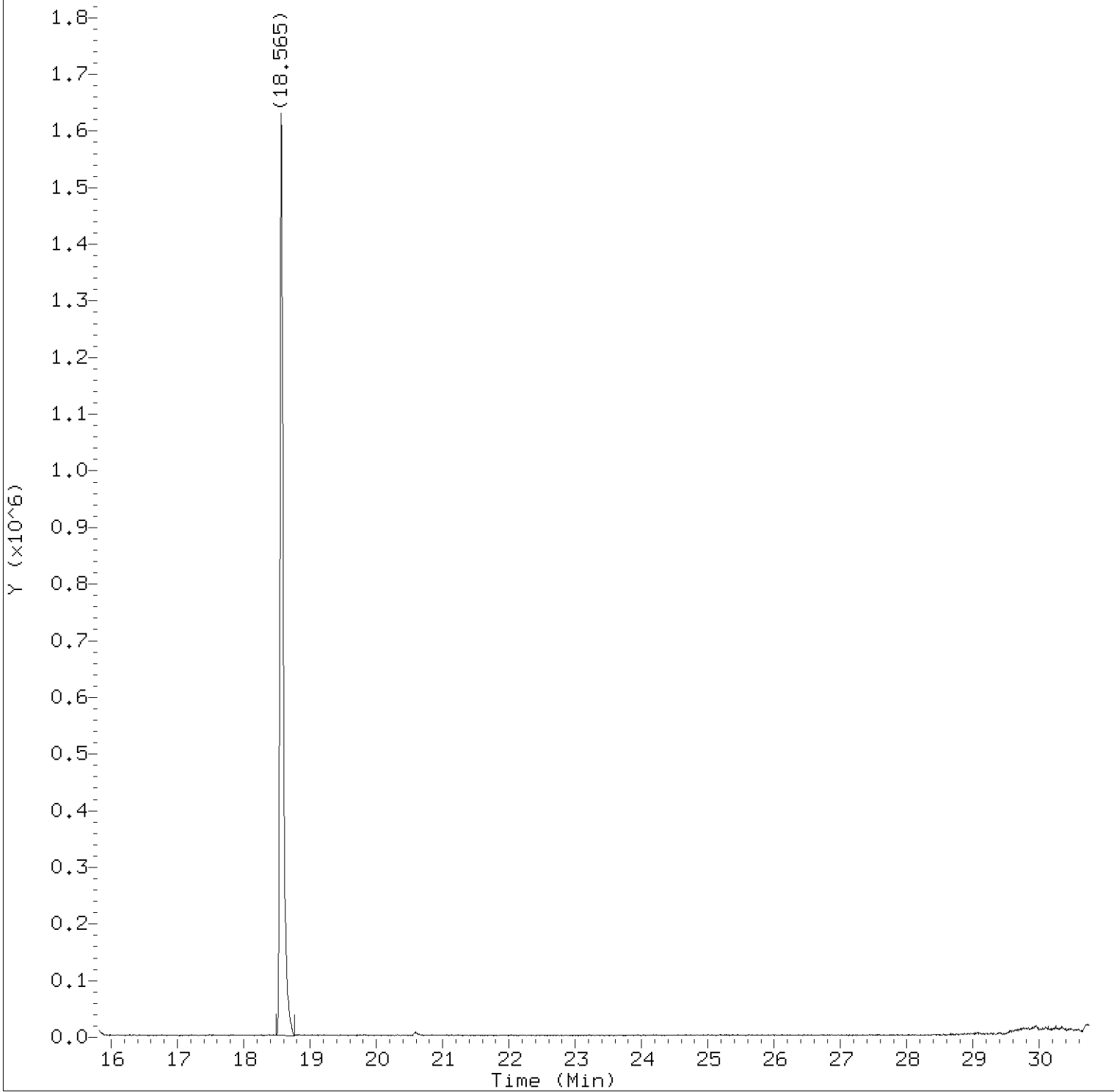
Date, time and analyst ID of latest file update: 05-Oct-2015 09:31 jbs01304

