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Electronic Comprehensive Validation Package (eCVP)

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COMPREHENSIVE VALIDATION PACKAGE

Modified TO-15

INVENTORY SHEET

Work Order #: 1506153A

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Comments:

Completed by:

Kara McKiernan	Kara McKiernan / Document Control	6/22/15
(Signature)	(Print Name & Title)	(Date)

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WORK ORDER #: 1506153A

Work Order Summary

CLIENT:	Mr. Terry Taylor Anderson Mulholland & Associates, Inc. 2700 Westchester Avenue Suite 417 Purchase, NY 10577	**BILL TO:**	Accounts Payable Anderson Mulholland & Associates, Inc. 2700 Westchester Avenue Suite 417 Purchase, NY 10577
PHONE:	(914) 251-0400	**P.O. #**	
FAX:		**PROJECT #**	BMS Humacao Building 6 Indoor Air
DATE RECEIVED:	06/09/2015	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	06/12/2015		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	B6-1IA-2	Modified TO-15	5.1 "Hg	4.7 psi
02A	B6-2IA-2	Modified TO-15	5.7 "Hg	5.1 psi
03A	B6-2IAD-2	Modified TO-15	3.7 "Hg	5 psi
04A	B6-AA-3	Modified TO-15	6.3 "Hg	4.9 psi
05A	Lab Blank	Modified TO-15	NA	NA
06A	CCV	Modified TO-15	NA	NA
07A	LCS	Modified TO-15	NA	NA
07AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 06/12/15

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-15
Anderson Mulholland & Associates, Inc.
Workorder# 1506153A

Four 6 Liter Summa Canister (100% Certified) samples were received on June 09, 2015. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-15***	***ATL Modifications***
Initial Calibration	</=30% RSD with 2 compounds allowed out to < 40% RSD	</=30% RSD with 4 compounds allowed out to < 40% RSD
Blank and standards	Zero Air	UHP Nitrogen provides a higher purity gas matrix than zero air

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. All The canisters used for this project have been certified to the Reporting Limit for the target analytes included in this workorder. Concentrations that are below the level at which the canister was certified may be false positives.

The reported result for 4-Ethyltoluene in samples B6-2IAD-2 and B6-AA-3 may be biased high due to co-elution with a non target compound with similar characteristic ions. Both the primary and secondary ion for 4-Ethyltoluene exhibited potential interference.

The Relative Percent Difference (RPD) of the LCS/LCSD exceeded acceptance limits for 2,2,4-Trimethylpentane and Naphthalene.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Table 1

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Date Extracted	Sample Holding Time (Days)	Sample Extract Date Analyzed	Sample Extract Holding Time (Days)	Sample Condition
B6-1IA-2	1506153A-01A	6/ 7/2015	6/ 9/2015	NA	3	6/10/2015	NA	Good
B6-2IA-2	1506153A-02A	6/ 7/2015	6/ 9/2015	NA	3	6/10/2015	NA	Good
B6-2IAD-2	1506153A-03A	6/ 7/2015	6/ 9/2015	NA	3	6/10/2015	NA	Good
B6-AA-3	1506153A-04A	6/ 7/2015	6/ 9/2015	NA	3	6/10/2015	NA	Good
Lab Blank	1506153A-05A	NA	NA	NA	NA	6/10/2015	NA	Good
CCV	1506153A-06A	NA	NA	NA	NA	6/10/2015	NA	Good
LCS	1506153A-07A	NA	NA	NA	NA	6/10/2015	NA	Good
LCSD	1506153A-07AA	NA	NA	NA	NA	6/10/2015	NA	Good

Sample Results and Raw Data

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B6-1IA-2

Lab ID#: 1506153A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.49	0.79	2.4
Chloromethane	0.80	0.68 J	1.6	1.4 J
Freon 11	0.16	0.22	0.89	1.3
Ethanol	0.80	26	1.5	48
Freon 113	0.16	0.064 J	1.2	0.49 J
Acetone	0.80	2.0	1.9	4.9
2-Propanol	0.80	4.0	2.0	9.7
Methylene Chloride	0.32	0.17 J	1.1	0.61 J
Hexane	0.16	0.029 J	0.56	0.10 J
2-Butanone (Methyl Ethyl Ketone)	0.80	0.22 J	2.3	0.64 J
Cyclohexane	0.16	0.55	0.55	1.9
Carbon Tetrachloride	0.16	0.10 J	1.0	0.65 J
Heptane	0.16	0.20	0.65	0.82
Toluene	0.16	0.18	0.60	0.67
m,p-Xylene	0.16	0.044 J	0.69	0.19 J
4-Ethyltoluene	0.16	0.048 J	0.78	0.24 J
1,2,4-Trimethylbenzene	0.16	0.054 J	0.78	0.26 J

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Client Sample ID: B6-1IA-2

Lab ID#: 1506153A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061008**	**Date of Collection:**	**6/7/15 6:04:00 PM**
Dil. Factor:	**1.59**	**Date of Analysis:**	**6/10/15 03:43 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.49	0.79	2.4
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.80	0.68 J	1.6	1.4 J
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
1,3-Butadiene	0.16	Not Detected	0.35	Not Detected
Bromomethane	0.80	Not Detected	3.1	Not Detected
Chloroethane	0.80	Not Detected	2.1	Not Detected
Freon 11	0.16	0.22	0.89	1.3
Ethanol	0.80	26	1.5	48
Freon 113	0.16	0.064 J	1.2	0.49 J
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.80	2.0	1.9	4.9
2-Propanol	0.80	4.0	2.0	9.7
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	0.17 J	1.1	0.61 J
Methyl tert-butyl ether	0.16	Not Detected	0.57	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Hexane	0.16	0.029 J	0.56	0.10 J
1,1-Dichloroethane	0.16	Not Detected	0.64	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	0.22 J	2.3	0.64 J
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.3	Not Detected
Chloroform	0.16	Not Detected	0.78	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.87	Not Detected
Cyclohexane	0.16	0.55	0.55	1.9
Carbon Tetrachloride	0.16	0.10 J	1.0	0.65 J
2,2,4-Trimethylpentane	0.80	Not Detected	3.7	Not Detected
Benzene	0.16	Not Detected	0.51	Not Detected
1,2-Dichloroethane	0.16	Not Detected	0.64	Not Detected
Heptane	0.16	0.20	0.65	0.82
Trichloroethene	0.16	Not Detected	0.85	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.73	Not Detected
1,4-Dioxane	0.16	Not Detected	0.57	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.65	Not Detected
Toluene	0.16	0.18	0.60	0.67
trans-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.87	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.80	Not Detected	3.2	Not Detected

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Client Sample ID: B6-1IA-2

Lab ID#: 1506153A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061008**	**Date of Collection:**	**6/7/15 6:04:00 PM**
Dil. Factor:	**1.59**	**Date of Analysis:**	**6/10/15 03:43 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.73	Not Detected
Ethyl Benzene	0.16	Not Detected	0.69	Not Detected
m,p-Xylene	0.16	0.044 J	0.69	0.19 J
o-Xylene	0.16	Not Detected	0.69	Not Detected
Styrene	0.16	Not Detected	0.68	Not Detected
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.78	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.78	Not Detected
4-Ethyltoluene	0.16	0.048 J	0.78	0.24 J
1,3,5-Trimethylbenzene	0.16	Not Detected	0.78	Not Detected
1,2,4-Trimethylbenzene	0.16	0.054 J	0.78	0.26 J
1,3-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.82	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	5.9	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8.5	Not Detected
Naphthalene	0.80	Not Detected	4.2	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	94	70-130

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EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/10Jun2015.b/20061008.d
Lab Smp Id: 1506153A-01A
Inj Date : 10-JUN-2015 15:43
Operator : sab Inst ID: msd20.i
Smp Info : 250mL #33902
Misc Info : 5.1"Hg->4.7 psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/10Jun2015.b/2015l0506a.m
Meth Date : 12-Jun-2015 09:37 mchen Quant Type: ISTD
Cal Date : 07-MAY-2015 12:38 Cal File: 20050616.d
Als bottle: 1
Dil Factor: 1.59000
Integrator: HP RTE Compound Sublist: TO15NMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.59000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
11 Freon 12					CAS #: 75-71-8		
4.849	4.797 (0.288)	85	14419	0.30778	0.4894	80.00- 120.00	100.00(M)
4.762	4.797 (0.283)	87	4652			2.49- 62.49	32.27
17 Chloromethane					CAS #: 74-87-3		
6.749	6.697 (0.401)	50	5923	0.42874	0.6817	80.00- 120.00	100.00(aM)
6.732	6.697 (0.400)	52	2272			2.88- 62.88	38.35
35 Freon 11					CAS #: 75-69-4		
11.238	11.238 (0.667)	101	6929	0.14120	0.2245	80.00- 120.00	100.00
11.255	11.238 (0.668)	103	4361			35.69- 95.69	62.93
42 Ethanol					CAS #: 64-17-5		
12.400	12.396 (0.736)	45	87541	16.0556	25.528	80.00- 120.00	100.00
12.400	12.396 (0.736)	46	33722			8.49- 68.49	38.52
12.400	12.396 (0.736)	43	20985			0.00- 51.69	23.97

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
49 Freon 113					CAS #: 76-13-1		
12.874	12.871 (0.764)	151	1602	0.04055	0.06447	80.00- 120.00	100.00(a)
12.874	12.871 (0.764)	153	1152			34.25- 94.25	71.95
12.874	12.871 (0.764)	101	1836			75.92- 135.92	114.60
52 Acetone					CAS #: 67-64-1		
13.225	13.222 (0.785)	58	10432	1.29127	2.053	80.00- 120.00	100.00
13.225	13.222 (0.785)	43	29733			250.97- 310.97	285.00
57 2-Propanol					CAS #: 67-63-0		
13.659	13.655 (0.811)	45	56097	2.49227	3.963	80.00- 120.00	100.00
13.659	13.655 (0.811)	43	14840			0.00- 45.99	26.45
13.659	13.655 (0.811)	59	2397			0.00- 33.55	4.27
66 Methylene Chloride					CAS #: 75-09-2		
14.154	14.150 (0.840)	84	1887	0.10982	0.1746	80.00- 120.00	100.00(a)
14.154	14.150 (0.840)	49	1840			76.26- 136.26	97.51
14.154	14.150 (0.840)	51	581			2.64- 62.64	30.82
78 Hexane					CAS #: 110-54-3		
14.999	14.996 (0.890)	57	430	0.01799	0.02860	80.00- 120.00	100.00(a)
14.999	14.996 (0.890)	43	564			29.42- 89.42	131.05
0.000	14.996 (0.000)	86	0			0.00- 49.37	0.00
92 2-Butanone					CAS #: 78-93-3		
16.478	16.460 (0.978)	72	1155	0.13554	0.2155	80.00- 120.00	100.00(a)
16.478	16.460 (0.978)	43	5384			397.61- 457.61	465.85
16.478	16.460 (0.978)	57	376			0.00- 58.47	32.54
* 98 Bromochloromethane					CAS #: 74-97-5		
16.844	16.841 (1.000)	130	69247	5.00000		80.00- 120.00	100.00
16.844	16.841 (1.000)	128	52935			48.56- 108.56	76.44
16.844	16.841 (1.000)	49	70522			77.31- 137.31	101.84
102 Cyclohexane					CAS #: 110-82-7		
17.156	17.153 (1.019)	84	8604	0.34834	0.5538	80.00- 120.00	100.00
17.156	17.153 (1.019)	56	11621			72.40- 132.40	135.06
17.156	17.153 (1.019)	41	6834			20.65- 80.65	79.43
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.372	17.369 (1.031)	119	1743	0.06508	0.1035	80.00- 120.00	100.00(a)
17.372	17.369 (1.031)	117	1598			73.26- 133.26	91.66
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.756	17.753 (1.054)	65	95218	5.46625	5.466	80.00- 120.00	100.00
17.756	17.753 (1.054)	67	49871			27.32- 87.32	52.38

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
121 Heptane					CAS #: 142-82-5		
17.948	17.944 (0.978)	57	1845	0.12530	0.1992	80.00- 120.00	100.00
17.948	17.944 (0.978)	100	893			21.23- 81.23	48.44
17.948	17.944 (0.978)	43	3991			145.72- 205.72	216.29
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.344	18.341 (1.000)	114	290494	5.00000		80.00- 120.00	100.00
18.344	18.341 (1.000)	88	43785			0.00- 44.67	15.07
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.979	20.982 (1.144)	98	260169	4.82777	4.828	80.00- 120.00	100.00
20.979	20.982 (1.144)	70	27712			0.00- 40.06	10.65
20.979	20.982 (1.144)	100	170231			36.64- 96.64	65.43
147 Toluene					CAS #: 108-88-3		
21.119	21.123 (1.151)	91	7376	0.11155	0.1774	80.00- 120.00	100.00
21.119	21.123 (1.151)	92	4616			29.36- 89.36	62.58
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.892	23.895 (1.000)	117	247594	5.00000		80.00- 120.00	100.00
23.892	23.895 (1.000)	82	122739			18.57- 78.57	49.57
169 m,p-Xylene					CAS #: 108-38-3		
24.201	24.204 (1.013)	106	717	0.02739	0.04355	80.00- 120.00	100.00(a)
24.201	24.204 (1.013)	91	1686			160.53- 220.53	234.97
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.578	25.581 (1.071)	174	140075	4.72312	4.723	80.00- 120.00	100.00
25.578	25.581 (1.071)	95	145340			70.67- 130.67	103.76
25.578	25.581 (1.071)	176	135533			67.63- 127.63	96.76
188 4-Ethyltoluene					CAS #: 622-96-8		
25.957	25.960 (1.086)	105	1598	0.02674	0.04252	80.00- 120.00	100.00(aM)
25.919	25.960 (1.085)	120	1012			3.93- 63.93	63.29
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.488	26.491 (1.109)	105	1802	0.03376	0.05367	80.00- 120.00	100.00(a)
26.488	26.491 (1.109)	120	936			19.25- 79.25	51.96

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061008.d
Lab Smp Id: 1506153A-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: sab
Method File: /chem/msd20.i/10Jun2015.b/2015l0506a.m
Misc Info: 5.1"Hg->4.7 psi

Calibration Date: 10-JUN-2015
Calibration Time: 11:58

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	70421	42253	98589	69247	-1.67
123 1,4-Difluorobenze	289237	173542	404932	290494	0.43
163 Chlorobenzene-d5	248624	149174	348074	247594	-0.41

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.84	16.51	17.17	16.84	0.02
123 1,4-Difluorobenze	18.34	18.01	18.67	18.34	0.02
163 Chlorobenzene-d5	23.90	23.57	24.23	23.89	-0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 12-Jun-2015 09:49

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 10Jun2015
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1506153A-01A
Level: LOW Operator: sab
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/10Jun2015.b/2015l0506a.m
Misc Info: 5.1"Hg->4.7 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.466	109.33	70-130
$ 146 Toluene-d8	5.000	4.828	96.56	70-130
$ 177 4-Bromofluorobenze	5.000	4.723	94.46	70-130

Data File: /chem/msd20.i/10Jun2015.b/20061008.d

Date : 10-JUN-2015 15:43

Client ID:

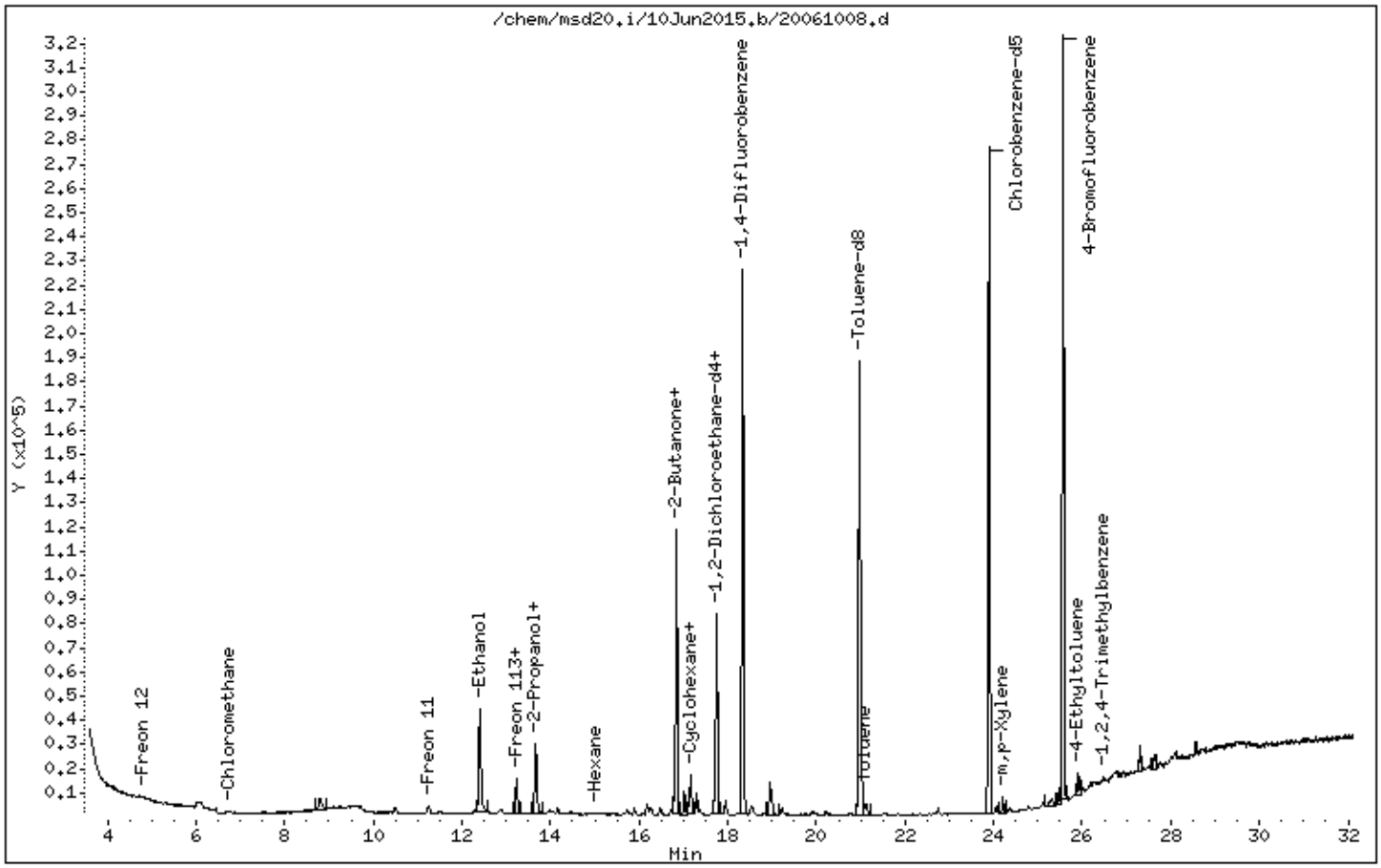
Instrument: msd20.i

Sample Info: 250mL #33902

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/10Jun2015.b/20061008.d

Date : 10-JUN-2015 15:43

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33902

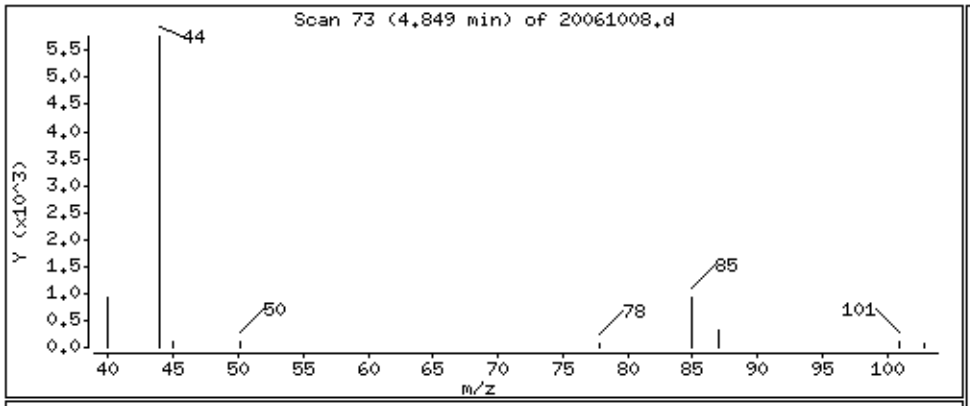
Operator: sab

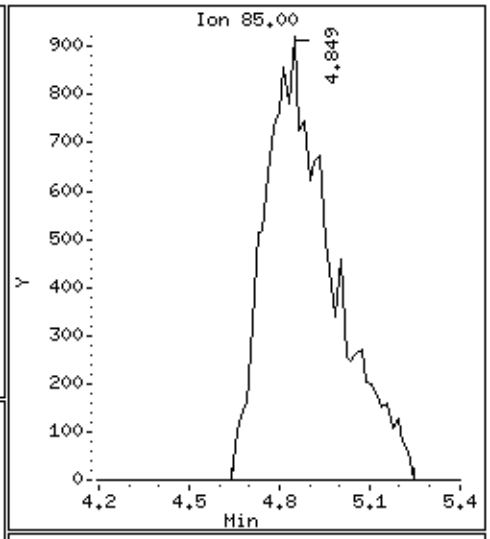
Column phase: RTX-624

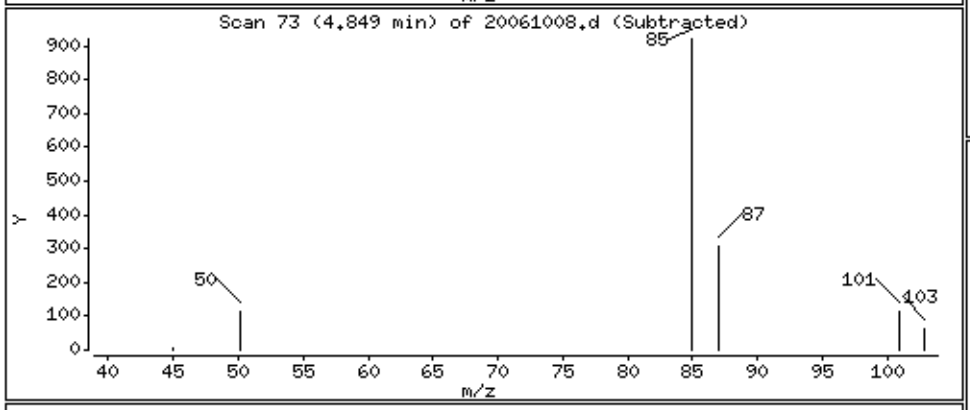
Column diameter: 0.32

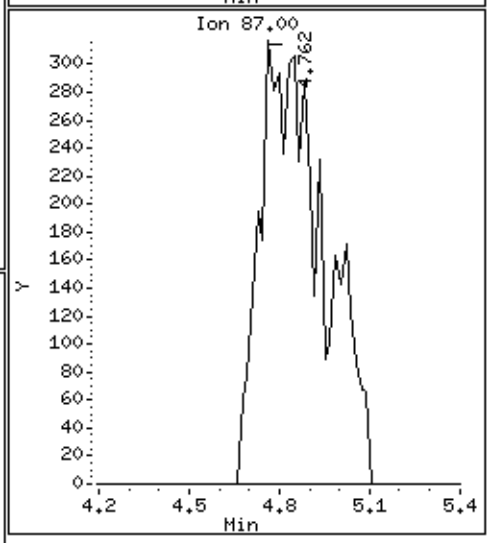
11 Freon 12

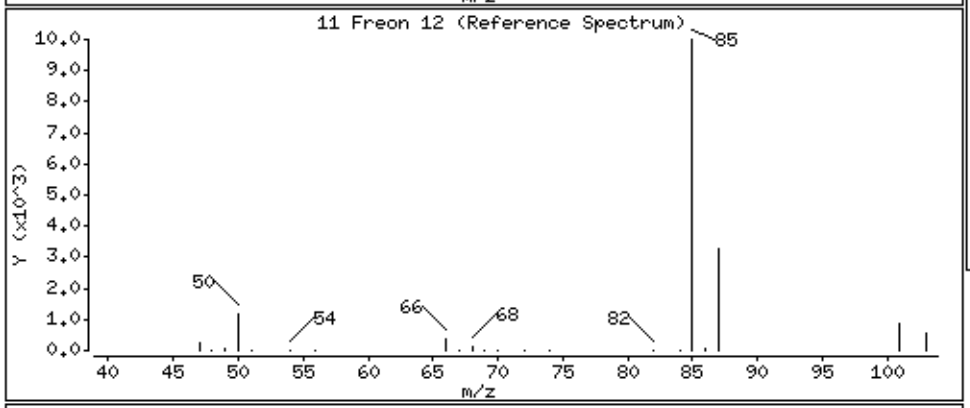
Concentration: 0.4894 PPBV

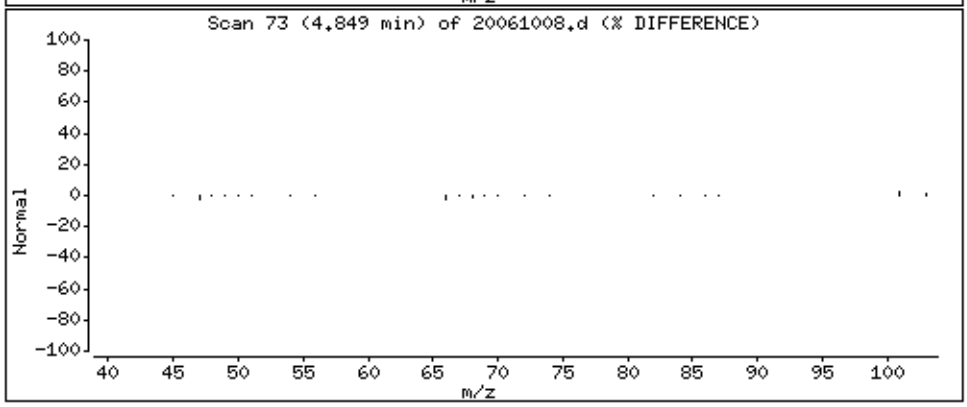












Data File: /chem/msd20.i/10Jun2015.b/20061008.d

Date : 10-JUN-2015 15:43

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33902

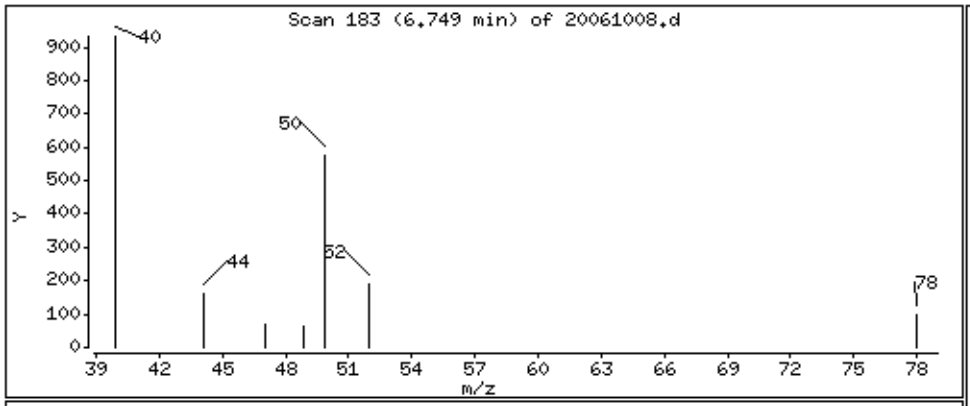
Operator: sab

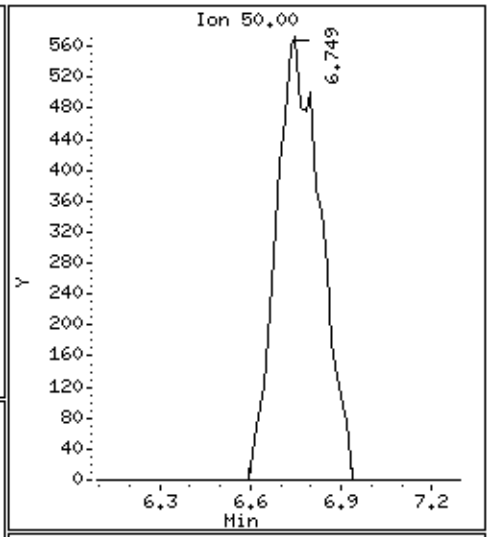
Column phase: RTX-624

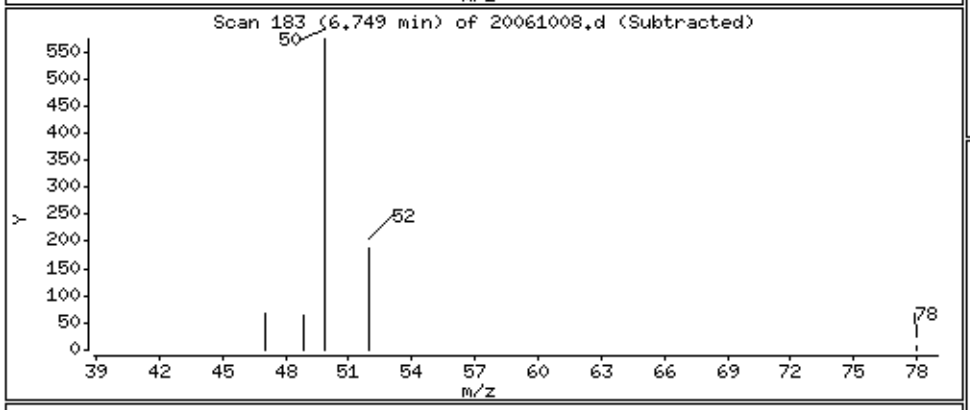
Column diameter: 0.32

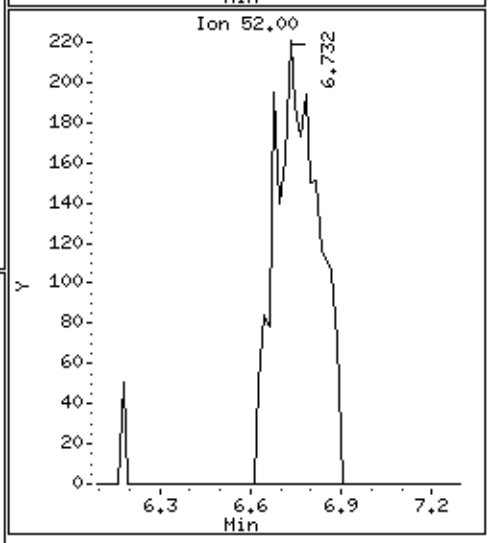
17 Chloromethane

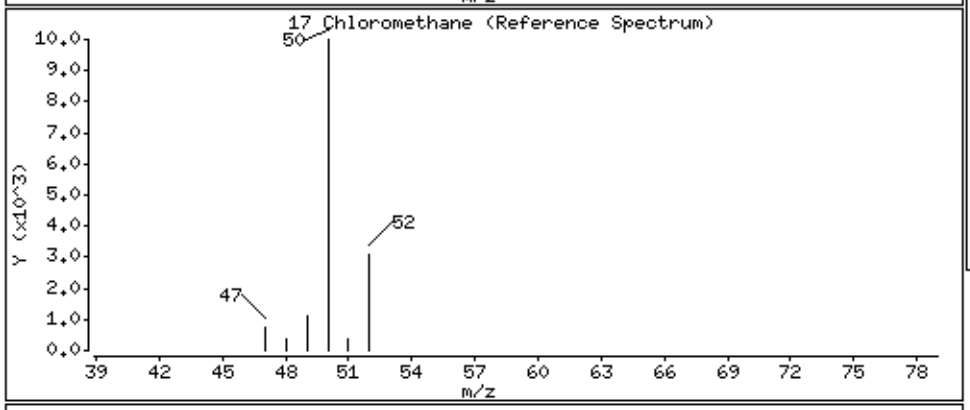
Concentration: 0.6817 PPBV

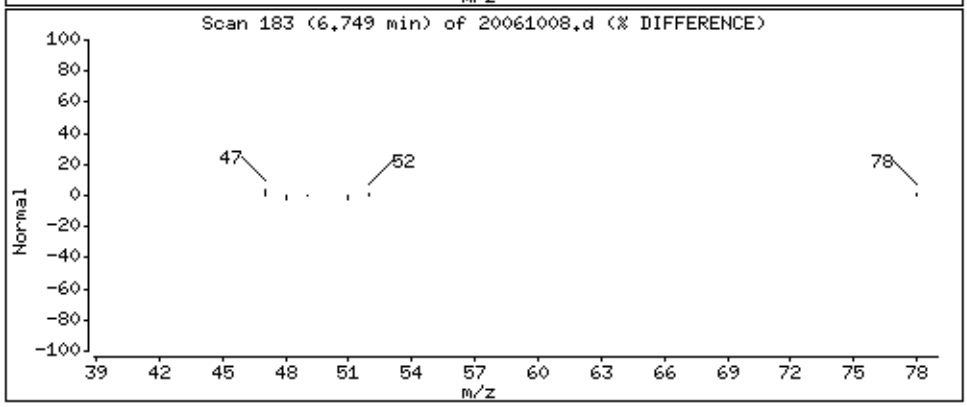












Data File: /chem/msd20.i/10Jun2015.b/20061008.d

Date : 10-JUN-2015 15:43

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33902

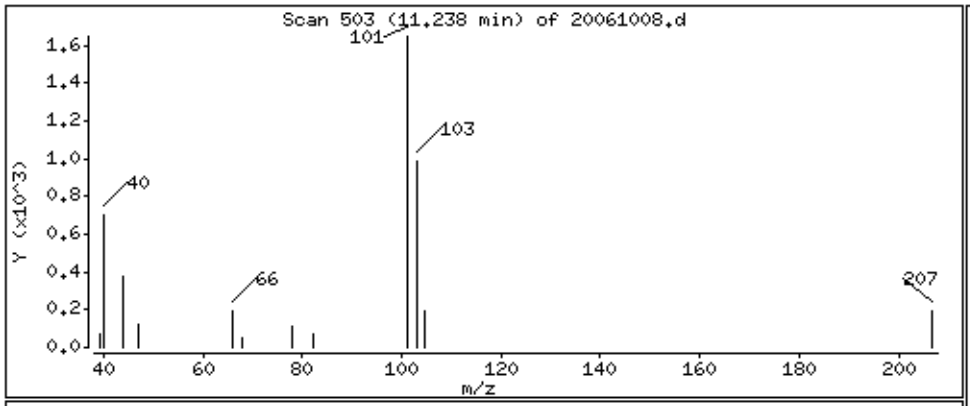
Operator: sab

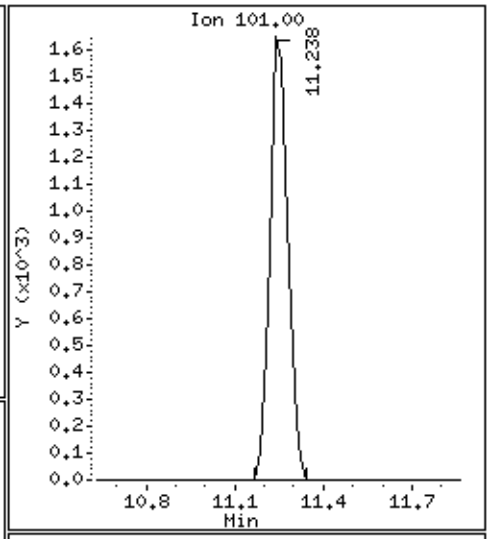
Column phase: RTX-624

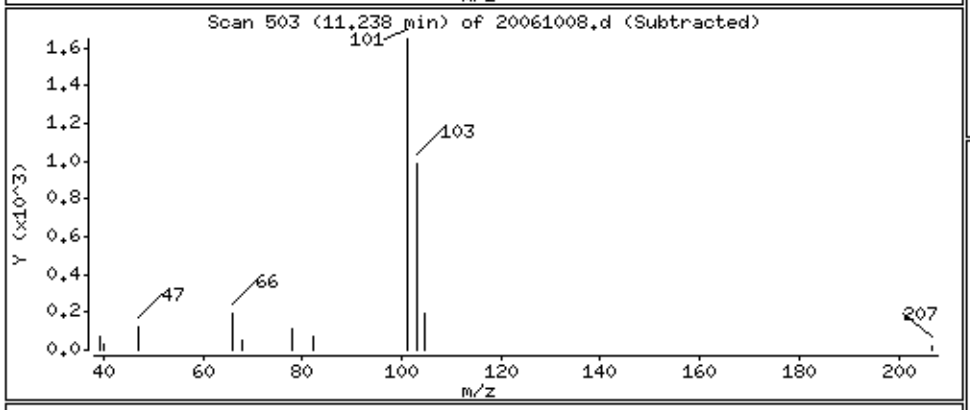
Column diameter: 0.32

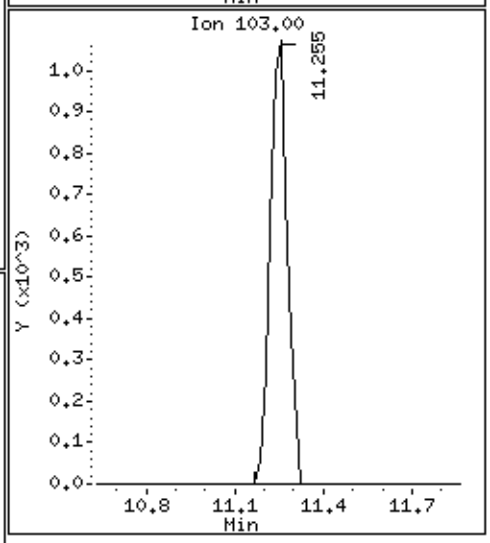
35 Freon 11

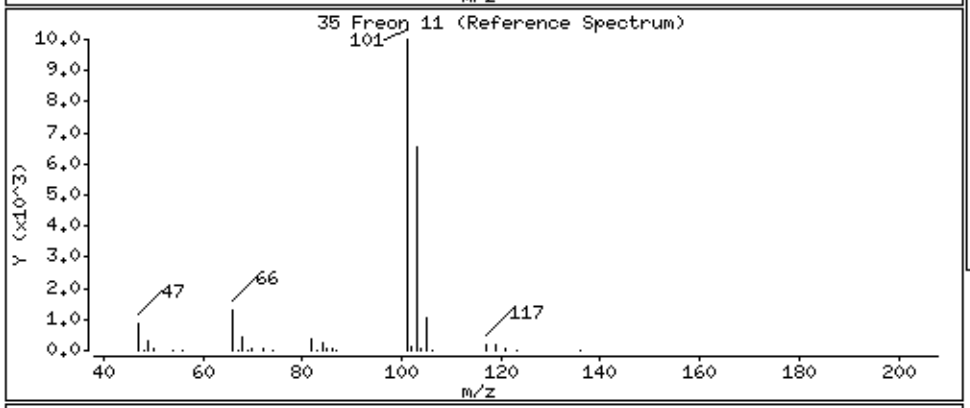
Concentration: 0.2245 PPBV

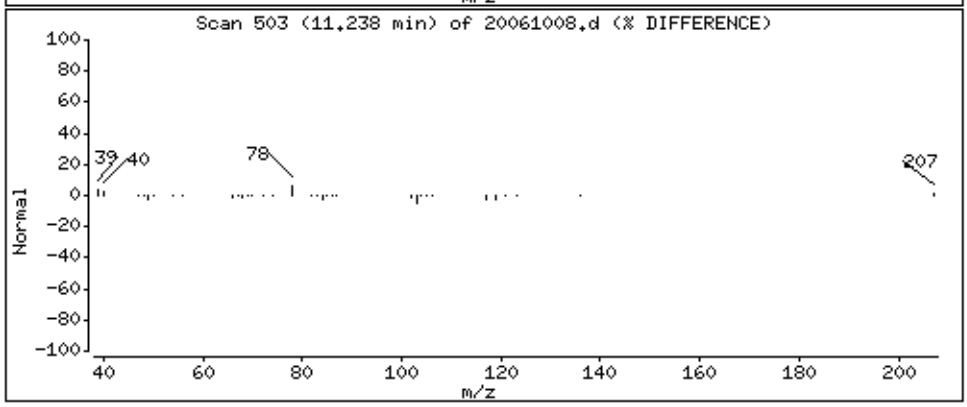












Data File: /chem/msd20.i/10Jun2015.b/20061008.d

Date : 10-JUN-2015 15:43

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33902

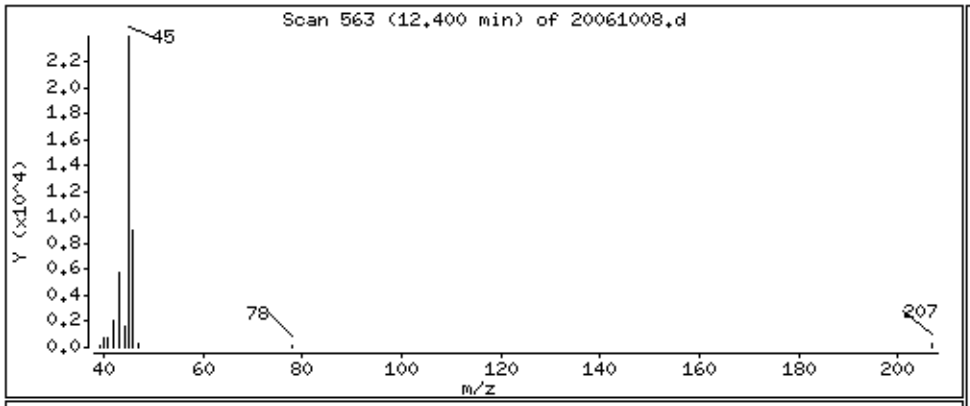
Operator: sab

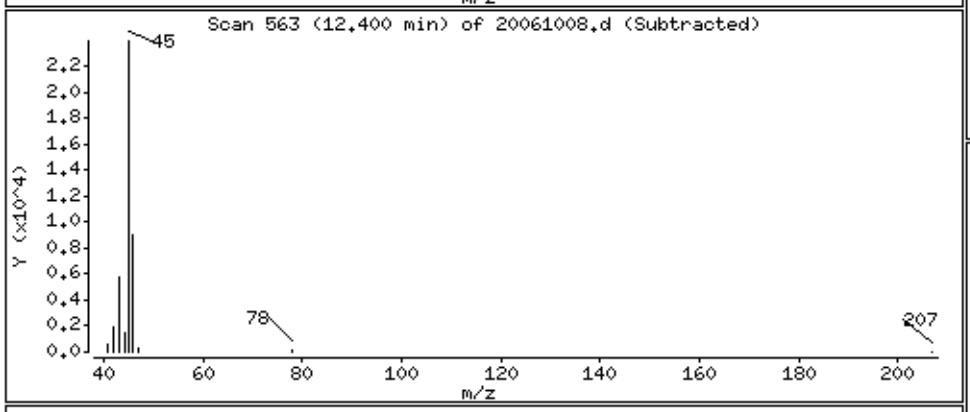
Column phase: RTX-624

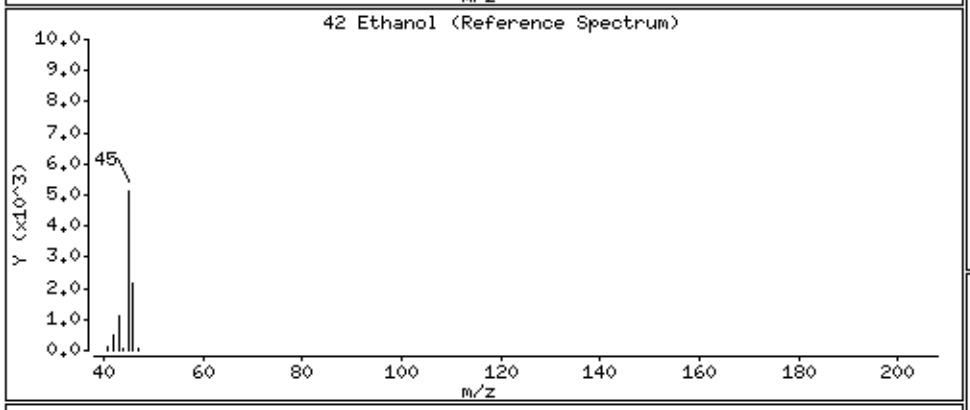
Column diameter: 0.32

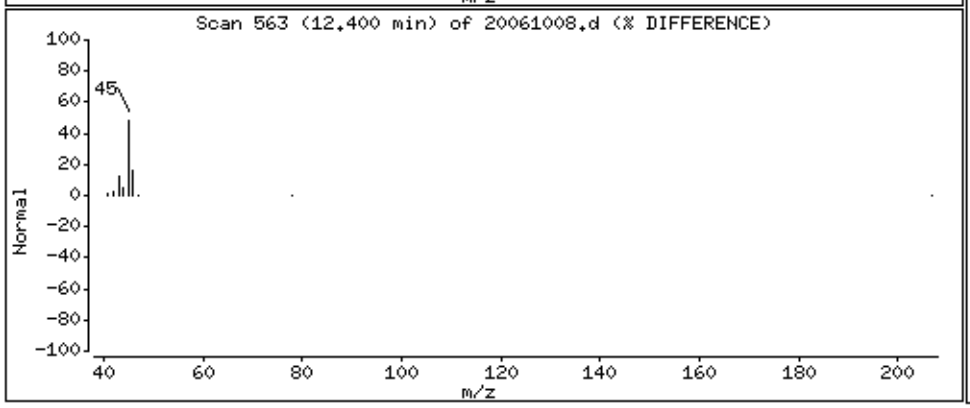
42 Ethanol

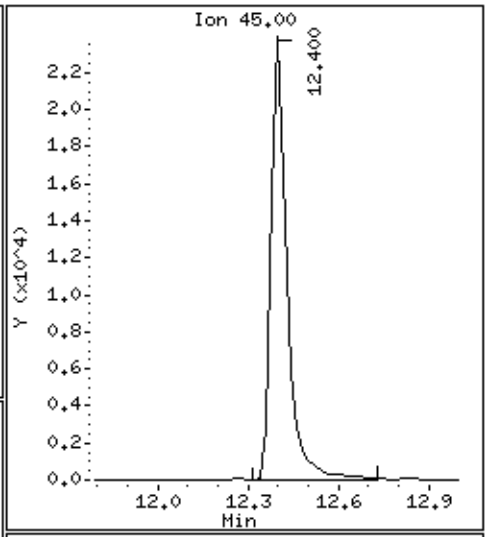
Concentration: 25.528 PPBV

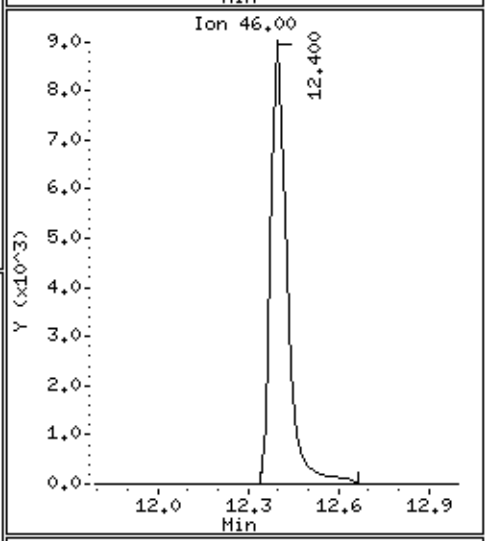


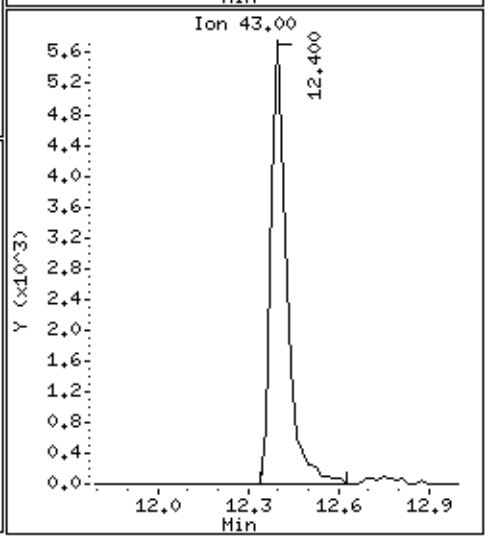












Data File: /chem/msd20.i/10Jun2015.b/20061008.d

Date : 10-JUN-2015 15:43

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33902

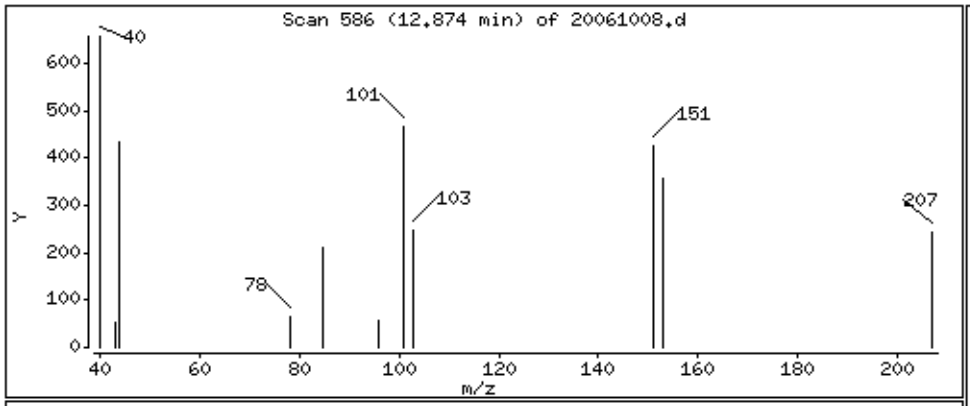
Operator: sab

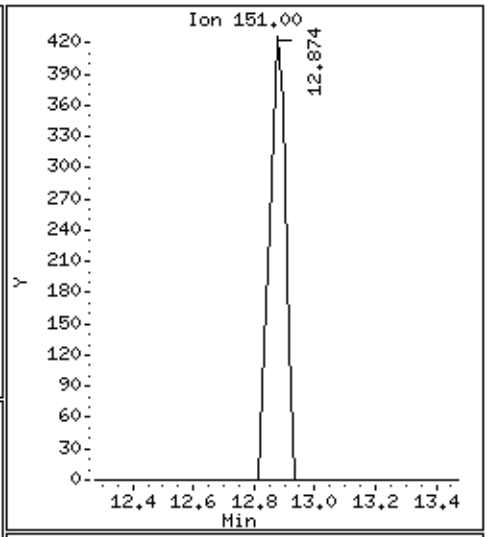
Column phase: RTX-624

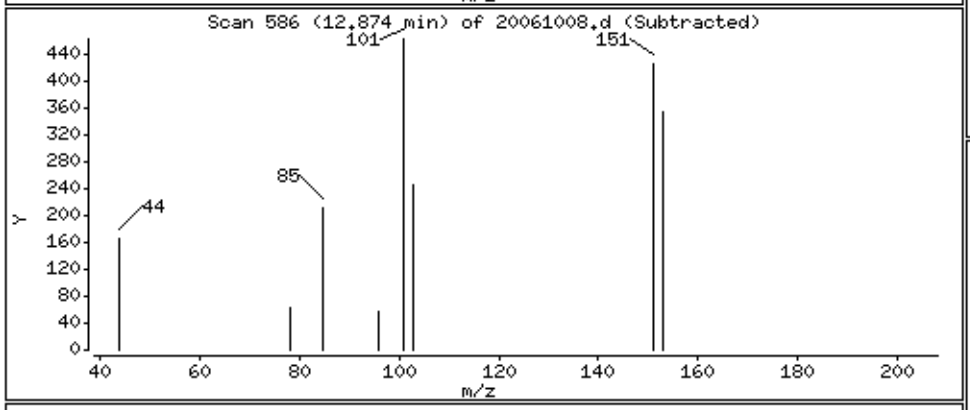
Column diameter: 0.32

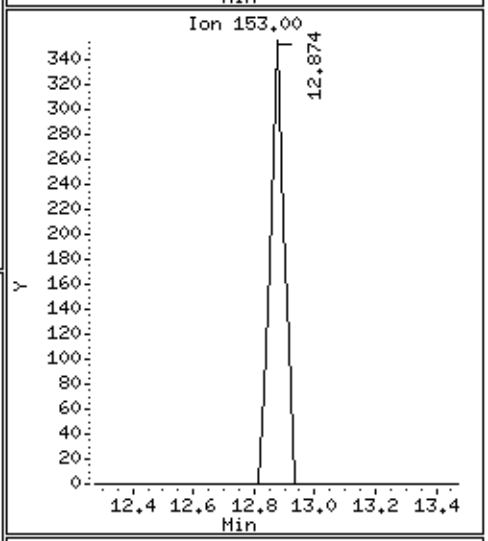
49 Freon 113

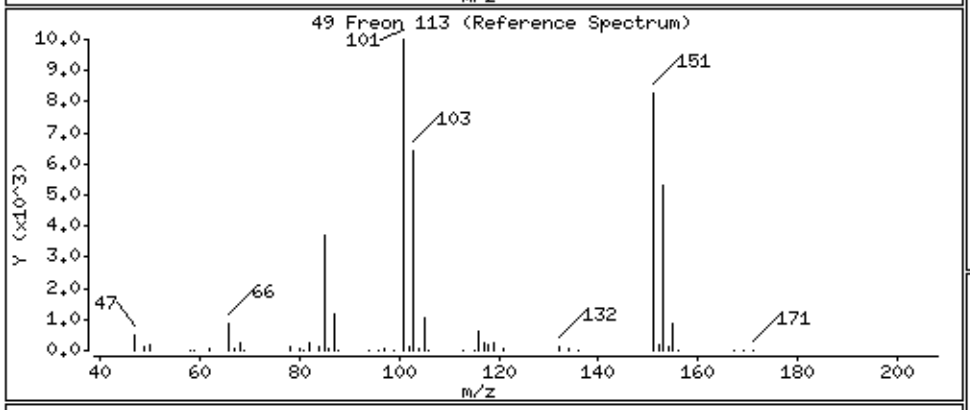
Concentration: 0.06447 PPBV

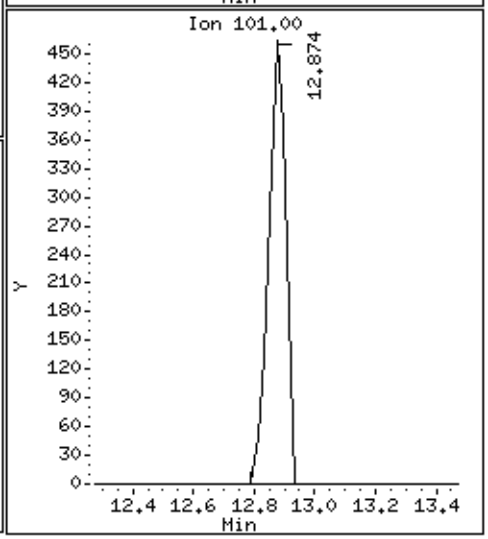


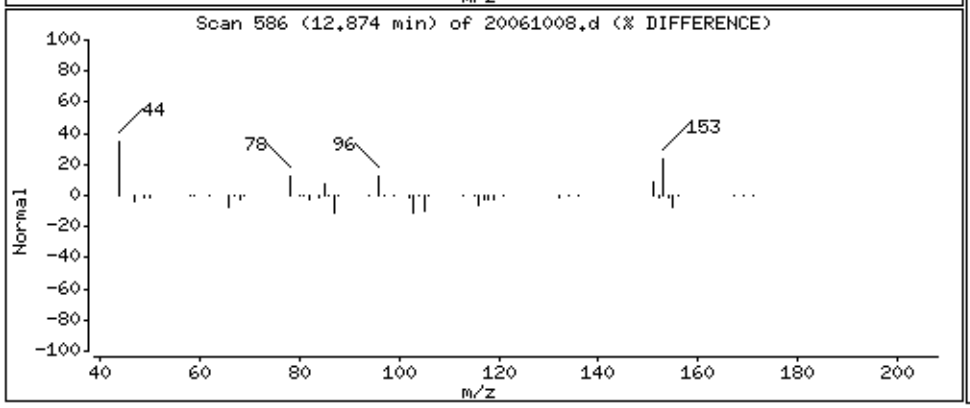












Data File: /chem/msd20.i/10Jun2015.b/20061008.d

Date : 10-JUN-2015 15:43

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33902

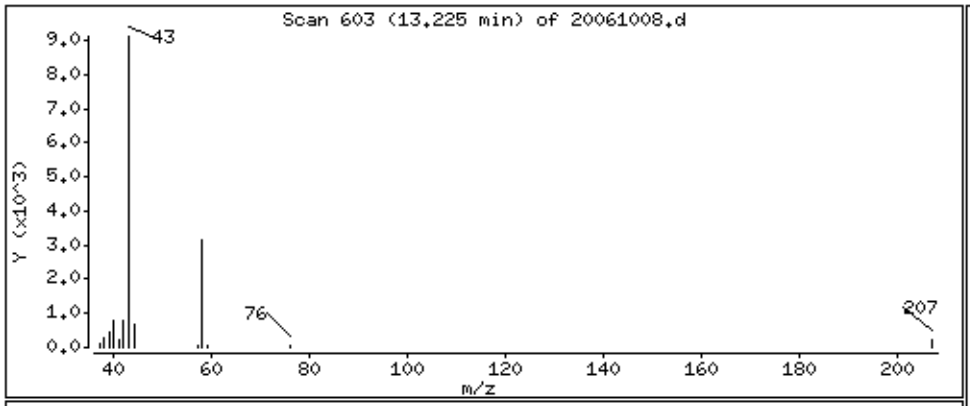
Operator: sab

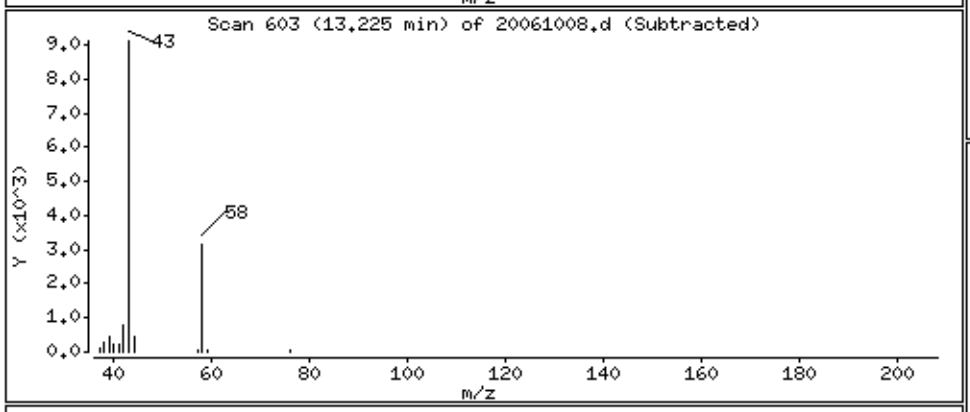
Column phase: RTX-624

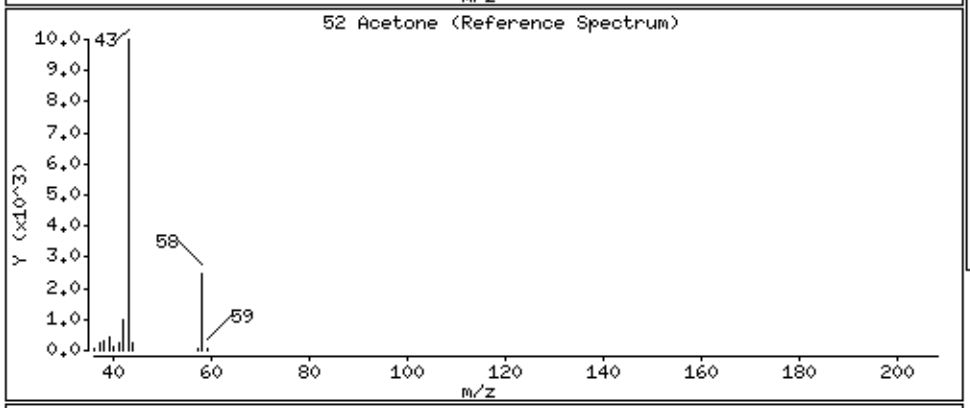
Column diameter: 0.32

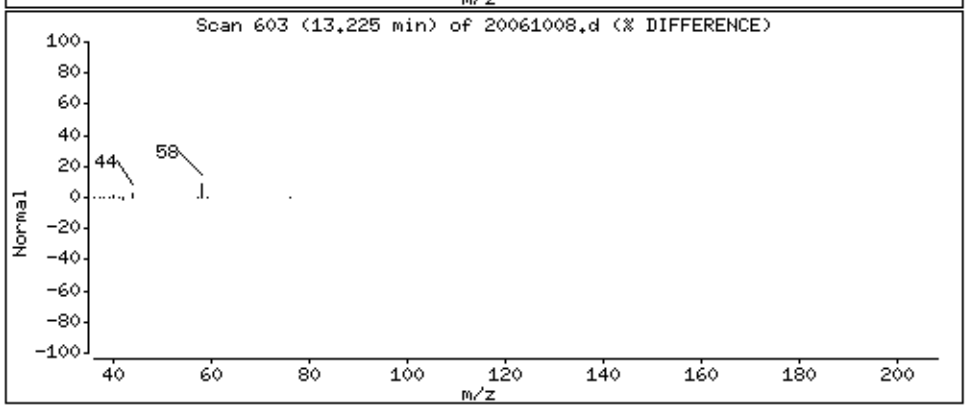
52 Acetone

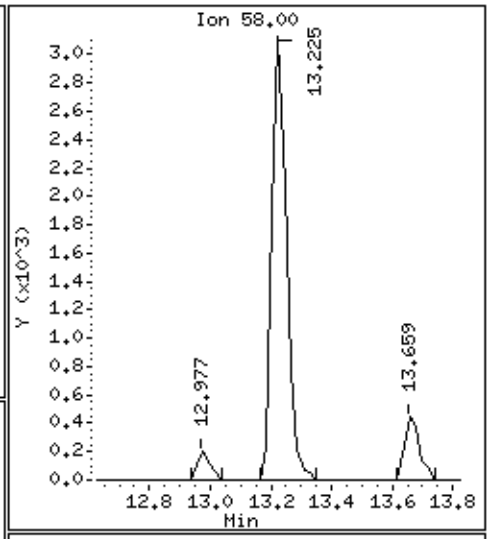
Concentration: 2.053 PPBV

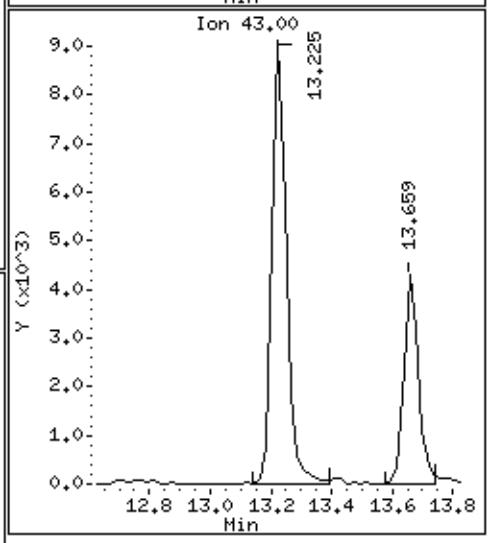












Data File: /chem/msd20.i/10Jun2015.b/20061008.d

Date : 10-JUN-2015 15:43

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33902

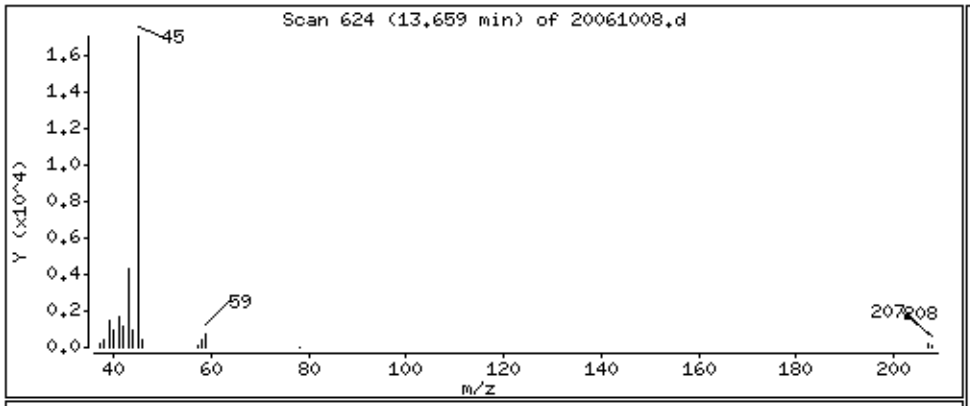
Operator: sab

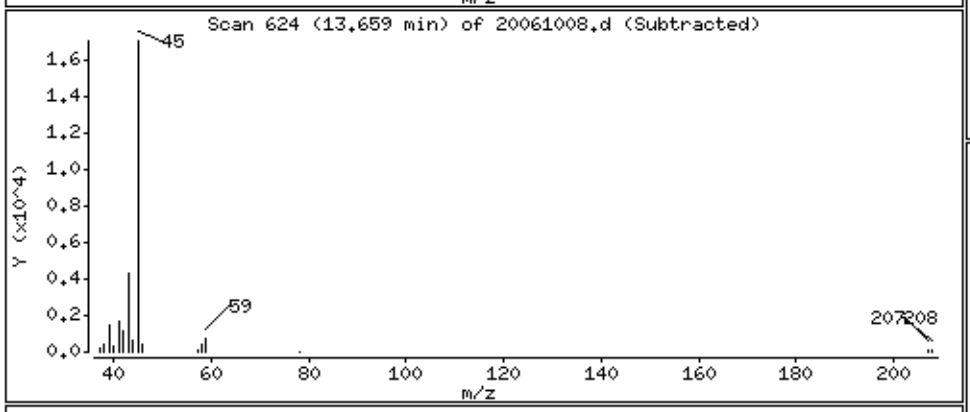
Column phase: RTX-624

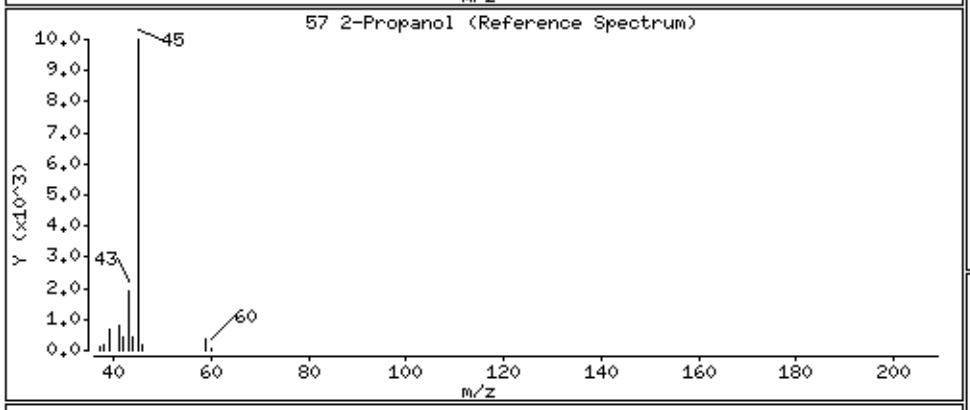
Column diameter: 0.32

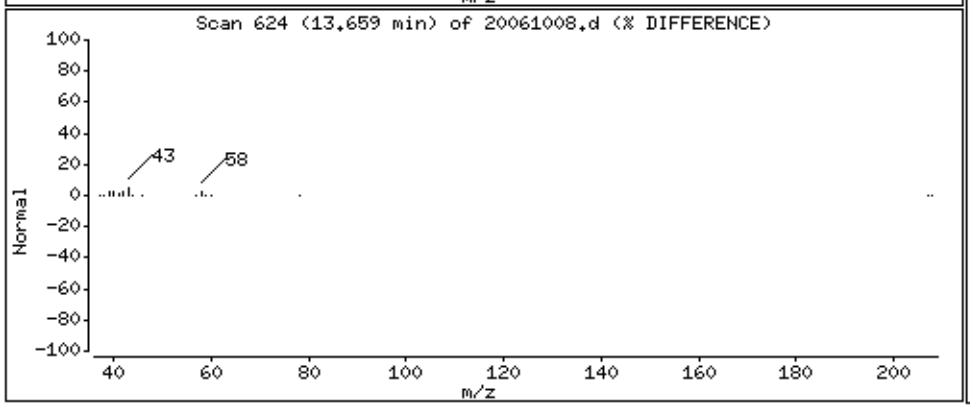
57 2-Propanol

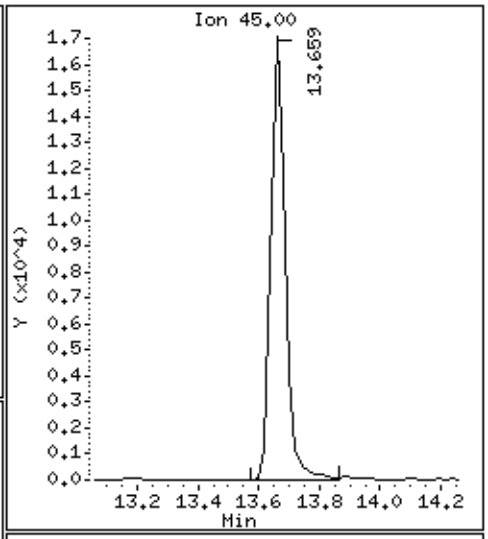
Concentration: 3.963 PPBV

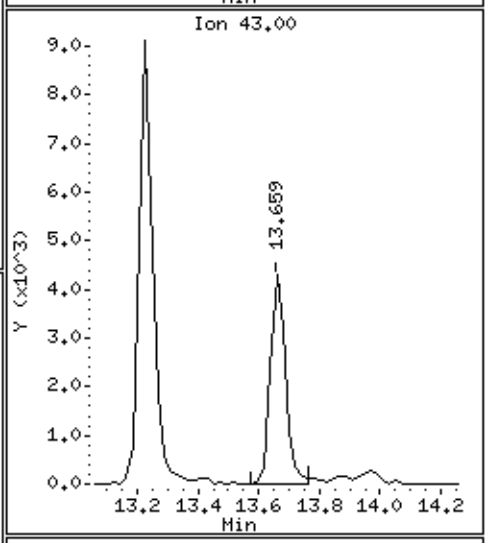


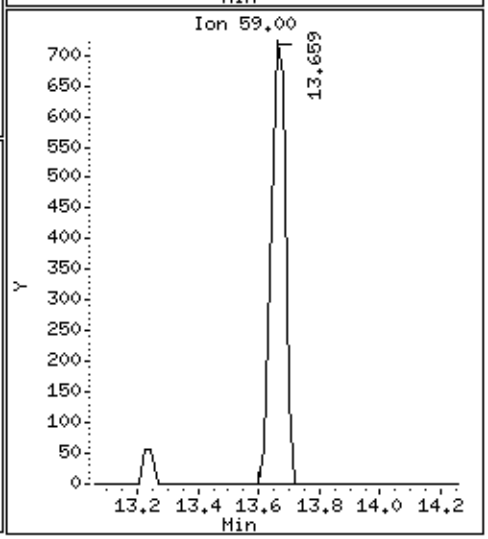












Data File: /chem/msd20.i/10Jun2015.b/20061008.d

Date : 10-JUN-2015 15:43

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33902

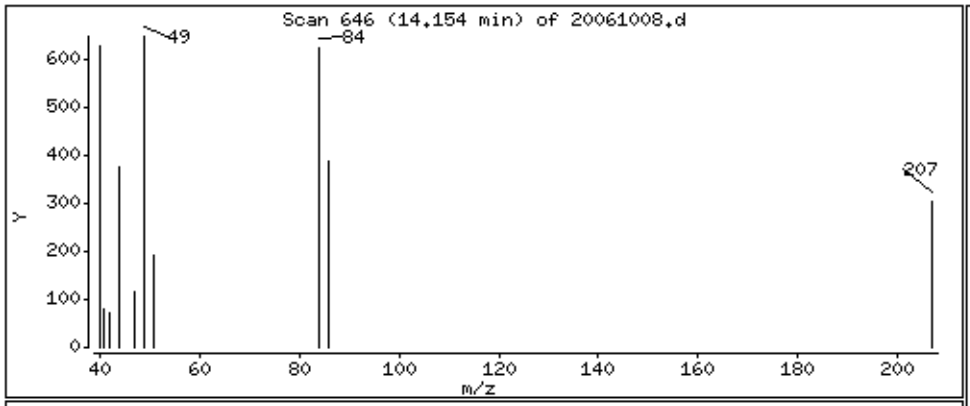
Operator: sab

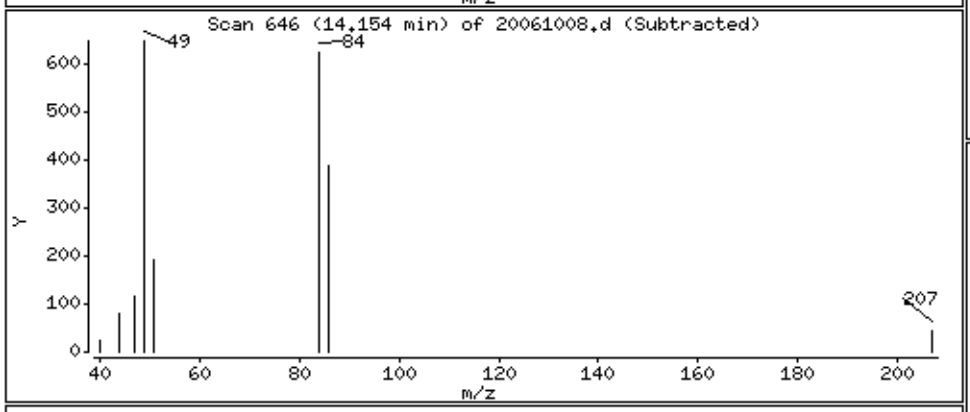
Column phase: RTX-624

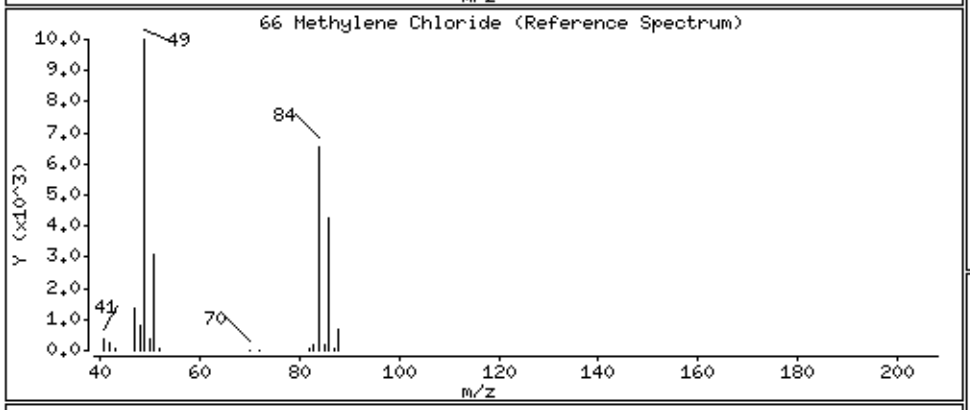
Column diameter: 0.32

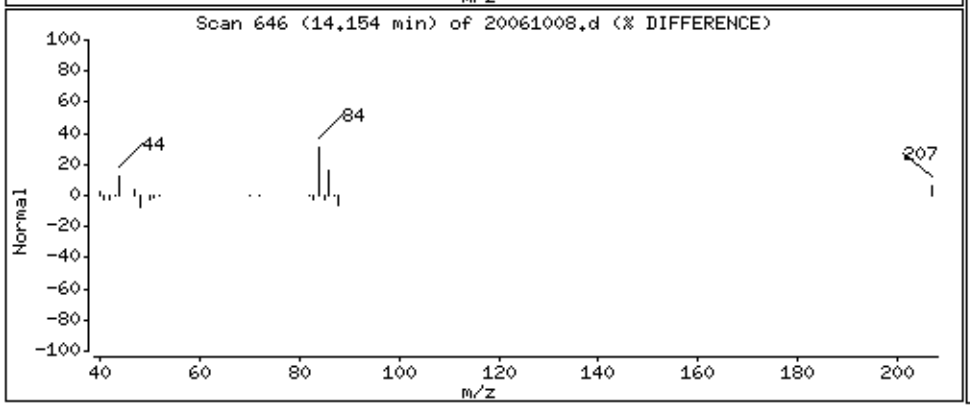
66 Methylene Chloride

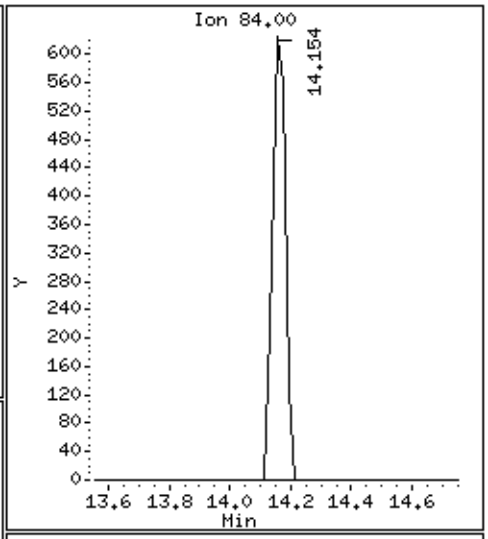
Concentration: 0.1746 PPBV

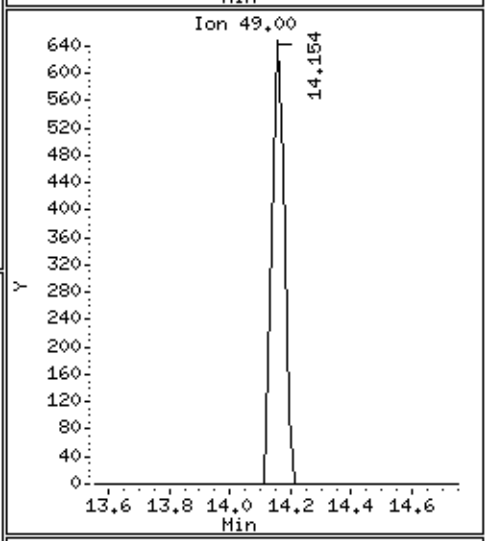


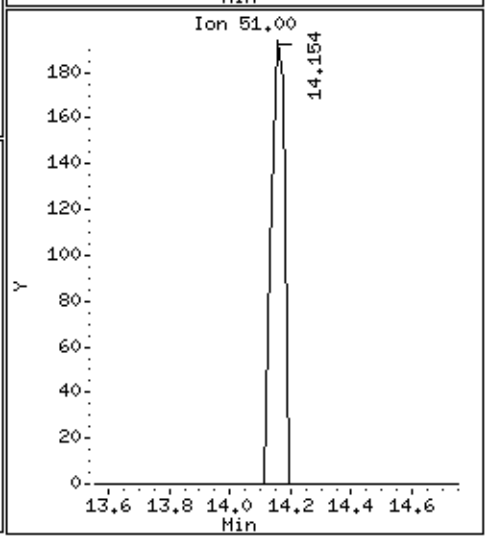












Data File: /chem/msd20.i/10Jun2015.b/20061008.d

Date : 10-JUN-2015 15:43

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33902

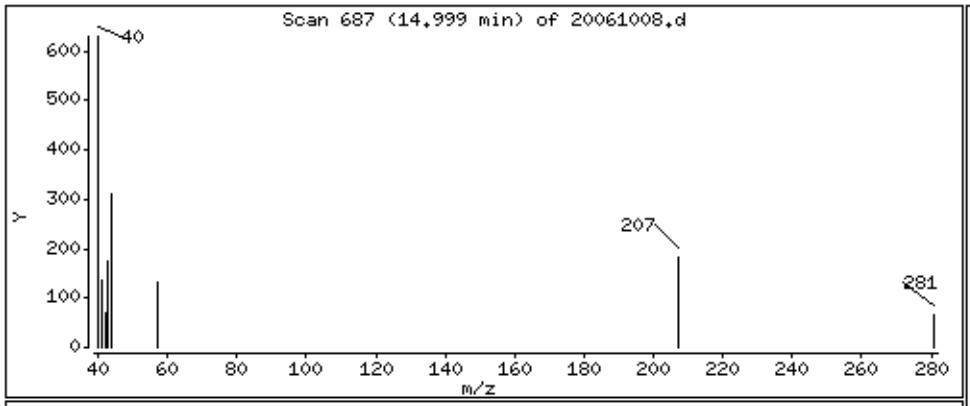
Operator: sab

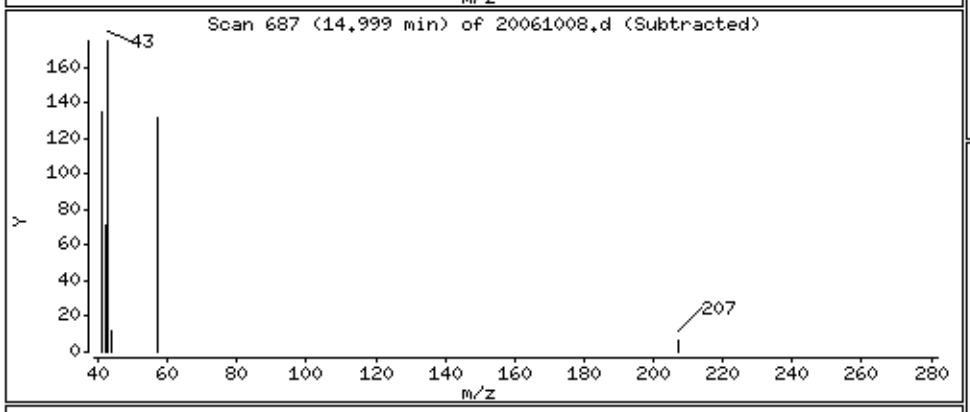
Column phase: RTX-624

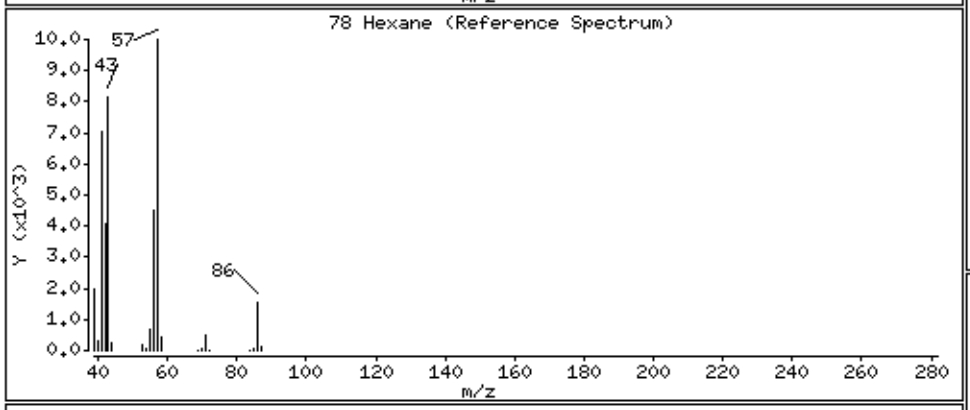
Column diameter: 0.32

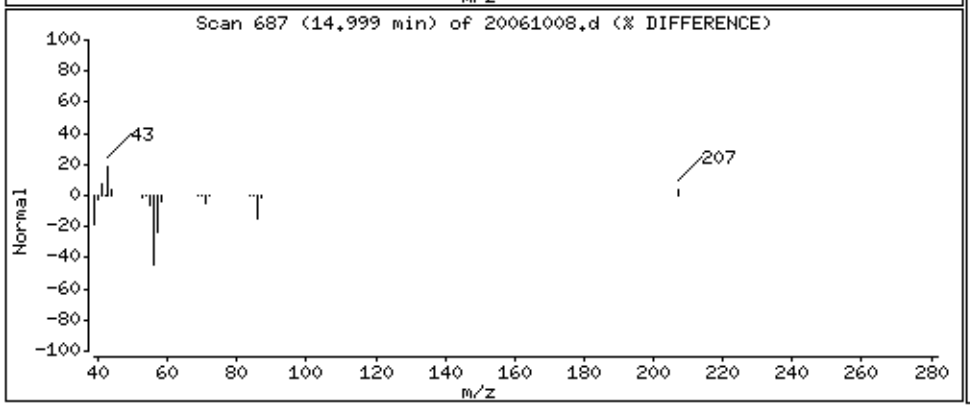
78 Hexane

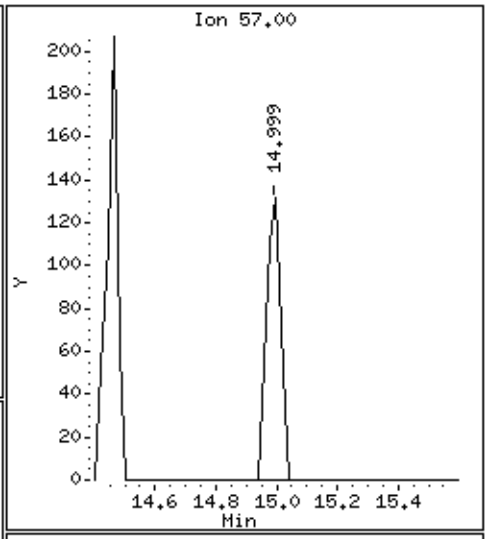
Concentration: 0.02860 PPBV

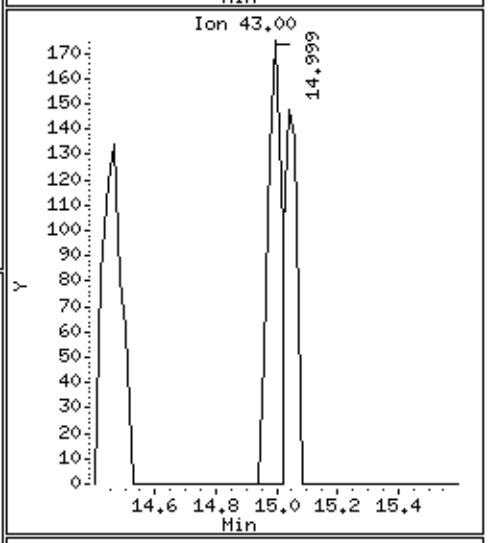


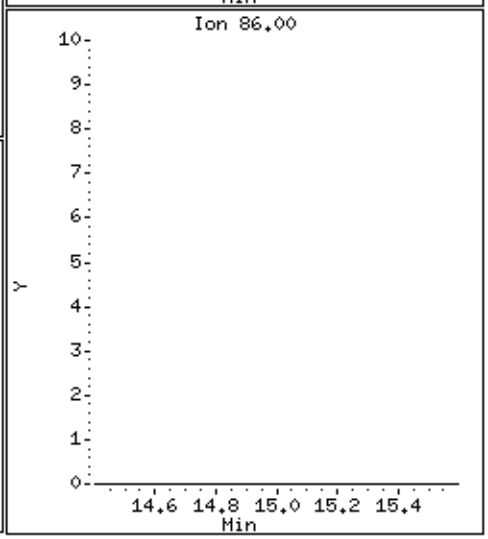












Data File: /chem/msd20.i/10Jun2015.b/20061008.d

Date : 10-JUN-2015 15:43

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33902

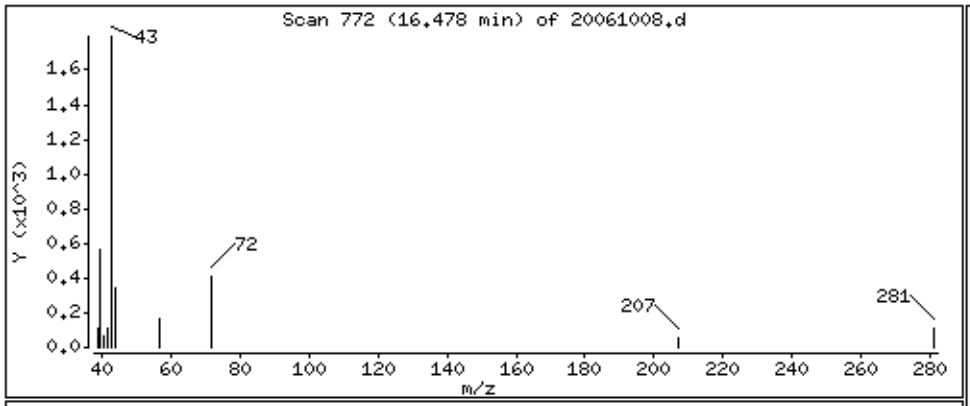
Operator: sab

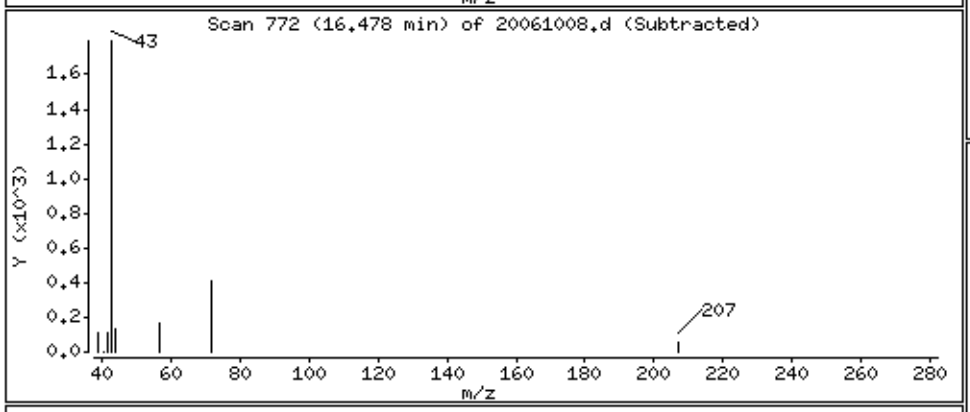
Column phase: RTX-624

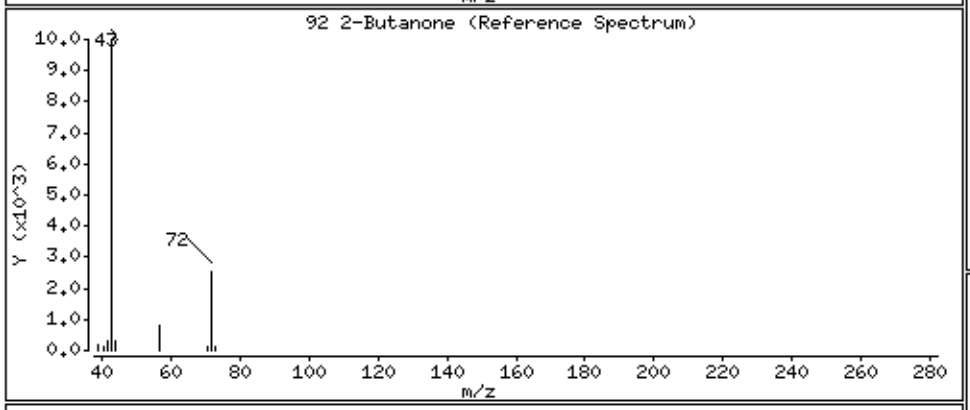
Column diameter: 0.32

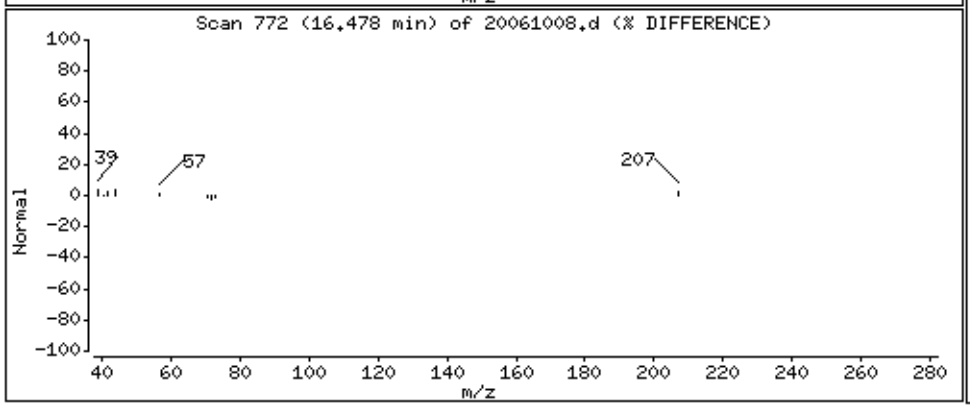
92 2-Butanone

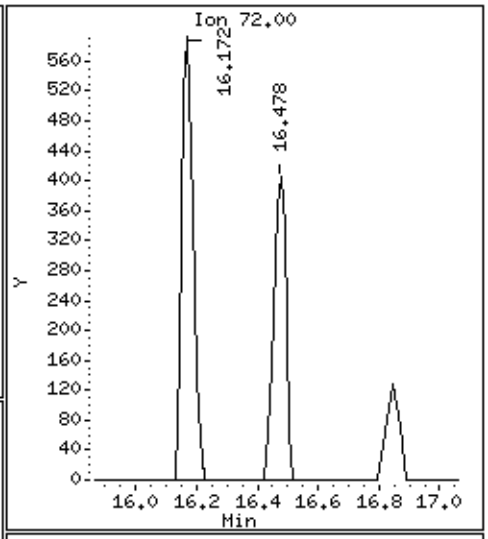
Concentration: 0.2155 PPBV

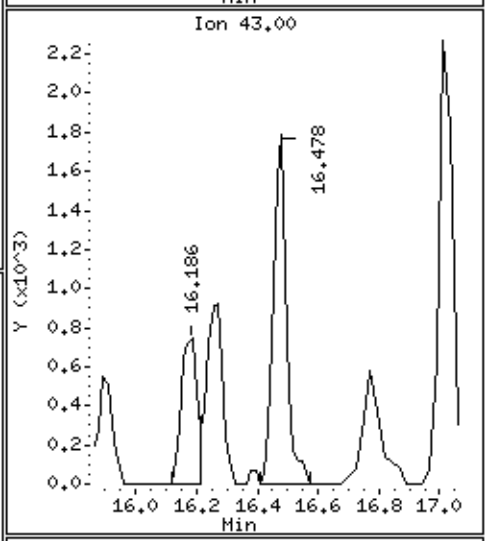


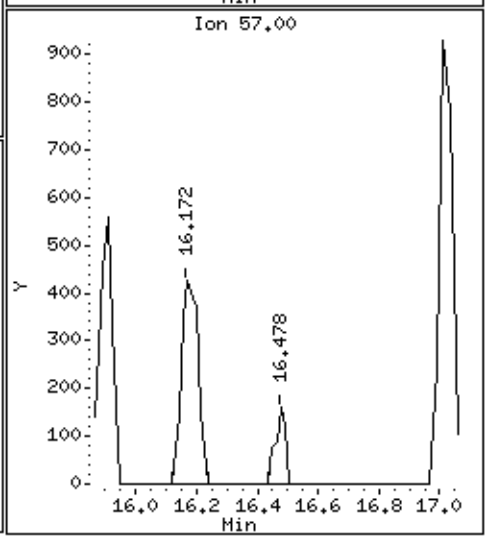












Data File: /chem/msd20.i/10Jun2015.b/20061008.d

Date : 10-JUN-2015 15:43

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33902

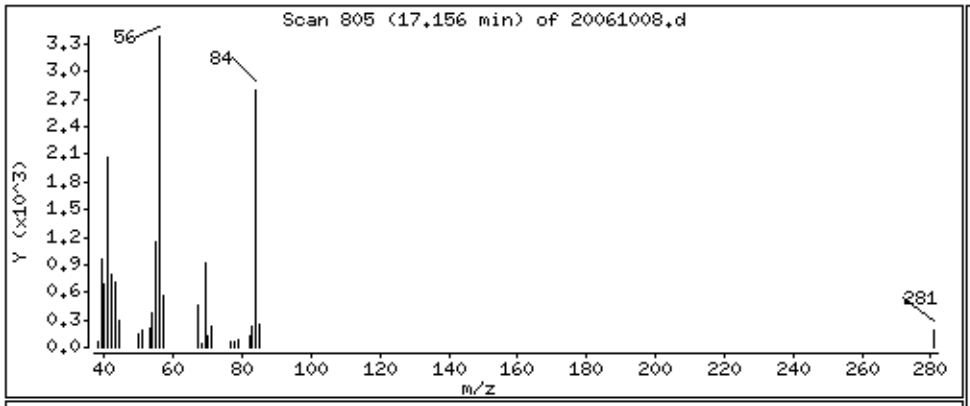
Operator: sab

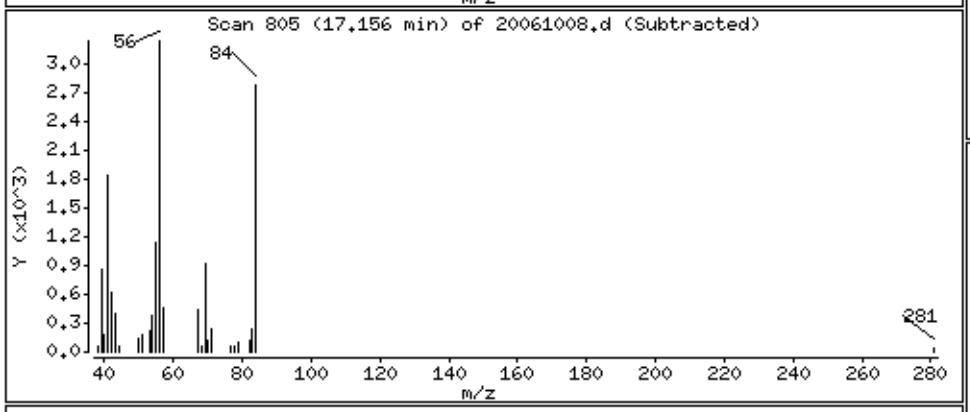
Column phase: RTX-624

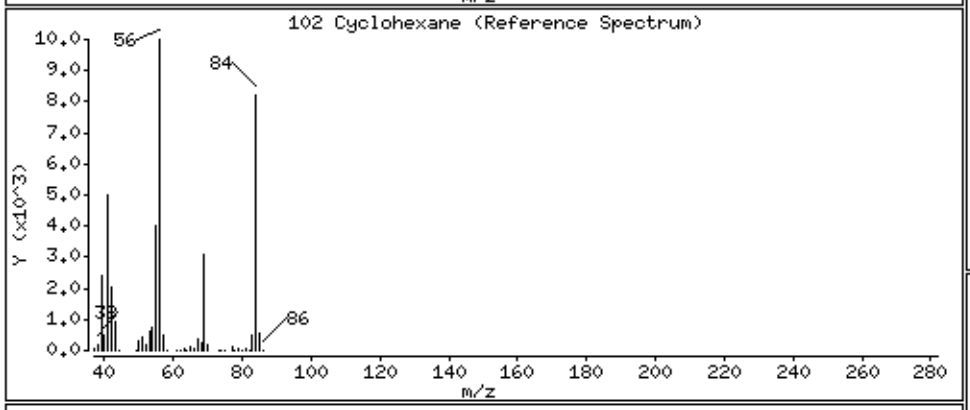
Column diameter: 0.32

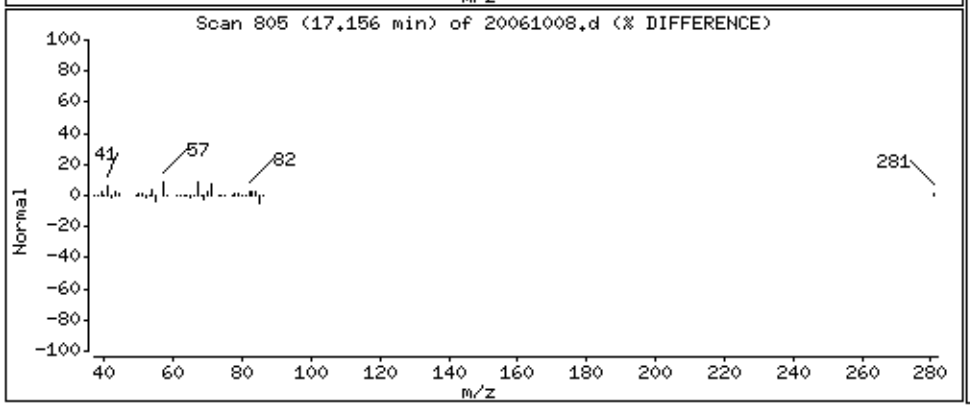
102 Cyclohexane

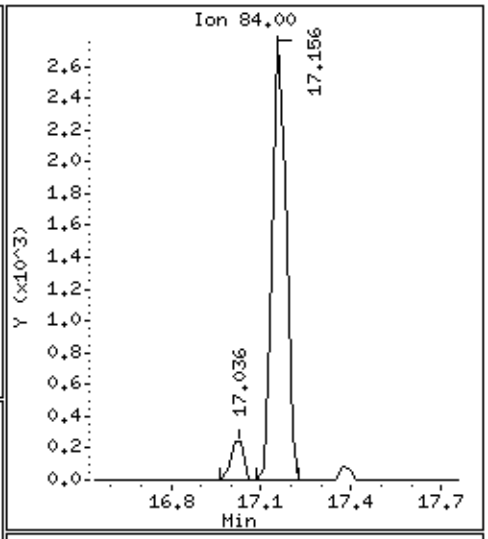
Concentration: 0.5538 PPBV

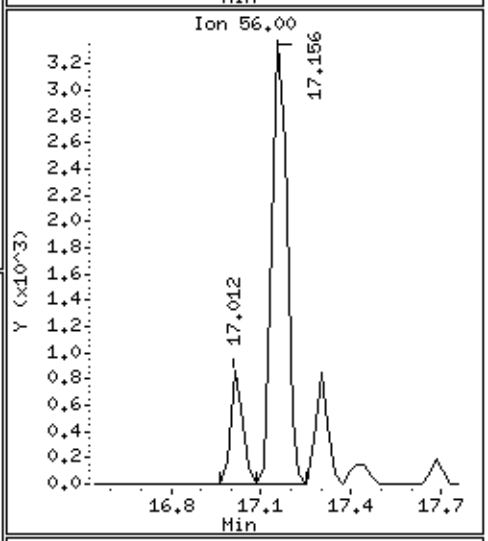


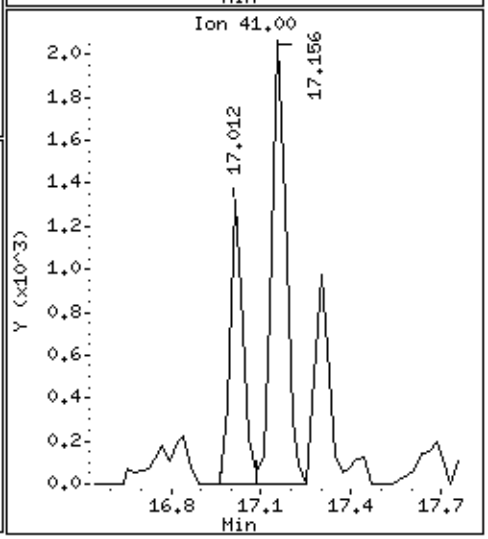












Data File: /chem/msd20.i/10Jun2015.b/20061008.d

Date : 10-JUN-2015 15:43

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33902

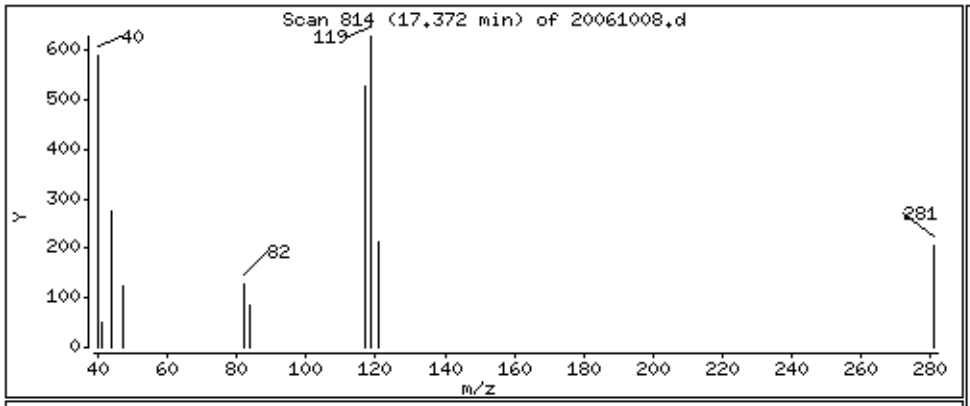
Operator: sab

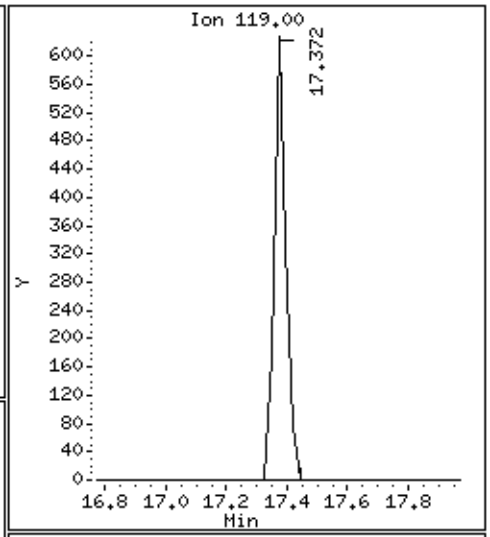
Column phase: RTX-624

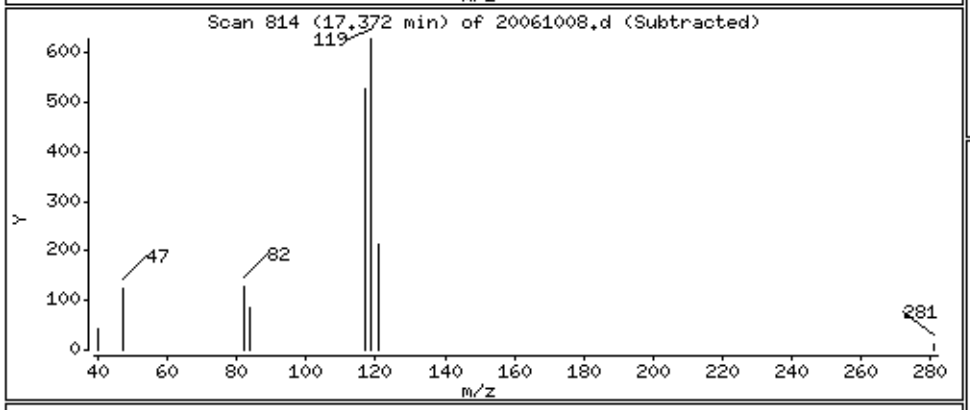
Column diameter: 0.32

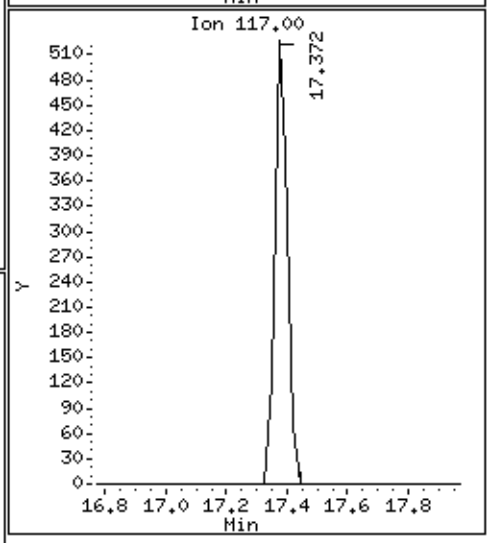
106 Carbon Tetrachloride

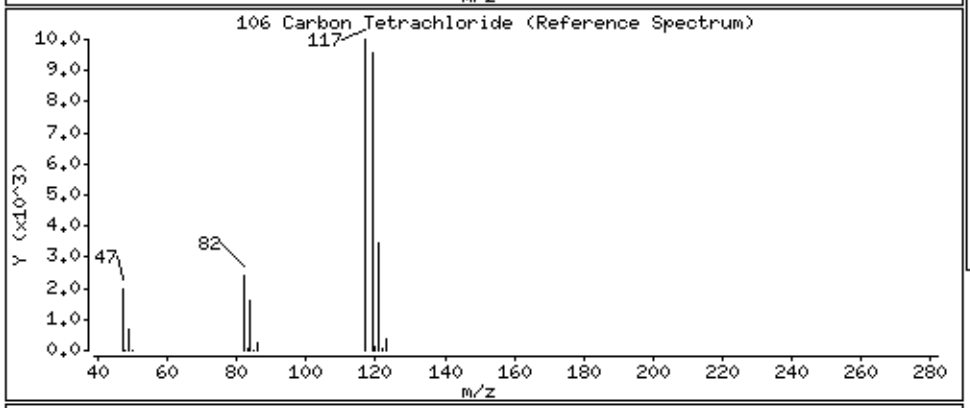
Concentration: 0.1035 PPBV

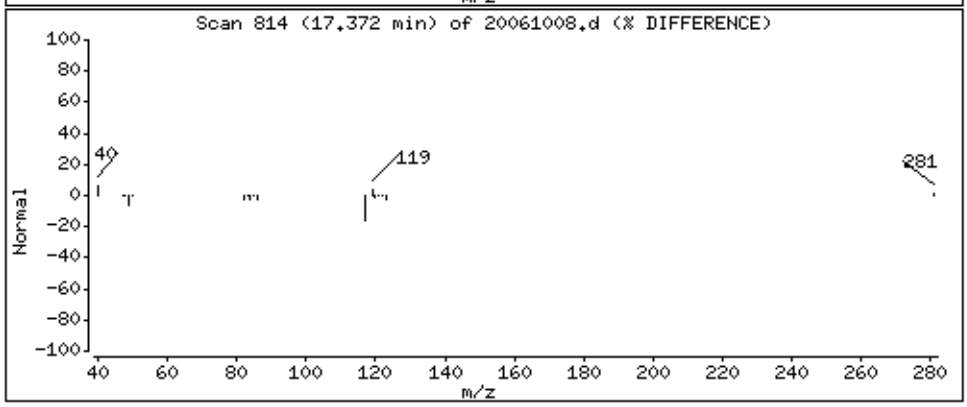












Data File: /chem/msd20.i/10Jun2015.b/20061008.d

Date : 10-JUN-2015 15:43

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33902

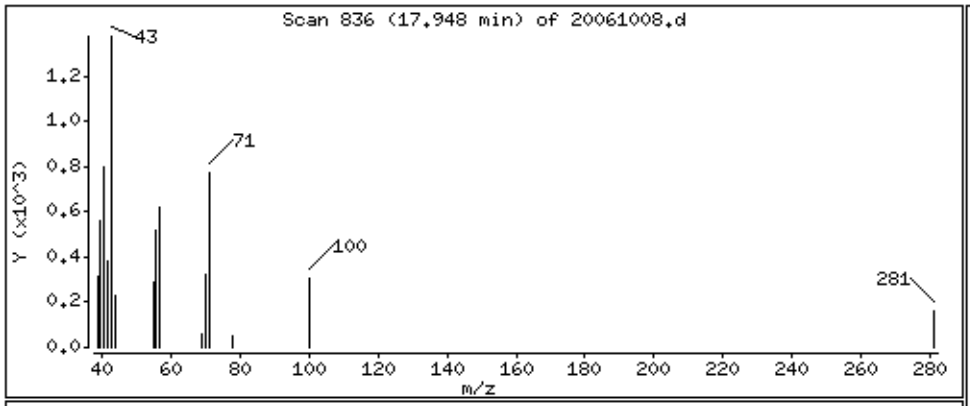
Operator: sab

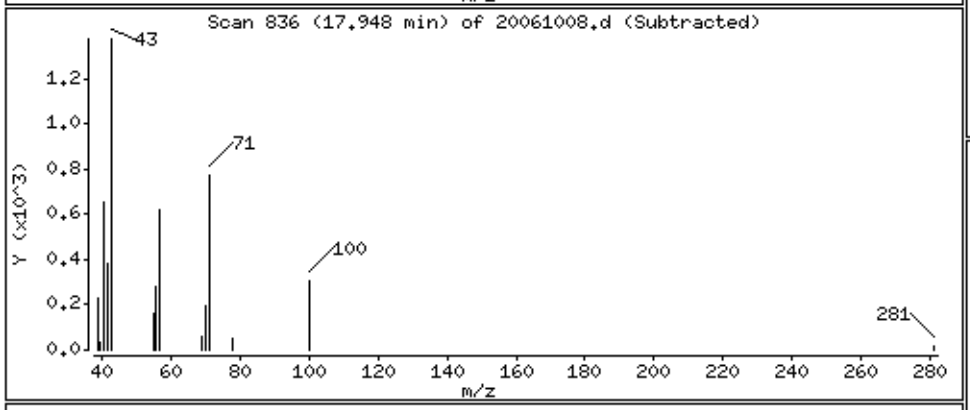
Column phase: RTX-624

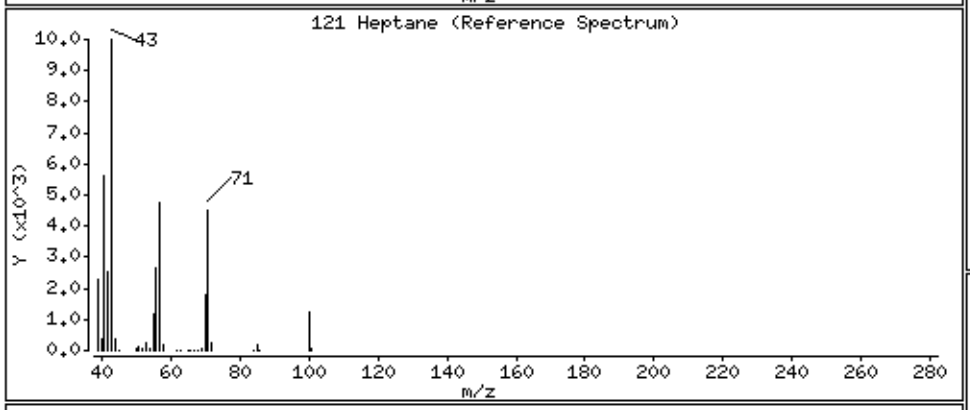
Column diameter: 0.32

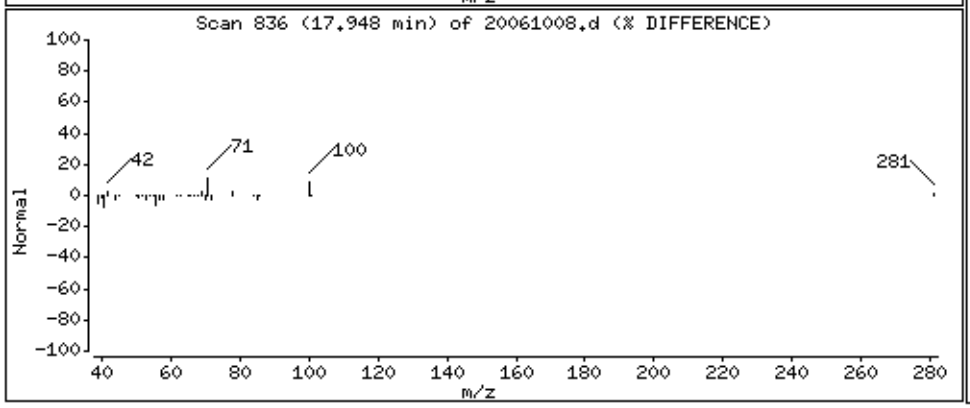
121 Heptane

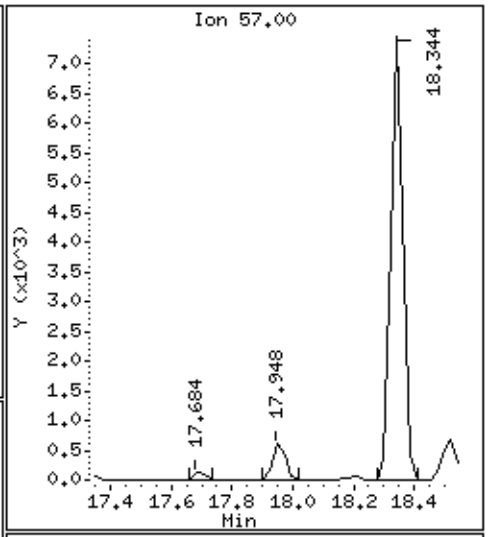
Concentration: 0.1992 PPBV

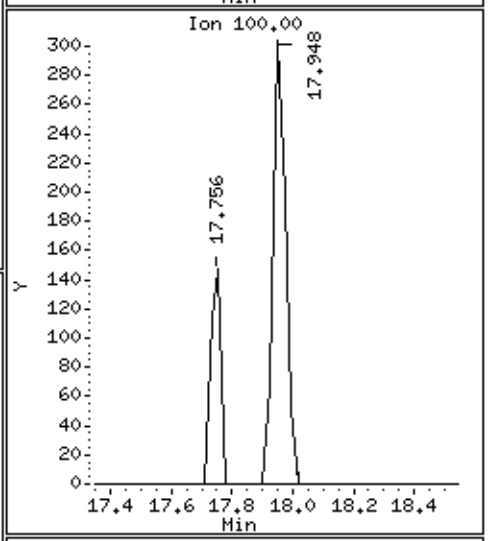


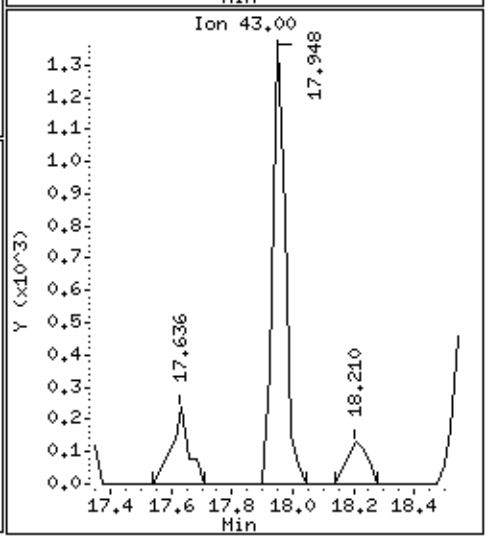












Data File: /chem/msd20.i/10Jun2015.b/20061008.d

Date : 10-JUN-2015 15:43

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33902

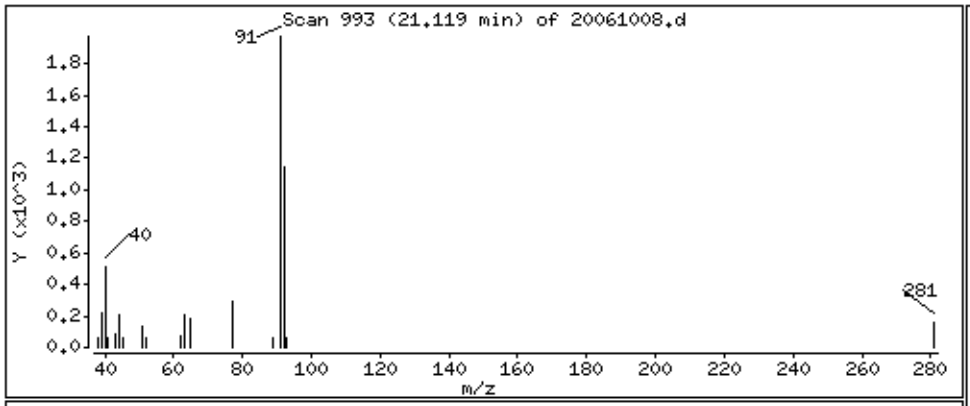
Operator: sab

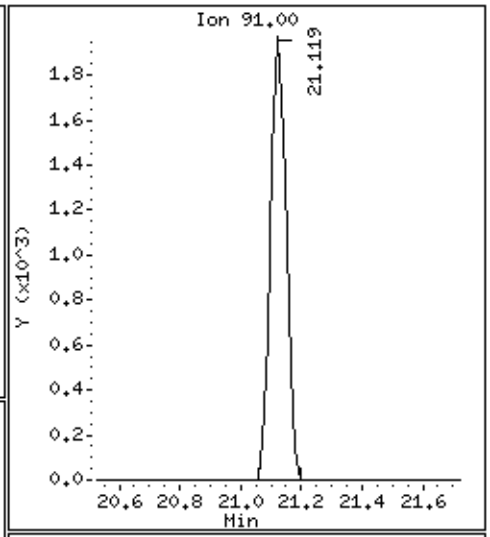
Column phase: RTX-624

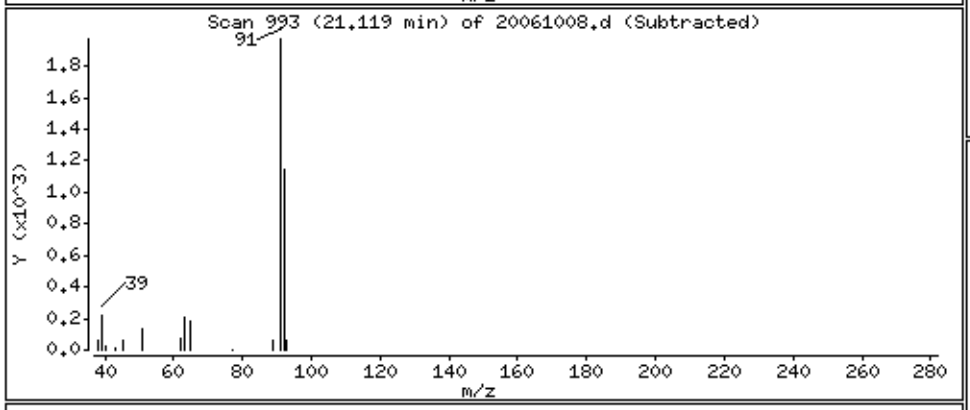
Column diameter: 0.32

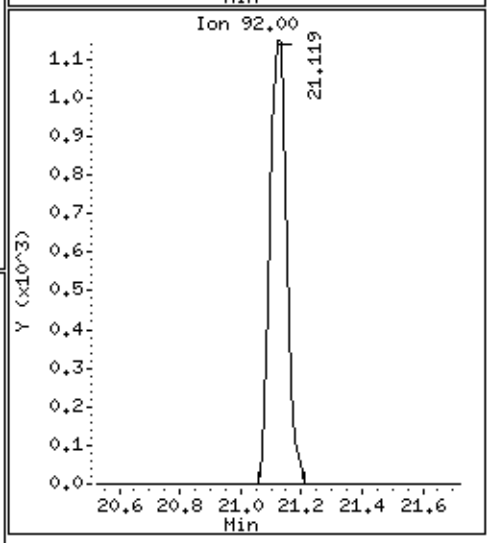
147 Toluene

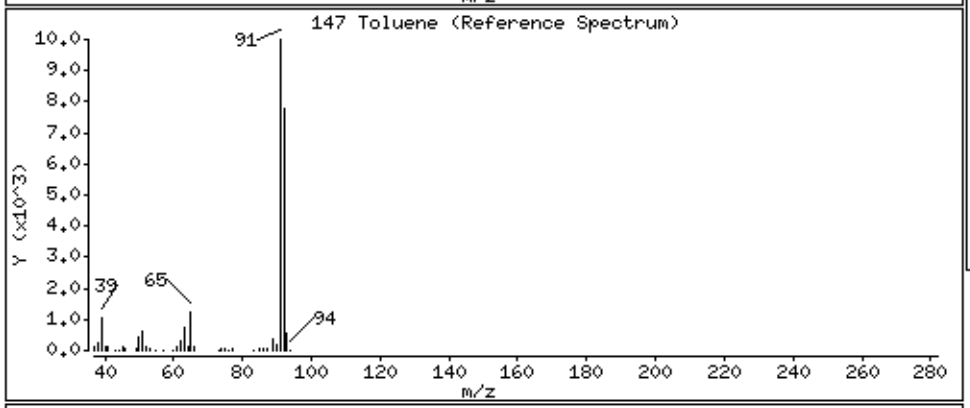
Concentration: 0.1774 PPBV

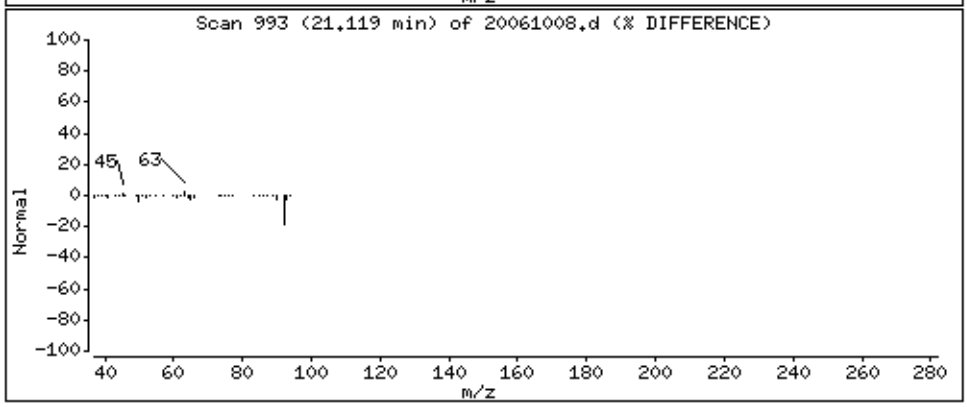












Data File: /chem/msd20.i/10Jun2015.b/20061008.d

Date : 10-JUN-2015 15:43

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33902

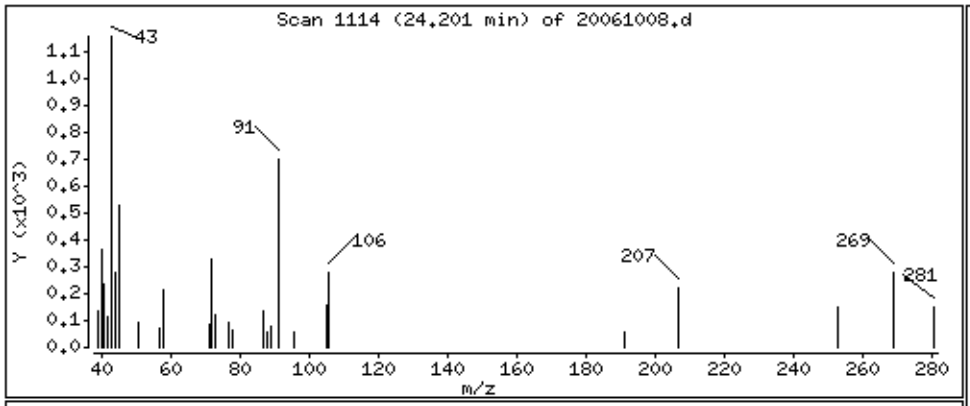
Operator: sab

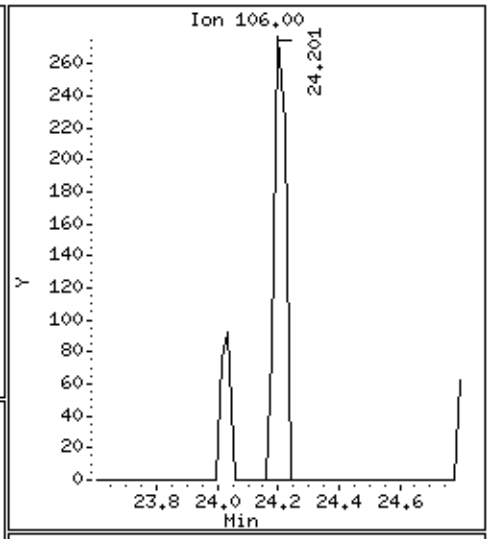
Column phase: RTX-624

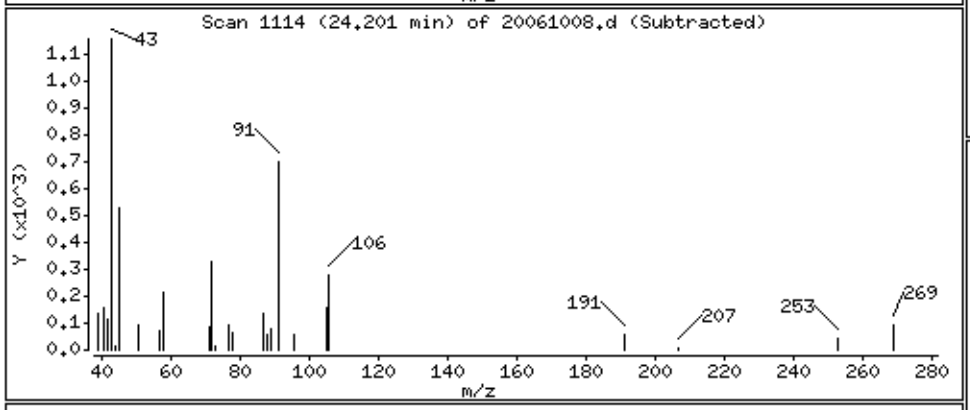
Column diameter: 0.32

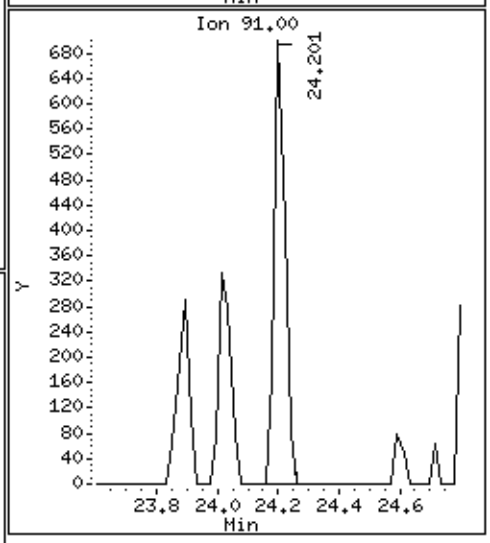
169 m,p-Xylene

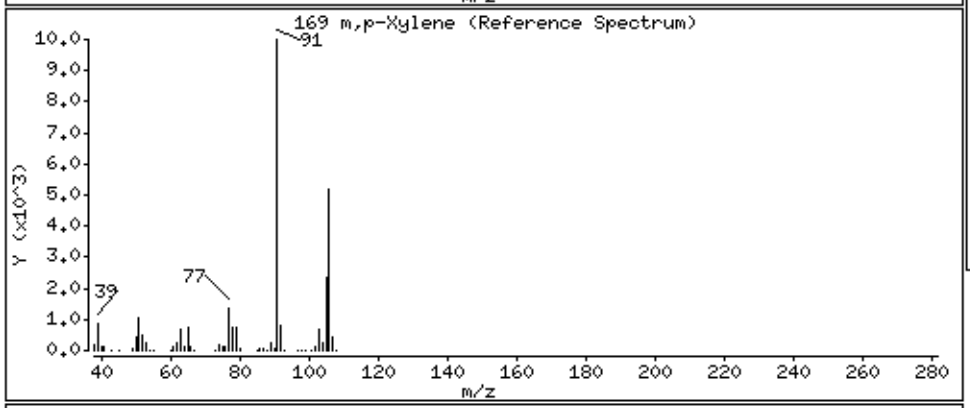
Concentration: 0.04355 PPBV

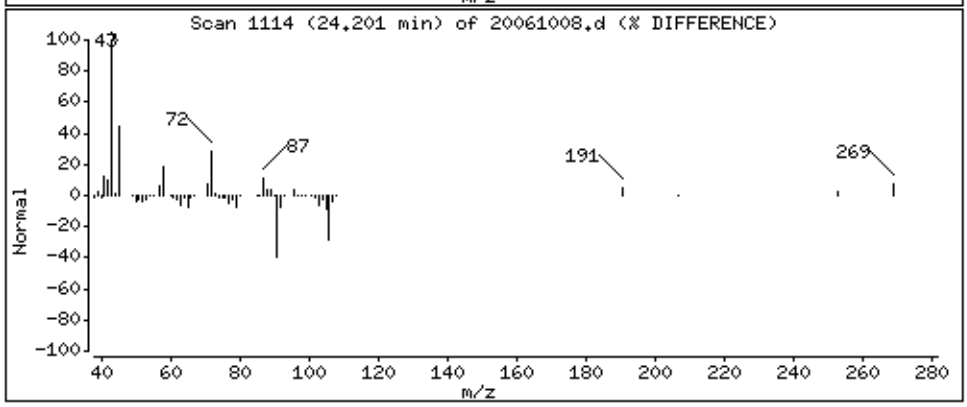












Data File: /chem/msd20.i/10Jun2015.b/20061008.d

Date : 10-JUN-2015 15:43

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33902

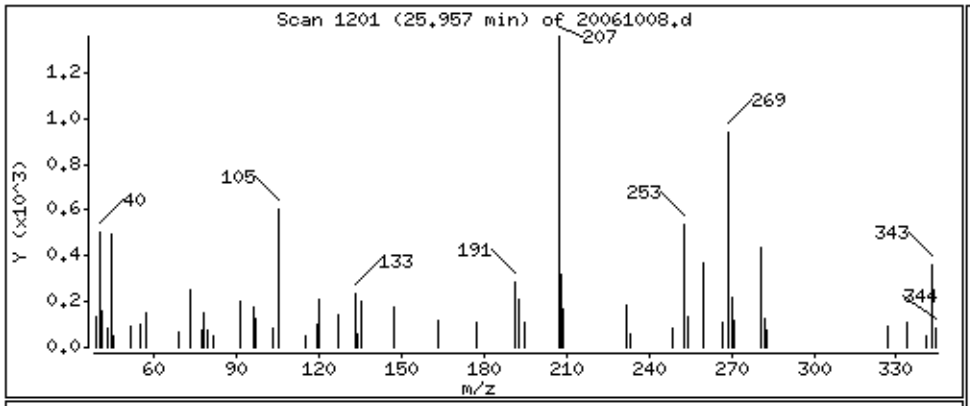
Operator: sab

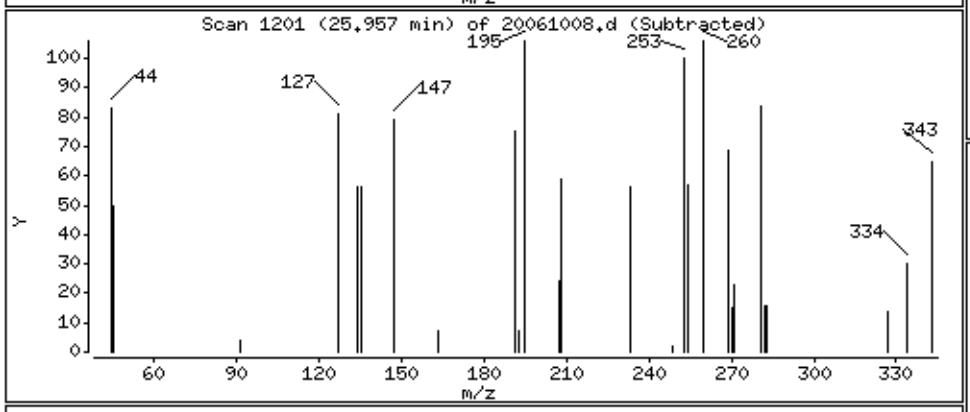
Column phase: RTX-624

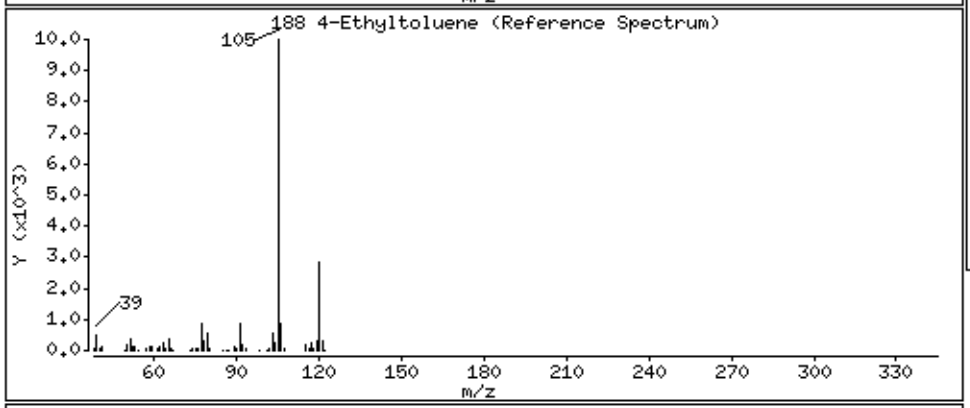
Column diameter: 0.32

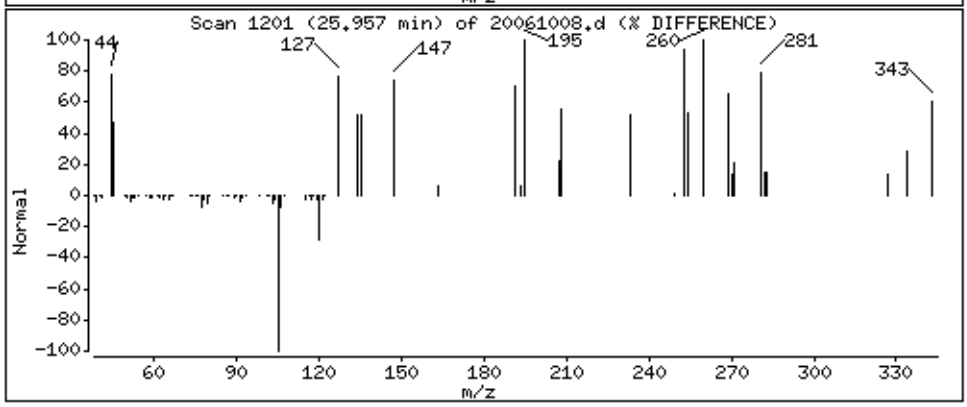
188 4-Ethyltoluene

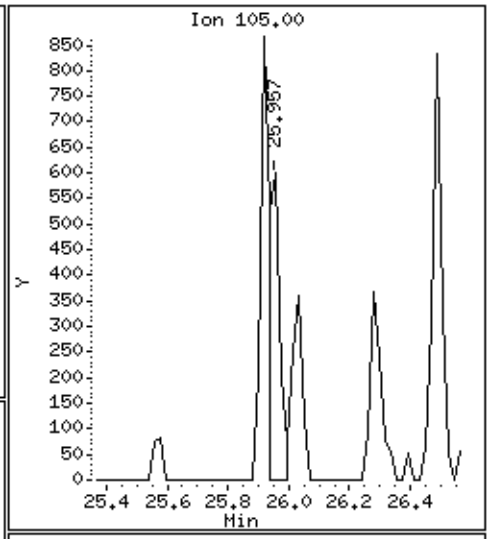
Concentration: 0.04252 PPBV

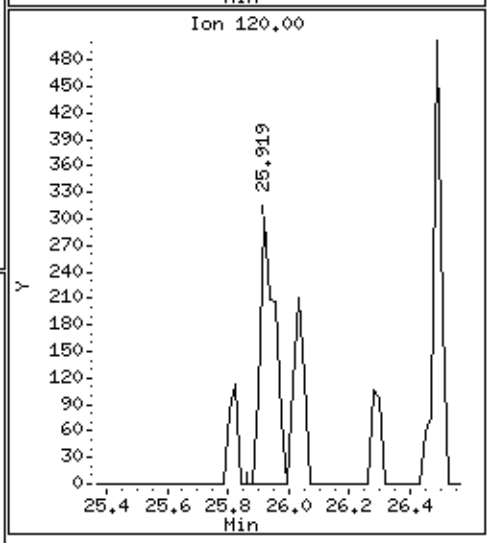












Data File: /chem/msd20.i/10Jun2015.b/20061008.d

Date : 10-JUN-2015 15:43

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33902

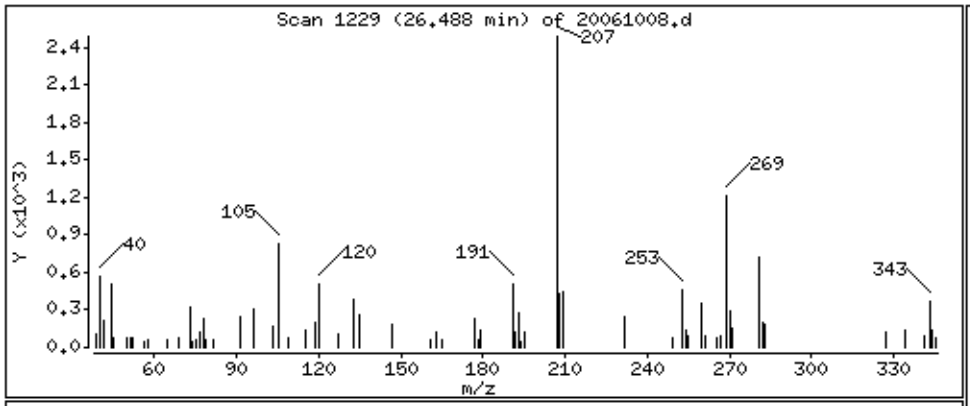
Operator: sab

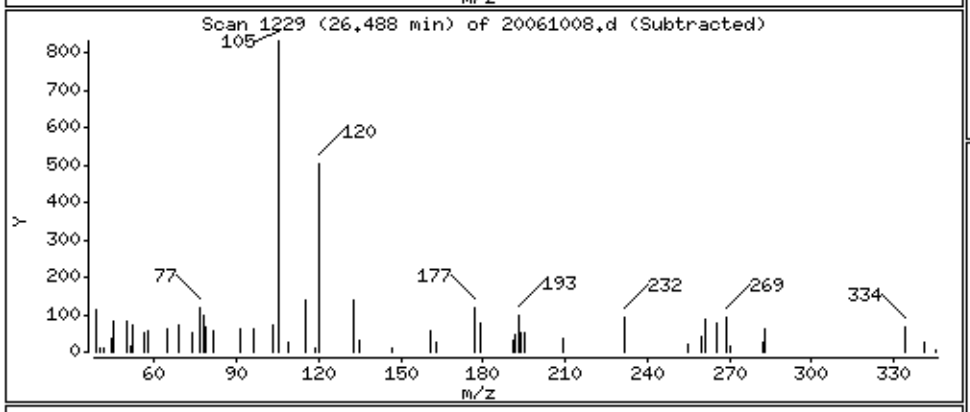
Column phase: RTX-624

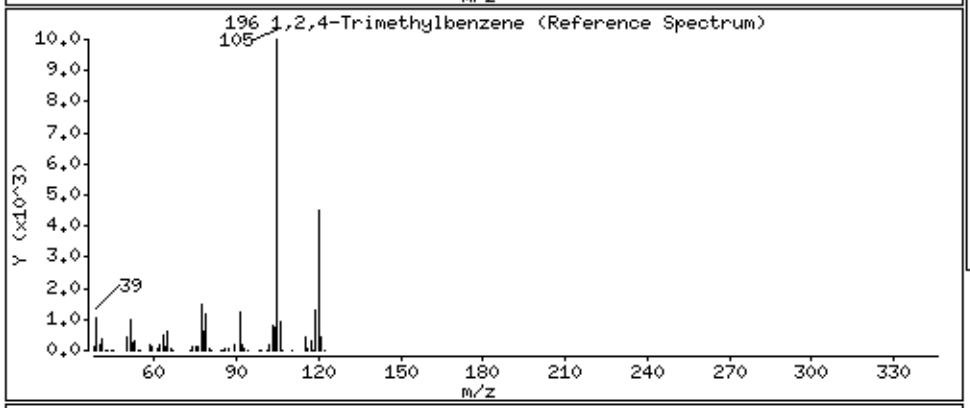
Column diameter: 0.32

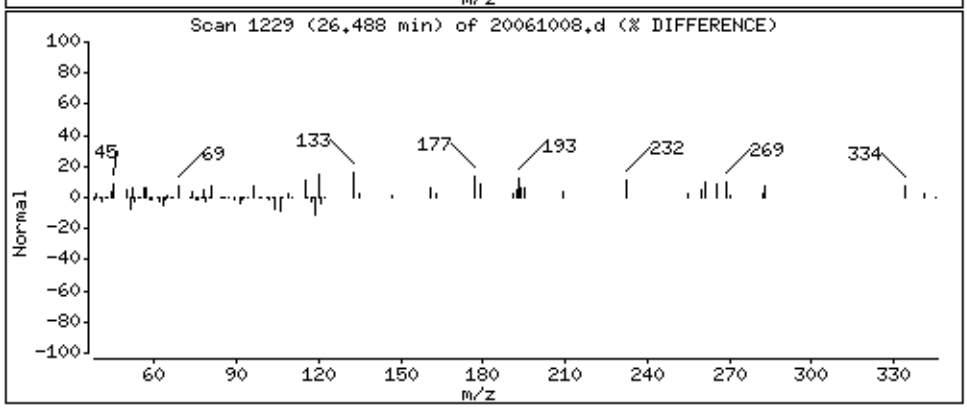
196 1,2,4-Trimethylbenzene

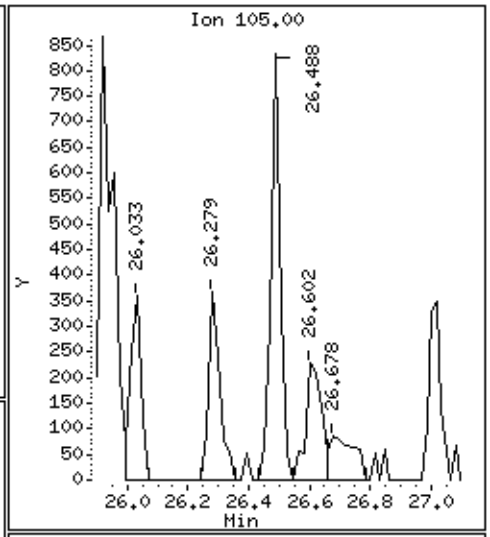
Concentration: 0.05367 PPBV

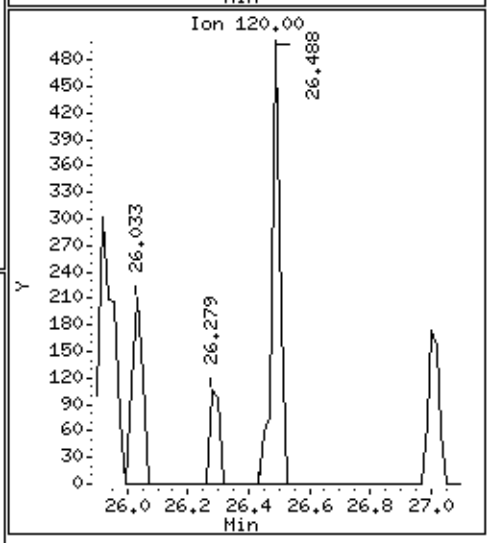












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B6-2IA-2

Lab ID#: 1506153A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.49	0.82	2.4
Chloromethane	0.83	0.70 J	1.7	1.4 J
Freon 11	0.17	0.23	0.93	1.3
Ethanol	0.83	15	1.6	28
Freon 113	0.17	0.067 J	1.3	0.52 J
Acetone	0.83	5.3	2.0	13
2-Propanol	0.83	13	2.0	31
Methylene Chloride	0.33	0.21 J	1.2	0.72 J
Hexane	0.17	0.041 J	0.58	0.14 J
2-Butanone (Methyl Ethyl Ketone)	0.83	0.29 J	2.4	0.86 J
Cyclohexane	0.17	0.99	0.57	3.4
Carbon Tetrachloride	0.17	0.13 J	1.0	0.82 J
2,2,4-Trimethylpentane	0.83	0.066 J	3.9	0.31 J
Heptane	0.17	0.54	0.68	2.2
Trichloroethene	0.17	0.045 J	0.89	0.24 J
Toluene	0.17	0.23	0.62	0.87
m,p-Xylene	0.17	0.036 J	0.72	0.16 J
4-Ethyltoluene	0.17	0.055 J	0.82	0.27 J
1,2,4-Trimethylbenzene	0.17	0.070 J	0.82	0.34 J

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Client Sample ID: B6-2IA-2

Lab ID#: 1506153A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061009**	**Date of Collection:**	**6/7/15 5:41:00 PM**
Dil. Factor:	**1.66**	**Date of Analysis:**	**6/10/15 04:24 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.49	0.82	2.4
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.83	0.70 J	1.7	1.4 J
Vinyl Chloride	0.17	Not Detected	0.42	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.83	Not Detected	3.2	Not Detected
Chloroethane	0.83	Not Detected	2.2	Not Detected
Freon 11	0.17	0.23	0.93	1.3
Ethanol	0.83	15	1.6	28
Freon 113	0.17	0.067 J	1.3	0.52 J
1,1-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Acetone	0.83	5.3	2.0	13
2-Propanol	0.83	13	2.0	31
Carbon Disulfide	0.83	Not Detected	2.6	Not Detected
3-Chloropropene	0.83	Not Detected	2.6	Not Detected
Methylene Chloride	0.33	0.21 J	1.2	0.72 J
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Hexane	0.17	0.041 J	0.58	0.14 J
1,1-Dichloroethane	0.17	Not Detected	0.67	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.83	0.29 J	2.4	0.86 J
cis-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Tetrahydrofuran	0.83	Not Detected	2.4	Not Detected
Chloroform	0.17	Not Detected	0.81	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.90	Not Detected
Cyclohexane	0.17	0.99	0.57	3.4
Carbon Tetrachloride	0.17	0.13 J	1.0	0.82 J
2,2,4-Trimethylpentane	0.83	0.066 J	3.9	0.31 J
Benzene	0.17	Not Detected	0.53	Not Detected
1,2-Dichloroethane	0.17	Not Detected	0.67	Not Detected
Heptane	0.17	0.54	0.68	2.2
Trichloroethene	0.17	0.045 J	0.89	0.24 J
1,2-Dichloropropane	0.17	Not Detected	0.77	Not Detected
1,4-Dioxane	0.17	Not Detected	0.60	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.75	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.68	Not Detected
Toluene	0.17	0.23	0.62	0.87
trans-1,3-Dichloropropene	0.17	Not Detected	0.75	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.90	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.83	Not Detected	3.4	Not Detected

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Client Sample ID: B6-2IA-2

Lab ID#: 1506153A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061009**	**Date of Collection:**	**6/7/15 5:41:00 PM**
Dil. Factor:	**1.66**	**Date of Analysis:**	**6/10/15 04:24 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.76	Not Detected
Ethyl Benzene	0.17	Not Detected	0.72	Not Detected
m,p-Xylene	0.17	0.036 J	0.72	0.16 J
o-Xylene	0.17	Not Detected	0.72	Not Detected
Styrene	0.17	Not Detected	0.71	Not Detected
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	Not Detected	0.82	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.1	Not Detected
Propylbenzene	0.17	Not Detected	0.82	Not Detected
4-Ethyltoluene	0.17	0.055 J	0.82	0.27 J
1,3,5-Trimethylbenzene	0.17	Not Detected	0.82	Not Detected
1,2,4-Trimethylbenzene	0.17	0.070 J	0.82	0.34 J
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.86	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.83	Not Detected	6.2	Not Detected
Hexachlorobutadiene	0.83	Not Detected	8.8	Not Detected
Naphthalene	0.83	Not Detected	4.4	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	93	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/10Jun2015.b/20061009.d
Lab Smp Id: 1506153A-02A
Inj Date : 10-JUN-2015 16:24
Operator : md Inst ID: msd20.i
Smp Info : 250mL #6L0054
Misc Info : 5.7"Hg->5.1 psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/10Jun2015.b/2015l0506a.m
Meth Date : 12-Jun-2015 09:37 mchen Quant Type: ISTD
Cal Date : 07-MAY-2015 12:38 Cal File: 20050616.d
Als bottle: 1
Dil Factor: 1.66000
Integrator: HP RTE Compound Sublist: TO15NMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.66000	Dilution Factor

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
11 Freon 12						CAS #: 75-71-8		
4.814	4.797	(0.286)	85	13758	0.29579	0.4910	80.00- 120.00	100.00(M)
4.849	4.797	(0.288)	87	4168			2.49- 62.49	30.30
17 Chloromethane						CAS #: 74-87-3		
6.749	6.697	(0.401)	50	5782	0.42155	0.6998	80.00- 120.00	100.00(a)
6.732	6.697	(0.400)	52	245			2.88- 62.88	4.24
35 Freon 11						CAS #: 75-69-4		
11.255	11.238	(0.668)	101	6666	0.13682	0.2271	80.00- 120.00	100.00
11.255	11.238	(0.668)	103	4285			35.69- 95.69	64.28
42 Ethanol						CAS #: 64-17-5		
12.400	12.396	(0.736)	45	48849	9.02389	14.980	80.00- 120.00	100.00
12.400	12.396	(0.736)	46	18742			8.49- 68.49	38.37
12.400	12.396	(0.736)	43	12106			0.00- 51.69	24.78

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
49 Freon 113					CAS #: 76-13-1		
12.874	12.871 (0.764)	151	1593	0.04061	0.06742	80.00- 120.00	100.00(a)
12.895	12.871 (0.766)	153	839			34.25- 94.25	52.68
12.874	12.871 (0.764)	101	1513			75.92- 135.92	94.95
52 Acetone					CAS #: 67-64-1		
13.225	13.222 (0.785)	58	25793	3.21567	5.338	80.00- 120.00	100.00
13.225	13.222 (0.785)	43	77478			250.97- 310.97	300.38
57 2-Propanol					CAS #: 67-63-0		
13.659	13.655 (0.811)	45	171383	7.66911	12.731	80.00- 120.00	100.00
13.659	13.655 (0.811)	43	39506			0.00- 45.99	23.05
13.659	13.655 (0.811)	59	7078			0.00- 33.55	4.13
66 Methylene Chloride					CAS #: 75-09-2		
14.154	14.150 (0.840)	84	2143	0.12562	0.2085	80.00- 120.00	100.00(a)
14.174	14.150 (0.842)	49	2159			76.26- 136.26	100.75
14.154	14.150 (0.840)	51	778			2.64- 62.64	36.32
78 Hexane					CAS #: 110-54-3		
14.999	14.996 (0.890)	57	582	0.02452	0.04070	80.00- 120.00	100.00(a)
15.020	14.996 (0.892)	43	684			29.42- 89.42	117.39
0.000	14.996 (0.000)	86	0			0.00- 49.37	0.00
92 2-Butanone					CAS #: 78-93-3		
16.478	16.460 (0.978)	72	1494	0.17659	0.2931	80.00- 120.00	100.00(a)
16.478	16.460 (0.978)	43	5859			397.61- 457.61	392.00
16.464	16.460 (0.977)	57	361			0.00- 58.47	24.16
* 98 Bromochloromethane					CAS #: 74-97-5		
16.844	16.841 (1.000)	130	68751	5.00000		80.00- 120.00	100.00
16.844	16.841 (1.000)	128	53558			48.56- 108.56	77.90
16.844	16.841 (1.000)	49	71564			77.31- 137.31	104.09
102 Cyclohexane					CAS #: 110-82-7		
17.156	17.153 (1.019)	84	14585	0.59474	0.9873	80.00- 120.00	100.00
17.156	17.153 (1.019)	56	20133			72.40- 132.40	138.04
17.156	17.153 (1.019)	41	11979			20.65- 80.65	82.14
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.372	17.369 (1.031)	119	2093	0.07872	0.1307	80.00- 120.00	100.00(a)
17.372	17.369 (1.031)	117	1674			73.26- 133.26	79.99
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
17.684	17.681 (1.050)	56	941	0.04006	0.06650	80.00- 120.00	100.00(a)
17.684	17.681 (1.050)	57	552			268.82- 328.82	58.72

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  113 2,2,4-Trimethylpentane (continued)
 17.684  17.681 (1.050)    41      1460                    49.41- 109.41   155.13
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                        CAS #: 17060-07-0
 17.756  17.753 (1.054)    65     95125 5.50031    5.500  80.00- 120.00   100.00
 17.756  17.753 (1.054)    67     50517                    27.32-  87.32    53.11
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 17.948  17.944 (0.978)    57      4728 0.32259   0.5355  80.00- 120.00   100.00
 17.948  17.944 (0.978)   100      1410                    21.23-  81.23    29.83
 17.948  17.944 (0.978)    43      8038                   145.72- 205.72   170.00
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 18.344  18.341 (1.000)   114    289149 5.00000           80.00- 120.00   100.00
 18.344  18.341 (1.000)    88     44936                     0.00-  44.67    15.54
-------------------------------------------------------------------------------
  125 Trichloroethene                              CAS #: 79-01-6
 18.745  18.742 (1.022)   130       835 0.02736  0.04542  80.00- 120.00   100.00(a)
 18.745  18.742 (1.022)    95       868                    56.13- 116.13   104.01
 18.745  18.742 (1.022)    97       443                    26.55-  86.55    53.04
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.979  20.982 (1.144)    98    261274 4.87083    4.871  80.00- 120.00   100.00
 20.979  20.982 (1.144)    70     27154                     0.00-  40.06    10.39
 20.979  20.982 (1.144)   100    171065                    36.64-  96.64    65.47
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 21.135  21.123 (1.152)    91      9198 0.13975   0.2320  80.00- 120.00   100.00
 21.119  21.123 (1.151)    92      5144                    29.36-  89.36    55.93
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 23.892  23.895 (1.000)   117    245345 5.00000           80.00- 120.00   100.00
 23.892  23.895 (1.000)    82    124155                    18.57-  78.57    50.60
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.201  24.204 (1.013)   106       566 0.02182  0.03622  80.00- 120.00   100.00(a)
 24.201  24.204 (1.013)    91      1628                   160.53- 220.53   287.34
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 25.578  25.581 (1.071)   174    137166 4.66743    4.667  80.00- 120.00   100.00
 25.578  25.581 (1.071)    95    140885                    70.67- 130.67   102.71
 25.578  25.581 (1.071)   176    133555                    67.63- 127.63    97.37
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 25.957  25.960 (1.086)   105      1594 0.02691  0.04467  80.00- 120.00   100.00(aM)
 25.957  25.960 (1.086)   120       564                     3.93-  63.93    35.40
-------------------------------------------------------------------------------
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
196 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
26.488	26.491	(1.109)	105	2223	0.04202	0.06976	80.00- 120.00	100.00(a)
26.488	26.491	(1.109)	120	965			19.25- 79.25	43.45

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061009.d
Lab Smp Id: 1506153A-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: md
Method File: /chem/msd20.i/10Jun2015.b/2015l0506a.m
Misc Info: 5.7"Hg->5.1 psi

Calibration Date: 10-JUN-2015
Calibration Time: 11:58

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	70421	42253	98589	68751	-2.37
123 1,4-Difluorobenze	289237	173542	404932	289149	-0.03
163 Chlorobenzene-d5	248624	149174	348074	245345	-1.32

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.84	16.51	17.17	16.84	0.02
123 1,4-Difluorobenze	18.34	18.01	18.67	18.34	0.02
163 Chlorobenzene-d5	23.90	23.57	24.23	23.89	-0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 12-Jun-2015 09:53

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 10Jun2015
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1506153A-02A
Level: LOW Operator: md
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/10Jun2015.b/2015l0506a.m
Misc Info: 5.7"Hg->5.1 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.500	110.01	70-130
$ 146 Toluene-d8	5.000	4.871	97.42	70-130
$ 177 4-Bromofluorobenze	5.000	4.667	93.35	70-130

Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

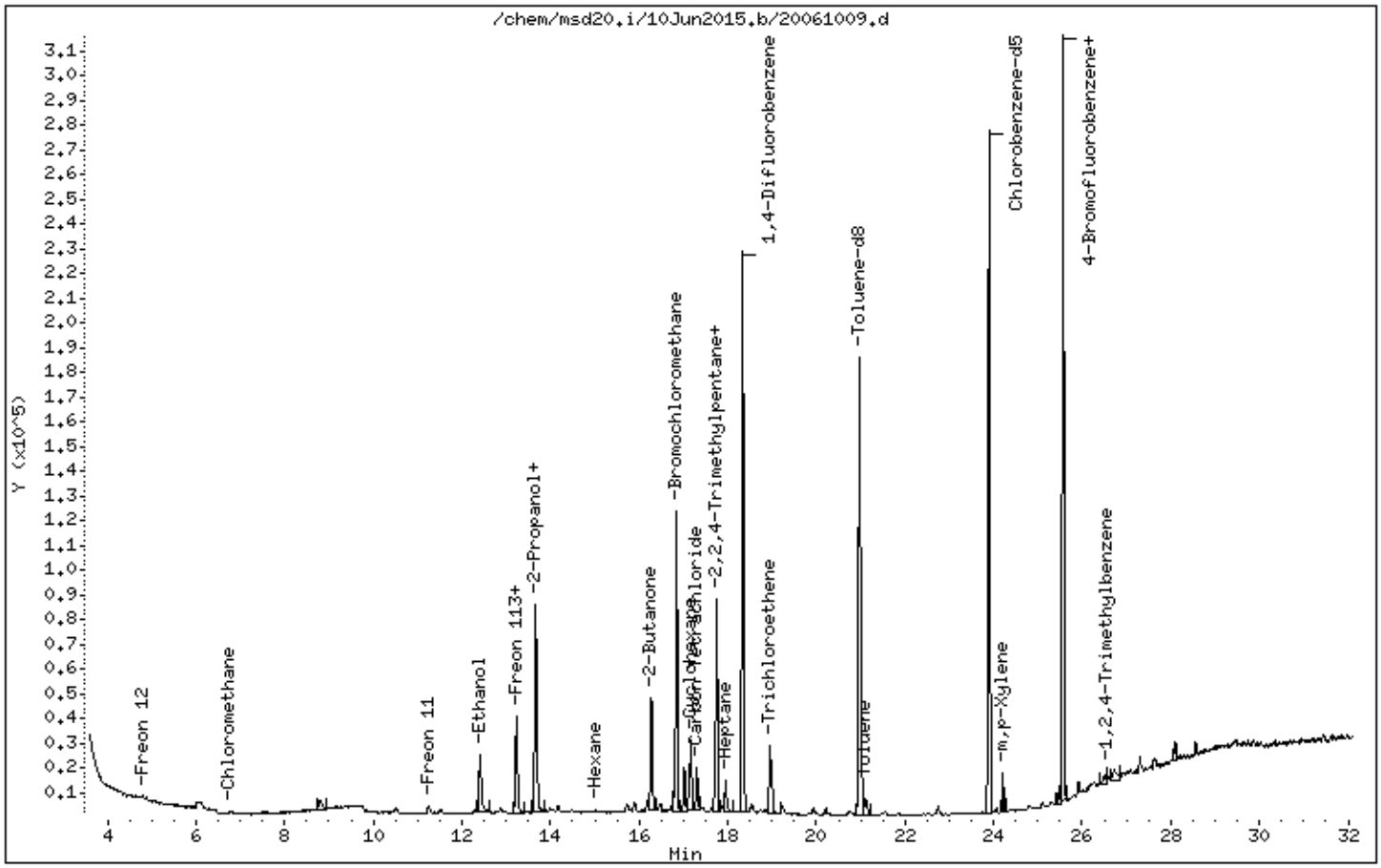
Instrument: msd20.i

Sample Info: 250mL #6L0054

Operator: md

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0054

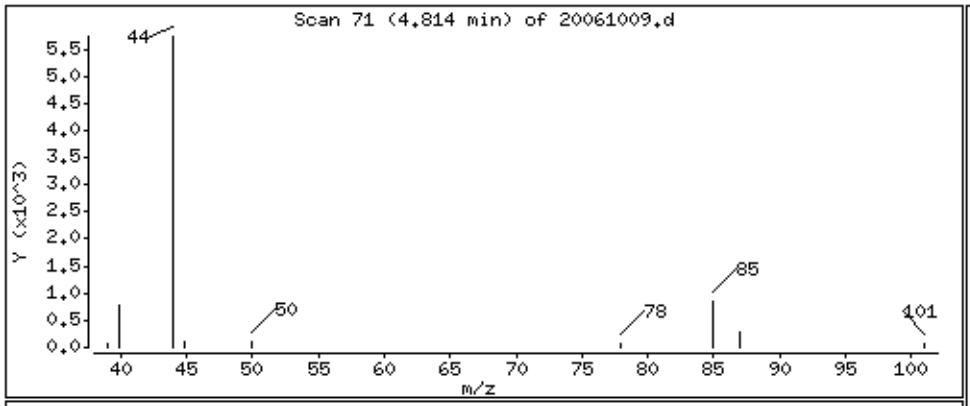
Operator: md

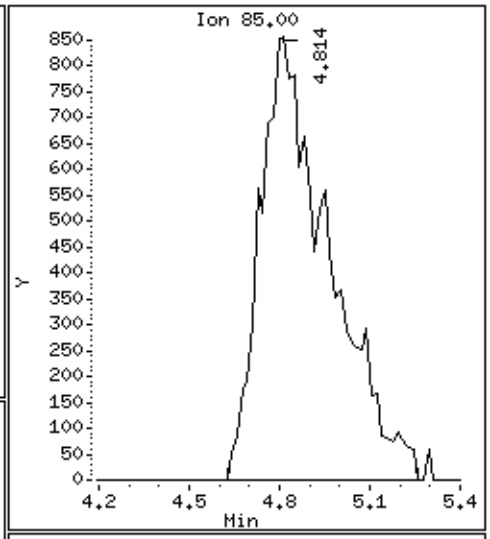
Column phase: RTX-624

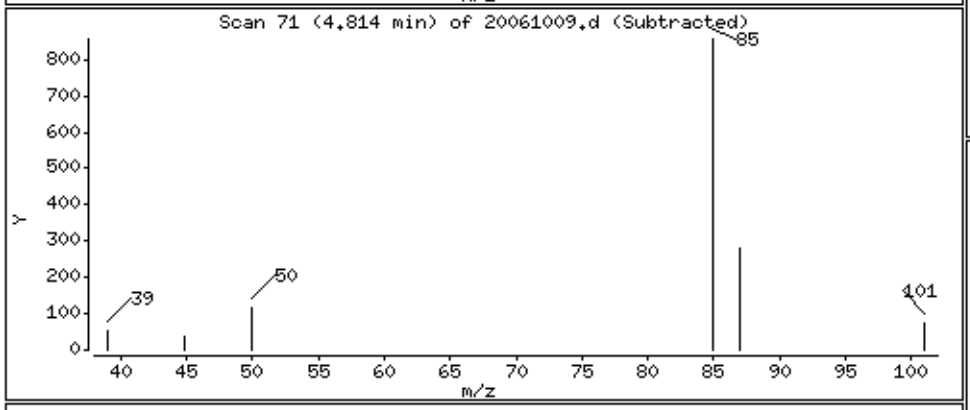
Column diameter: 0.32

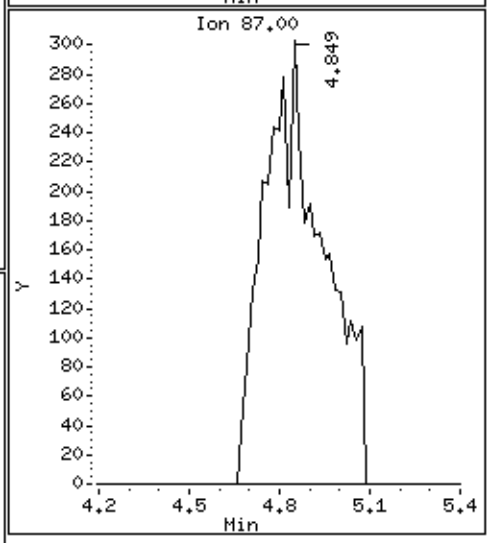
11 Freon 12

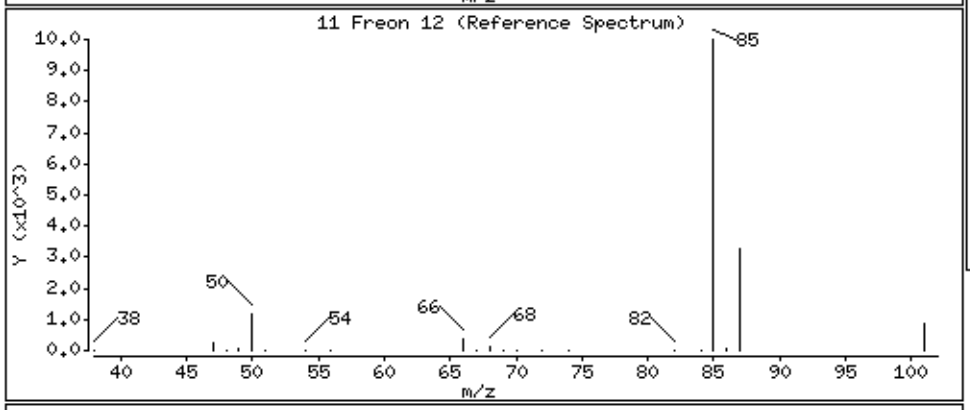
Concentration: 0.4910 PPBV

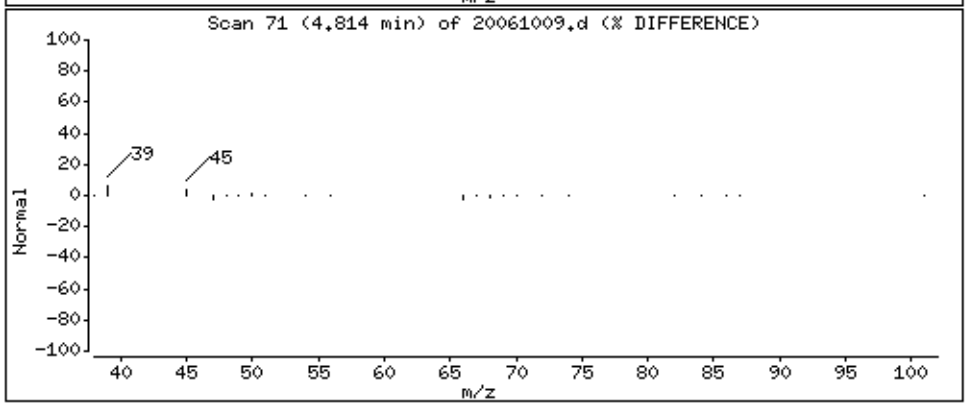












Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0054

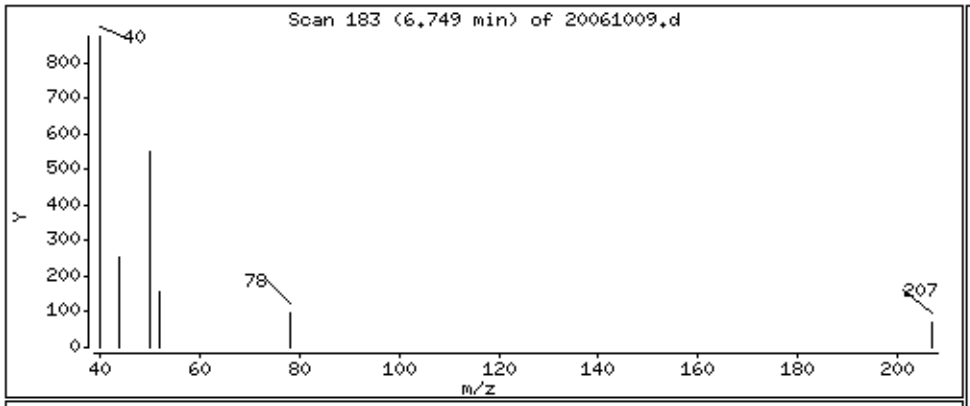
Operator: md

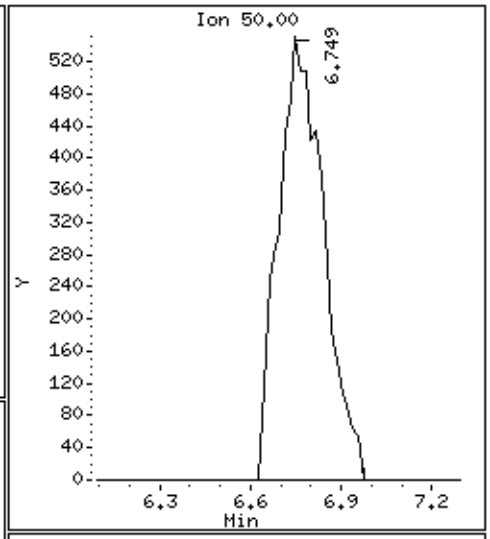
Column phase: RTX-624

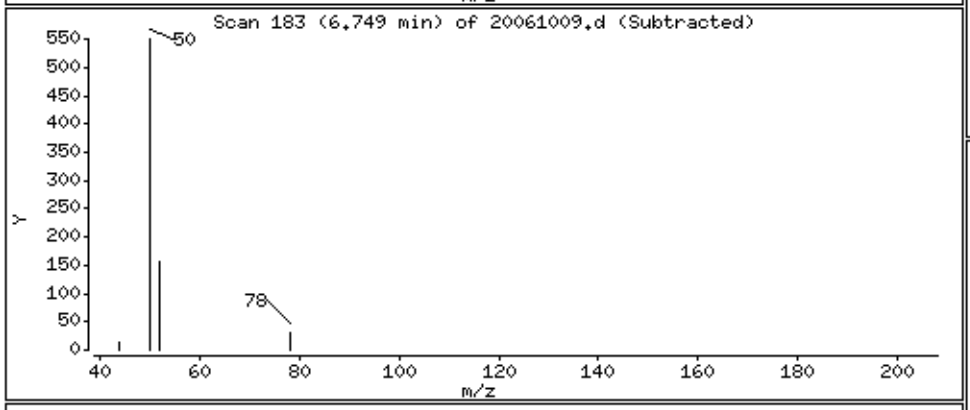
Column diameter: 0.32

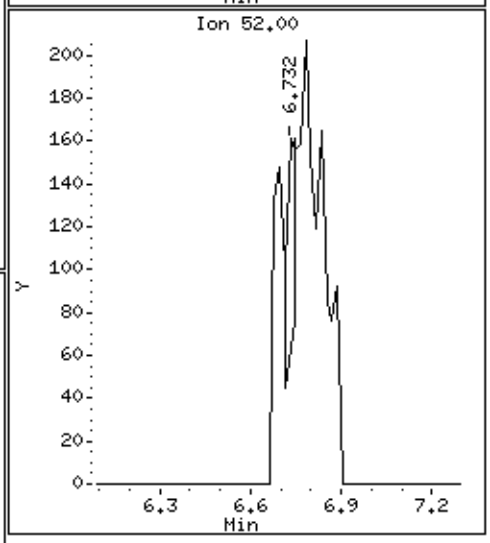
17 Chloromethane

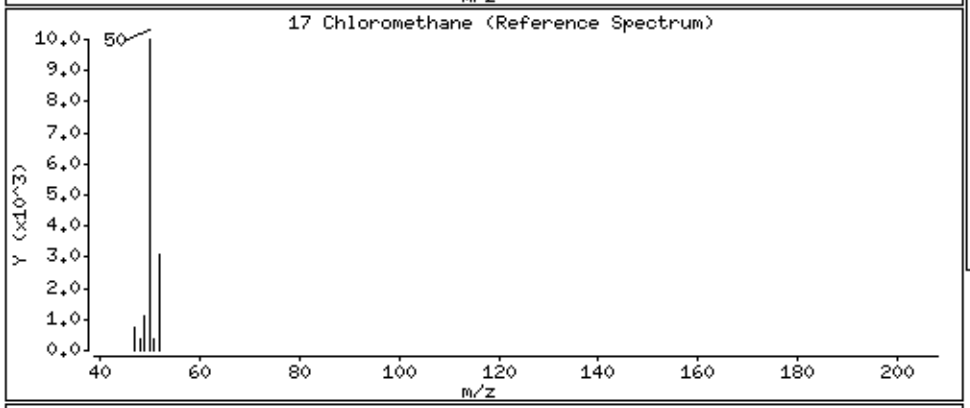
Concentration: 0.6998 PPBV

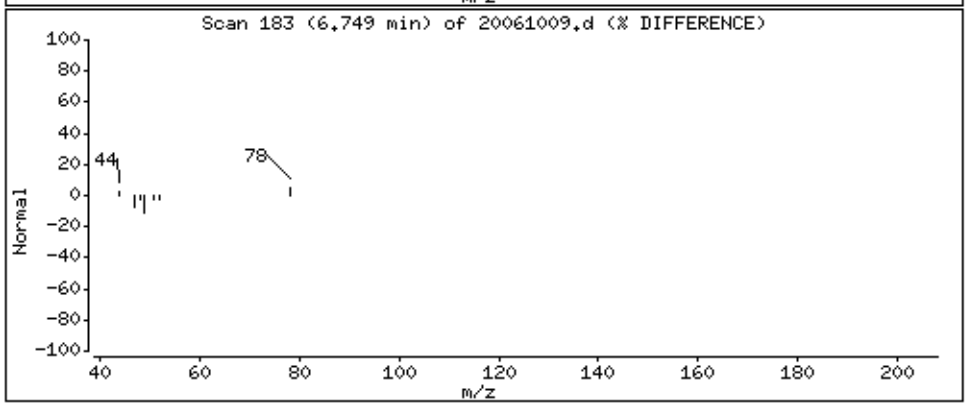












Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0054

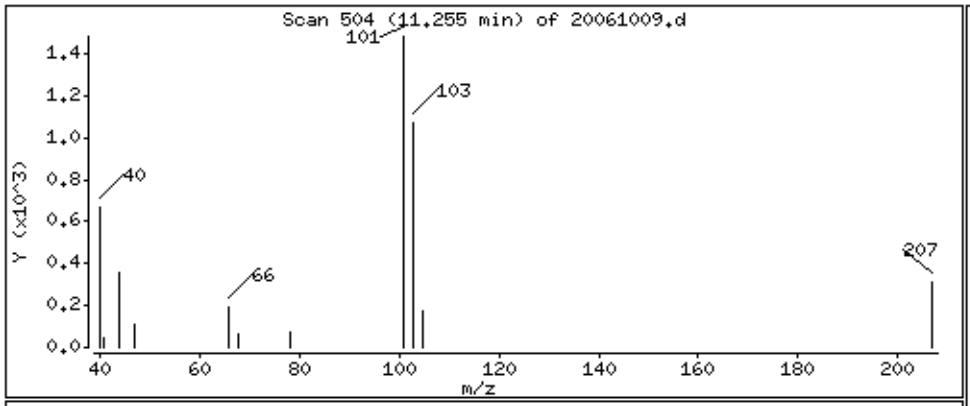
Operator: md

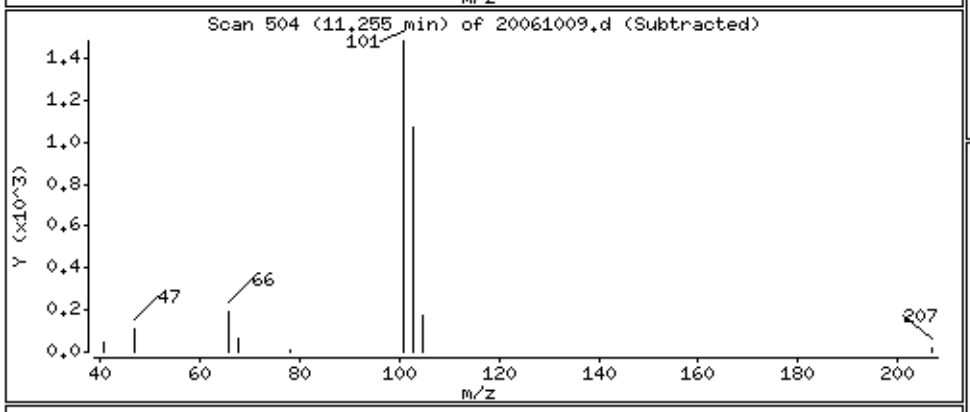
Column phase: RTX-624

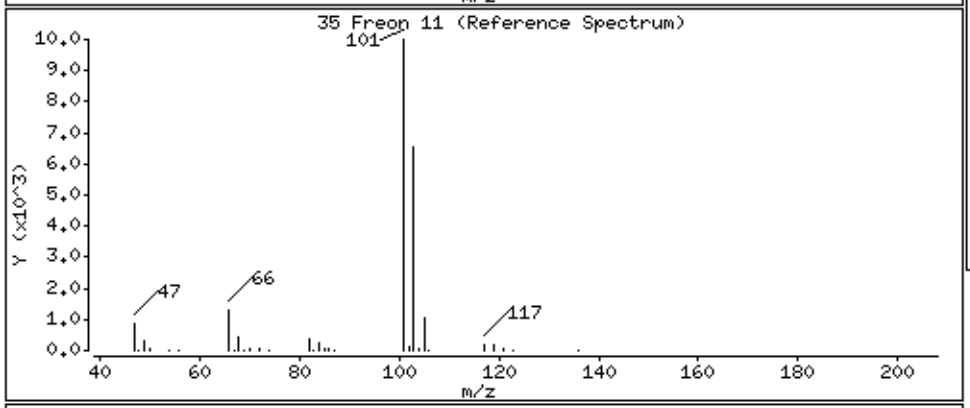
Column diameter: 0.32

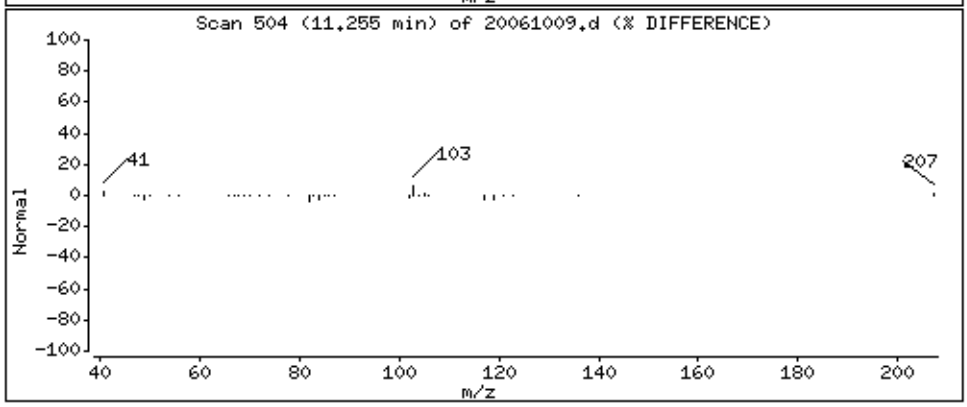
35 Freon 11

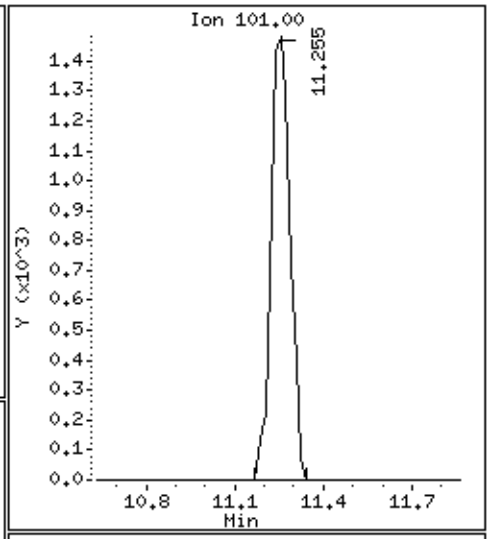
Concentration: 0.2271 PPBV

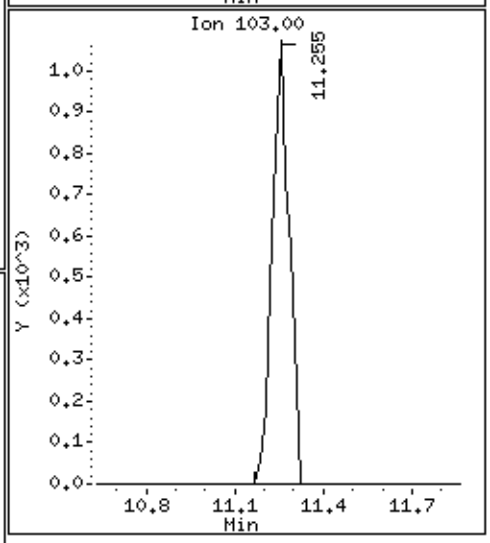












Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0054

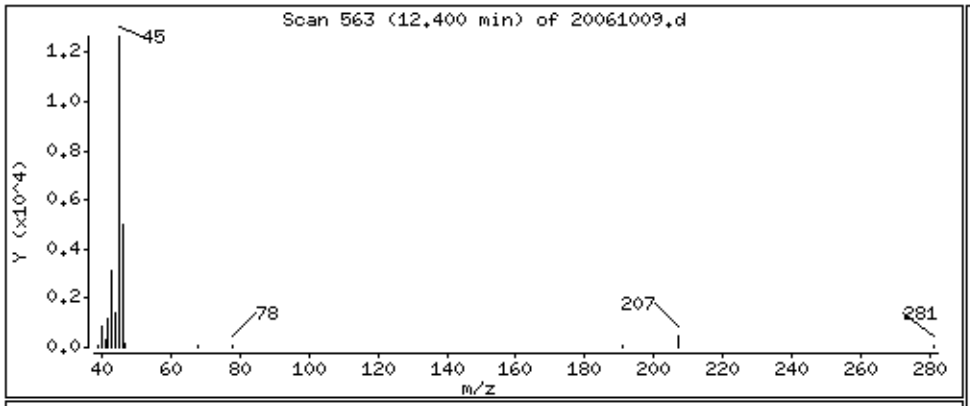
Operator: md

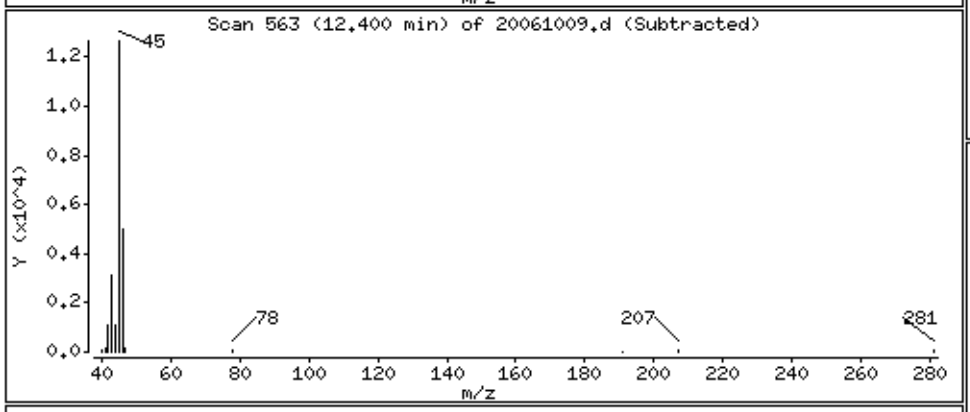
Column phase: RTX-624

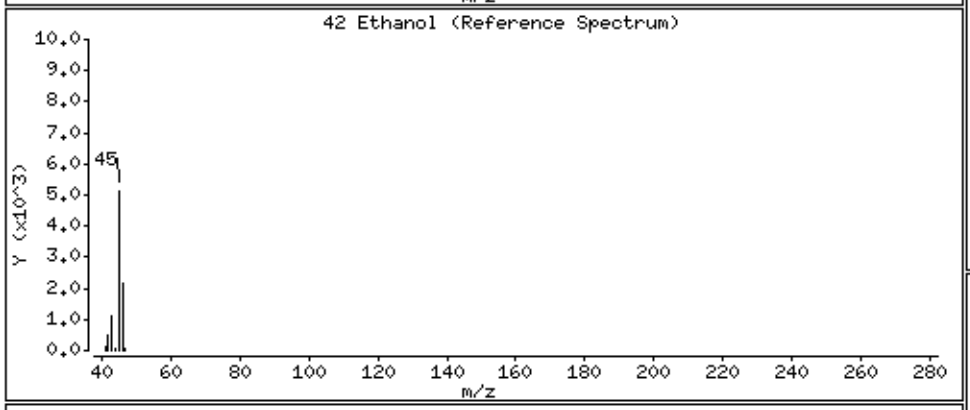
Column diameter: 0.32

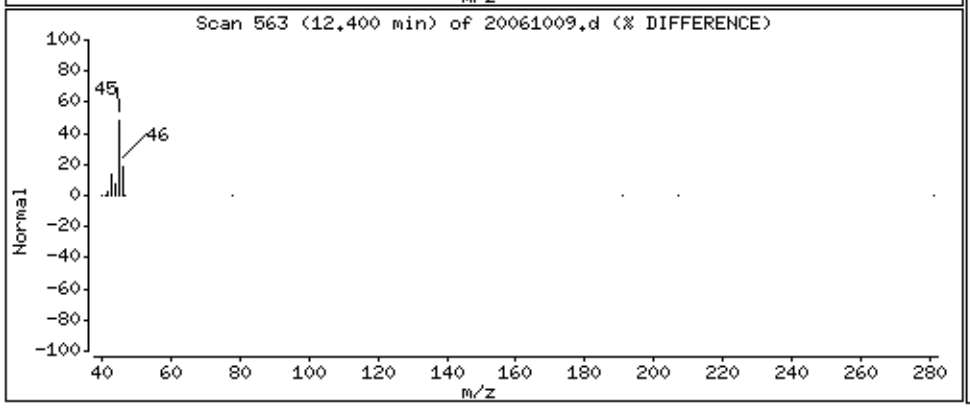
42 Ethanol

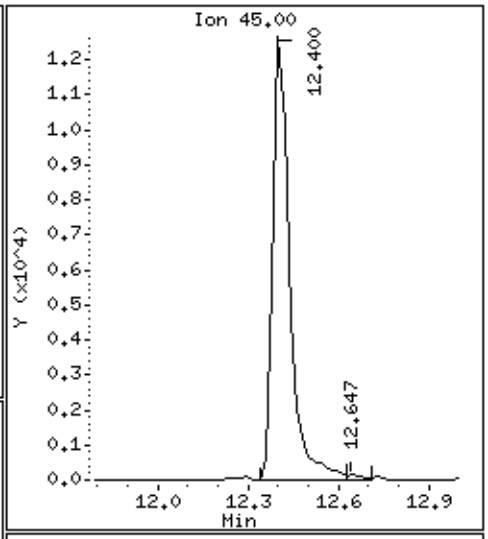
Concentration: 14.980 PPBV

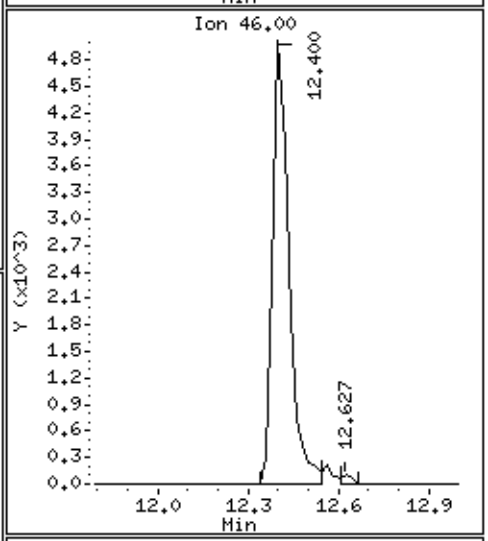


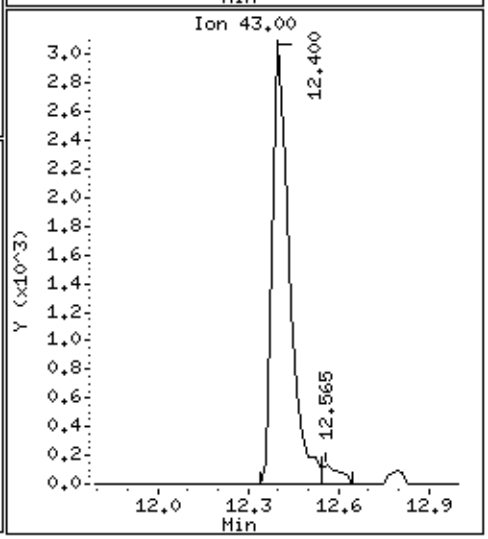












Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0054

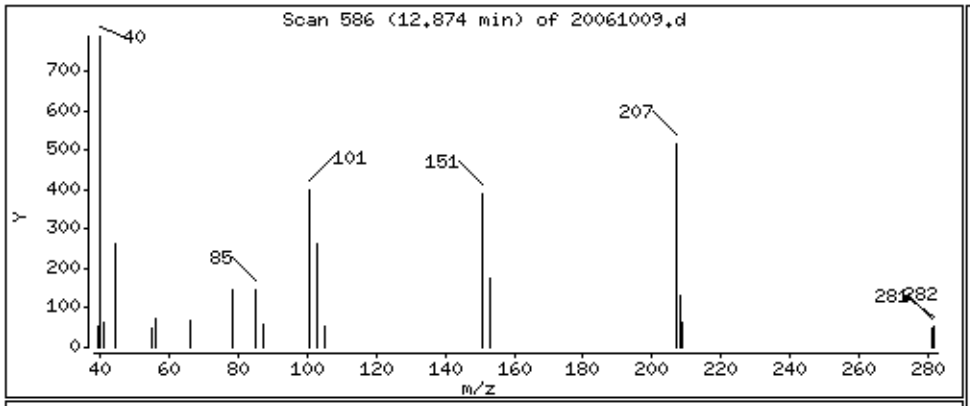
Operator: md

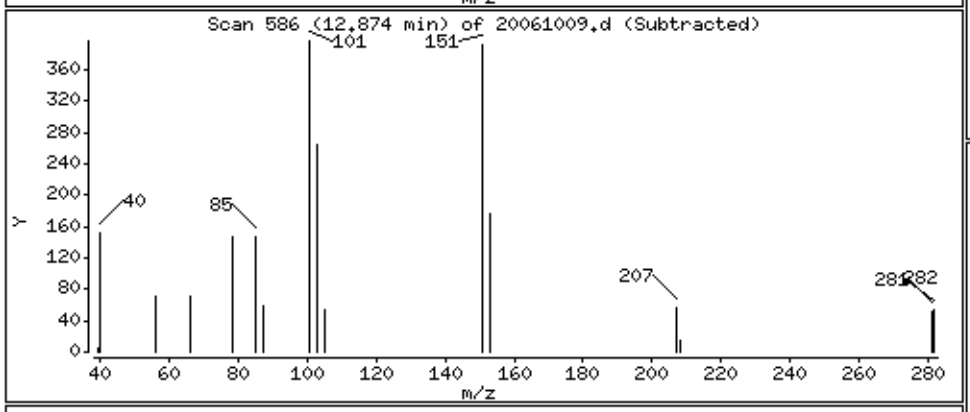
Column phase: RTX-624

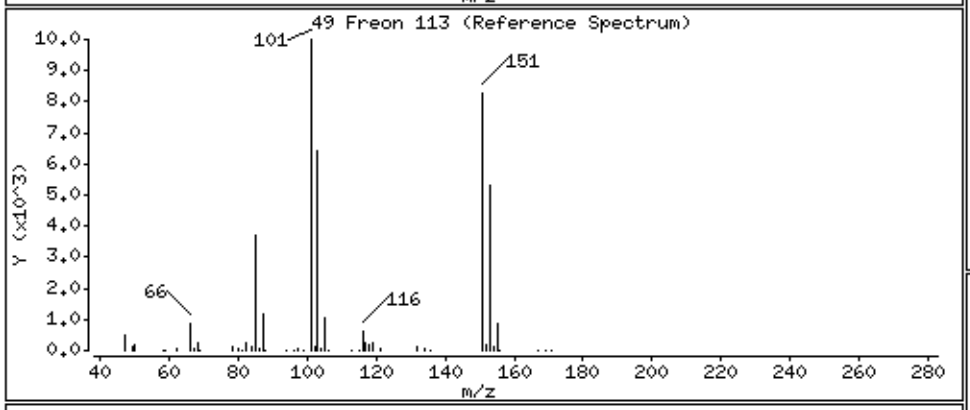
Column diameter: 0.32

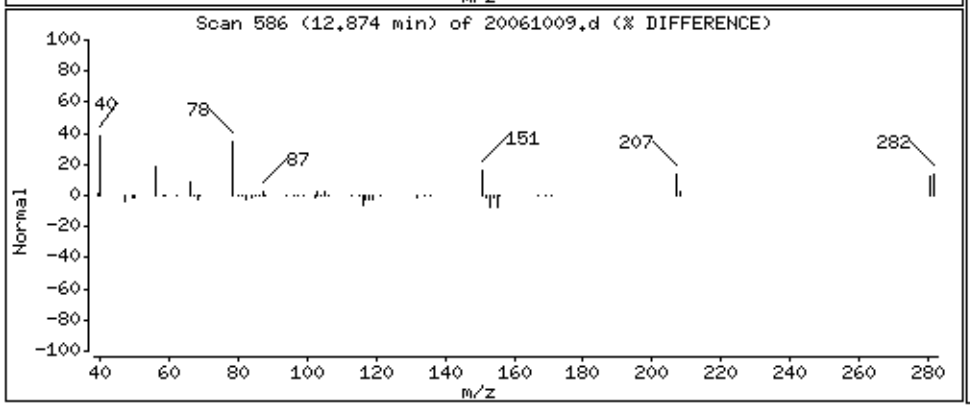
49 Freon 113

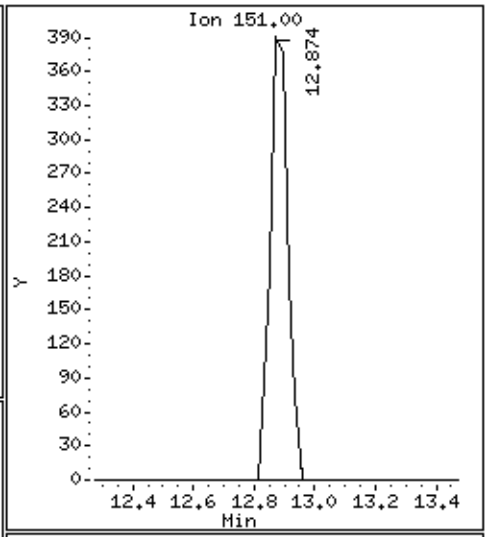
Concentration: 0.06742 PPBV

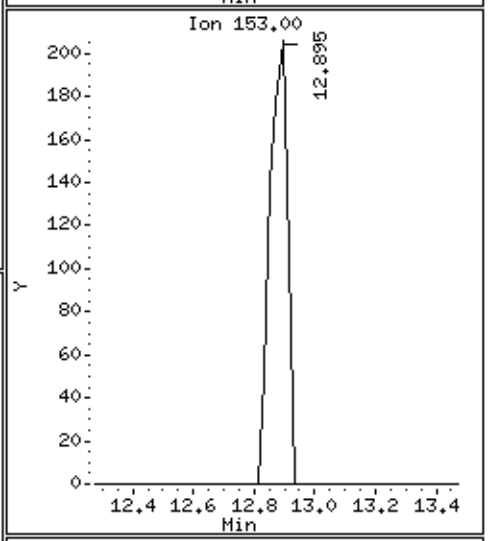


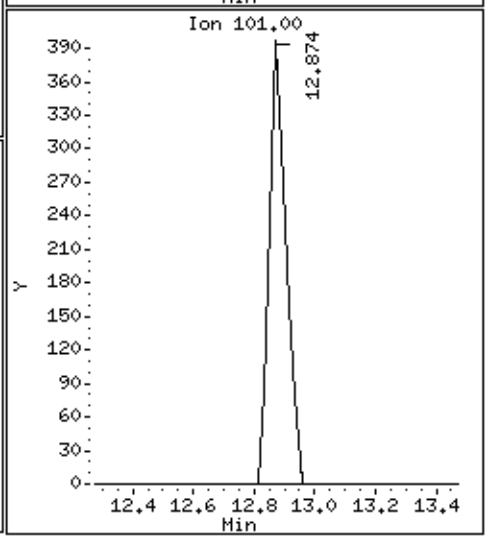












Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0054

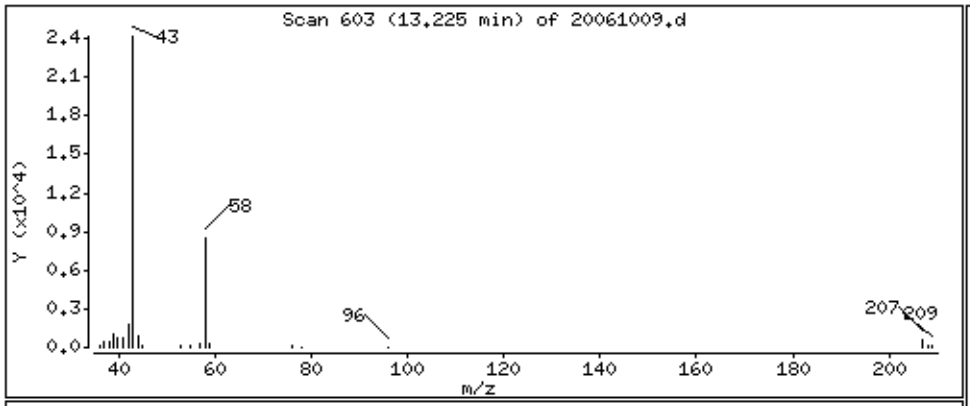
Operator: md

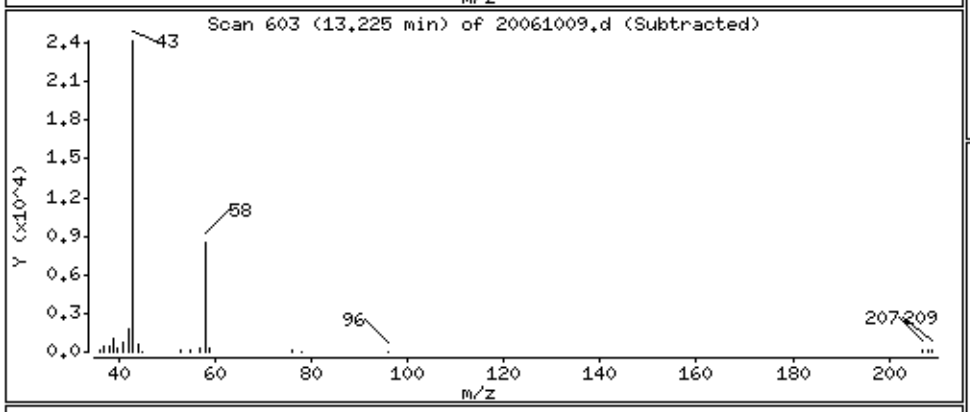
Column phase: RTX-624

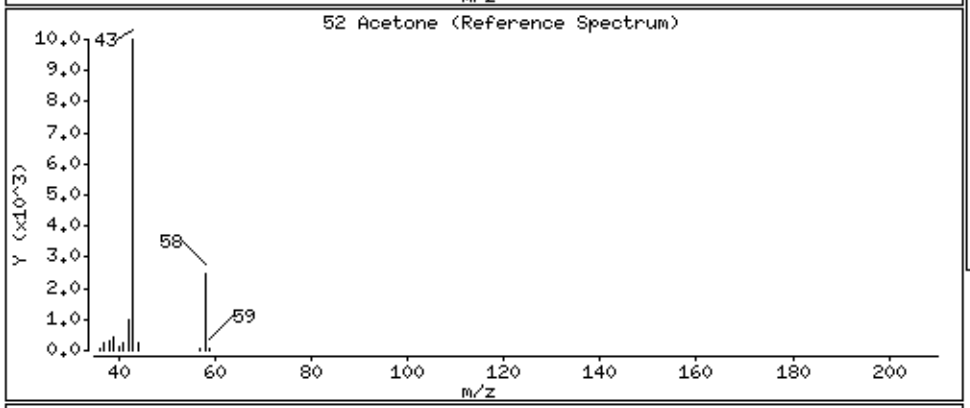
Column diameter: 0.32

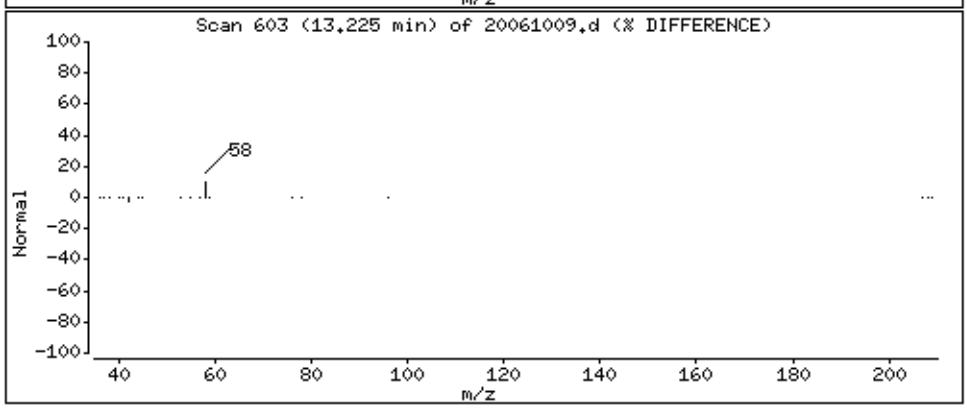
52 Acetone

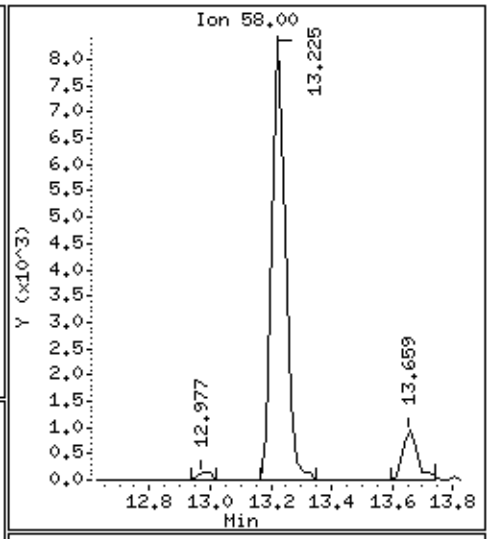
Concentration: 5.338 PPBV

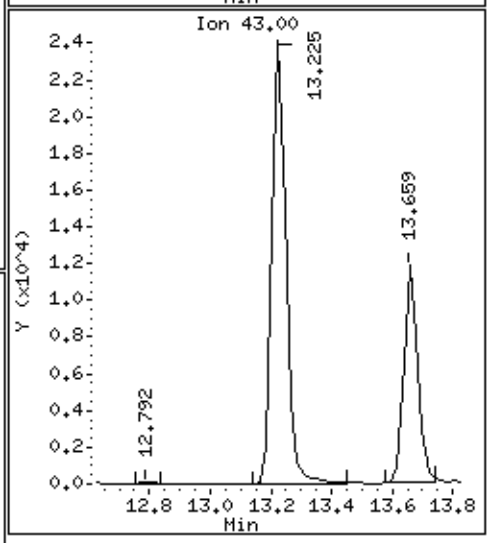












Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0054

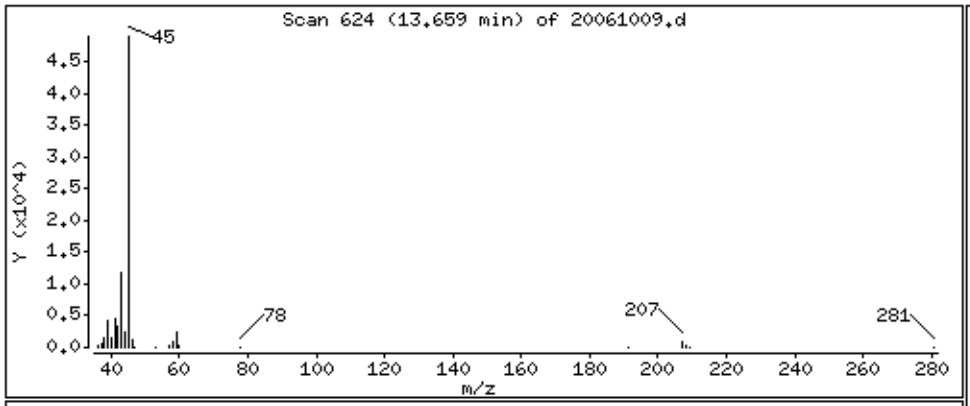
Operator: md

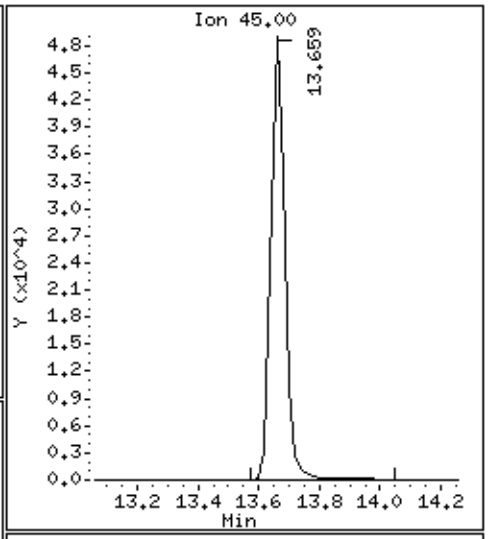
Column phase: RTX-624

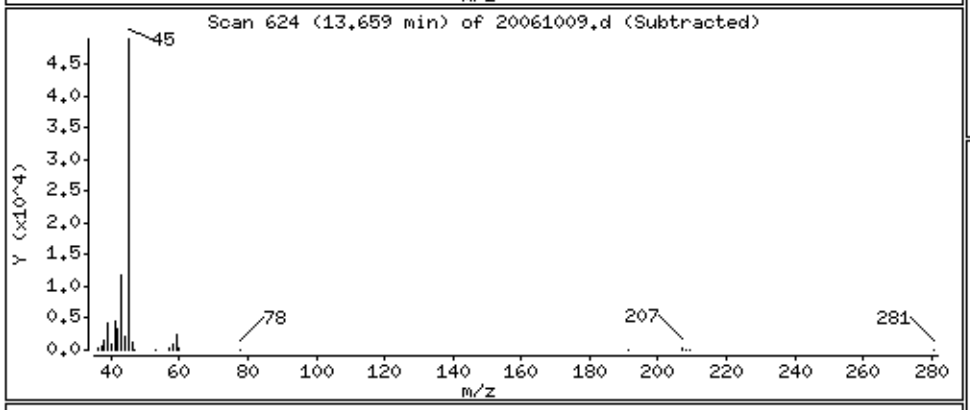
Column diameter: 0.32

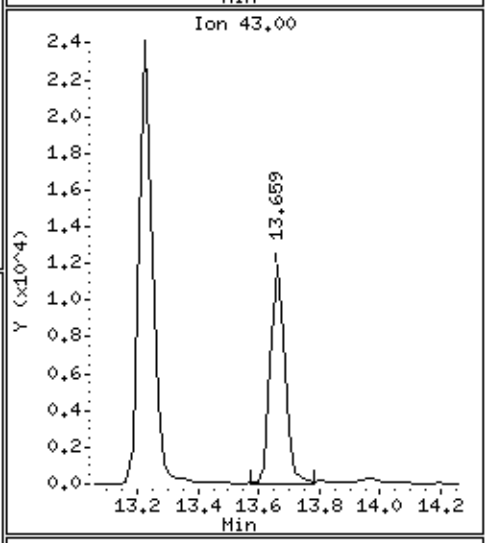
57 2-Propanol

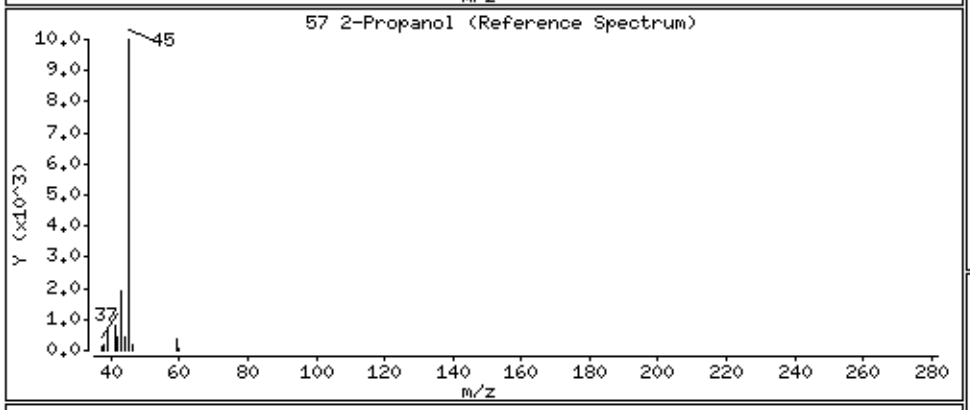
Concentration: 12.731 PPBV

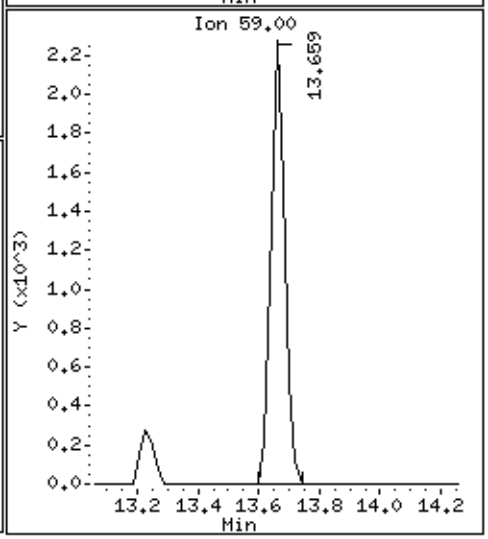


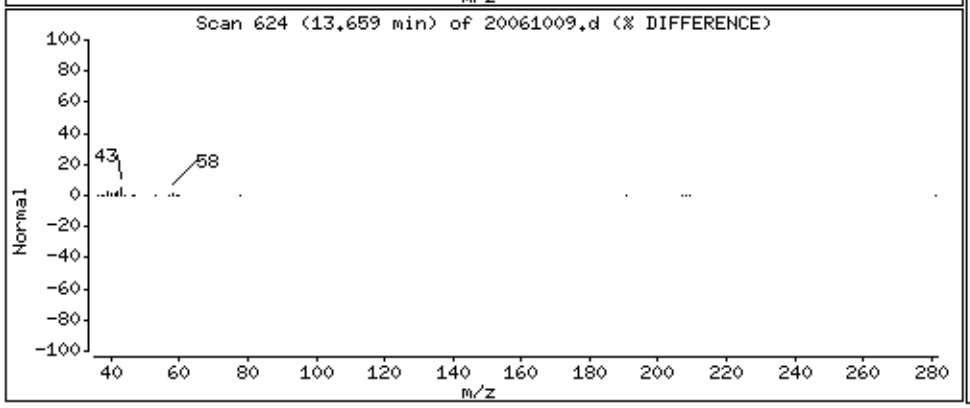












Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0054

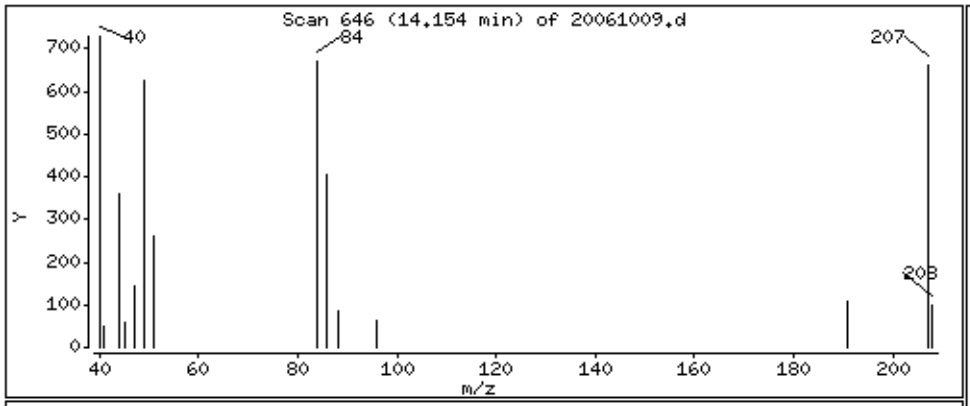
Operator: md

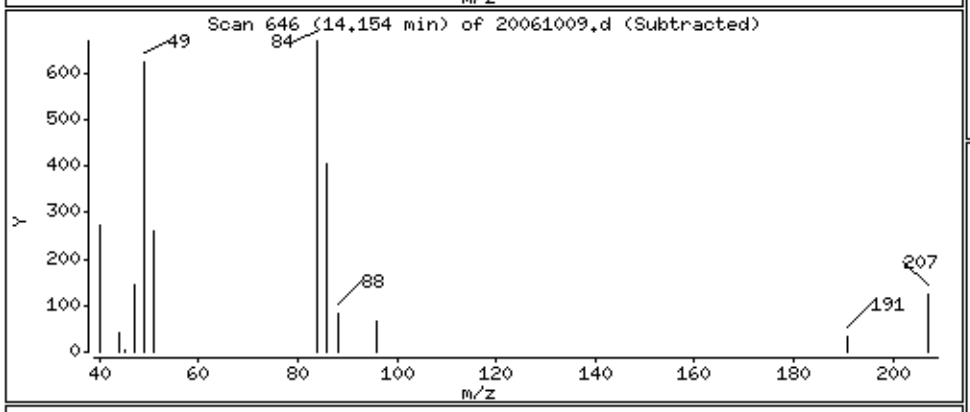
Column phase: RTX-624

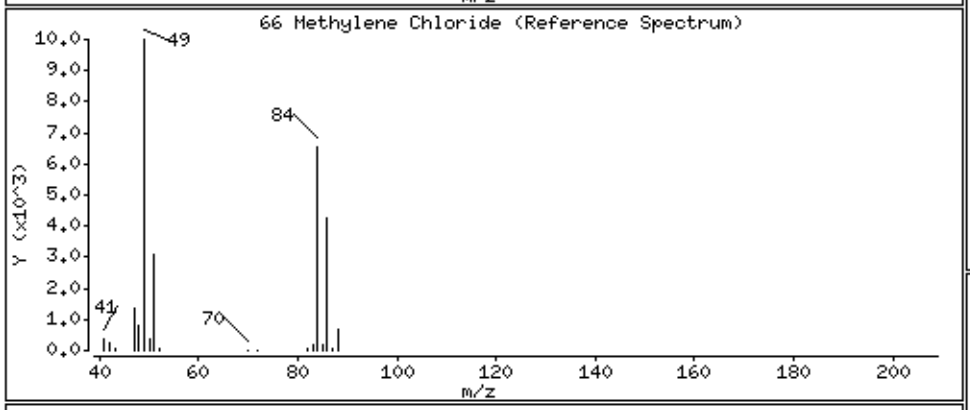
Column diameter: 0.32

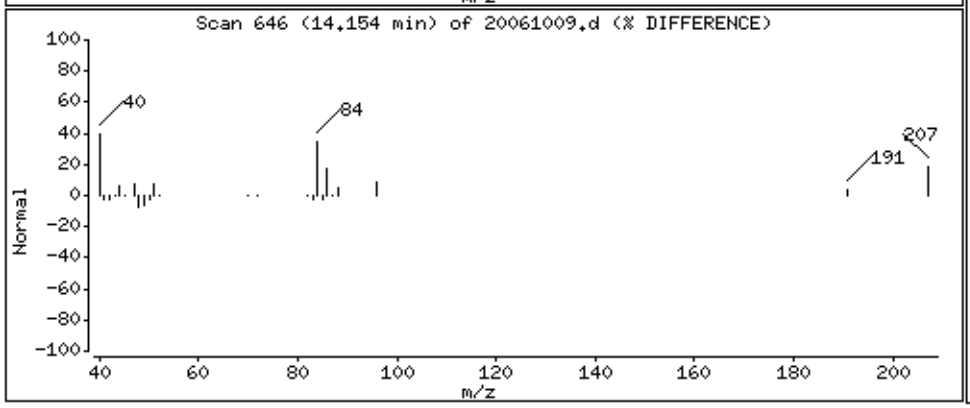
66 Methylene Chloride

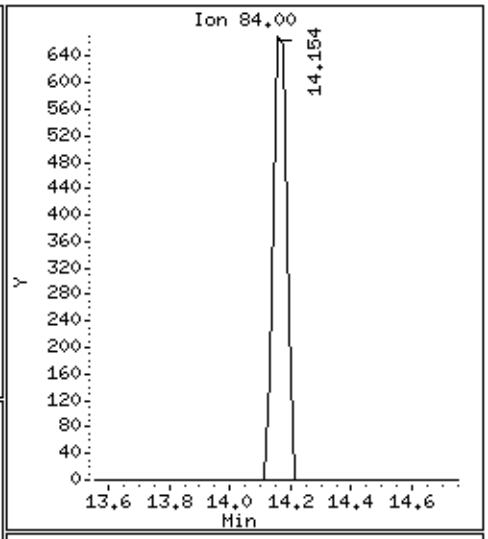
Concentration: 0.2085 PPBV

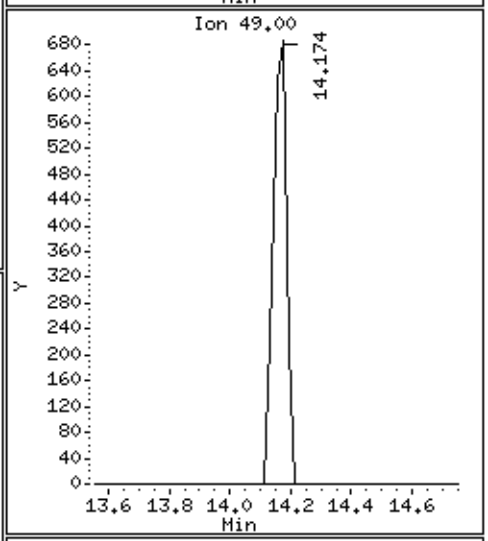


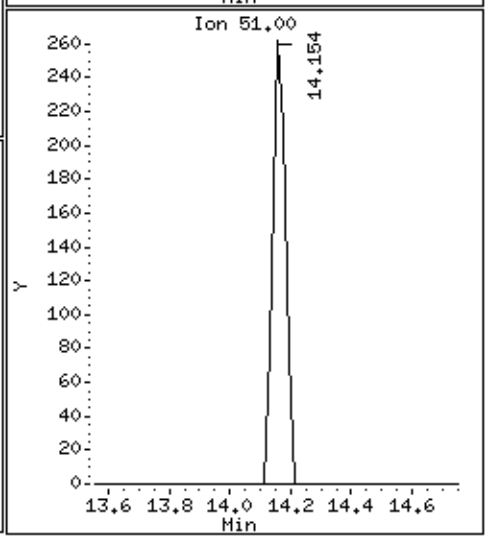












Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0054

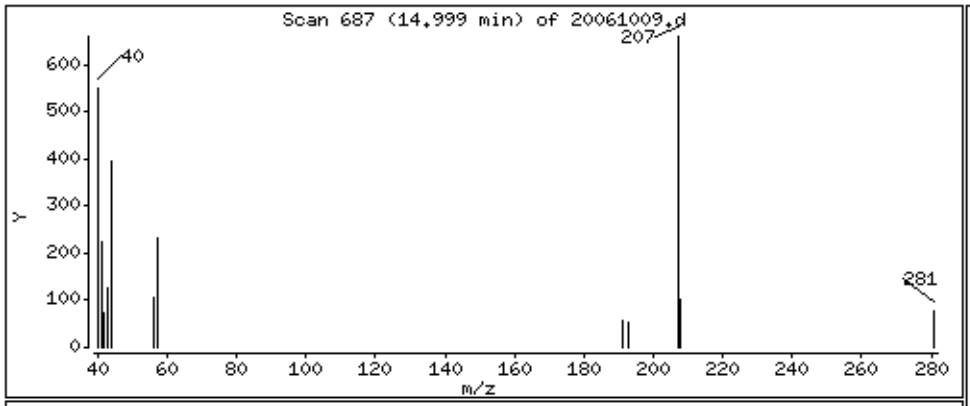
Operator: md

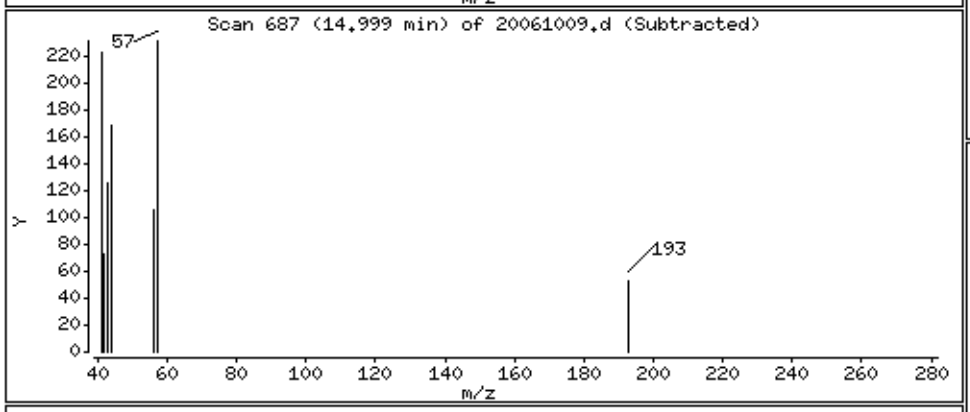
Column phase: RTX-624

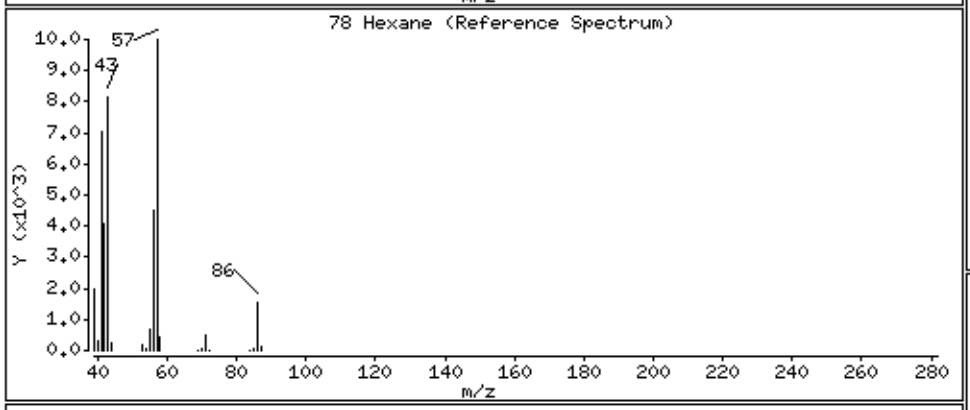
Column diameter: 0.32

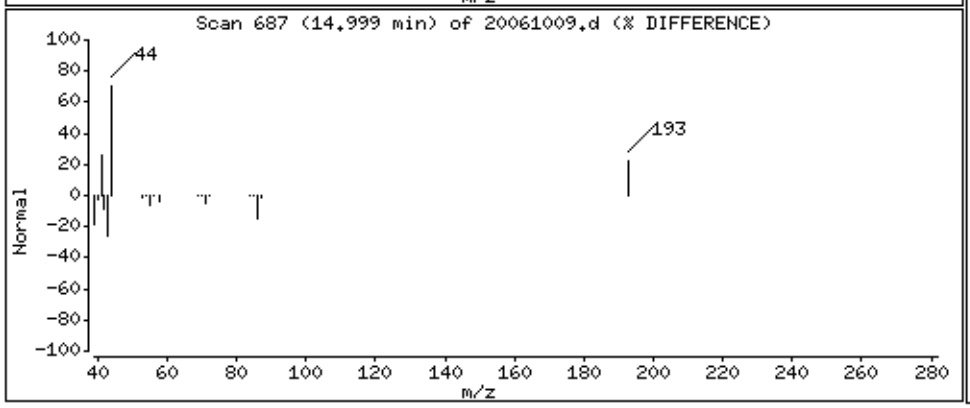
78 Hexane

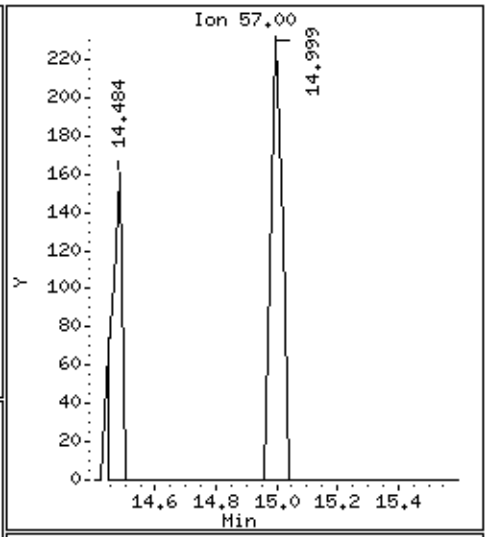
Concentration: 0.04070 PPBV

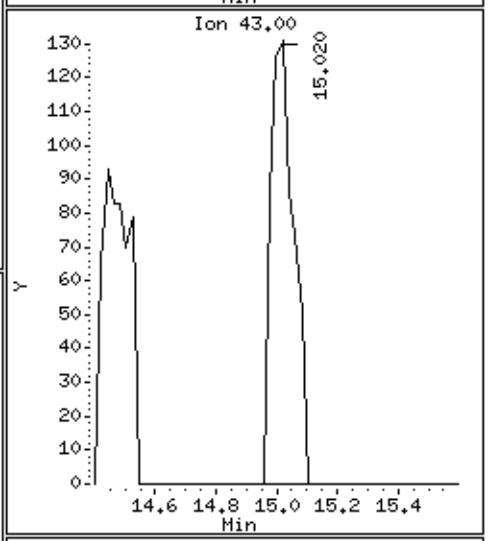


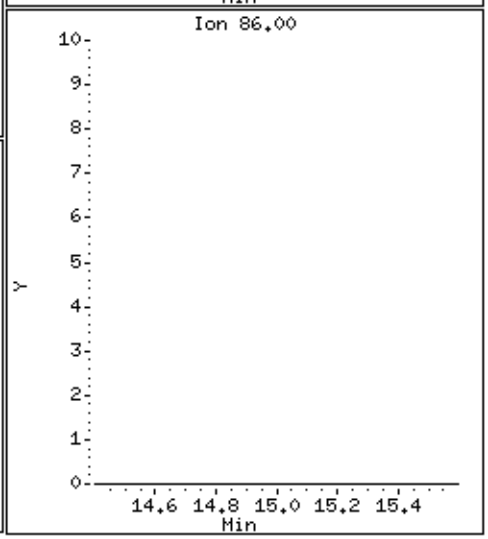












Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0054

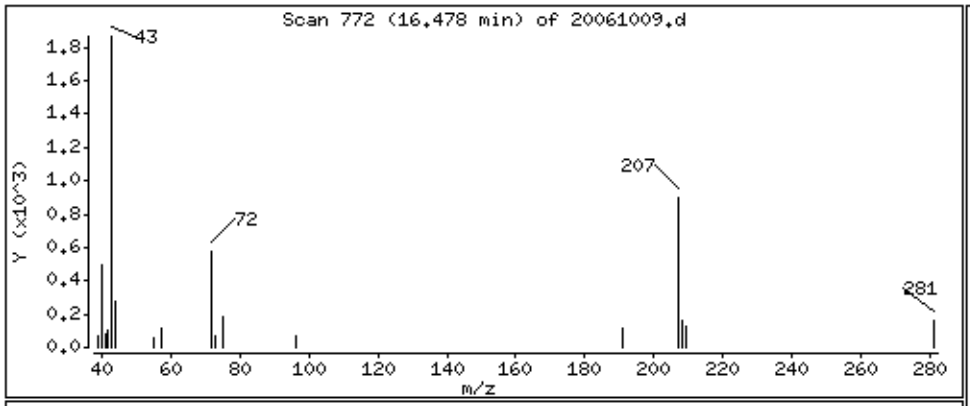
Operator: md

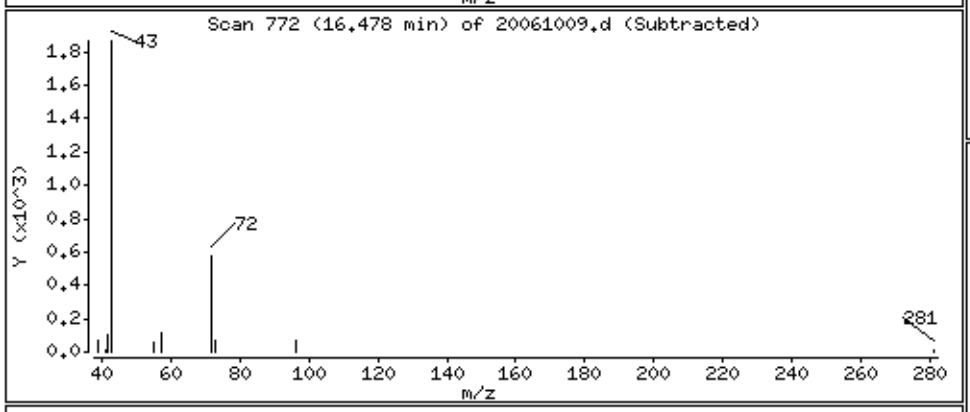
Column phase: RTX-624

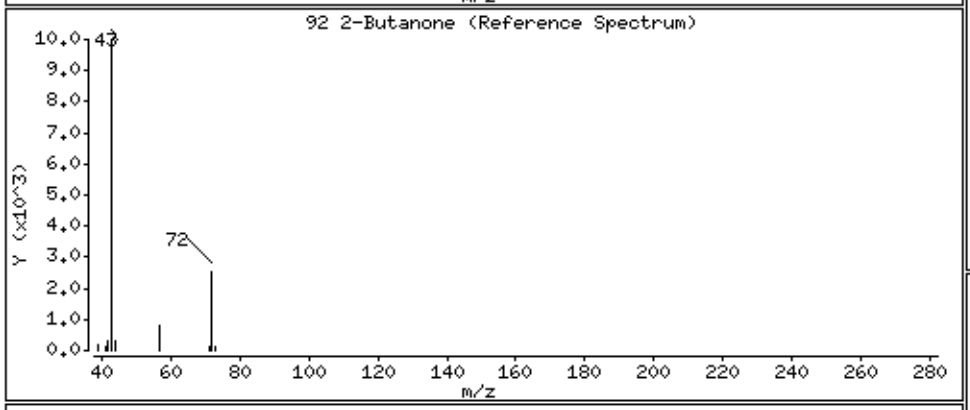
Column diameter: 0.32

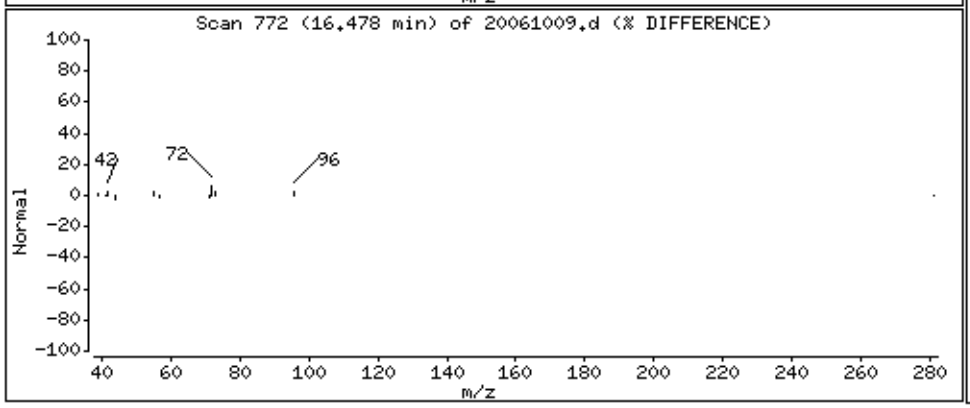
92 2-Butanone

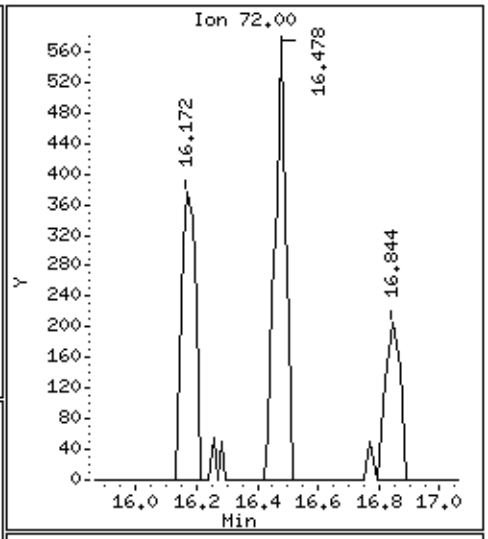
Concentration: 0.2931 PPBV

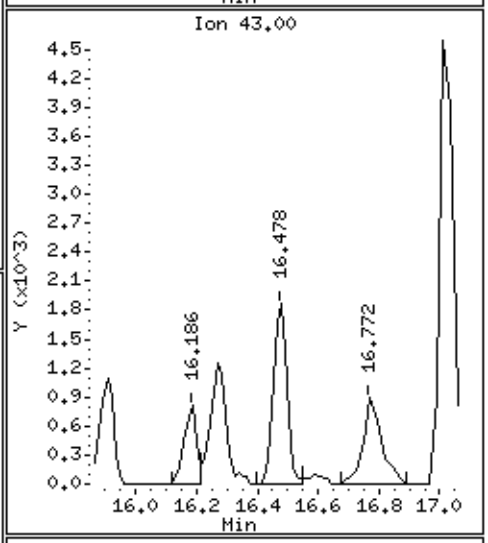


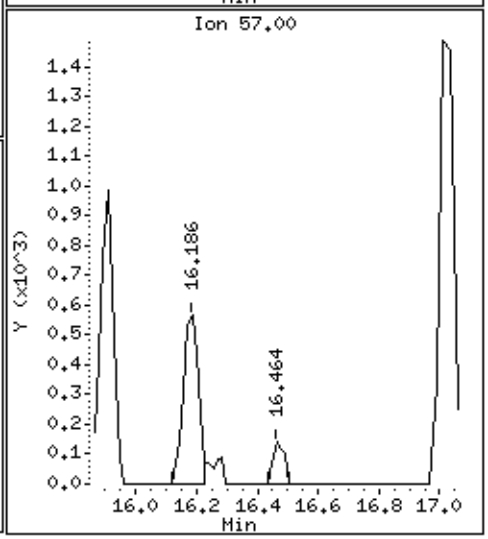












Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0054

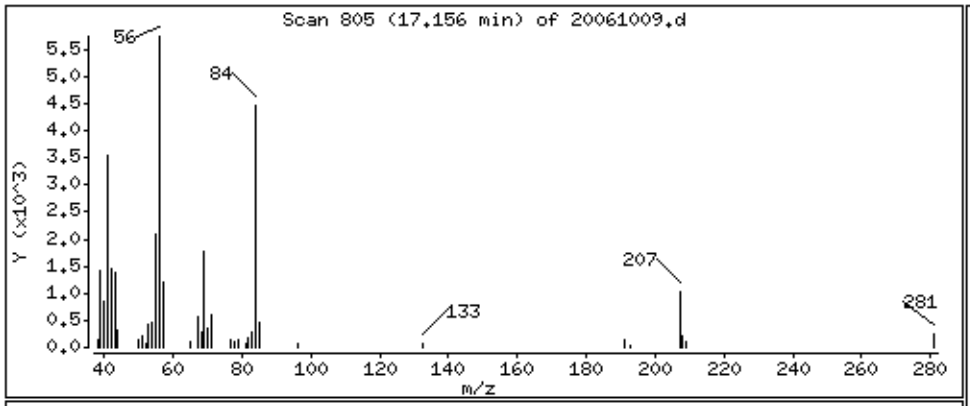
Operator: md

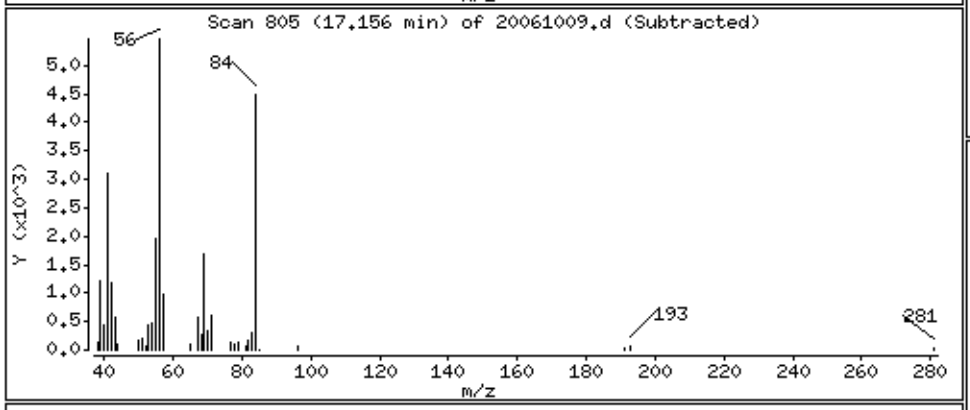
Column phase: RTX-624

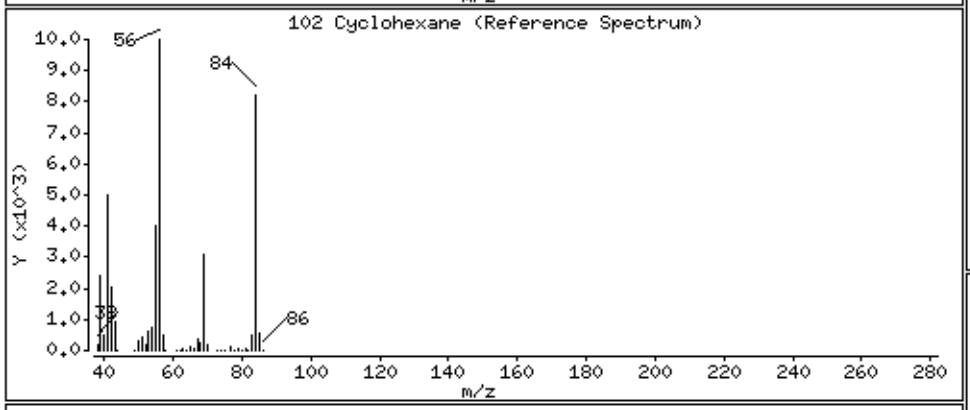
Column diameter: 0.32

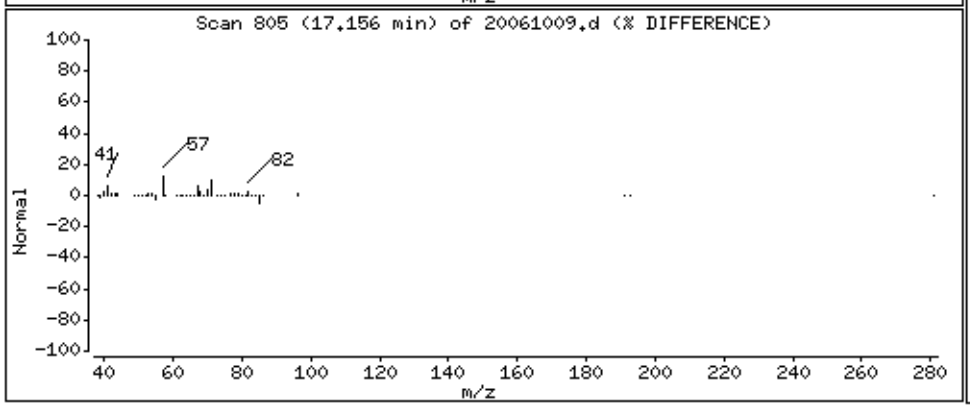
102 Cyclohexane

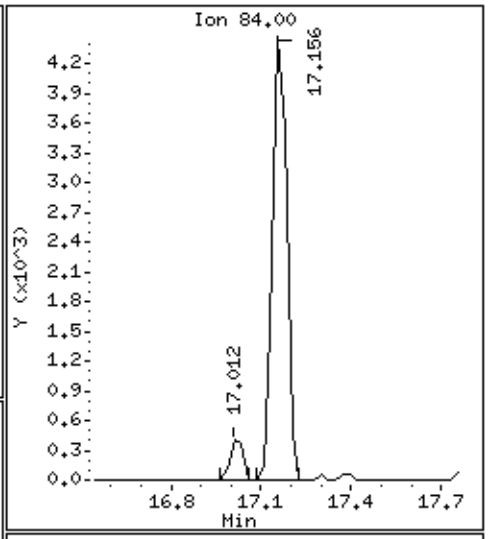
Concentration: 0.9873 PPBV

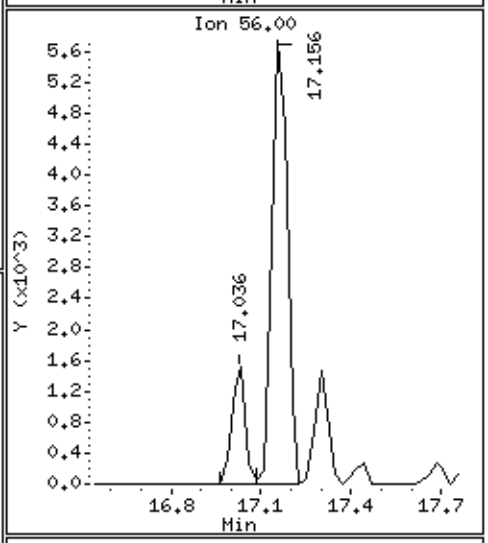


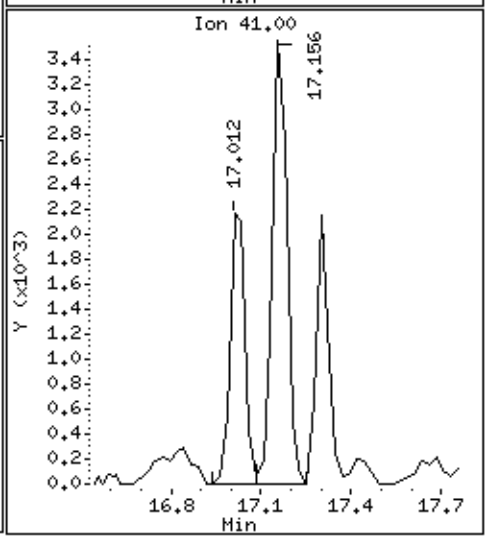












Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0054

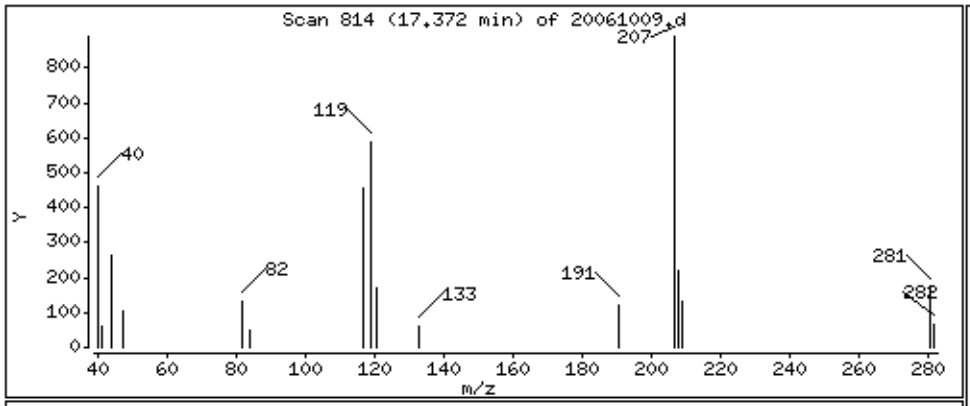
Operator: md

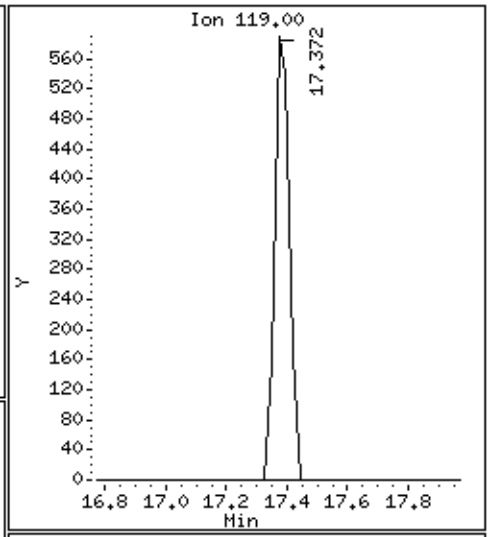
Column phase: RTX-624

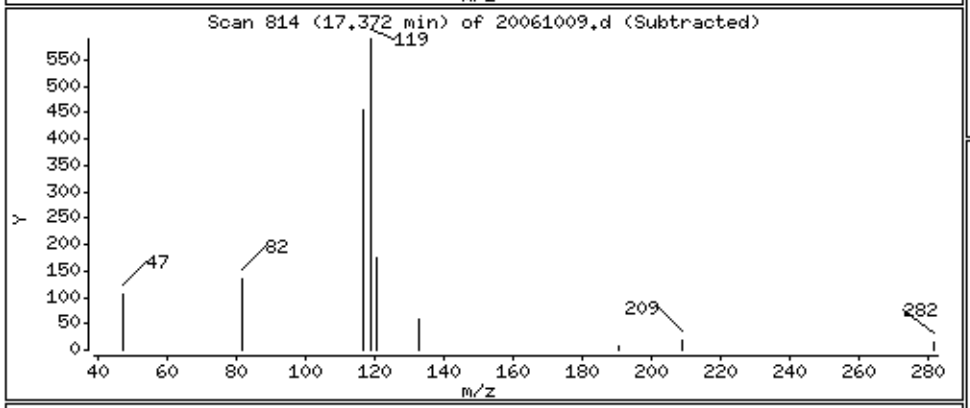
Column diameter: 0.32

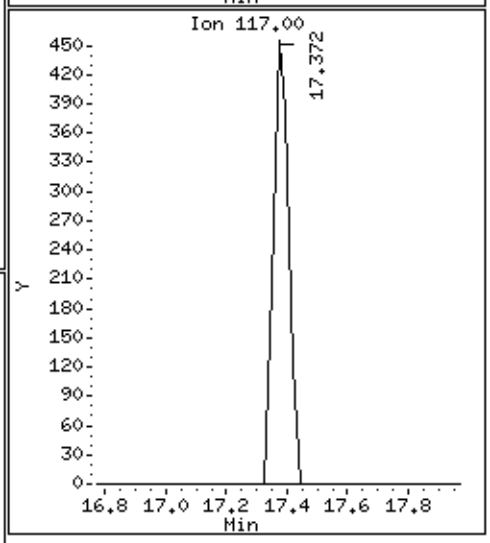
106 Carbon Tetrachloride

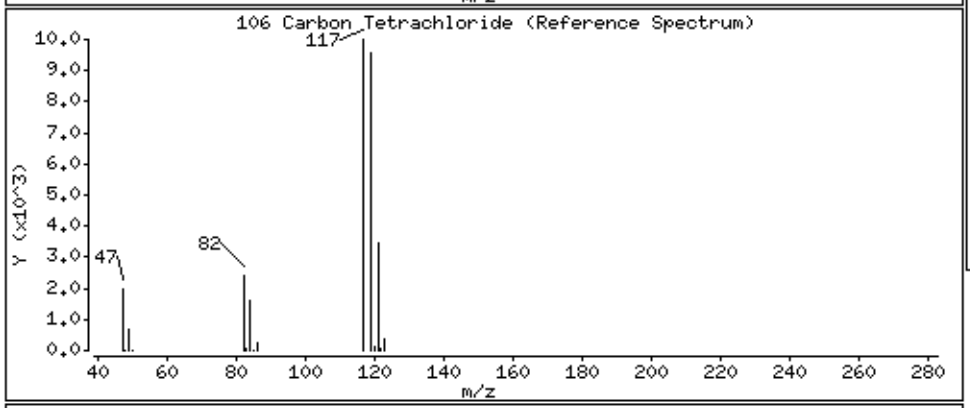
Concentration: 0.1307 PPBV

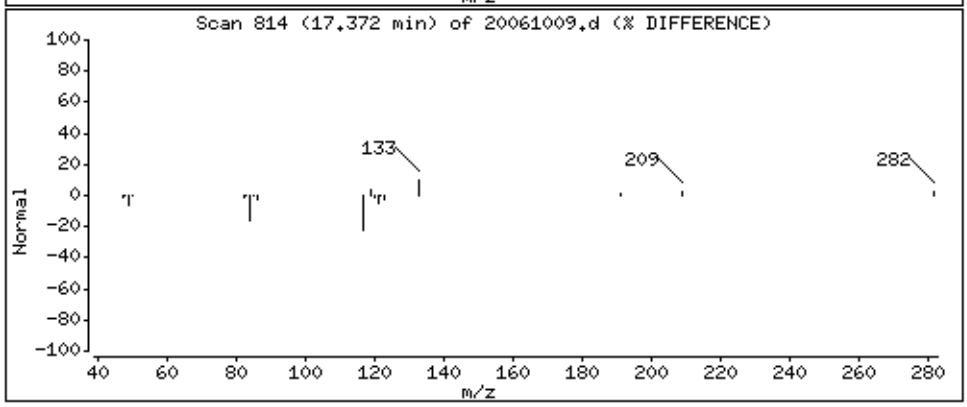












Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0054

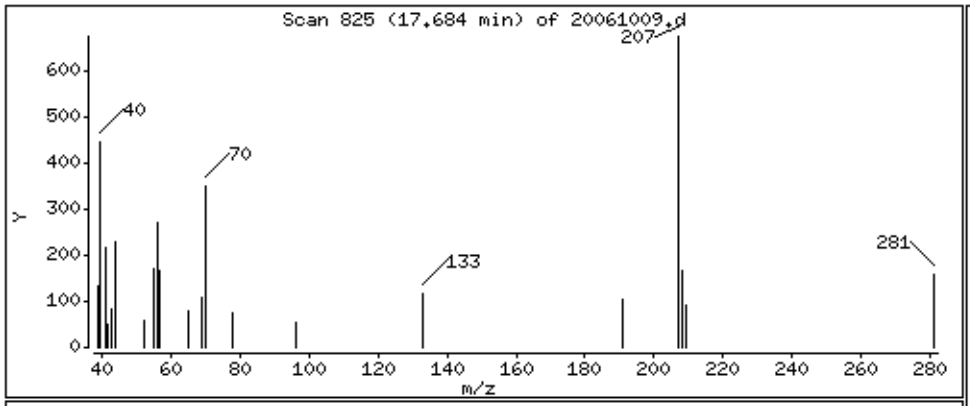
Operator: md

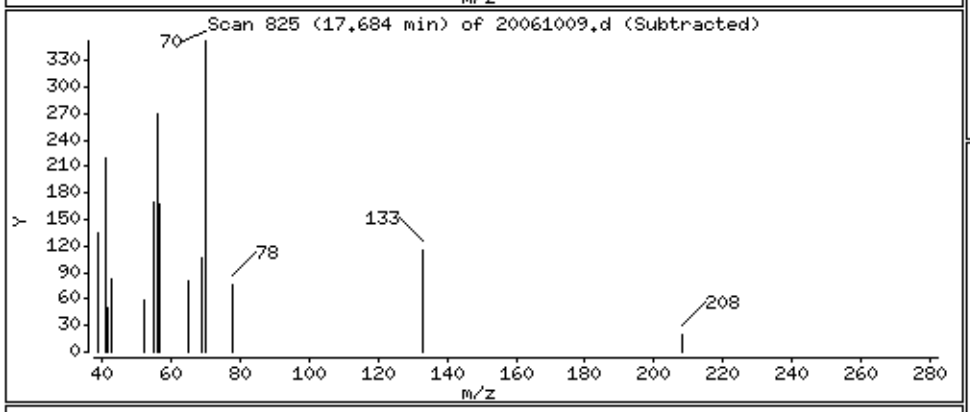
Column phase: RTX-624

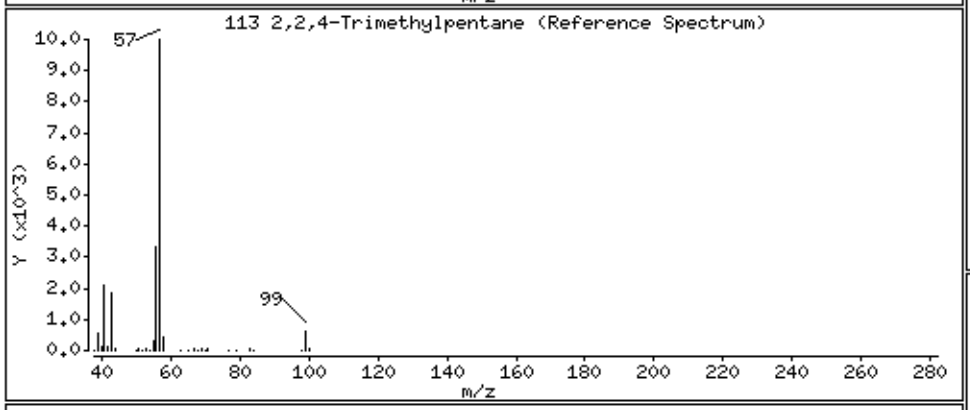
Column diameter: 0.32

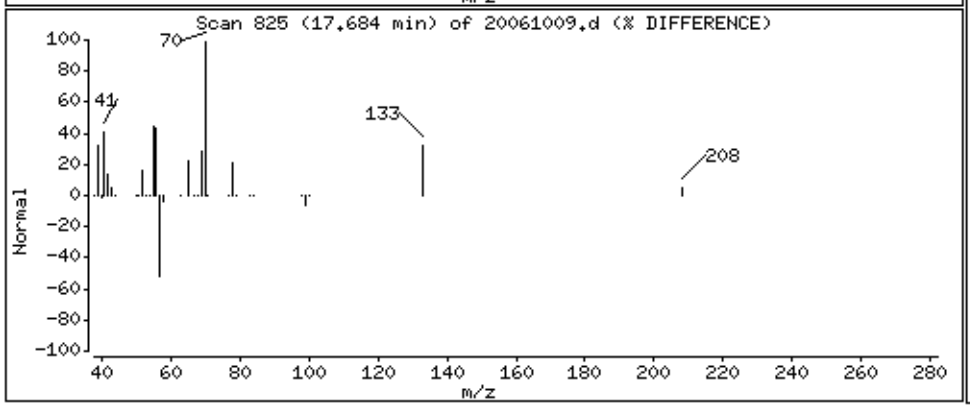
113 2,2,4-Trimethylpentane

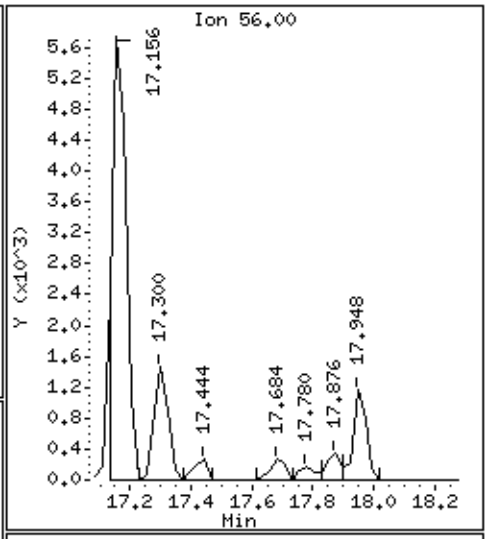
Concentration: 0.06650 PPBV

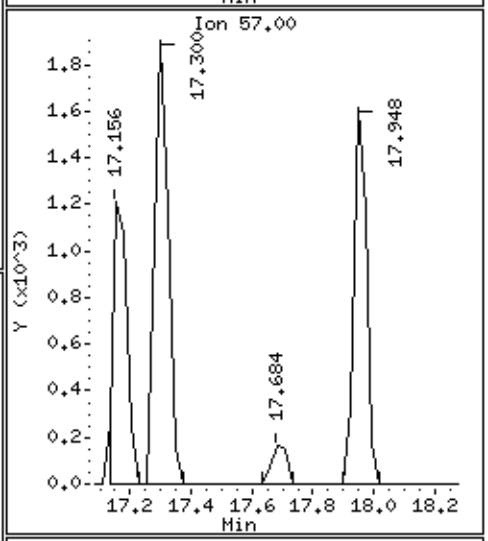


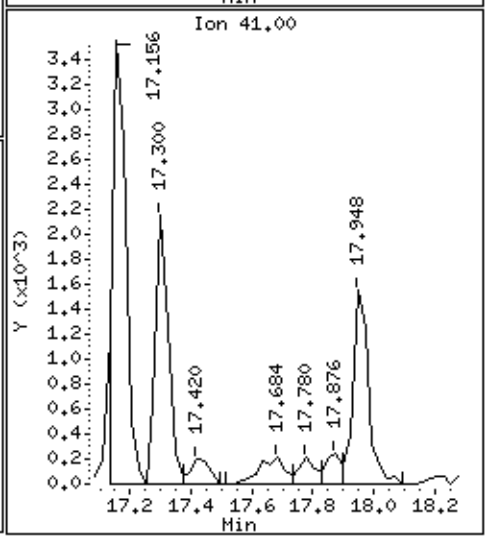












Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0054

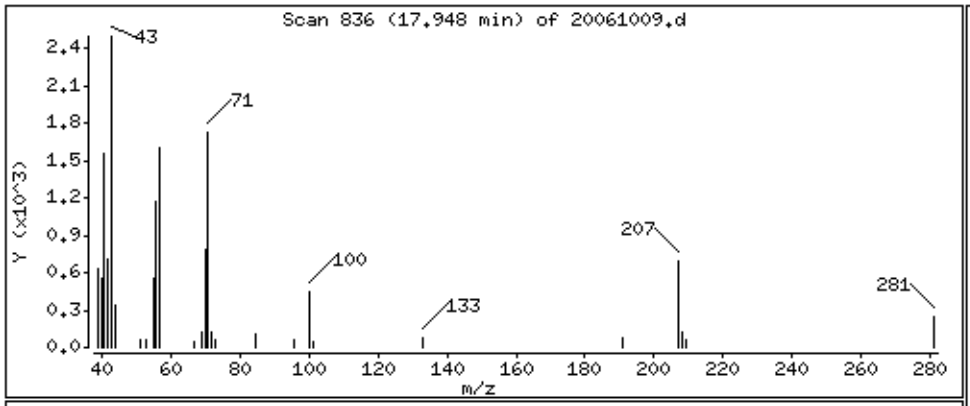
Operator: md

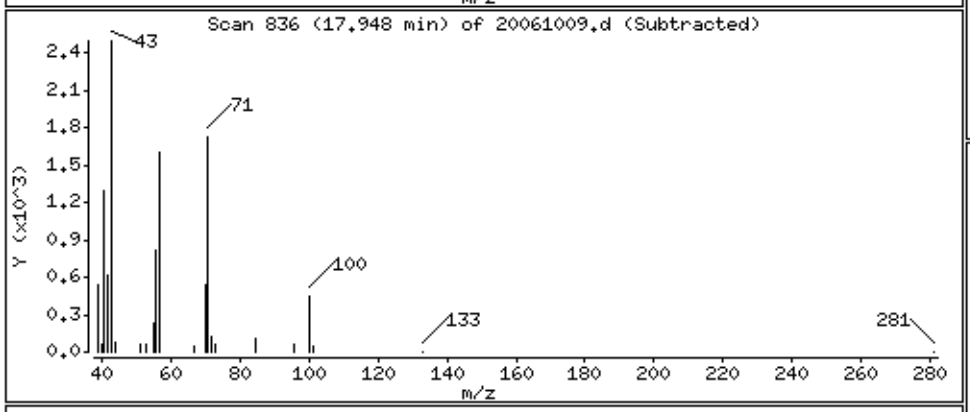
Column phase: RTX-624

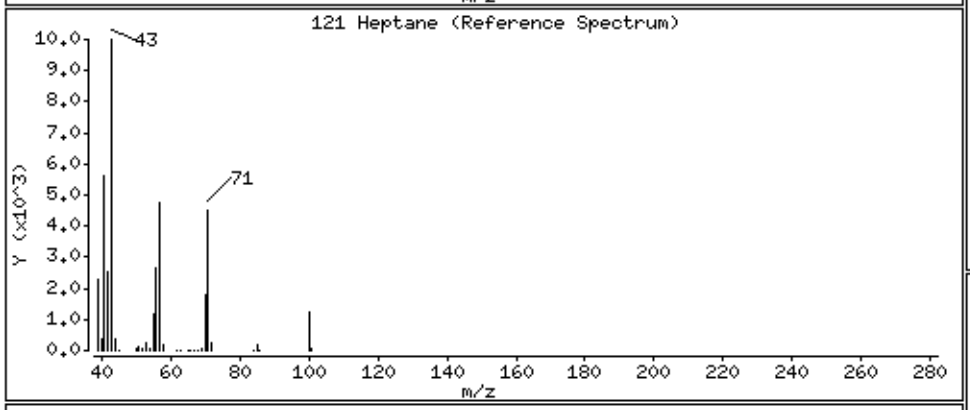
Column diameter: 0.32

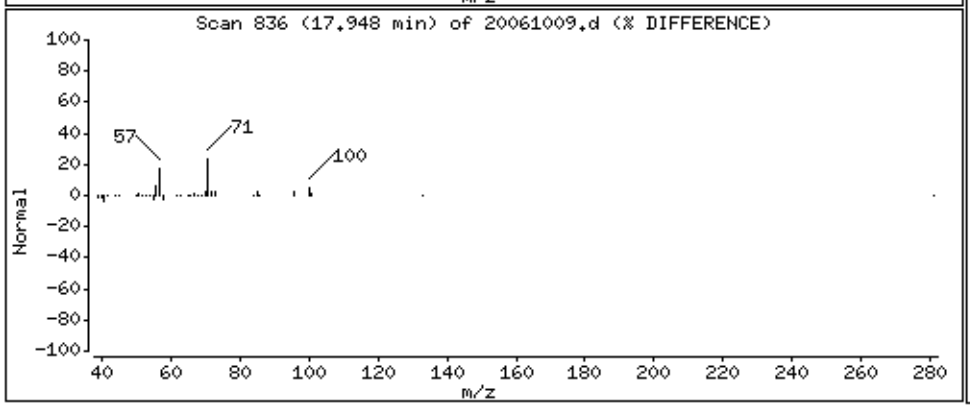
121 Heptane

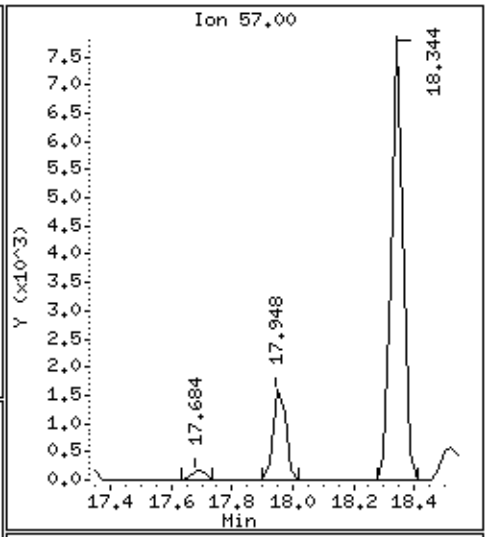
Concentration: 0.5355 PPBV

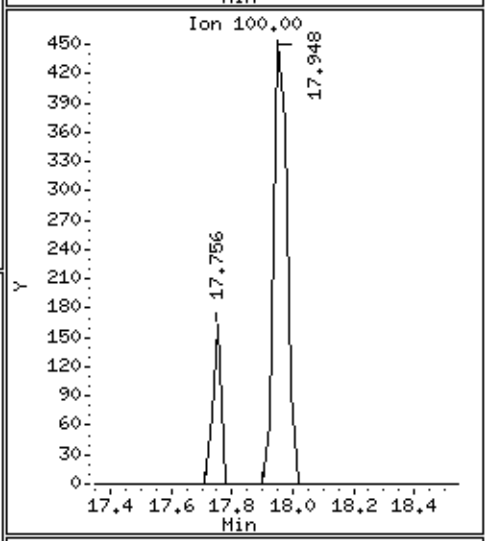


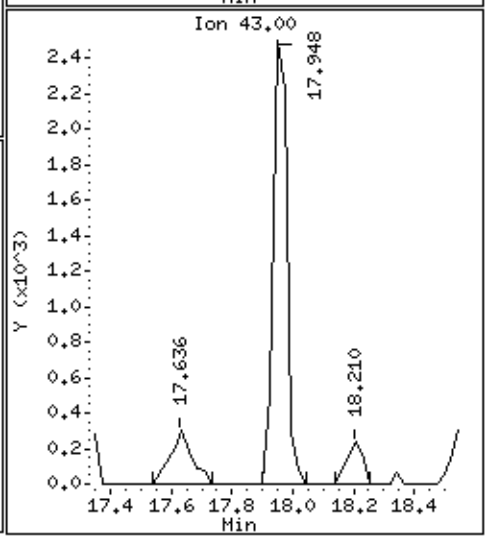












Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0054

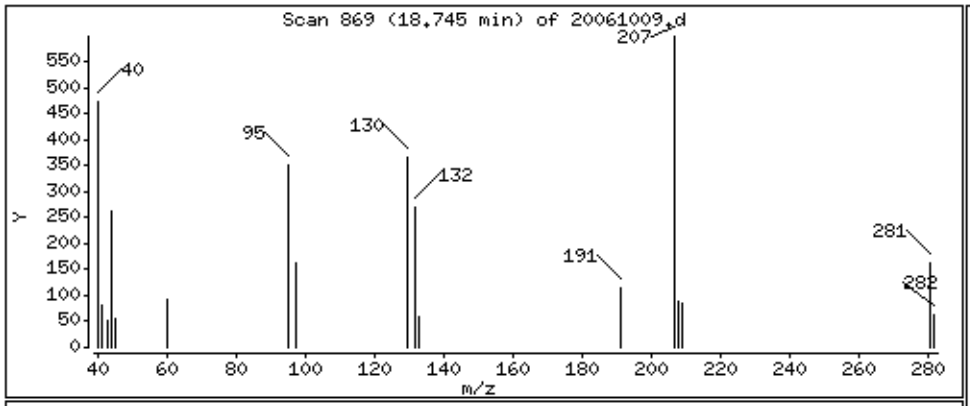
Operator: md

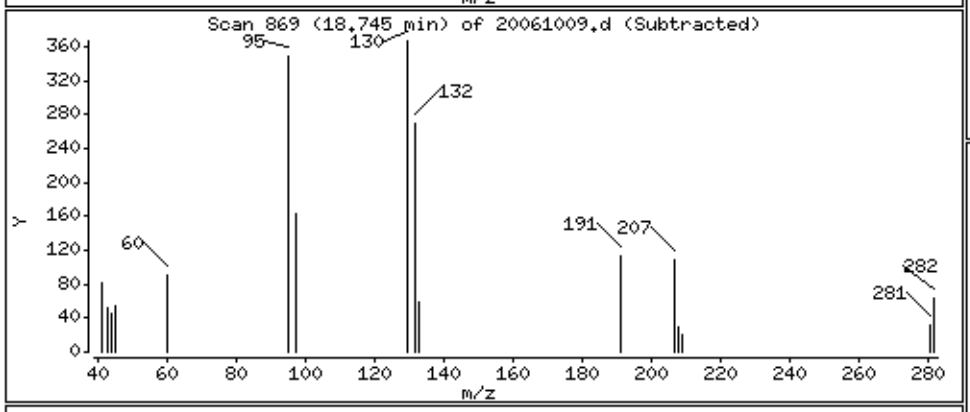
Column phase: RTX-624

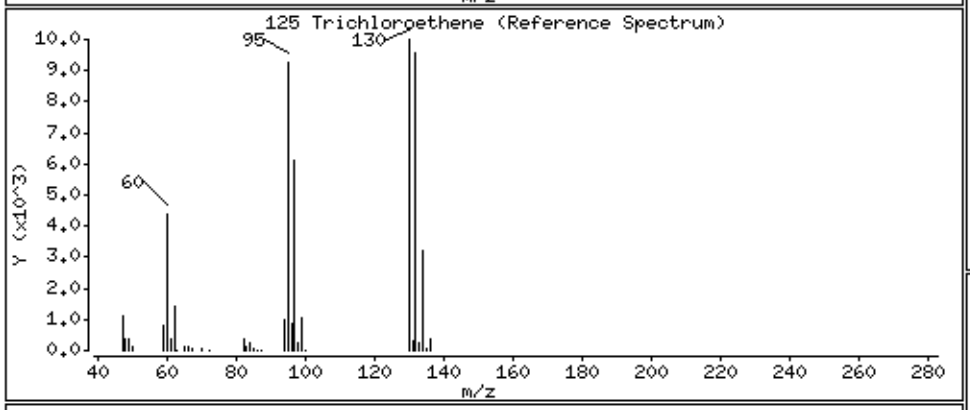
Column diameter: 0.32

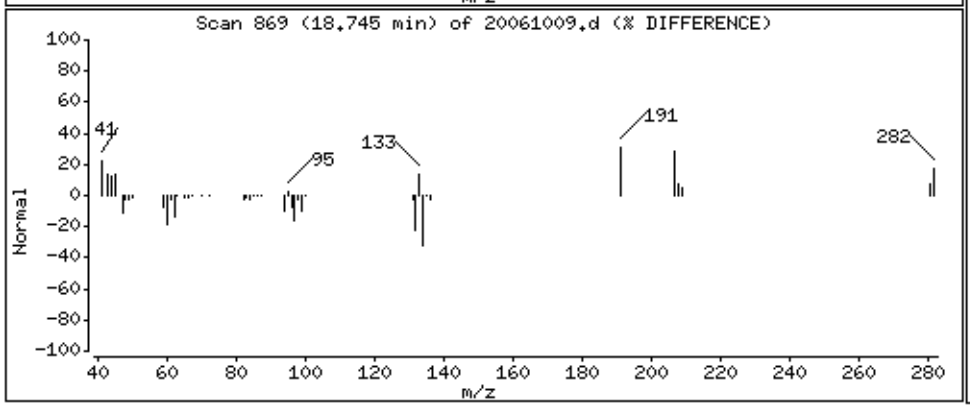
125 Trichloroethene

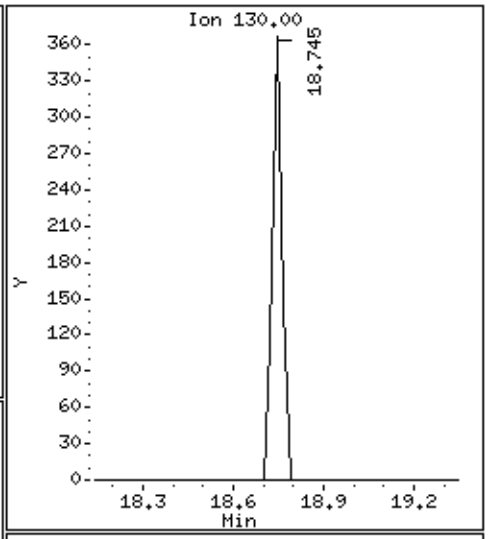
Concentration: 0.04542 PPBV

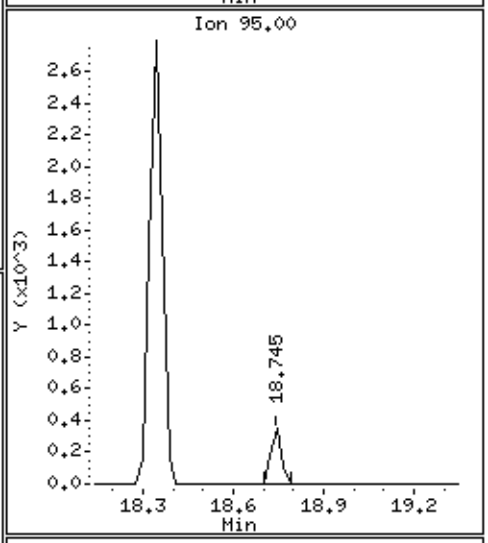


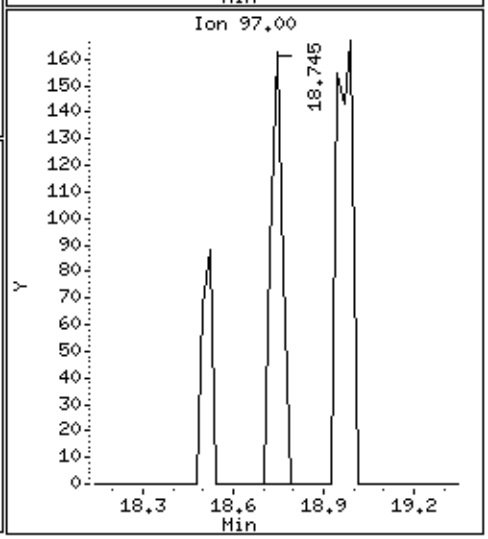












Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0054

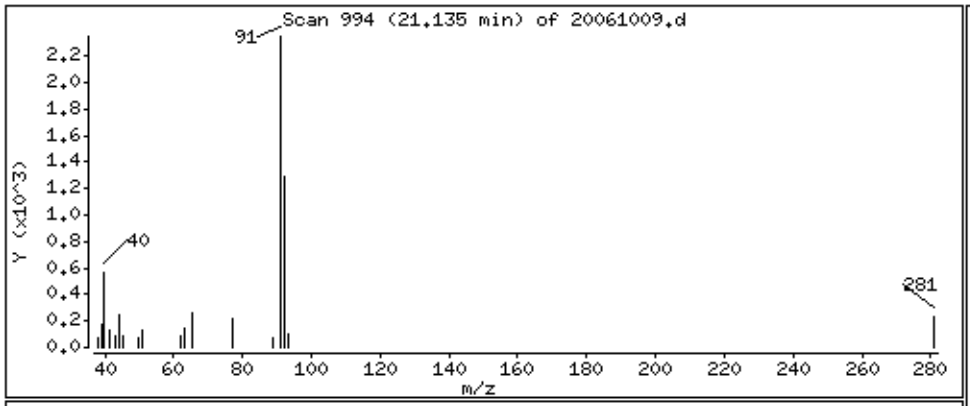
Operator: md

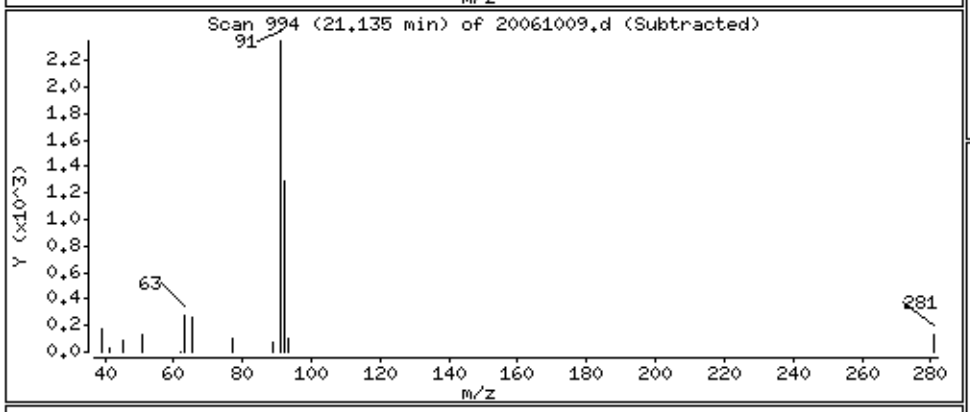
Column phase: RTX-624

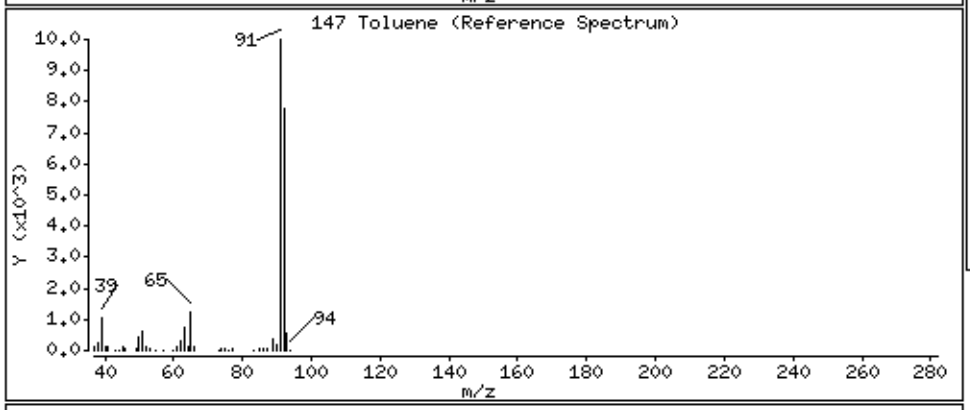
Column diameter: 0.32

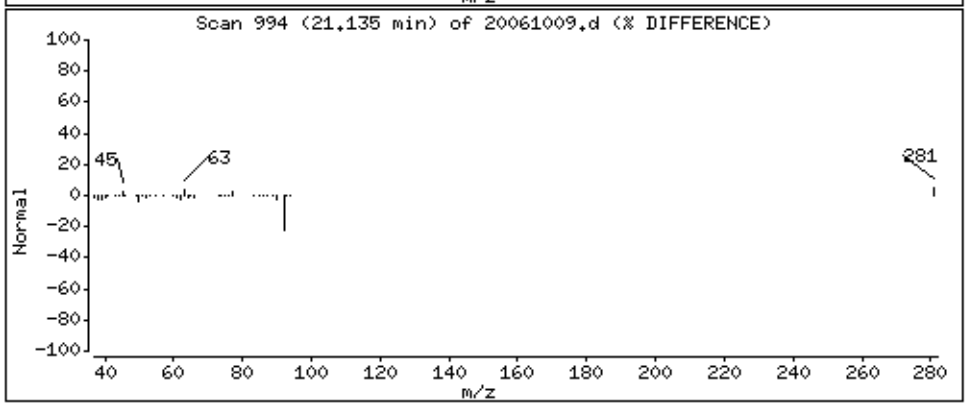
147 Toluene

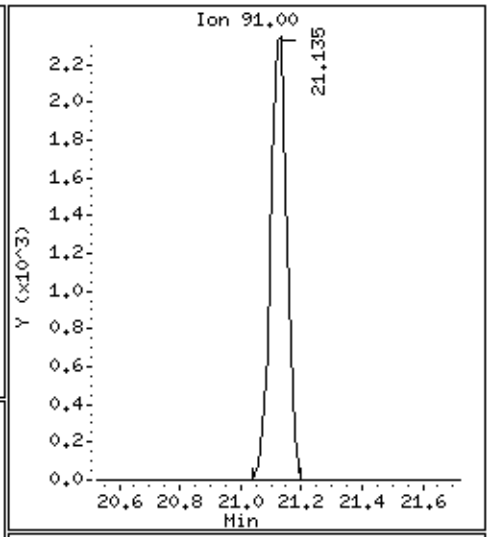
Concentration: 0.2320 PPBV

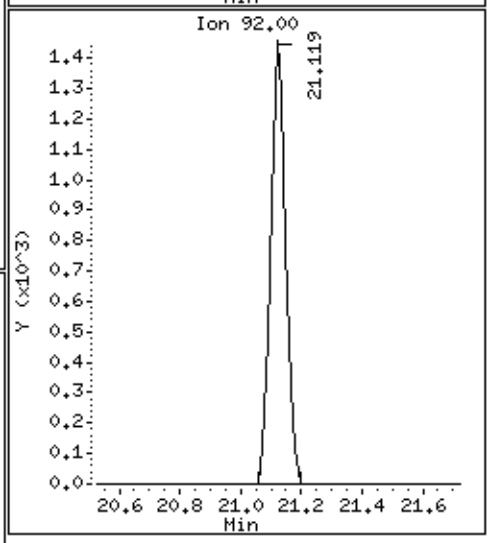












Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0054

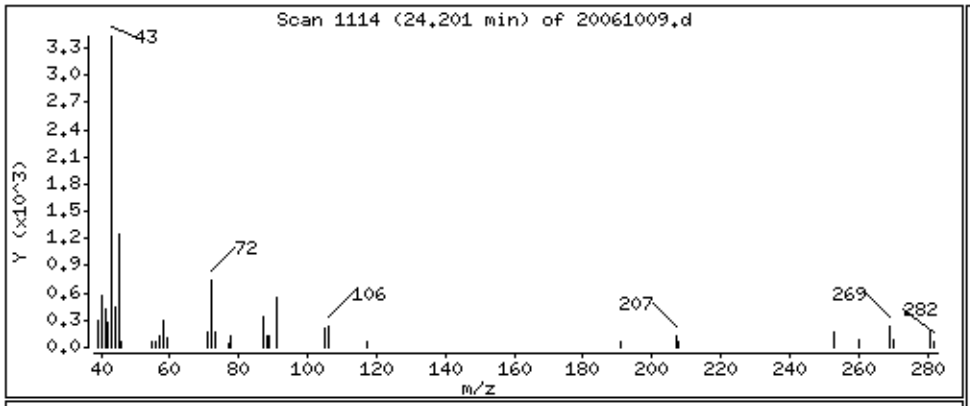
Operator: md

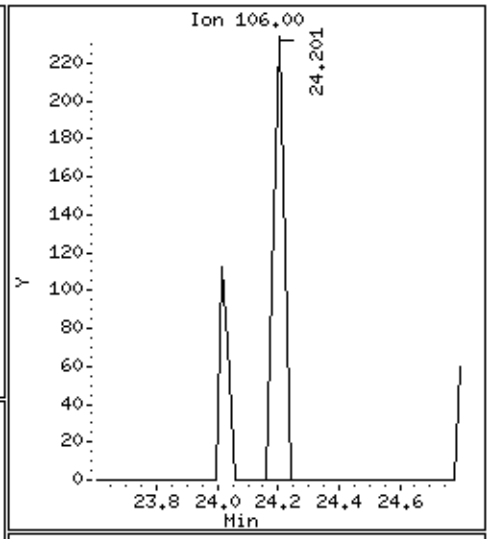
Column phase: RTX-624

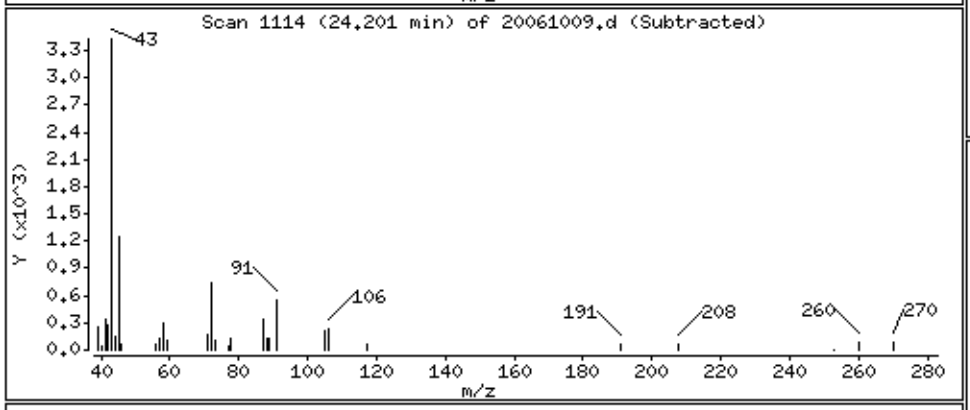
Column diameter: 0.32

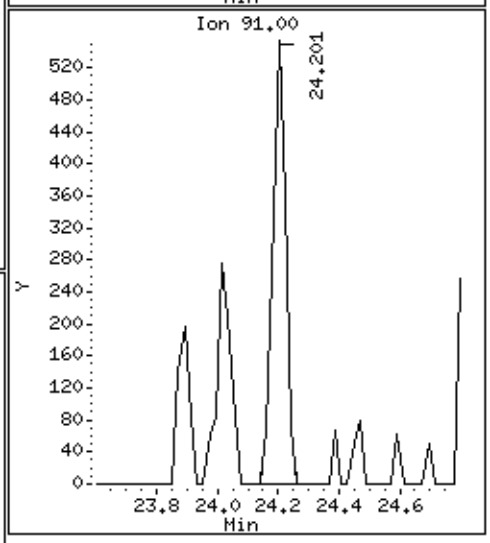
169 m,p-Xylene

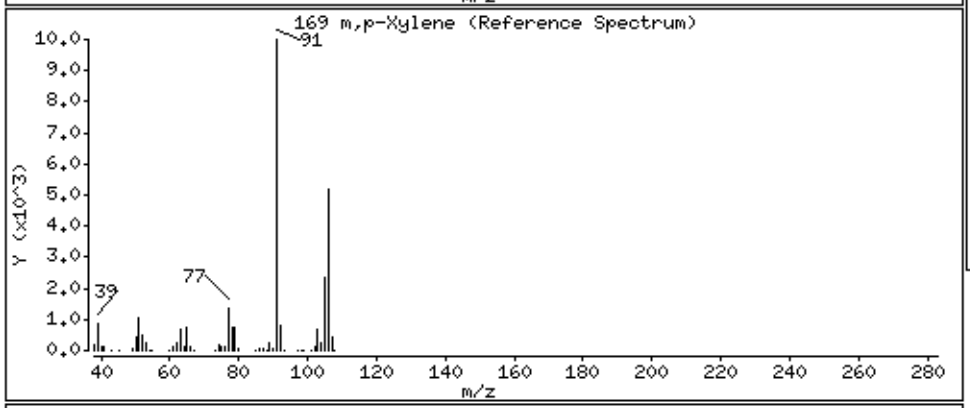
Concentration: 0.03622 PPBV

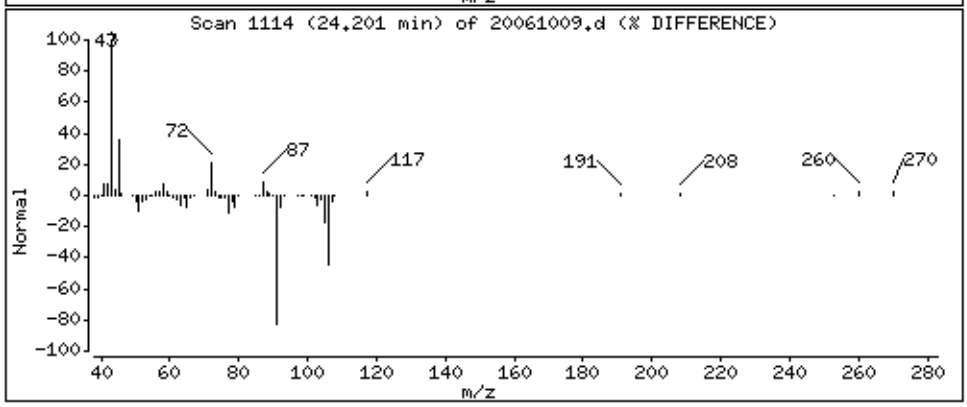












Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0054

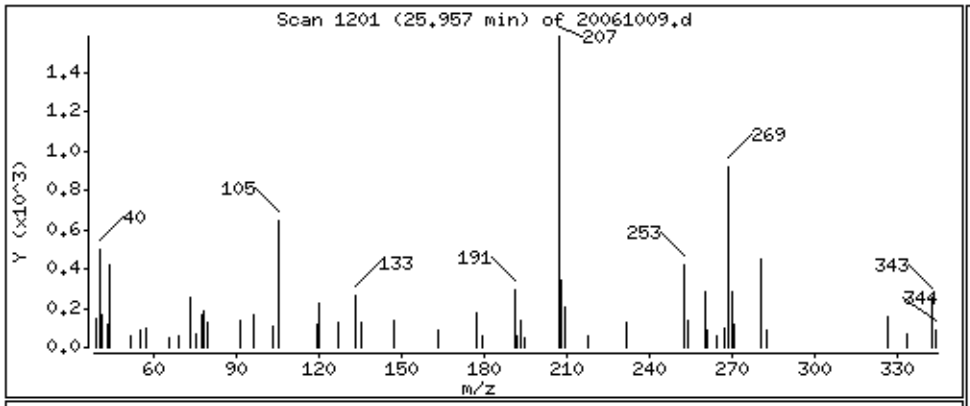
Operator: md

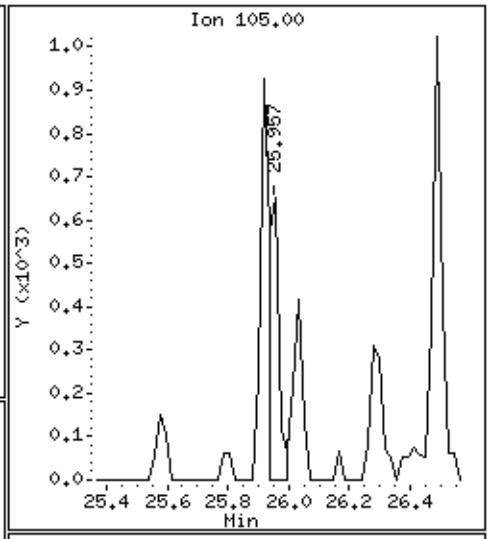
Column phase: RTX-624

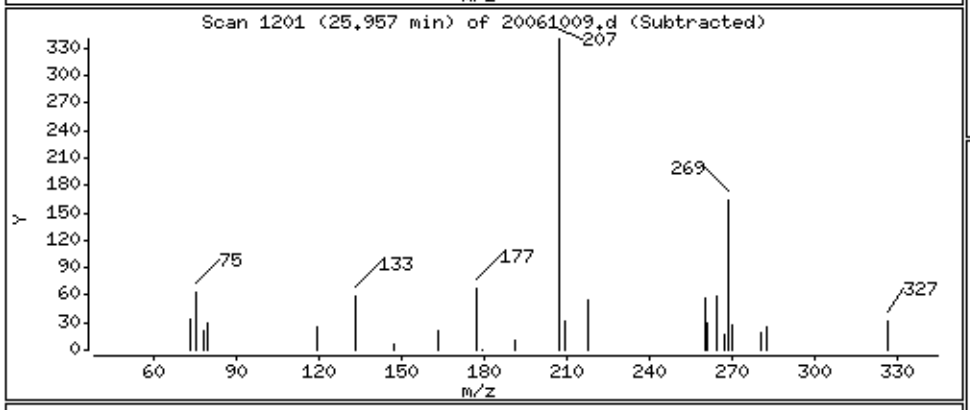
Column diameter: 0.32

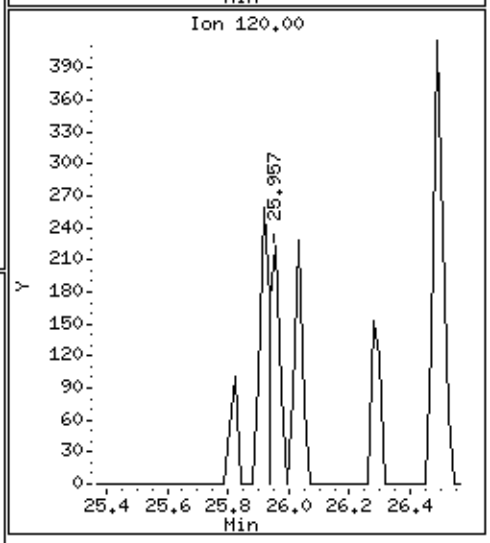
188 4-Ethyltoluene

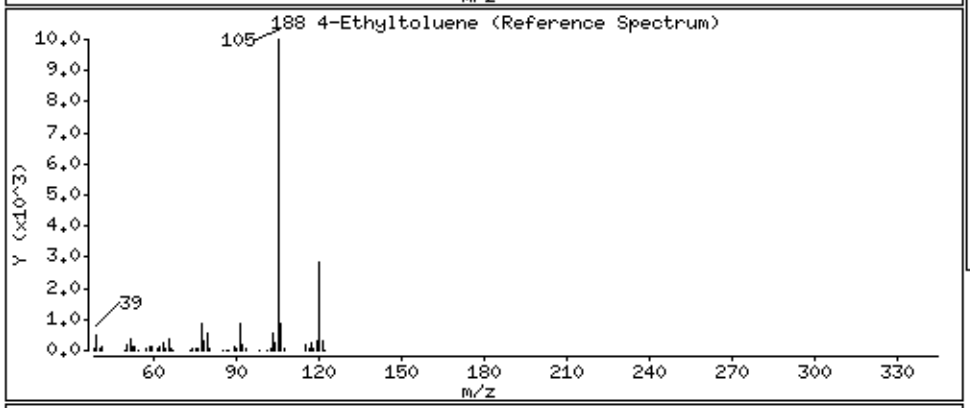
Concentration: 0.04467 PPBV

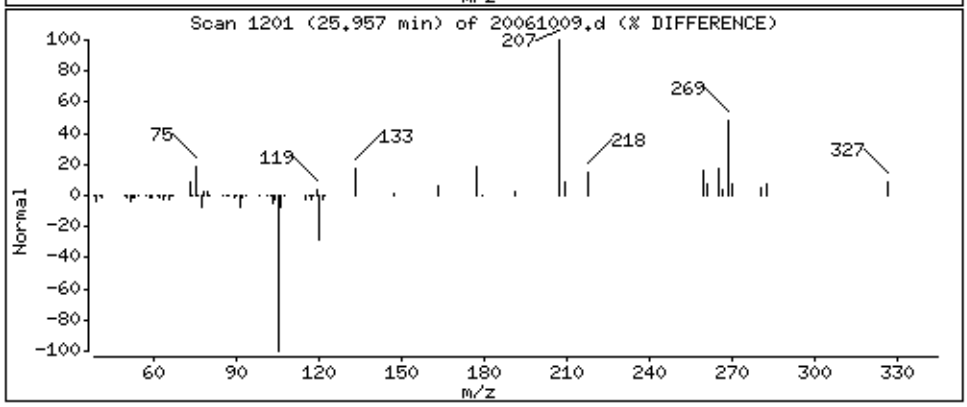












Data File: /chem/msd20.i/10Jun2015.b/20061009.d

Date : 10-JUN-2015 16:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0054

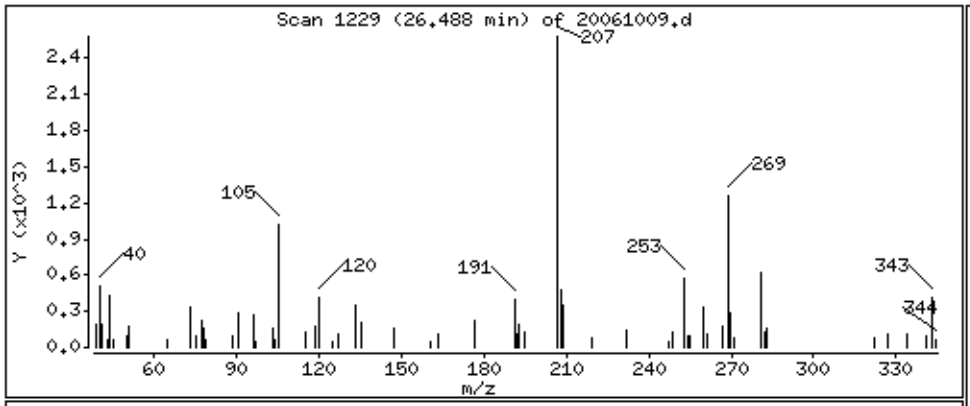
Operator: md

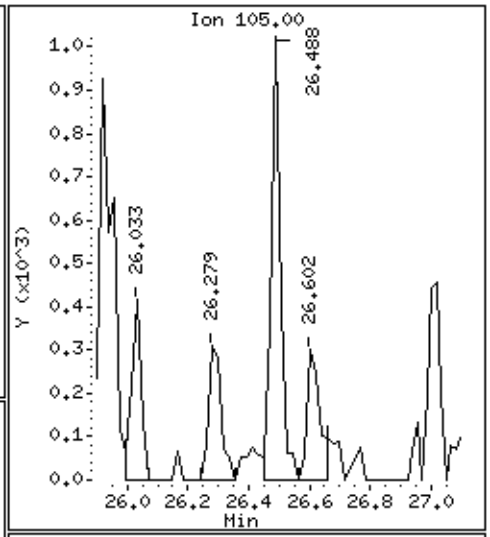
Column phase: RTX-624

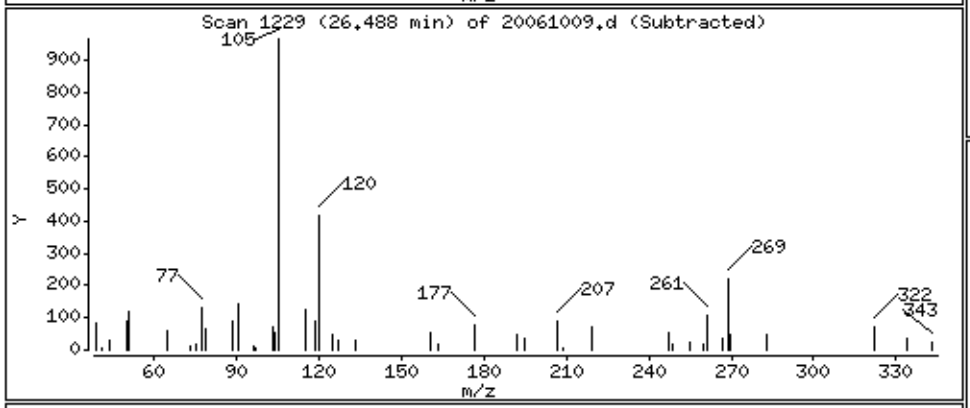
Column diameter: 0.32

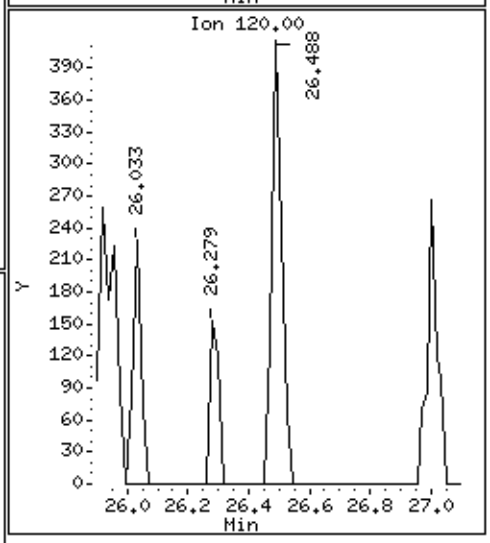
196 1,2,4-Trimethylbenzene

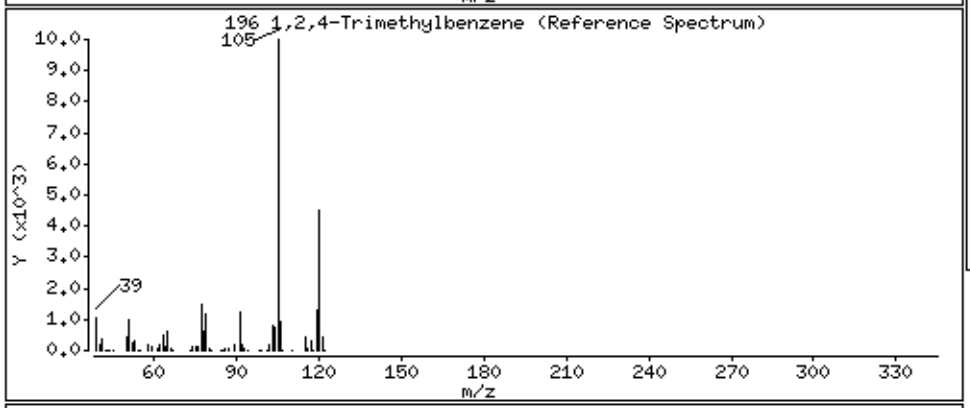
Concentration: 0.06976 PPBV

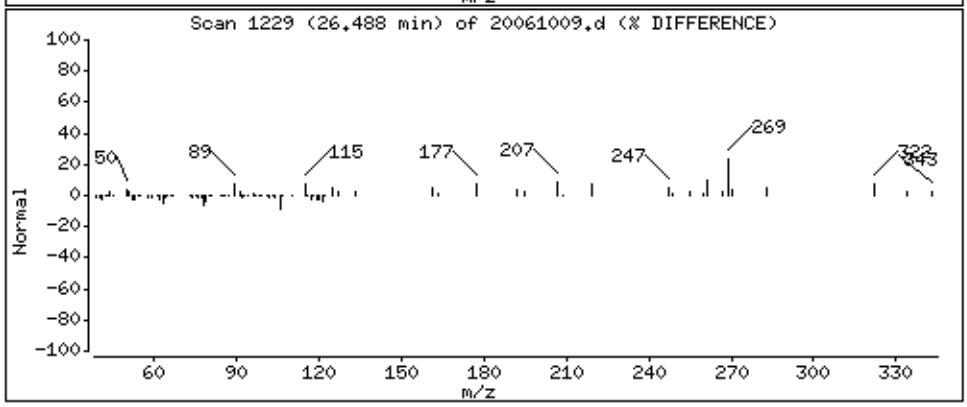












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B6-2IAD-2

Lab ID#: 1506153A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.48	0.76	2.4
Chloromethane	0.76	0.69 J	1.6	1.4 J
Freon 11	0.15	0.23	0.86	1.3
Ethanol	0.76	15	1.4	29
Freon 113	0.15	0.059 J	1.2	0.45 J
Acetone	0.76	3.2	1.8	7.7
2-Propanol	0.76	13	1.9	32
Methylene Chloride	0.31	0.22 J	1.1	0.75 J
Hexane	0.15	0.050 J	0.54	0.18 J
2-Butanone (Methyl Ethyl Ketone)	0.76	0.31 J	2.2	0.91 J
Cyclohexane	0.15	0.98	0.53	3.4
Carbon Tetrachloride	0.15	0.11 J	0.96	0.68 J
2,2,4-Trimethylpentane	0.76	0.062 J	3.6	0.29 J
Heptane	0.15	0.56	0.63	2.3
Trichloroethene	0.15	0.042 J	0.82	0.23 J
Toluene	0.15	0.25	0.58	0.93
m,p-Xylene	0.15	0.036 J	0.66	0.16 J
Propylbenzene	0.15	0.028 J	0.75	0.14 J
4-Ethyltoluene	0.15	0.080 J	0.75	0.39 J
1,2,4-Trimethylbenzene	0.15	0.066 J	0.75	0.33 J

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Client Sample ID: B6-2IAD-2

Lab ID#: 1506153A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061010**	**Date of Collection:**	**6/7/15 5:40:00 PM**
Dil. Factor:	**1.53**	**Date of Analysis:**	**6/10/15 05:04 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.48	0.76	2.4
Freon 114	0.15	Not Detected	1.1	Not Detected
Chloromethane	0.76	0.69 J	1.6	1.4 J
Vinyl Chloride	0.15	Not Detected	0.39	Not Detected
1,3-Butadiene	0.15	Not Detected	0.34	Not Detected
Bromomethane	0.76	Not Detected	3.0	Not Detected
Chloroethane	0.76	Not Detected	2.0	Not Detected
Freon 11	0.15	0.23	0.86	1.3
Ethanol	0.76	15	1.4	29
Freon 113	0.15	0.059 J	1.2	0.45 J
1,1-Dichloroethene	0.15	Not Detected	0.61	Not Detected
Acetone	0.76	3.2	1.8	7.7
2-Propanol	0.76	13	1.9	32
Carbon Disulfide	0.76	Not Detected	2.4	Not Detected
3-Chloropropene	0.76	Not Detected	2.4	Not Detected
Methylene Chloride	0.31	0.22 J	1.1	0.75 J
Methyl tert-butyl ether	0.15	Not Detected	0.55	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.61	Not Detected
Hexane	0.15	0.050 J	0.54	0.18 J
1,1-Dichloroethane	0.15	Not Detected	0.62	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.76	0.31 J	2.2	0.91 J
cis-1,2-Dichloroethene	0.15	Not Detected	0.61	Not Detected
Tetrahydrofuran	0.76	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.75	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Cyclohexane	0.15	0.98	0.53	3.4
Carbon Tetrachloride	0.15	0.11 J	0.96	0.68 J
2,2,4-Trimethylpentane	0.76	0.062 J	3.6	0.29 J
Benzene	0.15	Not Detected	0.49	Not Detected
1,2-Dichloroethane	0.15	Not Detected	0.62	Not Detected
Heptane	0.15	0.56	0.63	2.3
Trichloroethene	0.15	0.042 J	0.82	0.23 J
1,2-Dichloropropane	0.15	Not Detected	0.71	Not Detected
1,4-Dioxane	0.15	Not Detected	0.55	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.63	Not Detected
Toluene	0.15	0.25	0.58	0.93
trans-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.76	Not Detected	3.1	Not Detected

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Client Sample ID: B6-2IAD-2

Lab ID#: 1506153A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061010**	**Date of Collection:**	**6/7/15 5:40:00 PM**
Dil. Factor:	**1.53**	**Date of Analysis:**	**6/10/15 05:04 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.2	Not Detected
Chlorobenzene	0.15	Not Detected	0.70	Not Detected
Ethyl Benzene	0.15	Not Detected	0.66	Not Detected
m,p-Xylene	0.15	0.036 J	0.66	0.16 J
o-Xylene	0.15	Not Detected	0.66	Not Detected
Styrene	0.15	Not Detected	0.65	Not Detected
Bromoform	0.15	Not Detected	1.6	Not Detected
Cumene	0.15	Not Detected	0.75	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	0.028 J	0.75	0.14 J
4-Ethyltoluene	0.15	0.080 J	0.75	0.39 J
1,3,5-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,2,4-Trimethylbenzene	0.15	0.066 J	0.75	0.33 J
1,3-Dichlorobenzene	0.15	Not Detected	0.92	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.92	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.79	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.92	Not Detected
1,2,4-Trichlorobenzene	0.76	Not Detected	5.7	Not Detected
Hexachlorobutadiene	0.76	Not Detected	8.2	Not Detected
Naphthalene	0.76	Not Detected	4.0	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	94	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/10Jun2015.b/20061010.d
Lab Smp Id: 1506153A-03A
Inj Date : 10-JUN-2015 17:04
Operator : md Inst ID: msd20.i
Smp Info : 250mL #23925
Misc Info : 3.7"Hg->5 psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/10Jun2015.b/2015l0506a.m
Meth Date : 12-Jun-2015 09:37 mchen Quant Type: ISTD
Cal Date : 07-MAY-2015 12:38 Cal File: 20050616.d
Als bottle: 1
Dil Factor: 1.53000
Integrator: HP RTE Compound Sublist: TO15NMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.53000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
11 Freon 12					CAS #: 75-71-8		
4.797	4.797 (0.285)	85	14712	0.31558	0.4828	80.00- 120.00	100.00(M)
4.832	4.797 (0.287)	87	4746			2.49- 62.49	32.26
17 Chloromethane					CAS #: 74-87-3		
6.801	6.697 (0.404)	50	6164	0.44845	0.6861	80.00- 120.00	100.00(aM)
6.732	6.697 (0.400)	52	2227			2.88- 62.88	36.13
35 Freon 11					CAS #: 75-69-4		
11.262	11.238 (0.669)	101	7290	0.14929	0.2284	80.00- 120.00	100.00
11.245	11.238 (0.668)	103	4582			35.69- 95.69	62.85
42 Ethanol					CAS #: 64-17-5		
12.403	12.396 (0.736)	45	54251	9.99897	15.298	80.00- 120.00	100.00
12.403	12.396 (0.736)	46	20829			8.49- 68.49	38.39
12.403	12.396 (0.736)	43	12771			0.00- 51.69	23.54

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
49 Freon 113					CAS #: 76-13-1		
12.878	12.871 (0.765)	151	1521	0.03869	0.05919	80.00- 120.00	100.00(a)
12.878	12.871 (0.765)	153	1112			34.25- 94.25	73.07
12.878	12.871 (0.765)	101	1646			75.92- 135.92	108.22
52 Acetone					CAS #: 67-64-1		
13.229	13.222 (0.786)	58	17081	2.12468	3.251	80.00- 120.00	100.00
13.229	13.222 (0.786)	43	52376			250.97- 310.97	306.63
57 2-Propanol					CAS #: 67-63-0		
13.662	13.655 (0.811)	45	189948	8.48050	12.975	80.00- 120.00	100.00
13.662	13.655 (0.811)	43	40897			0.00- 45.99	21.53
13.662	13.655 (0.811)	59	7773			0.00- 33.55	4.09
66 Methylene Chloride					CAS #: 75-09-2		
14.157	14.150 (0.841)	84	2413	0.14112	0.2159	80.00- 120.00	100.00(a)
14.157	14.150 (0.841)	49	2827			76.26- 136.26	117.18
14.157	14.150 (0.841)	51	841			2.64- 62.64	34.87
78 Hexane					CAS #: 110-54-3		
15.003	14.996 (0.891)	57	783	0.03291	0.05035	80.00- 120.00	100.00(a)
14.982	14.996 (0.890)	43	749			29.42- 89.42	95.73
0.000	14.996 (0.000)	86	0			0.00- 49.37	0.00
92 2-Butanone					CAS #: 78-93-3		
16.475	16.460 (0.978)	72	1716	0.20237	0.3096	80.00- 120.00	100.00(a)
16.475	16.460 (0.978)	43	7552			397.61- 457.61	440.04
16.475	16.460 (0.978)	57	600			0.00- 58.47	34.99
* 98 Bromochloromethane					CAS #: 74-97-5		
16.841	16.841 (1.000)	130	68908	5.00000		80.00- 120.00	100.00
16.841	16.841 (1.000)	128	52710			48.56- 108.56	76.49
16.841	16.841 (1.000)	49	69837			77.31- 137.31	101.35
102 Cyclohexane					CAS #: 110-82-7		
17.153	17.153 (1.019)	84	15704	0.63891	0.9775	80.00- 120.00	100.00
17.153	17.153 (1.019)	56	21205			72.40- 132.40	135.03
17.153	17.153 (1.019)	41	12619			20.65- 80.65	80.35
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.393	17.369 (1.033)	119	1872	0.07024	0.1075	80.00- 120.00	100.00(a)
17.369	17.369 (1.031)	117	1818			73.26- 133.26	97.08
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
17.681	17.681 (1.050)	56	951	0.04039	0.06180	80.00- 120.00	100.00(a)
17.681	17.681 (1.050)	57	570			268.82- 328.82	59.91

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  113 2,2,4-Trimethylpentane (continued)
 17.681  17.681 (1.050)    41      1797                    49.41- 109.41   188.93
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                        CAS #: 17060-07-0
 17.753  17.753 (1.054)    65     95478 5.50814    5.508  80.00- 120.00   100.00
 17.753  17.753 (1.054)    67     50483                    27.32-  87.32    52.87
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 17.969  17.944 (0.980)    57      5353 0.36583   0.5597  80.00- 120.00   100.00
 17.945  17.944 (0.978)   100      1882                    21.23-  81.23    35.17
 17.945  17.944 (0.978)    43      9528                   145.72- 205.72   178.00
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 18.341  18.341 (1.000)   114    288670 5.00000           80.00- 120.00   100.00
 18.341  18.341 (1.000)    88     44339                     0.00-  44.67    15.36
-------------------------------------------------------------------------------
  125 Trichloroethene                              CAS #: 79-01-6
 18.742  18.742 (1.022)   130       844 0.02770  0.04238  80.00- 120.00   100.00(a)
 18.742  18.742 (1.022)    95       744                    56.13- 116.13    88.11
 18.742  18.742 (1.022)    97       504                    26.55-  86.55    59.75
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.983  20.982 (1.144)    98    258757 4.83191    4.832  80.00- 120.00   100.00
 20.983  20.982 (1.144)    70     27172                     0.00-  40.06    10.50
 20.983  20.982 (1.144)   100    169305                    36.64-  96.64    65.43
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 21.123  21.123 (1.152)    91     10610 0.16148   0.2470  80.00- 120.00   100.00
 21.123  21.123 (1.152)    92      5575                    29.36-  89.36    52.55
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 23.895  23.895 (1.000)   117    242135 5.00000           80.00- 120.00   100.00
 23.895  23.895 (1.000)    82    123531                    18.57-  78.57    51.02
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.205  24.204 (1.013)   106       602 0.02351  0.03598  80.00- 120.00   100.00(a)
 24.205  24.204 (1.013)    91      1957                   160.53- 220.53   324.82
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 25.581  25.581 (1.071)   174    136554 4.70820    4.708  80.00- 120.00   100.00
 25.562  25.581 (1.070)    95    142328                    70.67- 130.67   104.23
 25.581  25.581 (1.071)   176    133050                    67.63- 127.63    97.43
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 25.828  25.809 (1.081)    91      1339 0.01863  0.02850  80.00- 120.00   100.00(a)
 25.923  25.809 (1.085)   120       914                     0.00-  55.88    68.31
-------------------------------------------------------------------------------
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
188 4-Ethyltoluene						CAS #: 622-96-8		
25.923	25.960	(1.085)	105	3069	0.05249	0.08031	80.00- 120.00	100.00(a)
25.923	25.960	(1.085)	120	914			3.93- 63.93	29.80
196 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
26.492	26.491	(1.109)	105	2264	0.04337	0.06635	80.00- 120.00	100.00(a)
26.492	26.491	(1.109)	120	886			19.25- 79.25	39.14

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Report Date: 12-Jun-2015 09:56

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061010.d
Lab Smp Id: 1506153A-03A
Analysis Type: VOA
Quant Type: ISTD
Operator: md
Method File: /chem/msd20.i/10Jun2015.b/2015l0506a.m
Misc Info: 3.7"Hg->5 psi