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  
Injection date and time: 03-OCT-2015 06:19

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m  
Calibration date and time: 05-OCT-2015 08:55

Sublist used: all

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  
Injection date and time: 03-OCT-2015 06:19

Instrument ID: HP09464.i  
Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m  
Calibration date and time: 05-OCT-2015 08:55

Sublist used: all

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

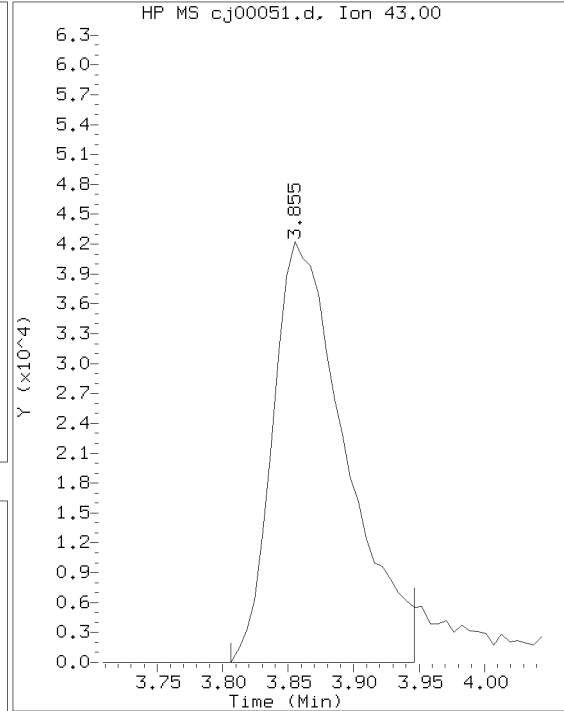
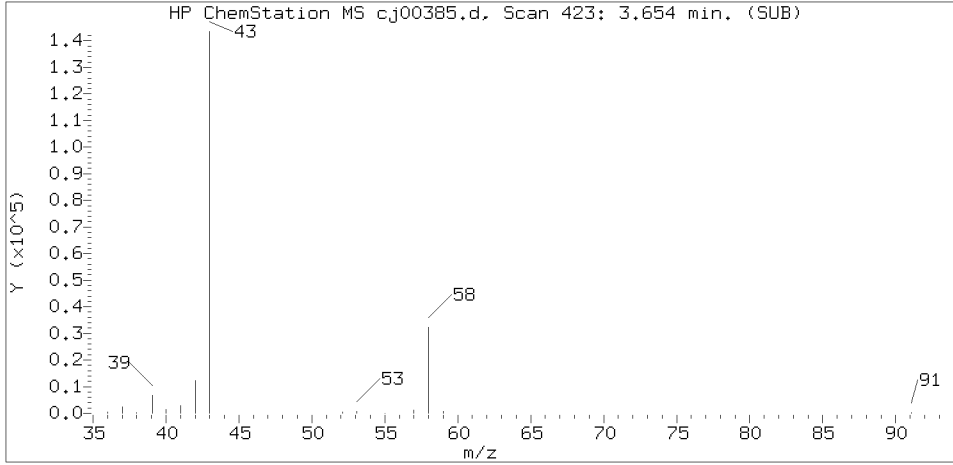
\* = Compound is an internal standard.