Calibration Date: 10-JUN-2015
Calibration Time: 11:58

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	70421	42253	98589	68908	-2.15
123 1,4-Difluorobenze	289237	173542	404932	288670	-0.20
163 Chlorobenzene-d5	248624	149174	348074	242135	-2.61

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.84	16.51	17.17	16.84	0.00
123 1,4-Difluorobenze	18.34	18.01	18.67	18.34	0.00
163 Chlorobenzene-d5	23.90	23.57	24.23	23.90	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 12-Jun-2015 09:56

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 10Jun2015
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1506153A-03A
Level: LOW Operator: md
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/10Jun2015.b/2015l0506a.m
Misc Info: 3.7"Hg->5 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.508	110.16	70-130
$ 146 Toluene-d8	5.000	4.832	96.64	70-130
$ 177 4-Bromofluorobenze	5.000	4.708	94.16	70-130

Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

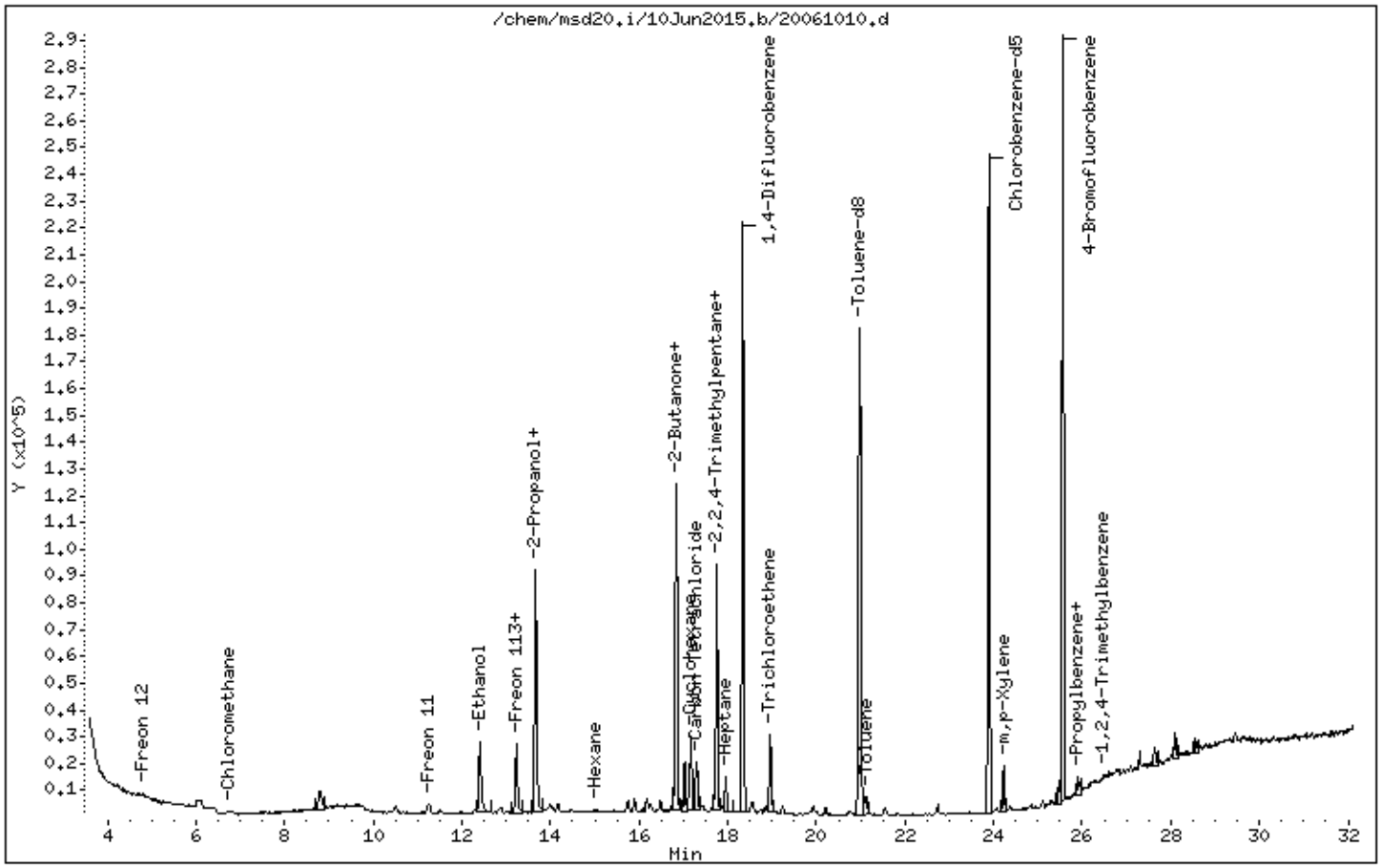
Instrument: msd20.i

Sample Info: 250mL #23925

Operator: md

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

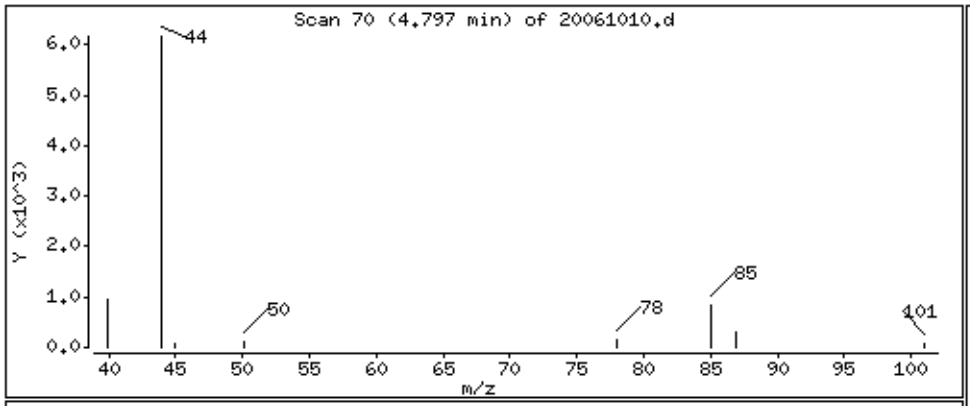
Operator: md

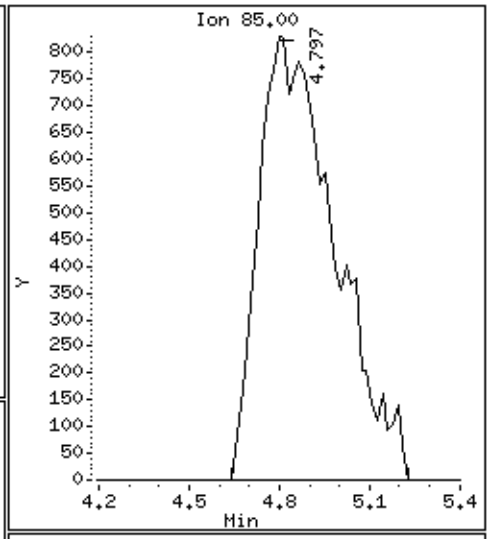
Column phase: RTX-624

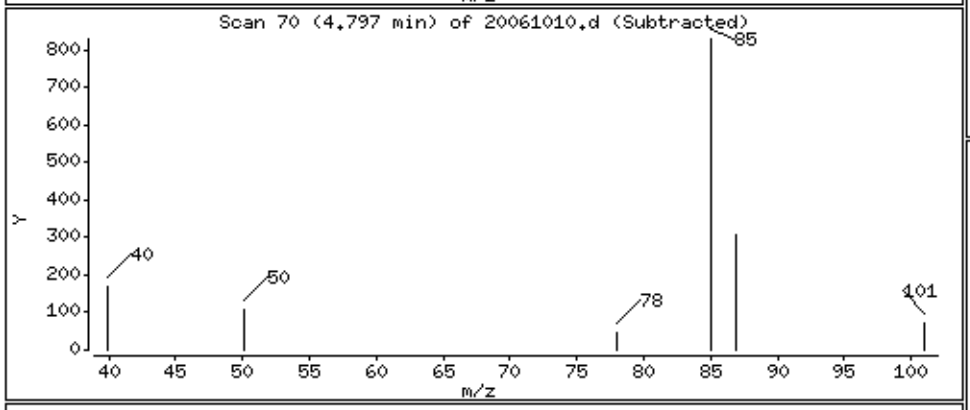
Column diameter: 0.32

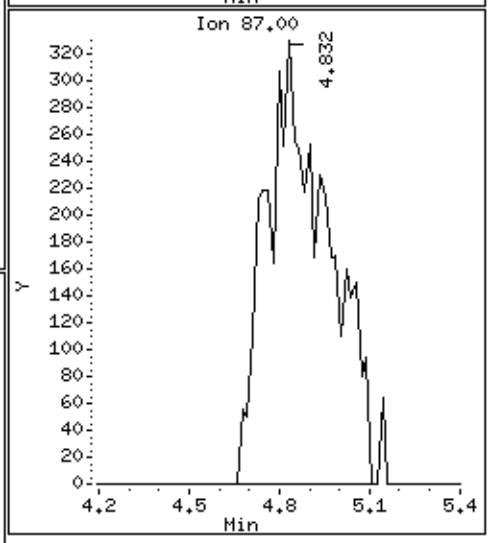
11 Freon 12

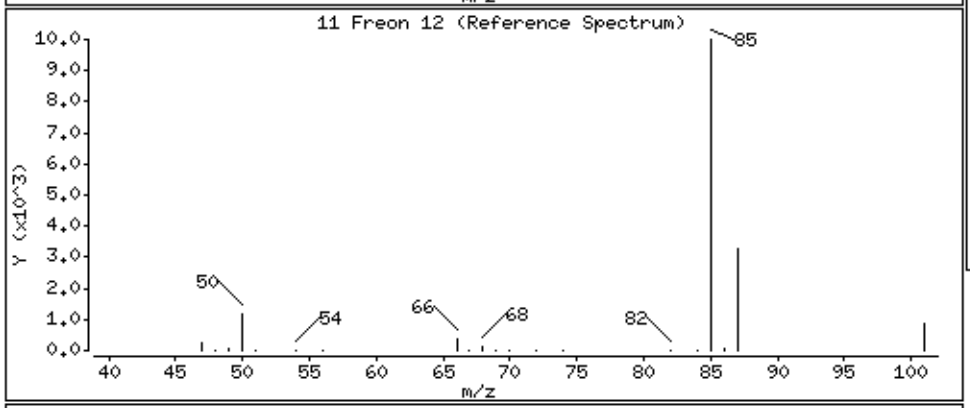
Concentration: 0.4828 PPBV

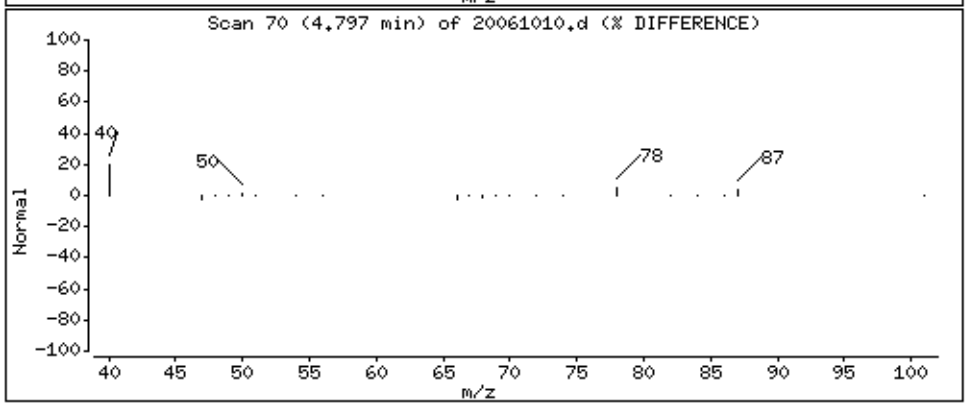












Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

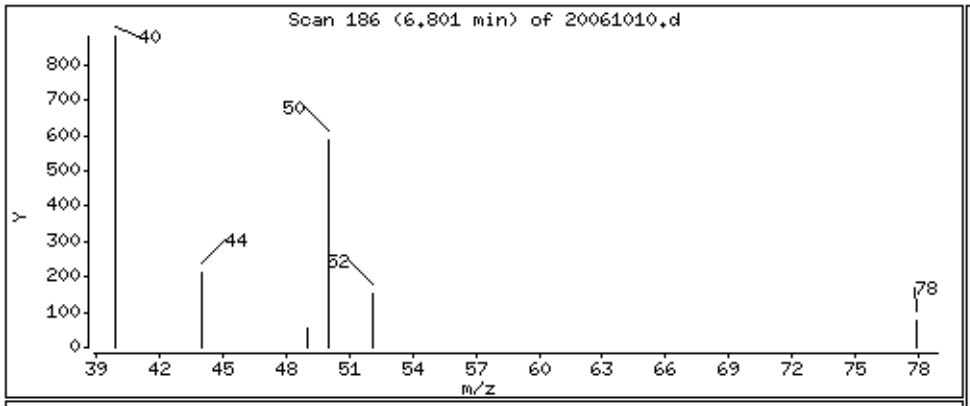
Operator: md

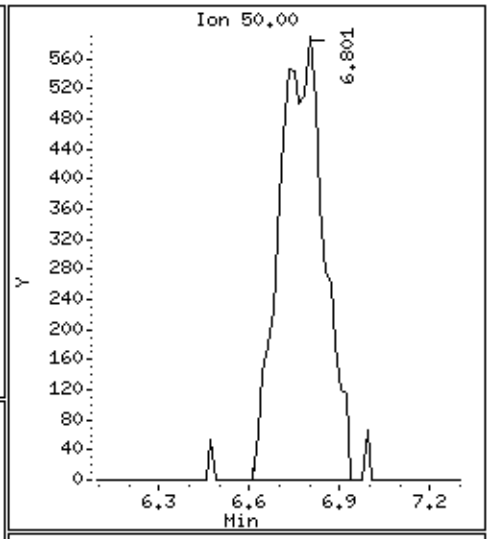
Column phase: RTX-624

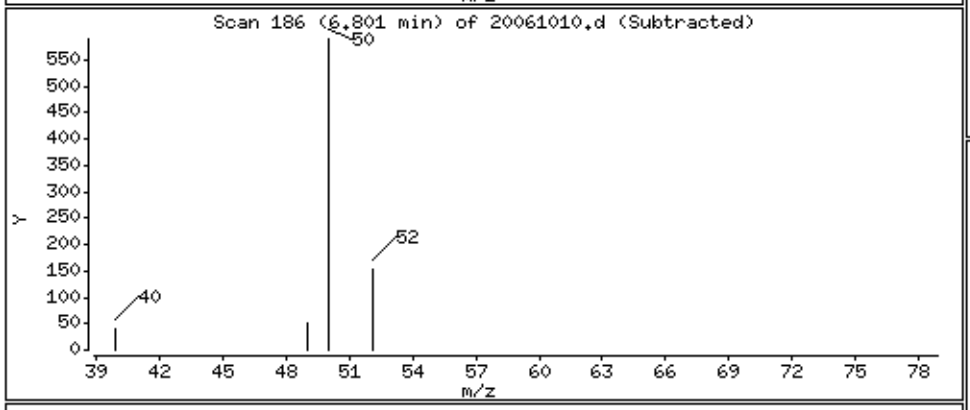
Column diameter: 0.32

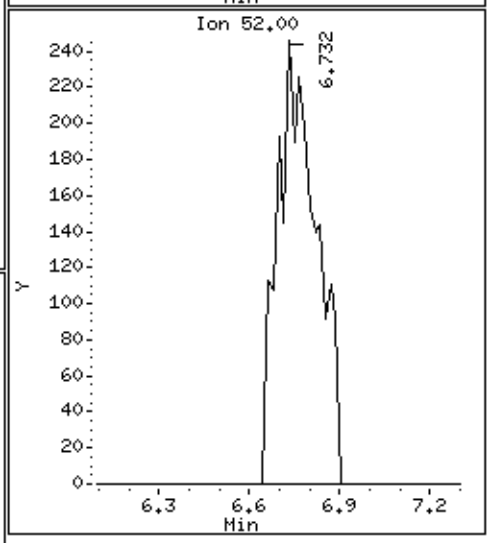
17 Chloromethane

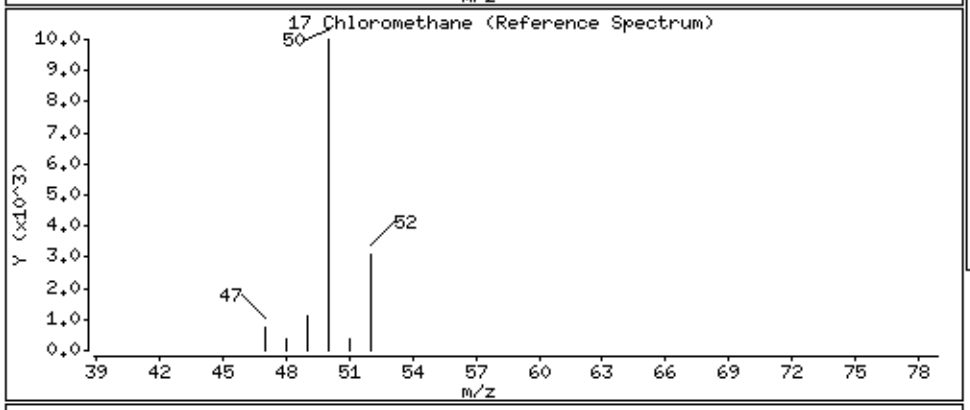
Concentration: 0.6861 PPBV

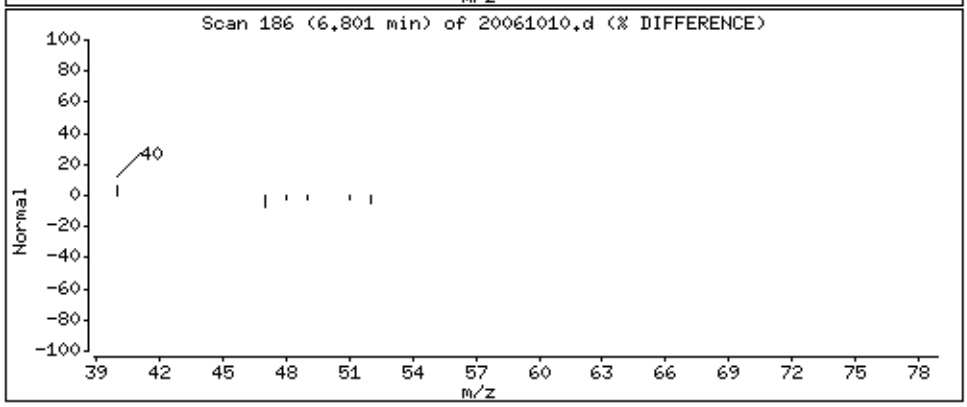












Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

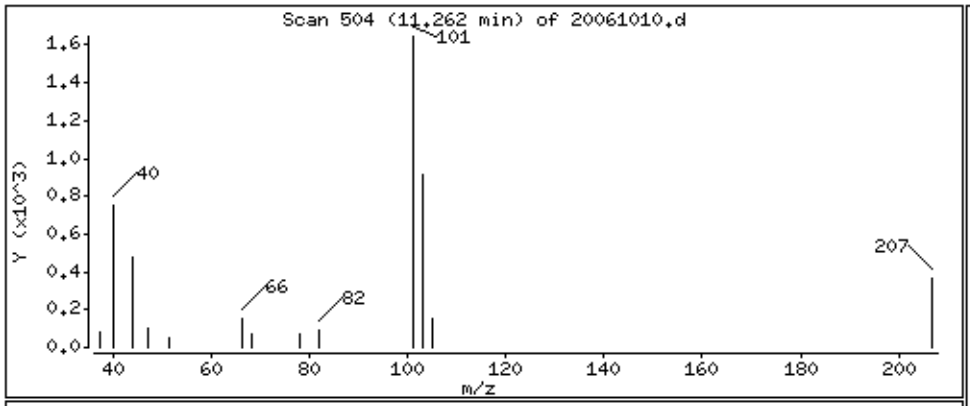
Operator: md

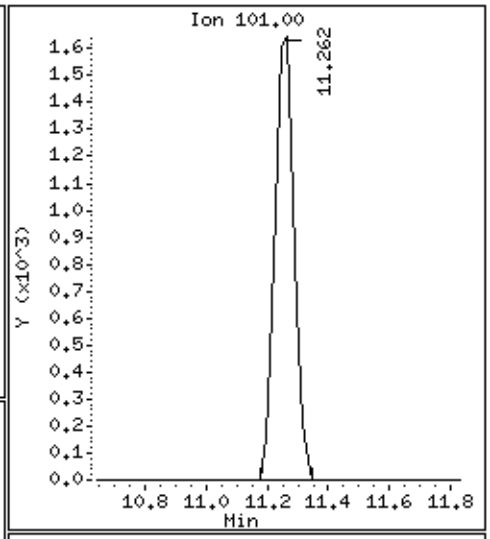
Column phase: RTX-624

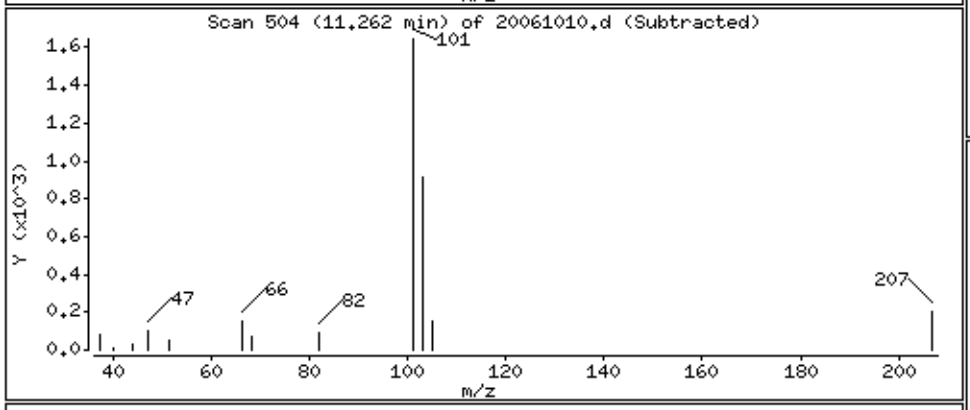
Column diameter: 0.32

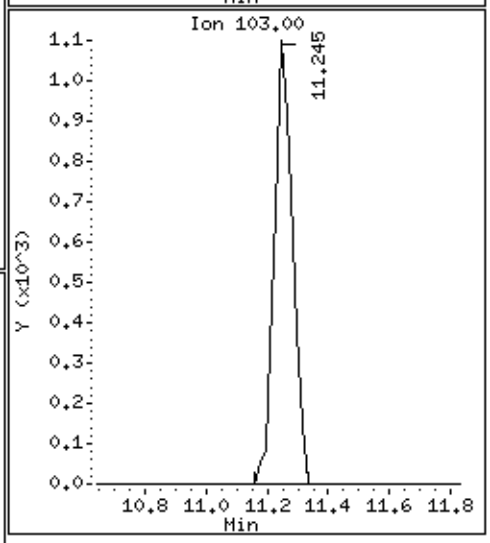
35 Freon 11

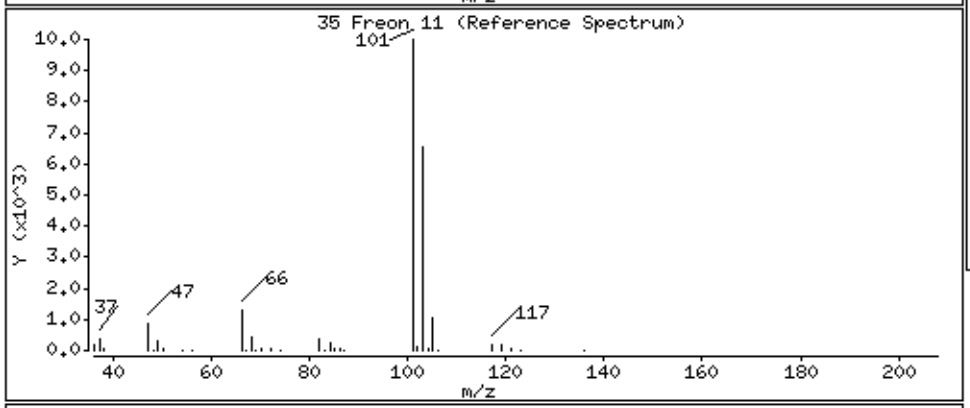
Concentration: 0.2284 PPBV

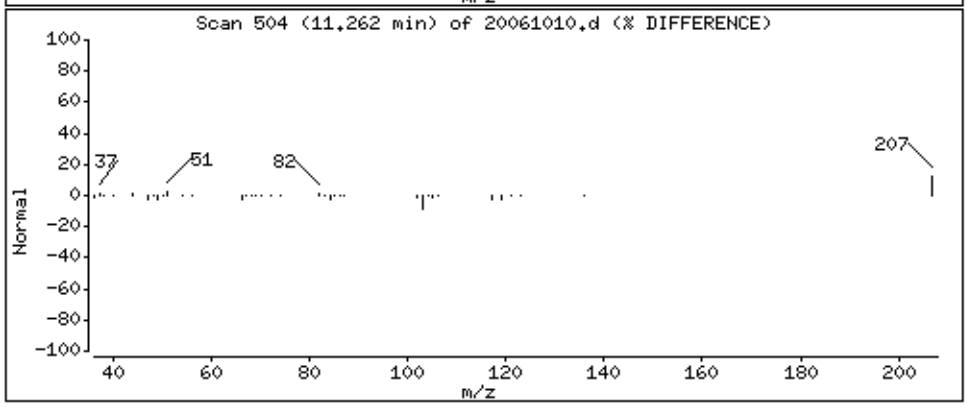












Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

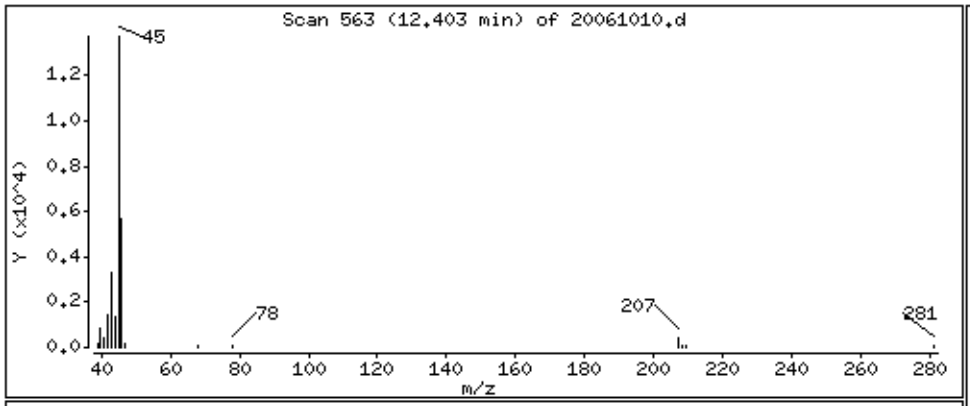
Operator: md

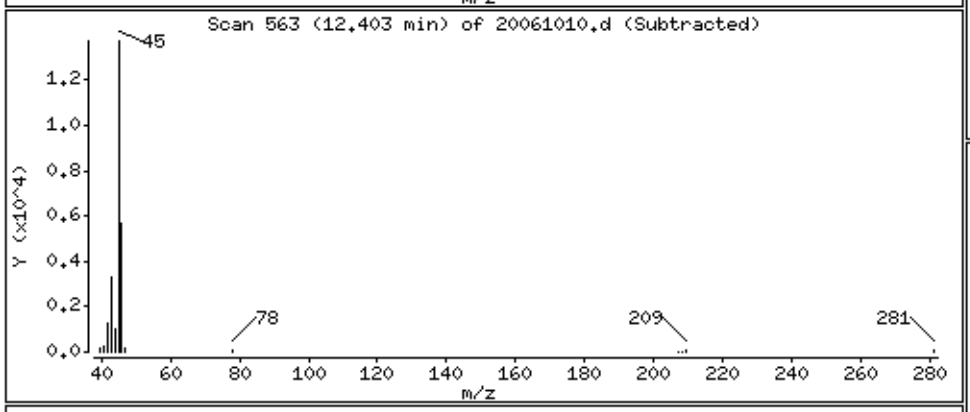
Column phase: RTX-624

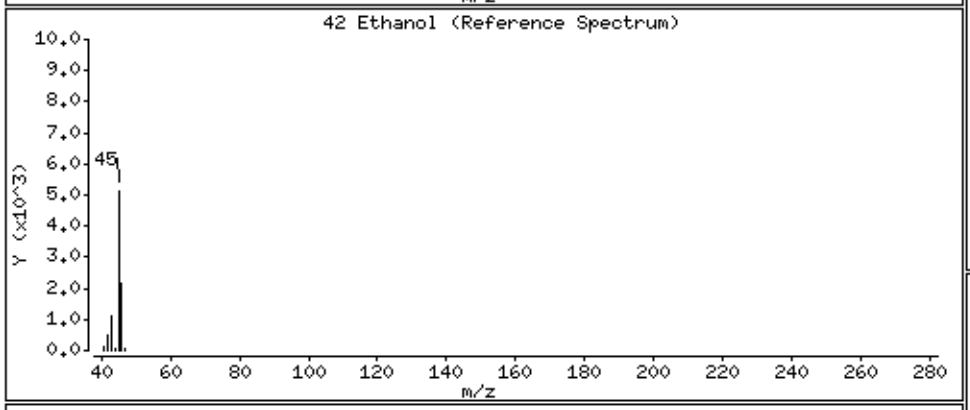
Column diameter: 0.32

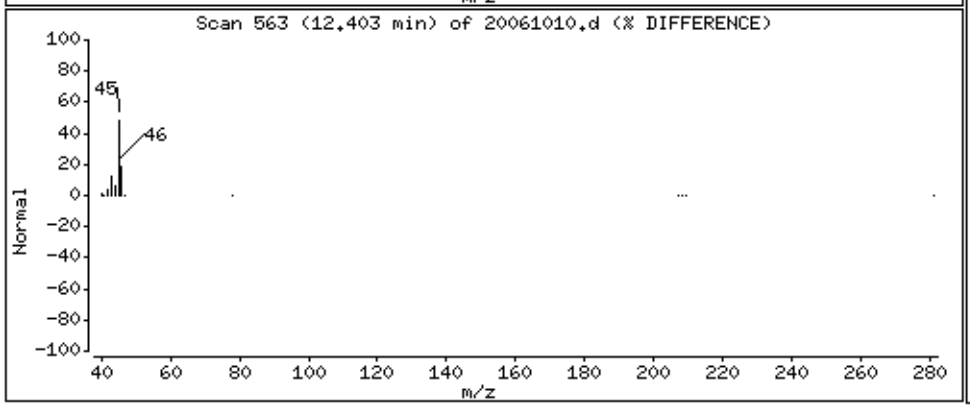
42 Ethanol

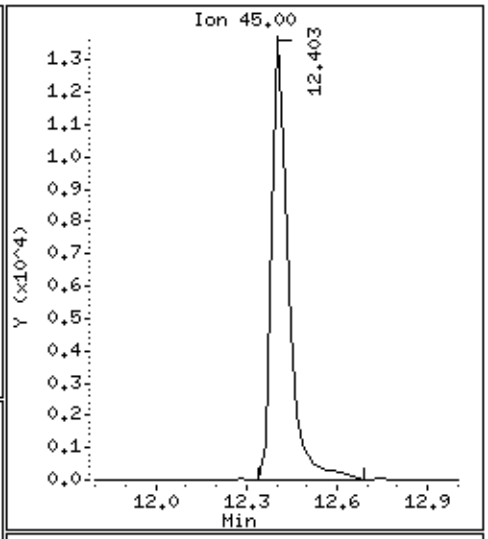
Concentration: 15.298 PPBV

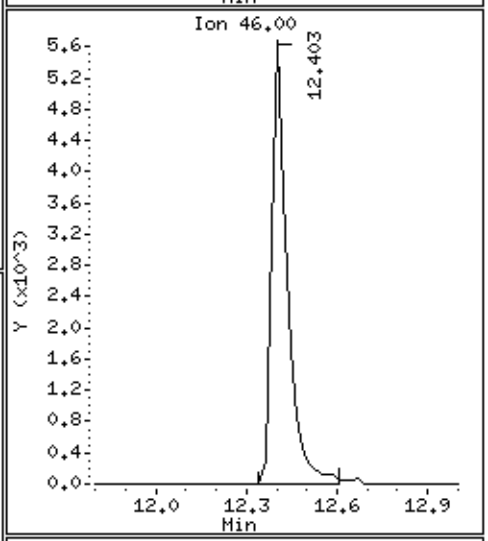


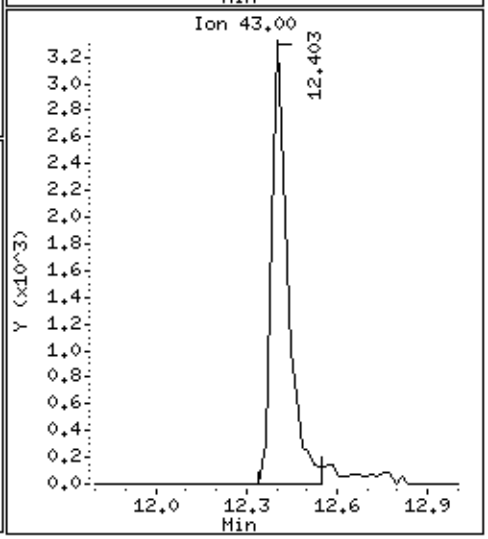












Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

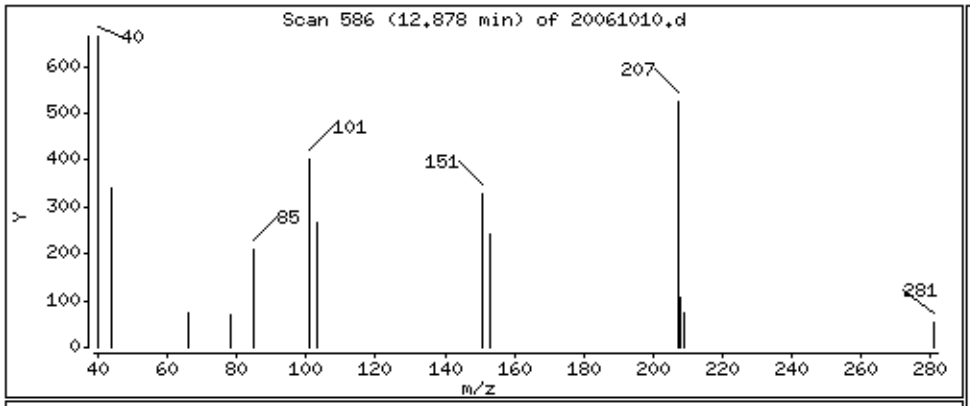
Operator: md

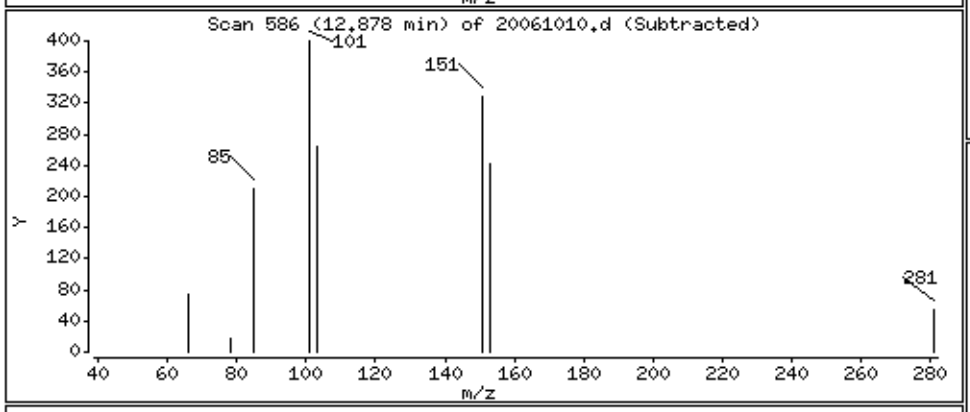
Column phase: RTX-624

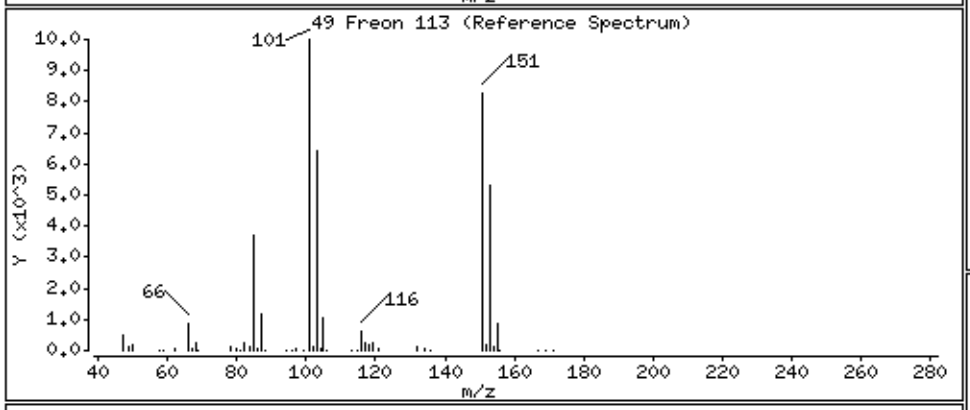
Column diameter: 0.32

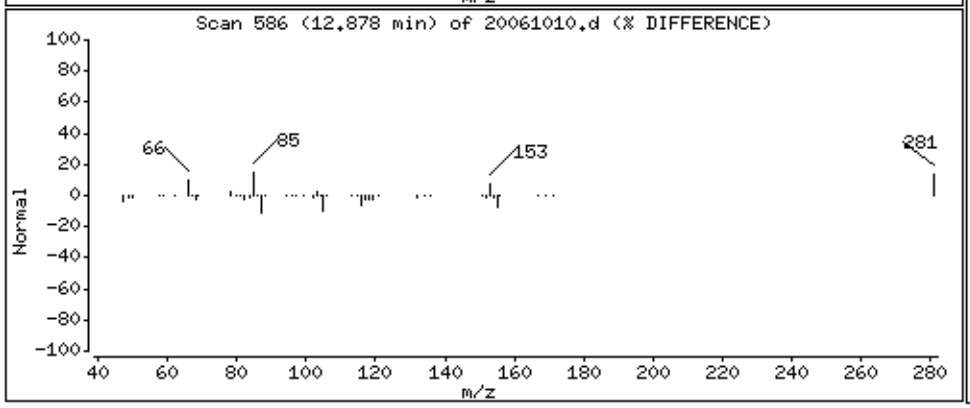
49 Freon 113

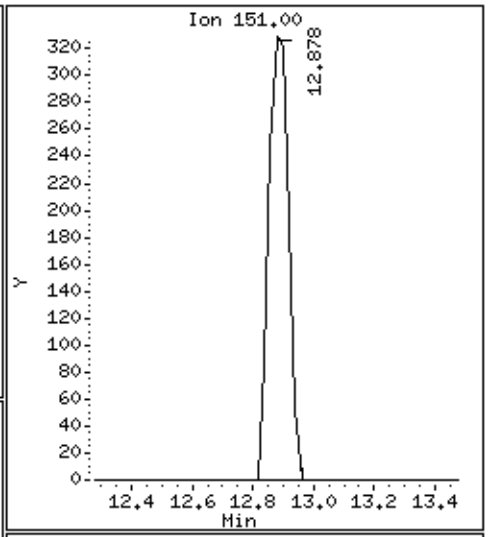
Concentration: 0.05919 PPBV

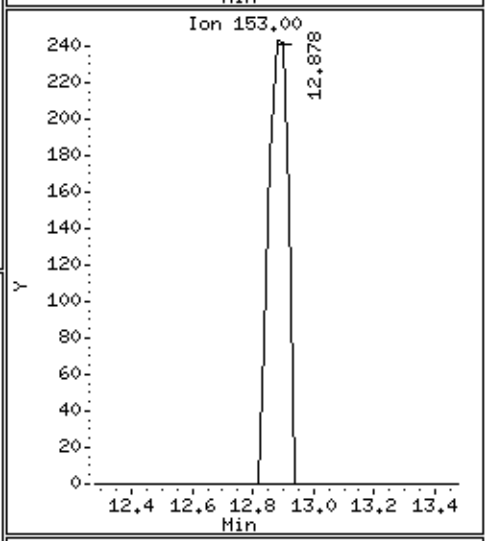


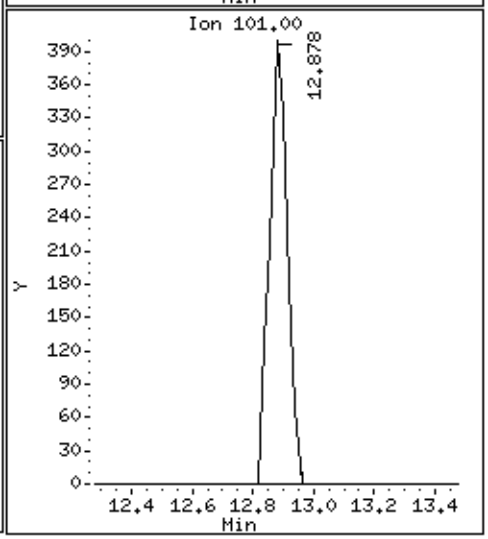












Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

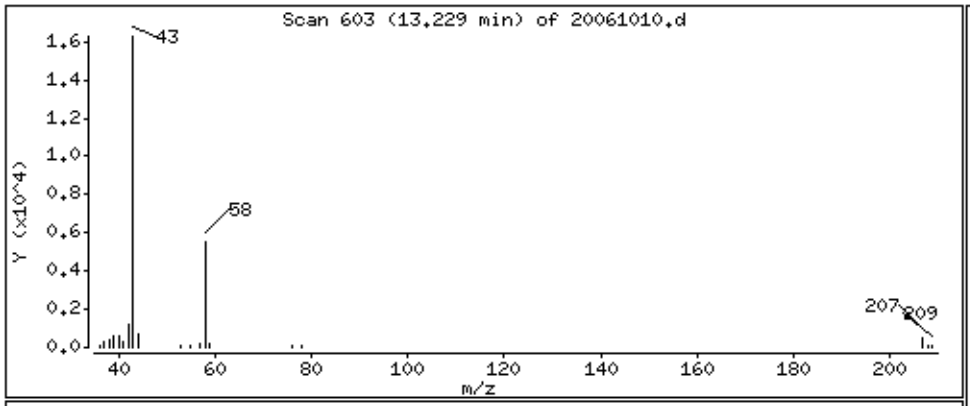
Operator: md

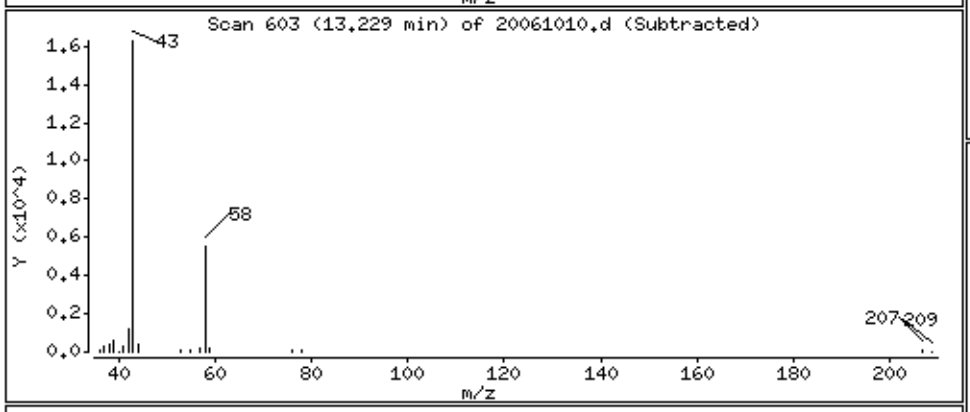
Column phase: RTX-624

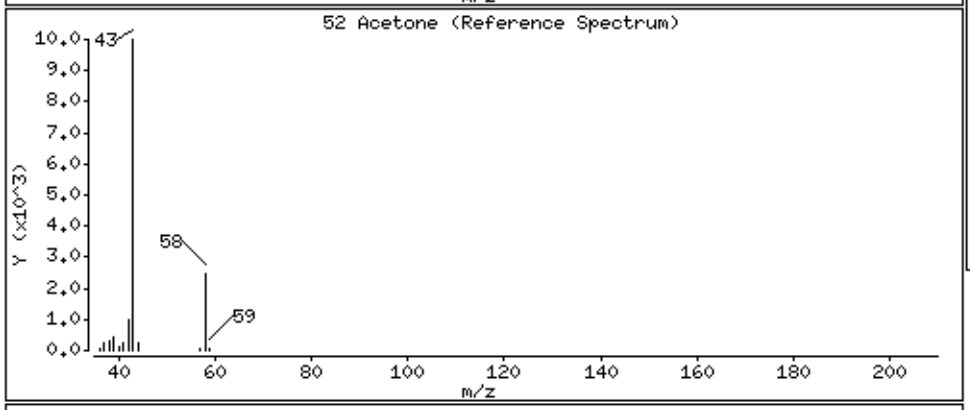
Column diameter: 0.32

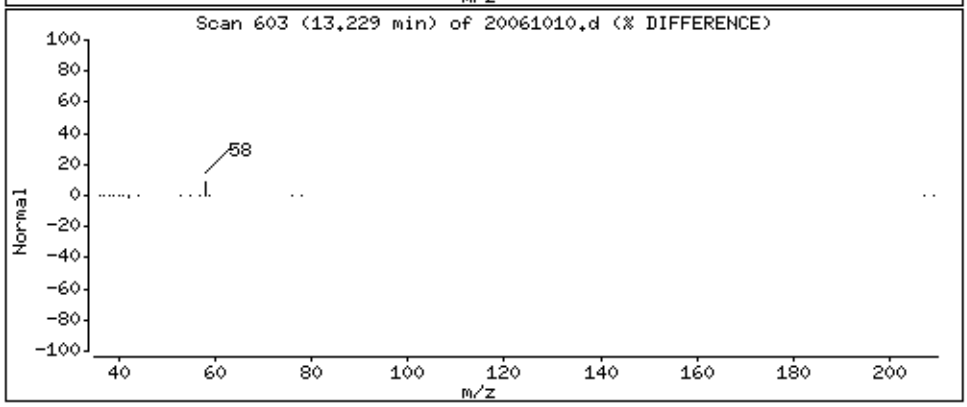
52 Acetone

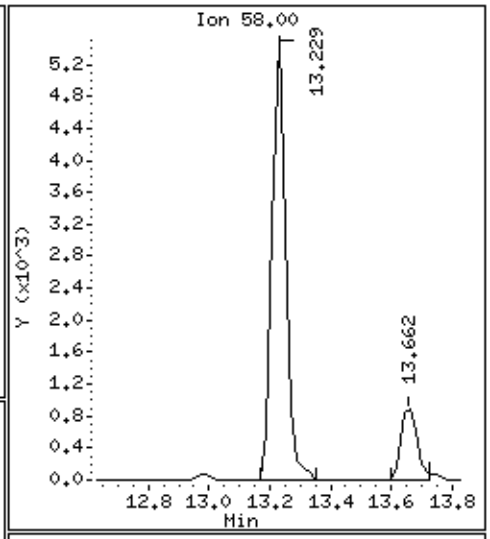
Concentration: 3.251 PPBV

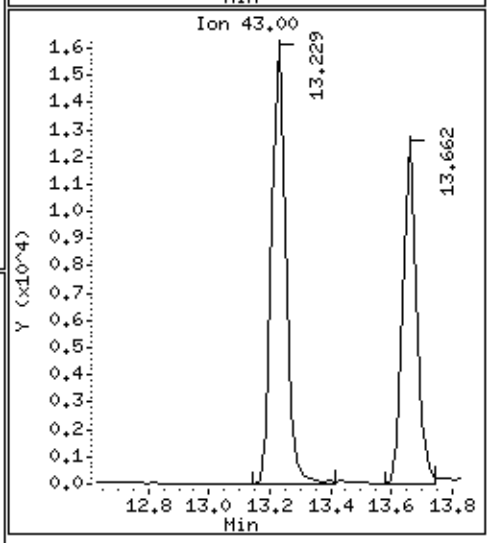












Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

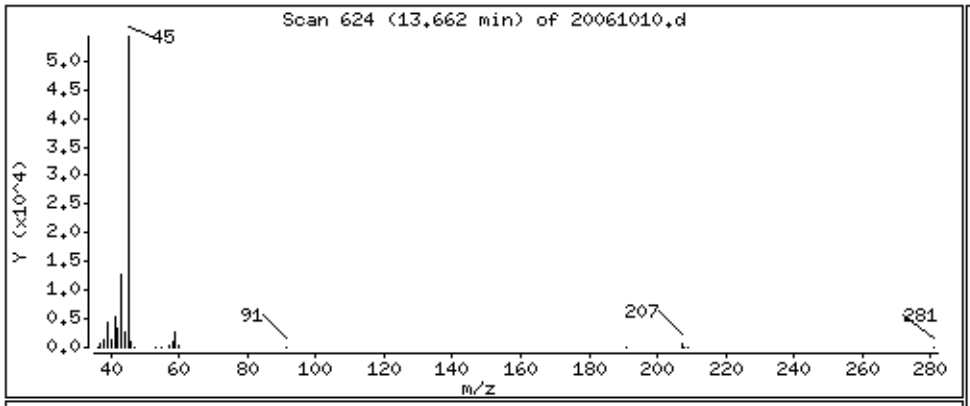
Operator: md

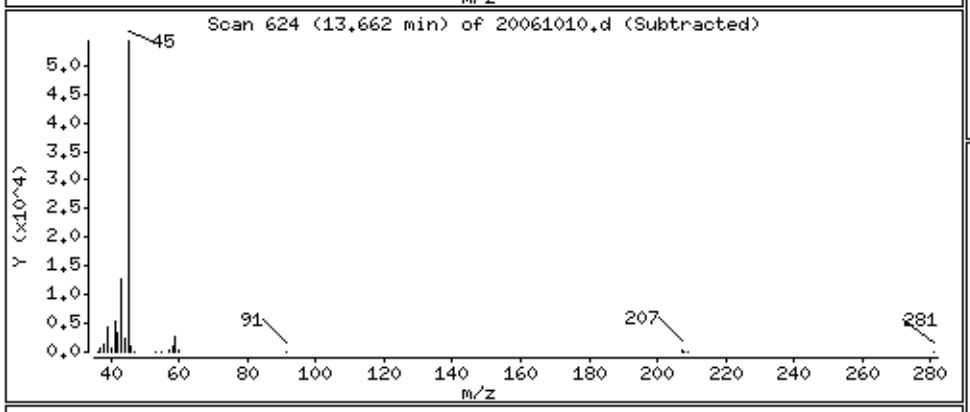
Column phase: RTX-624

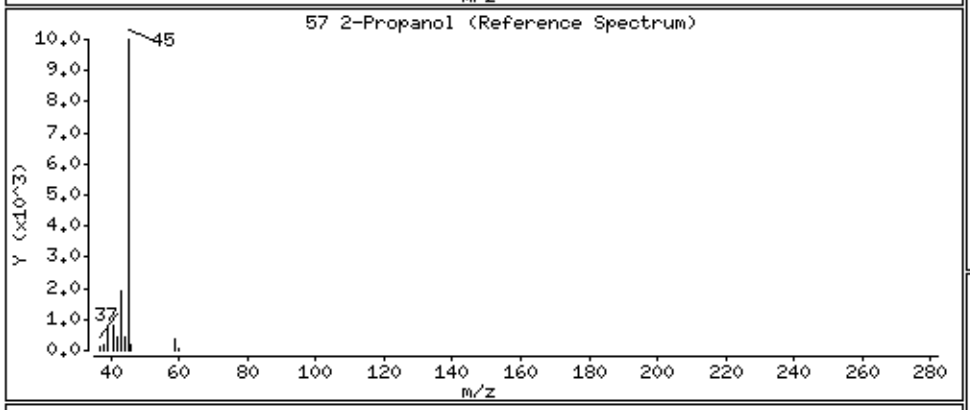
Column diameter: 0.32

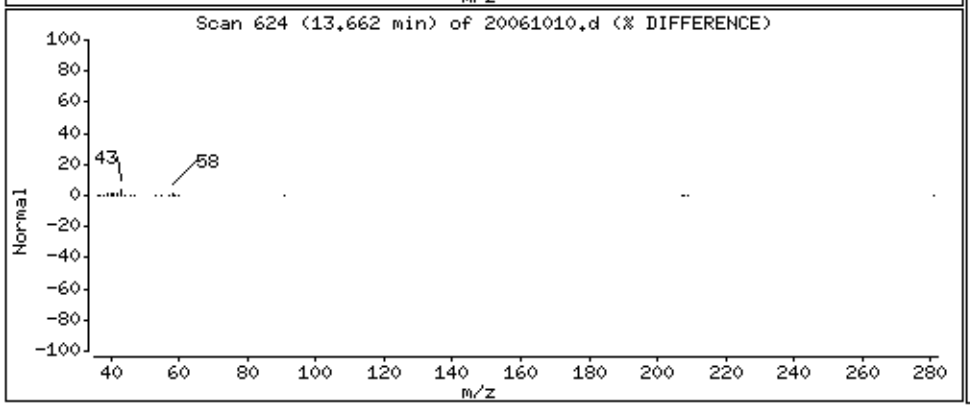
57 2-Propanol

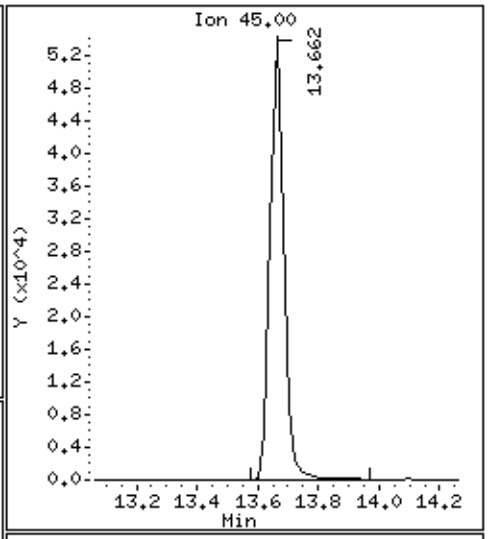
Concentration: 12.975 PPBV

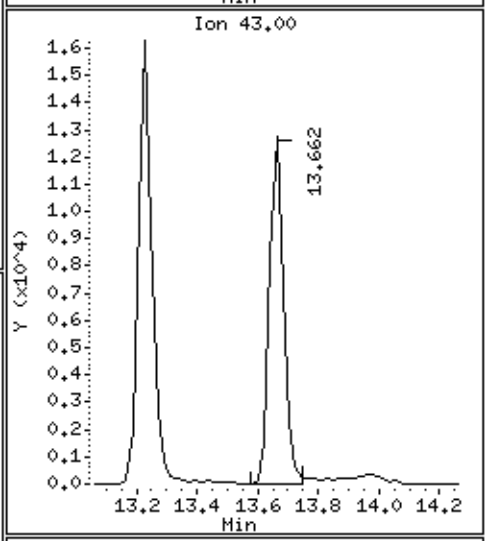


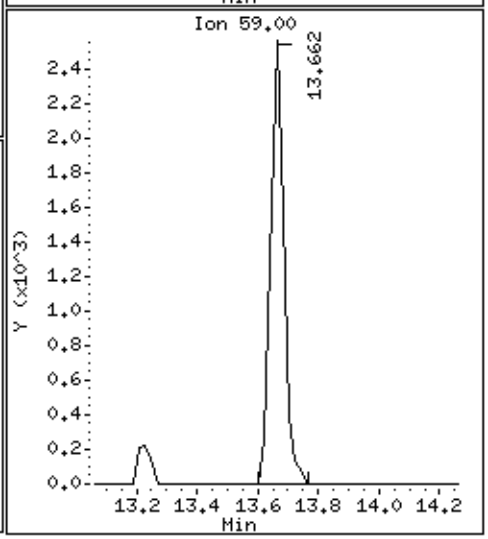












Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

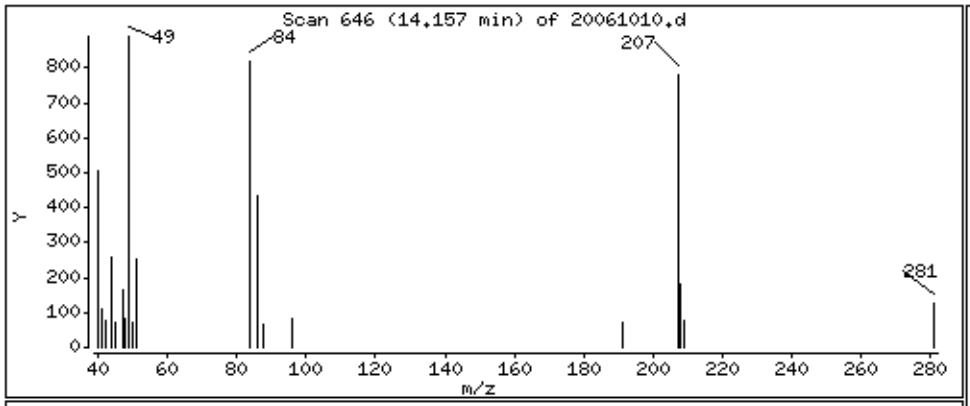
Operator: md

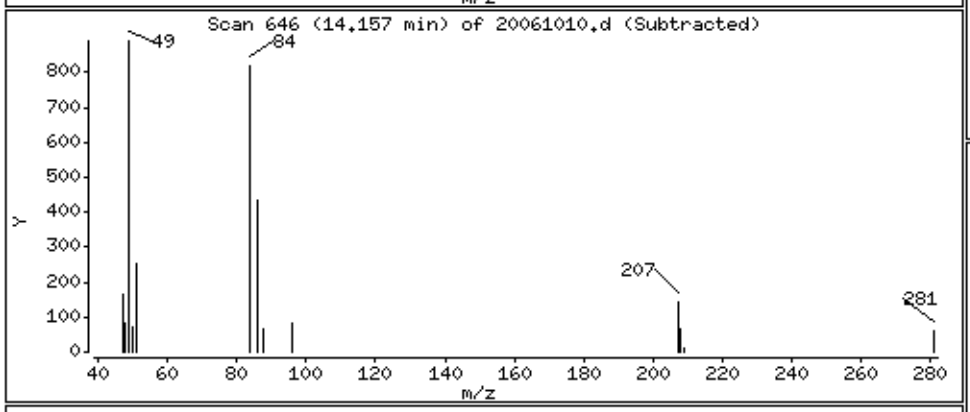
Column phase: RTX-624

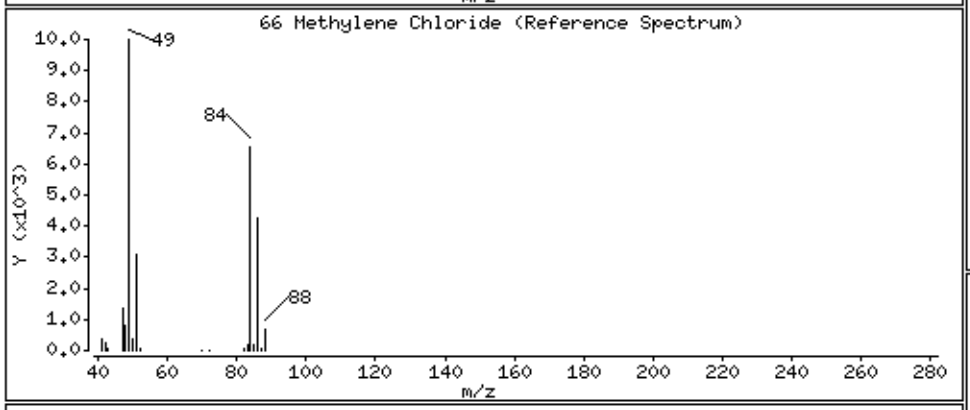
Column diameter: 0.32

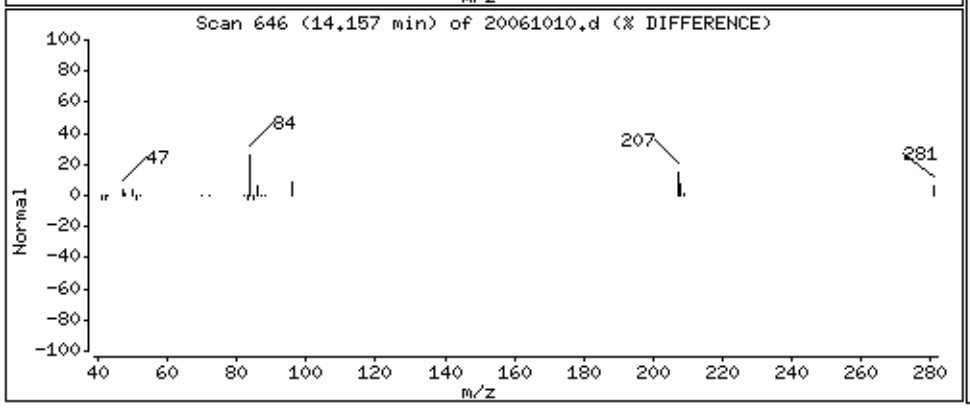
66 Methylene Chloride

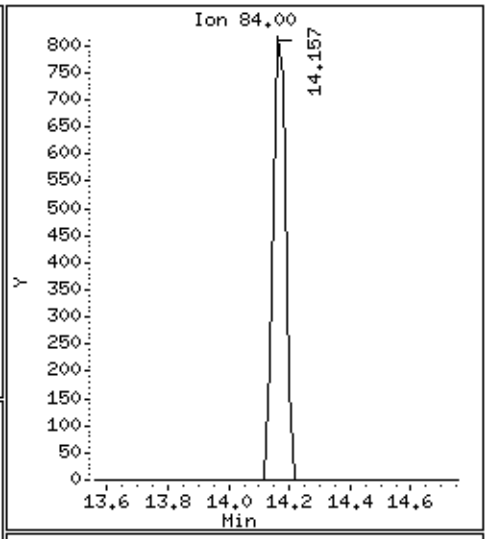
Concentration: 0.2159 PPBV

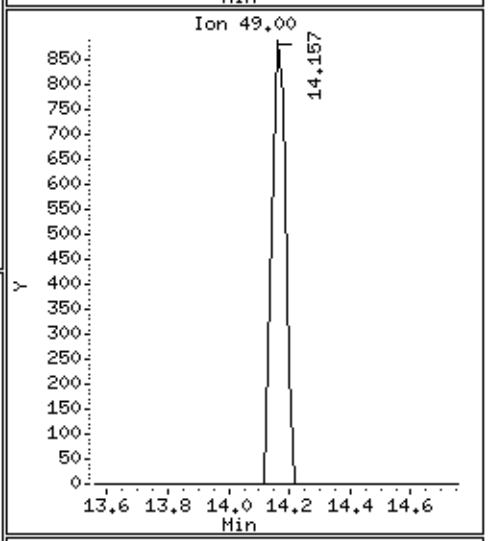


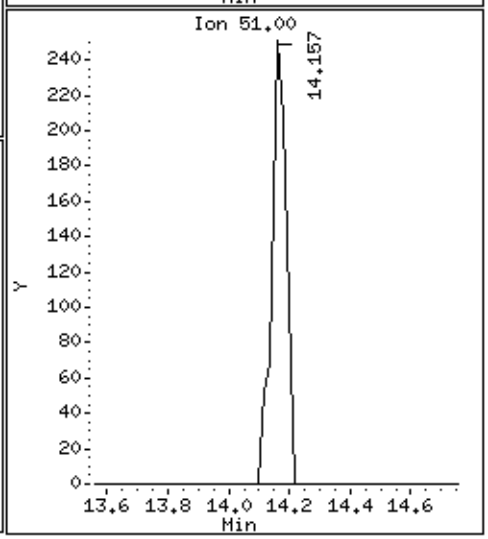












Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

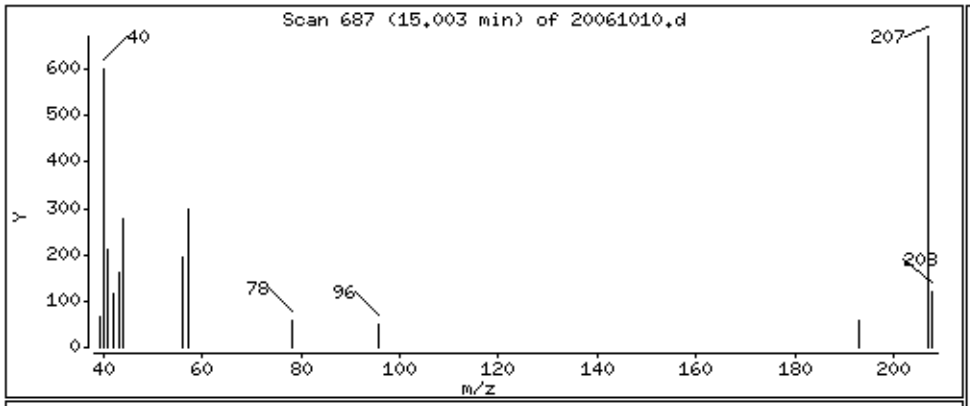
Operator: md

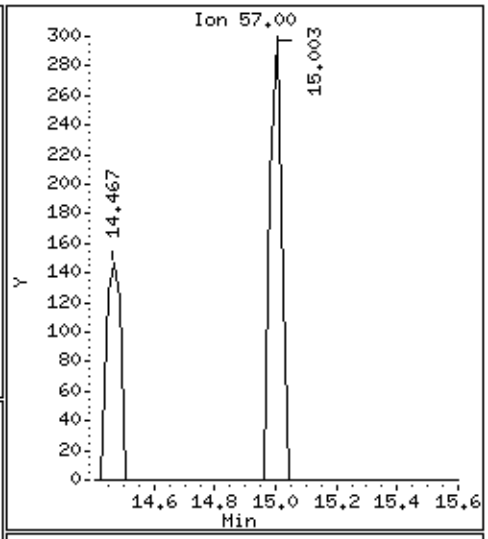
Column phase: RTX-624

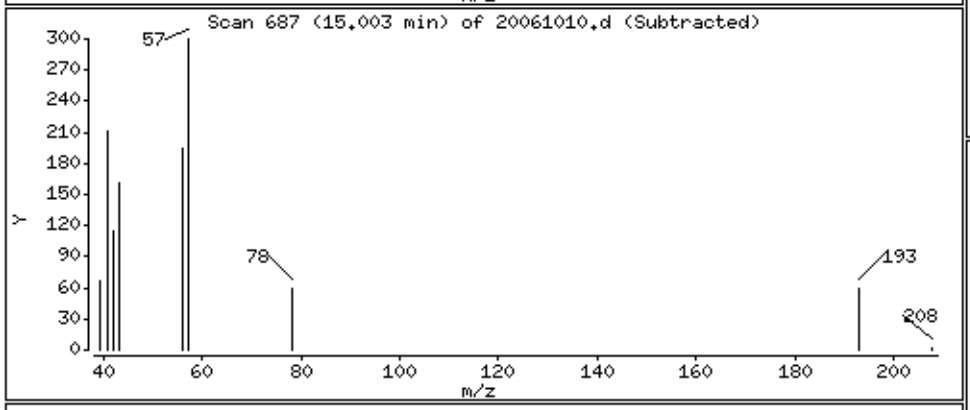
Column diameter: 0.32

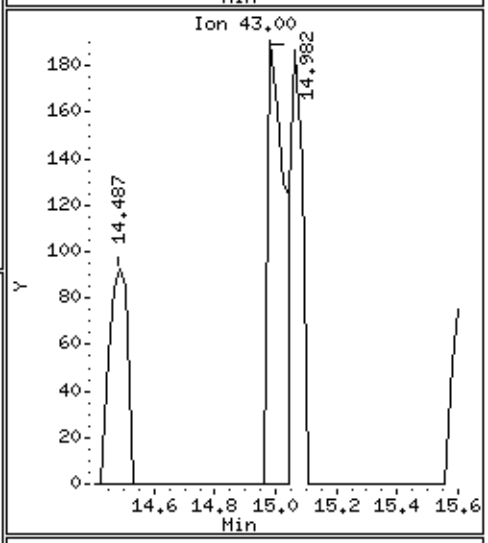
78 Hexane

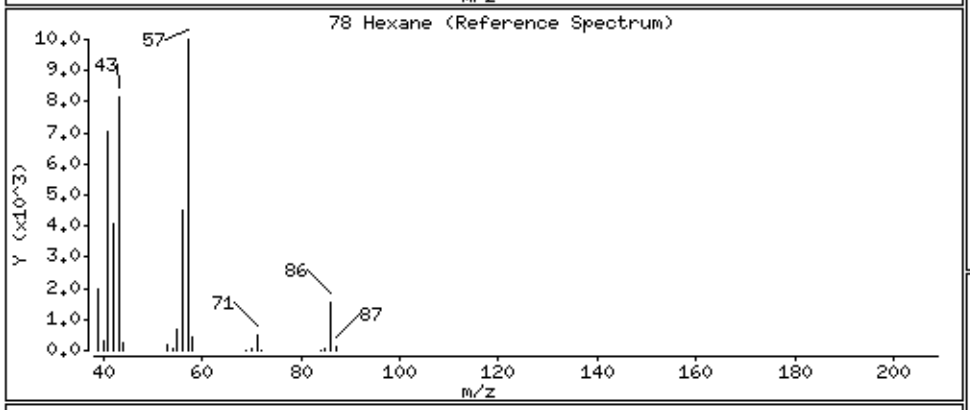
Concentration: 0.05035 PPBV

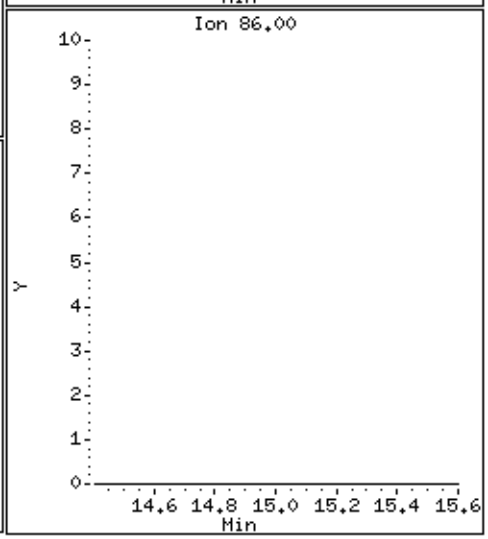


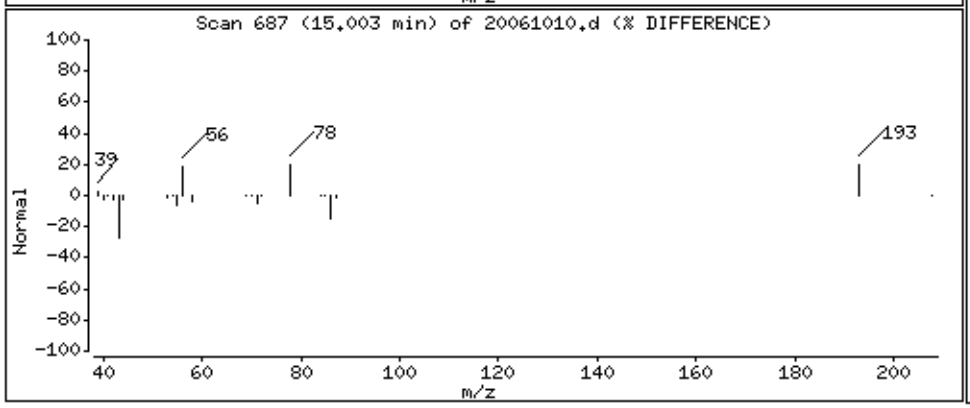












Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

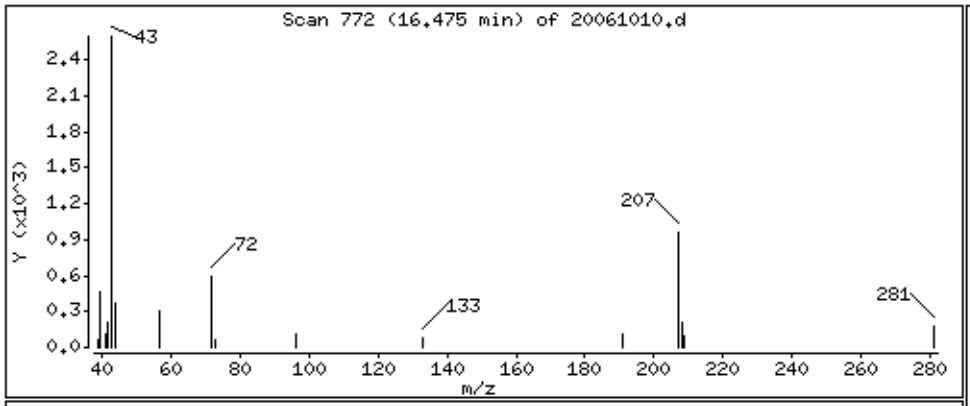
Operator: md

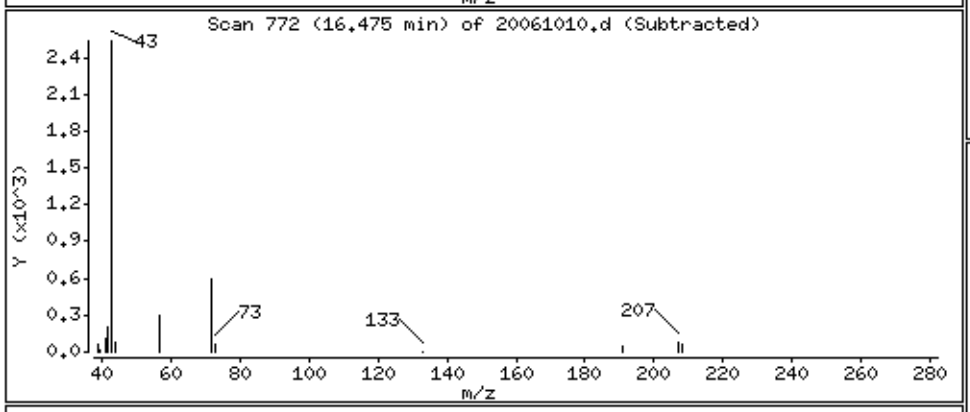
Column phase: RTX-624

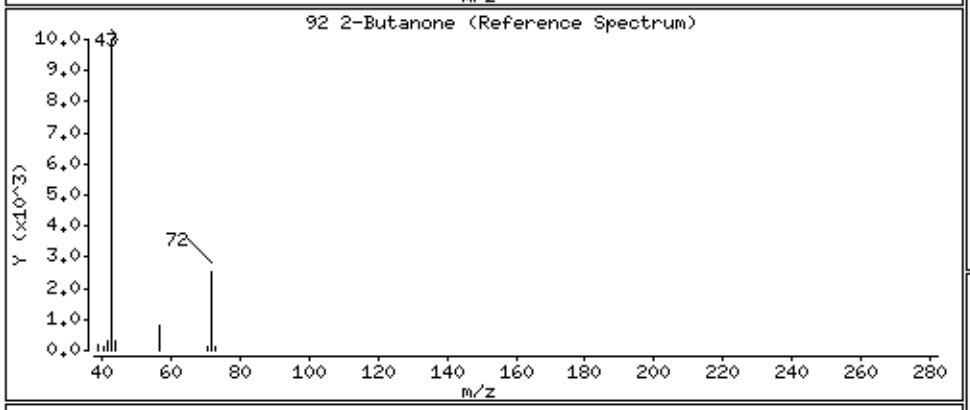
Column diameter: 0.32

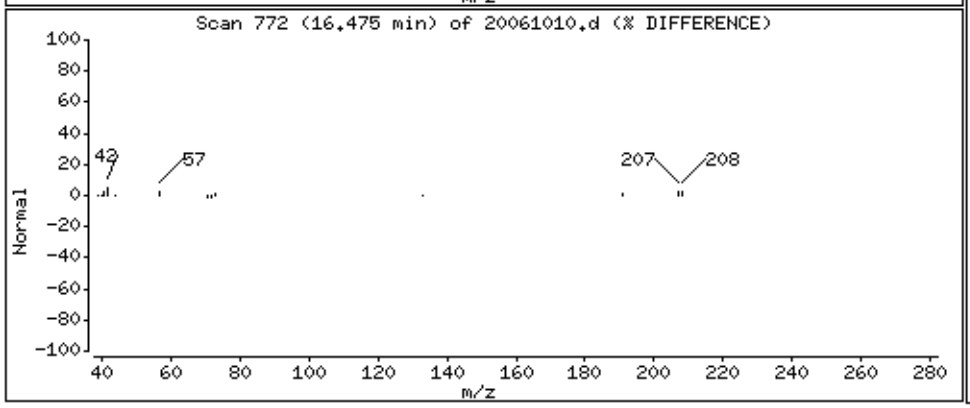
92 2-Butanone

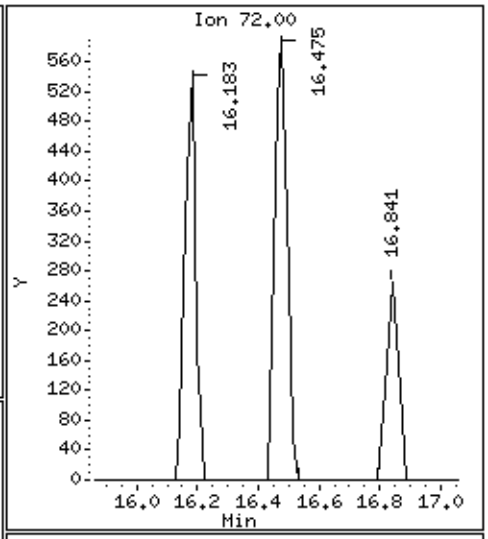
Concentration: 0.3096 PPBV

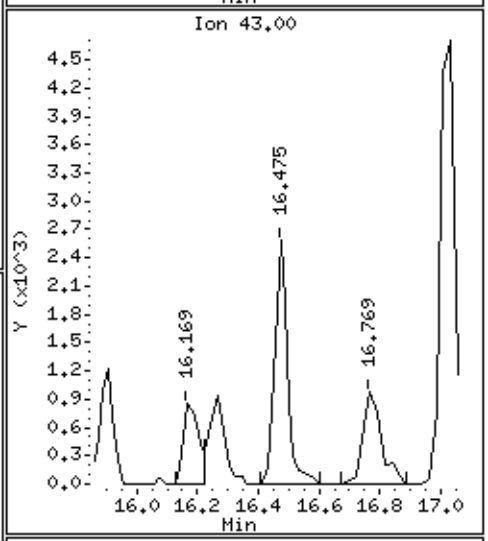


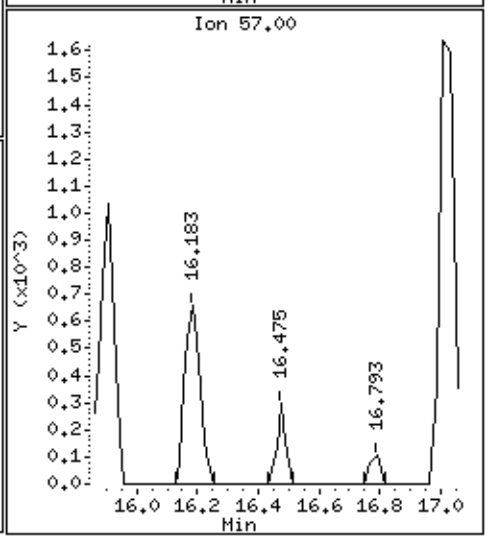












Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

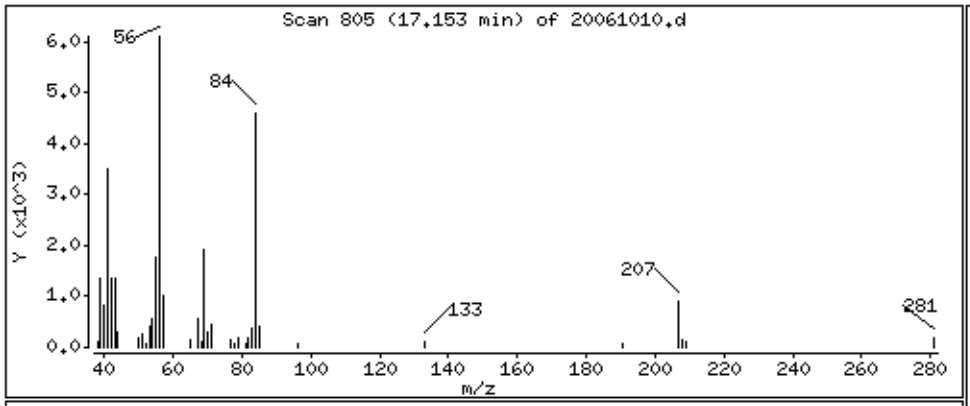
Operator: md

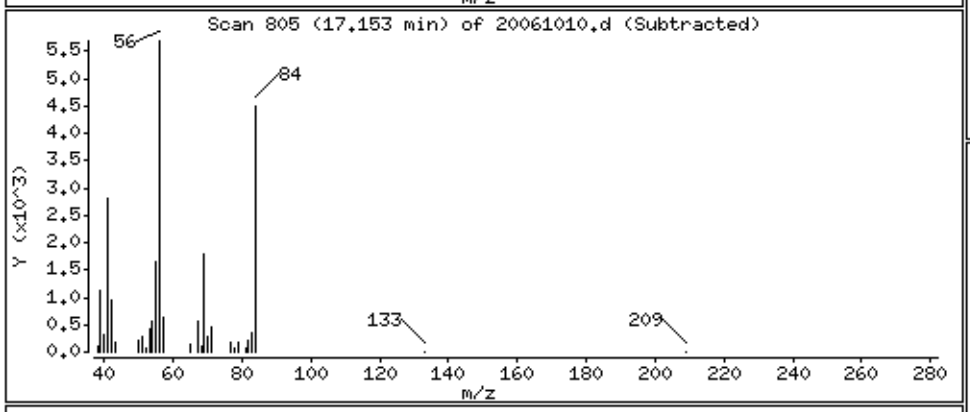
Column phase: RTX-624

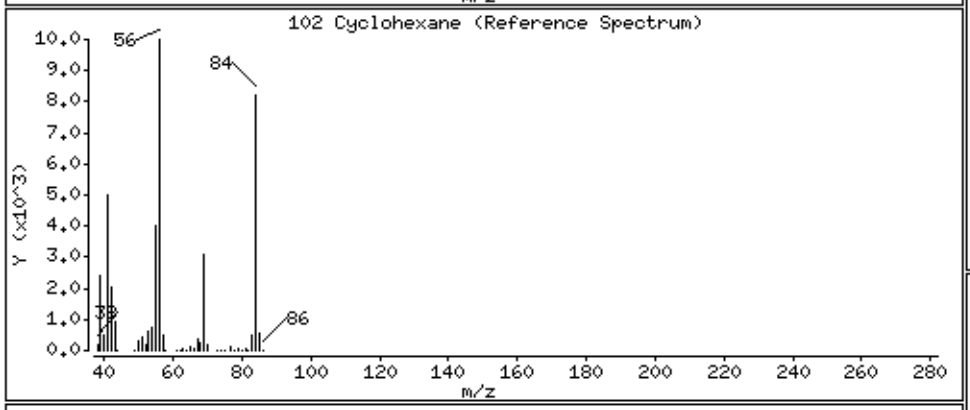
Column diameter: 0.32

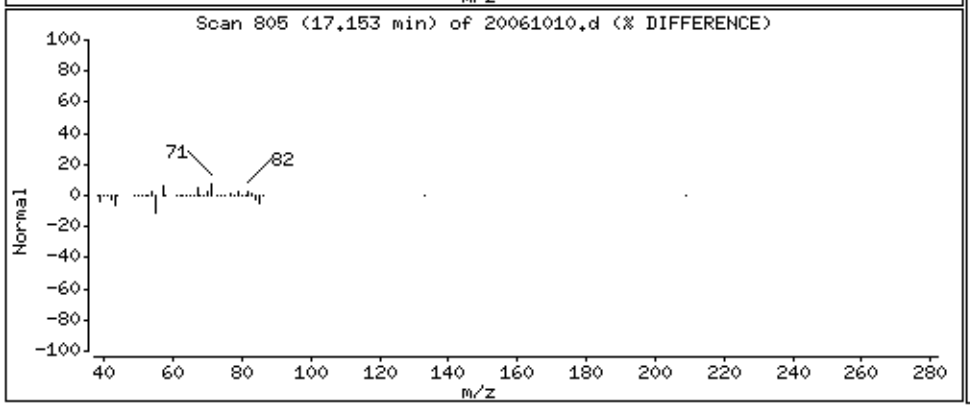
102 Cyclohexane

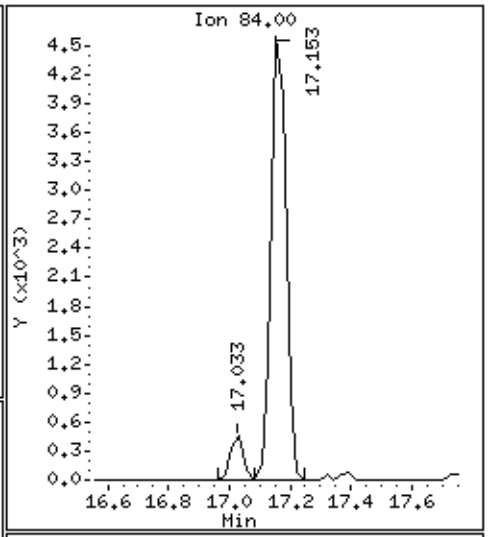
Concentration: 0.9775 PPBV

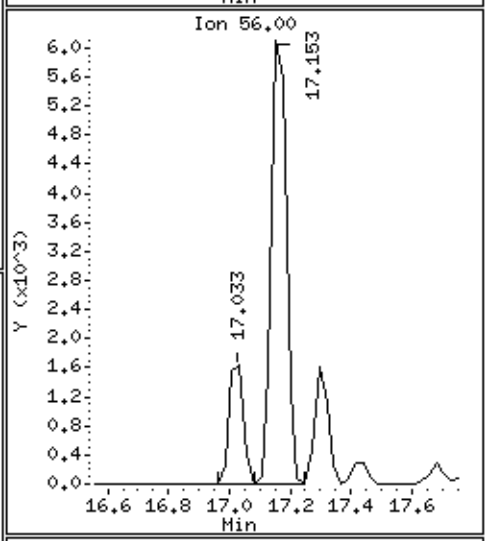


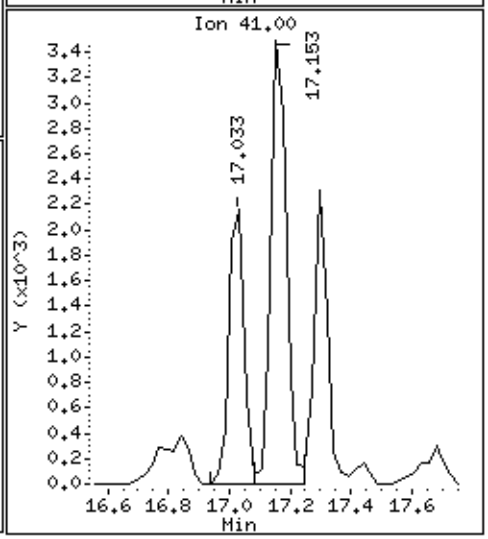












Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

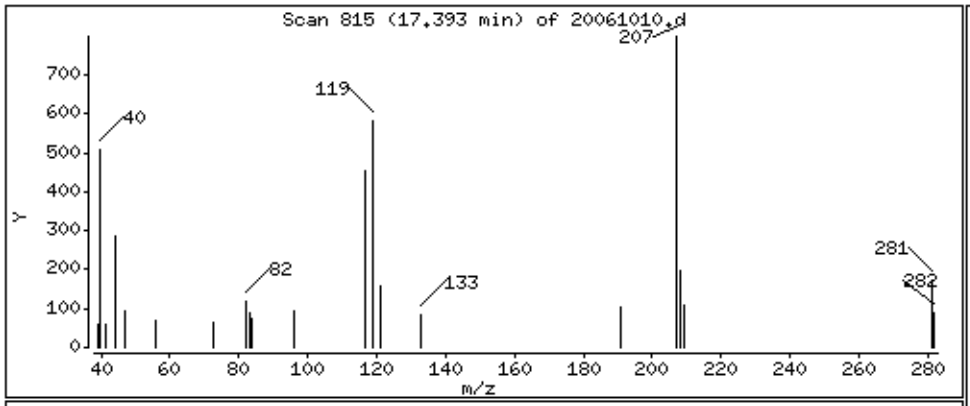
Operator: md

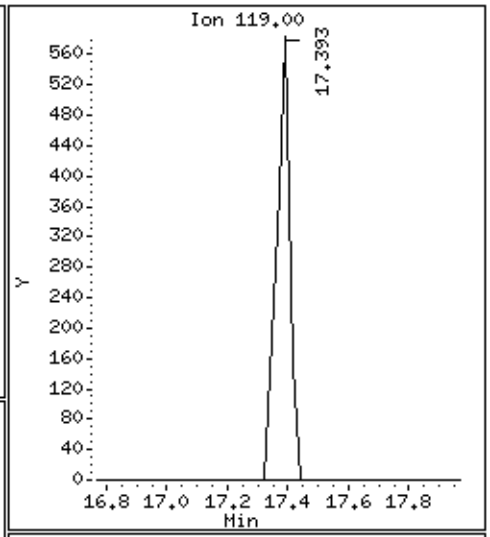
Column phase: RTX-624

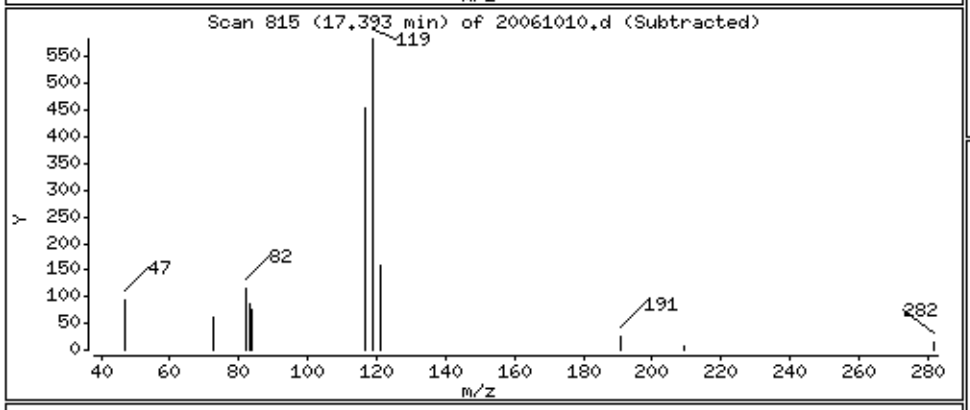
Column diameter: 0.32

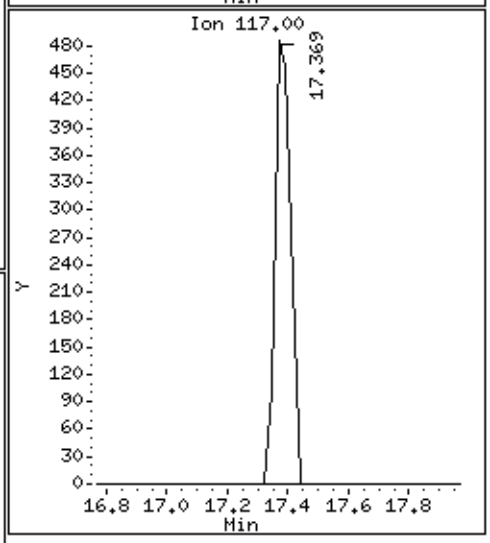
106 Carbon Tetrachloride

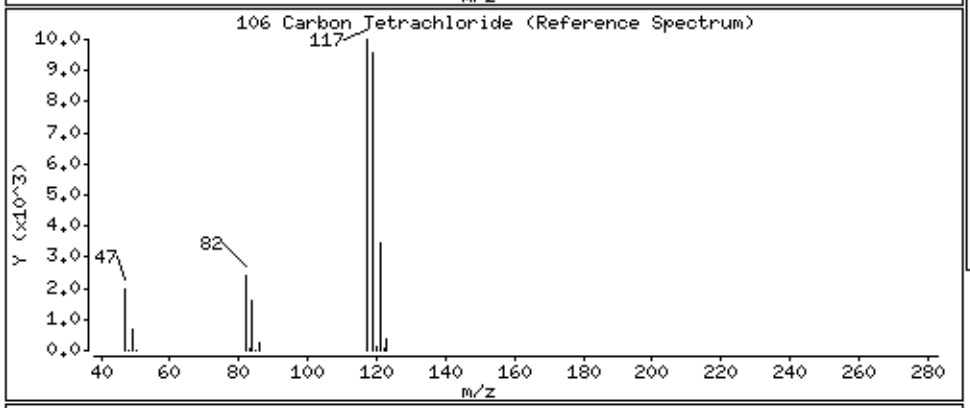
Concentration: 0.1075 PPBV

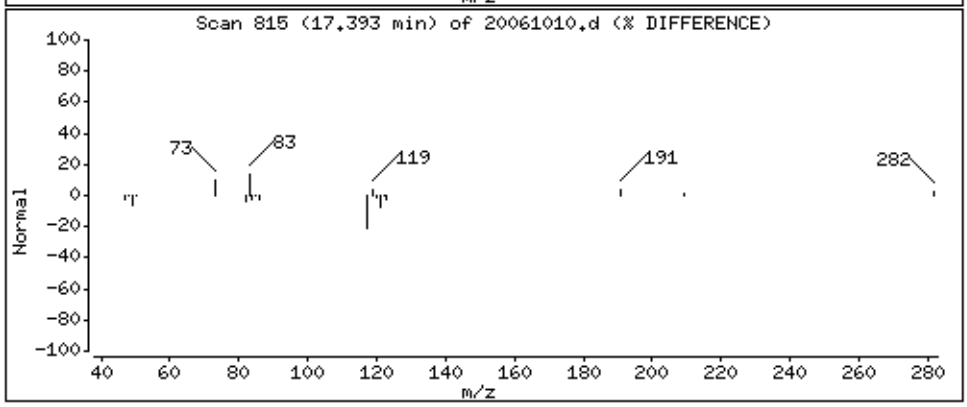












Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

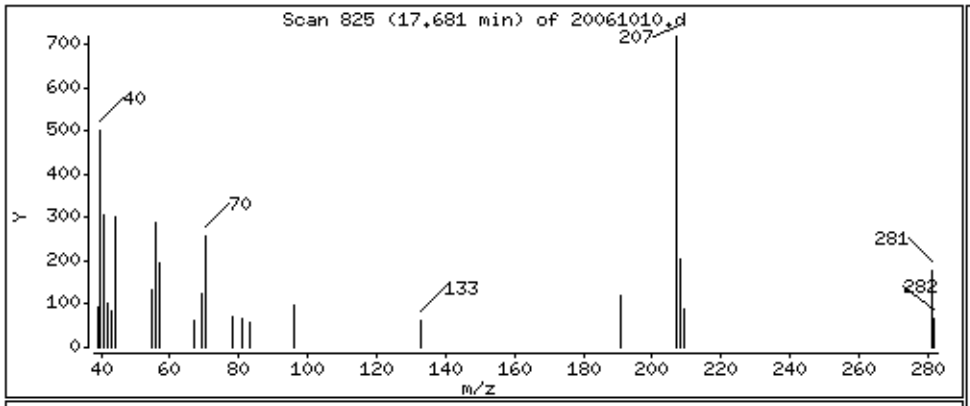
Operator: md

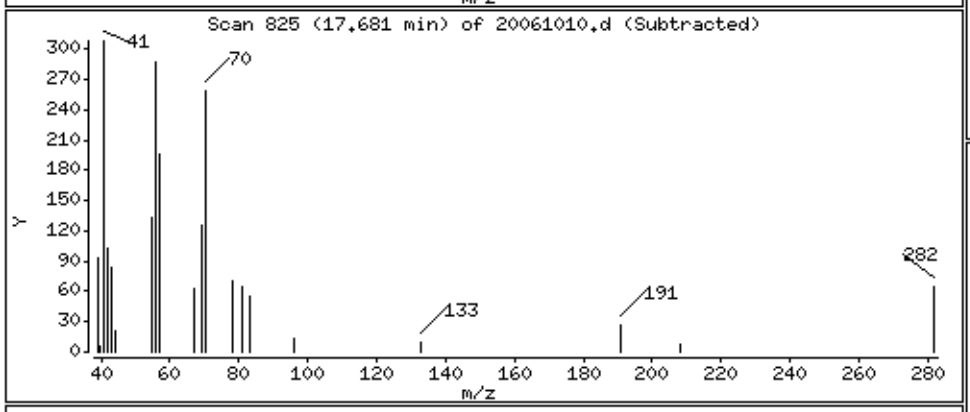
Column phase: RTX-624

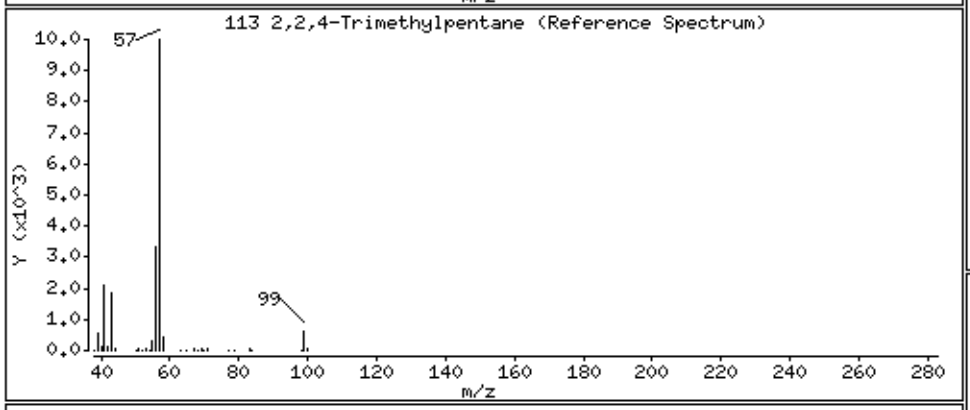
Column diameter: 0.32

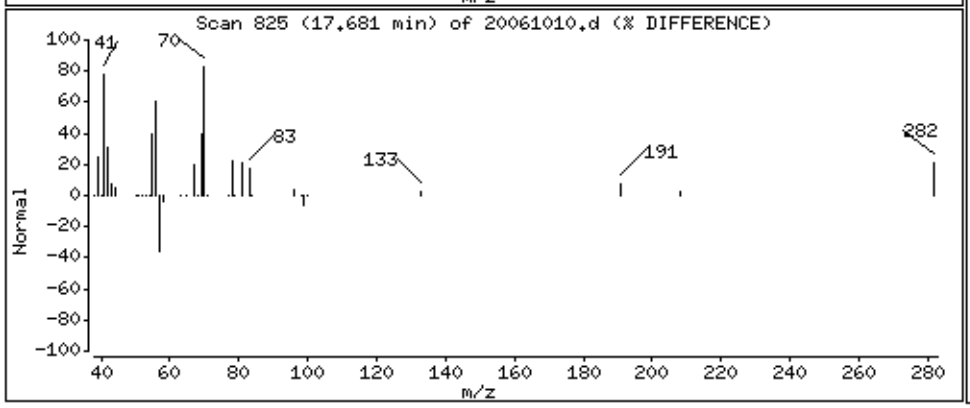
113 2,2,4-Trimethylpentane

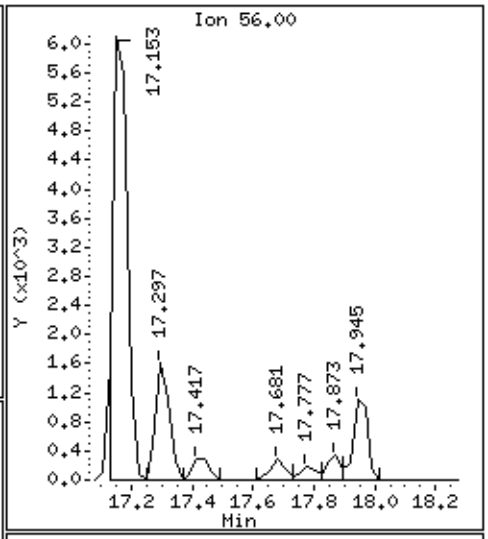
Concentration: 0.06180 PPBV

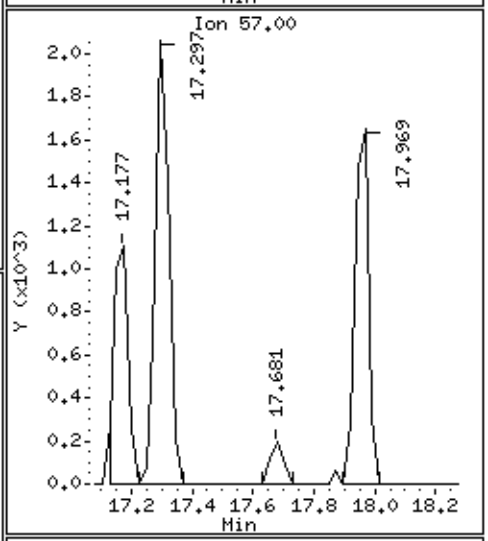


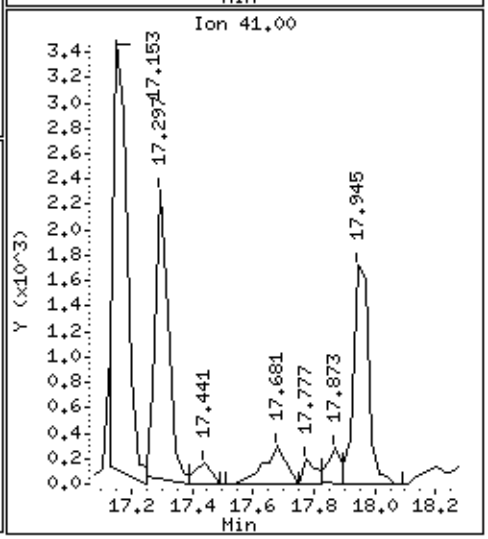












Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

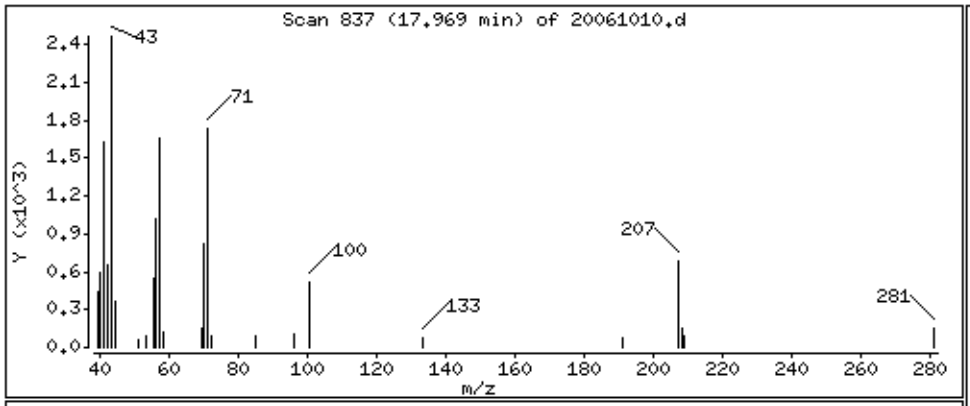
Operator: md

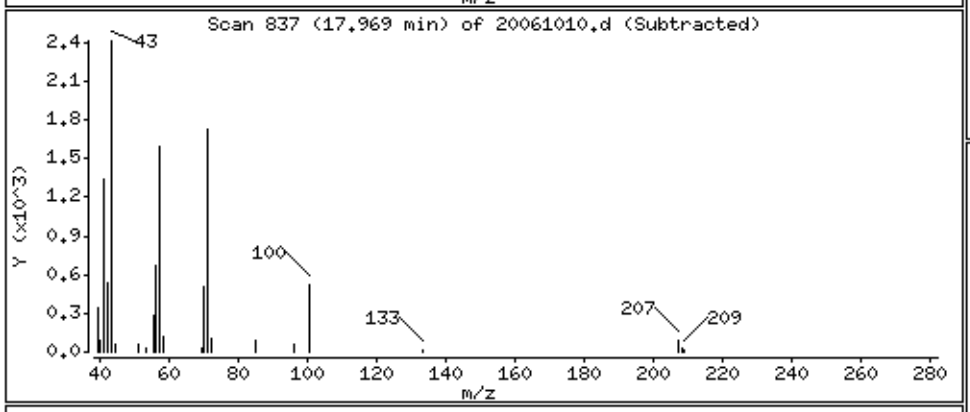
Column phase: RTX-624

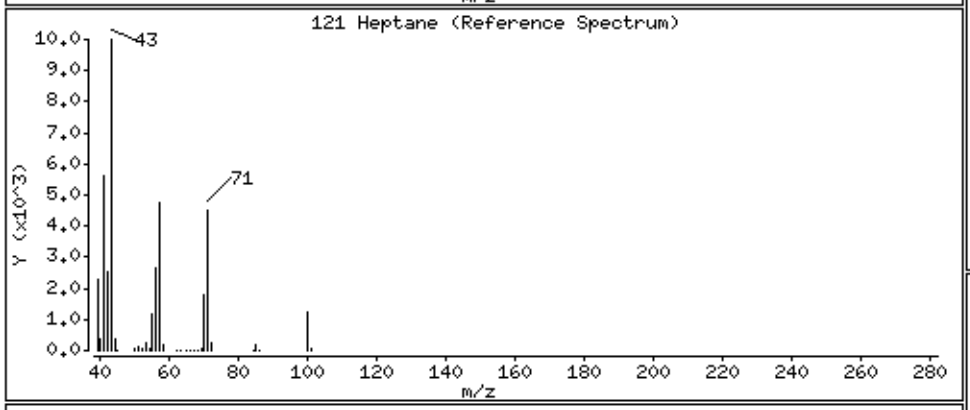
Column diameter: 0.32

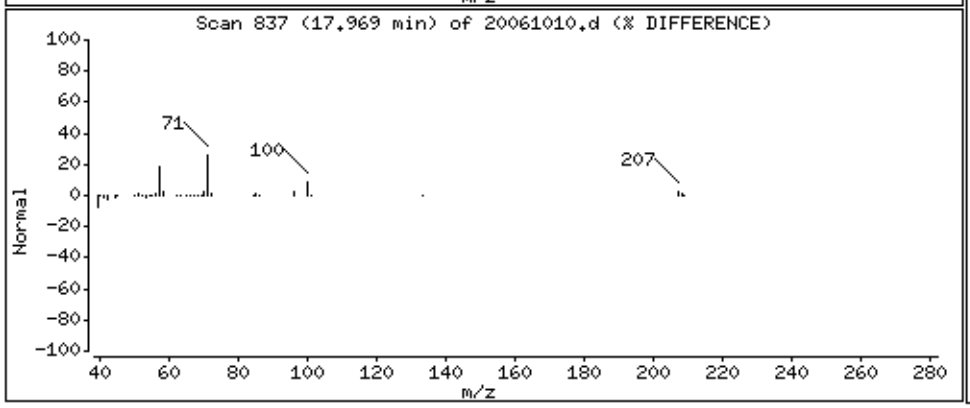
121 Heptane

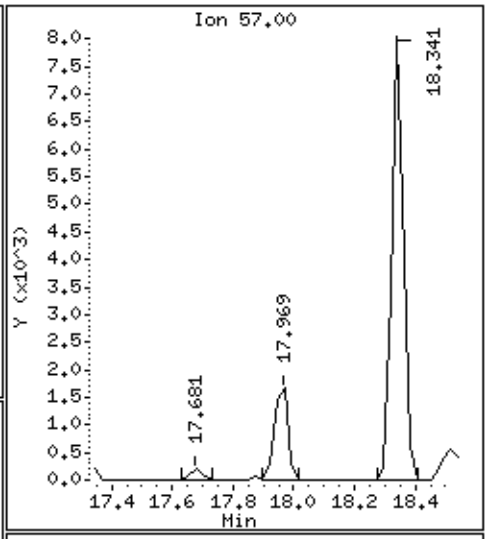
Concentration: 0.5597 PPBV

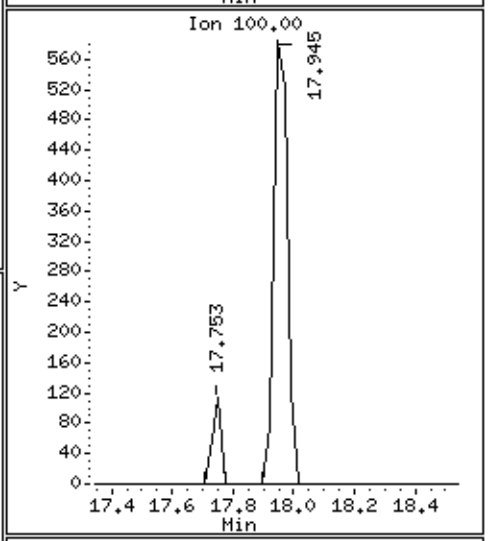


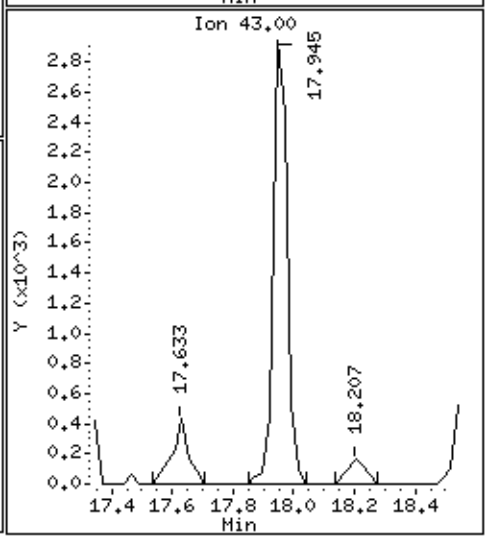












Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

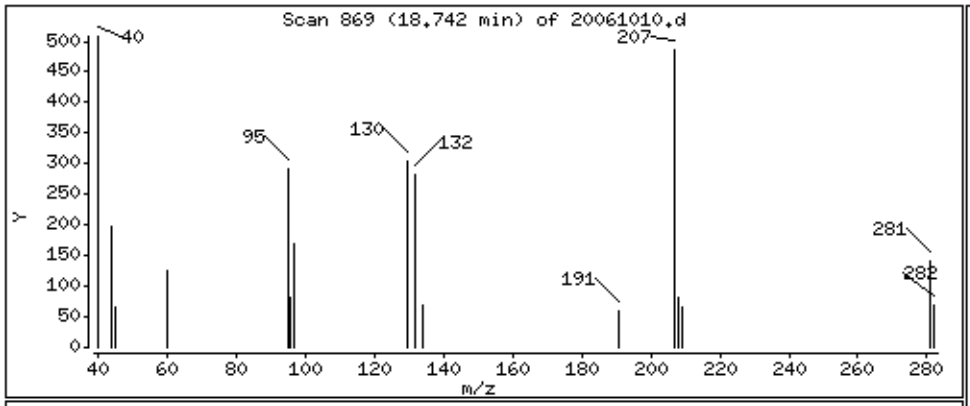
Operator: md

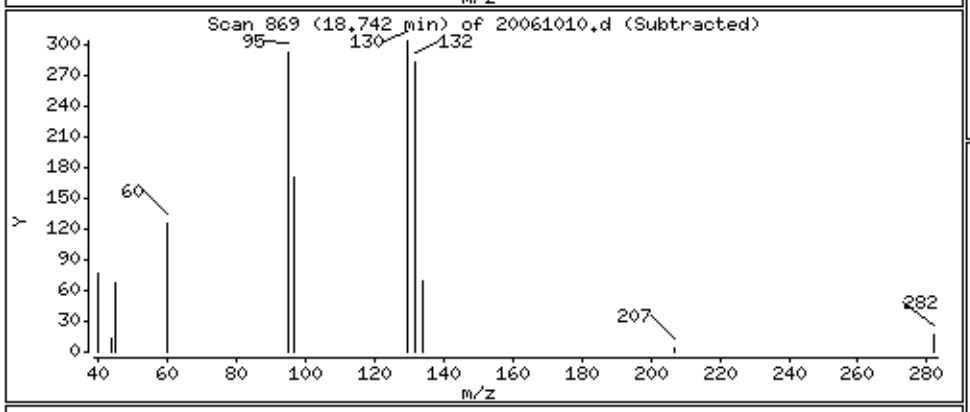
Column phase: RTX-624

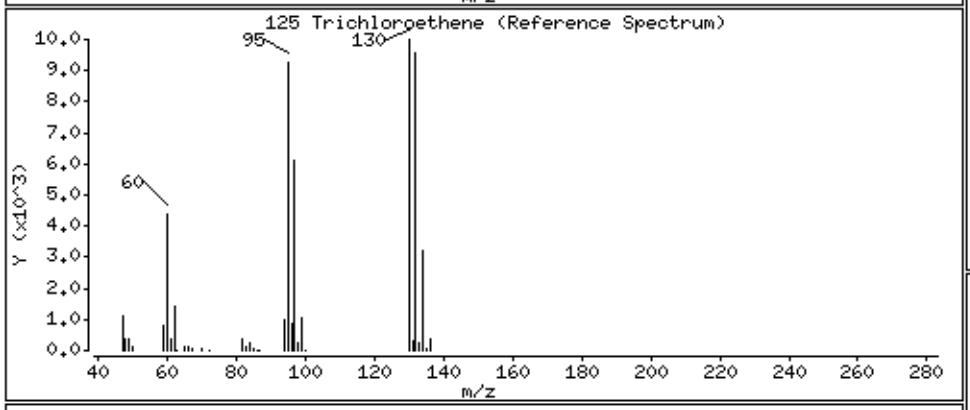
Column diameter: 0.32

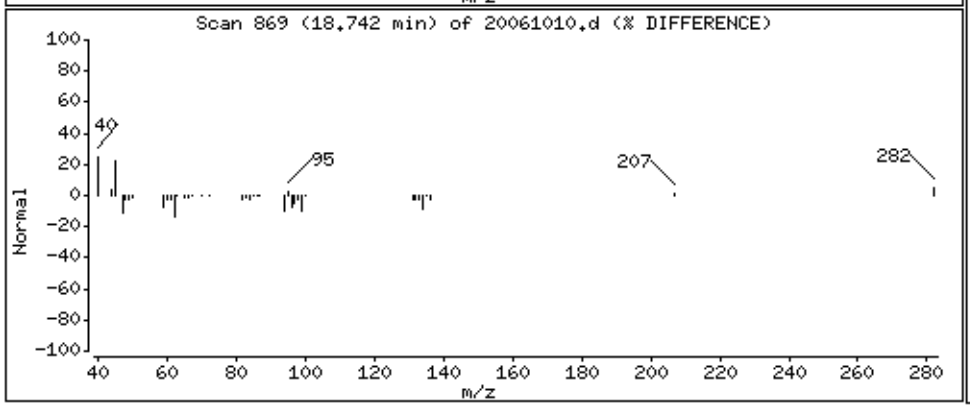
125 Trichloroethene

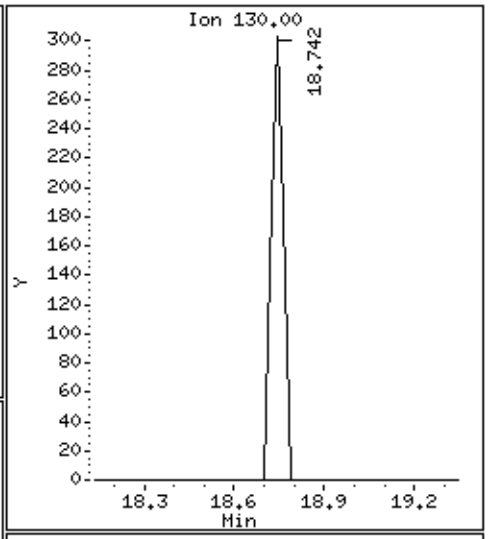
Concentration: 0.04238 PPBV

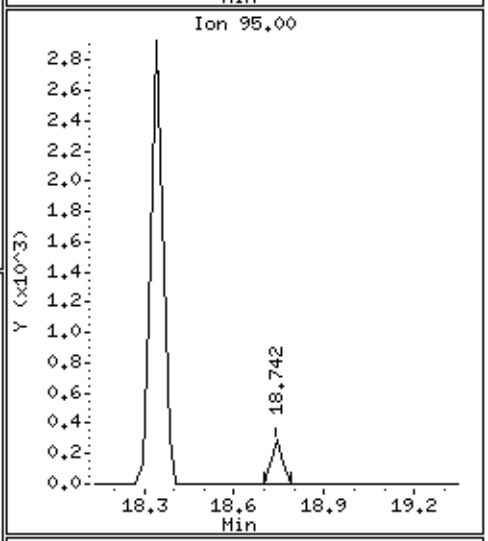


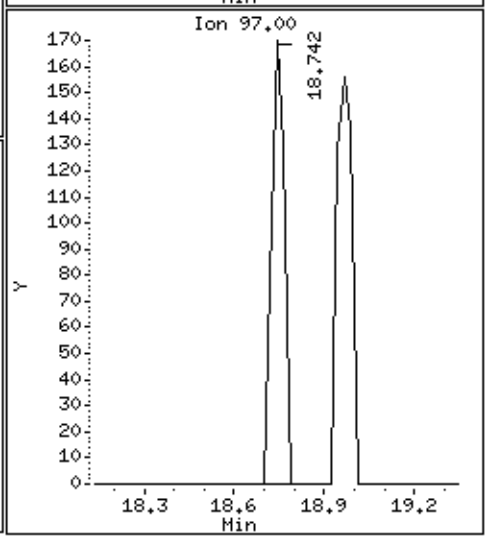












Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

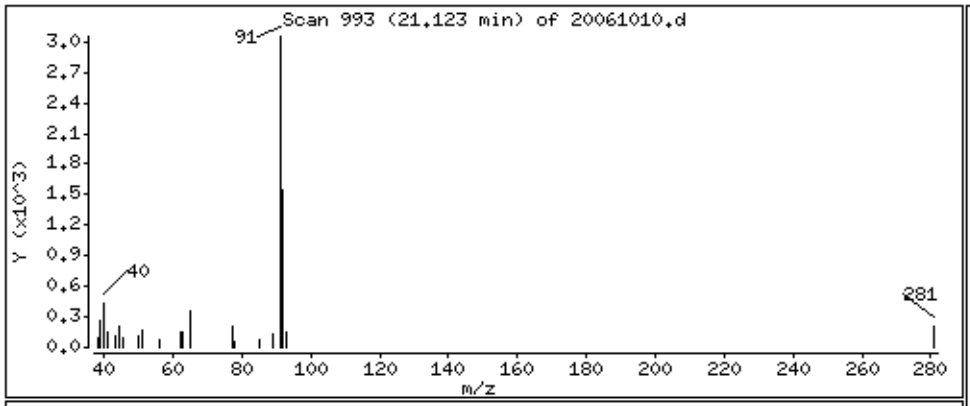
Operator: md

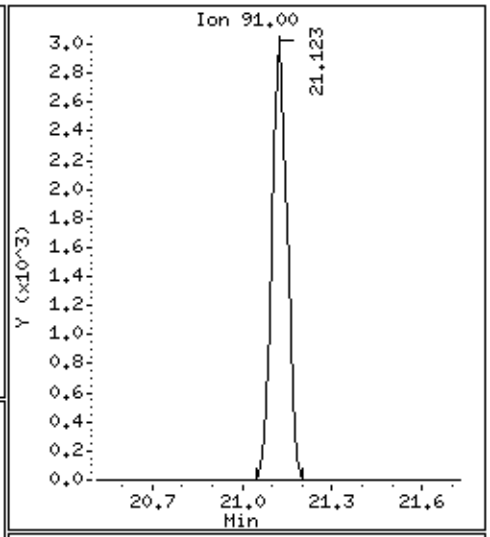
Column phase: RTX-624

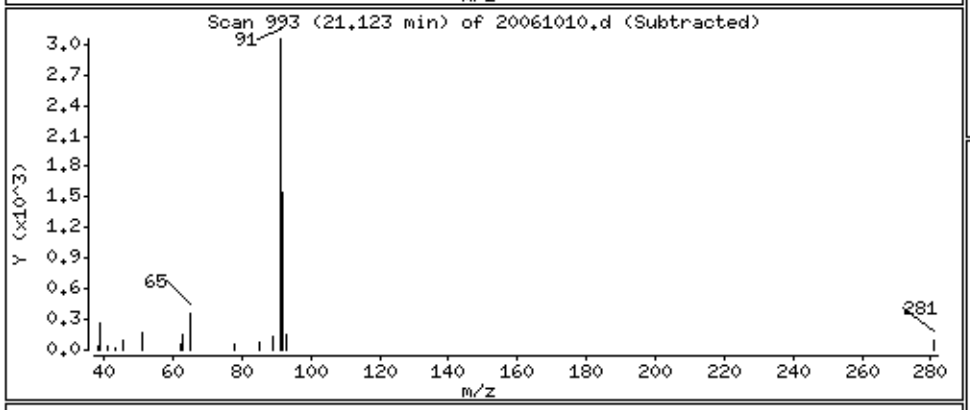
Column diameter: 0.32

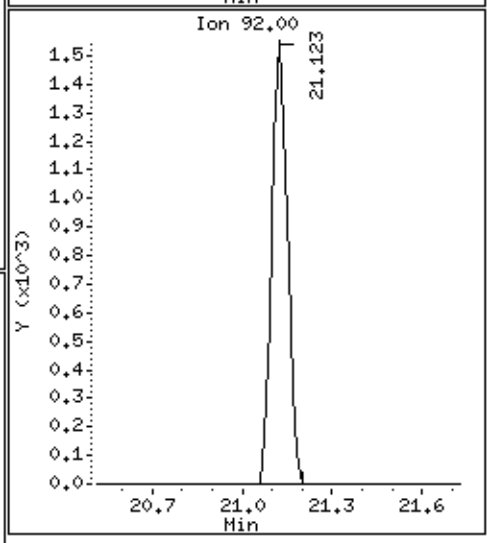
147 Toluene

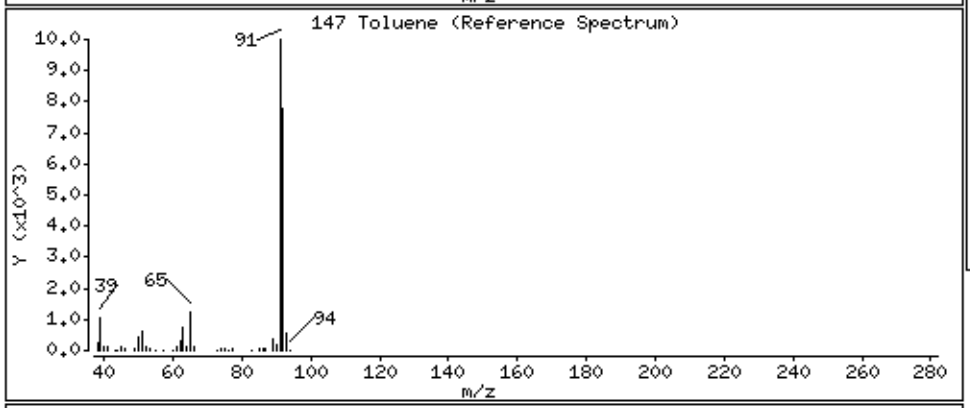
Concentration: 0.2470 PPBV

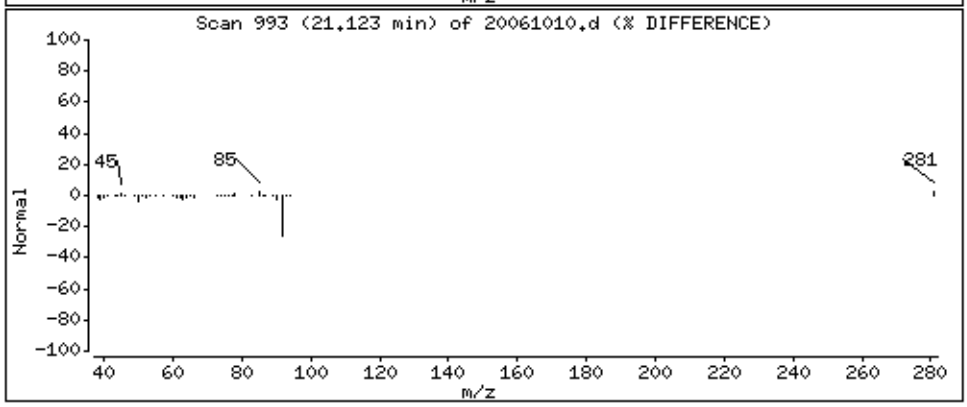












Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

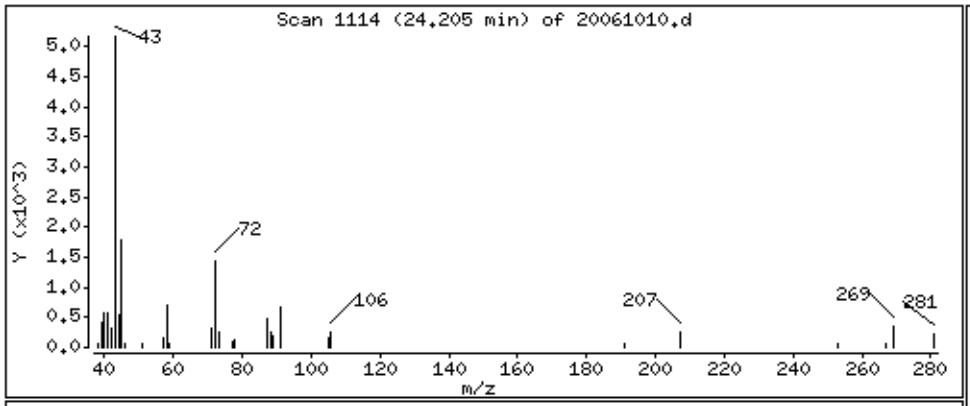
Operator: md

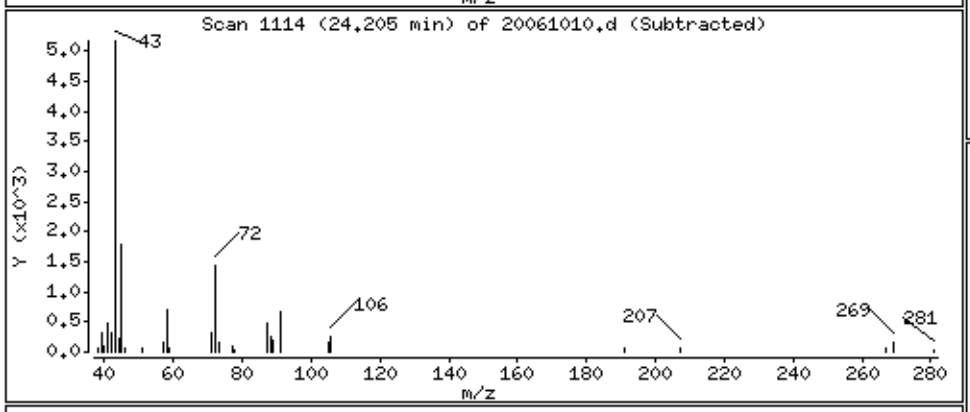
Column phase: RTX-624

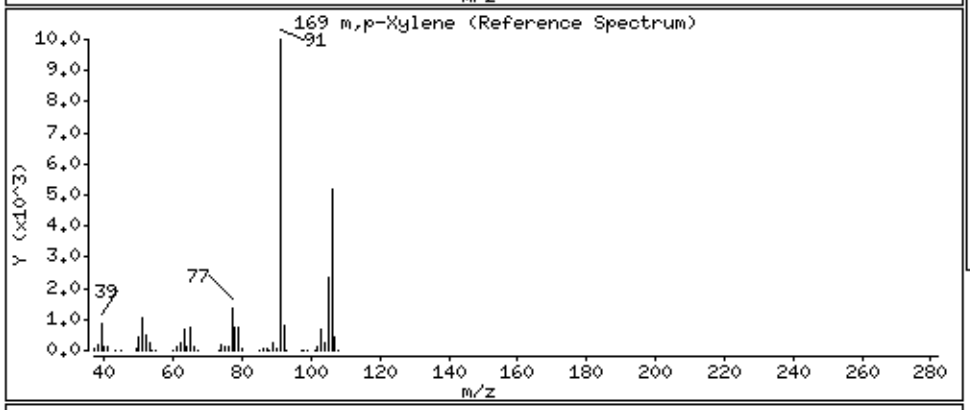
Column diameter: 0.32

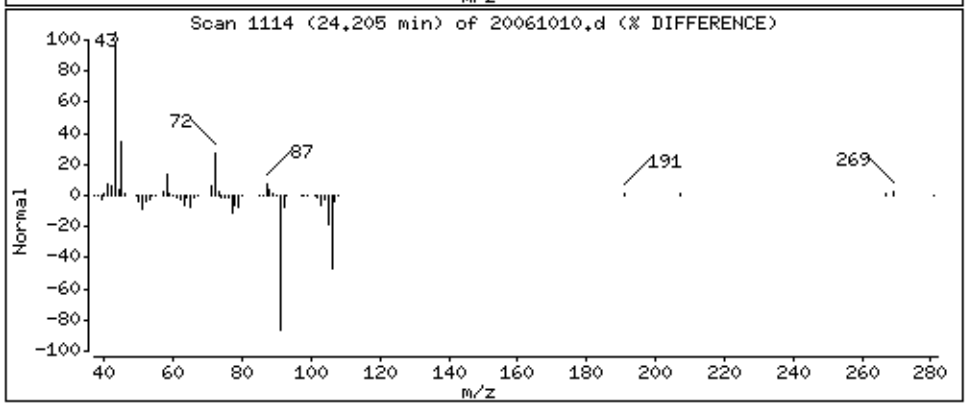
169 m,p-Xylene

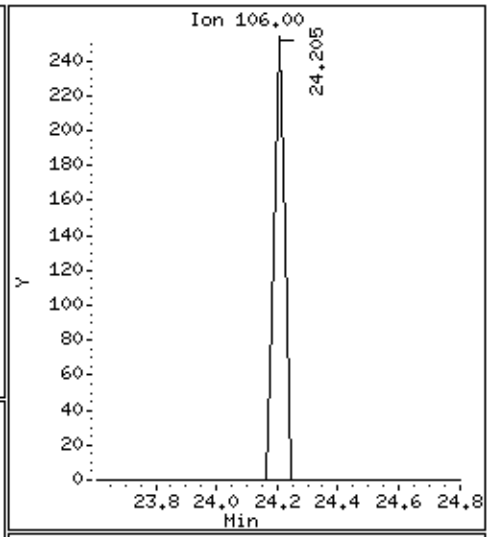
Concentration: 0.03598 PPBV

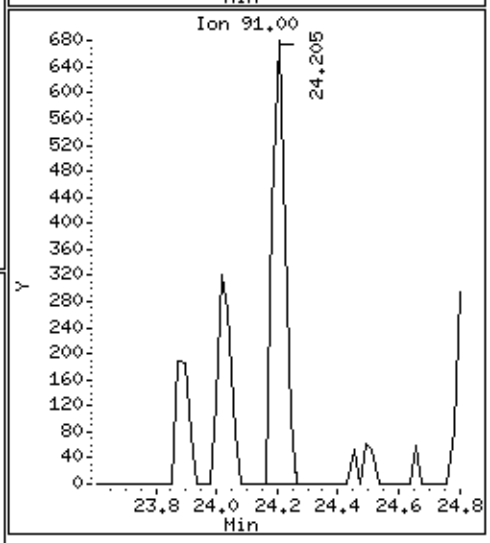












Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

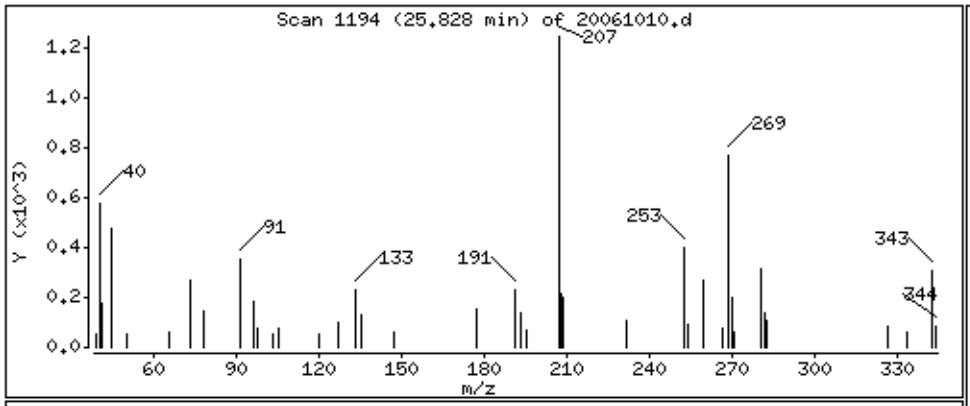
Operator: md

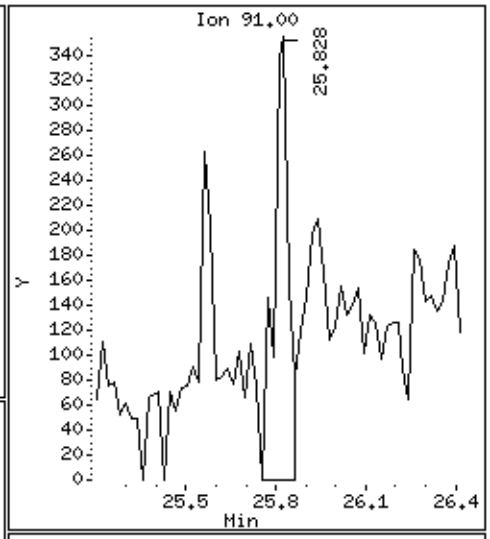
Column phase: RTX-624

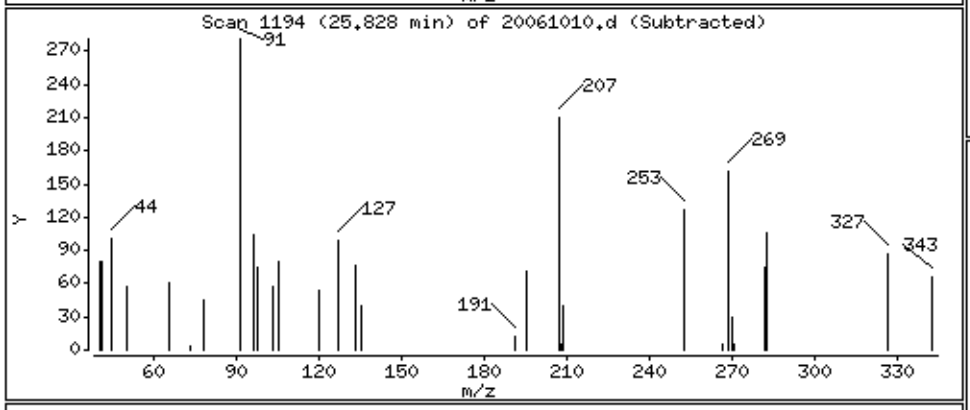
Column diameter: 0.32

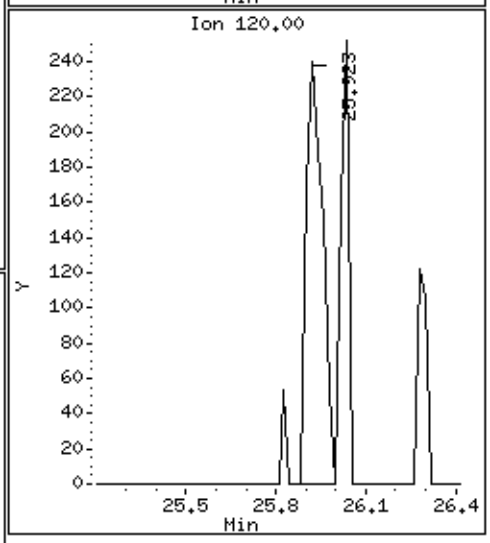
182 Propylbenzene

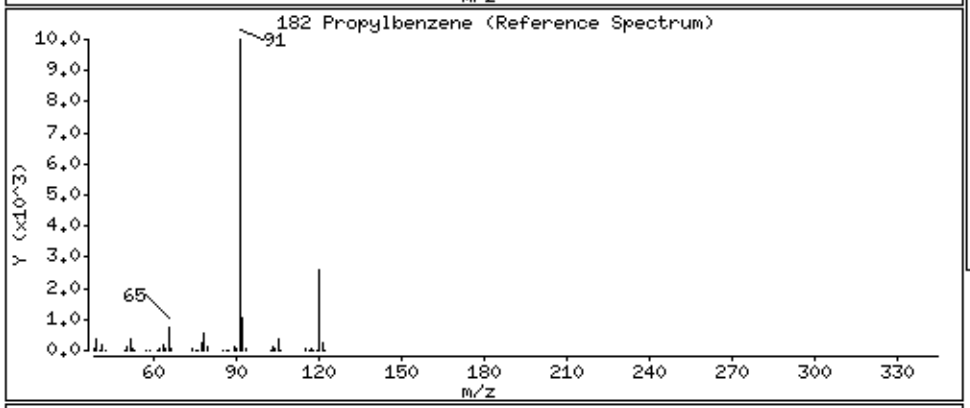
Concentration: 0.02850 PPBV

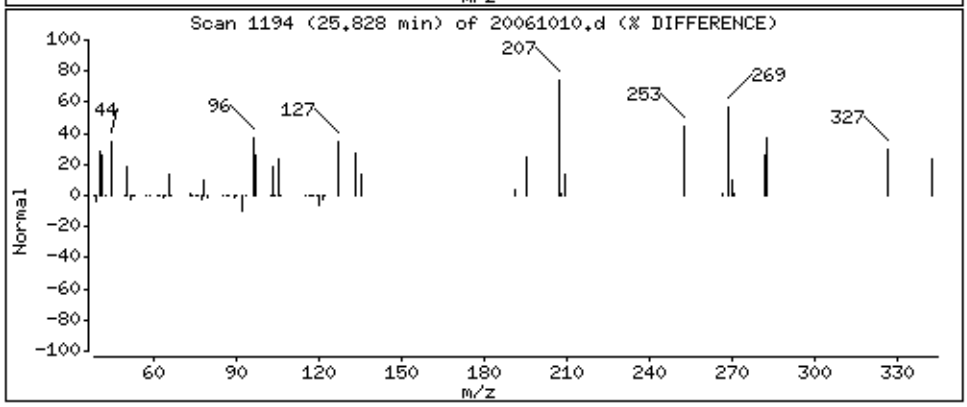












Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

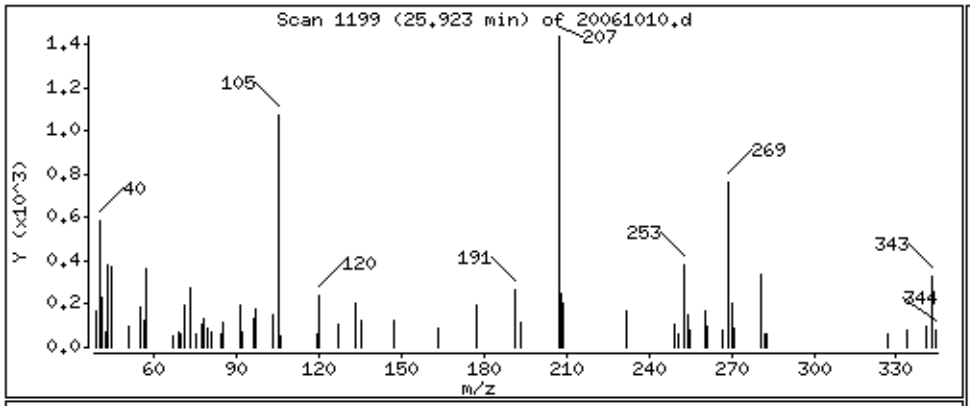
Operator: md

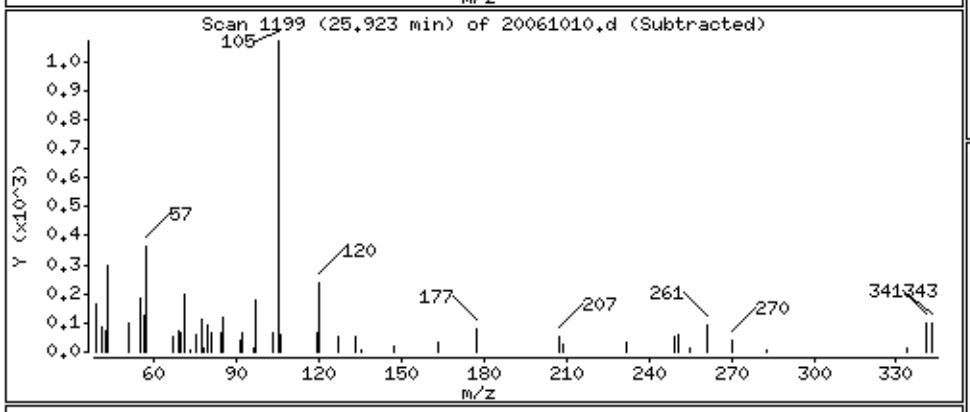
Column phase: RTX-624

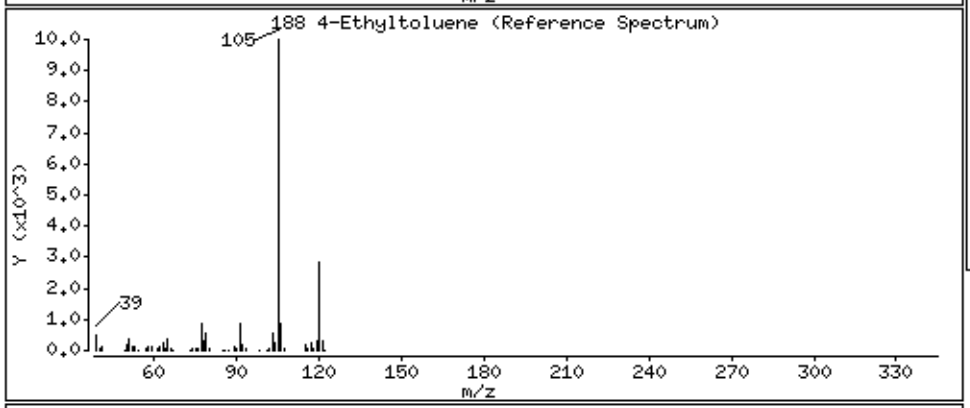
Column diameter: 0.32

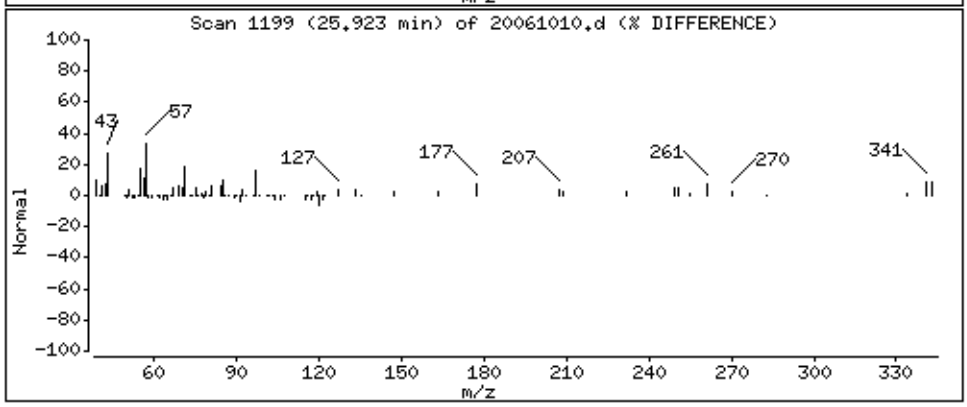
188 4-Ethyltoluene

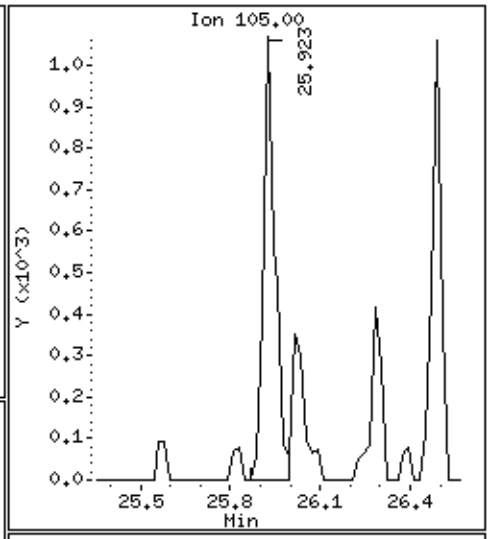
Concentration: 0.08031 PPBV

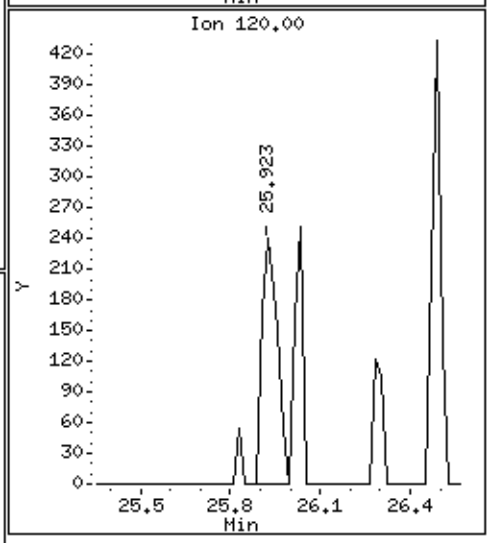












Data File: /chem/msd20.i/10Jun2015.b/20061010.d

Date : 10-JUN-2015 17:04

Client ID:

Instrument: msd20.i

Sample Info: 250mL #23925

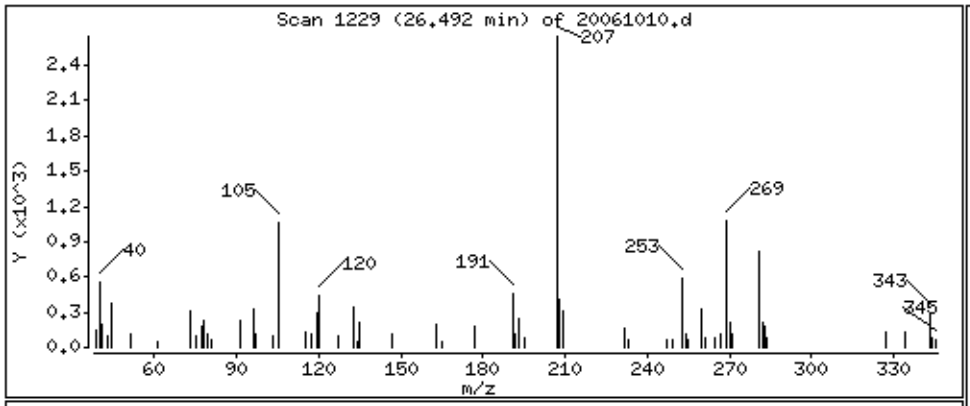
Operator: md

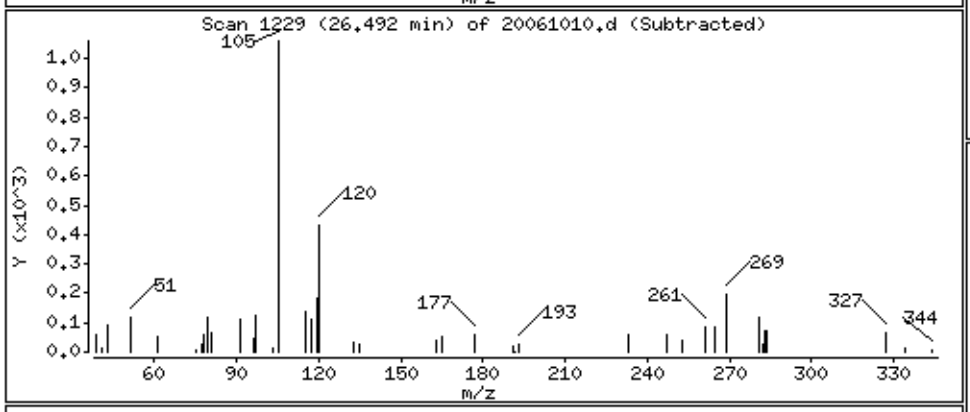
Column phase: RTX-624

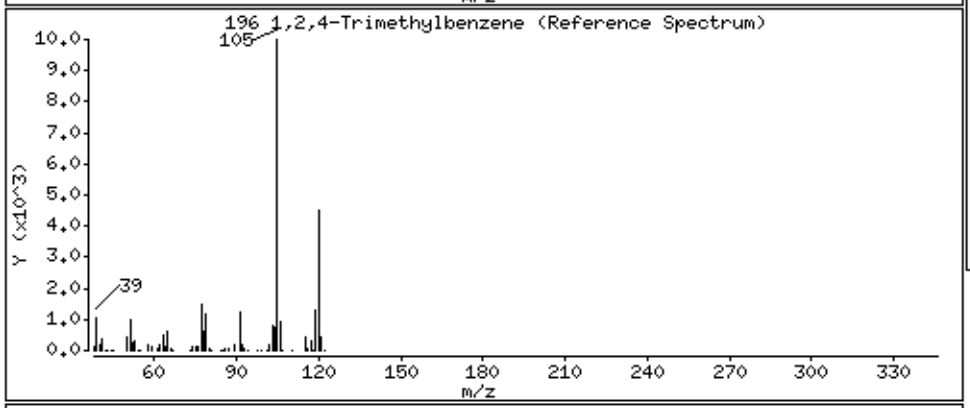
Column diameter: 0.32

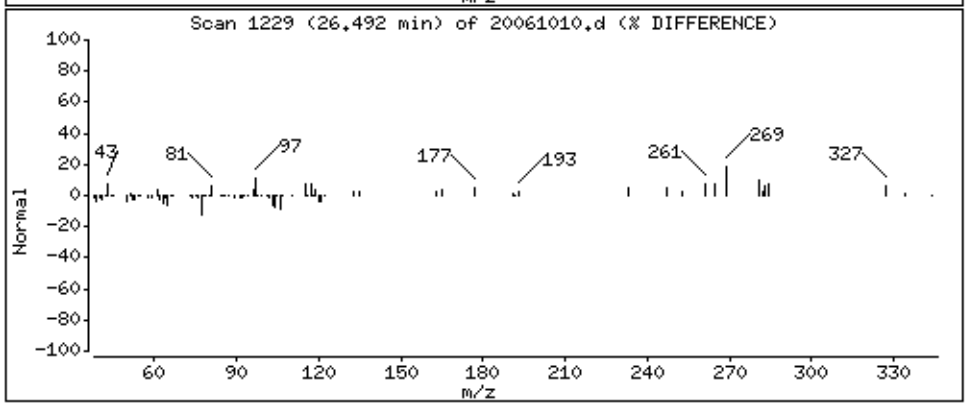
196 1,2,4-Trimethylbenzene

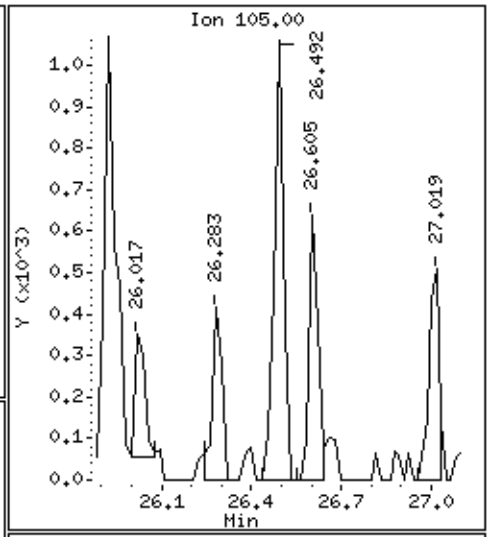
Concentration: 0.06635 PPBV

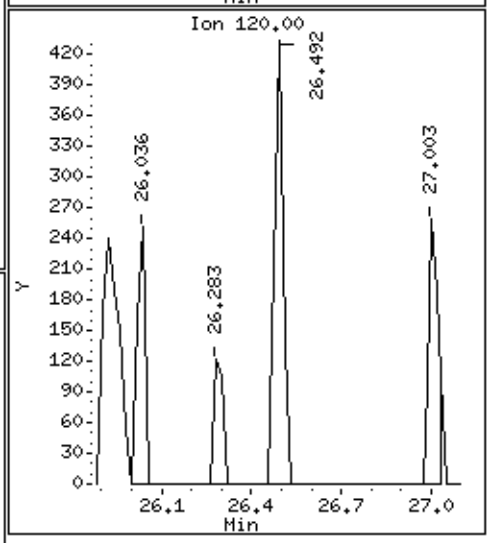












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B6-AA-3

Lab ID#: 1506153A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.51	0.84	2.5
Chloromethane	0.84	0.82 J	1.7	1.7 J
Freon 11	0.17	0.23	0.95	1.3
Ethanol	0.84	0.62 J	1.6	1.2 J
Freon 113	0.17	0.055 J	1.3	0.42 J
Acetone	0.84	5.0	2.0	12
2-Propanol	0.84	0.40 J	2.1	0.98 J
Methylene Chloride	0.34	0.24 J	1.2	0.85 J
Hexane	0.17	0.026 J	0.60	0.090 J
2-Butanone (Methyl Ethyl Ketone)	0.84	0.52 J	2.5	1.5 J
Carbon Tetrachloride	0.17	0.12 J	1.1	0.74 J
1,4-Dioxane	0.17	0.10 J	0.61	0.36 J
4-Methyl-2-pentanone	0.17	0.66	0.69	2.7
Toluene	0.17	0.12 J	0.64	0.44 J
Ethyl Benzene	0.17	0.040 J	0.73	0.17 J
m,p-Xylene	0.17	0.14 J	0.73	0.62 J
o-Xylene	0.17	0.11 J	0.73	0.50 J
Styrene	0.17	0.019 J	0.72	0.081 J
Cumene	0.17	0.038 J	0.83	0.19 J
Propylbenzene	0.17	0.18	0.83	0.91
4-Ethyltoluene	0.17	0.89	0.83	4.4
1,3,5-Trimethylbenzene	0.17	0.25	0.83	1.2
1,2,4-Trimethylbenzene	0.17	1.1	0.83	5.4
alpha-Chlorotoluene	0.17	0.056 J	0.87	0.29 J
Naphthalene	0.84	0.67 J	4.4	3.5 J

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Client Sample ID: B6-AA-3

Lab ID#: 1506153A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061011**	**Date of Collection:**	**6/7/15 5:49:00 PM**
Dil. Factor:	**1.69**	**Date of Analysis:**	**6/10/15 05:45 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.51	0.84	2.5
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.84	0.82 J	1.7	1.7 J
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.84	Not Detected	3.3	Not Detected
Chloroethane	0.84	Not Detected	2.2	Not Detected
Freon 11	0.17	0.23	0.95	1.3
Ethanol	0.84	0.62 J	1.6	1.2 J
Freon 113	0.17	0.055 J	1.3	0.42 J
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	5.0	2.0	12
2-Propanol	0.84	0.40 J	2.1	0.98 J
Carbon Disulfide	0.84	Not Detected	2.6	Not Detected
3-Chloropropene	0.84	Not Detected	2.6	Not Detected
Methylene Chloride	0.34	0.24 J	1.2	0.85 J
Methyl tert-butyl ether	0.17	Not Detected	0.61	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Hexane	0.17	0.026 J	0.60	0.090 J
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	0.52 J	2.5	1.5 J
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Tetrahydrofuran	0.84	Not Detected	2.5	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Cyclohexane	0.17	Not Detected	0.58	Not Detected
Carbon Tetrachloride	0.17	0.12 J	1.1	0.74 J
2,2,4-Trimethylpentane	0.84	Not Detected	3.9	Not Detected
Benzene	0.17	Not Detected	0.54	Not Detected
1,2-Dichloroethane	0.17	Not Detected	0.68	Not Detected
Heptane	0.17	Not Detected	0.69	Not Detected
Trichloroethene	0.17	Not Detected	0.91	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
1,4-Dioxane	0.17	0.10 J	0.61	0.36 J
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.77	Not Detected
4-Methyl-2-pentanone	0.17	0.66	0.69	2.7
Toluene	0.17	0.12 J	0.64	0.44 J
trans-1,3-Dichloropropene	0.17	Not Detected	0.77	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.84	Not Detected	3.5	Not Detected

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Client Sample ID: B6-AA-3

Lab ID#: 1506153A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061011**	**Date of Collection:**	**6/7/15 5:49:00 PM**
Dil. Factor:	**1.69**	**Date of Analysis:**	**6/10/15 05:45 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.78	Not Detected
Ethyl Benzene	0.17	0.040 J	0.73	0.17 J
m,p-Xylene	0.17	0.14 J	0.73	0.62 J
o-Xylene	0.17	0.11 J	0.73	0.50 J
Styrene	0.17	0.019 J	0.72	0.081 J
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	0.038 J	0.83	0.19 J
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	0.18	0.83	0.91
4-Ethyltoluene	0.17	0.89	0.83	4.4
1,3,5-Trimethylbenzene	0.17	0.25	0.83	1.2
1,2,4-Trimethylbenzene	0.17	1.1	0.83	5.4
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	0.056 J	0.87	0.29 J
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.84	Not Detected	9.0	Not Detected
Naphthalene	0.84	0.67 J	4.4	3.5 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	121	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	101	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/10Jun2015.b/20061011.d
Lab Smp Id: 1506153A-04A
Inj Date : 10-JUN-2015 17:45
Operator : md Inst ID: msd20.i
Smp Info : 250mL #22509
Misc Info : 6.3"Hg->4.9 psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/10Jun2015.b/2015l0506a.m
Meth Date : 12-Jun-2015 09:37 mchen Quant Type: ISTD
Cal Date : 07-MAY-2015 12:38 Cal File: 20050616.d
Als bottle: 1
Dil Factor: 1.69000
Integrator: HP RTE Compound Sublist: TO15NMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.69000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
11 Freon 12					CAS #: 75-71-8		
4.797	4.797 (0.285)	85	13055	0.30230	0.5109	80.00- 120.00	100.00(M)
4.780	4.797 (0.284)	87	4397			2.49- 62.49	33.69
17 Chloromethane					CAS #: 74-87-3		
6.749	6.697 (0.401)	50	6212	0.48777	0.8243	80.00- 120.00	100.00(a)
6.784	6.697 (0.403)	52	1787			2.88- 62.88	28.78
35 Freon 11					CAS #: 75-69-4		
11.255	11.238 (0.668)	101	6195	0.13694	0.2314	80.00- 120.00	100.00
11.255	11.238 (0.668)	103	4435			35.69- 95.69	71.59
42 Ethanol					CAS #: 64-17-5		
12.420	12.396 (0.737)	45	1855	0.36906	0.6237	80.00- 120.00	100.00(a)
12.420	12.396 (0.737)	46	1251			8.49- 68.49	67.49
12.420	12.396 (0.737)	43	194			0.00- 51.69	10.48

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   49 Freon 113                                     CAS #: 76-13-1
 12.874  12.871 (0.764)   151      1177 0.03232  0.05462  80.00- 120.00   100.00(a)
 12.874  12.871 (0.764)   153       959                   34.25-  94.25    81.49
 12.874  12.871 (0.764)   101      1139                   75.92- 135.92    96.74
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 13.246  13.222 (0.786)    58     21812 2.92873    4.950  80.00- 120.00   100.00
 13.246  13.222 (0.786)    43     64542                  250.97- 310.97   295.90
-------------------------------------------------------------------------------
   57 2-Propanol                                    CAS #: 67-63-0
 13.700  13.655 (0.813)    45      4917 0.23697   0.4005  80.00- 120.00   100.00(a)
 13.721  13.655 (0.815)    43      1594                    0.00-  45.99    32.44
 13.225  13.655 (0.785)    59       772                    0.00-  33.55    15.71
-------------------------------------------------------------------------------
   66 Methylene Chloride                            CAS #: 75-09-2
 14.174  14.150 (0.842)    84      2285 0.14425   0.2438  80.00- 120.00   100.00(a)
 14.174  14.150 (0.842)    49      2749                   76.26- 136.26   120.30
 14.154  14.150 (0.840)    51      1107                    2.64-  62.64    48.46
-------------------------------------------------------------------------------
   78 Hexane                                        CAS #: 110-54-3
 14.999  14.996 (0.890)    57       334 0.01515  0.02561  80.00- 120.00   100.00(a)
 14.999  14.996 (0.890)    43       629                   29.42-  89.42   188.56
  0.000  14.996 (0.000)    86         0                    0.00-  49.37     0.00
-------------------------------------------------------------------------------
   92 2-Butanone                                    CAS #: 78-93-3
 16.478  16.460 (0.978)    72      2403 0.30590   0.5170  80.00- 120.00   100.00(a)
 16.492  16.460 (0.979)    43      9579                  397.61- 457.61   398.54
 16.478  16.460 (0.978)    57       774                    0.00-  58.47    32.23
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.844  16.841 (1.000)   130     63836 5.00000           80.00- 120.00   100.00
 16.844  16.841 (1.000)   128     50919                   48.56- 108.56    79.77
 16.844  16.841 (1.000)    49     68443                   77.31- 137.31   107.22
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                         CAS #: 56-23-5
 17.372  17.369 (1.031)   119      1724 0.06983   0.1180  80.00- 120.00   100.00(a)
 17.372  17.369 (1.031)   117      1759                   73.26- 133.26   102.00
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                        CAS #: 17060-07-0
 17.756  17.753 (1.054)    65     97071 6.04499    6.045  80.00- 120.00   100.00
 17.756  17.753 (1.054)    67     50290                   27.32-  87.32    51.81
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 18.344  18.341 (1.000)   114    279904 5.00000           80.00- 120.00   100.00
 18.344  18.341 (1.000)    88     42019                    0.00-  44.67    15.01
-------------------------------------------------------------------------------
```

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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.348  19.344 (1.055)    88       777 0.05985   0.1012  80.00- 120.00   100.00(a)
 19.348  19.344 (1.055)    58       488                   30.40-  90.40    62.83
 19.348  19.344 (1.055)    57       203                    0.00-  48.90    26.16
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.730  20.717 (1.130)    43     11980 0.38771   0.6552  80.00- 120.00   100.00
 20.730  20.717 (1.130)    58      4694                   12.69-  72.69    39.18
 20.730  20.717 (1.130)    85      2084                    0.00-  51.10    17.40
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.979  20.982 (1.144)    98    255310 4.91685    4.917  80.00- 120.00   100.00
 20.979  20.982 (1.144)    70     27196                    0.00-  40.06    10.65
 20.979  20.982 (1.144)   100    166711                   36.64-  96.64    65.30
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 21.135  21.123 (1.152)    91      4358 0.06840   0.1156  80.00- 120.00   100.00(a)
 21.135  21.123 (1.152)    92      2420                   29.36-  89.36    55.52
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 23.892  23.895 (1.000)   117    238432 5.00000           80.00- 120.00   100.00
 23.892  23.895 (1.000)    82    122768                   18.57-  78.57    51.49
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 24.015  24.019 (1.005)   106       565 0.02348  0.03968  80.00- 120.00   100.00(a)
 24.015  24.019 (1.005)    91      2157                  269.24- 329.24   381.43
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.201  24.204 (1.013)   106      2142 0.08497   0.1436  80.00- 120.00   100.00(a)
 24.201  24.204 (1.013)    91      4492                  160.53- 220.53   209.71
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.820  24.803 (1.039)   106      1603 0.06791   0.1148  80.00- 120.00   100.00(a)
 24.820  24.803 (1.039)    91      3420                  168.41- 228.41   213.25
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 24.841  24.844 (1.040)   104       363 0.01124  0.01899  80.00- 120.00   100.00(a)
 24.799  24.844 (1.038)    78       379                   16.68-  76.68   104.25
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 25.293  25.278 (1.059)   105      1682 0.02239  0.03785  80.00- 120.00   100.00(a)
 25.293  25.278 (1.059)   120       341                    0.00-  58.79    20.29
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 25.578  25.581 (1.071)   174    144234 5.05024    5.050  80.00- 120.00   100.00
 25.578  25.581 (1.071)    95    151621                   70.67- 130.67   105.12
```