page 1 of 1

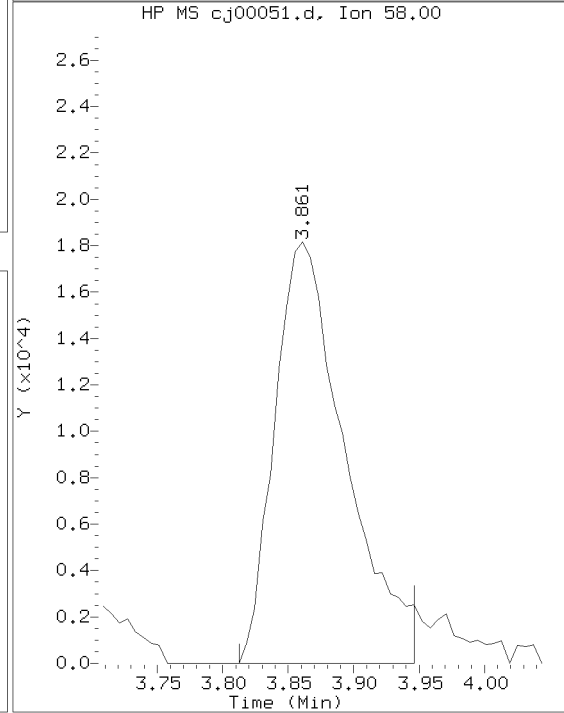
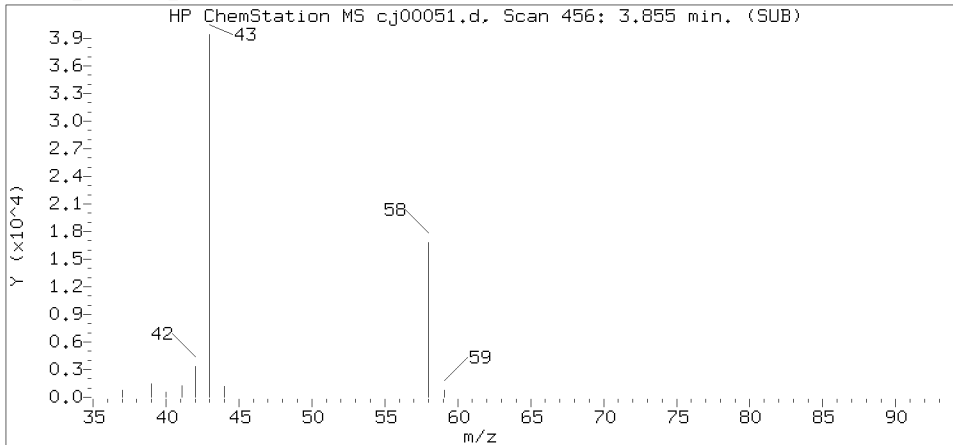
Digitally signed by Jeffrey B. Smith  
on 10/05/2015 at 09:32.  
Target 3.5 esignature user ID: jbs01304



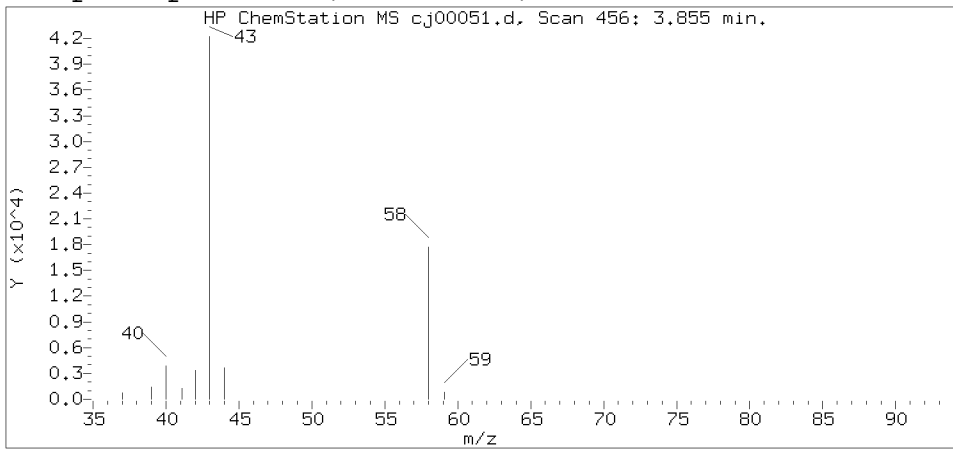
Reference Standard Spectrum for Acetone



Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)



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

Instrument ID: HP09464.i  
 Analyst ID: jeb07445

Method used: /chem/HP09464.i/15oct02.b/to-15.m  
 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