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 177 4-Bromofluorobenzene (continued)
 25.578  25.581 (1.071)   176    143885                   67.63- 127.63    99.76
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 25.824  25.809 (1.081)    91      7787 0.11001   0.1859  80.00- 120.00   100.00
 25.824  25.809 (1.081)   120      1987                    0.00-  55.88    25.53
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 25.919  25.960 (1.085)   105     30392 0.52788   0.8921  80.00- 120.00   100.00
 25.919  25.960 (1.085)   120     10870                    3.93-  63.93    35.77
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 26.033  26.036 (1.090)   105      7796 0.14805   0.2502  80.00- 120.00   100.00
 26.033  26.036 (1.090)   120      4175                   20.38-  80.38    53.56
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 26.488  26.491 (1.109)   105     33562 0.65285    1.103  80.00- 120.00   100.00
 26.488  26.491 (1.109)   120     16480                   19.25-  79.25    49.10
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                          CAS #: 100-44-7
 27.174  27.162 (1.137)    91      1220 0.03343  0.05649  80.00- 120.00   100.00(a)
 27.143  27.162 (1.136)   126       203                    0.00-  54.01    16.71
-------------------------------------------------------------------------------
  228 Naphthalene                                  CAS #: 91-20-3
 29.887  29.890 (1.251)   128     17587 0.39651   0.6701  80.00- 120.00   100.00(a)
 29.887  29.890 (1.251)   127      2987                    0.00-  43.71    16.99
-------------------------------------------------------------------------------
```

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061011.d
Lab Smp Id: 1506153A-04A
Analysis Type: VOA
Quant Type: ISTD
Operator: md
Method File: /chem/msd20.i/10Jun2015.b/2015l0506a.m
Misc Info: 6.3"Hg->4.9 psi

Calibration Date: 10-JUN-2015
Calibration Time: 11:58

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	70421	42253	98589	63836	-9.35
123 1,4-Difluorobenze	289237	173542	404932	279904	-3.23
163 Chlorobenzene-d5	248624	149174	348074	238432	-4.10

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.84	16.51	17.17	16.84	0.02
123 1,4-Difluorobenze	18.34	18.01	18.67	18.34	0.02
163 Chlorobenzene-d5	23.90	23.57	24.23	23.89	-0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 12-Jun-2015 09:57

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 10Jun2015
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1506153A-04A
Level: LOW
Operator: md
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT12.spk
Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/10Jun2015.b/2015l0506a.m
Misc Info: 6.3"Hg->4.9 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	6.045	120.90	70-130
$ 146 Toluene-d8	5.000	4.917	98.34	70-130
$ 177 4-Bromofluorobenze	5.000	5.050	101.00	70-130

Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

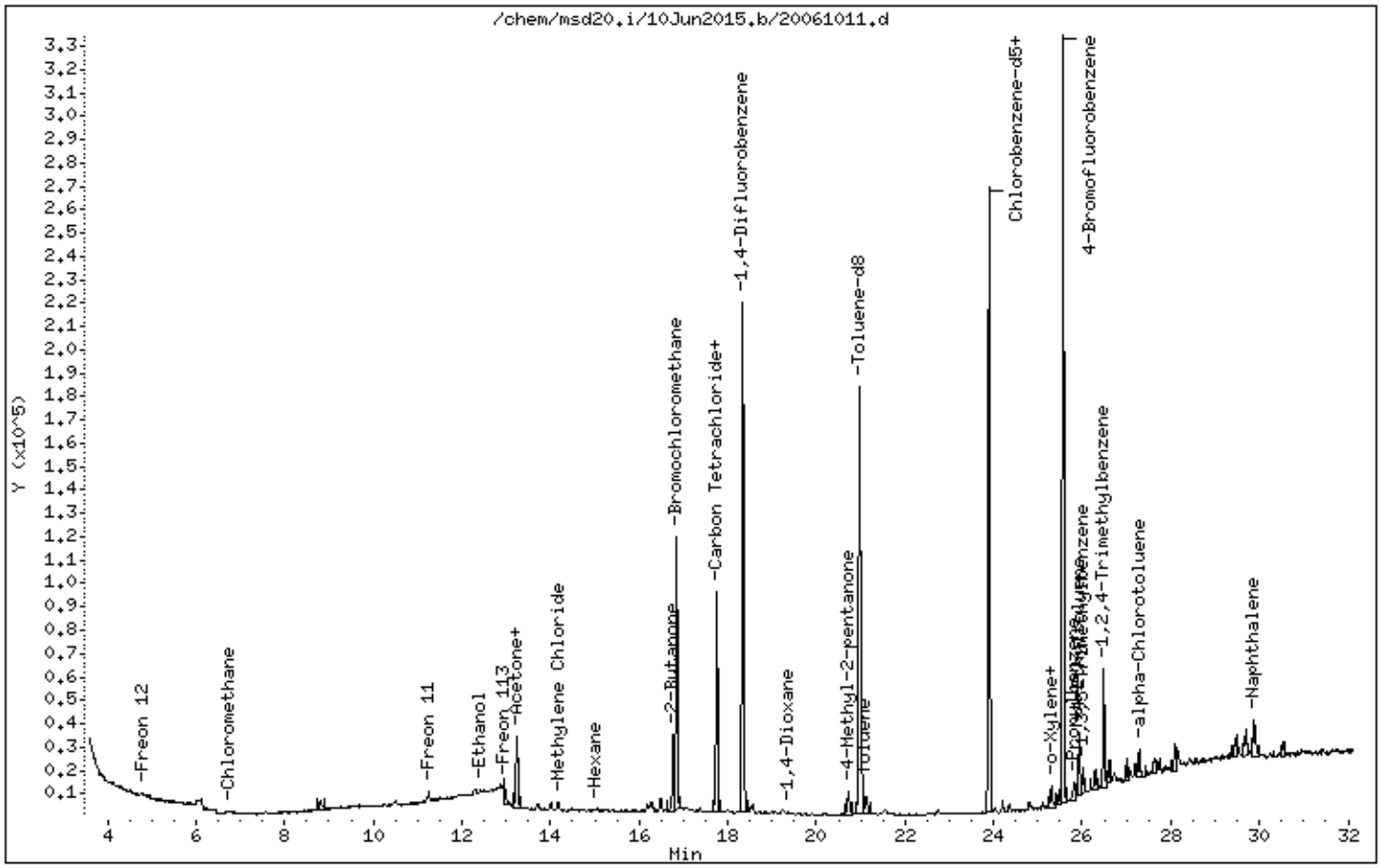
Instrument: msd20.i

Sample Info: 250mL #22509

Operator: md

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

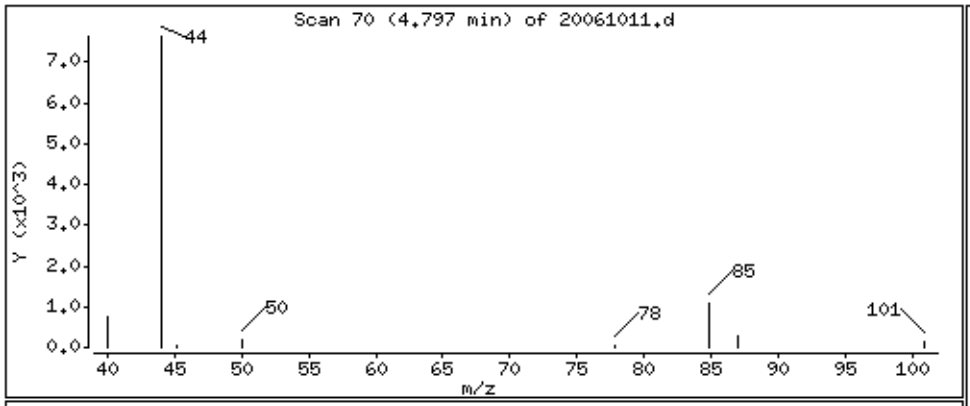
Operator: md

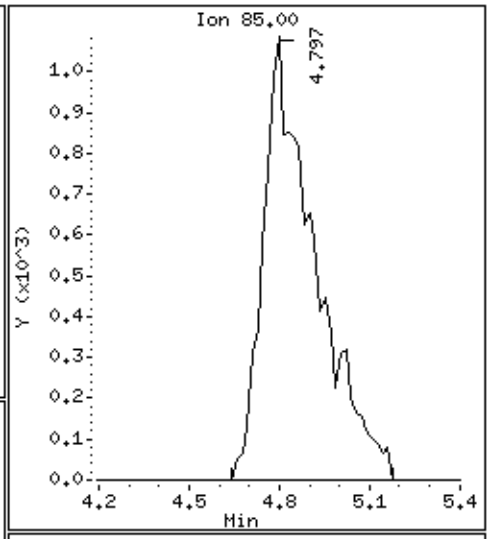
Column phase: RTX-624

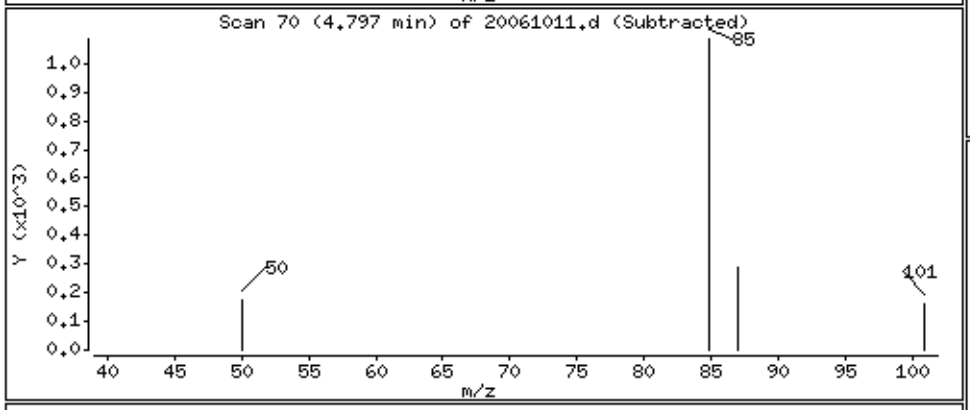
Column diameter: 0.32

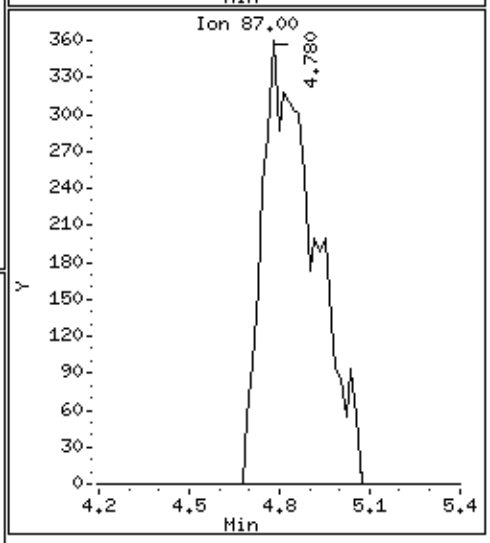
11 Freon 12

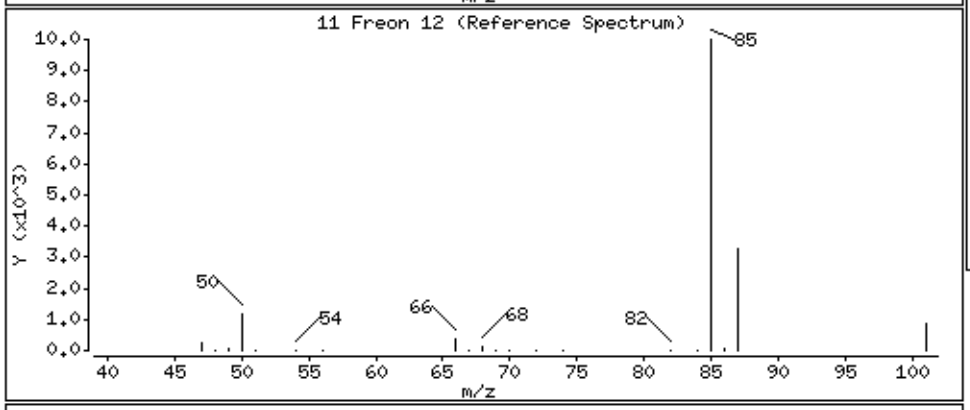
Concentration: 0.5109 PPBV

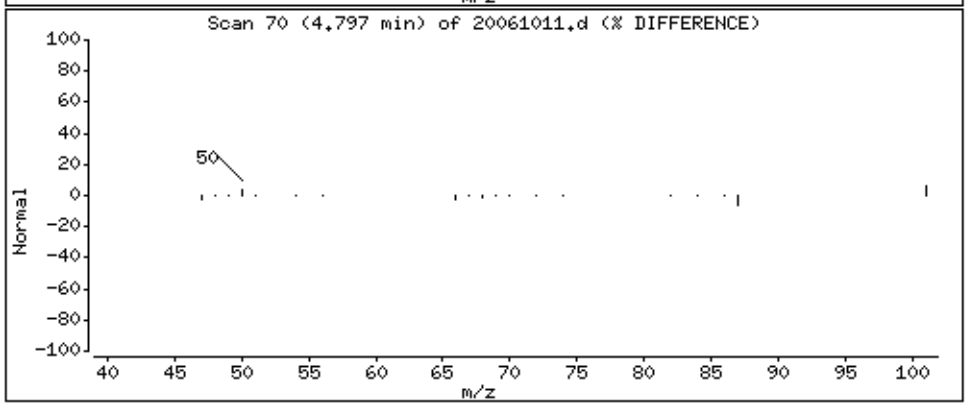












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

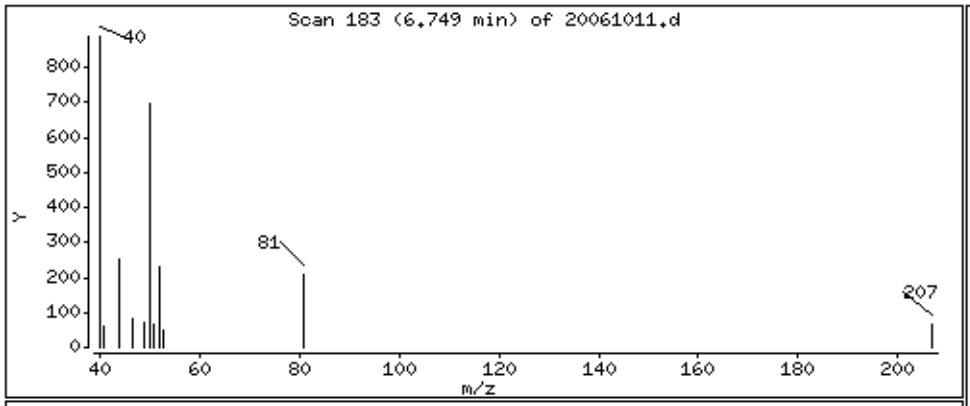
Operator: md

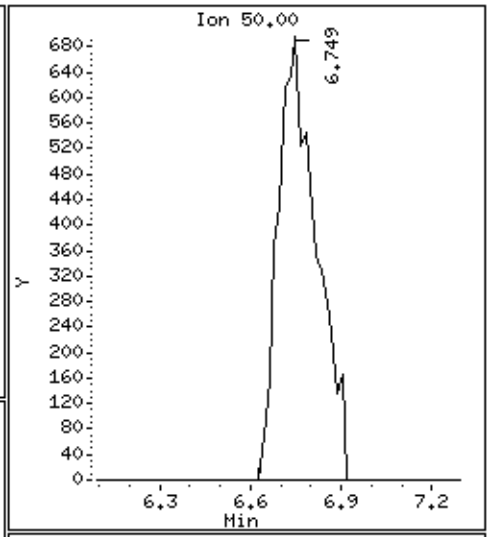
Column phase: RTX-624

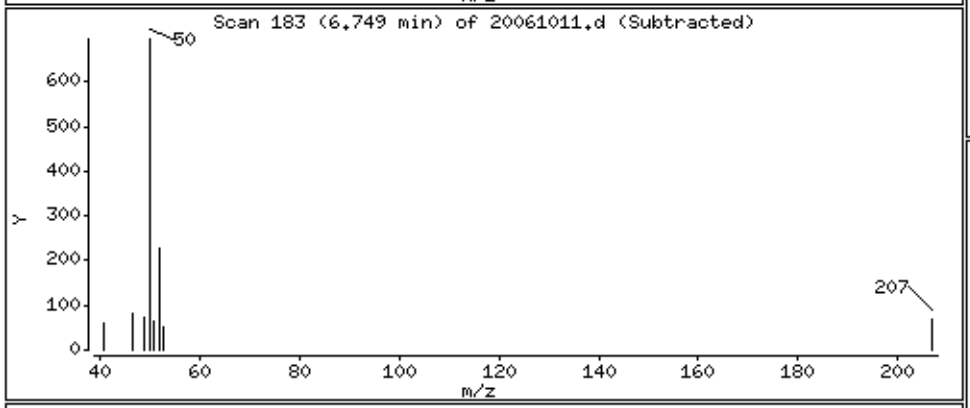
Column diameter: 0.32

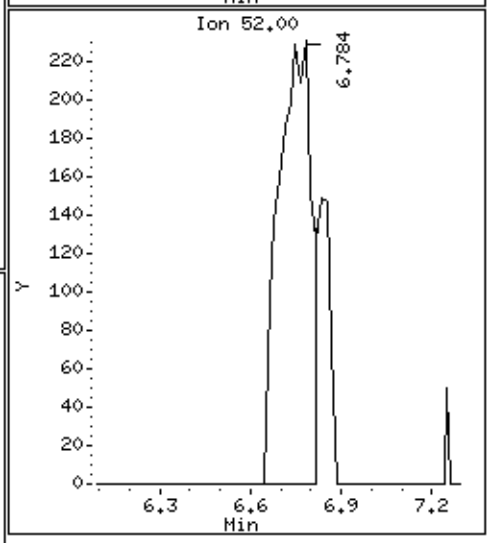
17 Chloromethane

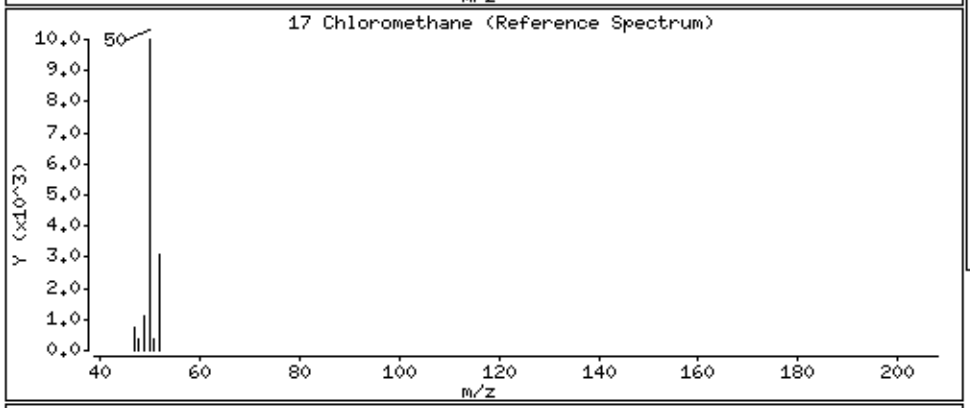
Concentration: 0.8243 PPBV

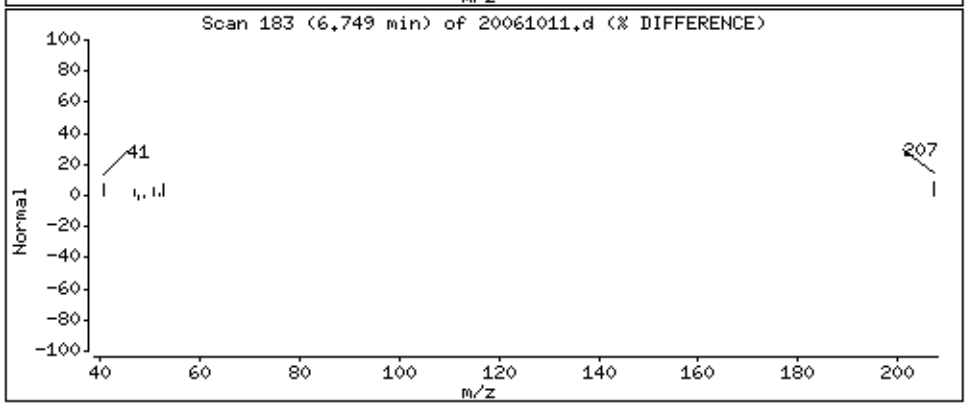












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

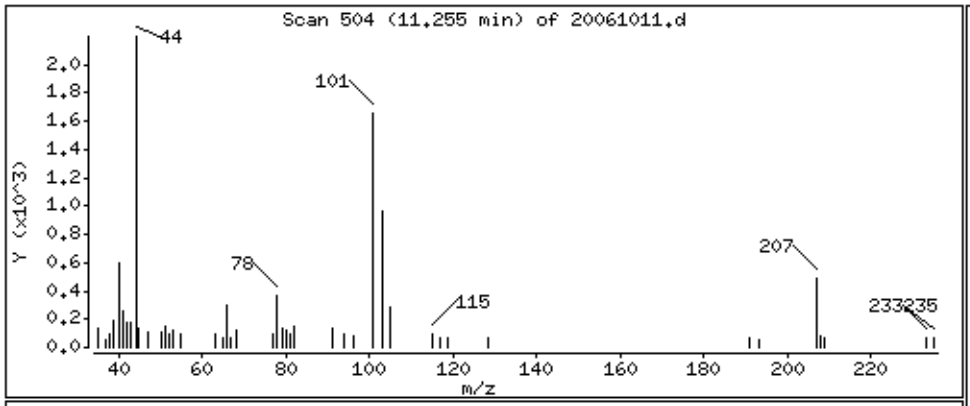
Operator: md

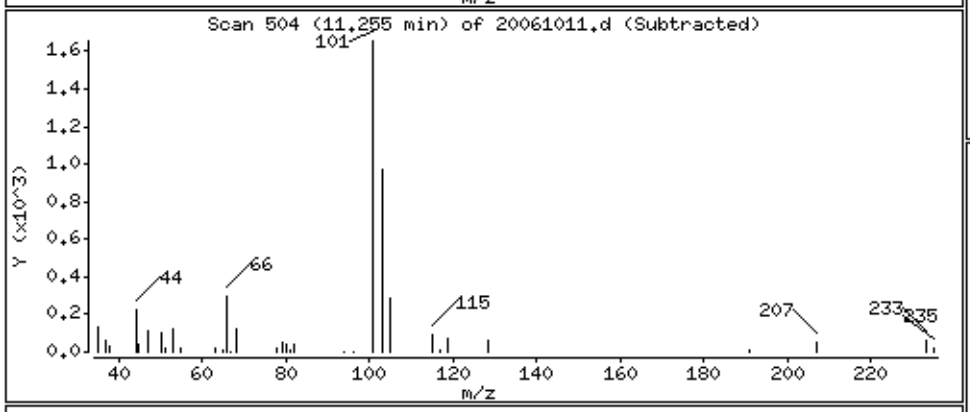
Column phase: RTX-624

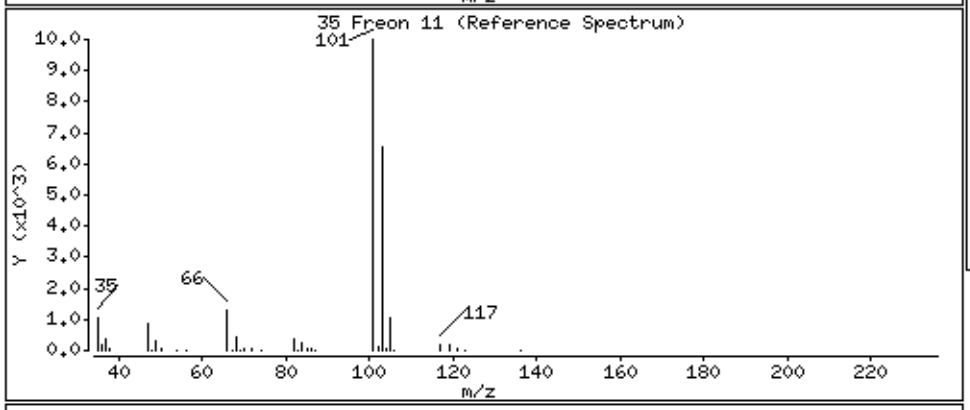
Column diameter: 0.32

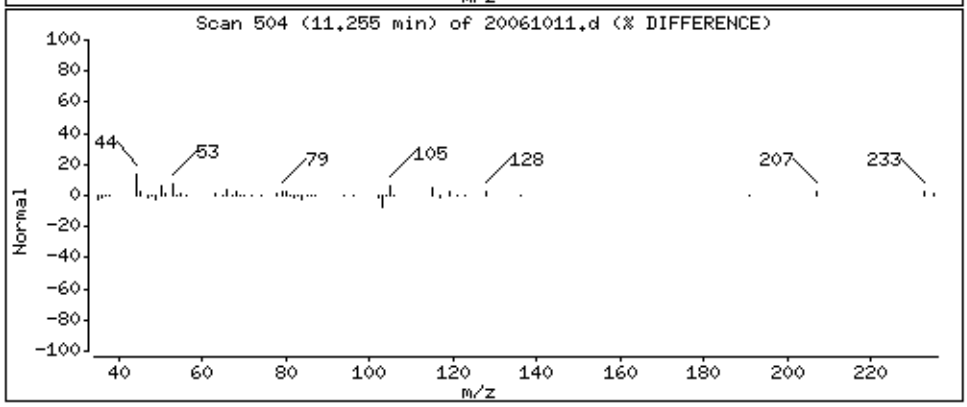
35 Freon 11

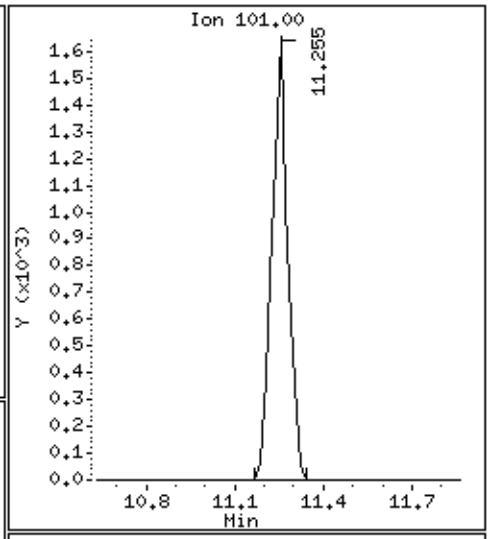
Concentration: 0.2314 PPBV

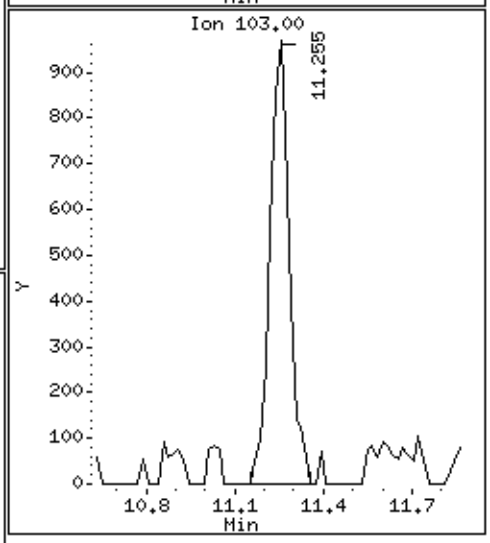












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

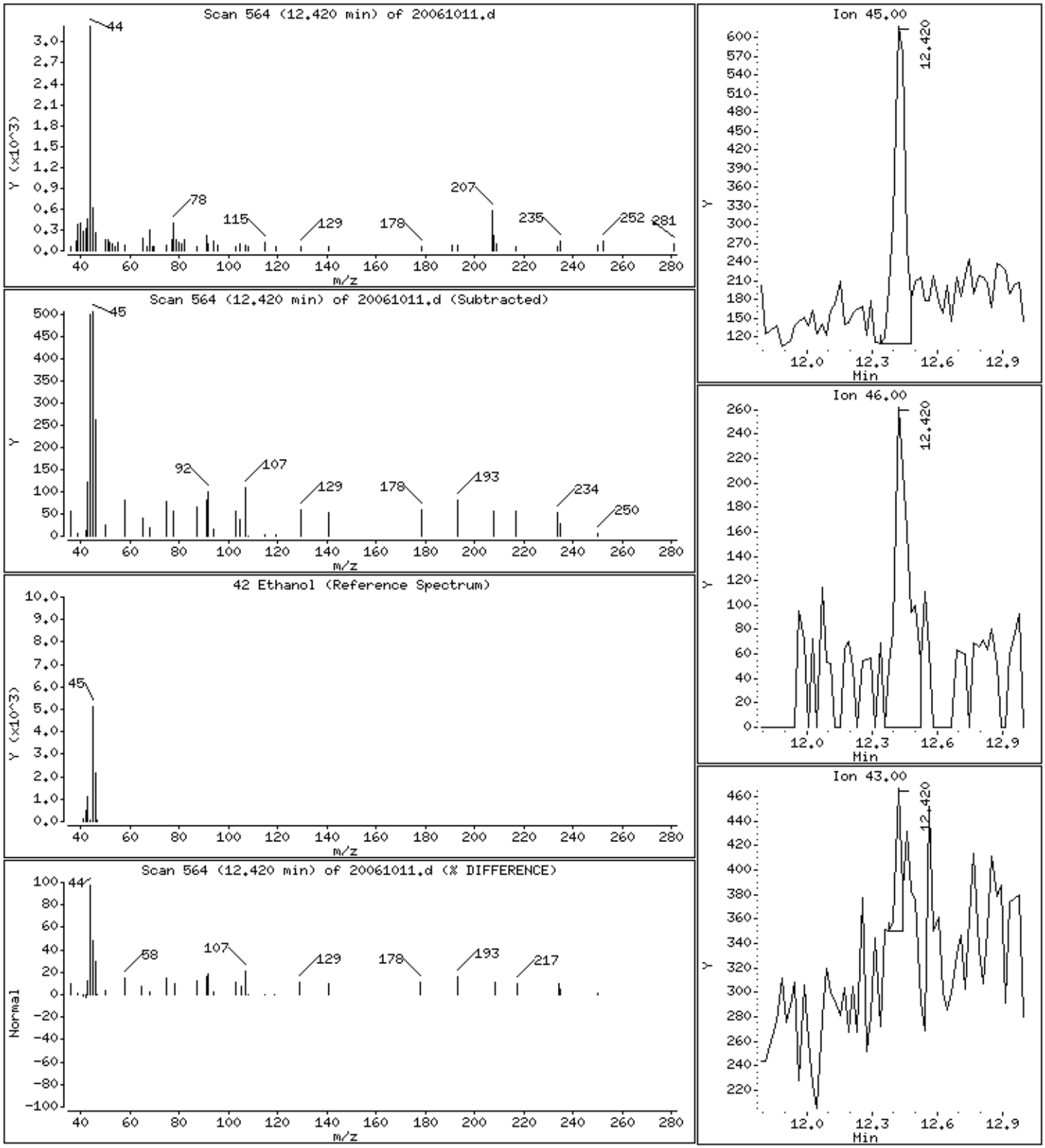
Operator: md

Column phase: RTX-624

Column diameter: 0.32

42 Ethanol

Concentration: 0.6237 PPBV



Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

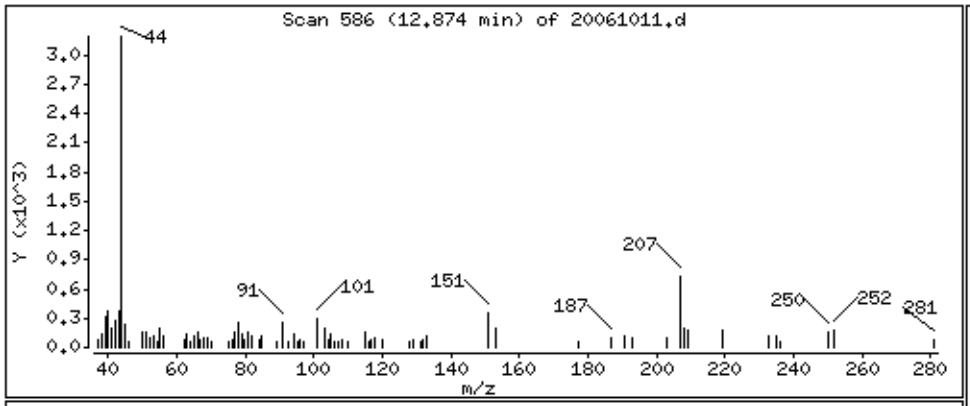
Operator: md

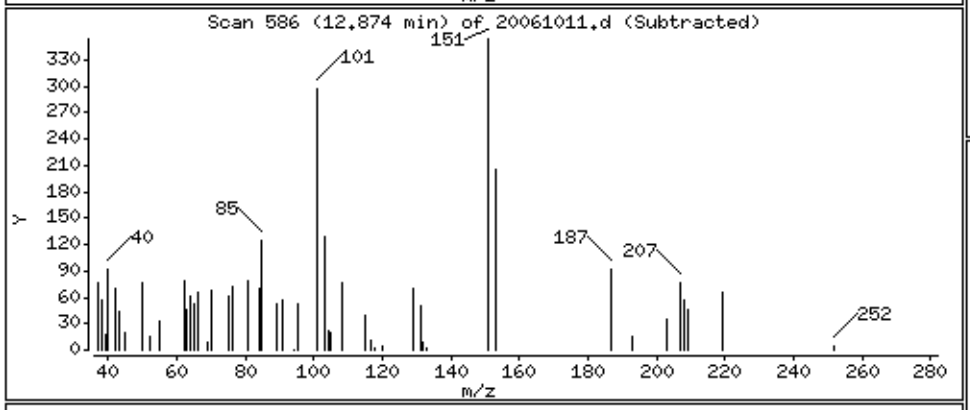
Column phase: RTX-624

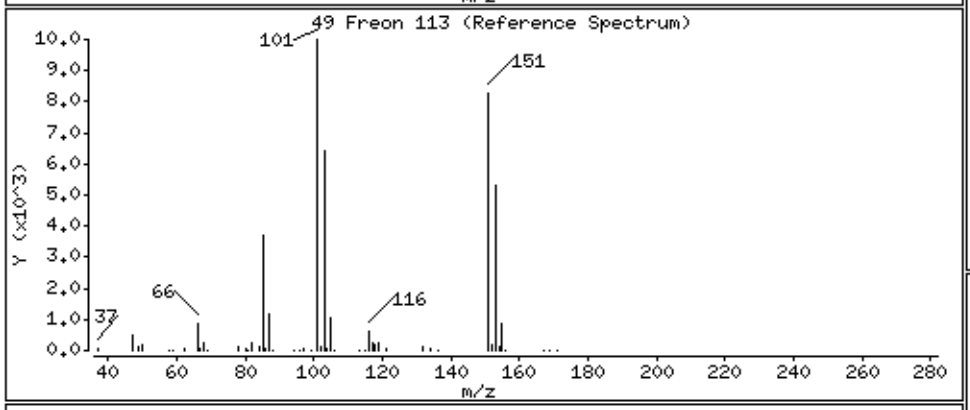
Column diameter: 0.32

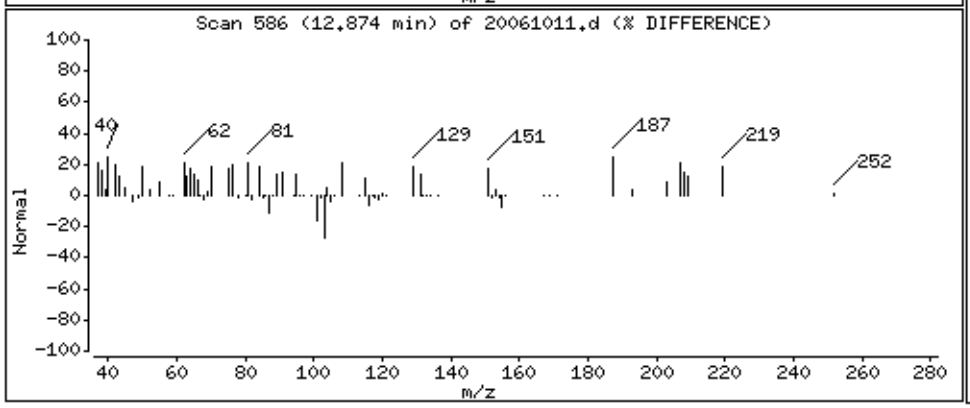
49 Freon 113

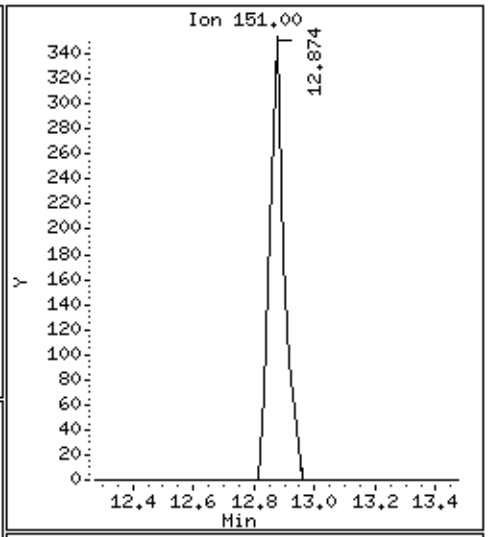
Concentration: 0.05462 PPBV

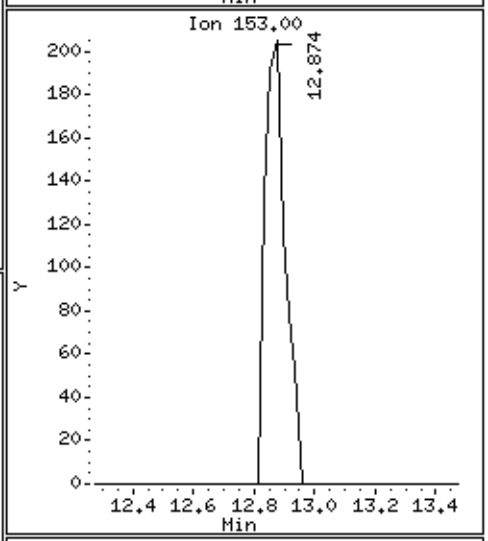


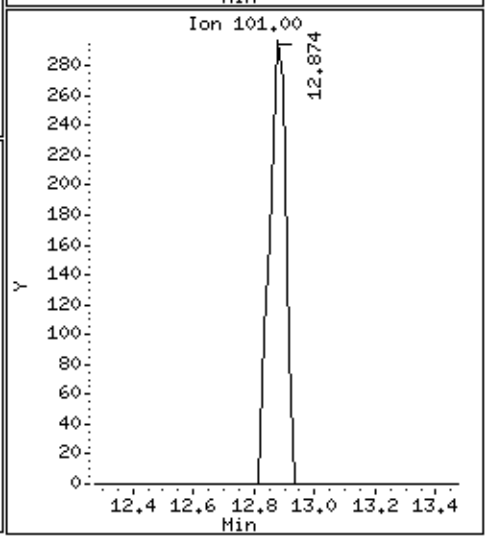












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

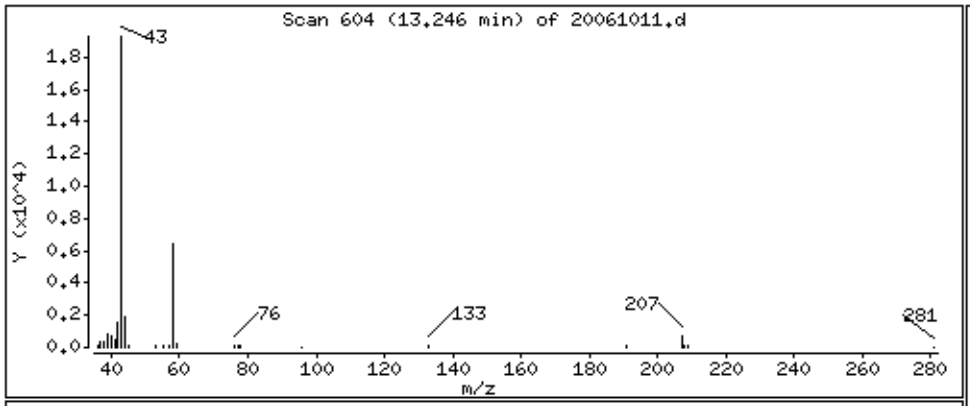
Operator: md

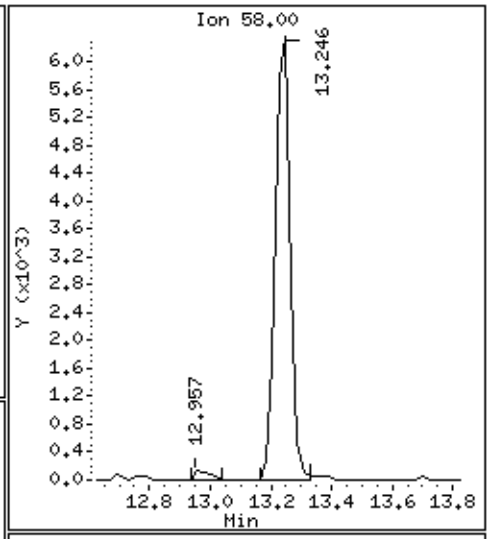
Column phase: RTX-624

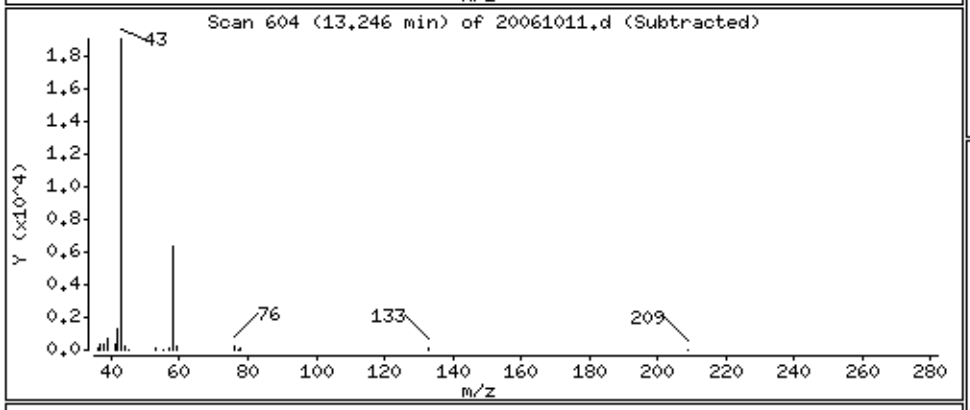
Column diameter: 0.32

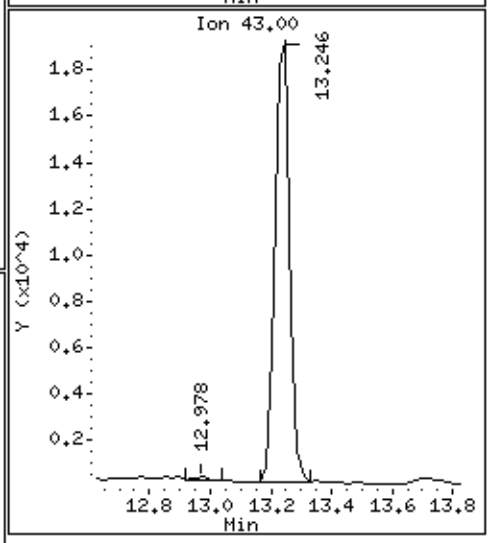
52 Acetone

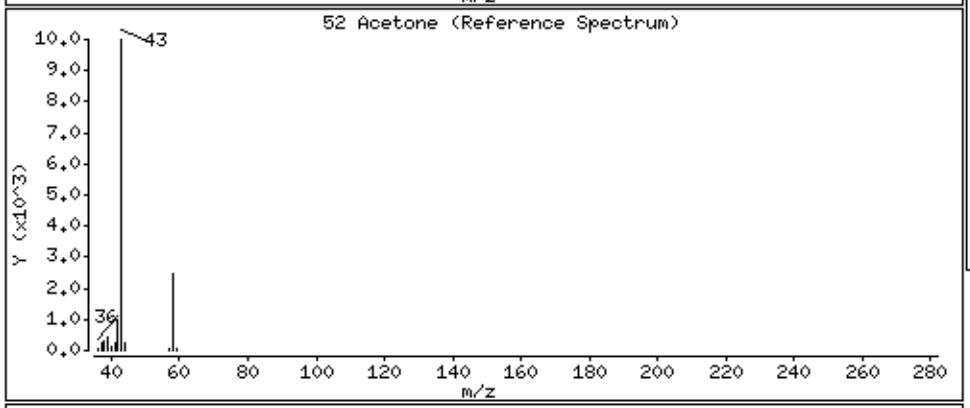
Concentration: 4.950 PPBV

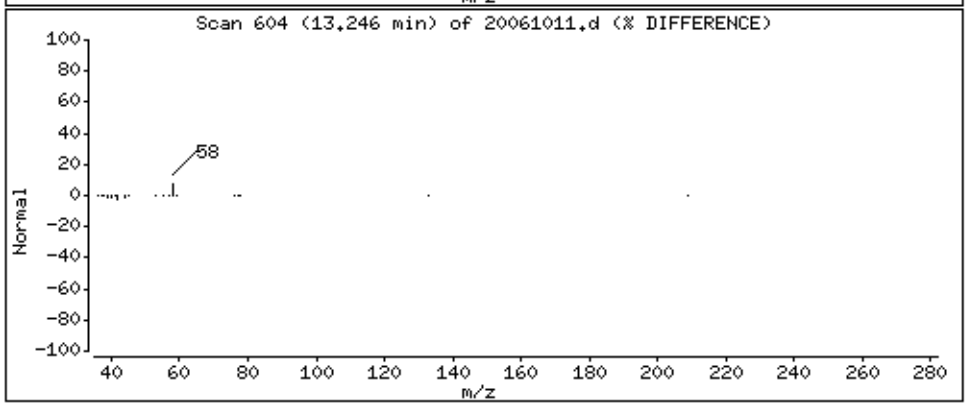












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

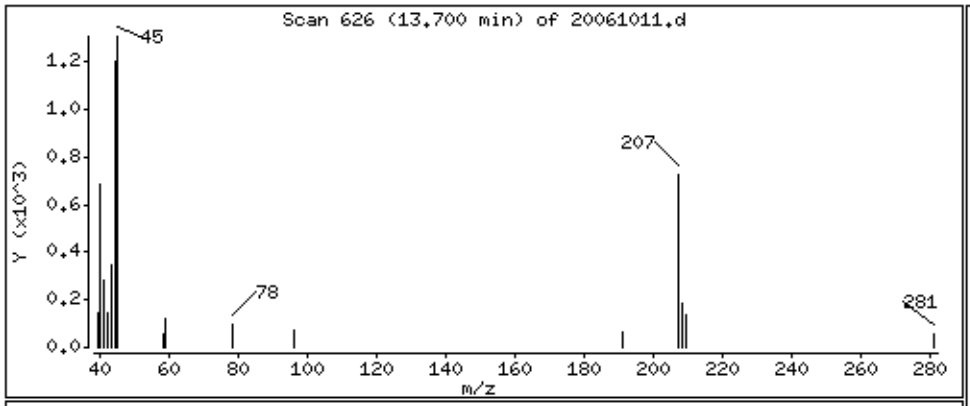
Operator: md

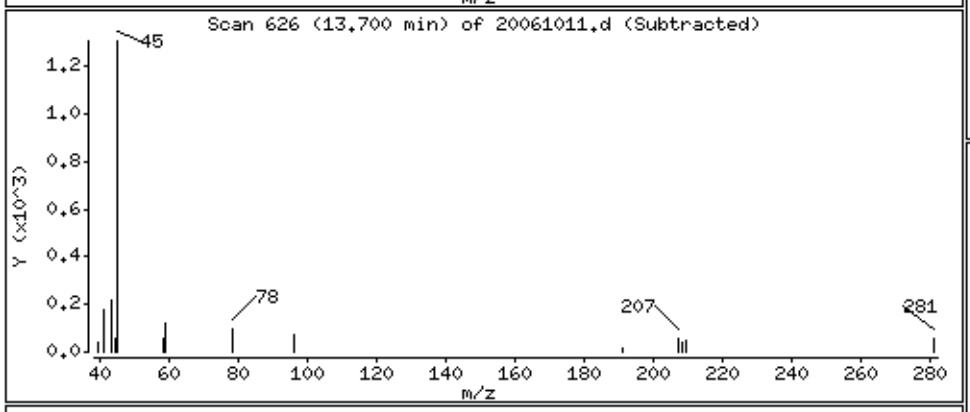
Column phase: RTX-624

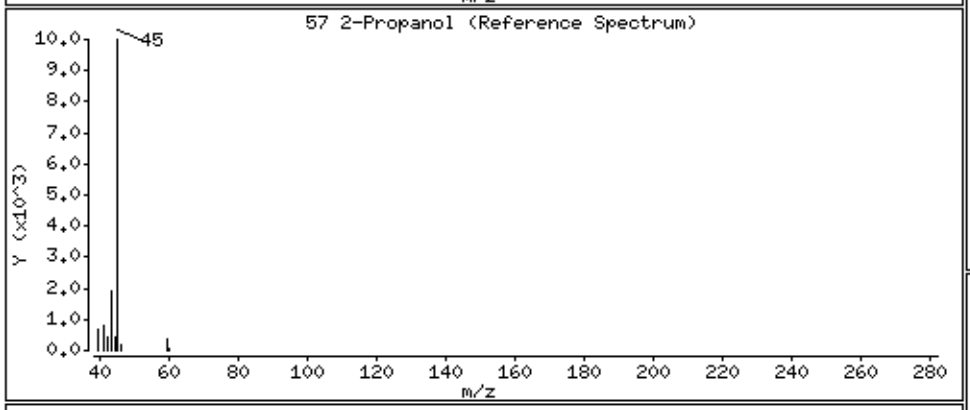
Column diameter: 0.32

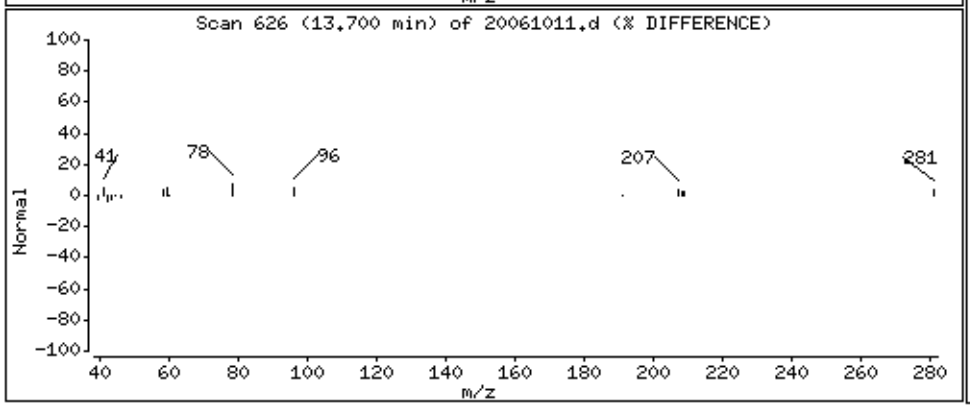
57 2-Propanol

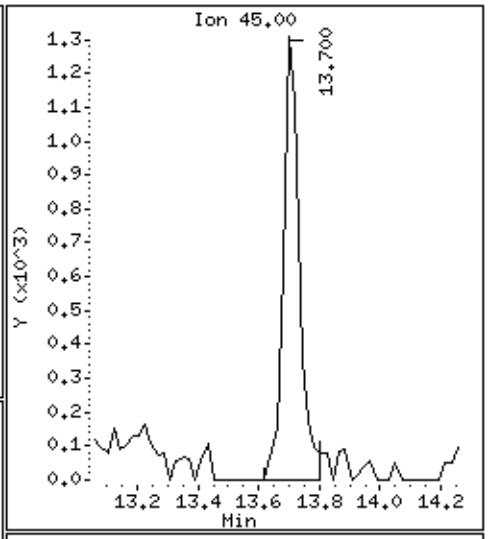
Concentration: 0.4005 PPBV

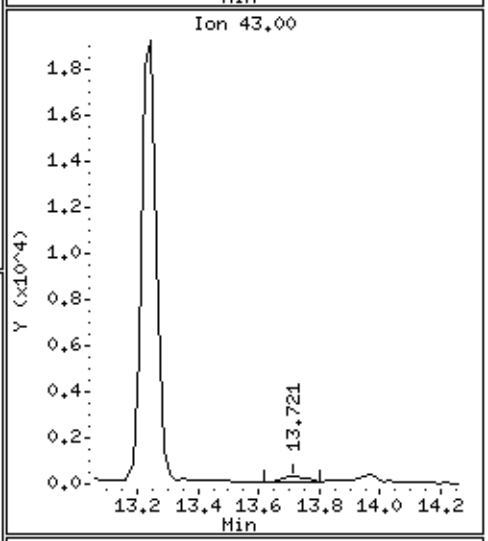


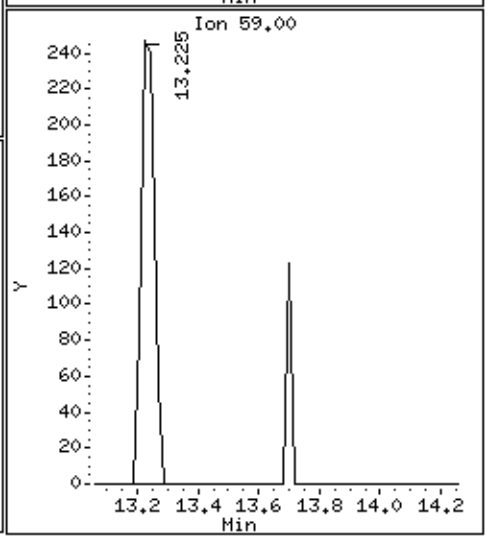












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

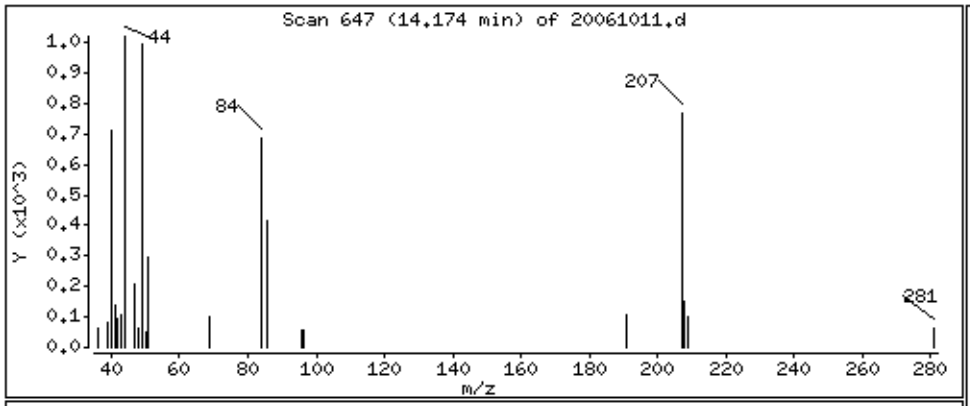
Operator: md

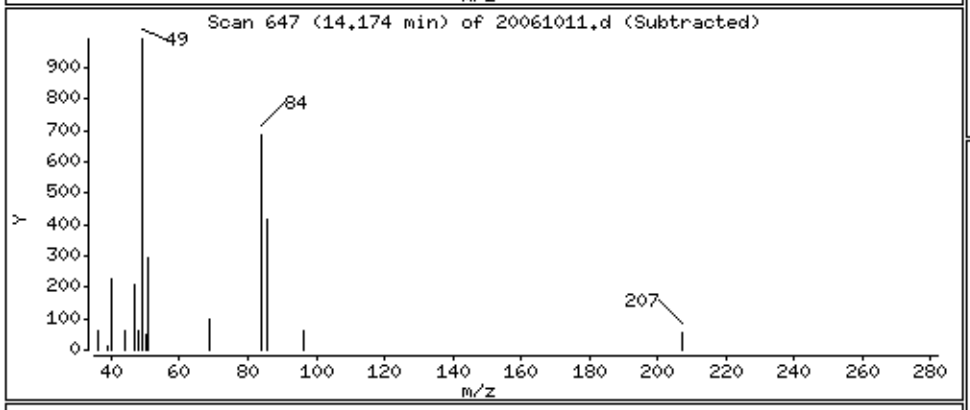
Column phase: RTX-624

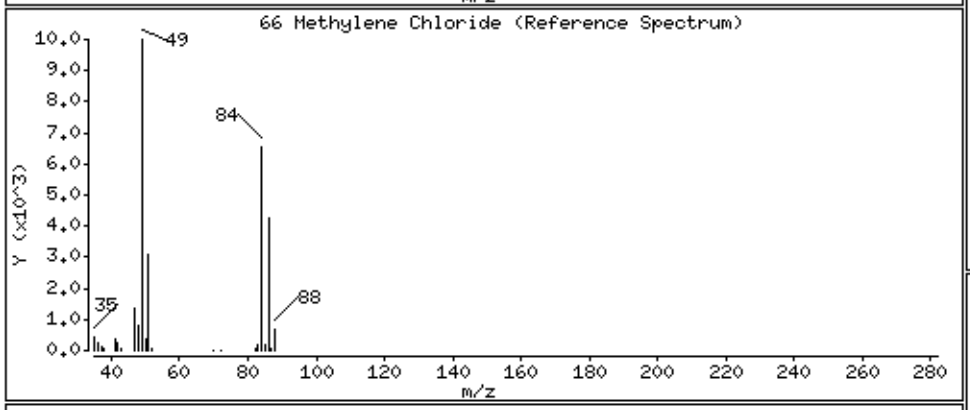
Column diameter: 0.32

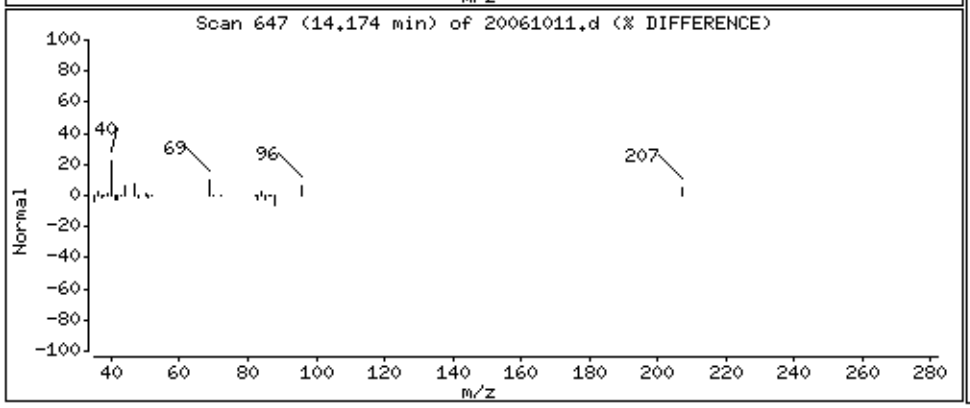
66 Methylene Chloride

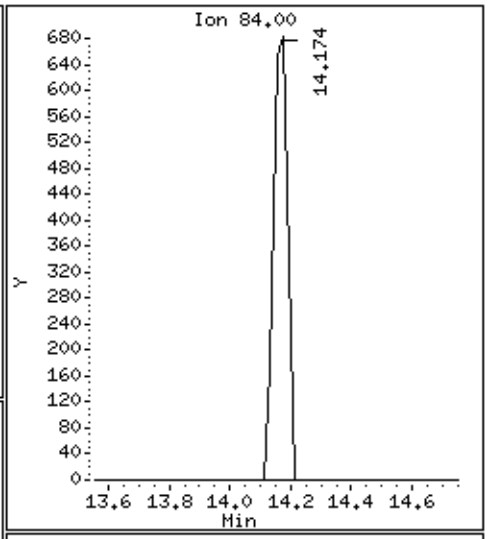
Concentration: 0.2438 PPBV

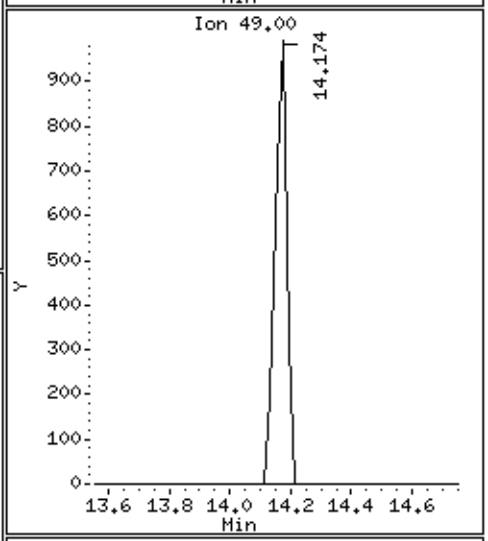


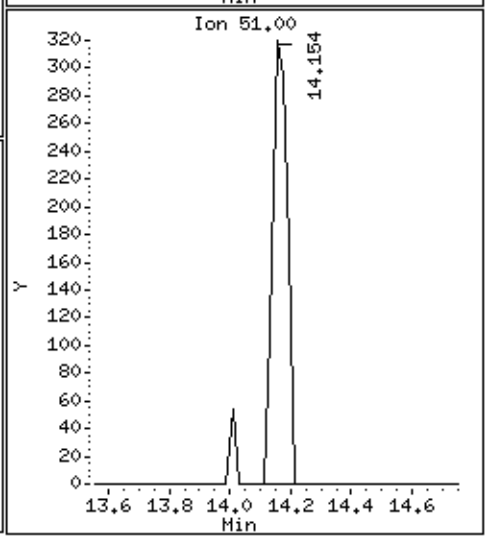












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

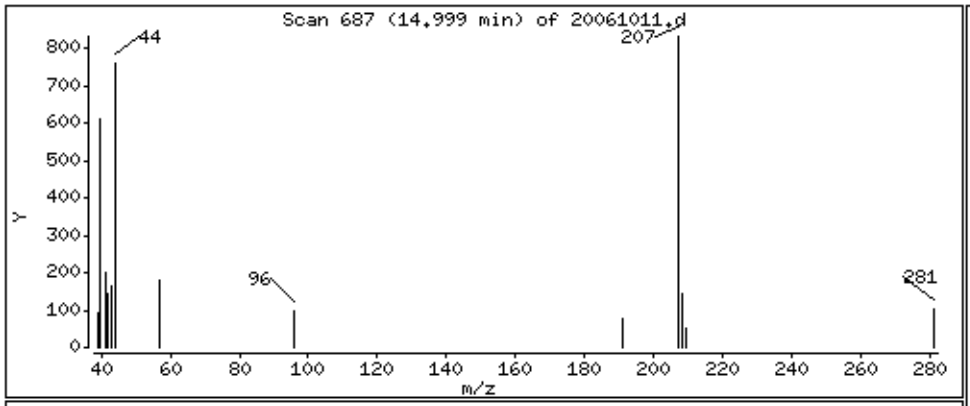
Operator: md

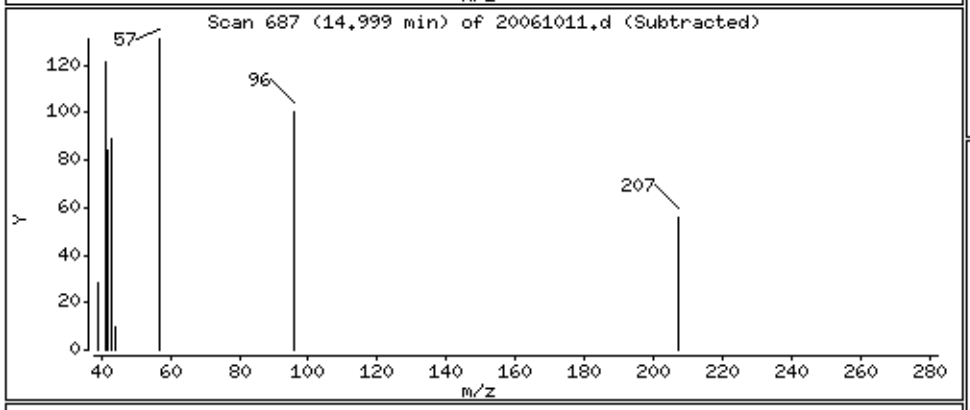
Column phase: RTX-624

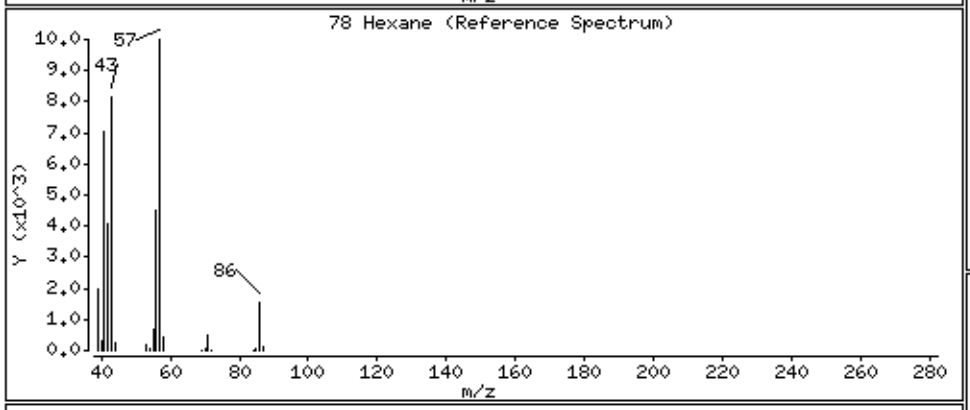
Column diameter: 0.32

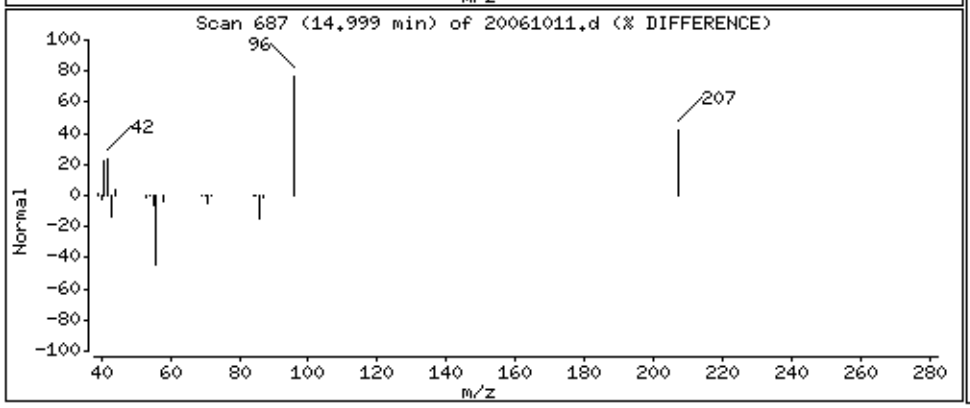
78 Hexane

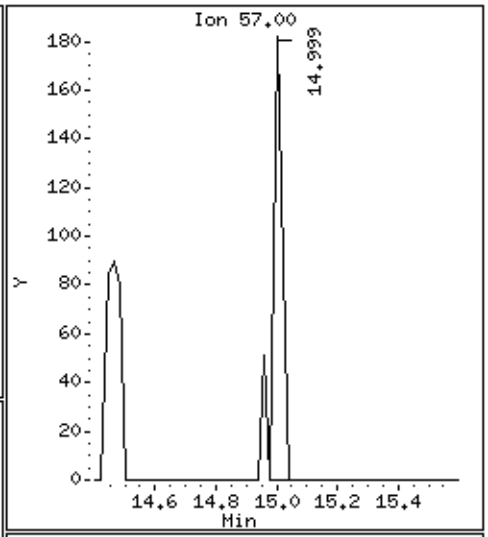
Concentration: 0.02561 PPBV

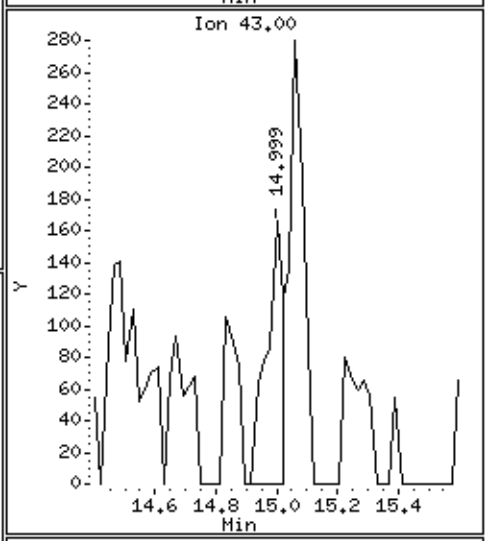


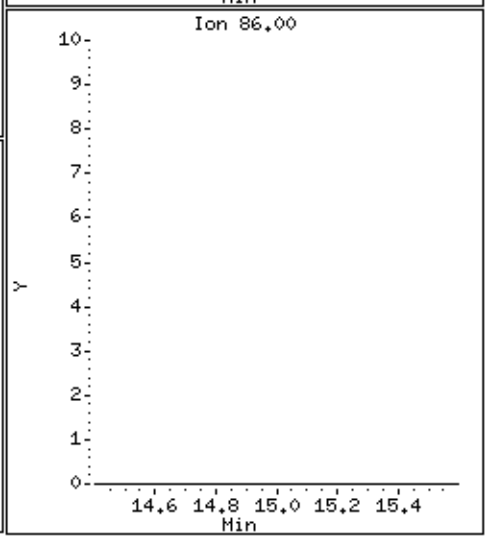












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

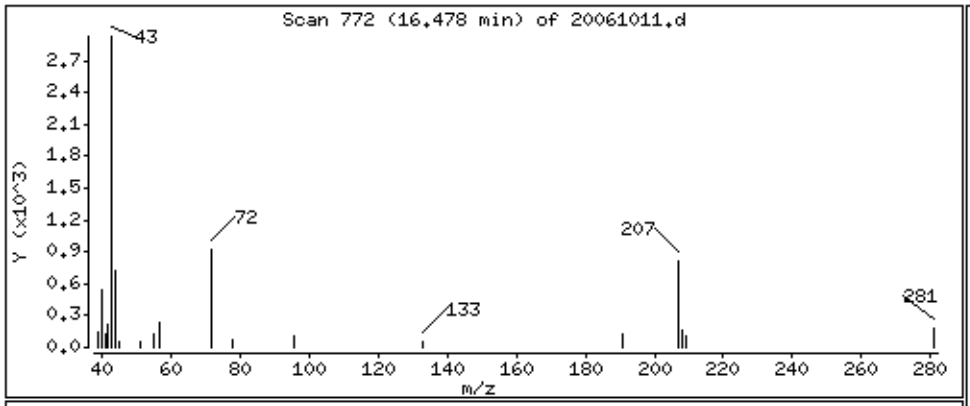
Operator: md

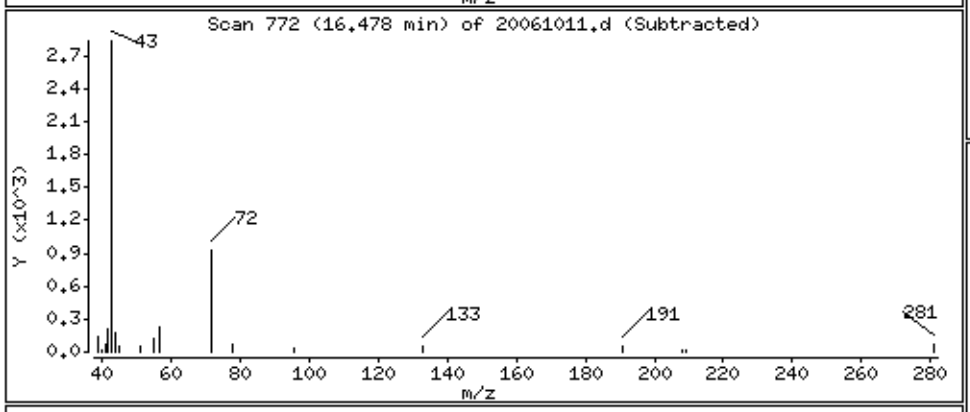
Column phase: RTX-624

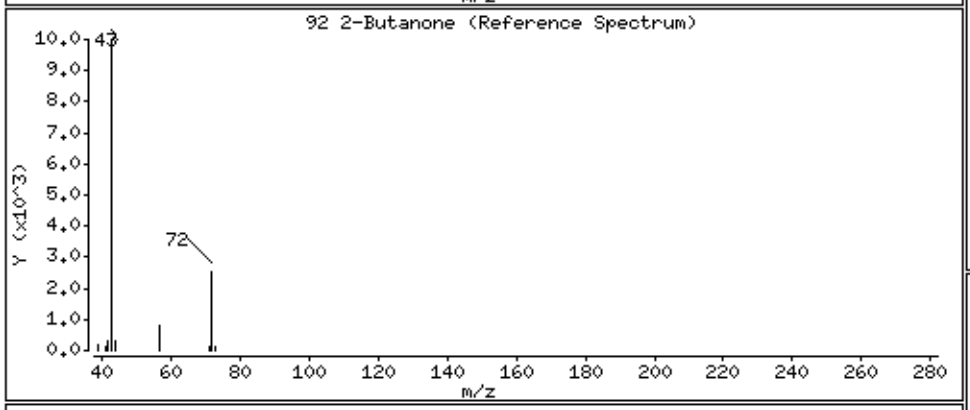
Column diameter: 0.32

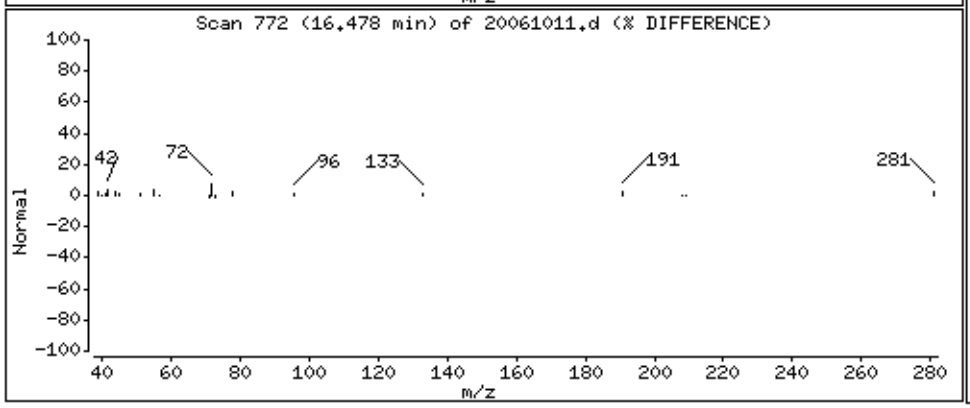
92 2-Butanone

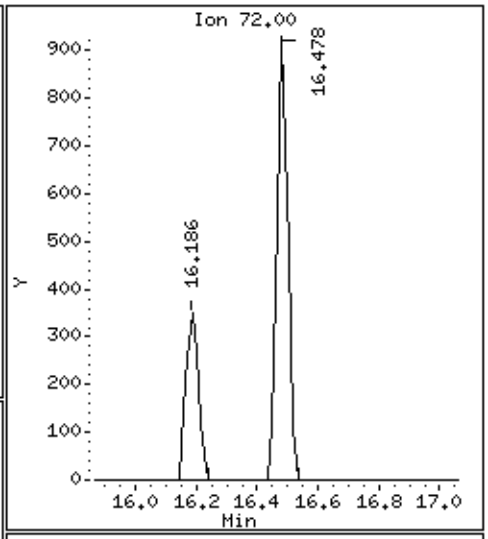
Concentration: 0.5170 PPBV

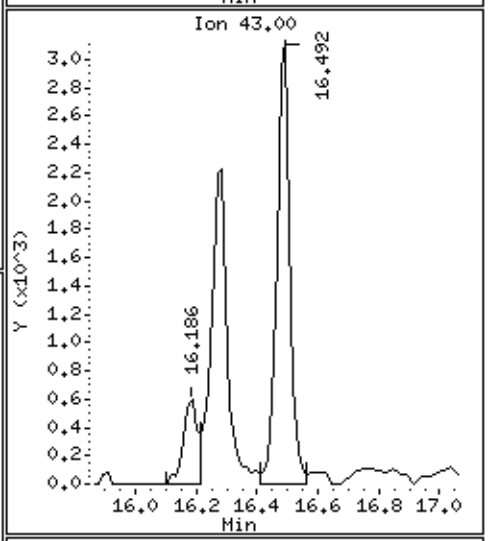


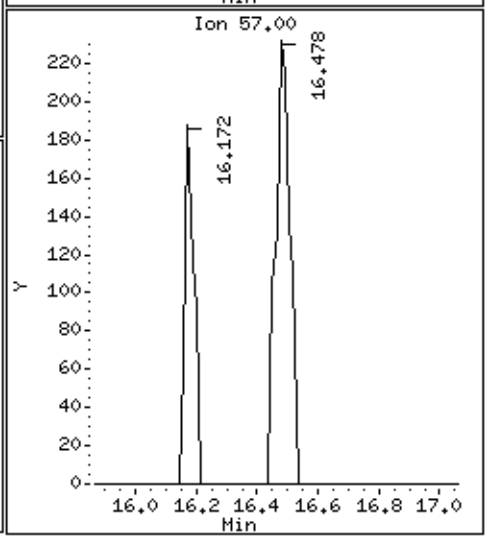












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

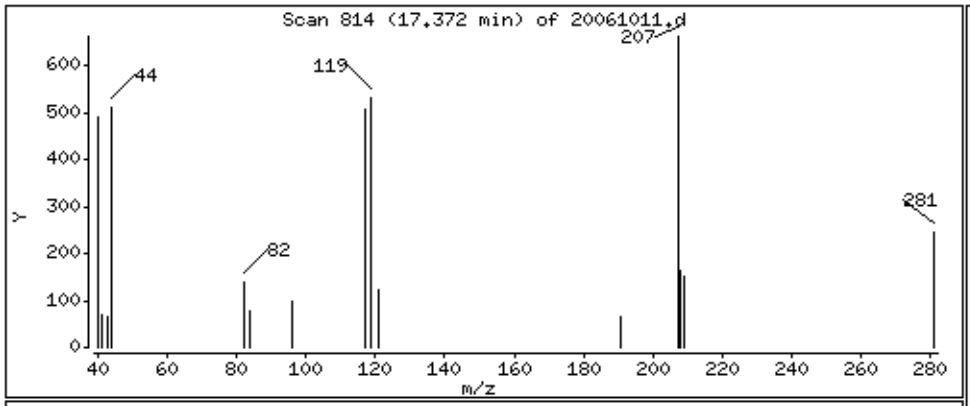
Operator: md

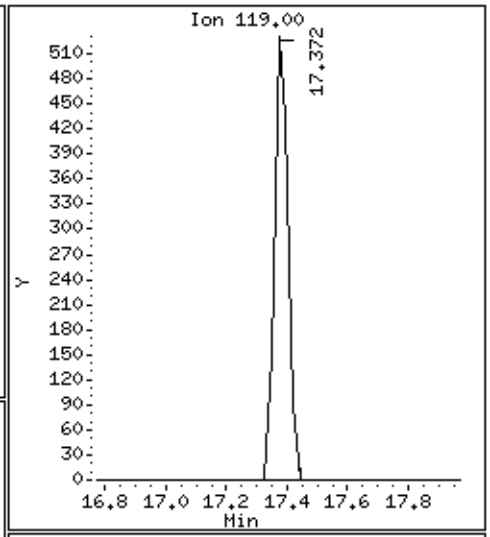
Column phase: RTX-624

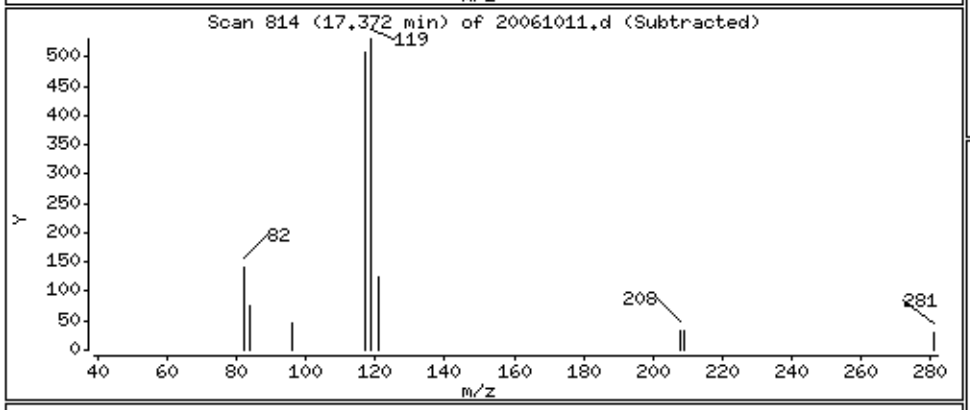
Column diameter: 0.32

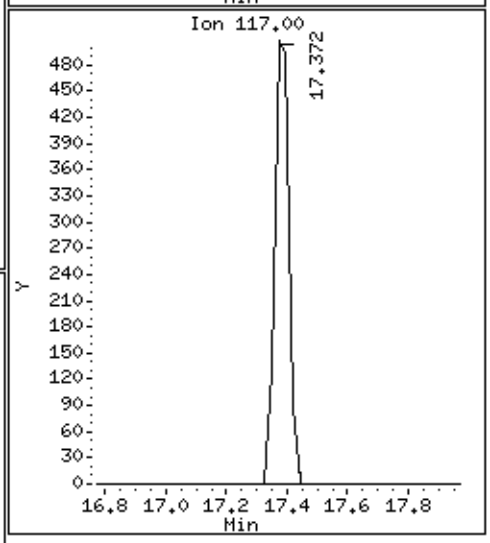
106 Carbon Tetrachloride

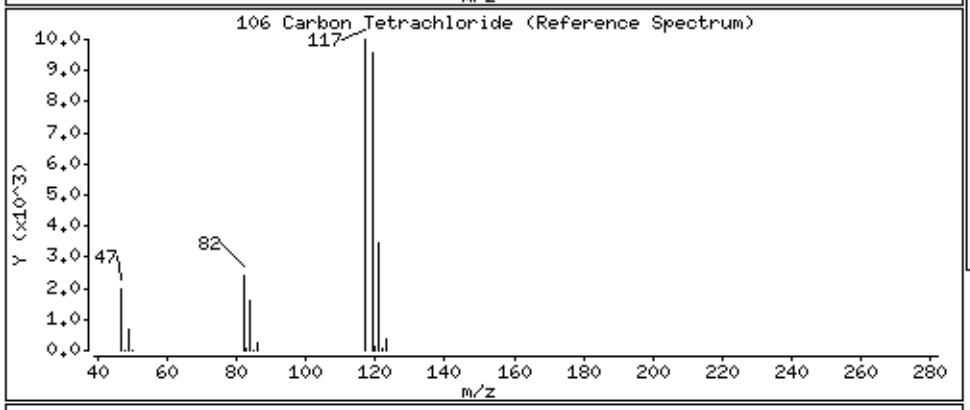
Concentration: 0.1180 PPBV

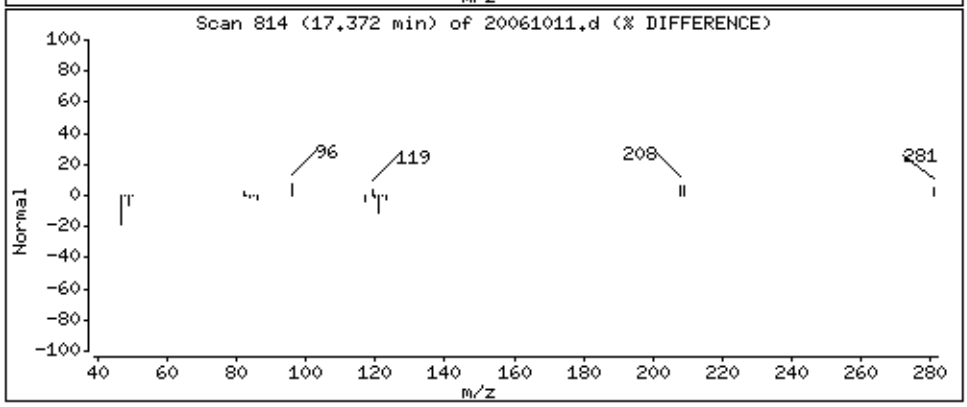












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

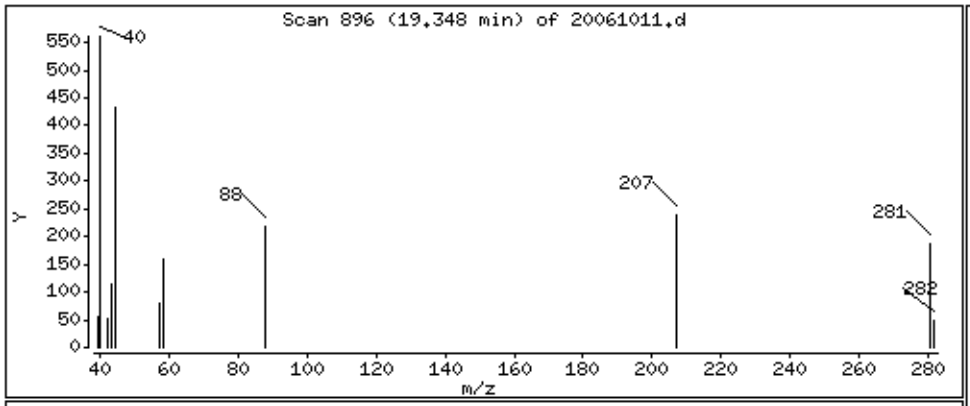
Operator: md

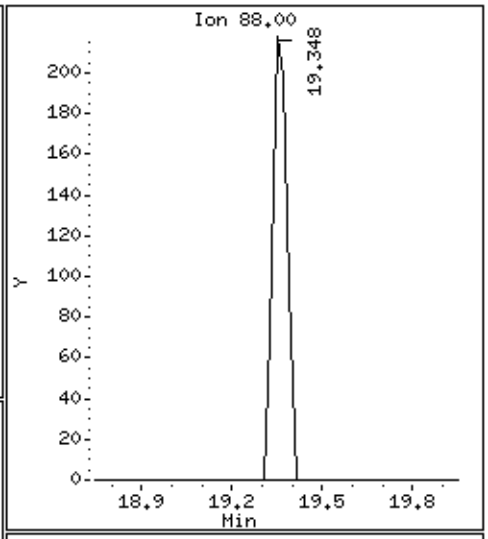
Column phase: RTX-624

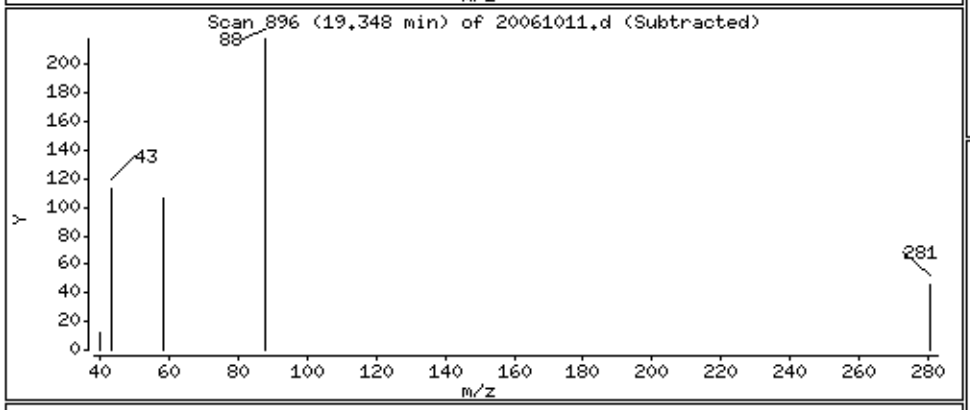
Column diameter: 0.32

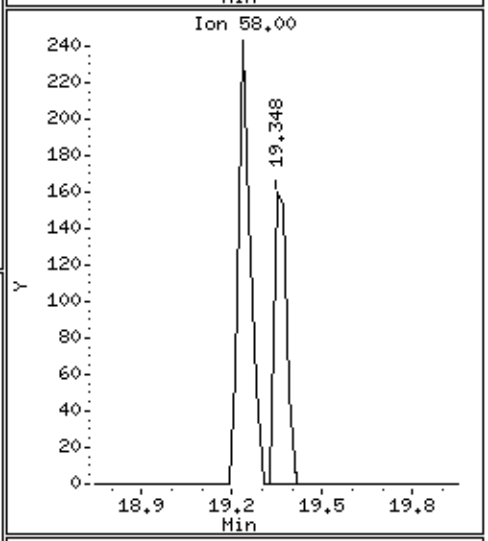
136 1,4-Dioxane

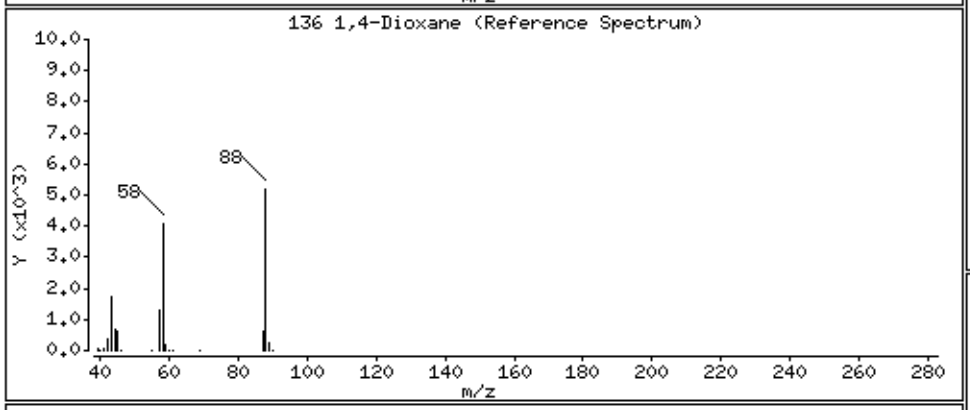
Concentration: 0.1012 PPBV

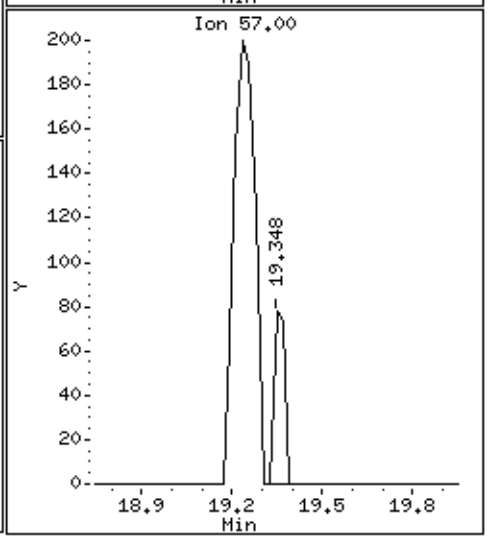


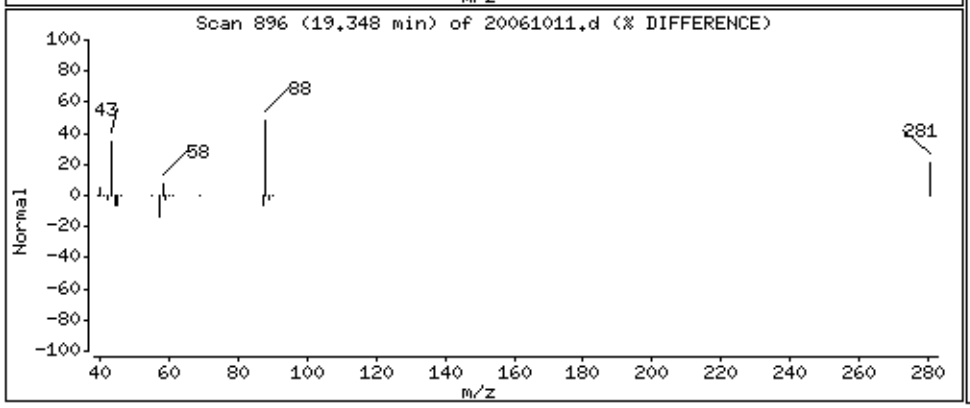












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

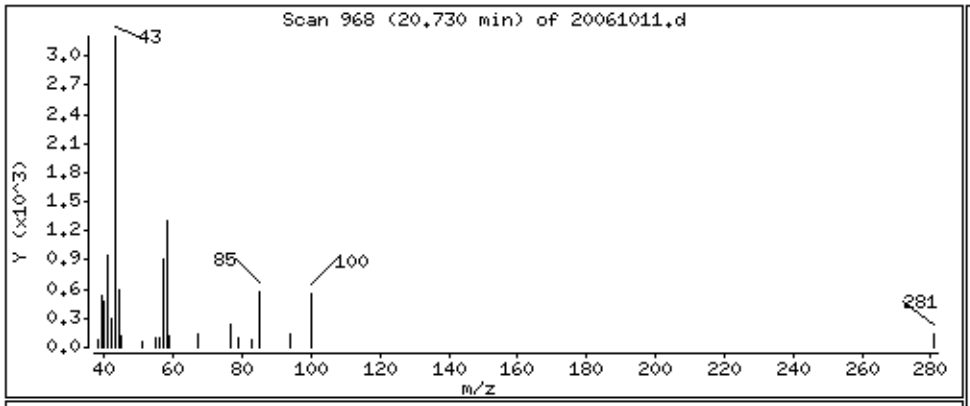
Operator: md

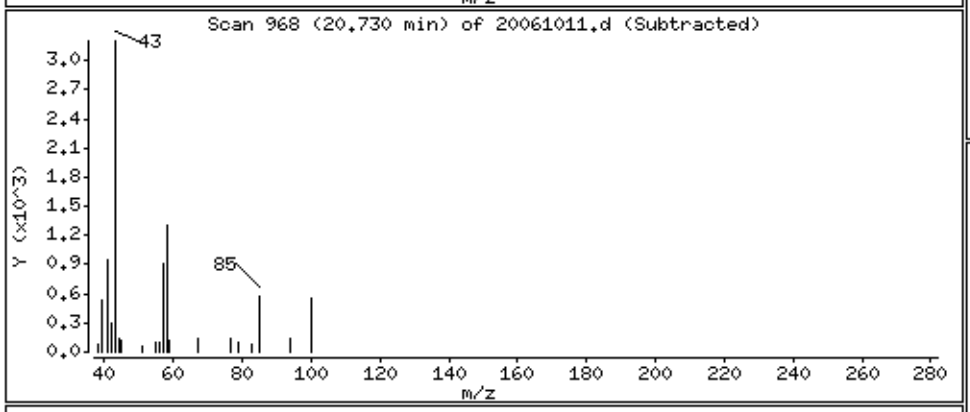
Column phase: RTX-624

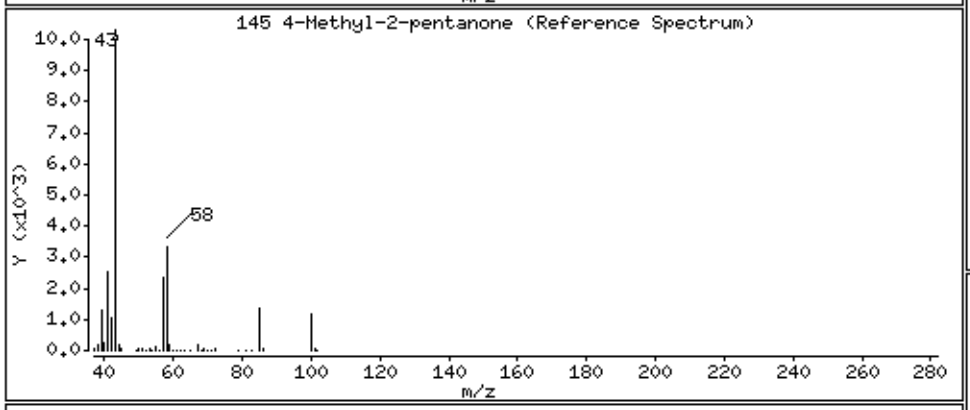
Column diameter: 0.32

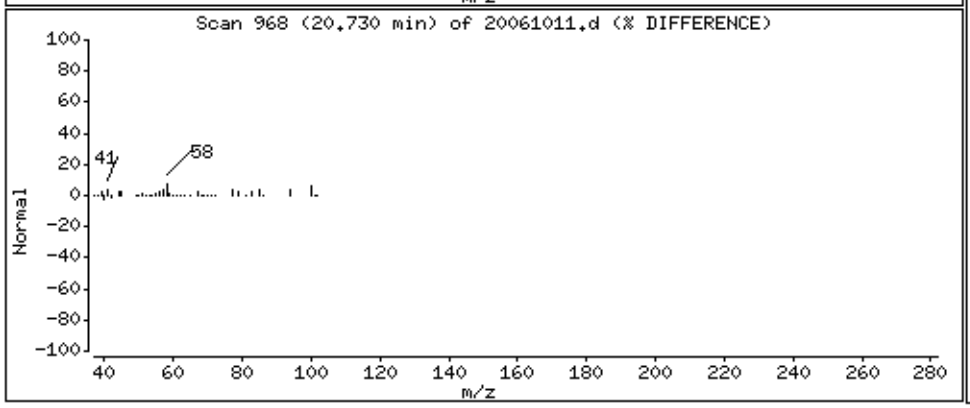
145 4-Methyl-2-pentanone

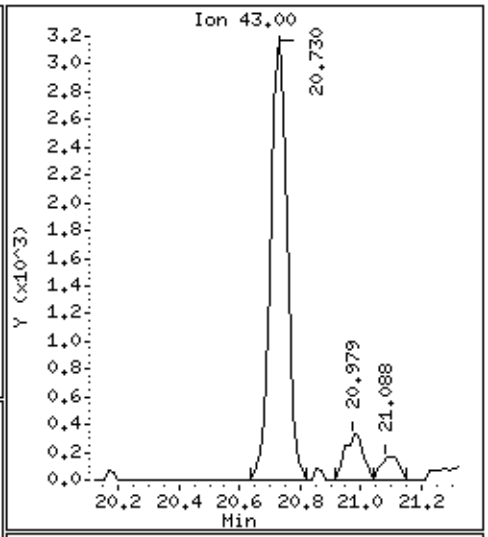
Concentration: 0.6552 PPBV

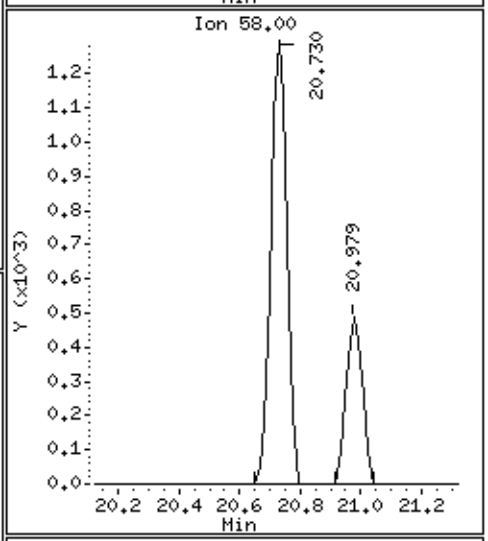


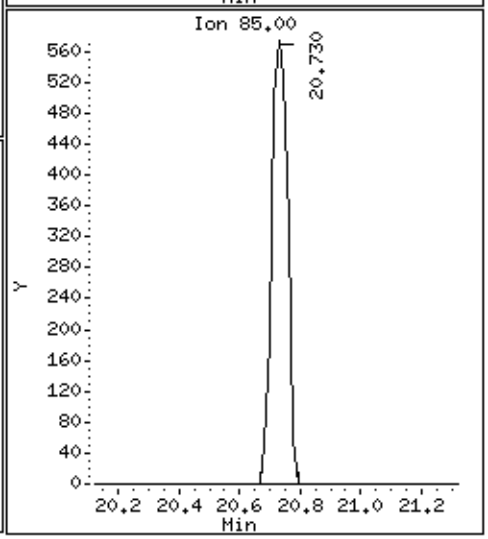












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

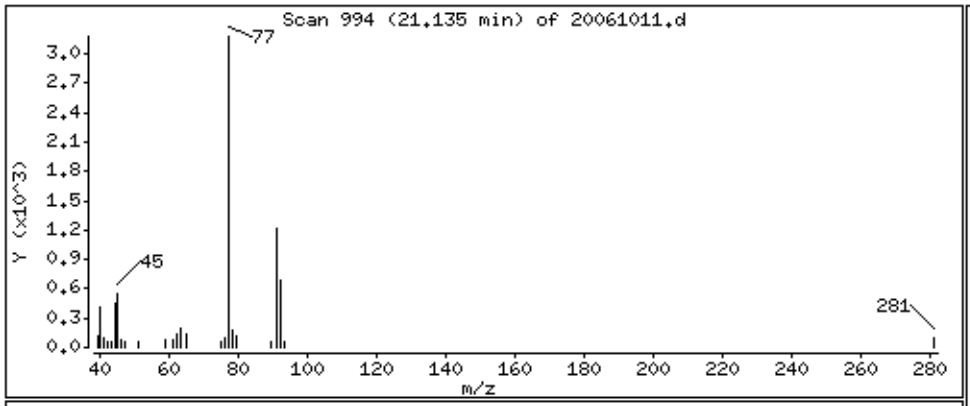
Operator: md

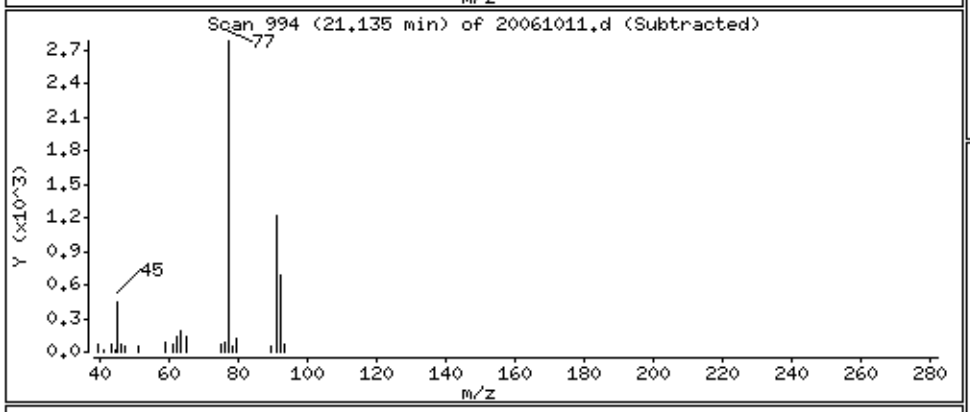
Column phase: RTX-624

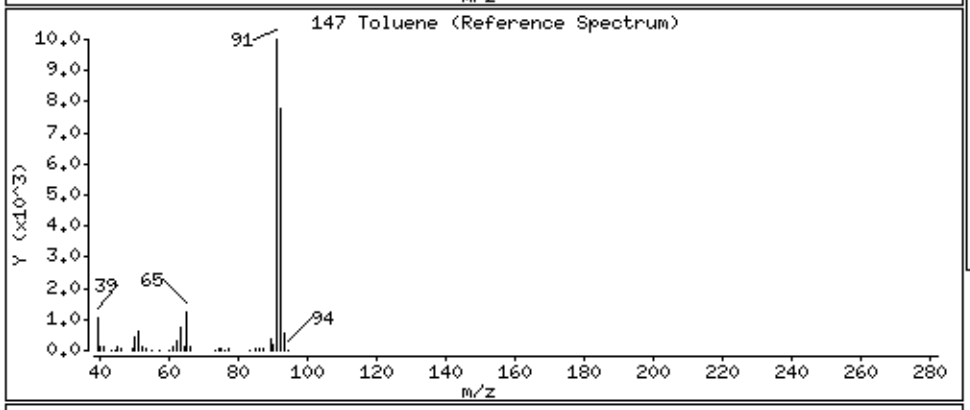
Column diameter: 0.32

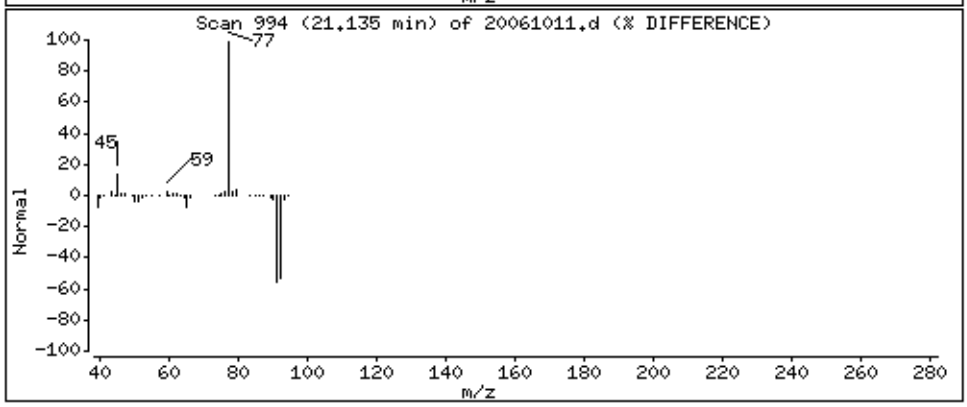
147 Toluene

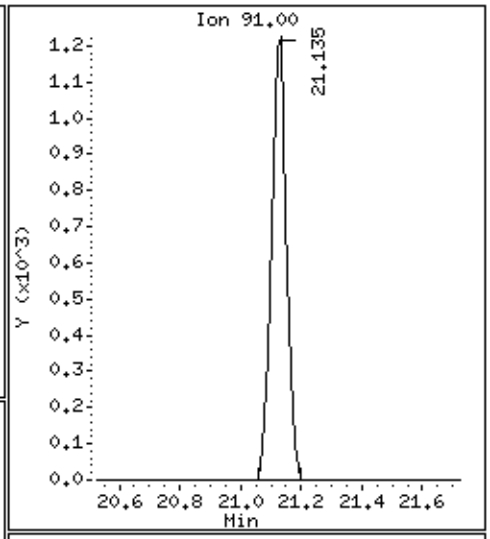
Concentration: 0.1156 PPBV

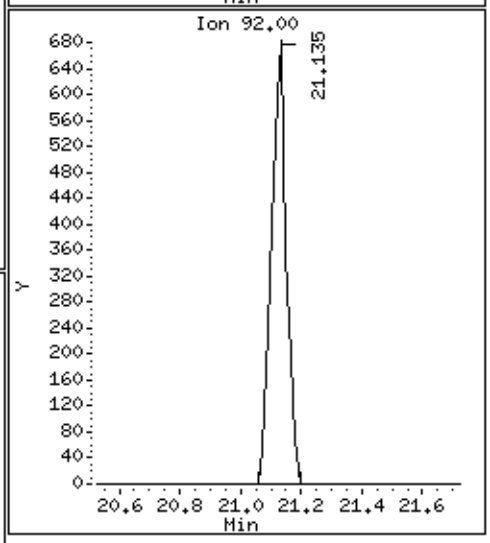












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

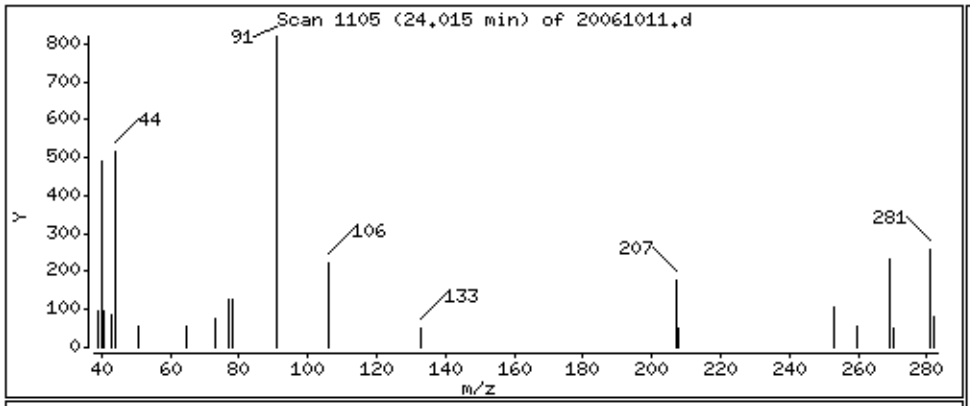
Operator: md

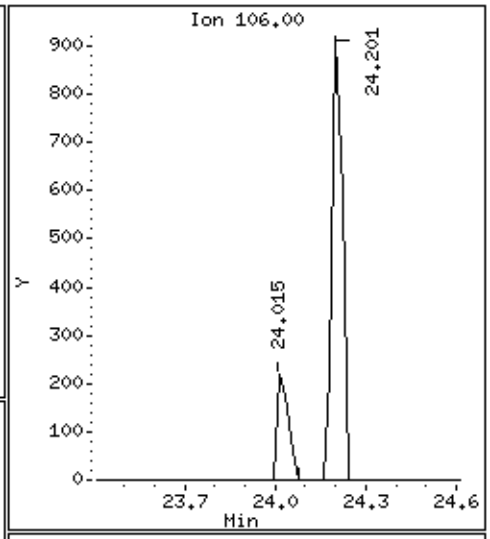
Column phase: RTX-624

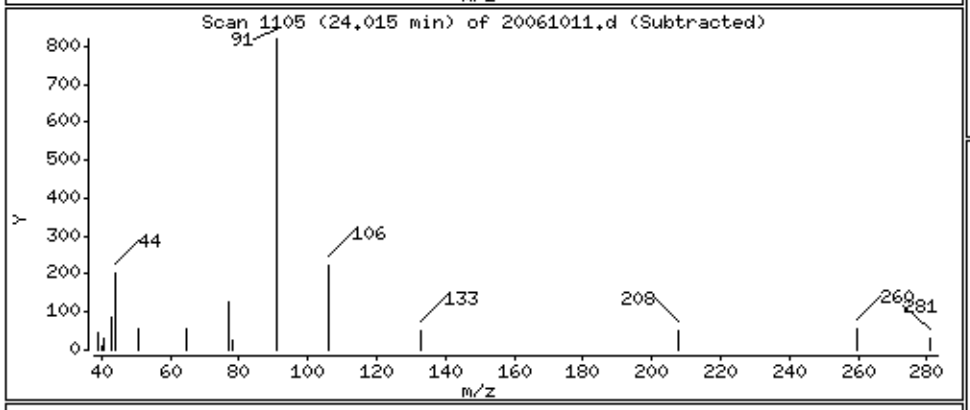
Column diameter: 0.32

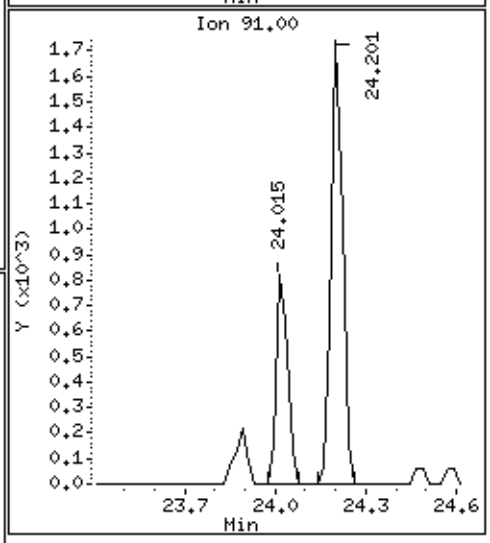
167 Ethyl Benzene

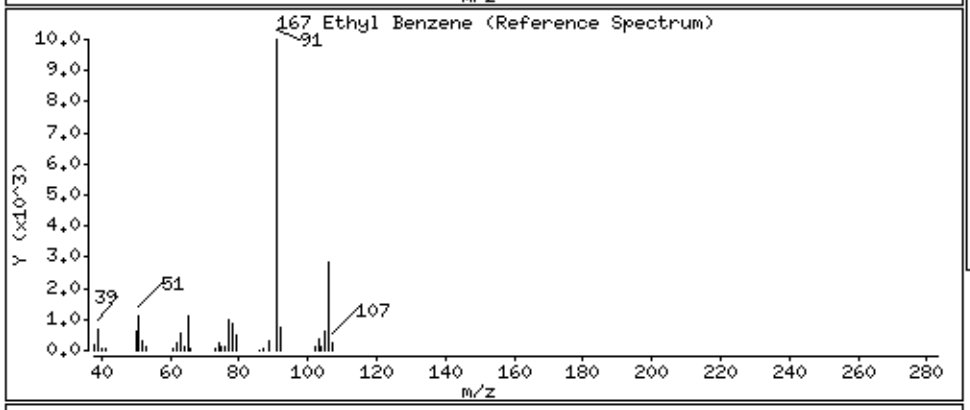
Concentration: 0.03968 PPBV

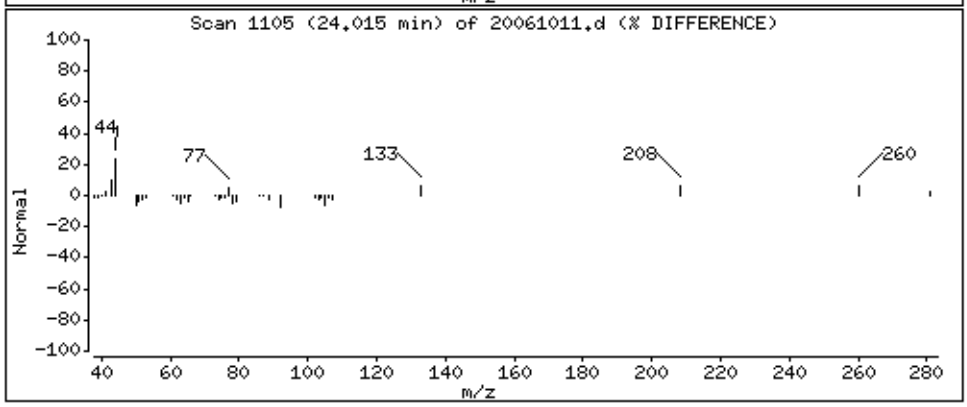












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

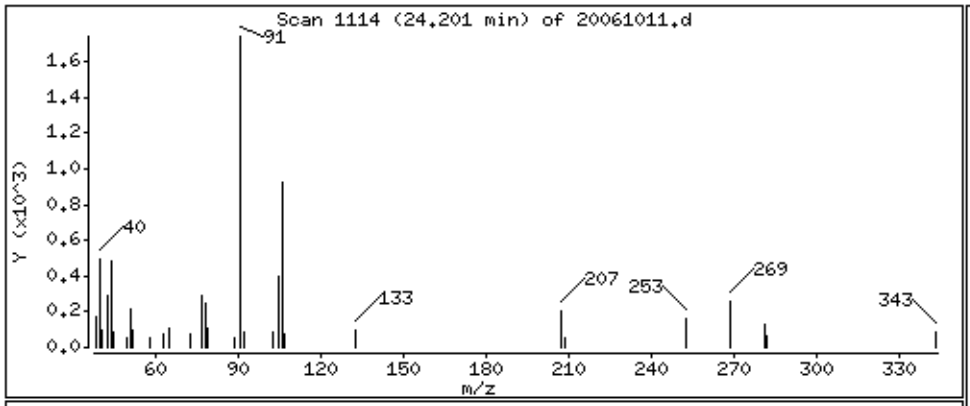
Operator: md

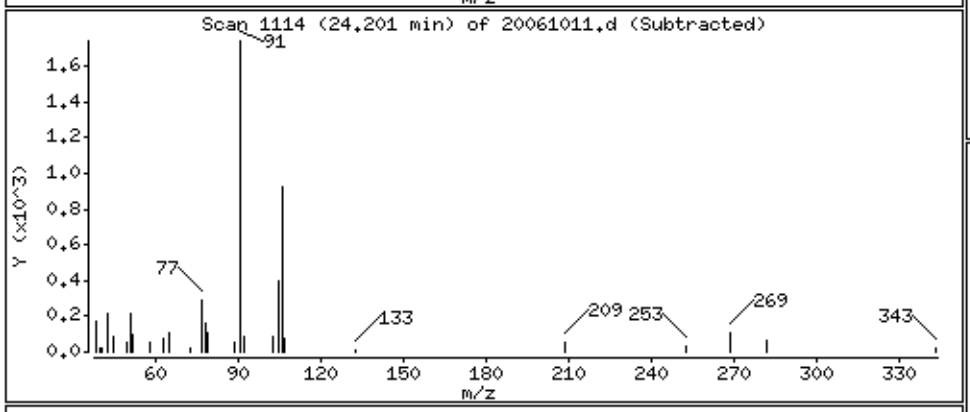
Column phase: RTX-624

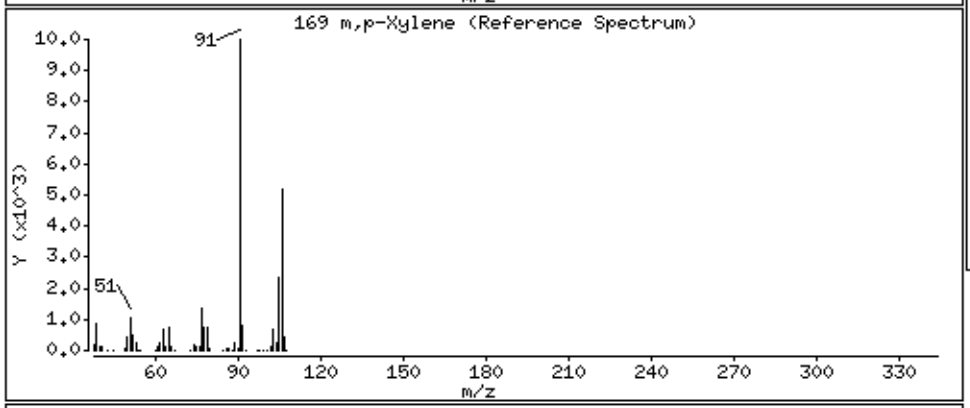
Column diameter: 0.32

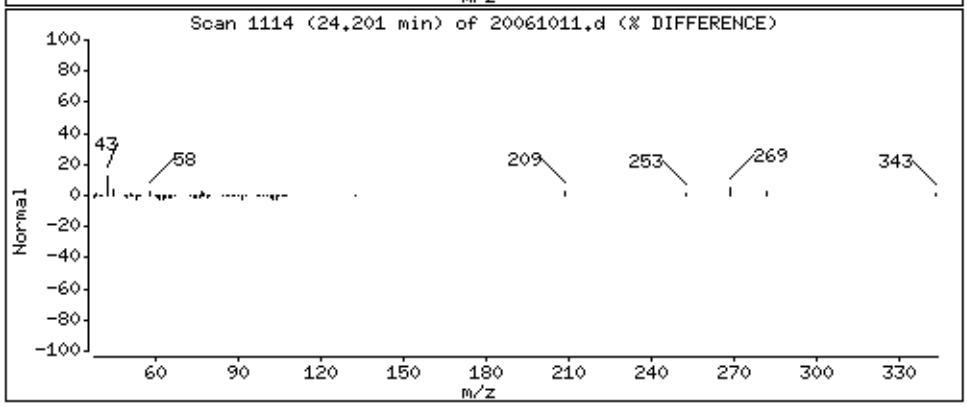
169 m,p-Xylene

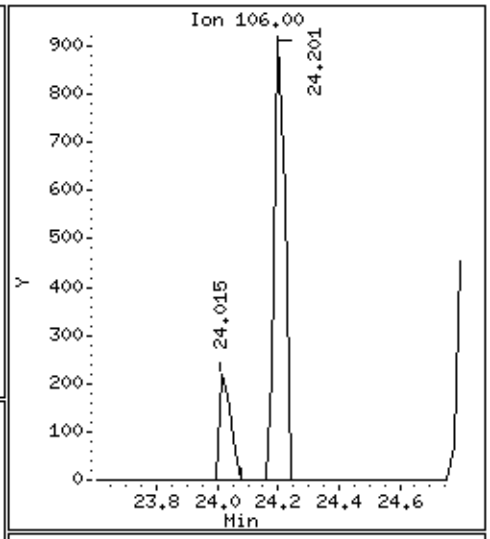
Concentration: 0.1436 PPBV

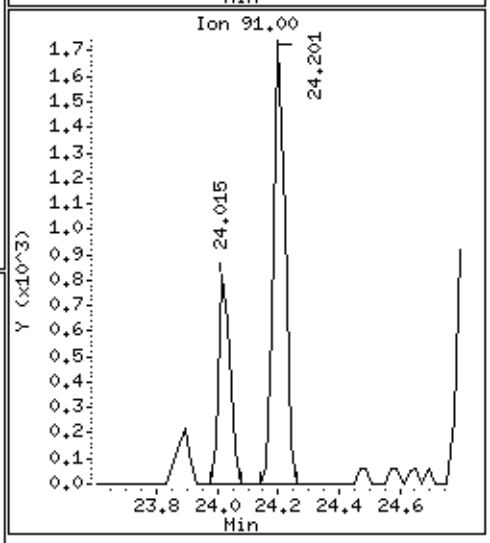












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

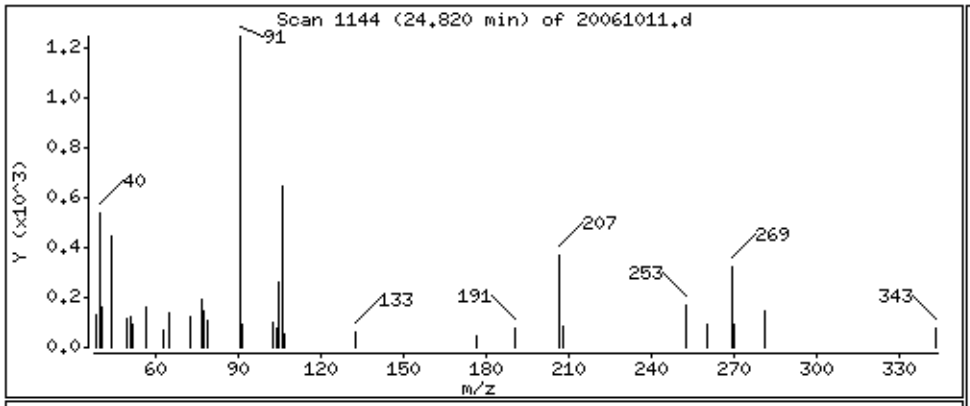
Operator: md

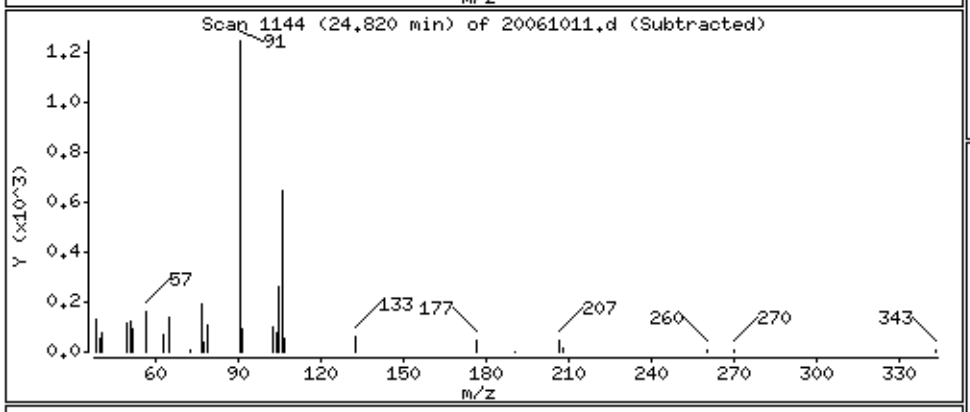
Column phase: RTX-624

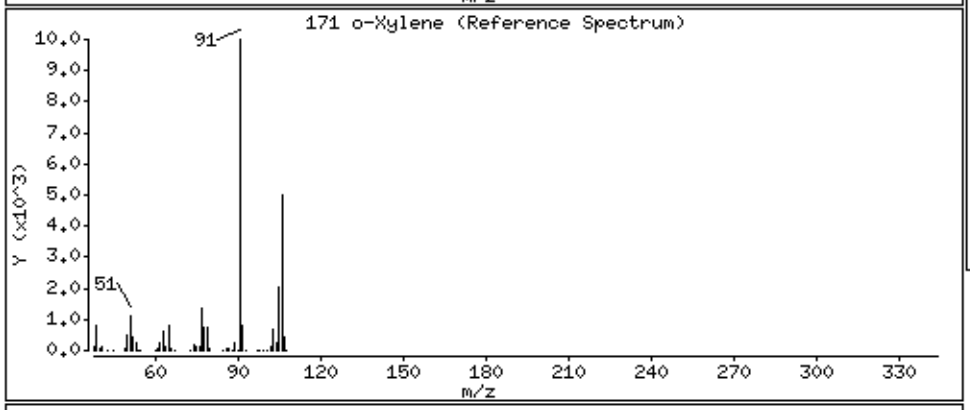
Column diameter: 0.32

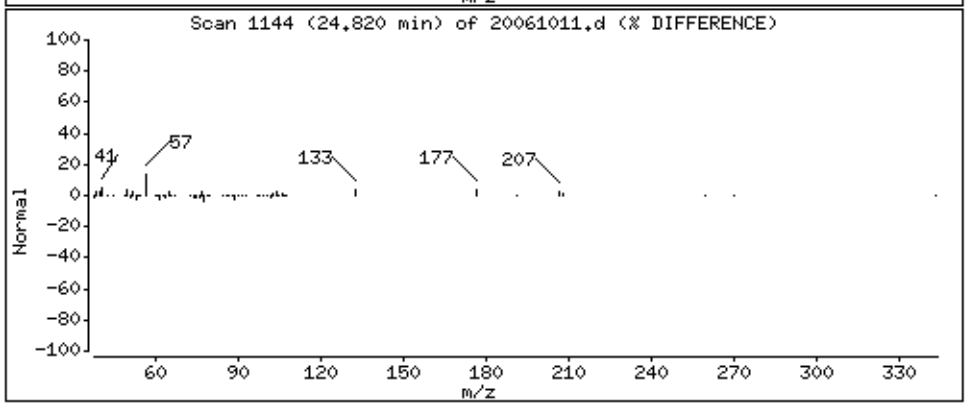
171 o-Xylene

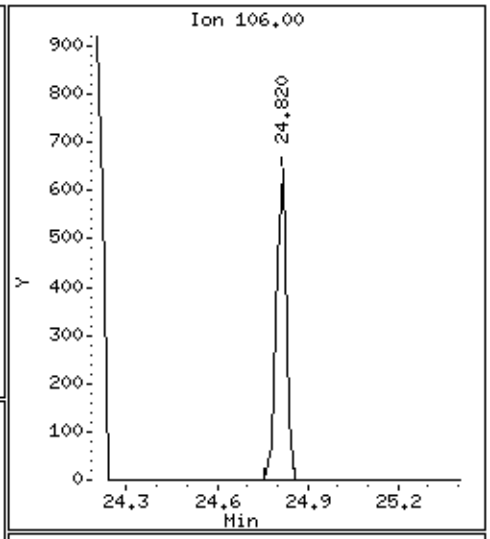
Concentration: 0.1148 PPBV

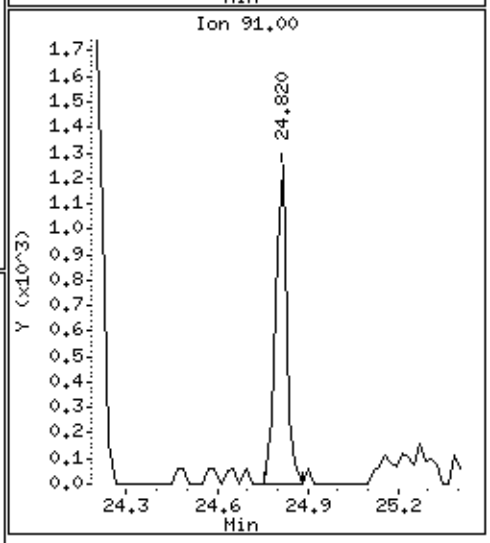












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

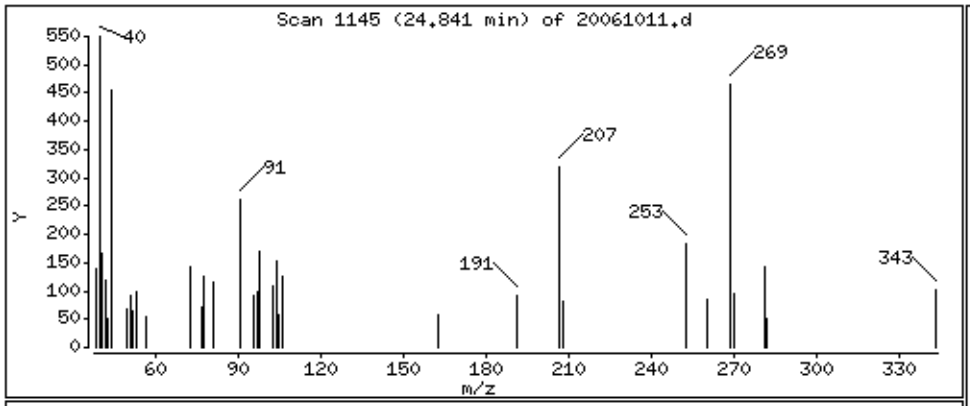
Operator: md

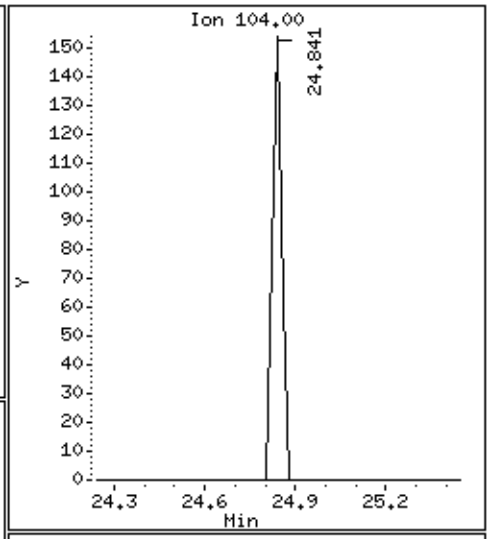
Column phase: RTX-624

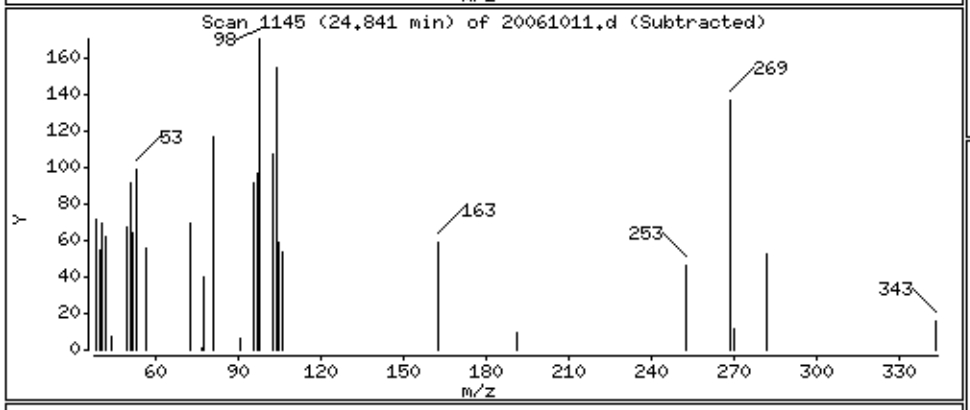
Column diameter: 0.32

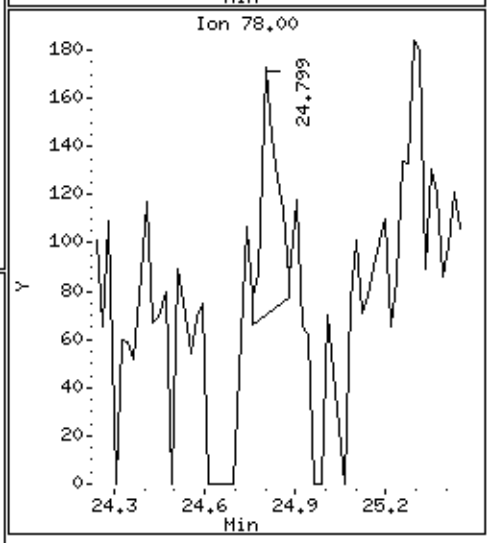
172 Styrene

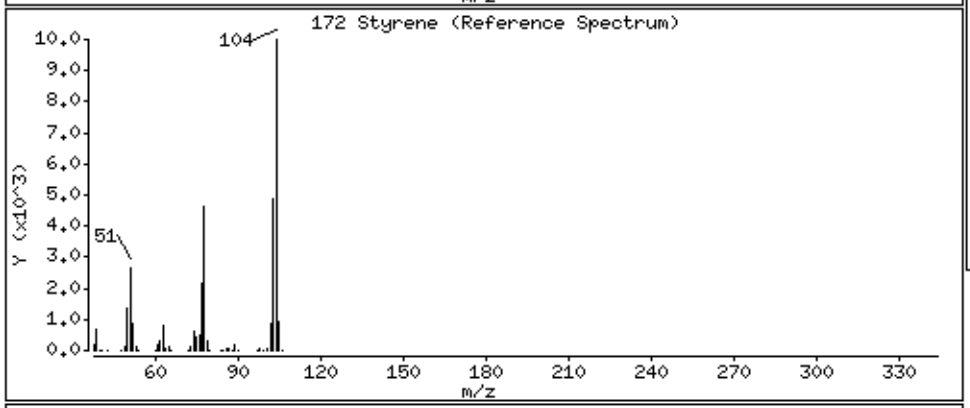
Concentration: 0.01899 PPBV

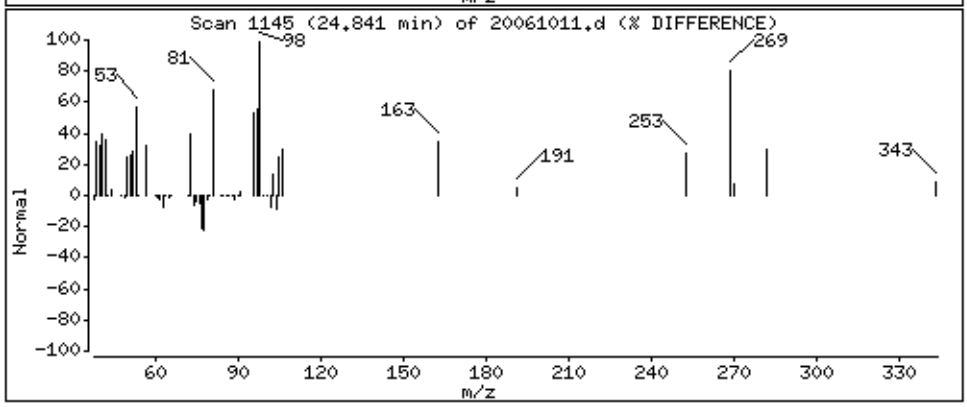












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

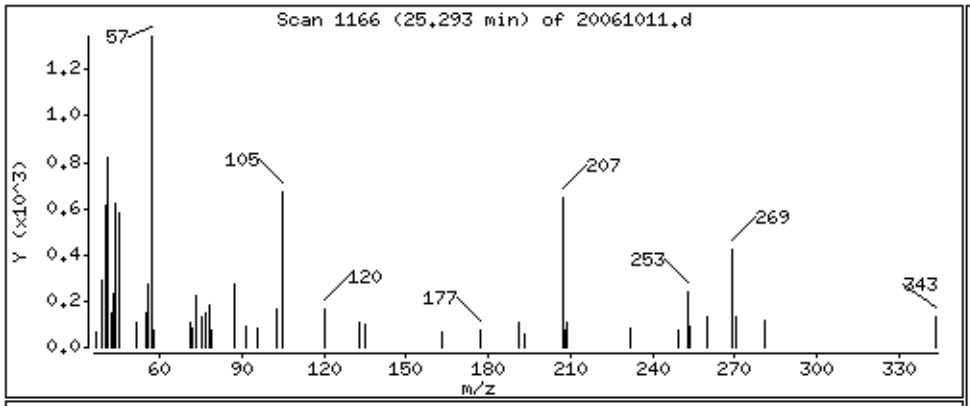
Operator: md

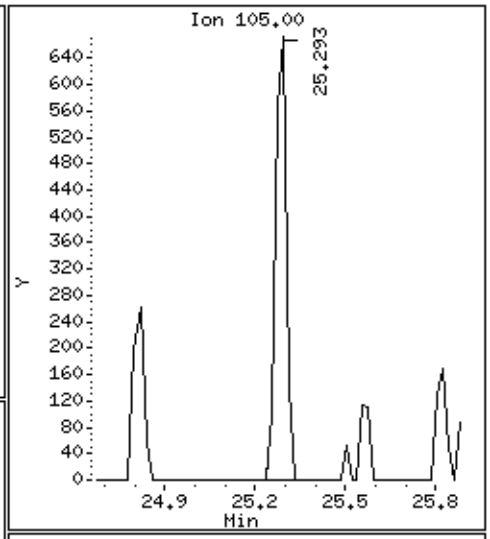
Column phase: RTX-624

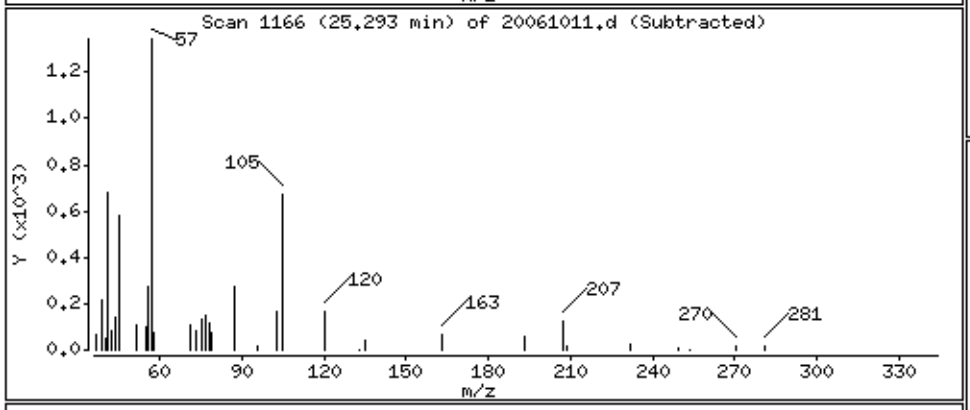
Column diameter: 0.32

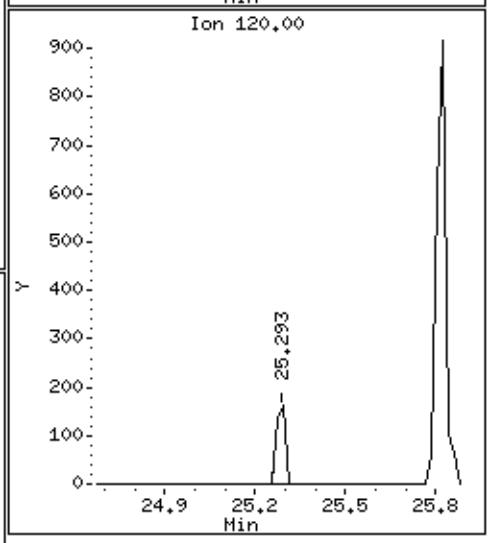
175 Cumene

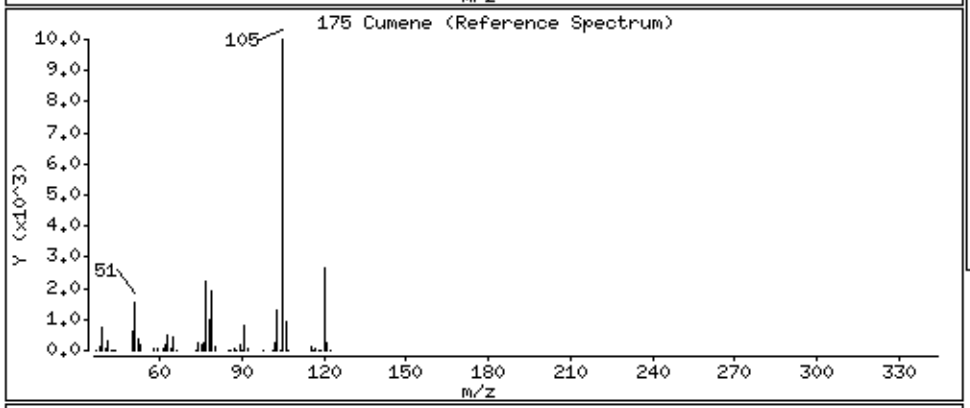
Concentration: 0.03785 PPBV

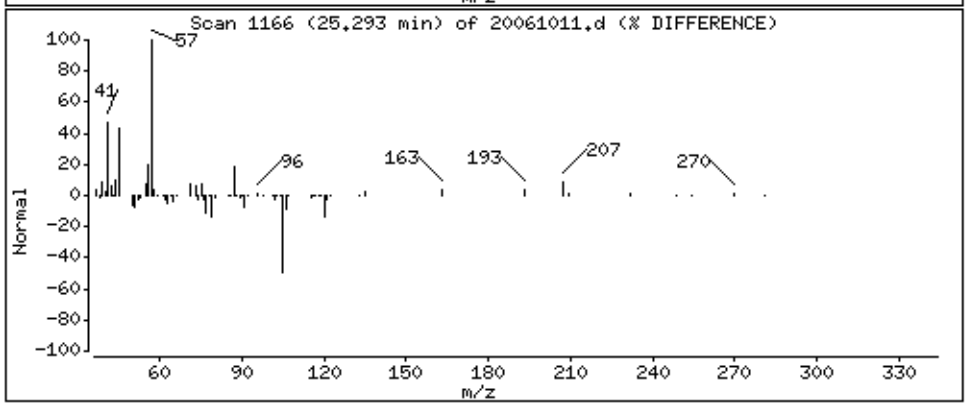












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

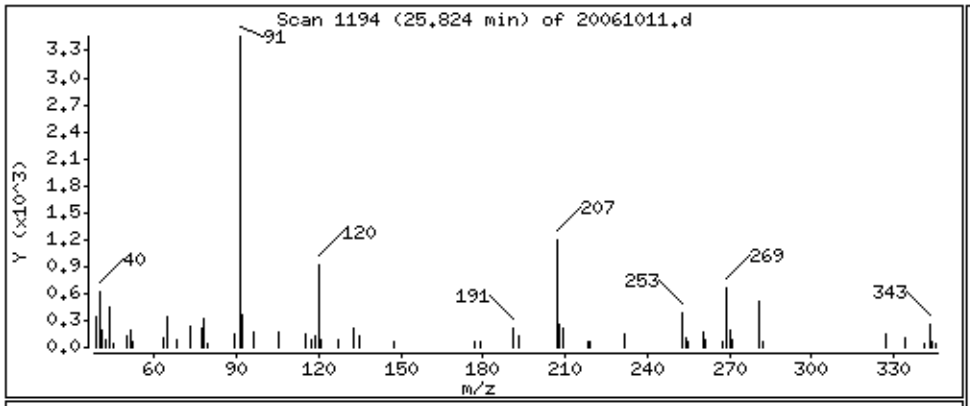
Operator: md

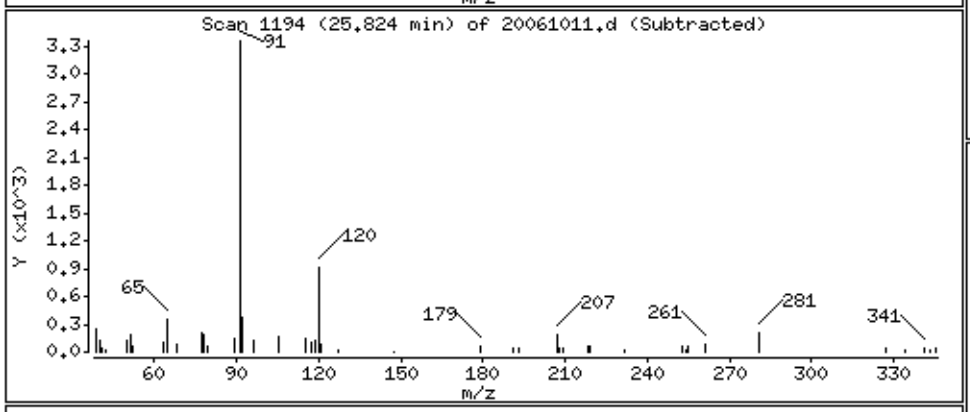
Column phase: RTX-624

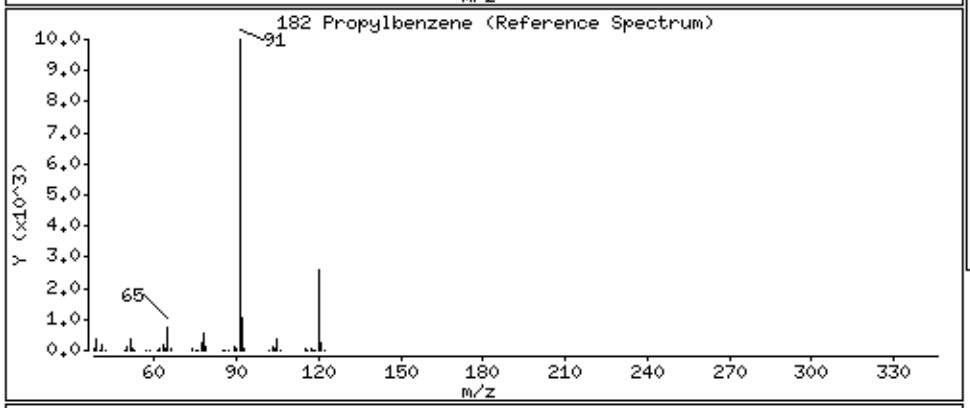
Column diameter: 0.32

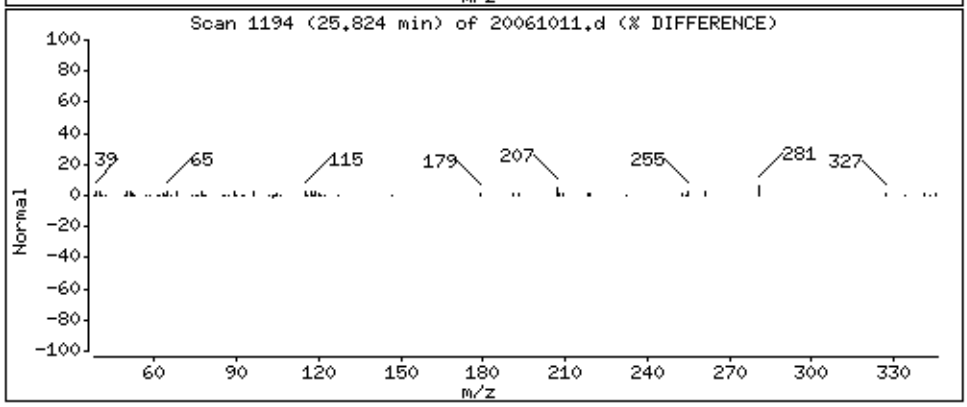
182 Propylbenzene

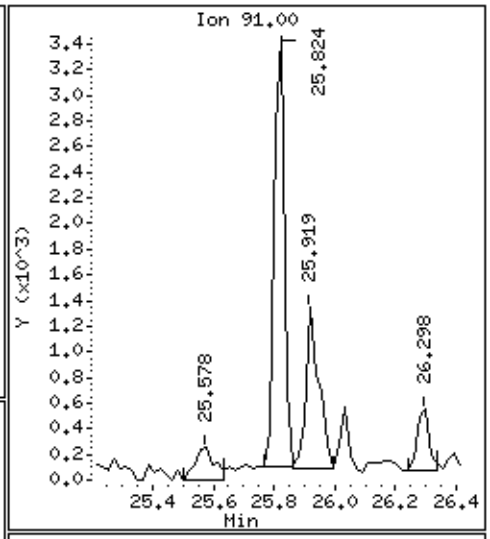
Concentration: 0.1859 PPBV

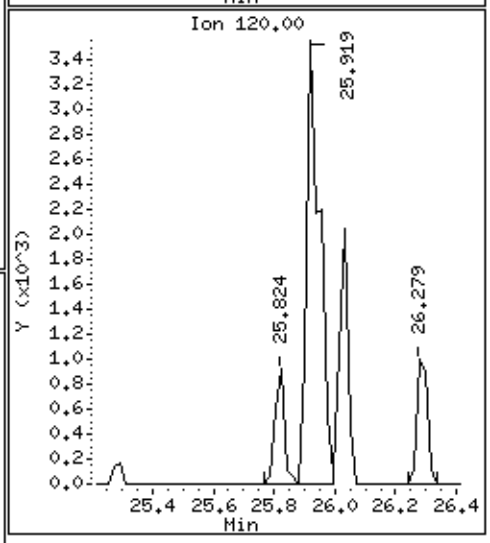












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

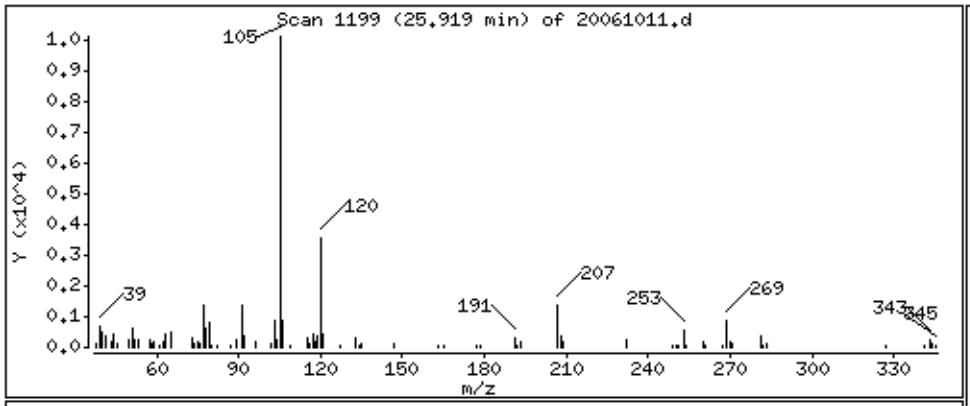
Operator: md

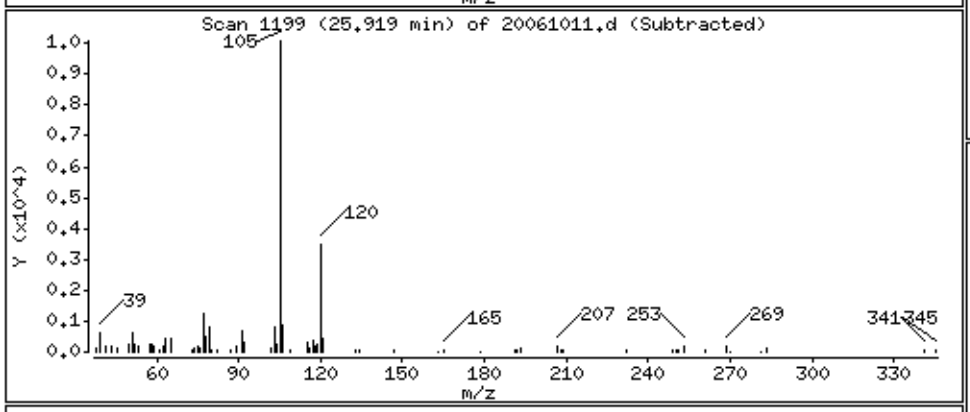
Column phase: RTX-624

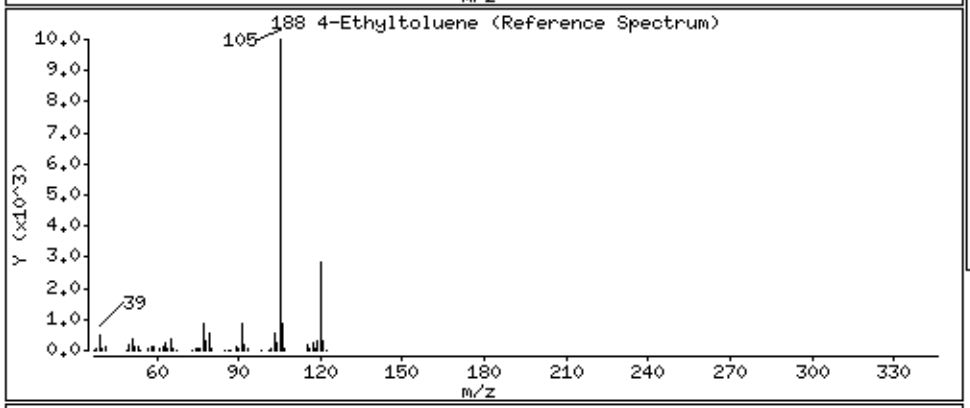
Column diameter: 0.32

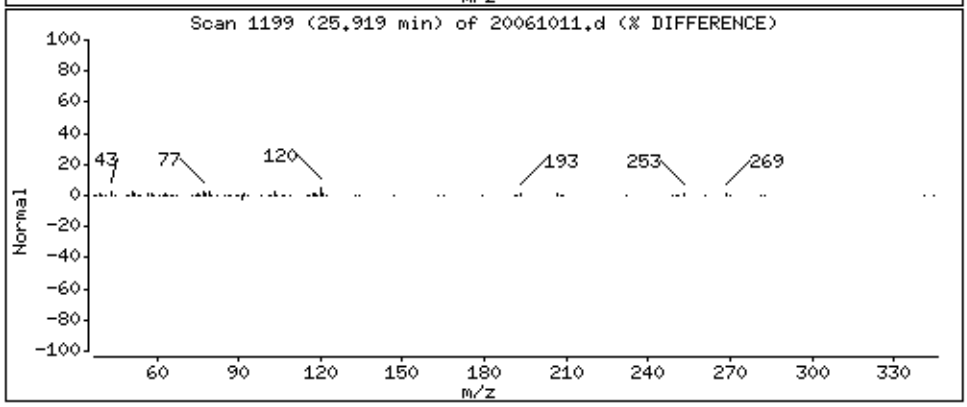
188 4-Ethyltoluene

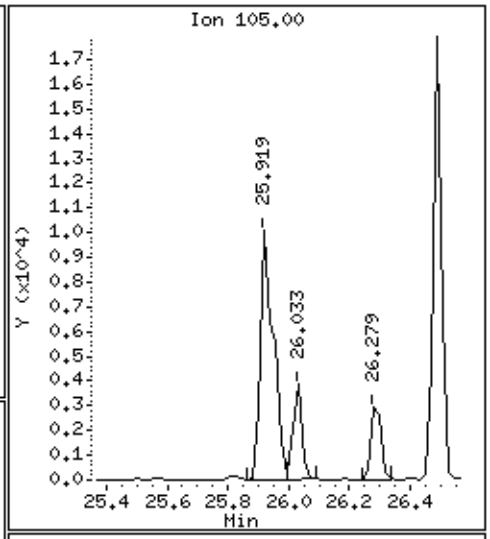
Concentration: 0.8921 PPBV

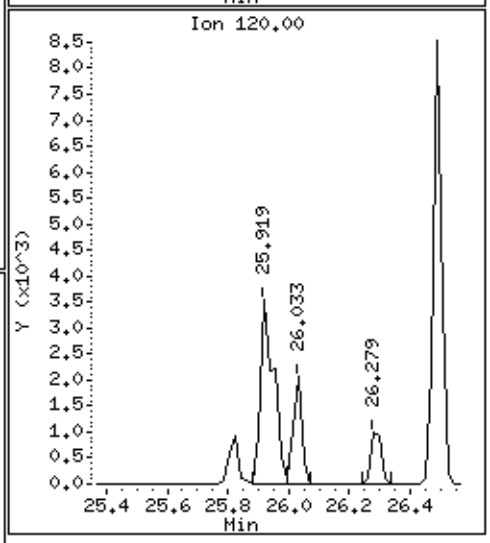












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

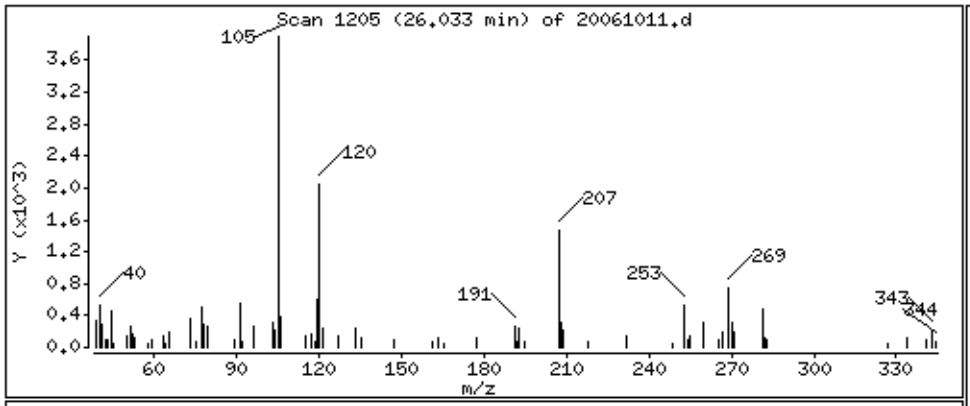
Operator: md

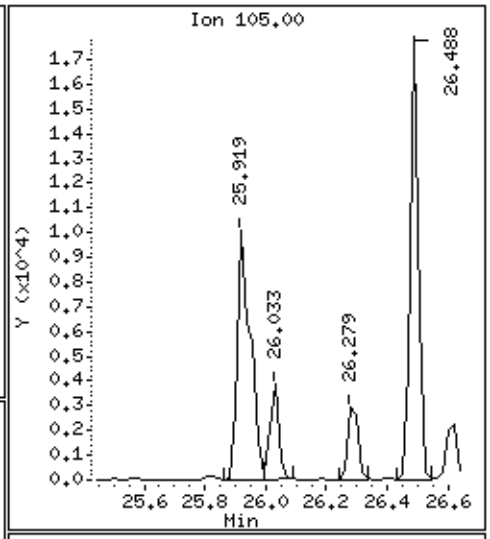
Column phase: RTX-624

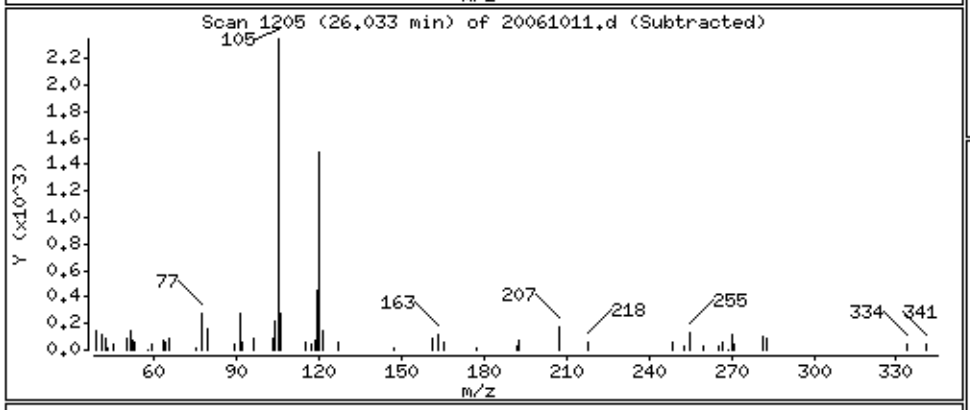
Column diameter: 0.32

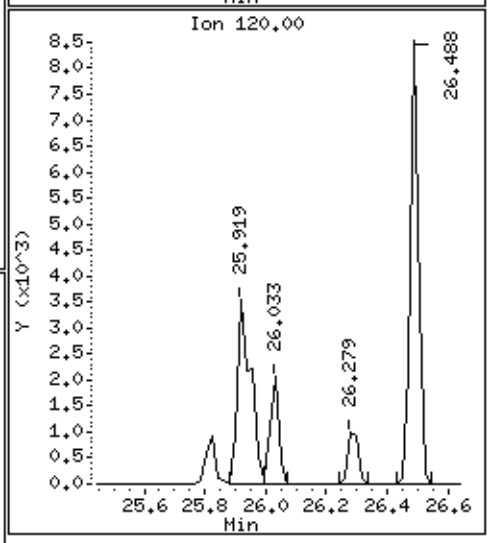
190 1,3,5-Trimethylbenzene

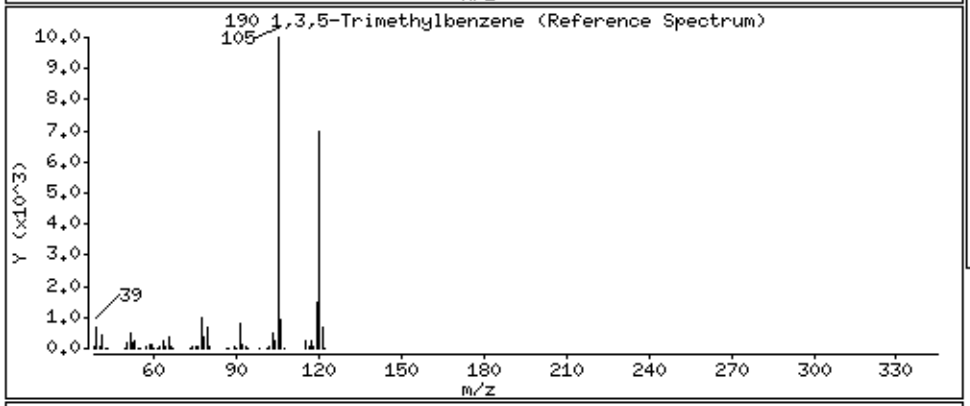
Concentration: 0.2502 PPBV

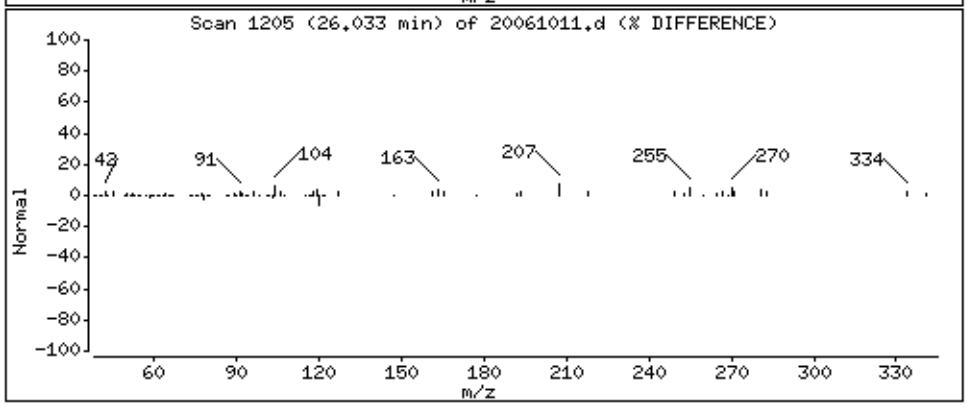












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

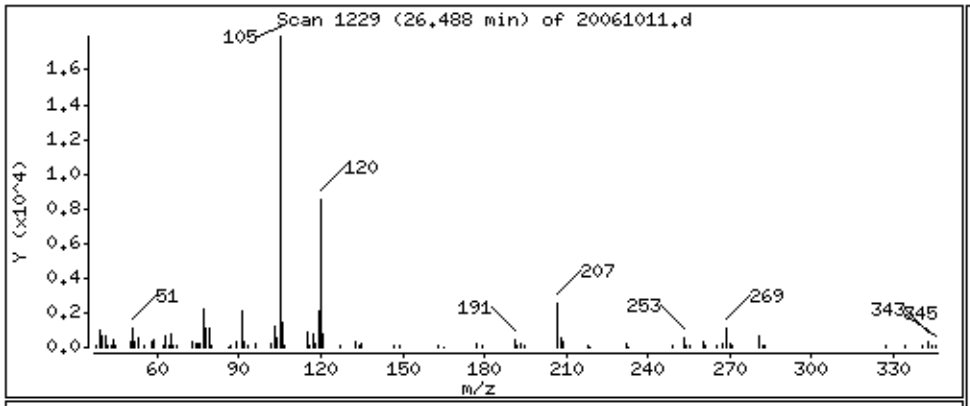
Operator: md

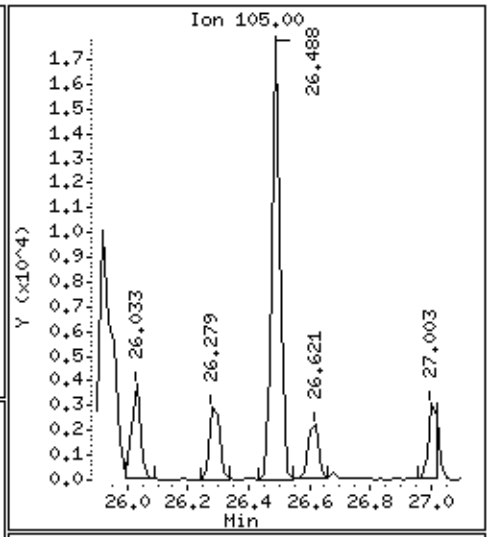
Column phase: RTX-624

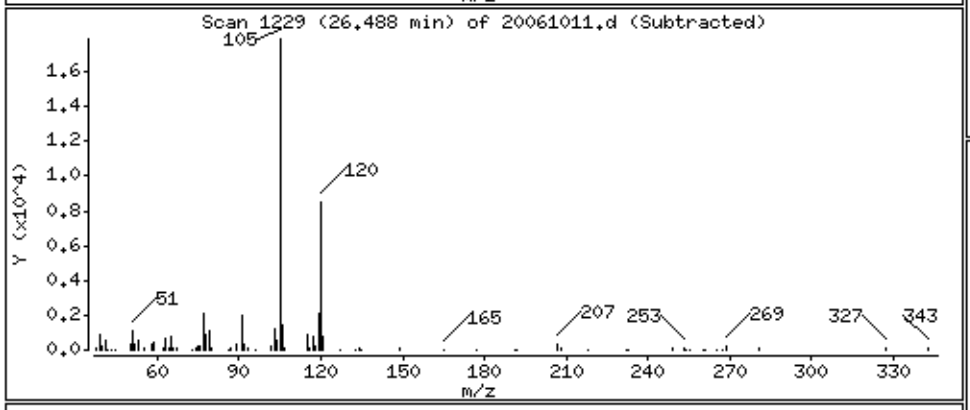
Column diameter: 0.32

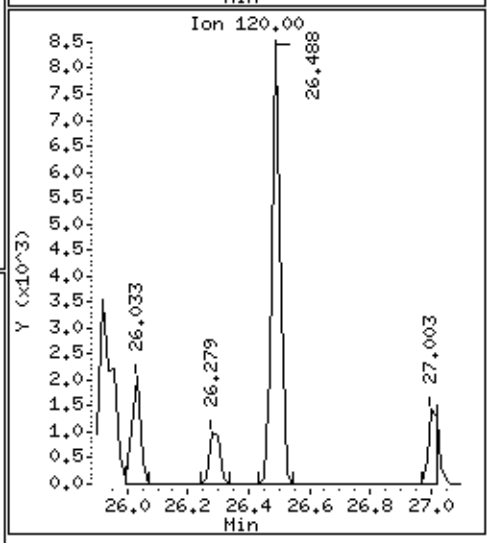
196 1,2,4-Trimethylbenzene

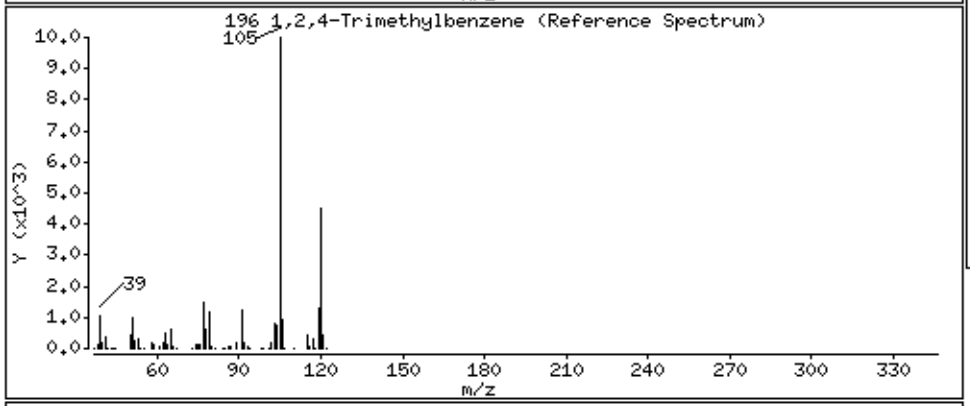
Concentration: 1.103 PPBV

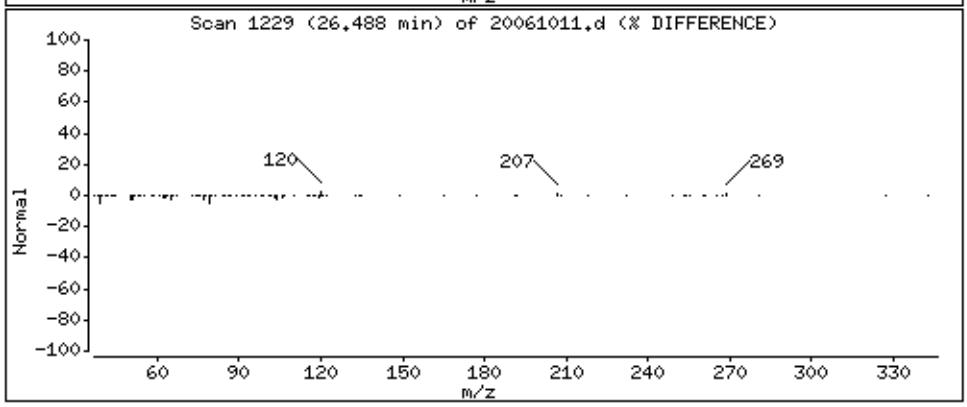












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

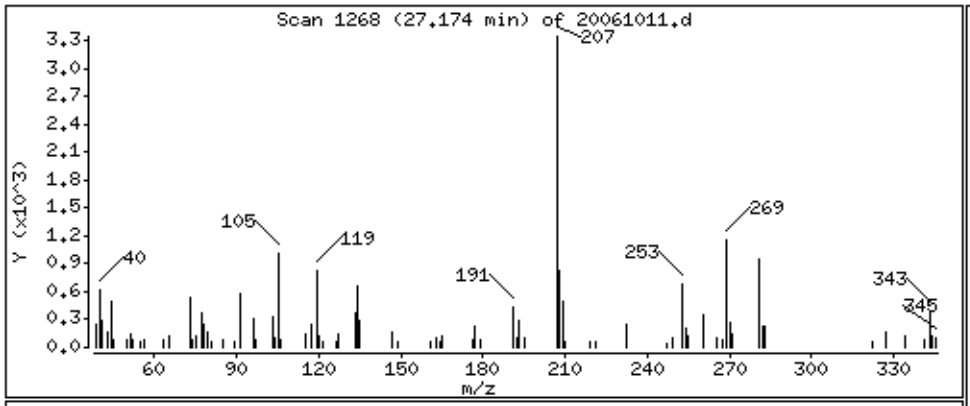
Operator: md

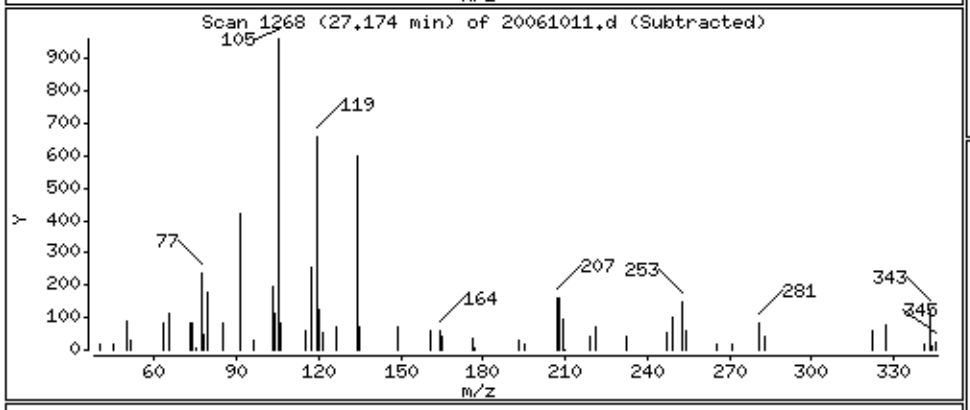
Column phase: RTX-624

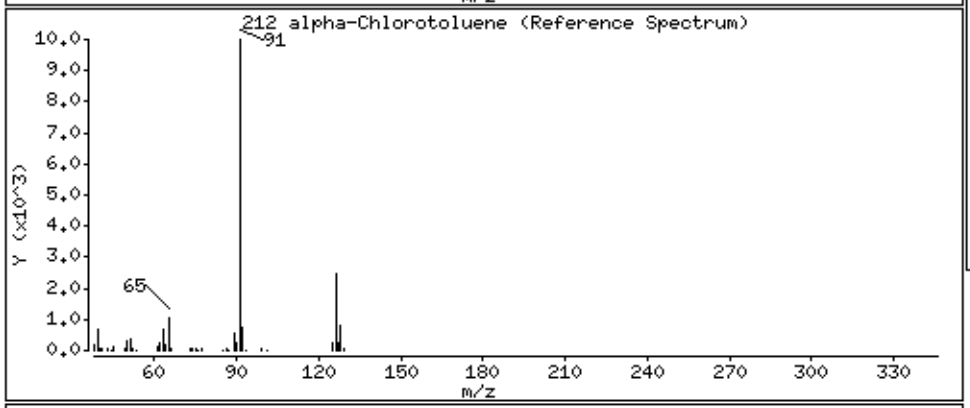
Column diameter: 0.32

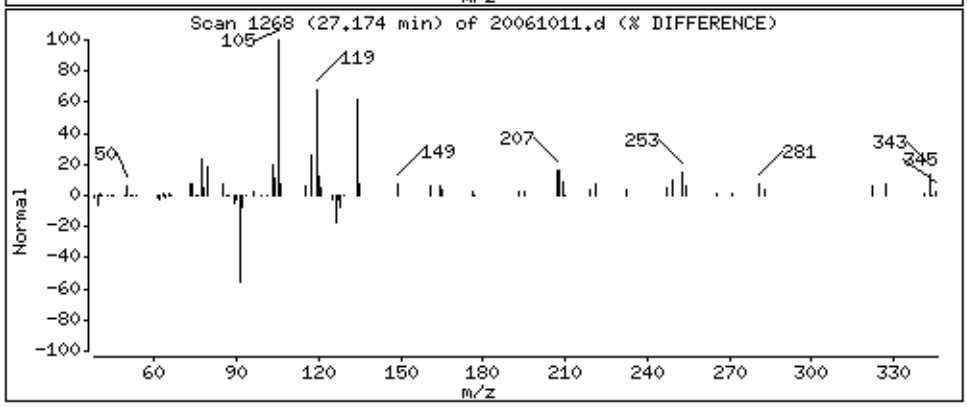
212 alpha-Chlorotoluene

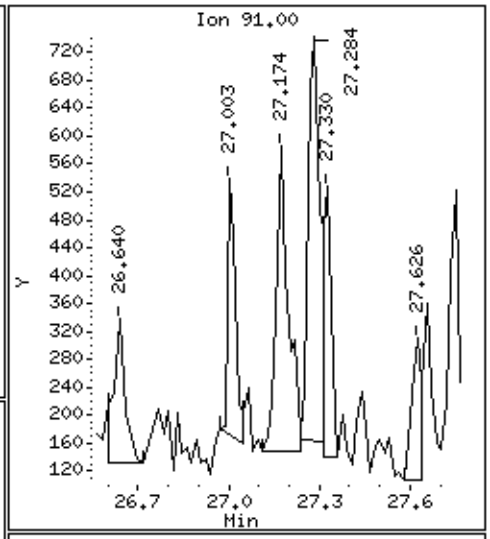
Concentration: 0.05649 PPBV

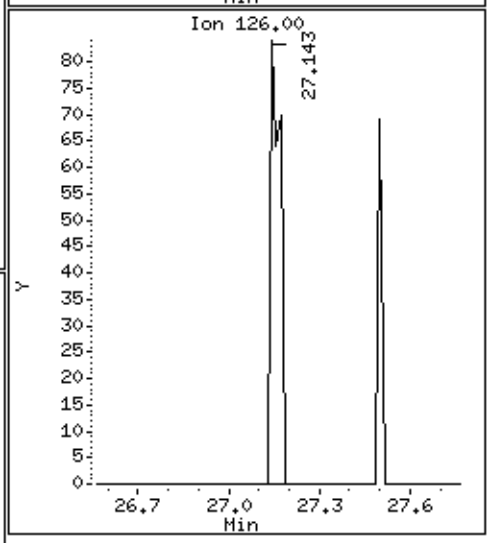












Data File: /chem/msd20.i/10Jun2015.b/20061011.d

Date : 10-JUN-2015 17:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL #22509

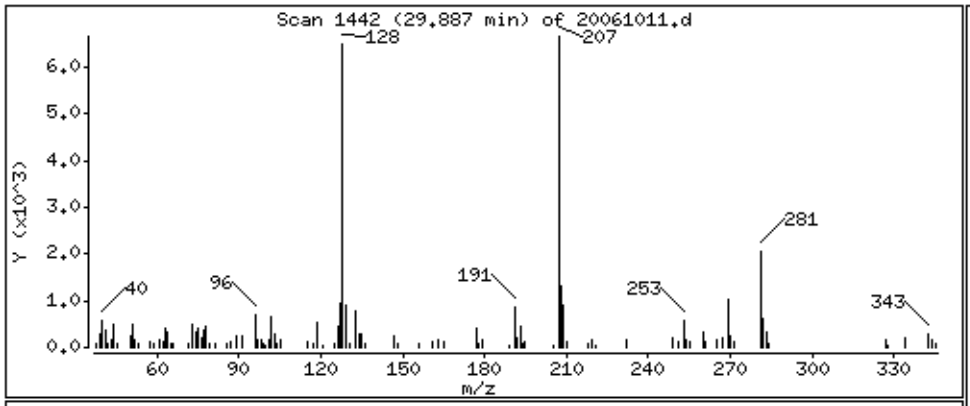
Operator: md

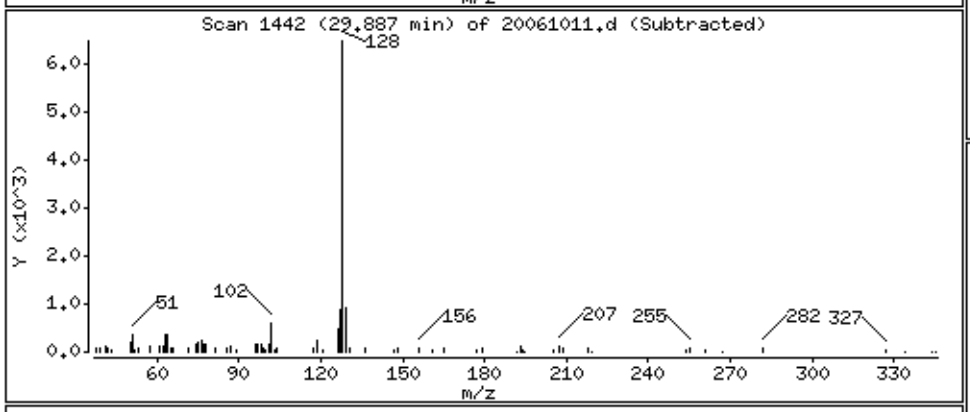
Column phase: RTX-624

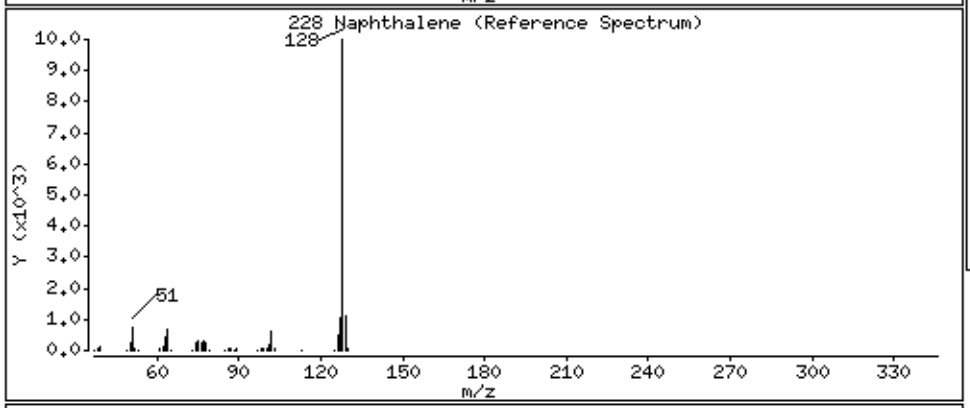
Column diameter: 0.32

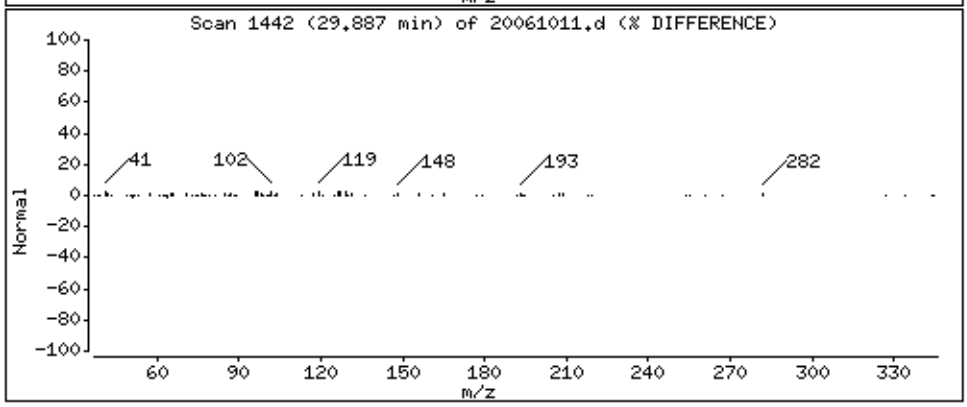
228 Naphthalene

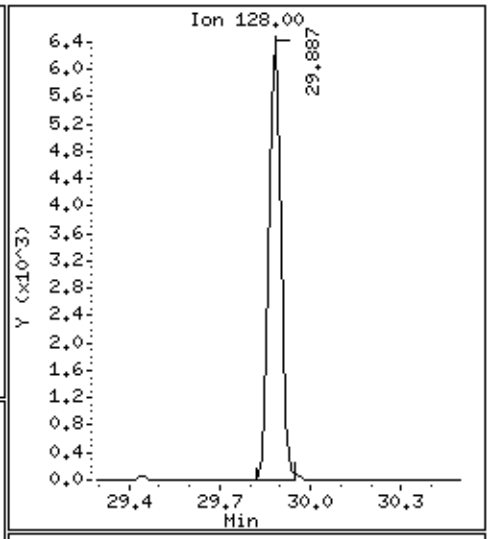
Concentration: 0.6701 PPBV

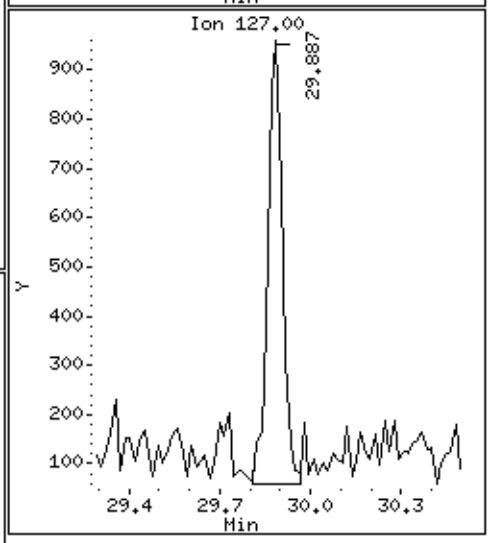












QC Results and Raw Data

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Client Sample ID: Lab Blank

Lab ID#: 1506153A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061007**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/15 02:28 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.10	Not Detected	0.35	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Heptane	0.10	Not Detected	0.41	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1506153A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061007**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/15 02:28 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected
Naphthalene	0.50	Not Detected	2.6	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	94	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/10Jun2015.b/20061007.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 10-JUN-2015 14:28
Operator : sab Inst ID: msd20.i
Smp Info : 250mL# 34034
Misc Info : Humid
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/10Jun2015.b/2015l0506a.m
Meth Date : 10-Jun-2015 13:11 chemist Quant Type: ISTD
Cal Date : 07-MAY-2015 12:38 Cal File: 20050616.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
16.844	16.841 (1.000)	130	70785	5.00000		80.00- 120.00	100.00
16.844	16.841 (1.000)	128	53462			48.56- 108.56	75.53
16.844	16.841 (1.000)	49	73078			77.31- 137.31	103.24
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
17.756	17.753 (1.054)	65	96913	5.44267	5.443	80.00- 120.00	100.00
17.756	17.753 (1.054)	67	51490			27.32- 87.32	53.13
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
18.344	18.341 (1.000)	114	289704	5.00000		80.00- 120.00	100.00
18.344	18.341 (1.000)	88	43513			0.00- 44.67	15.02
$ 146 Toluene-d8						CAS #: 2037-26-5	
20.979	20.982 (1.144)	98	260353	4.84436	4.844	80.00- 120.00	100.00
20.979	20.982 (1.144)	70	27047			0.00- 40.06	10.39
20.979	20.982 (1.144)	100	168890			36.64- 96.64	64.87

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 163 Chlorobenzene-d5						CAS #: 3114-55-4		
23.892	23.895	(1.000)	117	249045	5.00000		80.00- 120.00	100.00
23.892	23.895	(1.000)	82	125760			18.57- 78.57	50.50
$ 177 4-Bromofluorobenzene						CAS #: 460-00-4		
25.578	25.581	(1.071)	174	139844	4.68786	4.688	80.00- 120.00	100.00
25.578	25.562	(1.071)	95	144386			70.67- 130.67	103.25
25.578	25.581	(1.071)	176	134531			67.63- 127.63	96.20

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061007.d
Lab Smp Id: Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: sab
Method File: /chem/msd20.i/10Jun2015.b/2015l0506a.m
Misc Info: Humid

Calibration Date: 10-JUN-2015
Calibration Time: 11:58
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	70421	42253	98589	70785	0.52
123 1,4-Difluorobenze	289237	173542	404932	289704	0.16
163 Chlorobenzene-d5	248624	149174	348074	249045	0.17

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.84	16.51	17.17	16.84	0.02
123 1,4-Difluorobenze	18.34	18.01	18.67	18.34	0.02
163 Chlorobenzene-d5	23.90	23.57	24.23	23.89	-0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 10-Jun-2015 15:20

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 10Jun2015
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: Lab Blank
Client Smp ID: Lab Blank
Level: LOW
Operator: sab
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT12.spk
Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msd20.i/10Jun2015.b/2015l0506a.m
Misc Info: Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.443	108.85	70-130
$ 146 Toluene-d8	5.000	4.844	96.89	70-130
$ 177 4-Bromofluorobenze	5.000	4.688	93.76	70-130

Data File: /chem/msd20.i/10Jun2015.b/20061007.d

Date : 10-JUN-2015 14:28

Client ID: Lab Blank

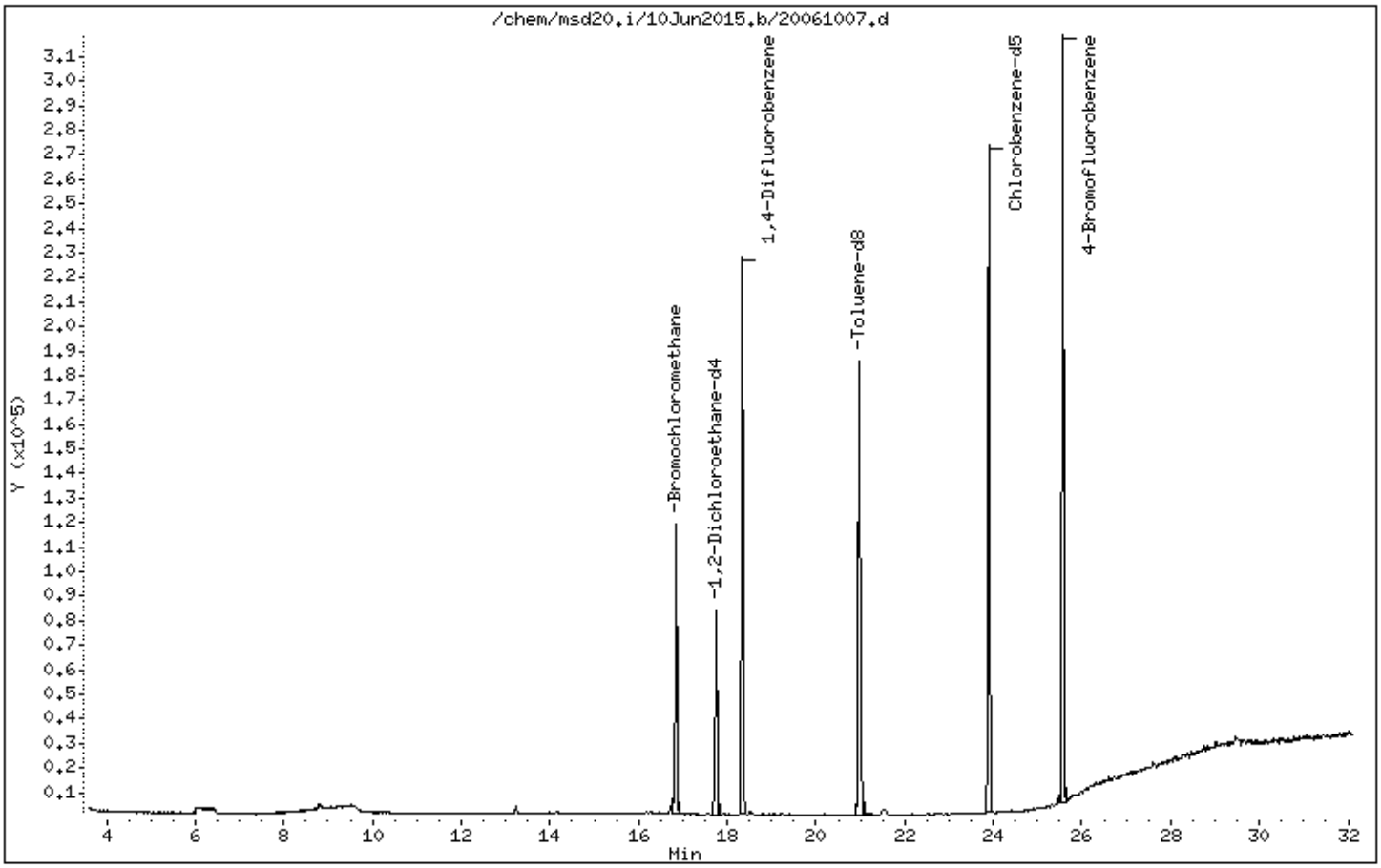
Instrument: msd20.i

Sample Info: 250mL# 34034

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



LEVEL-IV VALIDATABLE

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1506153A

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY								
		1,2-Dichloroethane-d4	#	Toluene-d8	#	4-Bromofluorobenzene	#		#	TOTAL OUT
01	B6-1IA-2	109		96		94				0
02	B6-2IA-2	110		97		93				0
03	B6-2IAD-2	110		97		94				0
04	B6-AA-3	121		98		101				0
05	Lab Blank	109		97		94				0
06	CCV	101		102		102				0
07	LCS	99		102		101				0
08	LCSD	100		102		98				0
09										0
10										0
11										0
12										0
13										0
14										0
15										0
16										0
17										0
18										0
19										0
20										0
21										0
22										0
23										0
24										0

Surrogate Recovery Limits

1,2-Dichloroethane-d4 70 - 130
Toluene-d8 70 - 130
4-Bromofluorobenzene 70 - 130

* Designates values outside of QC limits

LEVEL-IV VALIDATABLE

Modified EPA Method TO-15 GC/MS Full Scan

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name:	AIR TOXICS, LTD	SDG No:	1506153A
Lab File ID:	20061005.d	Date Analyzed:	06/10/2015
Instrument ID:	msd20.i	Time Analyzed:	11:58 AM

		Chlorobenzene-d5 Area	#	RT	#	1,4-Difluorobenzene Area	#	RT	#	Bromochloromethane Area	#	RT	#
	24-HOUR STD	248624		23.9		289237		18.34		70421		16.84	
	UPPER LIMIT	348074		24.23		404932		18.67		98589		17.17	
	LOWER LIMIT	149174		23.57		173542		18.01		42253		16.51	
	CLIENT SAMPLE NO												
01	B6-1IA-2	247594		23.89		290494		18.34		69247		16.84	
02	B6-2IA-2	245345		23.89		289149		18.34		68751		16.84	
03	B6-2IAD-2	242135		23.9		288670		18.34		68908		16.84	
04	B6-AA-3	238432		23.89		279904		18.34		63836		16.84	
05	Lab Blank	249045		23.89		289704		18.34		70785		16.84	
06	CCV	248624		23.9		289237		18.34		70421		16.84	
07	LCS	251634		23.9		291895		18.34		71416		16.84	
08	LCSD	249298		23.9		289707		18.34		72117		16.84	
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

'Area Upper Limit=+40% of internal standard area'
'Area Lower Limit=-40% of internal standard area'

RT Upper Limit=+0.33 minutes of internal standard RT
RT Lower Limit=-0.33 minutes of internal standard RT

* Designates values outside of QC limits

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: 20061004.d & 20061003.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 6/10/15 & 6/10/15

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
71-55-6	1,1,1-Trichloroethane	100		98		2.0	
79-34-5	1,1,2,2-Tetrachloroethane	108		103		4.7	
79-00-5	1,1,2-Trichloroethane	102		102		0	
75-34-3	1,1-Dichloroethane	103		99		4.0	
75-35-4	1,1-Dichloroethene	102		99		3.0	
120-82-1	1,2,4-Trichlorobenzene	100		78		25	
95-63-6	1,2,4-Trimethylbenzene	97		90		7.5	
106-93-4	1,2-Dibromoethane (EDB)	105		104		0.96	
95-50-1	1,2-Dichlorobenzene	100		90		10	
107-06-2	1,2-Dichloroethane	97		99		2.0	
78-87-5	1,2-Dichloropropane	103		101		2.0	
108-67-8	1,3,5-Trimethylbenzene	102		95		7.1	
106-99-0	1,3-Butadiene	103		98		5.0	
541-73-1	1,3-Dichlorobenzene	102		91		11	
106-46-7	1,4-Dichlorobenzene	100		90		10	
123-91-1	1,4-Dioxane	106		106		0	
540-84-1	2,2,4-Trimethylpentane	130		100		-->26<--	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	103		99		4.0	
591-78-6	2-Hexanone	110		106		3.7	
67-63-0	2-Propanol	109		106		2.8	
107-05-1	3-Chloropropene	101		98		3.0	
622-96-8	4-Ethyltoluene	106		96		9.9	
108-10-1	4-Methyl-2-pentanone	113		112		0.89	
67-64-1	Acetone	100		94		6.2	
100-44-7	alpha-Chlorotoluene	115		101		13	
71-43-2	Benzene	99		99		0	
75-27-4	Bromodichloromethane	110		109		0.91	
75-25-2	Bromoform	113		109		3.6	
74-83-9	Bromomethane	117		115		1.7	
75-15-0	Carbon Disulfide	90		88		2.2	
56-23-5	Carbon Tetrachloride	118		116		1.7	
108-90-7	Chlorobenzene	99		98		1.0	
75-00-3	Chloroethane	107		104		2.8	
67-66-3	Chloroform	100		98		2.0	
74-87-3	Chloromethane	103		100		3.0	
156-59-2	cis-1,2-Dichloroethene	113		111		1.8	
10061-01-5	cis-1,3-Dichloropropene	97		94		3.1	
98-82-8	Cumene	109		102		6.6	
110-82-7	Cyclohexane	104		101		2.9	
124-48-1	Dibromochloromethane	112		108		3.6	
64-17-5	Ethanol	109		106		2.8	
100-41-4	Ethyl Benzene	104		103		0.97	
75-69-4	Freon 11	107		104		2.8	
76-13-1	Freon 113	95		93		2.1	
76-14-2	Freon 114	107		104		2.8	

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: 20061004.d & 20061003.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 6/10/15 & 6/10/15

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
75-71-8	Freon 12	108		105		2.8	
142-82-5	Heptane	106		105		0.95	
87-68-3	Hexachlorobutadiene	106		84		23	
110-54-3	Hexane	104		102		1.9	
108-38-3	m,p-Xylene	109		102		6.6	
1634-04-4	Methyl tert-butyl ether	102		98		4.0	
75-09-2	Methylene Chloride	99		95		4.1	
91-20-3	Naphthalene	80		57		-->34<--	
95-47-6	o-Xylene	111		105		5.6	
103-65-1	Propylbenzene	108		97		11	
100-42-5	Styrene	109		101		7.6	
127-18-4	Tetrachloroethene	100		100		0	
109-99-9	Tetrahydrofuran	103		101		2.0	
108-88-3	Toluene	102		100		2.0	
156-60-5	trans-1,2-Dichloroethene	86		85		1.2	
10061-02-6	trans-1,3-Dichloropropene	104		103		0.97	
79-01-6	Trichloroethene	99		98		1.0	
75-01-4	Vinyl Chloride	108		104		3.8	

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-MAY-2015 15:08
End Cal Date : 07-MAY-2015 18:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/06May2015.b/2015l0506a.m
Cal Date : 07-May-2015 19:53 cbond
Curve Type : Average

Calibration File Names:
Level 5: /chem/msd20.i/06May2015.b/20050604.d
Level 6: /chem/msd20.i/06May2015.b/20050616.d
Level 7: /chem/msd20.i/06May2015.b/20050605.d
Level 8: /chem/msd20.i/06May2015.b/20050706.d
Level 12: /chem/msd20.i/06May2015.b/20050606.d
Level 13: /chem/msd20.i/06May2015.b/20050607.d
Level 15: /chem/msd20.i/06May2015.b/20050608.d
Level 16: /chem/msd20.i/06May2015.b/20050609.d

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16	___ RRF	% RSD
1 Dimethyl Ether	#####	#####	#####	#####	#####	#####	#####	#####		
2 Freon 14	#####	#####	#####	#####	#####	#####	#####	#####		
3 Acetaldehyde	#####	#####	#####	#####	#####	#####	#####	#####		
4 Hexafluoropropene	#####	#####	#####	#####	#####	#####	#####	#####		
5 Freon 13	#####	#####	#####	#####	#####	#####	#####	#####		
6 Freon 143a	#####	#####	#####	#####	#####	#####	#####	#####		
7 Freon 134a	#####	#####	#####	#####	#####	#####	#####	#####		

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Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
	20.000 Level 15	40.000 Level 16						
8 Propane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
9 Propylene	+++++	+++++	0.91726	0.81556	0.87650	0.89754		
	0.84793	0.77419					0.85483	6.253
10 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
11 Freon 12	+++++	3.47291	3.44182	3.56099	3.62693	3.44215		
	3.20644	2.92796					3.38274	7.083
12 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
13 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
14 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
15 Freon 114	2.82967	3.07398	2.84550	2.91324	2.90494	2.75444		
	2.56204	2.39307					2.78461	7.729
16 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
17 Chloromethane	+++++	+++++	1.13058	1.12516	1.03204	0.96769		
	0.90077	0.82882					0.99751	12.188

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Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
	20.000 Level 15	40.000 Level 16						
18 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
19 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
20 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
21 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
22 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
23 Butane	+++++	+++++	0.20082	0.24693	0.24416	0.22938		
	0.22049	0.20843					0.22503	8.306
24 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
25 Vinyl Chloride	1.34499	1.12089	1.12689	1.17585	1.21222	1.16191		
	1.10211	1.02534					1.15878	8.076
26 1,3-Butadiene	+++++	1.02449	0.80410	0.80954	0.87167	0.82516		
	0.79685	0.74000					0.83883	10.809
27 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
	20.000 Level 15	40.000 Level 16						
28 Methanol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
29 Bromomethane	+++++	+++++	0.72720	0.85098	1.05228	1.03964		
	0.91011	0.85832					0.90642	13.650
30 Chloroethane	+++++	+++++	0.54593	0.56960	0.58670	0.56711		
	0.54760	0.52049					0.55624	4.165
31 Isopentane	+++++	+++++	0.90477	0.89973	0.96549	0.93478		
	0.90393	0.84597					0.90911	4.388
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
33 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
34 Pentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
35 Freon 11	3.56389	3.75595	3.61734	3.67607	3.77459	3.54774		
	3.33056	3.08021					3.54329	6.593
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
37 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
	20.000 Level 15	40.000 Level 16						
38 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
39 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
40 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
41 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
42 Ethanol	+++++	+++++	0.39939	0.39980	0.40220	0.39179		
	0.39553	0.37343					0.39369	2.687
43 1,2-Dichloro-1-fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
44 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
45 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
46 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
47 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
	20.000 Level 15	40.000 Level 16						
48 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
49 Freon 113	3.39820	3.11808	2.72015	2.90189	2.90815	2.73099		
	2.60850	2.43521					2.85265	10.598
50 1,1-Dichloroethene	+++++	0.86041	0.80626	0.84039	0.87054	0.83907		
	0.81457	0.76289					0.82773	4.419
51 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
52 Acetone	+++++	+++++	0.62039	0.68650	0.58640	0.55713		
	0.53954	0.51007					0.58334	10.842
53 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
54 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
55 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
56 Carbon Disulfide	+++++	+++++	3.34996	3.54938	3.84850	3.71385		
	3.56932	3.36717					3.56636	5.439
57 2-Propanol	+++++	+++++	1.41630	1.47680	1.68118	1.72239		
	1.74067	1.71403					1.62523	8.678

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Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16	___ RRF	% RSD
58 3-Chloropropene	+++++	0.48302	0.42305	0.39915	0.54721	0.53482	0.52300	0.50504	0.48790	11.640
59 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
60 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
61 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
62 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
63 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
64 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
65 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
66 Methylene Chloride	+++++	1.40239	1.22172	1.35764	1.27351	1.20096	1.14789	1.08073	1.24069	9.133
67 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		

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	20.000 Level 15	40.000 Level 16						
68 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
69 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
70 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
71 tert-Butyl alcohol	+++++	+++++	1.84610	1.98045	2.30992	2.32060		
	2.34707	2.25627					2.17673	9.672
72 Methyl tert-butyl ether	+++++	3.28216	3.01734	3.25084	3.66371	3.58358		
	3.46222	3.22896					3.35554	6.720
73 trans-1,2-Dichloroethene	+++++	1.04192	0.93314	0.89726	0.94954	0.90040		
	0.84894	0.79600					0.90960	8.572
74 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
75 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
76 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
77 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
	20.000 Level 15	40.000 Level 16						
78 Hexane	+++++	1.79363	1.52895	1.68369	1.88122	1.82004		
	1.74660	1.62990					1.72629	7.007
79 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
80 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
81 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
82 1,1-Dichloroethane	+++++	2.42278	2.23228	2.39137	2.41258	2.28463		
	2.13946	1.96929					2.26463	7.374
83 Isopropyl ether	+++++	+++++	3.17013	3.40790	3.79828	3.68284		
	3.55888	3.26948					3.48125	6.968
84 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
85 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
86 Vinyl Acetate	+++++	+++++	0.24076	0.30262	0.33705	0.34655		
	0.33892	0.32905					0.31582	12.596
87 Butanal	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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	20.000 Level 15	40.000 Level 16						
88 Ethyl-tert-butyl ether	+++++	+++++	3.28503	3.50578	3.97192	3.90769		
	3.82828	3.62780					3.68775	7.151
89 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
90 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
91 cis-1,2-Dichloroethene	+++++	0.92707	0.88746	0.92887	1.01832	0.96265		
	0.91652	0.86108					0.92885	5.491
92 2-Butanone	+++++	+++++	0.58034	0.60803	0.65888	0.63824		
	0.62437	0.58184					0.61528	5.089
93 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
94 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
95 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
96 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
97 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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	20.000 Level 15	40.000 Level 16						
99 Tetrahydrofuran	+++++	+++++	1.17031	1.15741	1.27330	1.27201		
	1.22524	1.14989					1.20803	4.685
100 Chloroform	+++++	3.16423	2.87919	2.84793	2.95015	2.82601		
	2.68658	2.51464					2.83839	7.169
101 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
102 Cyclohexane	+++++	1.83721	1.59223	1.77496	1.94013	1.85291		
	1.79132	1.69558					1.78348	6.339
103 1,1,1-Trichloroethane	3.30615	3.19448	2.83864	2.90544	3.07012	2.93563		
	2.81770	2.63977					2.96349	7.304
104 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
105 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
106 Carbon Tetrachloride	1.85829	1.85977	1.76756	1.95255	2.10086	2.04491		
	1.99894	1.88718					1.93376	5.727
107 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
108 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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	20.000 Level 15	40.000 Level 16						
109 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
110 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
111 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
113 2,2,4-Trimethylpentane	+++++	1.41777	1.53908	1.63107	1.77853	2.26289		
	1.71513	1.61395					1.70835	15.860
114 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
115 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
116 Benzene	+++++	1.25980	0.97004	0.96317	1.08958	1.01283		
	0.97548	0.91703					1.02685	11.272
118 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
119 tert-Amyl methyl ether	+++++	+++++	0.19223	0.20332	0.25338	0.24437		
	0.24542	0.23500					0.22895	10.958
120 1,2-Dichloroethane	0.46665	0.49289	0.43051	0.41480	0.45958	0.43143		
	0.41360	0.38670					0.43702	7.811

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/06May2015.b/2015l0506a.m
Cal Date : 07-May-2015 19:53 cbond
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
	20.000 Level 15	40.000 Level 16						
121 Heptane	+++++	0.22820	0.22710	0.24164	0.28477	0.27175		
	0.26715	0.25350					0.25344	8.786
122 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
124 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
125 Trichloroethene	0.52186	0.56667	0.48294	0.50682	0.57104	0.53692		
	0.52573	0.50994					0.52774	5.673
126 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
127 Methylcyclohexane	+++++	+++++	0.50303	0.53741	0.63622	0.61387		
	0.60257	0.57997					0.57884	8.654
128 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
129 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
130 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
131 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-MAY-2015 15:08
End Cal Date : 07-MAY-2015 18:37
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Integrator : HP RTE
Method file : /chem/msd20.i/06May2015.b/2015l0506a.m
Cal Date : 07-May-2015 19:53 cbond
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
	20.000 Level 15	40.000 Level 16						
132 1,2-Dichloropropane	+++++	0.37420	0.32763	0.32699	0.37278	0.36192		
	0.35490	0.34143					0.35141	5.644
133 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
134 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
135 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
136 1,4-Dioxane	+++++	0.18639	0.19414	0.22017	0.26710	0.25454		
	0.25424	0.24666					0.23189	13.754
137 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
138 Bromodichloromethane	0.63195	0.73835	0.70003	0.69786	0.83928	0.79713		
	0.79380	0.76734					0.74572	9.003
139 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
140 bis(chloromethyl) Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
141 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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	20.000 Level 15	40.000 Level 16						
142 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
143 2-Chloroethyl Vinyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
144 cis-1,3-Dichloropropene	+++++	0.52706	0.46729	0.50919	0.62239	0.61659		
	0.62734	0.61810					0.56971	11.689
145 4-Methyl-2-pentanone	+++++	0.45833	0.42618	0.46623	0.62676	0.62915		
	0.63841	0.61864					0.55196	17.410
147 Toluene	+++++	1.21295	1.07330	1.08802	1.22715	1.16485		
	1.13233	1.06801					1.13809	5.773
148 Octane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
149 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
150 trans-1,3-Dichloropropene	+++++	0.51391	0.47660	0.50917	0.61852	0.61166		
	0.61416	0.60122					0.56361	10.817
151 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
152 1-Chloro-2-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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	20.000 Level 15	40.000 Level 16						
153 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
154 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
155 1,1,2-Trichloroethane	0.50184	0.52285	0.47890	0.48321	0.54174	0.51057		
	0.49461	0.47641					0.50127	4.574
156 Tetrachloroethene	0.87188	0.88339	0.81273	0.81526	0.88984	0.83924		
	0.83113	0.79520					0.84233	4.205
157 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
158 2-Hexanone	+++++	+++++	0.22446	0.25139	0.35882	0.37068		
	0.38509	0.38618					0.32944	21.886
159 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
160 Dibromochloromethane	0.63110	0.72274	0.69309	0.72570	0.95076	0.93453		
	0.94690	0.92627					0.81639	16.541
161 1,2-Dibromoethane (EDB)	0.71727	0.73259	0.64362	0.70172	0.85399	0.80768		
	0.80446	0.76053					0.75273	9.008
162 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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	20.000 Level 15	40.000 Level 16						
164 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
165 Chlorobenzene	+++++	1.23619	1.12491	1.10663	1.19519	1.13199		
	1.10664	1.05244					1.13628	5.376
166 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
167 Ethyl Benzene	+++++	0.52633	0.44591	0.47002	0.54281	0.52669		
	0.51715	0.50380					0.50467	6.873
168 1,1,1,2-Tetrachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
169 m,p-Xylene	+++++	0.52906	0.46133	0.47334	0.57456	0.55967		
	0.55873	0.54388					0.52865	8.388
170 Nonane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
171 o-Xylene	+++++	0.46162	0.42784	0.45606	0.54061	0.52968		
	0.53068	0.51840					0.49498	9.127
172 Styrene	+++++	0.58483	0.51352	0.54464	0.74790	0.76483		
	0.79537	0.79040					0.67736	18.316
173 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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	20.000 Level 15	40.000 Level 16						
174 Bromoform	0.77585	0.62696	0.68039	0.72430	0.97439	0.96899		
	1.01487	1.01282					0.84732	19.086
175 Cumene	+++++	1.49822	1.35271	1.36837	1.73018	1.68708		
	1.70742	1.68132					1.57504	10.480
176 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
178 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
179 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
180 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
181 1,1,2,2-Tetrachloroethane	1.03860	0.89945	0.88728	0.92502	1.03648	0.97599		
	0.96018	0.90977					0.95410	6.227
182 Propylbenzene	+++++	1.76874	1.33100	1.24271	1.50799	1.49906		
	1.51300	1.52831					1.48440	11.216
183 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
184 trans-1,4-Dichloro-2-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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	20.000 Level 15	40.000 Level 16						
185 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
186 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
187 Decane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
188 4-Ethyltoluene	+++++	1.53854	1.11363	1.02323	1.19028	1.18519		
	1.19247	1.20808					1.20735	13.242
189 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
190 1,3,5-Trimethylbenzene	1.41033	1.34592	1.00538	0.94108	1.08031	1.06269		
	1.01612	0.97198					1.10423	15.910
191 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
192 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
193 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
194 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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	20.000 Level 15	40.000 Level 16						
195 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
196 1,2,4-Trimethylbenzene	1.65674	1.36031	1.02768	0.96097	0.99731	0.92667		
	0.87127	0.82351					1.07806	26.418
197 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
198 Limonene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
199 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
200 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
201 Indan	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
202 Indene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
203 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
204 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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	20.000 Level 15	40.000 Level 16						
205 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
206 bis(2-Chloroethyl) Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
207 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
208 1,3-Dichlorobenzene	1.20053	1.01432	0.77478	0.74399	0.84623	0.83605		
	0.84035	0.83851					0.88684	16.852
209 1,4-Dichlorobenzene	1.12646	0.90627	0.68210	0.64363	0.74107	0.73701		
	0.74085	0.75724					0.79183	19.591
210 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
212 alpha-Chlorotoluene	+++++	0.67258	0.56742	0.57762	0.78579	0.85060		
	0.92595	0.97744					0.76534	21.435
213 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
214 1,2-Dichlorobenzene	1.19574	0.84095	0.66178	0.63975	0.72512	0.72457		
	0.72643	0.73739					0.78147	22.735

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	20.000 Level 15	40.000 Level 16						
215 Undecane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
216 4-Ethyl-1,2-dimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
217 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
218 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
219 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
220 1,2,4,5-tetramethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
221 1,2-Dibromo-3-chloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
222 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
223 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
224 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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	20.000 Level 15	40.000 Level 16						
225 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
226 1,2,4-Trichlorobenzene	1.22841	0.64712	0.66565	0.66649	0.63663	0.58531		
	0.58228	0.52353					0.69193	32.130 <-
227 Hexachlorobutadiene	+++++	0.67561	0.65251	0.60537	0.59997	0.57545		
	0.63778	0.67406					0.63154	6.152
228 Naphthalene	+++++	+++++	+++++	1.06020	0.88503	0.90358		
	0.95590	0.84593					0.93013	8.900
229 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
230 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
231 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
234 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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	20.000 Level 15	40.000 Level 16						
235 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
236 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
M 237 1,2-Dichloroethene (Total)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
M 238 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
M 239 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
M 240 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
241 Total Volatile Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
242 TPH reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
243 TPH reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
244 TPH reference to Gasoline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/06May2015.b/2015l0506a.m
Cal Date : 07-May-2015 19:53 cbond
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
	20.000 Level 15	40.000 Level 16						
245 TPH reference MineralSpirits	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
246 TPH reference to Stoddard	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
247 TVOC reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
248 TVOC reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
249 TVOC reference to Toluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
250 TVOC reference to Toluene-d8	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
251 NMOC reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
252 NMOC reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
253 NMOC reference to Toluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
254 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-MAY-2015 15:08
End Cal Date : 07-MAY-2015 18:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/06May2015.b/2015l0506a.m
Cal Date : 07-May-2015 19:53 cbond
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
	20.000 Level 15	40.000 Level 16						
255 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
256 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
257 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
258 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
259 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
260 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
261 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
262 C5 - C6 Aliphatic ref C5 + C6	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
263 C6-C8 Aliphatic ref Heptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
264 C8-C10 Aliphatic ref Decane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-MAY-2015 15:08
End Cal Date : 07-MAY-2015 18:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/06May2015.b/2015l0506a.m
Cal Date : 07-May-2015 19:53 cbond
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
	20.000 Level 15	40.000 Level 16						
265 C10-C12 Aliphatic ref Dodecan	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
266 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
267 C8-C10 Aromatic ref 1,2,3-TMB	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
268 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
269 C10-C12 Aromatic 1,2,4,5-TMB	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
270 C10-C12 Aromatic Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
$ 112 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
$ 117 1,2-Dichloroethane-d4	1.39725	1.23472	1.26995	1.29274	1.22715	1.21109		
	1.15967	1.26954					1.25776	5.560
$ 146 Toluene-d8	0.91452	0.90455	0.90468	0.92169	0.94459	0.94905		
	0.94120	0.94019					0.92756	1.977
$ 177 4-Bromofluorobenzene	0.59606	0.56384	0.57526	0.57353	0.60024	0.61531		
	0.62867	0.63836					0.59891	4.531

Calibration History

Method : /chem/msd20.i/06May2015.b/2015l0506a.m
Start Cal Date: 06-MAY-2015 15:08
End Cal Date : 07-MAY-2015 18:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 5 , Cal Amount: 0.05000		
06-MAY-2015 15:08	Level5	/chem/msd20.i/06May2015.b/20050604.d
Cal Level: 6 , Cal Amount: 0.10000		
07-MAY-2015 12:38	Level6	/chem/msd20.i/06May2015.b/20050616.d
Cal Level: 7 , Cal Amount: 0.50000		
06-MAY-2015 15:57	HILOcrvFULL	/chem/msd20.i/06May2015.b/20050605.d
Cal Level: 8 , Cal Amount: 1.00000		
07-MAY-2015 18:37	AT12	/chem/msd20.i/06May2015.b/20050706.d
Cal Level: 12, Cal Amount: 5.00000		
06-MAY-2015 16:39	HILOcrvFULL	/chem/msd20.i/06May2015.b/20050606.d
Cal Level: 13, Cal Amount: 10.00000		
06-MAY-2015 17:56	HILOcrvFULL	/chem/msd20.i/06May2015.b/20050607.d
Cal Level: 15, Cal Amount: 20.00000		
06-MAY-2015 18:54	HILOcrvFULL	/chem/msd20.i/06May2015.b/20050608.d
Cal Level: 16, Cal Amount: 40.00000		

```
|06-MAY-2015 19:56 |HILOcrvFULL      |/chem/msd20.i/06May2015.b/20050609.d    |
+------------------+-----------------+----------------------------------------+


Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 12
+------------------+-----------------+----------------------------------------+
| Ccal Level: 12, Ccal Amount: 5.000                                            |
+===============================================================================+
|06-MAY-2015 16:39 |HILOcrvFULL      |/chem/msd20.i/06May2015.b/20050606a.d   |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 12, Ccal Amount: 5.000                                            |
+===============================================================================+
|07-MAY-2015 14:04 |AT12             |/chem/msd20.i/06May2015.b/20050702.d    |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 12, Ccal Amount: 5.000                                            |
+===============================================================================+
|06-MAY-2015 16:39 |HILOcrvFULL      |/chem/msd20.i/06May2015.b/20050606.d    |
+------------------+-----------------+----------------------------------------+
```

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-MAY-2015 15:08
End Cal Date : 07-MAY-2015 18:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/06May2015.b/201510506a.m
Cal Date : 08-May-2015 11:05 sblack
Curve Type : Average

83 5/8/15

Calibration File Names:
Level 5: /chem/msd20.i/06May2015.b/20050604.d
Level 6: /chem/msd20.i/06May2015.b/20050616.d
Level 7: /chem/msd20.i/06May2015.b/20050605.d
Level 8: /chem/msd20.i/06May2015.b/20050706.d
Level 12: /chem/msd20.i/06May2015.b/20050606.d
Level 13: /chem/msd20.i/06May2015.b/20050607.d
Level 15: /chem/msd20.i/06May2015.b/20050608.d
Level 16: /chem/msd20.i/06May2015.b/20050609.d

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
	20.000 Level 15	40.000 Level 16						
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Curve Name: 2015L0506A

Initial Calibration Narrative

An initial calibration curve was analyzed on 5/6/15 on MSD-20.

The instrument was set up to do Full Scan and Selective Ion Monitoring (SIM) simultaneously.

ICAL level 8 (1.0ppbv) was run on 5/7/15 prior to sample analysis.

ICAL: One (1) out. 1,2,4-Trichlorobenzene @ 32% RSD.

ICV: Two (2) out. Carbon tetrachloride (CT) @ 154%R & 2,2,4-Trimethylpentane (224TMP) @137%R.

AFCEE 4.0: Zero (0) out.
In-House Control Limits: 1 out CT
DOD Control Limits: 2 out CT & 224TMP
File # 20050708. LCS# 2716-219; 5.0ppbv (50ppbv); 25mL load.

Naphthalene was calibrated at 0.1ppbv, 0.5ppbv, 1.0ppbv, 2.0ppbv, and 4.0ppbv.

The following compounds were calibrated down to a special RL of 0.05ppbv:

Freon 114
Vinyl Chloride
Freon 11
Freon 113
1,1,1-Trichloroethane
Carbon Tetrachloride
1,2-Dichloroethane
Trichloroethene
Bromodichloromethane
1,1,2-Trichloroethane
Tetrachloroethene
Dibromochloromethane
1,2-Dibromomethane (EDB)
Bromoform
1,1,2,2-Tetrachloroethane
1,3,5-Trimethylbenzene
1,2,4-Trimethylbenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
1,2-Dichlorobenzene
1,2,4-Trichlorobenzene

MDL was run on 2/11/15 and 2/12/15.

Note: The MDL for Benzene is greater that ½ the RL (RL = 0.1ppbv, MDL = 0.078ppbv).

Calibrated Flow meter ~~CA~~ 577772 exp 2/19/16 Nominal flow: 27.4mL/min Actual: 25.3mL/min
5/6/15 83

Eurofins Air Toxics, Inc. **MSD-20** **Logbook #2702**

BFB Verification of 176/174 m/z Ratio:	(432779 / 443029) 100 = 97.69%
Tekmar Purge Flow:	5/6/15 83
Vacuum:	NA

IS/S Std. #: 2716-231		Exp. Date: 7/9/15
BCM	LL: 98180	Sim: 100464
1,4-DFB	392208	415836
CB-d5	339954	356653

Verified CCV IS vs ICAL mid-point (-40%D): NA

File ID:	20050606
Compound:	Toluene08
Initials:	83

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = (370475) x (5.000) = 5.092
(392208) (~~0.94627~~) 5/7/15 83
0.92756

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17 Reported Result: 5.092

Method Name: 2015L0506A/2015S0506A

	Use	File	Lab ID#	Can#	Pressure	Amt. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	20050601	BFB Tune Check	2299-791	50mg	2ml	1.00	83	5/6/15	1305	83	
2	✓	02	ICAL level #1	2716-276	0.003ppbv	15mL	1.00	83		1327	83	exp 6/2/15
3	✓	03	#2	↓	0.005ppbv	25mL	1.00	83		1415	83	
4	✓	04	#5	↓	0.05ppbv	250mL	1.00	83		1508	83	
5	✓	05	#7	2716-277	0.5ppbv	125mL	1.00	83		1557	83	
6	✓	06	#12 ~~#9~~ mistyping	2716-136	5.0ppbv	25mL	1.00	83		1639	83	CCV
7	✓	07	#13	↓	10ppbv	50ml	1.00	~~EA~~		1756	83	
8	✓	08	#15	↓	20ppbv	100ml	1.00	~~EA~~		1854	83	
9	✓	09	#6	↓	40ppbv	200ml	1.00	~~EA~~		1956	83	↓
10	X	10	System Blank	3524B	Humid	250ml	1.00	~~EA~~		2054	83	
11	X	11	System Blank	↓	↓	↓	1.00	~~EA~~	↓	2159	83	
12	X	12	System Blank	3524B	humid	250mL	1.00	83	5/7/15	0858	83	Bake Trap
13	✓	13	↓	↓	↓	250mL	1.00	83	↓	1019	83	
14	✓	14	ICAL level #3	2716-276	0.01ppbv	50mL	1.00	83	↓	1114	83	exp 6/2/15

Reviewed 5/7/15 Date

	Use	File	Lab ID#	Can#	Pressure	Amt. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
15	✓	20050615	ICAL level # 4	2716-276	0.02 ppbv	100mL	1.00	83	5/7/15	1155	83	
16	✓	↓ 16	↓ #6	2716-277	0.1 ppbv	25mL	1.00	83	↓	1238	83	
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												5/7/15 83

Reviewed

5/7/15
Date

Eurofins Air Toxics, Inc. **MSD-20** **Logbook #2702**

BFB Verification of 176/174 m/z Ratio:	(304279 / 313258) 100 = 97.13% 5/8/15 SS
Tekmar Purge Flow:	NA
Vacuum:	NA

IS/S Std. #: 2716-231	Exp. Date: 7/9/15
BCM 94879	98165
1,4-DFB 388701	414880
CB-d5 341986	359698

Verified CCV IS vs ICAL mid-point (-40%D): SS

File ID:	20050702
Compound:	Toluene-d8
Initials:	SS

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = (369794 / 388701) x (5.000 / 0.92756) = 5.128

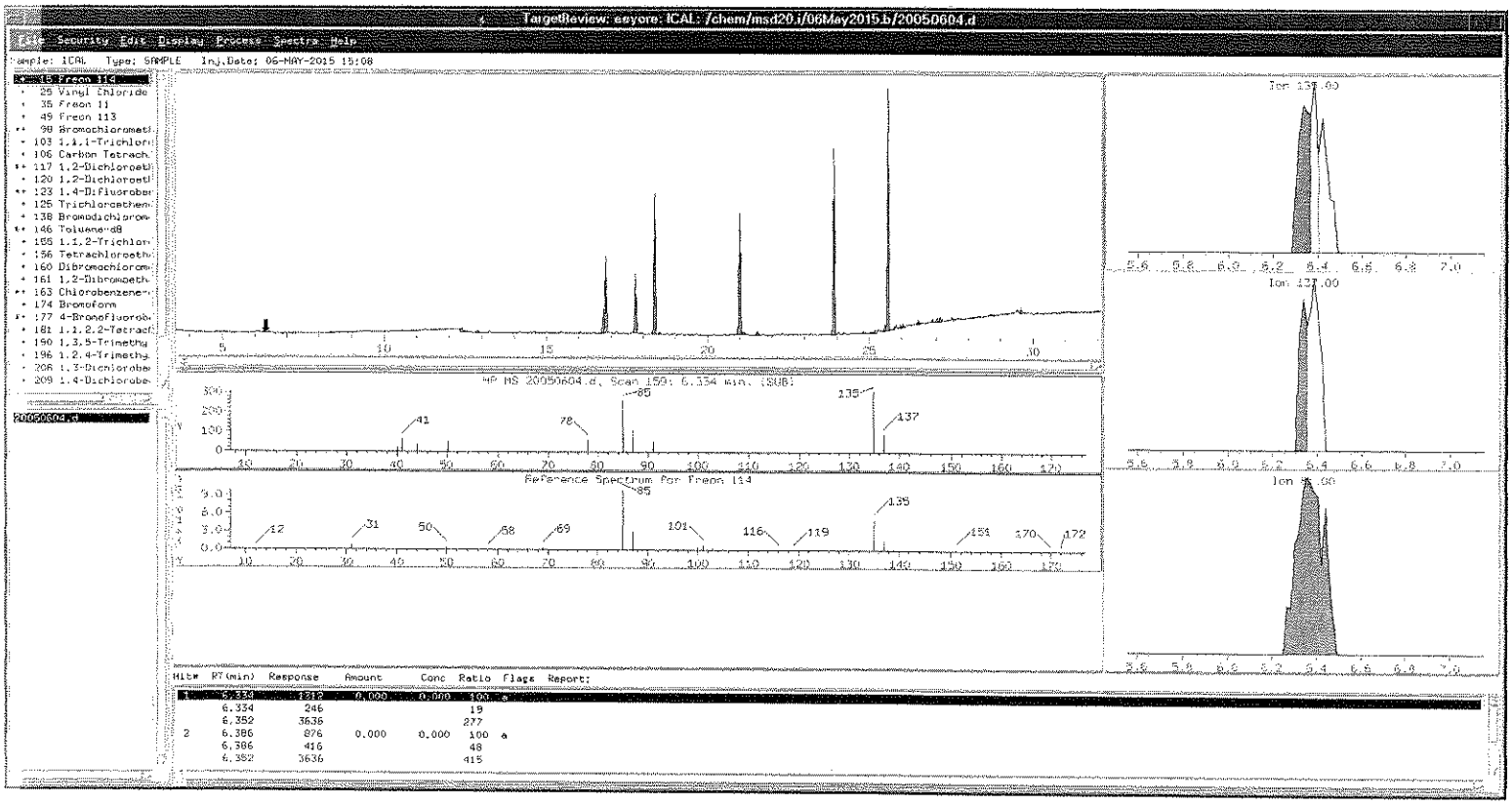
SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17 Reported Result: 5.128

Method Name: 2ISL05C6A / 20/5s05C6A

	Use	File	Lab ID#	Can#	Pressure	Amt. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	20050701	BFB Tune Check	2299-791	50ng	2ml	1.00	SS	5/7/15	1332	SS	
2	✓	02	CCV (50ppbv)	2716-136	5ppbv	25mL	1.00	SS		1404	SS	exp 6/2/15
3	X ✓	03	ICV/LCS (50ppbv)	2716-161	5ppbv	25mL	1.00	SS		1453	SS	exp 6/9/15 Vaph<40%
4	✓	04	System Bake	NA	NA	NA	1.00	SS		NA	SS	Trap Baked
5	✓	05	System Blank	35248	humid	250mL	1.00	SS		1702	CB/SS	
6	✓	06	ICAL Level 8	2716-277	1.0ppbv	250mL	1.00	CB		1837	CB/SS	exp 6/2/15
7	X ✓	07	ICV/LCS (5.0ppbv)	2716-158	5ppbv	25mL	1.00	CB		2003	CB/SS	exp 6/9/15 Vaph < 40%
8	✓	08	ICV/LCS (5.0ppbv)	2716-219	5ppbv	25mL	1.00	SS	5/8/15	0836	SS	*exp 7/8/15 LL
9	X	09	Lab Blank	35248	humid	250mL	1.00	SS		0952	SS	
10		~~10~~	~~Lab Blank~~	~~1~~	~~humid~~	~~250mL~~	~~1.00~~	~~SS~~				
11												
12												
13												
14												5/8/15 SS

Reviewed 5/8/15 Date

*New batch LCSs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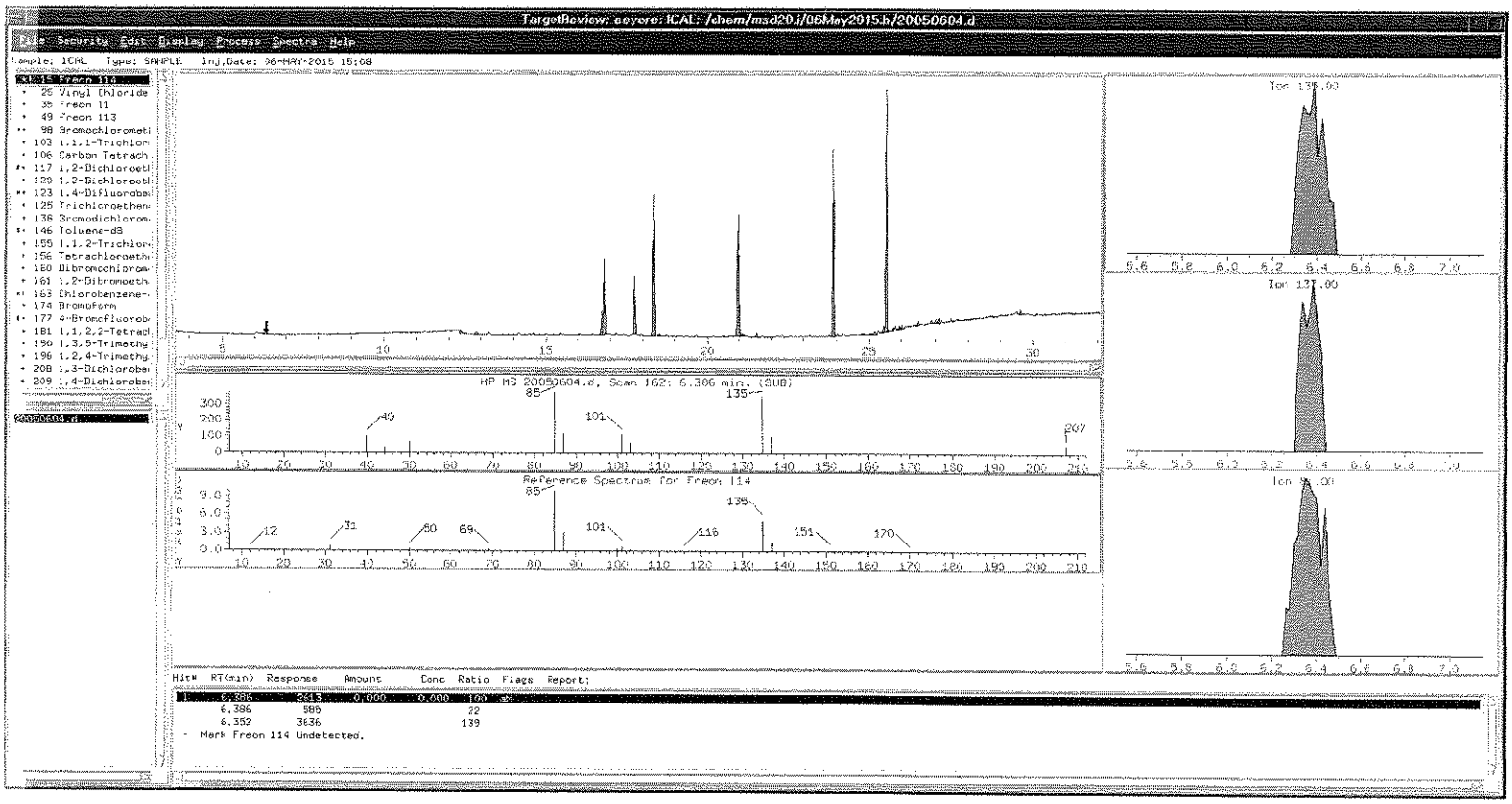
File Security Edit Display Process Spectra Help
Sample: ICAL Type: SAMPLE Inj.Date: 06-MAY-2015 15:08
25 Vinyl Chloride
35 Freon 11
49 Freon 113
90 Bromochlorometh
103 1,1,1-Trichlor
106 Carbon Tetrach
117 1,2-Dichloroeth
120 1,2-Dichloroeth
123 1,4-Difluorobe
125 Trichloroethen
138 Bromodichlorom
146 Toluene-d8
155 1,1,2-Trichlor
156 Tetrachloroeth
160 Dibromochlorom
161 1,2-Dibromoeth
163 Chlorobenzene-
174 Bromoform
177 4-Bromofluorob
181 1,1,2,2-Tetrach
190 1,3,5-Trimethy
196 1,2,4-Trimethy
208 1,3-Dichlorobe
209 1,4-Dichlorobe
20050604.d
HP MS 20050604.d, Scan 159: 6.334 min. (SUB)
Reference Spectrum for Freon 114
Ion 137.00
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 6.334 1312 0.000 0.000 100 a
6.334 246 19
6.352 3636 277
2 6.386 876 0.000 0.000 100 a
6.386 416 48
6.352 3636 415

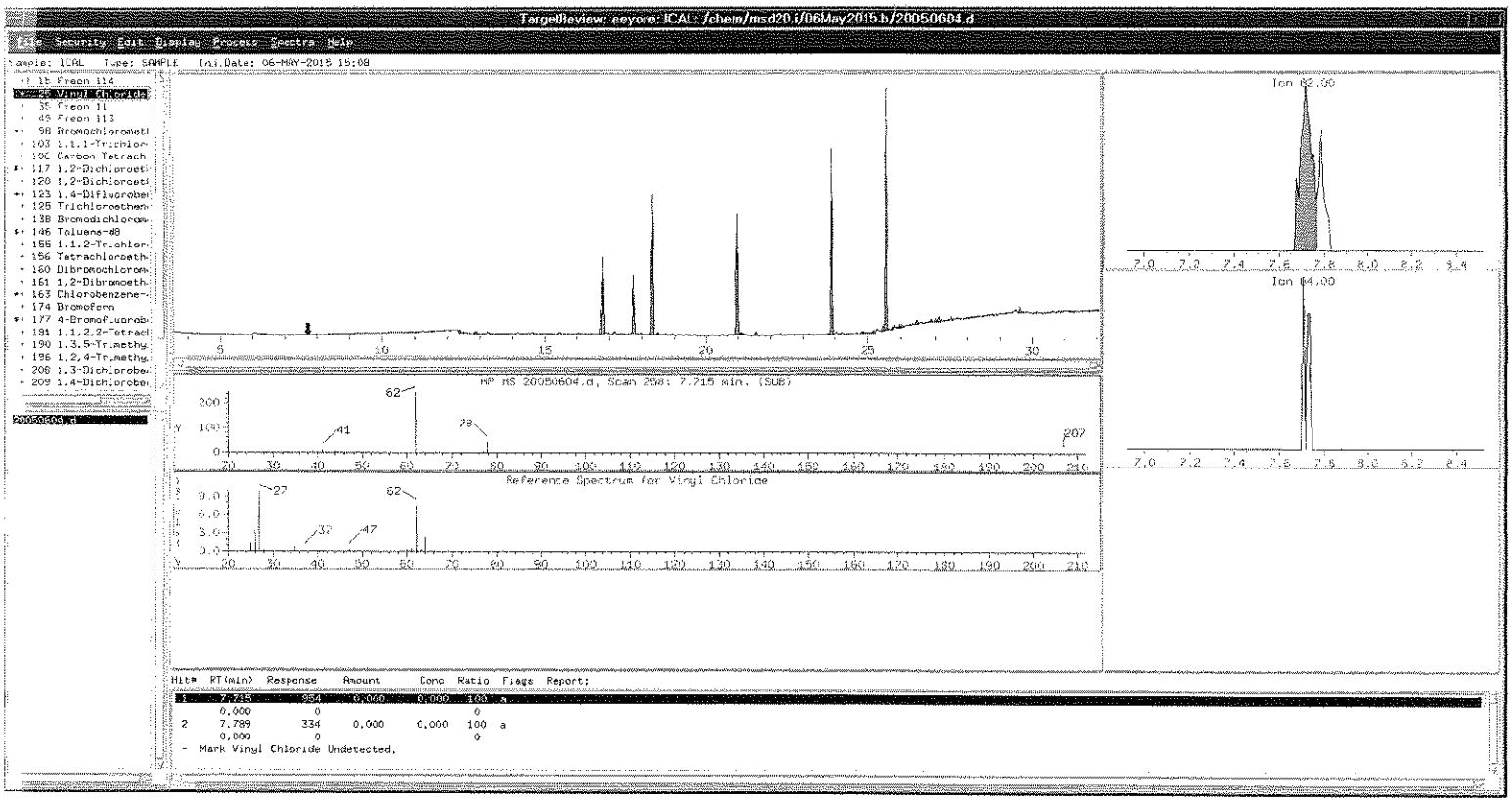
Before



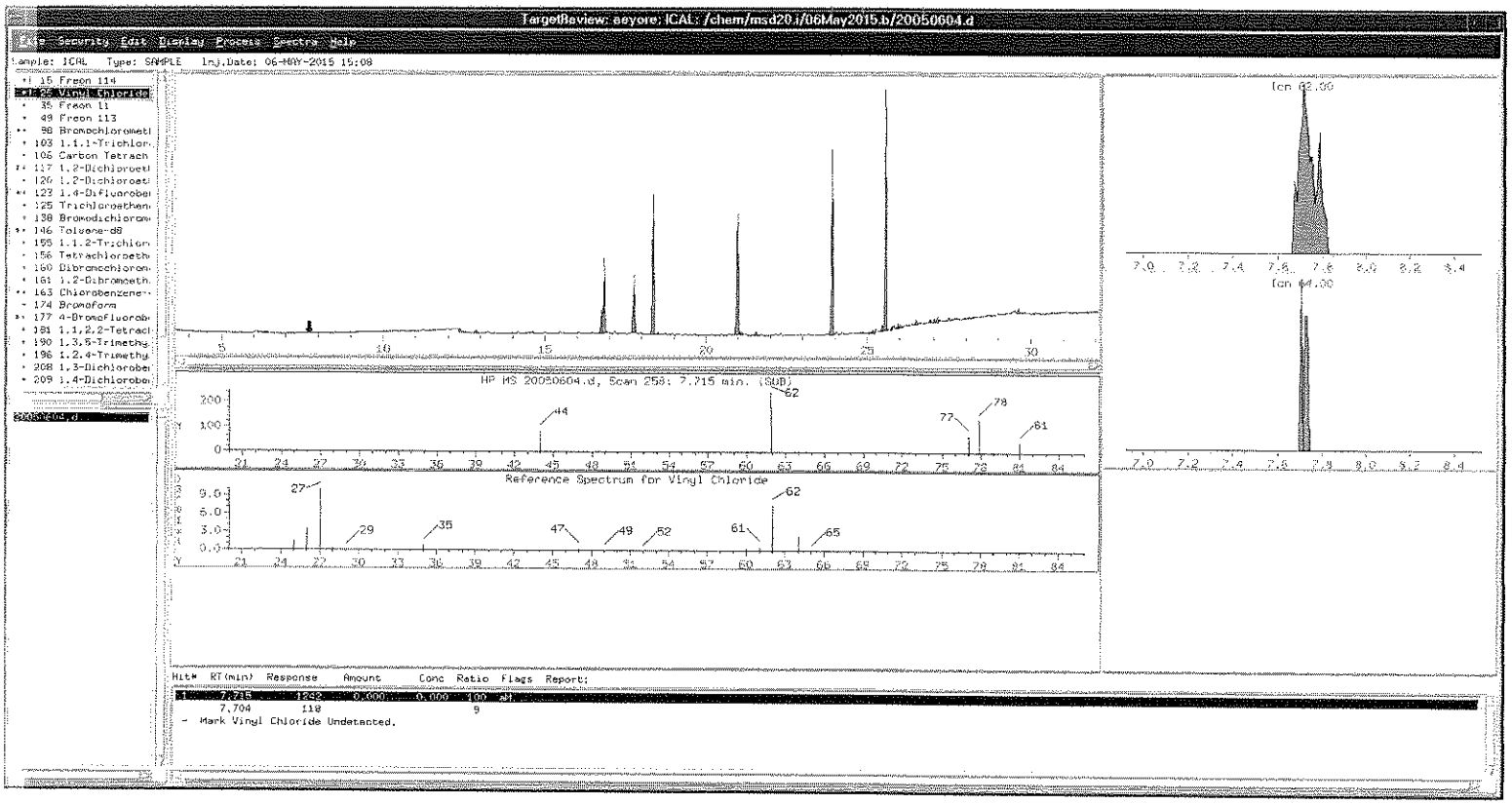
5/8/15
Acr

After SB 5/7/15

Correct Baseline	
Split Peak	✓
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	


TargetReview: eeyore: ICAL: /chem/msd20.i/06May2015.b/20050604.d
File Security Edit Display Process Spectra Help
Sample: ICAL Type: SAMPLE Inj.Date: 06-MAY-2015 15:08
1t Freon 114
35 Vinyl Chloride
35 Freon 11
45 Freon 113
98 Bromochloromet
103 1,1,1-Trichlor
106 Carbon Tetrach
117 1,2-Dichloroet
120 1,2-Dichloroet
123 1,4-Difluorobe
125 Trichloroethen
138 Bromodichlorom
146 Toluene-d8
155 1,1,2-Trichlor
156 Tetrachloroeth
160 Dibromochlorom
161 1,2-Dibromoeth
163 Chlorobenzene-
174 Bromoform
177 4-BromoFluorob
181 1,1,2,2-Tetrac
190 1,3,5-Trimethy
196 1,2,4-Trimethy
208 1,3-Dichlorobe
209 1,4-Dichlorobe
20050604.d
Ion 62.00
Ion 64.00
MP MS 20050604.d, Scan 258: 7.715 min. (SUB)
Reference Spectrum for Vinyl Chloride
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 7.715 954 0.000 0.000 100 a
0.000 0 0
2 7.789 334 0.000 0.000 100 a
0.000 0 0
- Mark Vinyl Chloride Undetected.

Before



5/8/15
AGT

After SB 5/7/15

Correct Baseline	
Split Peak	✓
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

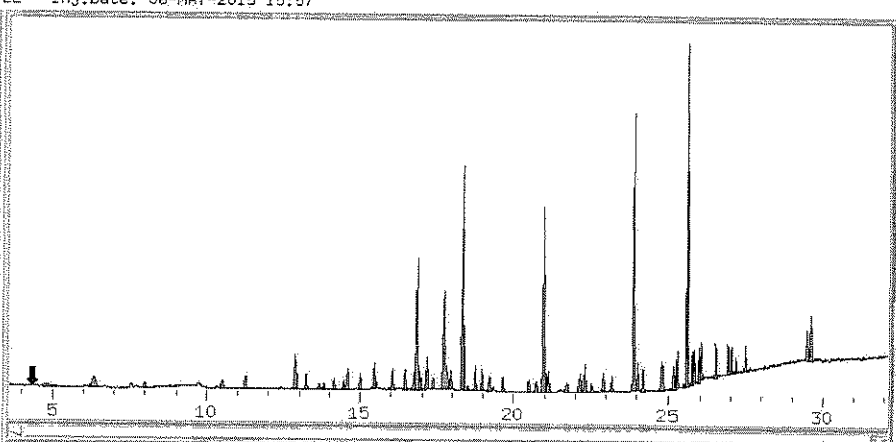
TargetReview: eeyore: ICAL: /chem/msd20.i/06May2015.b/20050605.d

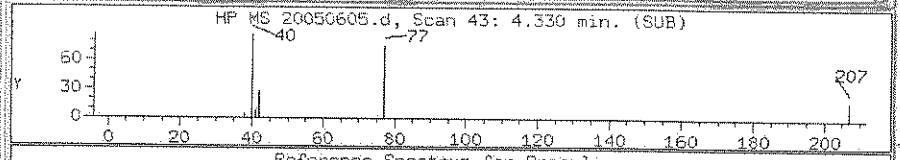
File Security Edit Display Process Spectra Help

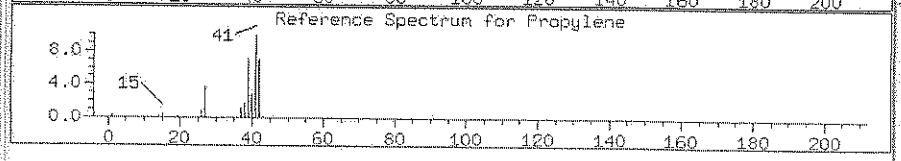
Sample: ICAL Type: SAMPLE Inj.Date: 06-MAY-2015 15:57

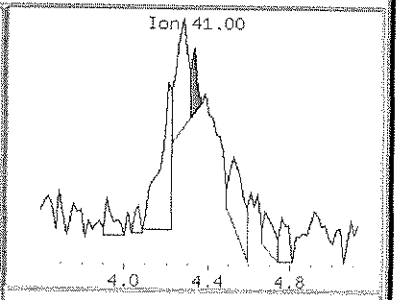
- $ 9 Propylene
- + 11 Freon 12
- + 15 Freon 114
- + 17 Chloromethane
- + 23 Butane
- + 25 Vinyl Chloride
- + 26 1,3-Butadiene
- + 29 Bromomethane
- + 30 Chloroethane
- + 31 Isopentane
- + 35 Freon 11
- + 42 Ethanol
- + 49 Freon 113
- + 50 1,1-Dichloroetl
- + 52 Acetone
- + 56 Carbon Disulfi
- + 57 2-Propanol
- + 58 3-Chloropropen
- + 66 Methylene Chlo
- + 71 tert-Butyl alc
- + 72 Methyl tert-bu
- + 73 trans-1,2-Dich
- + 78 Hexane
- + 83 Isopropyl ethe
- + 82 1,1-Dichloroetl

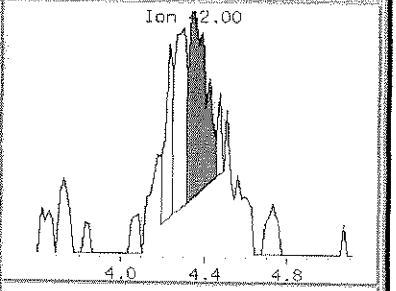
20050605.d

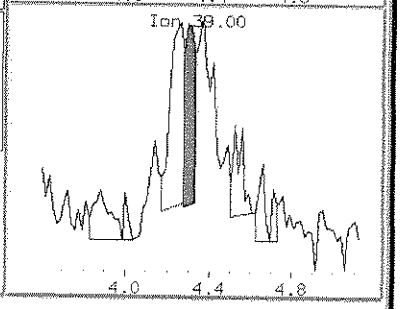






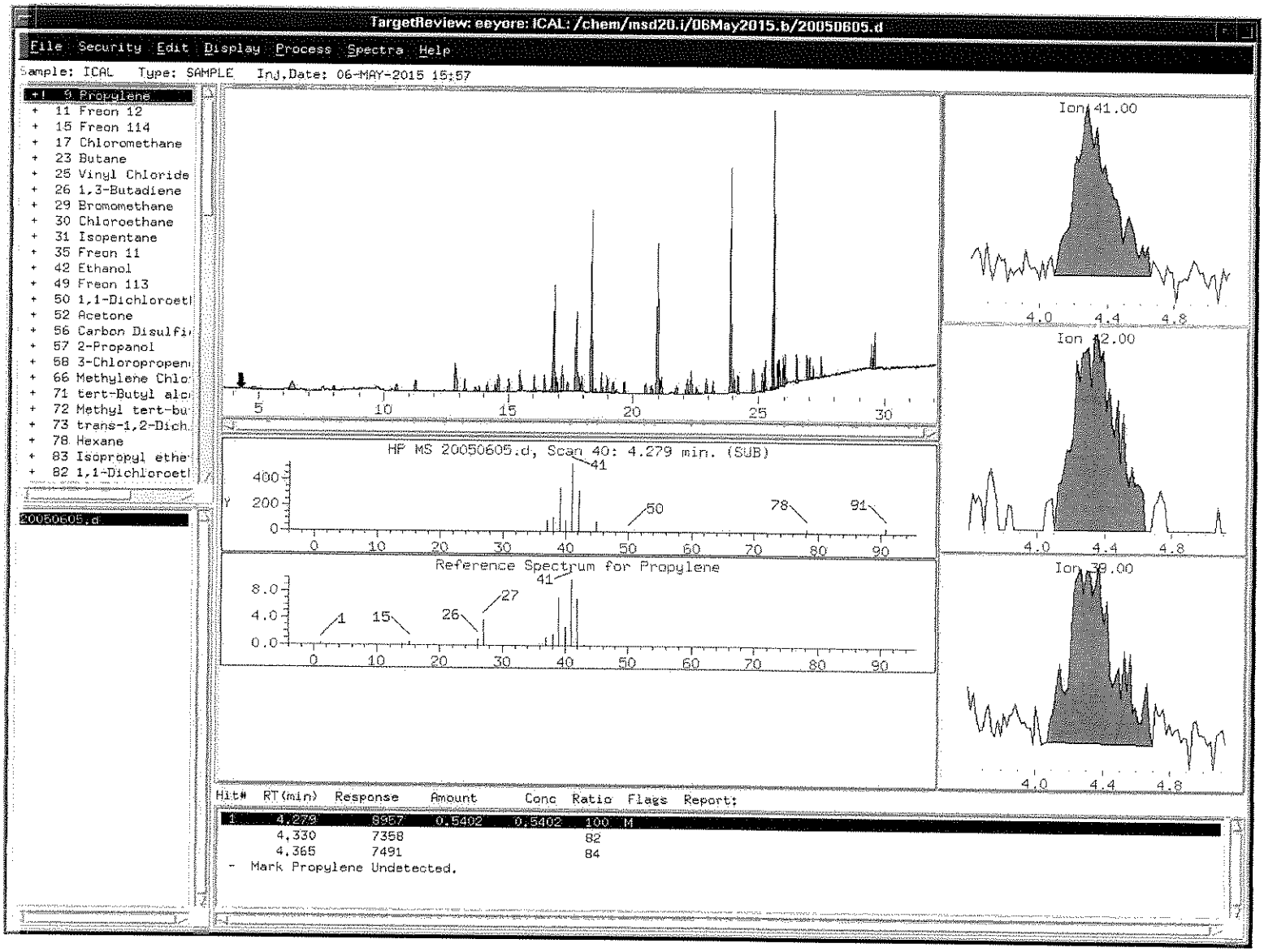






Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
	4.227	861			48		
	4.261	1666			93		
4	4.279	1315	0.07932	0.07932	100	a	
	4.296	1464			111		
	4.261	1666			127		
5	4.330	285	0.02326	0.02326	100	a	

Before

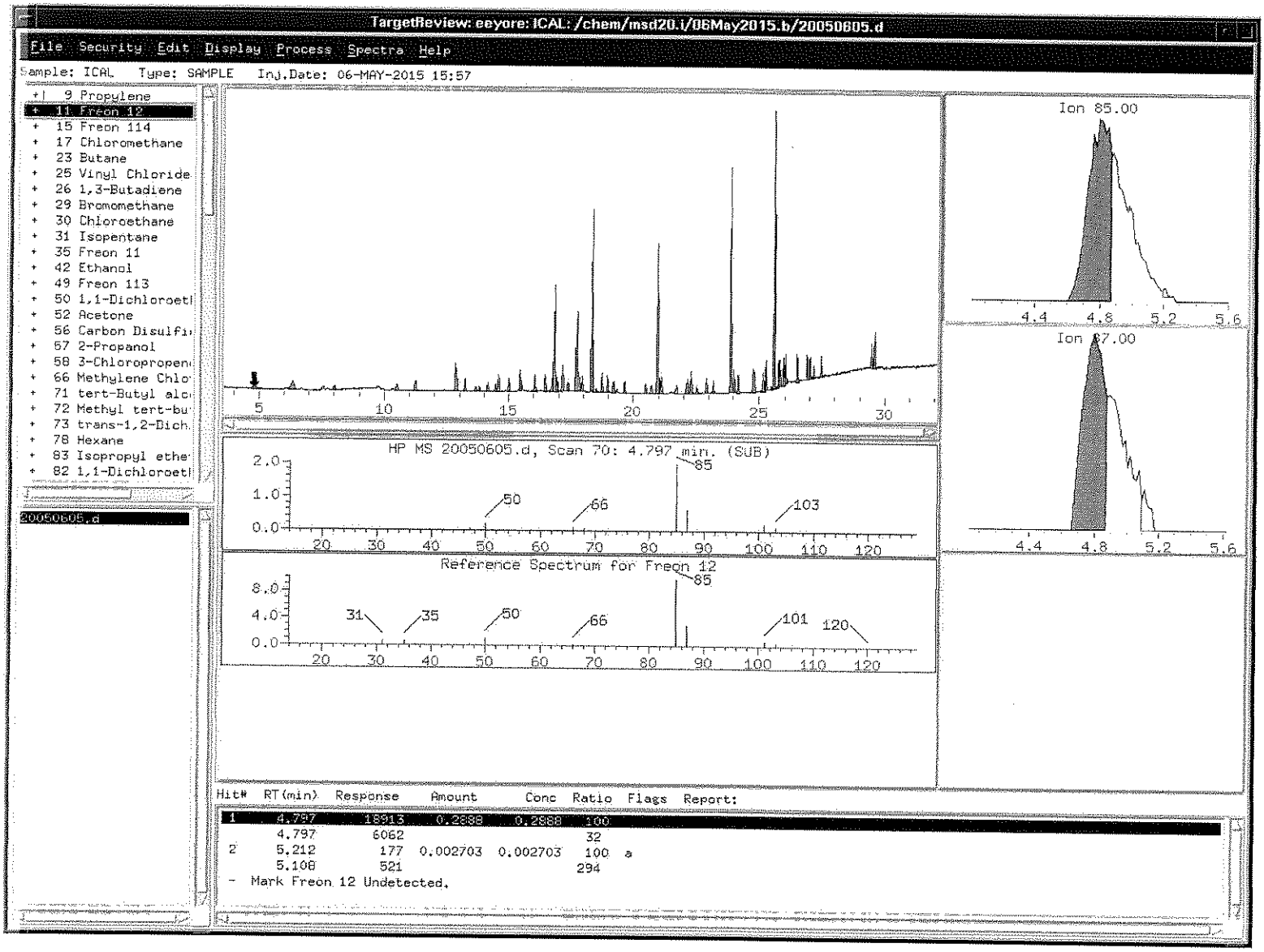


5/8/15
AT

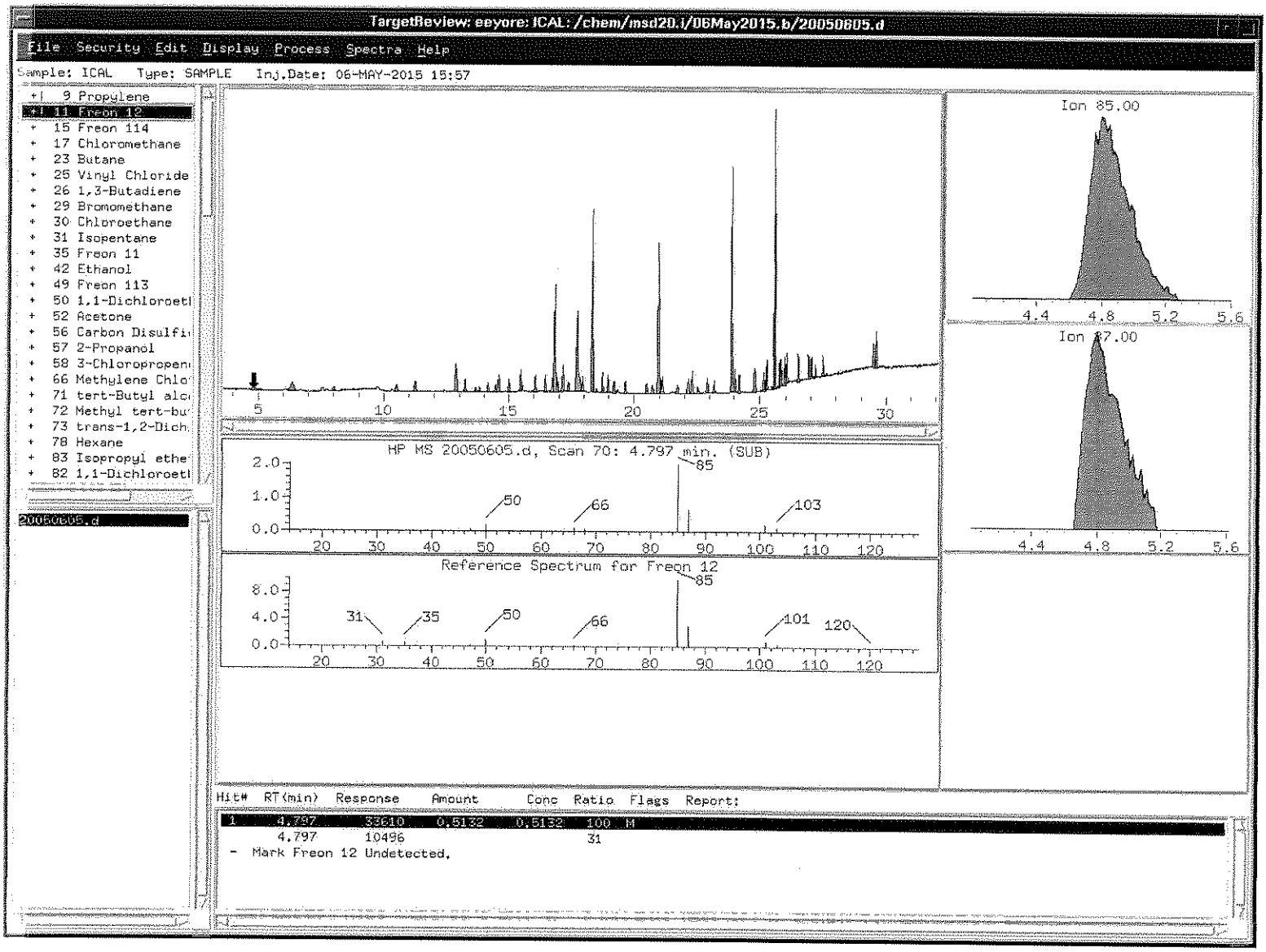
SB 5/8/15

After

Correct Baseline	✓
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	


TargetReview: eeyore: ICAL: /chem/msd20.i/06May2015.b/20050605.d
File Security Edit Display Process Spectra Help
Sample: ICAL Type: SAMPLE Inj.Date: 06-MAY-2015 15:57
+| 9 Propylene
+ 11 Freon 12
+ 15 Freon 114
+ 17 Chloromethane
+ 23 Butane
+ 25 Vinyl Chloride
+ 26 1,3-Butadiene
+ 29 Bromomethane
+ 30 Chloroethane
+ 31 Isopentane
+ 35 Freon 11
+ 42 Ethanol
+ 49 Freon 113
+ 50 1,1-Dichloroetl
+ 52 Acetone
+ 56 Carbon Disulfi
+ 57 2-Propanol
+ 58 3-Chloropropen
+ 66 Methylene Chlo
+ 71 tert-Butyl alc
+ 72 Methyl tert-bu
+ 73 trans-1,2-Dich
+ 78 Hexane
+ 83 Isopropyl ethe
+ 82 1,1-Dichloroetl
20050605.d
Ion 85.00
Ion 87.00
HP MS 20050605.d, Scan 70: 4.797 min. (SUB)
Reference Spectrum for Freon 12
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 4.797 18913 0.2888 0.2888 100
4.797 6062 32
2 5.212 177 0.002703 0.002703 100 a
5.108 521 294
- Mark Freon 12 Undetected.

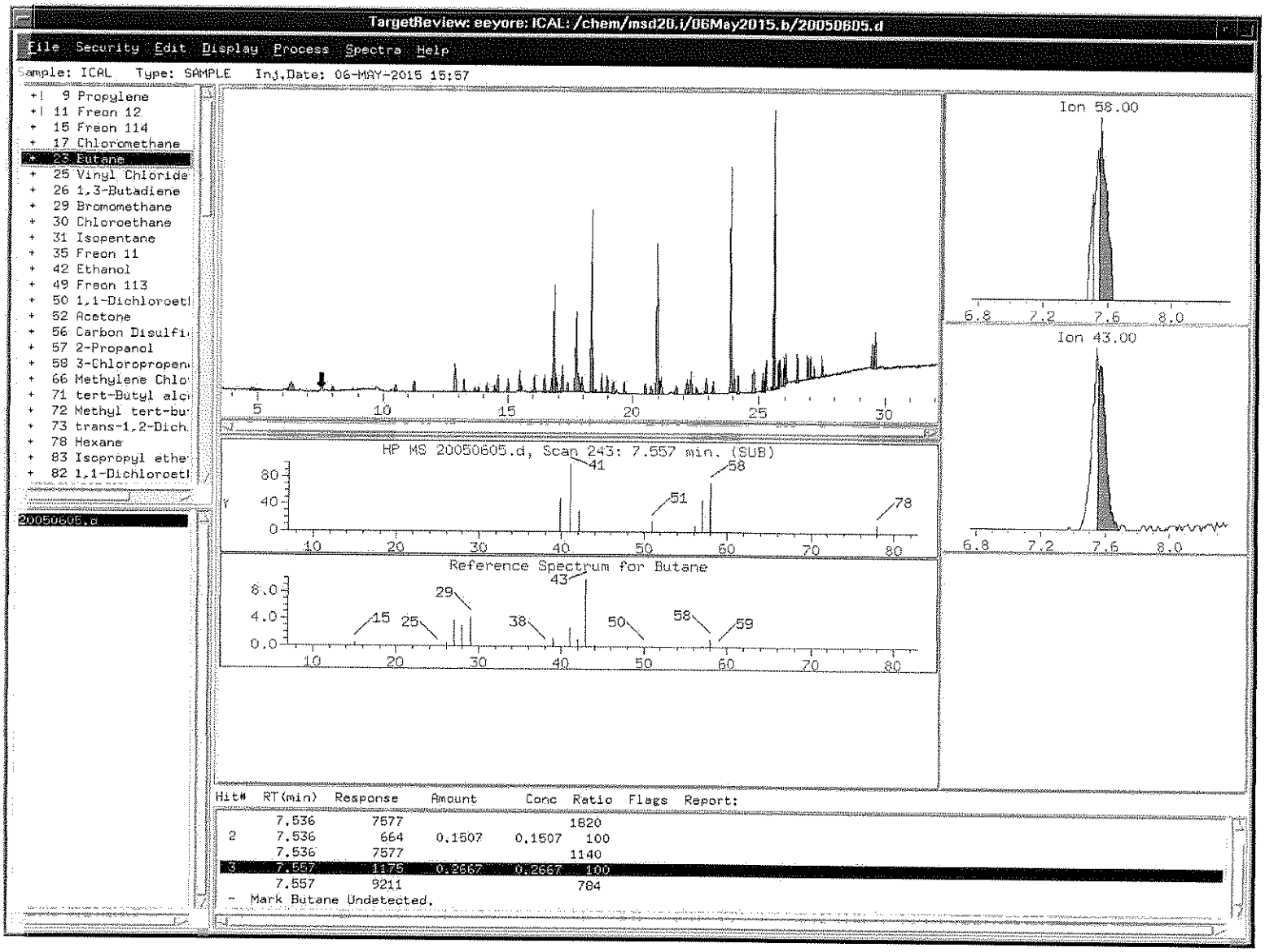
Before



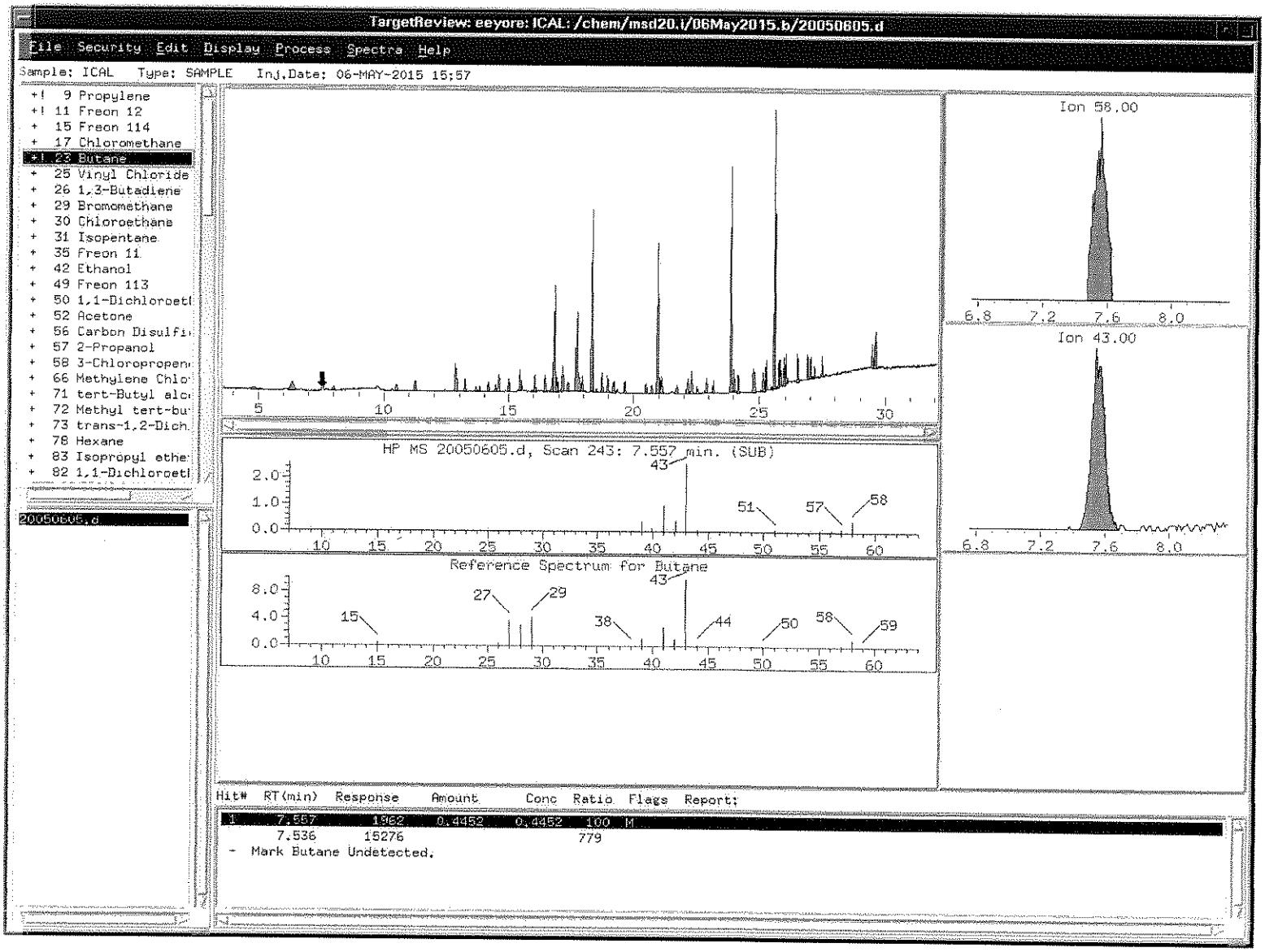
5/8/15
AG

After 83 5/8/15

Correct Baseline	✓
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	


TargetReview: eeyore: ICAL: /chem/msd20.i/06May2015.b/20050605.d
File Security Edit Display Process Spectra Help
Sample: ICAL Type: SAMPLE Inj.Date: 06-MAY-2015 15:57
+! 9 Propylene
+| 11 Freon 12
+ 15 Freon 114
+ 17 Chloromethane
+ 23 Butane
+ 25 Vinyl Chloride
+ 26 1,3-Butadiene
+ 29 Bromomethane
+ 30 Chloroethane
+ 31 Isopentane
+ 35 Freon 11
+ 42 Ethanol
+ 49 Freon 113
+ 50 1,1-Dichloroetl
+ 52 Acetone
+ 56 Carbon Disulfi
+ 57 2-Propanol
+ 58 3-Chloropropen
+ 66 Methylene Chlo
+ 71 tert-Butyl alc
+ 72 Methyl tert-bu
+ 73 trans-1,2-Dich
+ 78 Hexane
+ 83 Isopropyl ethe
+ 82 1,1-Dichloroetl
20050605.d
Ion 58.00
Ion 43.00
HP MS 20050605.d, Scan 243: 7.557 min. (SUB)
Reference Spectrum for Butane
Hit# RT(min) Response Amount Conc Ratio Flags Report:
7.536 7577 1820
2 7.536 664 0.1507 0.1507 100
7.536 7577 1140
3 7.557 1175 0.2667 0.2667 100
7.557 9211 784
- Mark Butane Undetected.

Before



5/8/15
ACG

After 5/8/15

Correct Baseline	✓
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

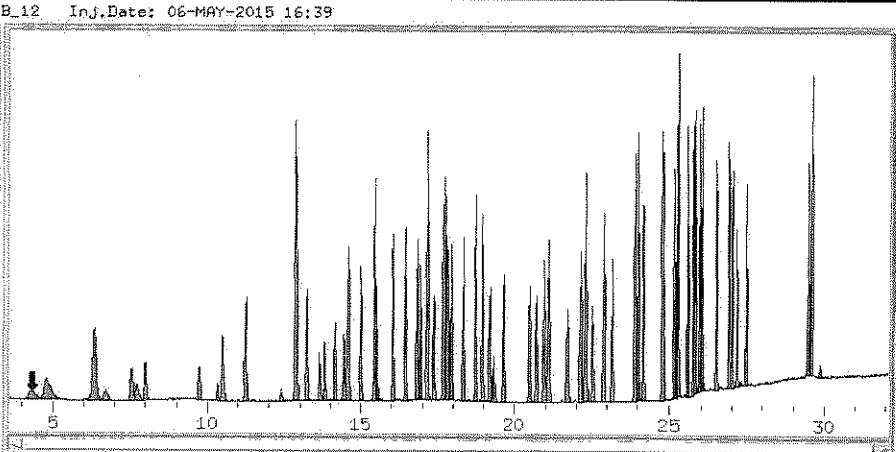
TargetReview: eeyore: ICAL: /chem/msd20.i/06May2015.b/20050606.d

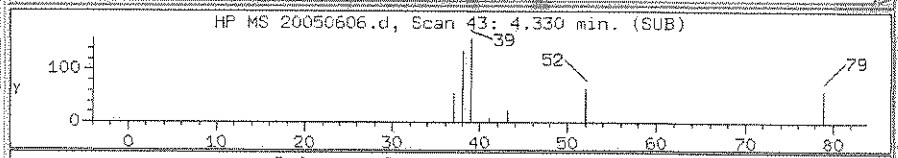
File Security Edit Display Process Spectra Help

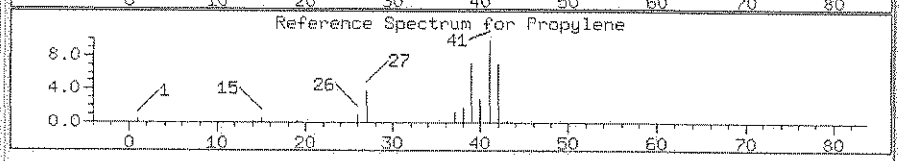
Sample: ICAL Type: CALIB_12 Inj.Date: 06-MAY-2015 16:39

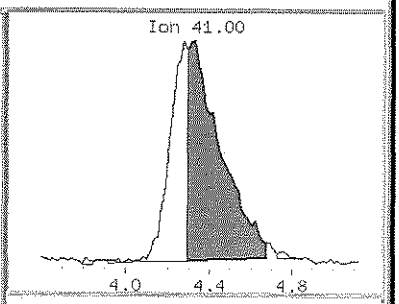
- 9 Propylene
- 11 Freon 12
- 15 Freon 114
- 17 Chloromethane
- 23 Butane
- 25 Vinyl Chloride
- 26 1,3-Butadiene
- 29 Bromomethane
- 30 Chloroethane
- 31 Isopentane
- 35 Freon 11
- 42 Ethanol
- 49 Freon 113
- 50 1,1-Dichloroetl
- 52 Acetone
- 56 Carbon Disulfi
- 57 2-Propanol
- 58 3-Chloropropen
- 66 Methylene Chlo
- 71 tert-Butyl alc
- 72 Methyl tert-bu
- 73 trans-1,2-Dich.
- 78 Hexane
- 83 Isopropyl ethe
- 82 1,1-Dichloroetl

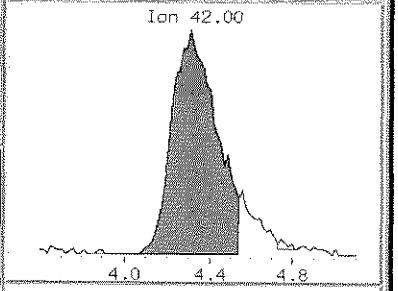
20050605.d
20050606.d

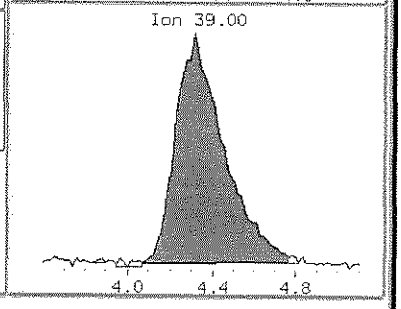






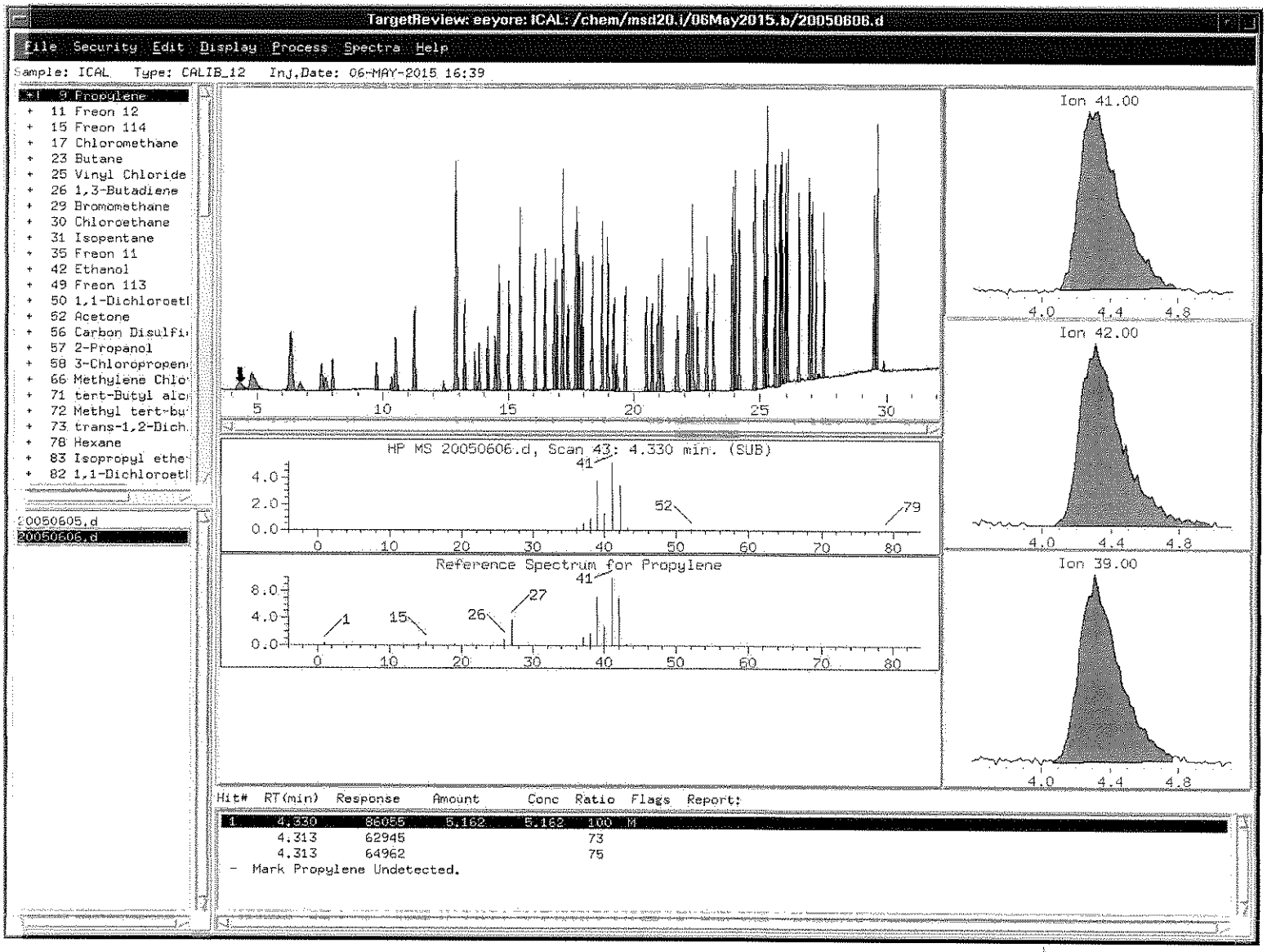






Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
	3.899	124			97		
	4.019	413			321		
4	4.279	32539	2.121	2.121	100		
	4.313	54591			168		
	4.313	64197			197		
5	4.330	56409	3.873	3.873	100		

Before



5/8/15
Act

After 83 5/7/15

Correct Baseline	
Split Peak	✓
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

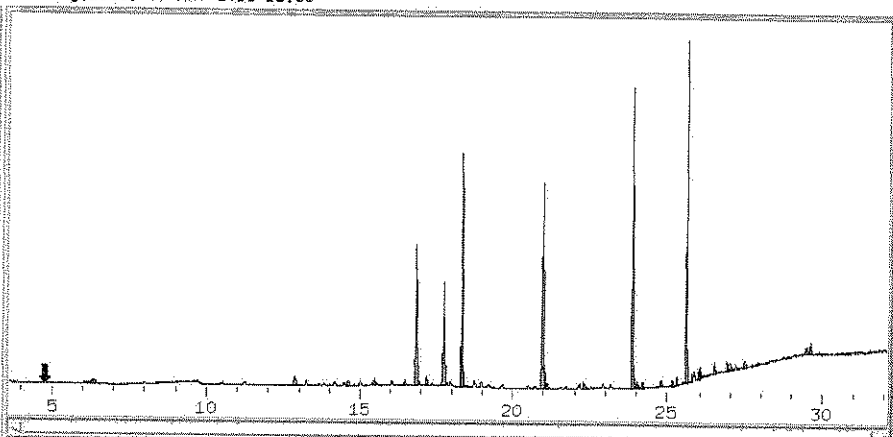
TargetReview: eeyore: ICAL: /chem/msd20.i/06May2015.b/20050616.d

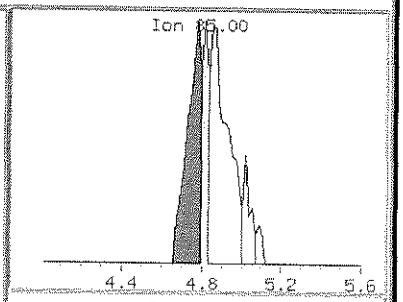
File Security Edit Display Process Spectra Help

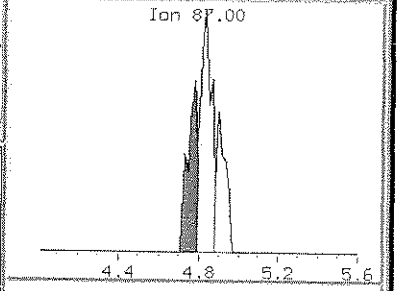
Sample: ICAL Type: SAMPLE Inj.Date: 07-MAY-2015 12:38

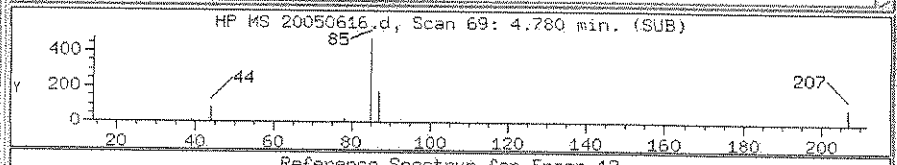
- 11 Freon 12
- 15 Freon 114
- 17 Chloromethane
- 25 Vinyl Chloride
- 26 1,3-Butadiene
- 29 Bromomethane
- 35 Freon 11
- 49 Freon 113
- 50 1,1-Dichloroetl
- 58 3-Chloropropen
- 66 Methylene Chlo
- 72 Methyl tert-bu
- 73 trans-1,2-Dich
- 78 Hexane
- 82 1,1-Dichloroetl
- 91 cis-1,2-Dichlo
- 98 Bromochlorometl
- 100 Chloroform
- 102 Cyclohexane
- 103 1,1,1-Trichlor
- 106 Carbon Tetrach
- 113 2,2,4-Trimethy
- 116 Benzene
- 117 1,2-Dichloroetl
- 120 1,2-Dichloroetl

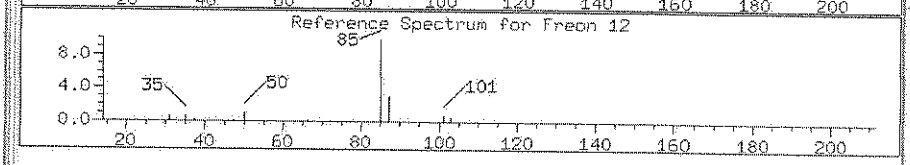
20050616.d





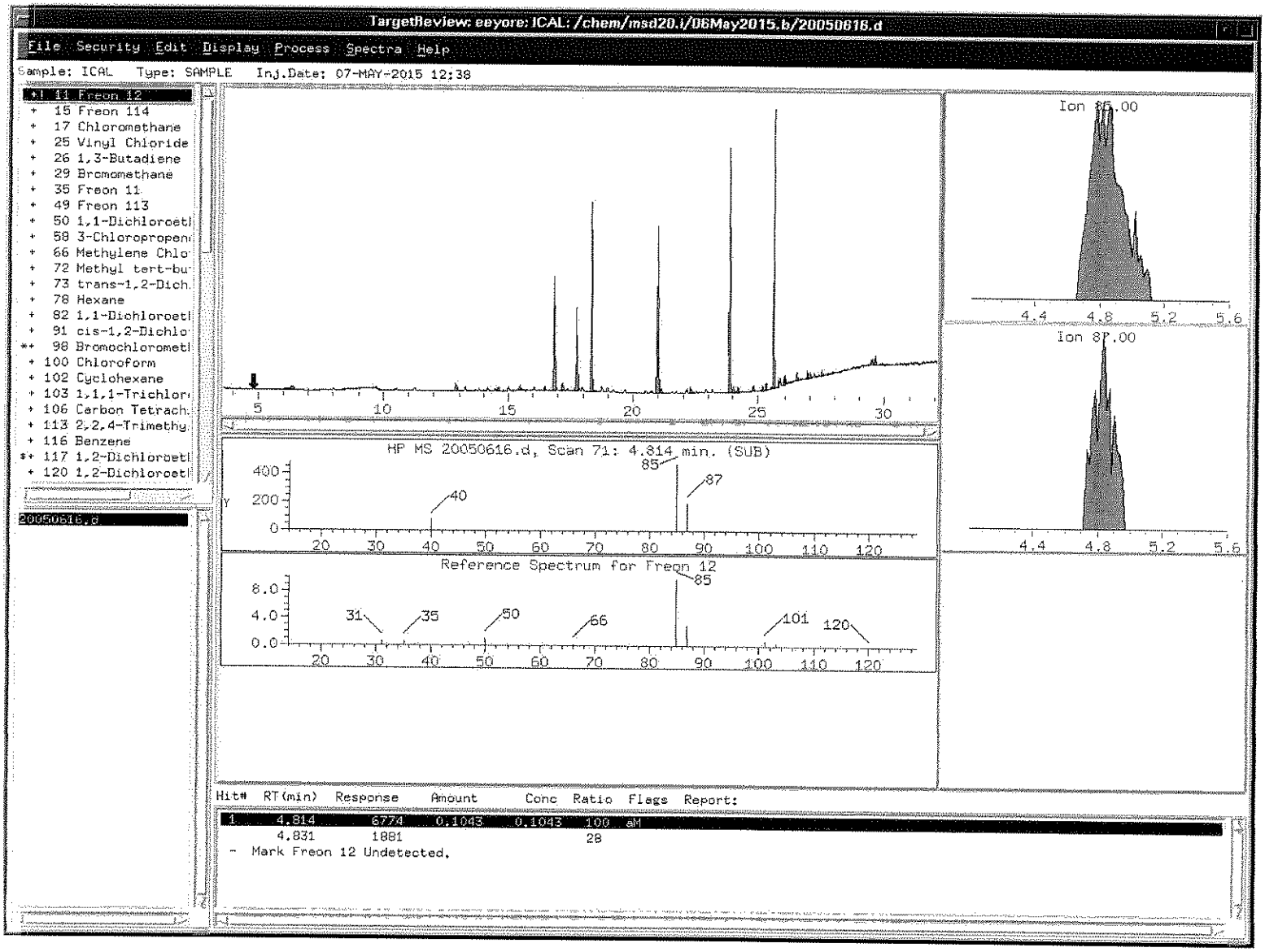






Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	4.780	2389	0.03680	0.03680	100	a	
	4.780	612			26		
2	4.849	3243	0.04995	0.04995	100	a	
	4.831	979			30		
3	5.021	604	0.009307	0.009307	100	a	
	4.901	475			79		

Before

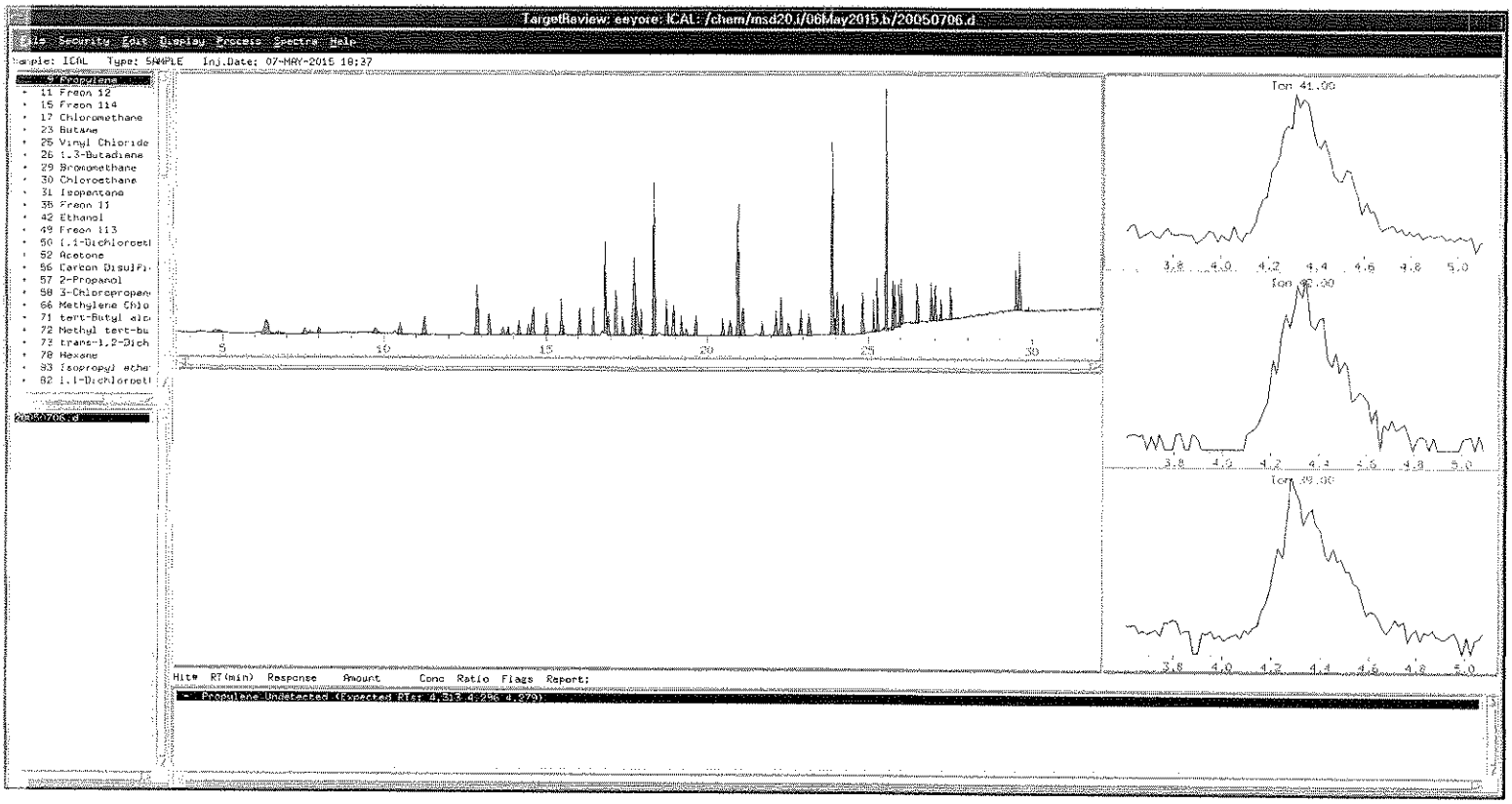


5/8/15
Acf

83 5/8/15

After

Correct Baseline	✓
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	


TargetReview: eeyore: ICAL: /chem/msd20.i/08May2015.b/20050706.d
File Security Edit Display Process Spectra Help
Sample: ICAL Type: SAMPLE Inj.Date: 07-MAY-2015 18:37
9 Propylene
11 Freon 12
15 Freon 114
17 Chloromethane
23 Butane
25 Vinyl Chloride
26 1,3-Butadiene
29 Bromomethane
30 Chloroethane
31 Isopentane
35 Freon 11
42 Ethanol
49 Freon 113
50 1,1-Dichloroet
52 Acetone
56 Carbon Disulfi
57 2-Propanol
58 3-Chloropropen
66 Methylene Chlo
71 tert-Butyl alc
72 Methyl tert-bu
73 trans-1,2-Dich
78 Hexane
93 Isopropyl ethe
82 1,1-Dichloroet
20050706.d
Ion 41.00
Ion 42.00
Ion 39.00
Hit# RT(min) Response Amount Conc Ratio Flags Report:
- Propylene Undetected (Expected RTs: 4.516,4.246,4.620)

Before

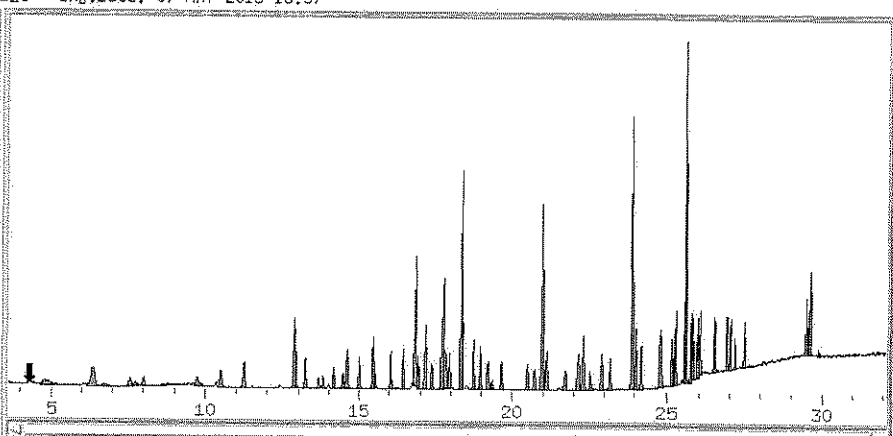
TargetReview: eeyore: ICAL: /chem/msd20.i/06May2015.b/20050706.d

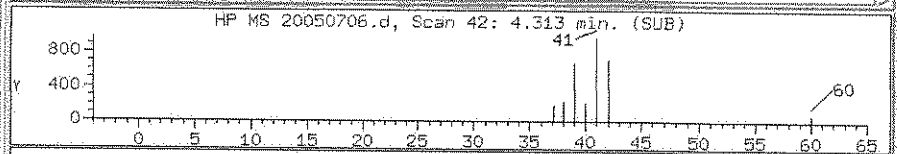
File Security Edit Display Process Spectra Help

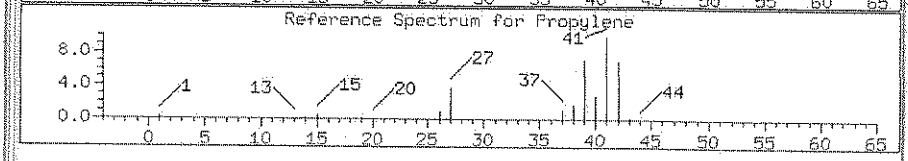
Sample: ICAL Type: CALIB_8 Inj.Date: 07-MAY-2015 18:37

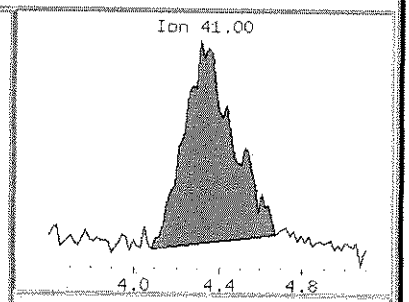
+I	9	Propylene
+I	11	Freon 12
+	15	Freon 114
+	17	Chloromethane
+	23	Butane
+	25	Vinyl Chloride
+	26	1,3-Butadiene
+	29	Bromomethane
+	30	Chloroethane
+	31	Isopentane
+	35	Freon 11
+	42	Ethanol
+	49	Freon 113
+	50	1,1-Dichloroetl
+	52	Acetone
+	56	Carbon Disulfi
+	57	2-Propanol
+	58	3-Chloropropen
+	66	Methylene Chlo
+	71	tert-Butyl alc
+	72	Methyl tert-bu
+	73	trans-1,2-Dich
+	78	Hexane
+	83	Isopropyl ethe
+	82	1,1-Dichloroetl

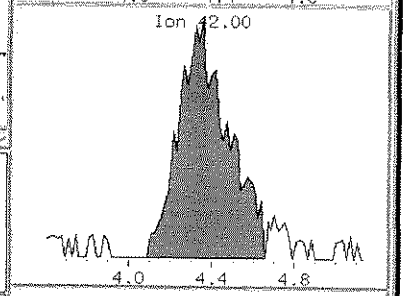
20050706.d

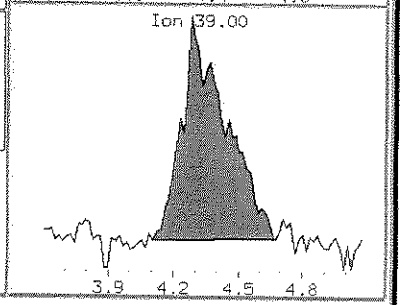












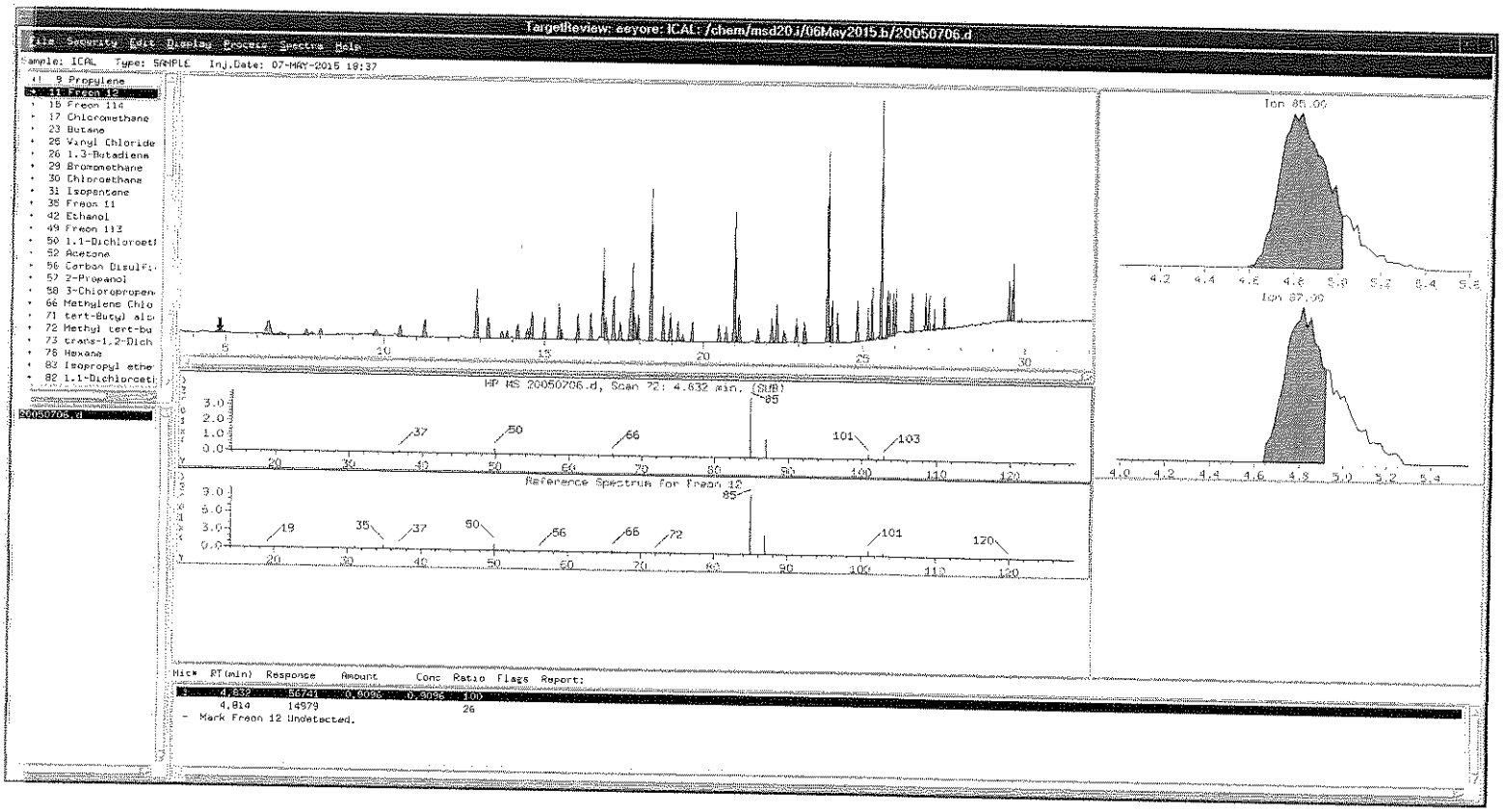
Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	4.313	15173	0.9841	0.9841	100	M	
	4.348	12235			81		
	4.279	10897			72		

- Mark Propylene Undetected.

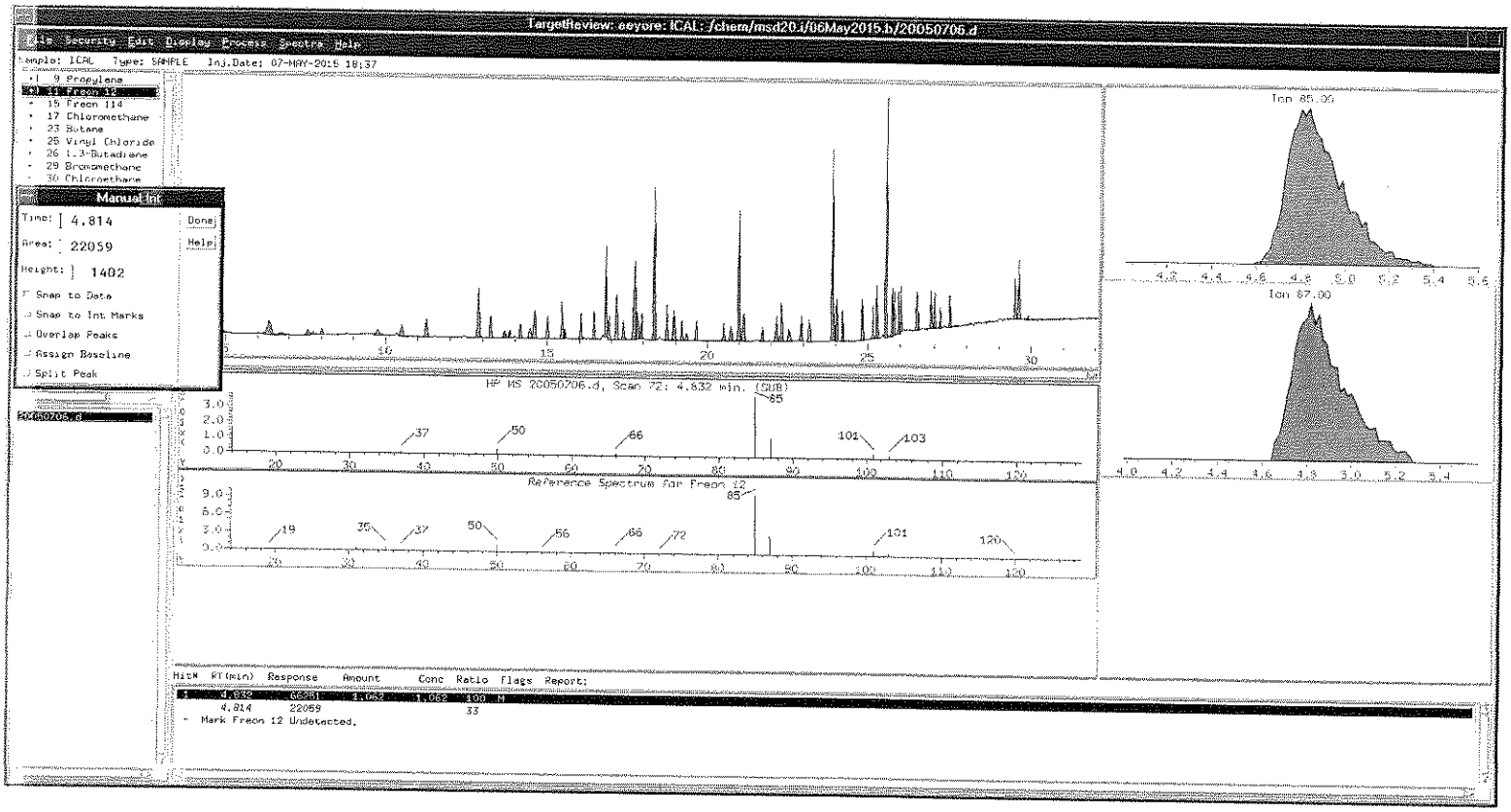
5/8/15
AcT

After

Correct Baseline	
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	
Peak missed	CB 5/7/15


Targetreview: eeyore: ICAL: /chem/msd20j/06May2015.b/20050706.d
File Security Edit Display Process Spectra Help
Sample: ICAL Type: SAMPLE Inj.Date: 07-MAY-2015 18:37
8 Propylene
11 Freon 12
18 Freon 114
17 Chloromethane
23 Butane
25 Vinyl Chloride
26 1,3-Butadiene
29 Bromomethane
30 Chloroethane
31 Isopentane
38 Freon 11
42 Ethanol
49 Freon 113
50 1,1-Dichloroet
52 Acetone
56 Carbon Disulfi
57 2-Propanol
58 3-Chloropropen
66 Methylene Chlo
71 tert-Butyl alc
72 Methyl tert-bu
73 trans-1,2-Dich
76 Hexane
82 Isopropyl ethe
82 1,1-Dichloroeth
20050706.d
Ion 85.00
Ion 87.00
HP MS 20050706.d, Scan 72: 4.632 min. (SUB)
Reference Spectrum for Freon 12
Nic* RT(min) Response Amount Conc Ratio Flags Report:
4.632 56741 0.8096 0.8096 100
4.814 14979 26
- Mark Freon 12 Undetected.

Before



5/8/15
AT

After

Correct Baseline	
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	CB 5/7/15

Modified EPA Methods TO-14A/TO-15 Low Level
Internal Standard and Associated Target Compounds and Surrogates

Bromochloromethane
Target Compounds:
Freon 12
Freon 114
Chloromethane
Vinyl Chloride
1,3-Butadiene
Bromomethane
Chloroethane
Freon 11
Ethanol
Freon 113
1,1-Dichloroethene
Acetone
2-Propanol
Carbon Disulfide
3-Chloropropene
Methylene Chloride
Methyl tert-butyl ether
trans-1,2-Dichloroethene
Hexane
1,1-Dichloroethane
2-Butanone (Methyl Ethyl Ketone)
cis-1,2-Dichloroethene
Tetrahydrofuran
Chloroform
1,1,1-Trichloroethane
Cyclohexane
Carbon Tetrachloride
2,2,4-Trimethylpentane
Surrogates:
1,2-Dichloroethane-d4

1,4-Difluorobenzene
Target Compounds:
Benzene
1,2-Dichloroethane
Heptane
Trichloroethene
1,2-Dichloropropane
1,4-Dioxane
Bromodichloromethane
cis-1,3-Dichloropropene
4-Methyl-2-pentanone
Toluene
Surrogates:
Toluene-d8

Chlorobenzene-d5
Target Compounds:
trans-1,3-Dichloropropene
1,1,2-Trichloroethane
Tetrachloroethene
2-Hexanone
Dibromochloromethane
1,2-Dibromoethane (EDB)
Chlorobenzene
Ethyl Benzene
m,p-Xylene
o-Xylene
Styrene
Bromoform
Cumene
1,1,2,2-Tetrachloroethane
Propylbenzene
4-Ethyltoluene
1,3,5-Trimethylbenzene
1,2,4-Trimethylbenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
alpha-Chlorotoluene
1,2-Dichlorobenzene
1,2,4-Trichlorobenzene
Hexachlorobutadiene
Surrogates:
Bromofluorobenzene

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/07May2015.b/20050708.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 08-MAY-2015 08:36
Operator : sab Inst ID: msd20.i
Smp Info : 25mL# 2716-219
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/07May2015.b/2015l0506a.m
Meth Date : 08-May-2015 09:10 sblack Quant Type: ISTD
Cal Date : 07-MAY-2015 12:38 Cal File: 20050616.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
9 Propylene						CAS #: 115-07-1		
4.313	4.313	(0.256)	41	84942	5.24006	5.240	80.00- 120.00	100.00
4.313	4.296	(0.256)	42	46574			35.77- 95.77	54.83
4.261	4.279	(0.253)	39	34416			41.14- 101.14	40.52
11 Freon 12						CAS #: 75-71-8		
4.797	4.814	(0.285)	85	356795	5.56215	5.562	80.00- 120.00	100.00
4.814	4.780	(0.286)	87	115180			2.49- 62.49	32.28
15 Freon 114						CAS #: 76-14-2		
6.334	6.352	(0.376)	135	290914	5.50926	5.509	80.00- 120.00	100.00
6.351	6.334	(0.377)	137	95975			2.39- 62.39	32.99
6.334	6.334	(0.376)	85	332445			90.31- 150.31	114.28
17 Chloromethane						CAS #: 74-87-3		
6.697	6.697	(0.398)	50	99978	5.28542	5.285	80.00- 120.00	100.00
6.697	6.697	(0.398)	52	32854			2.88- 62.88	32.86

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
23 Butane					CAS #: 106-97-8		
7.546	7.546 (0.448)	58	23743	5.56389	5.564	80.00- 120.00	100.00
7.557	7.557 (0.449)	43	163487			662.68- 722.68	688.57
25 Vinyl Chloride					CAS #: 75-01-4		
7.725	7.725 (0.459)	62	120853	5.49985	5.500	80.00- 120.00	100.00
7.715	7.725 (0.458)	64	38877			1.92- 61.92	32.17
26 1,3-Butadiene					CAS #: 106-99-0		
7.999	7.999 (0.475)	54	83332	5.23878	5.239	80.00- 120.00	100.00
8.010	7.999 (0.476)	39	76458			62.52- 122.52	91.75
29 Bromomethane					CAS #: 74-83-9		
9.736	9.736 (0.578)	94	101363	5.89714	5.897	80.00- 120.00	100.00
9.736	9.736 (0.578)	96	93928			66.00- 126.00	92.66
30 Chloroethane					CAS #: 75-00-3		
10.323	10.323 (0.613)	64	57916	5.49075	5.491	80.00- 120.00	100.00
10.323	10.323 (0.613)	66	18676			1.26- 61.26	32.25
31 Isopentane					CAS #: 78-78-4		
10.496	10.496 (0.623)	57	93789	5.44034	5.440	80.00- 120.00	100.00
10.496	10.496 (0.623)	43	128412			105.33- 165.33	136.92
10.496	10.496 (0.623)	42	114149			89.08- 149.08	121.71
35 Freon 11					CAS #: 75-69-4		
11.238	11.255 (0.667)	101	366400	5.45307	5.453	80.00- 120.00	100.00
11.238	11.255 (0.667)	103	240009			35.69- 95.69	65.50
42 Ethanol					CAS #: 64-17-5		
12.399	12.399 (0.736)	45	43060	5.76785	5.768	80.00- 120.00	100.00
12.399	12.399 (0.736)	46	16885			8.49- 68.49	39.21
12.399	12.399 (0.736)	43	10061			0.00- 51.69	23.37
49 Freon 113					CAS #: 76-13-1		
12.874	12.874 (0.764)	151	274615	5.07656	5.076	80.00- 120.00	100.00
12.874	12.874 (0.764)	153	176516			34.25- 94.25	64.28
12.874	12.874 (0.764)	101	294902			75.92- 135.92	107.39
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.853	12.874 (0.763)	98	84978	5.41390	5.414	80.00- 120.00	100.00
12.853	12.854 (0.763)	61	190087			183.51- 243.51	223.69
12.853	12.874 (0.763)	96	132655			126.67- 186.67	156.11
52 Acetone					CAS #: 67-64-1		
13.225	13.225 (0.785)	58	56189	5.07953	5.080	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
52 Acetone (continued)							
13.225	13.225 (0.785)	43	163164			250.97- 310.97	290.38
56 Carbon Disulfide					CAS #: 75-15-0		
13.246	13.246 (0.786)	76	323643	4.78557	4.786	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.658	13.659 (0.811)	45	173365	5.62523	5.625	80.00- 120.00	100.00
13.658	13.659 (0.811)	43	37631			0.00- 45.99	21.71
13.658	13.659 (0.811)	59	7894			0.00- 33.55	4.55
58 3-Chloropropene					CAS #: 107-05-1		
13.823	13.824 (0.821)	76	60197	6.50637	6.506	80.00- 120.00	100.00(R)
13.823	13.824 (0.821)	41	115784			207.26- 267.26	192.34
66 Methylene Chloride					CAS #: 75-09-2		
14.154	14.154 (0.840)	84	121030	5.14425	5.144	80.00- 120.00	100.00
14.154	14.154 (0.840)	49	128172			76.26- 136.26	105.90
14.154	14.154 (0.840)	51	41031			2.64- 62.64	33.90
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.566	14.566 (0.865)	73	339210	5.33088	5.331	80.00- 120.00	100.00
14.566	14.566 (0.865)	57	71335			0.00- 51.22	21.03
14.566	14.566 (0.865)	41	69221			0.00- 49.54	20.41
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.607	14.607 (0.867)	98	77374	4.48578	4.486	80.00- 120.00	100.00
14.607	14.607 (0.867)	61	152962			157.09- 217.09	197.69
14.607	14.607 (0.867)	96	121291			124.47- 184.47	156.76
78 Hexane					CAS #: 110-54-3		
14.999	14.999 (0.890)	57	185177	5.65675	5.657	80.00- 120.00	100.00
14.999	14.999 (0.890)	43	109477			29.42- 89.42	59.12
14.999	14.999 (0.890)	86	34132			0.00- 49.37	18.43
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.474	15.474 (0.919)	63	225784	5.25762	5.258	80.00- 120.00	100.00
15.474	15.474 (0.919)	65	71216			1.63- 61.63	31.54
86 Vinyl Acetate					CAS #: 108-05-4		
15.536	15.536 (0.922)	86	30850	5.15112	5.151	80.00- 120.00	100.00
15.536	15.536 (0.922)	42	23008			64.14- 124.14	74.58
15.536	15.536 (0.922)	43	270773			1120.67-1180.67	877.71
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
16.450	16.450 (0.977)	98	105512	5.99029	5.990	80.00- 120.00	100.00

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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   91 cis-1,2-Dichloroethene (continued)
 16.450  16.450 (0.977)    61    187217                  140.61- 200.61   177.44
 16.450  16.450 (0.977)    96    162824                  124.22- 184.22   154.32
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.464  16.464 (0.977)    72     62346 5.34349    5.343  80.00- 120.00   100.00
 16.464  16.464 (0.977)    43    212260                  397.61- 457.61   340.45
 16.464  16.464 (0.977)    57     18396                    0.00-  58.47    29.51
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.844  16.844 (1.000)    42    121389 5.29901    5.299  80.00- 120.00   100.00
 16.844  16.844 (1.000)    71     58006                    9.03-  69.03    47.79
 16.844  16.844 (1.000)    72     60386                   21.41-  81.41    49.75
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.844  16.844 (1.000)   130     94815 5.00000           80.00- 120.00   100.00
 16.844  16.844 (1.000)   128     73221                   48.56- 108.56    77.23
 16.844  16.844 (1.000)    49     92952                   77.31- 137.31    98.04
-------------------------------------------------------------------------------
  100 Chloroform                                  CAS #: 67-66-3
 16.940  16.940 (1.006)    83    278477 5.17381    5.174  80.00- 120.00   100.00
 16.940  16.940 (1.006)    85    178417                   35.24-  95.24    64.07
-------------------------------------------------------------------------------
  102 Cyclohexane                                 CAS #: 110-82-7
 17.156  17.156 (1.019)    84    183603 5.42882    5.429  80.00- 120.00   100.00
 17.156  17.156 (1.019)    56    189168                   72.40- 132.40   103.03
 17.156  17.156 (1.019)    41     96643                   20.65-  80.65    52.64
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                       CAS #: 71-55-6
 17.180  17.180 (1.020)    97    288109 5.12680    5.127  80.00- 120.00   100.00
 17.180  17.180 (1.020)    99    186905                   34.49-  94.49    64.87
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                        CAS #: 56-23-5
 17.372  17.372 (1.031)   119    282503 7.70396    7.704  80.00- 120.00   100.00(R)
 17.372  17.372 (1.031)   117    293822                   73.26- 133.26   104.01
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                      CAS #: 540-84-1
 17.684  17.684 (1.050)    56    222076 6.85518    6.855  80.00- 120.00   100.00(R)
 17.684  17.684 (1.050)    57    556455                  268.82- 328.82   250.57
 17.684  17.684 (1.050)    41    132965                   49.41- 109.41    59.87
-------------------------------------------------------------------------------
  116 Benzene                                     CAS #: 71-43-2
 17.732  17.732 (0.967)    78    418178 5.28198    5.282  80.00- 120.00   100.00
 17.732  17.732 (0.967)    77     97647                    0.00-  53.11    23.35
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                       CAS #: 17060-07-0
 17.756  17.756 (1.054)    65    113192 4.74581    4.746  80.00- 120.00   100.00
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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 117 1,2-Dichloroethane-d4 (continued)
 17.756  17.756 (1.054)    67     65138                    27.32-  87.32    57.55
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                           CAS #: 107-06-2
 17.876  17.876 (0.974)    62    171985 5.10422    5.104  80.00- 120.00   100.00
 17.876  17.876 (0.974)    64     56606                     2.42-  62.42    32.91
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 17.948  17.948 (0.978)    57    109345 5.59576    5.596  80.00- 120.00   100.00
 17.948  17.948 (0.978)   100     45627                    21.23-  81.23    41.73
 17.948  17.948 (0.978)    43    191082                   145.72- 205.72   174.75
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 18.344  18.344 (1.000)   114    385504 5.00000           80.00- 120.00   100.00
 18.344  18.344 (1.000)    88     57462                     0.00-  44.67    14.91
-------------------------------------------------------------------------------
  125 Trichloroethene                              CAS #: 79-01-6
 18.745  18.745 (1.022)   130    217989 5.35741    5.357  80.00- 120.00   100.00
 18.745  18.745 (1.022)    95    193314                    56.13- 116.13    88.68
 18.745  18.745 (1.022)    97    125003                    26.55-  86.55    57.34
-------------------------------------------------------------------------------
  127 Methylcyclohexane                            CAS #: 108-87-2
 18.968  18.969 (1.034)    83    245035 5.49044    5.490  80.00- 120.00   100.00
 18.968  18.969 (1.034)    98    119489                    18.58-  78.58    48.76
 18.968  18.969 (1.034)    55    173748                    38.68-  98.68    70.91
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                          CAS #: 78-87-5
 19.214  19.214 (1.047)    63    141849 5.23545    5.235  80.00- 120.00   100.00
 19.214  19.214 (1.047)    62     99545                    40.14- 100.14    70.18
 19.214  19.214 (1.047)    41     73699                    17.79-  77.79    51.96
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.348  19.348 (1.055)    88    103258 5.77539    5.775  80.00- 120.00   100.00
 19.348  19.348 (1.055)    58     65775                    30.40-  90.40    63.70
 19.348  19.348 (1.055)    57     20500                     0.00-  48.90    19.85
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.660  19.660 (0.823)    83    283295 5.76784    5.768  80.00- 120.00   100.00
 19.660  19.660 (0.823)    85    183706                    34.06-  94.06    64.85
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.496  20.496 (1.117)    75    225499 5.13373    5.134  80.00- 120.00   100.00
 20.496  20.496 (1.117)    77     72966                     1.74-  61.74    32.36
 20.496  20.496 (1.117)    39     91669                    10.68-  70.68    40.65
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.730  20.730 (1.130)    43    256902 6.03675    6.037  80.00- 120.00   100.00
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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  145 4-Methyl-2-pentanone (continued)
 20.730  20.730 (1.130)    58    108226                   12.69-  72.69    42.13
 20.730  20.730 (1.130)    85     54112                    0.00-  51.10    21.06
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                  CAS #: 2037-26-5
 20.979  20.979 (1.144)    98    366156 5.11995    5.120  80.00- 120.00   100.00
 20.979  20.979 (1.144)    70     37914                    0.00-  40.06    10.35
 20.979  20.979 (1.144)   100    240630                   36.64-  96.64    65.72
-------------------------------------------------------------------------------
  147 Toluene                                     CAS #: 108-88-3
 21.135  21.135 (1.152)    91    475462 5.41852    5.418  80.00- 120.00   100.00
 21.135  21.135 (1.152)    92    278374                   29.36-  89.36    58.55
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                   CAS #: 10061-02-6
 21.723  21.723 (0.909)    75    207071 5.57817    5.578  80.00- 120.00   100.00
 21.723  21.723 (0.909)    77     65006                    2.80-  62.80    31.39
 21.723  21.723 (0.909)    39     82944                    9.93-  69.93    40.06
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                       CAS #: 79-00-5
 22.159  22.159 (0.927)    97    179187 5.42733    5.427  80.00- 120.00   100.00
 22.159  22.159 (0.927)    99    116025                   31.16-  91.16    64.75
 22.159  22.159 (0.927)    83    144681                   52.03- 112.03    80.74
-------------------------------------------------------------------------------
  156 Tetrachloroethene                           CAS #: 127-18-4
 22.304  22.304 (0.934)   166    301245 5.42980    5.430  80.00- 120.00   100.00
 22.304  22.304 (0.934)   129    205894                   36.29-  96.29    68.35
 22.304  22.304 (0.934)   131    196022                   35.02-  95.02    65.07
-------------------------------------------------------------------------------
  158 2-Hexanone                                  CAS #: 591-78-6
 22.536  22.537 (0.943)    58    129623 5.97387    5.974  80.00- 120.00   100.00
 22.536  22.537 (0.943)    43    222655                  138.91- 198.91   171.77
 22.536  22.537 (0.943)   100     31464                    0.00-  53.53    24.27
-------------------------------------------------------------------------------
  160 Dibromochloromethane                        CAS #: 124-48-1
 22.914  22.914 (0.959)   129    324129 6.02796    6.028  80.00- 120.00   100.00
 22.914  22.914 (0.959)   127    248072                   46.93- 106.93    76.53
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                     CAS #: 106-93-4
 23.175  23.176 (0.970)   107    281068 5.66914    5.669  80.00- 120.00   100.00
 23.175  23.176 (0.970)   109    270733                   66.13- 126.13    96.32
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                            CAS #: 3114-55-4
 23.892  23.892 (1.000)   117    329323 5.00000           80.00- 120.00   100.00
 23.892  23.892 (1.000)    82    168710                   18.57-  78.57    51.23
-------------------------------------------------------------------------------
  165 Chlorobenzene                               CAS #: 108-90-7
 23.933  23.933 (1.002)   112    404348 5.40277    5.403  80.00- 120.00   100.00
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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  165 Chlorobenzene (continued)
 23.933  23.933 (1.002)   114    129643                     2.12-  62.12    32.06
 23.933  23.933 (1.002)    77    215388                    25.79-  85.79    53.27
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 24.036  24.036 (1.006)   106    182075 5.47757    5.478  80.00- 120.00   100.00
 24.036  24.036 (1.006)    91    549910                  269.24- 329.24   302.02
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.222  24.222 (1.014)   106    195885 5.62572    5.626  80.00- 120.00   100.00
 24.222  24.201 (1.014)    91    377074                  160.53- 220.53   192.50
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.820  24.820 (1.039)   106    184857 5.67014    5.670  80.00- 120.00   100.00
 24.820  24.820 (1.039)    91    380838                  168.41- 228.41   206.02
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 24.840  24.840 (1.040)   104    257237 5.76586    5.766  80.00- 120.00   100.00
 24.840  24.840 (1.040)    78    127785                   16.68-  76.68    49.68
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 25.179  25.179 (1.054)   173    345415 6.18929    6.189  80.00- 120.00   100.00
 25.179  25.179 (1.054)   171    178057                   21.43-  81.43    51.55
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 25.293  25.293 (1.059)   105    581249 5.60296    5.603  80.00- 120.00   100.00
 25.293  25.293 (1.059)   120    164283                    0.00-  58.79    28.26
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 25.578  25.578 (1.071)   174    202796 5.14098    5.141  80.00- 120.00   100.00
 25.578  25.578 (1.071)    95    203961                   70.67- 130.67   100.57
 25.578  25.578 (1.071)   176    195818                   67.63- 127.63    96.56
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 25.767  25.767 (1.079)    83    348903 5.55215    5.552  80.00- 120.00   100.00
 25.767  25.767 (1.079)    85    223798                   34.87-  94.87    64.14
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 25.824  25.824 (1.081)    91    530278 5.42375    5.424  80.00- 120.00   100.00
 25.824  25.824 (1.081)   120    135523                    0.00-  55.88    25.56
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 25.957  25.957 (1.086)   105    411153 5.17034    5.170  80.00- 120.00   100.00
 25.957  25.957 (1.086)   120    131065                    3.93-  63.93    31.88
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 26.033  26.033 (1.090)   105    380033 5.22529    5.225  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
190 1,3,5-Trimethylbenzene (continued)							
26.033	26.033 (1.090)	120	193634			20.38- 80.38	50.95
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.488	26.488 (1.109)	105	348902	4.91370	4.914	80.00- 120.00	100.00
26.488	26.488 (1.109)	120	169329			19.25- 79.25	48.53
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.909	26.894 (1.126)	146	293445	5.02375	5.024	80.00- 120.00	100.00
26.909	26.894 (1.126)	148	188923			34.22- 94.22	64.38
26.894	26.894 (1.126)	111	108706			6.18- 66.18	37.04
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
27.018	27.018 (1.131)	146	253505	4.86075	4.861	80.00- 120.00	100.00
27.018	27.018 (1.131)	148	162560			34.44- 94.44	64.12
27.018	27.018 (1.131)	111	89637			4.83- 64.83	35.36
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.174	27.174 (1.137)	91	294034	5.83297	5.833	80.00- 120.00	100.00
27.174	27.174 (1.137)	126	68651			0.00- 54.01	23.35
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.486	27.470 (1.150)	146	252236	4.90055	4.900	80.00- 120.00	100.00
27.486	27.470 (1.150)	148	160983			33.85- 93.85	63.82
27.470	27.470 (1.150)	111	96512			6.72- 66.72	38.26
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.497	29.497 (1.235)	180	176830	3.88011	3.880	80.00- 120.00	100.00
29.497	29.497 (1.235)	182	170613			66.47- 126.47	96.48
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.622	29.622 (1.240)	225	172153	4.13870	4.139	80.00- 120.00	100.00
29.622	29.622 (1.240)	223	107529			33.07- 93.07	62.46
228 Naphthalene					CAS #: 91-20-3		
29.902	29.887 (1.252)	128	18916	0.30877	0.3088	80.00- 120.00	100.00(a)
29.902	29.902 (1.252)	127	2546			0.00- 43.71	13.46

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20050708.d
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: sab
Method File: /chem/msd20.i/07May2015.b/2015l0506a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 07-MAY-2015
Calibration Time: 14:04
Client Smp ID: ICV
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	94879	56927	132831	94815	-0.07
123 1,4-Difluorobenze	388701	233221	544181	385504	-0.82
163 Chlorobenzene-d5	341986	205192	478780	329323	-3.70

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.84	16.51	17.17	16.84	0.00
123 1,4-Difluorobenze	18.34	18.01	18.67	18.34	0.00
163 Chlorobenzene-d5	23.89	23.56	24.22	23.89	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 08-May-2015 12:11

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07May2015
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: ICV
Client Smp ID: ICV
Level: LOW
Operator: sab
Data Type: MS DATA
SampleType: LCS
SpikeList File: AT12.spk
Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msd20.i/07May2015.b/2015l0506a.m
Misc Info: 5.0ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	5.000	5.240	104.80	60-140
11 Freon 12	5.000	5.562	111.24	70-130
15 Freon 114	5.000	5.509	110.19	70-130
17 Chloromethane	5.000	5.285	105.71	70-130
23 Butane	5.000	5.564	111.28	60-140
25 Vinyl Chloride	5.000	5.500	110.00	70-130
26 1,3-Butadiene	5.000	5.239	104.78	70-130
29 Bromomethane	5.000	5.897	117.94	70-130
30 Chloroethane	5.000	5.491	109.81	70-130
31 Isopentane	5.000	5.440	108.81	60-140
35 Freon 11	5.000	5.453	109.06	70-130
42 Ethanol	5.000	5.768	115.36	70-130
49 Freon 113	5.000	5.076	101.53	70-130
50 1,1-Dichloroethene	5.000	5.414	108.28	70-130
52 Acetone	5.000	5.080	101.59	70-130
56 Carbon Disulfide	5.000	4.786	95.71	70-130
57 2-Propanol	5.000	5.625	112.50	70-130
58 3-Chloropropene	5.000	6.506	130.13*	70-130
66 Methylene Chloride	5.000	5.144	102.89	70-130
72 Methyl tert-butyl	5.000	5.331	106.62	70-130
73 trans-1,2-Dichloro	5.000	4.486	89.72	70-130
78 Hexane	5.000	5.657	113.13	70-130
82 1,1-Dichloroethane	5.000	5.258	105.15	70-130
86 Vinyl Acetate	5.000	5.151	103.02	60-140
91 cis-1,2-Dichloroet	5.000	5.990	119.81	70-130
92 2-Butanone	5.000	5.343	106.87	70-130
99 Tetrahydrofuran	5.000	5.299	105.98	70-130
100 Chloroform	5.000	5.174	103.48	70-130
103 1,1,1-Trichloroeth	5.000	5.127	102.54	70-130
106 Carbon Tetrachlori	5.000	7.704	154.08*	70-130
102 Cyclohexane	5.000	5.429	108.58	70-130
113 2,2,4-Trimethylpen	5.000	6.855	137.10*	70-130
116 Benzene	5.000	5.282	105.64	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	5.000	5.104	102.08	70-130
121 Heptane	5.000	5.596	111.92	70-130
125 Trichloroethene	5.000	5.357	107.15	70-130
127 Methylcyclohexane	5.000	5.490	109.81	60-140
132 1,2-Dichloropropan	5.000	5.235	104.71	70-130
136 1,4-Dioxane	5.000	5.775	115.51	70-130
138 Bromodichlorometha	5.000	5.768	115.36	70-130
144 cis-1,3-Dichloropr	5.000	5.134	102.67	70-130
145 4-Methyl-2-pentano	5.000	6.037	120.74	70-130
147 Toluene	5.000	5.418	108.37	70-130
150 trans-1,3-Dichloro	5.000	5.578	111.56	70-130
155 1,1,2-Trichloroeth	5.000	5.427	108.55	70-130
156 Tetrachloroethene	5.000	5.430	108.60	70-130
158 2-Hexanone	5.000	5.974	119.48	70-130
160 Dibromochlorometha	5.000	6.028	120.56	70-130
161 1,2-Dibromoethane	5.000	5.669	113.38	70-130
165 Chlorobenzene	5.000	5.403	108.06	70-130
167 Ethyl Benzene	5.000	5.478	109.55	70-130
169 m,p-Xylene	5.000	5.626	112.51	70-130
171 o-Xylene	5.000	5.670	113.40	70-130
172 Styrene	5.000	5.766	115.32	70-130
174 Bromoform	5.000	6.189	123.79	70-130
175 Cumene	5.000	5.603	112.06	70-130
181 1,1,2,2-Tetrachlor	5.000	5.552	111.04	70-130
182 Propylbenzene	5.000	5.424	108.48	70-130
188 4-Ethyltoluene	5.000	5.170	103.41	70-130
190 1,3,5-Trimethylben	5.000	5.225	104.51	70-130
196 1,2,4-Trimethylben	5.000	4.914	98.27	70-130
208 1,3-Dichlorobenzen	5.000	5.024	100.47	70-130
209 1,4-Dichlorobenzen	5.000	4.861	97.21	70-130
212 alpha-Chlorotoluen	5.000	5.833	116.66	70-130
214 1,2-Dichlorobenzen	5.000	4.900	98.01	70-130
226 1,2,4-Trichloroben	5.000	3.880	77.60	70-130
227 Hexachlorobutadien	5.000	4.139	82.77	70-130
228 Naphthalene	0.5000	0.3088	61.75	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.746	94.92	70-130
$ 146 Toluene-d8	5.000	5.120	102.40	70-130
$ 177 4-Bromofluorobenze	5.000	5.141	102.82	70-130

Data File: /chem/msd20.i/07May2015.b/20050708.d

Date : 08-MAY-2015 08:36

Client ID: ICV

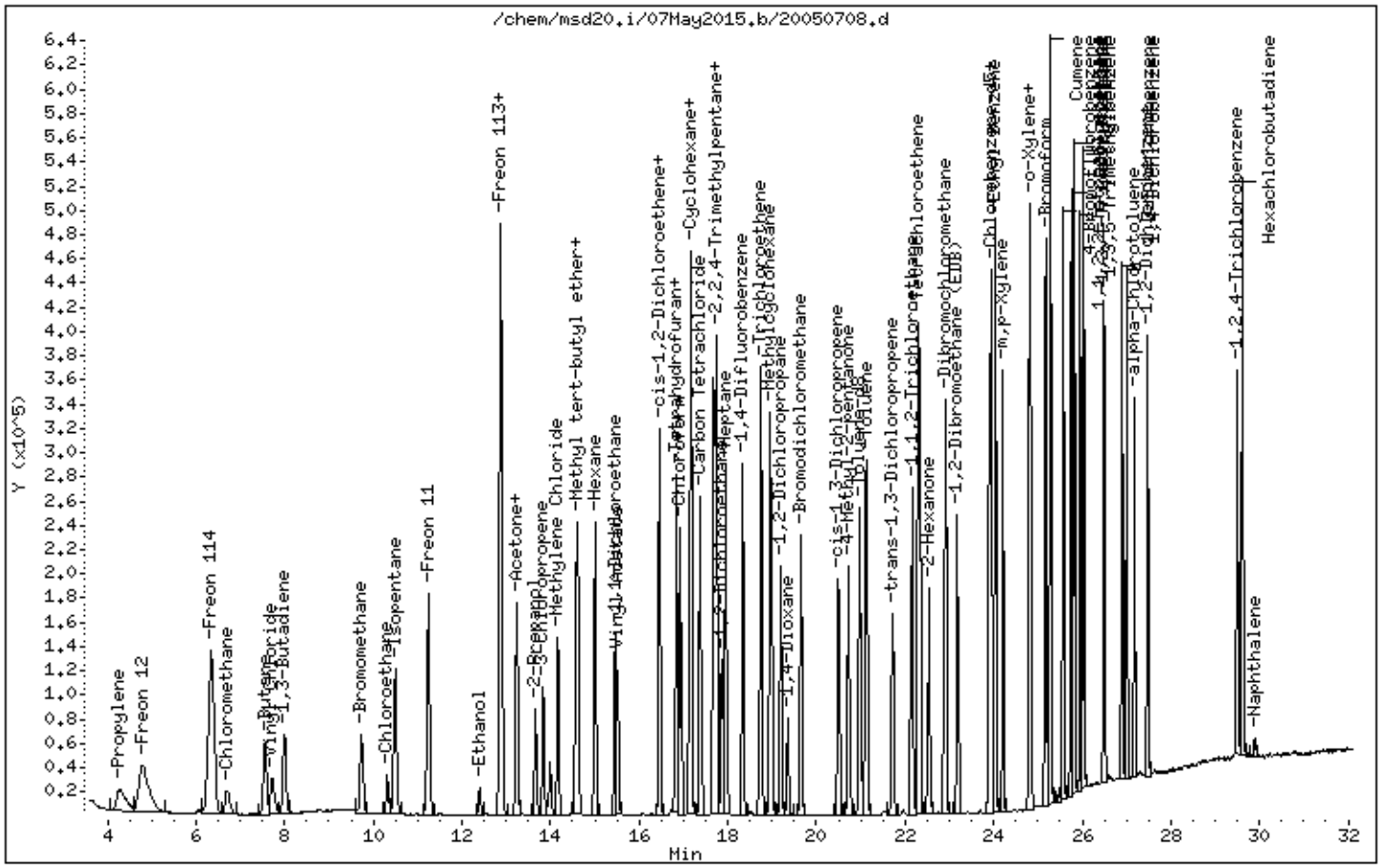
Instrument: msd20.i

Sample Info: 25mL# 2716-219

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/06May2015.b/20050604.d
Lab Smp Id: ICAL Client Smp ID: Level #5
Inj Date : 06-MAY-2015 15:08
Operator : sab Inst ID: msd20.i
Smp Info : 250mL# 2716-276
Misc Info : 0.05ppbv (0.05ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/06May2015.b/2015l0506a.m
Meth Date : 07-May-2015 15:11 sblack Quant Type: ISTD
Cal Date : 06-MAY-2015 15:08 Cal File: 20050604.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level5.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
15 Freon 114					CAS #: 76-14-2		
6.386	6.386 (0.379)	135	2613	0.05000	0.05000	80.00- 120.00	100.00(aM)
6.386	6.386 (0.379)	137	584			2.39- 62.39	22.35
6.352	6.352 (0.377)	85	3636			90.31- 150.31	139.15
25 Vinyl Chloride					CAS #: 75-01-4		
7.715	7.715 (0.458)	62	1242	0.05000	0.05000	80.00- 120.00	100.00(aM)
7.704	7.704 (0.457)	64	117			1.92- 61.92	9.42
35 Freon 11					CAS #: 75-69-4		
11.255	11.255 (0.668)	101	3291	0.05000	0.05000	80.00- 120.00	100.00(a)
11.255	11.255 (0.668)	103	3686			35.69- 95.69	112.00
49 Freon 113					CAS #: 76-13-1		
12.874	12.874 (0.764)	151	3138	0.05000	0.05000	80.00- 120.00	100.00(a)
12.874	12.874 (0.764)	153	2048			34.25- 94.25	65.26
12.895	12.895 (0.766)	101	3243			75.92- 135.92	103.35

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

*  98 Bromochloromethane                           CAS #: 74-97-5
 16.844  16.844 (1.000)   130     92343 5.00000           80.00- 120.00   100.00
 16.844  16.844 (1.000)   128     73915                   48.56- 108.56    80.04
 16.844  16.844 (1.000)    49     94719                   77.31- 137.31   102.57
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                       CAS #: 71-55-6
 17.180  17.180 (1.020)    97      3053 0.05000  0.05000  80.00- 120.00   100.00(a)
 17.180  17.180 (1.020)    99      2061                   34.49-  94.49    67.51
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                        CAS #: 56-23-5
 17.372  17.372 (1.031)   119      1716 0.05000  0.05000  80.00- 120.00   100.00(a)
 17.396  17.396 (1.033)   117      1935                   73.26- 133.26   112.76
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                       CAS #: 17060-07-0
 17.756  17.756 (1.054)    65    129026 5.00000    5.000  80.00- 120.00   100.00
 17.756  17.756 (1.054)    67     67624                   27.32-  87.32    52.41
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                          CAS #: 107-06-2
 17.876  17.876 (0.974)    62      1885 0.05000  0.05000  80.00- 120.00   100.00(a)
 17.876  17.876 (0.974)    64       561                    2.42-  62.42    29.76
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                         CAS #: 540-36-3
 18.344  18.344 (1.000)   114    403940 5.00000           80.00- 120.00   100.00
 18.344  18.344 (1.000)    88     60957                    0.00-  44.67    15.09
-------------------------------------------------------------------------------
  125 Trichloroethene                             CAS #: 79-01-6
 18.745  18.745 (1.022)   130      2108 0.05000  0.05000  80.00- 120.00   100.00(a)
 18.745  18.745 (1.022)    95      1947                   56.13- 116.13    92.36
 18.745  18.745 (1.022)    97      1290                   26.55-  86.55    61.20
-------------------------------------------------------------------------------
  138 Bromodichloromethane                        CAS #: 75-27-4
 19.660  19.660 (0.823)    83      2244 0.05000  0.05000  80.00- 120.00   100.00(a)
 19.660  19.660 (0.823)    85      1712                   34.06-  94.06    76.29
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                  CAS #: 2037-26-5
 20.979  20.979 (1.144)    98    369411 5.00000    5.000  80.00- 120.00   100.00
 20.979  20.979 (1.144)    70     38296                    0.00-  40.06    10.37
 20.979  20.979 (1.144)   100    242946                   36.64-  96.64    65.77
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                       CAS #: 79-00-5
 22.159  22.159 (0.927)    97      1782 0.05000  0.05000  80.00- 120.00   100.00(a)
 22.159  22.159 (0.927)    99      1153                   31.16-  91.16    64.70
 22.159  22.159 (0.927)    83      1472                   52.03- 112.03    82.60
-------------------------------------------------------------------------------
  156 Tetrachloroethene                           CAS #: 127-18-4
 22.333  22.333 (0.935)   166      3096 0.05000  0.05000  80.00- 120.00   100.00(a)
```

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  156 Tetrachloroethene (continued)
 22.304  22.304 (0.934)   129      2061                    36.29-  96.29    66.57
 22.304  22.304 (0.934)   131      2047                    35.02-  95.02    66.12
-------------------------------------------------------------------------------
  160 Dibromochloromethane                          CAS #: 124-48-1
 22.914  22.914 (0.959)   129      2241 0.05000  0.05000  80.00- 120.00   100.00(a)
 22.914  22.914 (0.959)   127      1997                    46.93- 106.93    89.11
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                       CAS #: 106-93-4
 23.176  23.176 (0.970)   107      2547 0.05000  0.05000  80.00- 120.00   100.00(a)
 23.176  23.176 (0.970)   109      2124                    66.13- 126.13    83.39
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                              CAS #: 3114-55-4
 23.892  23.892 (1.000)   117    355094 5.00000            80.00- 120.00   100.00
 23.892  23.892 (1.000)    82    178388                    18.57-  78.57    50.24
-------------------------------------------------------------------------------
  174 Bromoform                                     CAS #: 75-25-2
 25.160  25.160 (1.053)   173      2755 0.05000  0.05000  80.00- 120.00   100.00(a)
 25.179  25.179 (1.054)   171      1437                    21.43-  81.43    52.16
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.578  25.578 (1.071)   174    211656 5.00000    5.000  80.00- 120.00   100.00
 25.578  25.578 (1.071)    95    220491                    70.67- 130.67   104.17
 25.578  25.578 (1.071)   176    207715                    67.63- 127.63    98.14
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 25.767  25.767 (1.079)    83      3688 0.05000  0.05000  80.00- 120.00   100.00(a)
 25.767  25.767 (1.079)    85      2682                    34.87-  94.87    72.72
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 26.033  26.033 (1.090)   105      5008 0.05000  0.05000  80.00- 120.00   100.00(a)
 26.033  26.033 (1.090)   120      2416                    20.38-  80.38    48.24
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 26.488  26.488 (1.109)   105      5883 0.05000  0.05000  80.00- 120.00   100.00(a)
 26.488  26.488 (1.109)   120      2596                    19.25-  79.25    44.13
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 26.894  26.894 (1.126)   146      4263 0.05000  0.05000  80.00- 120.00   100.00(a)
 26.894  26.894 (1.126)   148      3158                    34.22-  94.22    74.08
 26.894  26.894 (1.126)   111      1739                     6.18-  66.18    40.79
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 27.018  27.018 (1.131)   146      4000 0.05000  0.05000  80.00- 120.00   100.00(a)
 27.018  27.018 (1.131)   148      3065                    34.44-  94.44    76.62
 27.018  27.018 (1.131)   111      1703                     4.83-  64.83    42.58
-------------------------------------------------------------------------------
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
214 1,2-Dichlorobenzene							CAS #: 95-50-1	
27.486	27.486	(1.150)	146	4246	0.05000	0.05000	80.00- 120.00	100.00(a)
27.486	27.486	(1.150)	148	2954			33.85- 93.85	69.57
27.486	27.486	(1.150)	111	1660			6.72- 66.72	39.10
226 1,2,4-Trichlorobenzene							CAS #: 120-82-1	
29.497	29.497	(1.235)	180	4362	0.05000	0.05000	80.00- 120.00	100.00(a)
29.497	29.497	(1.235)	182	3670			66.47- 126.47	84.14

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Report Date: 07-May-2015 15:11

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20050604.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: sab
Method File: /chem/msd20.i/06May2015.b/2015l0506a.m
Misc Info: 0.05ppbv (0.05ppbv)

Calibration Date: 06-MAY-2015
Calibration Time: 16:39
Client Smp ID: Level #5
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	98180	58908	137452	92343	-5.95
123 1,4-Difluorobenze	392208	235325	549091	403940	2.99
163 Chlorobenzene-d5	339954	203972	475936	355094	4.45

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.84	16.51	17.17	16.84	0.00
123 1,4-Difluorobenze	18.34	18.01	18.67	18.34	0.00
163 Chlorobenzene-d5	23.89	23.56	24.22	23.89	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd20.i/06May2015.b/20050604.d

Date : 06-MAY-2015 15:08

Client ID: Level #5

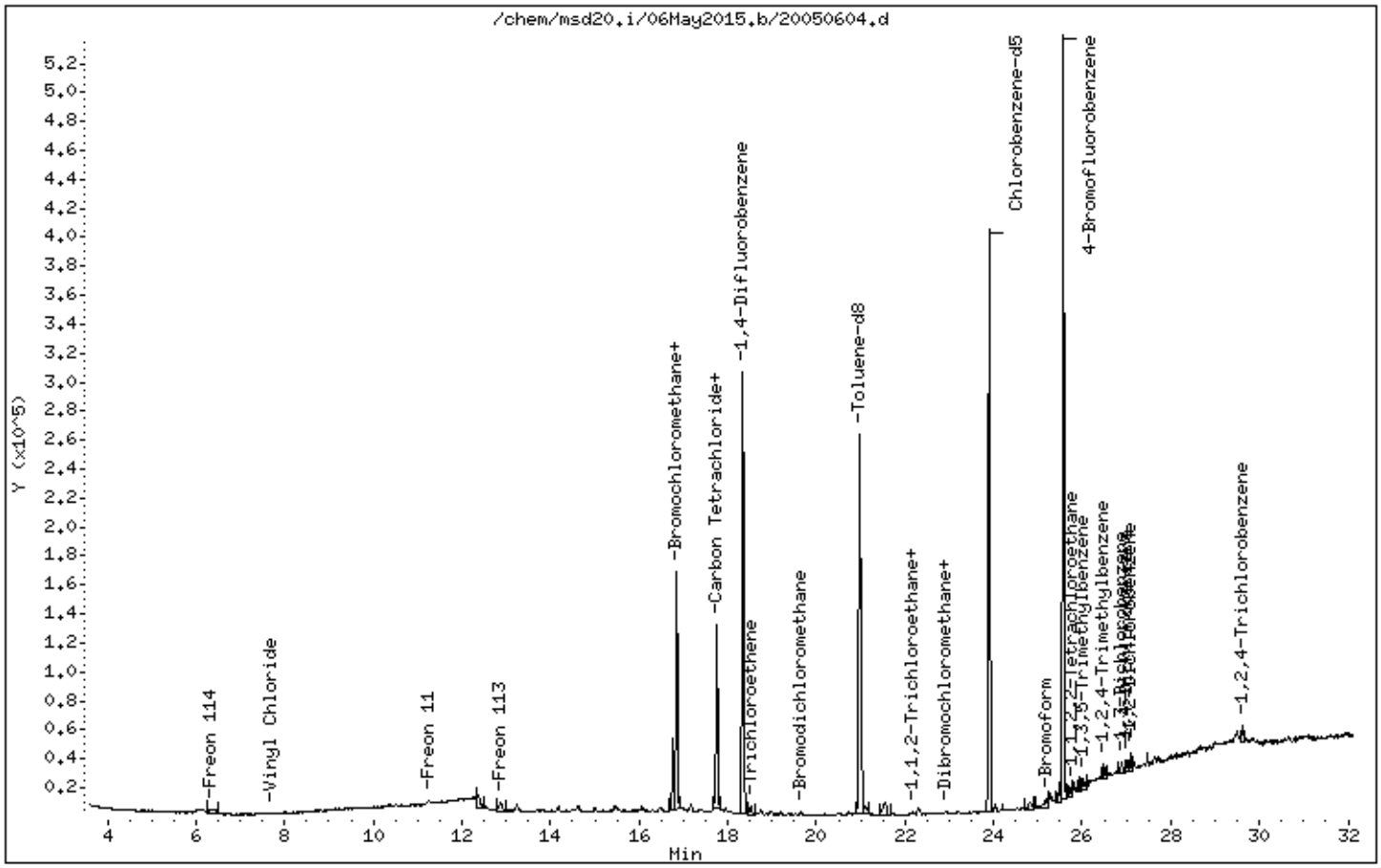
Instrument: msd20.i

Sample Info: 250mL# 2716-276

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/06May2015.b/20050616.d
Lab Smp Id: ICAL Client Smp ID: Level #6
Inj Date : 07-MAY-2015 12:38
Operator : sab Inst ID: msd20.i
Smp Info : 25mL# 2716-277
Misc Info : 0.1ppbv (1.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/06May2015.b/2015l0506a.m
Meth Date : 07-May-2015 19:53 cbond Quant Type: ISTD
Cal Date : 07-MAY-2015 12:38 Cal File: 20050616.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level6.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
11 Freon 12					CAS #: 75-71-8		
4.814	4.814 (0.286)	85	6773	0.10000	0.1027	80.00- 120.00	100.00(aM)
4.831	4.780 (0.287)	87	1881			2.49- 62.49	27.77
15 Freon 114					CAS #: 76-14-2		
6.352	6.352 (0.377)	135	5995	0.10000	0.1104	80.00- 120.00	100.00(a)
6.352	6.352 (0.377)	137	2003			2.39- 62.39	33.41
6.334	6.352 (0.376)	85	7480			90.31- 150.31	124.77
25 Vinyl Chloride					CAS #: 75-01-4		
7.722	7.725 (0.458)	62	2186	0.10000	0.09673	80.00- 120.00	100.00(a)
7.732	7.725 (0.459)	64	265			1.92- 61.92	12.12
26 1,3-Butadiene					CAS #: 106-99-0		
7.995	7.999 (0.475)	54	1998	0.10000	0.1221	80.00- 120.00	100.00(a)
8.016	8.010 (0.476)	39	1377			62.52- 122.52	68.92

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
35 Freon 11					CAS #: 75-69-4		
11.245	11.255 (0.668)	101	7325	0.10000	0.1060	80.00- 120.00	100.00(a)
11.262	11.255 (0.669)	103	5065			35.69- 95.69	69.15
49 Freon 113					CAS #: 76-13-1		
12.878	12.874 (0.765)	151	6081	0.10000	0.1093	80.00- 120.00	100.00(a)
12.878	12.874 (0.765)	153	3456			34.25- 94.25	56.83
12.878	12.874 (0.765)	101	6593			75.92- 135.92	108.42
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.857	12.874 (0.763)	98	1678	0.10000	0.1039	80.00- 120.00	100.00(a)
12.857	12.874 (0.763)	61	3929			183.51- 243.51	234.15
12.878	12.874 (0.765)	96	3182			126.67- 186.67	189.63
58 3-Chloropropene					CAS #: 107-05-1		
13.827	13.844 (0.821)	76	942	0.10000	0.09900	80.00- 120.00	100.00(a)
13.827	13.824 (0.821)	41	2454			207.26- 267.26	260.51
66 Methylene Chloride					CAS #: 75-09-2		
14.157	14.174 (0.841)	84	2735	0.10000	0.1130	80.00- 120.00	100.00(a)
14.157	14.154 (0.841)	49	3202			76.26- 136.26	117.07
14.157	14.154 (0.841)	51	1082			2.64- 62.64	39.56
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.590	14.566 (0.866)	73	6401	0.10000	0.09781	80.00- 120.00	100.00(a)
14.590	14.566 (0.866)	57	1202			0.00- 51.22	18.78
14.590	14.566 (0.866)	41	2100			0.00- 49.54	32.81
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.611	14.607 (0.868)	98	2032	0.10000	0.1145	80.00- 120.00	100.00(a)
14.611	14.607 (0.868)	61	3436			157.09- 217.09	169.09
14.611	14.607 (0.868)	96	3733			124.47- 184.47	183.71
78 Hexane					CAS #: 110-54-3		
15.003	14.999 (0.891)	57	3498	0.10000	0.1039	80.00- 120.00	100.00(a)
15.003	14.999 (0.891)	43	2270			29.42- 89.42	64.89
15.003	14.999 (0.891)	86	535			0.00- 49.37	15.29
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.477	15.474 (0.919)	63	4725	0.10000	0.1070	80.00- 120.00	100.00(a)
15.457	15.474 (0.918)	65	1449			1.63- 61.63	30.67
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
16.461	16.450 (0.977)	98	1808	0.10000	0.09981	80.00- 120.00	100.00(a)
16.447	16.450 (0.977)	61	3562			140.61- 200.61	197.01
16.461	16.450 (0.977)	96	4040			124.22- 184.22	223.45

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

*  98 Bromochloromethane                            CAS #: 74-97-5
 16.841  16.844 (1.000)   130     97512 5.00000           80.00- 120.00   100.00
 16.841  16.844 (1.000)   128     75774                   48.56- 108.56    77.71
 16.841  16.844 (1.000)    49     96346                   77.31- 137.31    98.80
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.937  16.940 (1.006)    83      6171 0.10000   0.1115  80.00- 120.00   100.00(a)
 16.937  16.940 (1.006)    85      3927                   35.24-  95.24    63.64
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.177  17.156 (1.020)    84      3583 0.10000   0.1030  80.00- 120.00   100.00
 17.177  17.156 (1.020)    56      3400                   72.40- 132.40    94.89
 17.153  17.156 (1.019)    41      2089                   20.65-  80.65    58.30
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.177  17.180 (1.020)    97      6230 0.10000   0.1078  80.00- 120.00   100.00(a)
 17.177  17.180 (1.020)    99      3805                   34.49-  94.49    61.08
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                         CAS #: 56-23-5
 17.393  17.372 (1.033)   119      3627 0.10000  0.09617  80.00- 120.00   100.00(a)
 17.393  17.372 (1.033)   117      3597                   73.26- 133.26    99.17
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                       CAS #: 540-84-1
 17.681  17.684 (1.050)    56      2765 0.10000  0.08299  80.00- 120.00   100.00(a)
 17.681  17.684 (1.050)    57      9132                  268.82- 328.82   330.27
 17.681  17.684 (1.050)    41      2875                   49.41- 109.41   103.98
-------------------------------------------------------------------------------
  116 Benzene                                      CAS #: 71-43-2
 17.729  17.732 (0.967)    78      9733 0.10000   0.1227  80.00- 120.00   100.00(a)
 17.753  17.732 (0.968)    77      2115                    0.00-  53.11    21.73
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                        CAS #: 17060-07-0
 17.753  17.756 (1.054)    65    120400 5.00000    4.908  80.00- 120.00   100.00
 17.753  17.756 (1.054)    67     64902                   27.32-  87.32    53.91
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                           CAS #: 107-06-2
 17.873  17.876 (0.974)    62      3808 0.10000   0.1128  80.00- 120.00   100.00
 17.873  17.876 (0.974)    64      1514                    2.42-  62.42    39.76
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 17.945  17.948 (0.978)    57      1763 0.10000  0.09004  80.00- 120.00   100.00(a)
 17.945  17.948 (0.978)   100       768                   21.23-  81.23    43.56
 17.968  17.948 (0.980)    43      3599                  145.72- 205.72   204.14
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 18.341  18.344 (1.000)   114    386291 5.00000           80.00- 120.00   100.00
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

* 123 1,4-Difluorobenzene (continued)
 18.341  18.344 (1.000)    88     57511                     0.00-  44.67    14.89
-------------------------------------------------------------------------------
  125 Trichloroethene                                CAS #: 79-01-6
 18.742  18.745 (1.022)   130      4378 0.10000   0.1074  80.00- 120.00   100.00(a)
 18.742  18.745 (1.022)    95      4125                   56.13- 116.13    94.22
 18.742  18.745 (1.022)    97      2883                   26.55-  86.55    65.85
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                            CAS #: 78-87-5
 19.211  19.214 (1.047)    63      2891 0.10000   0.1065  80.00- 120.00   100.00(a)
 19.211  19.214 (1.047)    62      1896                   40.14- 100.14    65.58
 19.211  19.214 (1.047)    41      1891                   17.79-  77.79    65.41
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                    CAS #: 123-91-1
 19.367  19.348 (1.056)    88      1440 0.10000  0.08038  80.00- 120.00   100.00(a)
 19.367  19.348 (1.056)    58       912                   30.40-  90.40    63.33
 19.367  19.348 (1.056)    57       236                    0.00-  48.90    16.39
-------------------------------------------------------------------------------
  138 Bromodichloromethane                           CAS #: 75-27-4
 19.657  19.660 (0.823)    83      4872 0.10000  0.09901  80.00- 120.00   100.00(a)
 19.657  19.660 (0.823)    85      3390                   34.06-  94.06    69.58
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                        CAS #: 10061-01-5
 20.484  20.496 (1.117)    75      4072 0.10000  0.09251  80.00- 120.00   100.00(a)
 20.499  20.496 (1.118)    77      1606                    1.74-  61.74    39.44
 20.515  20.496 (1.119)    39      1840                   10.68-  70.68    45.19
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                           CAS #: 108-10-1
 20.733  20.730 (1.130)    43      3541 0.10000  0.08304  80.00- 120.00   100.00(a)
 20.717  20.730 (1.130)    58      1421                   12.69-  72.69    40.13
 20.733  20.730 (1.130)    85       726                    0.00-  51.10    20.50
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                     CAS #: 2037-26-5
 20.982  20.979 (1.144)    98    349419 5.00000    4.876  80.00- 120.00   100.00
 20.982  20.979 (1.144)    70     35726                    0.00-  40.06    10.22
 20.982  20.979 (1.144)   100    229270                   36.64-  96.64    65.61
-------------------------------------------------------------------------------
  147 Toluene                                        CAS #: 108-88-3
 21.123  21.135 (1.152)    91      9371 0.10000   0.1066  80.00- 120.00   100.00(a)
 21.123  21.135 (1.152)    92      5462                   29.36-  89.36    58.29
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                      CAS #: 10061-02-6
 21.727  21.723 (0.909)    75      3391 0.10000  0.09118  80.00- 120.00   100.00(a)
 21.727  21.723 (0.909)    77      1108                    2.80-  62.80    32.67
 21.727  21.723 (0.909)    39      1591                    9.93-  69.93    46.92
-------------------------------------------------------------------------------
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  155 1,1,2-Trichloroethane                          CAS #: 79-00-5
 22.162  22.159 (0.927)    97      3450 0.10000   0.1043  80.00- 120.00   100.00(a)
 22.162  22.159 (0.927)    99      2209                   31.16-  91.16    64.03
 22.162  22.159 (0.927)    83      2992                   52.03- 112.03    86.72
-------------------------------------------------------------------------------
  156 Tetrachloroethene                              CAS #: 127-18-4
 22.308  22.304 (0.934)   166      5829 0.10000   0.1049  80.00- 120.00   100.00(a)
 22.308  22.304 (0.934)   129      4099                   36.29-  96.29    70.32
 22.308  22.304 (0.934)   131      3729                   35.02-  95.02    63.97
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
 22.918  22.914 (0.959)   129      4769 0.10000  0.08853  80.00- 120.00   100.00(a)
 22.918  22.914 (0.959)   127      3671                   46.93- 106.93    76.98
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
 23.179  23.176 (0.970)   107      4834 0.10000  0.09732  80.00- 120.00   100.00(a)
 23.179  23.176 (0.970)   109      4797                   66.13- 126.13    99.23
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                               CAS #: 3114-55-4
 23.895  23.892 (1.000)   117    329924 5.00000           80.00- 120.00   100.00
 23.895  23.892 (1.000)    82    162777                   18.57-  78.57    49.34
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
 23.936  23.933 (1.002)   112      8157 0.10000   0.1088  80.00- 120.00   100.00(a)
 23.936  23.933 (1.002)   114      2453                    2.12-  62.12    30.07
 23.936  23.933 (1.002)    77      7364                   25.79-  85.79    90.28
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
 24.039  24.036 (1.006)   106      3473 0.10000   0.1043  80.00- 120.00   100.00(a)
 24.039  24.036 (1.006)    91      9644                  269.24- 329.24   277.68
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
 24.204  24.222 (1.013)   106      3491 0.10000   0.1001  80.00- 120.00   100.00(a)
 24.204  24.222 (1.013)    91      6415                  160.53- 220.53   183.76
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
 24.823  24.820 (1.039)   106      3046 0.10000  0.09326  80.00- 120.00   100.00(a)
 24.823  24.820 (1.039)    91      6400                  168.41- 228.41   210.11
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
 24.844  24.840 (1.040)   104      3859 0.10000  0.08634  80.00- 120.00   100.00(a)
 24.844  24.840 (1.040)    78      2033                   16.68-  76.68    52.68
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
 25.164  25.179 (1.053)   173      4137 0.10000  0.07399  80.00- 120.00   100.00(a)
 25.164  25.179 (1.053)   171      2228                   21.43-  81.43    53.86
-------------------------------------------------------------------------------
```

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  175 Cumene                                          CAS #: 98-82-8
 25.297  25.293 (1.059)   105      9886 0.10000  0.09512  80.00- 120.00   100.00(a)
 25.297  25.293 (1.059)   120      3152                    0.00-  58.79    31.88
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                            CAS #: 460-00-4
 25.581  25.578 (1.071)   174    186025 5.00000    4.707  80.00- 120.00   100.00
 25.581  25.578 (1.071)    95    185804                   70.67- 130.67    99.88
 25.581  25.578 (1.071)   176    179663                   67.63- 127.63    96.58
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                       CAS #: 79-34-5
 25.752  25.767 (1.078)    83      5935 0.10000  0.09427  80.00- 120.00   100.00(a)
 25.752  25.767 (1.078)    85      4001                   34.87-  94.87    67.41
-------------------------------------------------------------------------------
  182 Propylbenzene                                   CAS #: 103-65-1
 25.828  25.824 (1.081)    91     11671 0.10000   0.1192  80.00- 120.00   100.00(a)
 25.828  25.824 (1.081)   120      3239                    0.00-  55.88    27.75
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                  CAS #: 622-96-8
 25.960  25.957 (1.086)   105     10152 0.10000   0.1274  80.00- 120.00   100.00(a)
 25.960  25.957 (1.086)   120      2979                    3.93-  63.93    29.34
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                          CAS #: 108-67-8
 26.036  26.033 (1.090)   105      8881 0.10000   0.1219  80.00- 120.00   100.00(a)
 26.036  26.033 (1.090)   120      4753                   20.38-  80.38    53.52
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                          CAS #: 95-63-6
 26.491  26.488 (1.109)   105      8976 0.10000   0.1262  80.00- 120.00   100.00(a)
 26.491  26.488 (1.109)   120      3945                   19.25-  79.25    43.95
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                             CAS #: 541-73-1
 26.897  26.894 (1.126)   146      6693 0.10000   0.1144  80.00- 120.00   100.00(a)
 26.897  26.894 (1.126)   148      4527                   34.22-  94.22    67.64
 26.897  26.894 (1.126)   111      2288                    6.18-  66.18    34.18
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                             CAS #: 106-46-7
 27.022  27.018 (1.131)   146      5980 0.10000   0.1144  80.00- 120.00   100.00(a)
 27.006  27.018 (1.130)   148      3845                   34.44-  94.44    64.30
 27.006  27.018 (1.130)   111      2181                    4.83-  64.83    36.47
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                             CAS #: 100-44-7
 27.178  27.174 (1.137)    91      4438 0.10000  0.08788  80.00- 120.00   100.00(a)
 27.178  27.174 (1.137)   126      1103                    0.00-  54.01    24.85
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                             CAS #: 95-50-1
 27.474  27.470 (1.150)   146      5549 0.10000   0.1076  80.00- 120.00   100.00(a)
 27.474  27.470 (1.150)   148      4016                   33.85-  93.85    72.37
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
214 1,2-Dichlorobenzene (continued)							
27.474	27.470 (1.150)	111	2394			6.72- 66.72	43.14
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.500	29.497 (1.235)	180	4270	0.10000	0.09352	80.00- 120.00	100.00(a)
29.500	29.497 (1.235)	182	3648			66.47- 126.47	85.43
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.625	29.622 (1.240)	225	4458	0.10000	0.1070	80.00- 120.00	100.00(a)
29.625	29.622 (1.240)	223	2932			33.07- 93.07	65.77

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20050616.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: sab
Method File: /chem/msd20.i/06May2015.b/2015l0506a.m
Misc Info: 0.1ppbv (1.0ppbv)

Calibration Date: 06-MAY-2015
Calibration Time: 16:39
Client Smp ID: Level #6
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	98180	58908	137452	97512	-0.68
123 1,4-Difluorobenze	392208	235325	549091	386291	-1.51
163 Chlorobenzene-d5	339954	203972	475936	329924	-2.95

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.84	16.51	17.17	16.84	-0.02
123 1,4-Difluorobenze	18.34	18.01	18.67	18.34	-0.02
163 Chlorobenzene-d5	23.89	23.56	24.22	23.90	0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd20.i/06May2015.b/20050616.d

Date : 07-MAY-2015 12:38

Client ID: Level #6

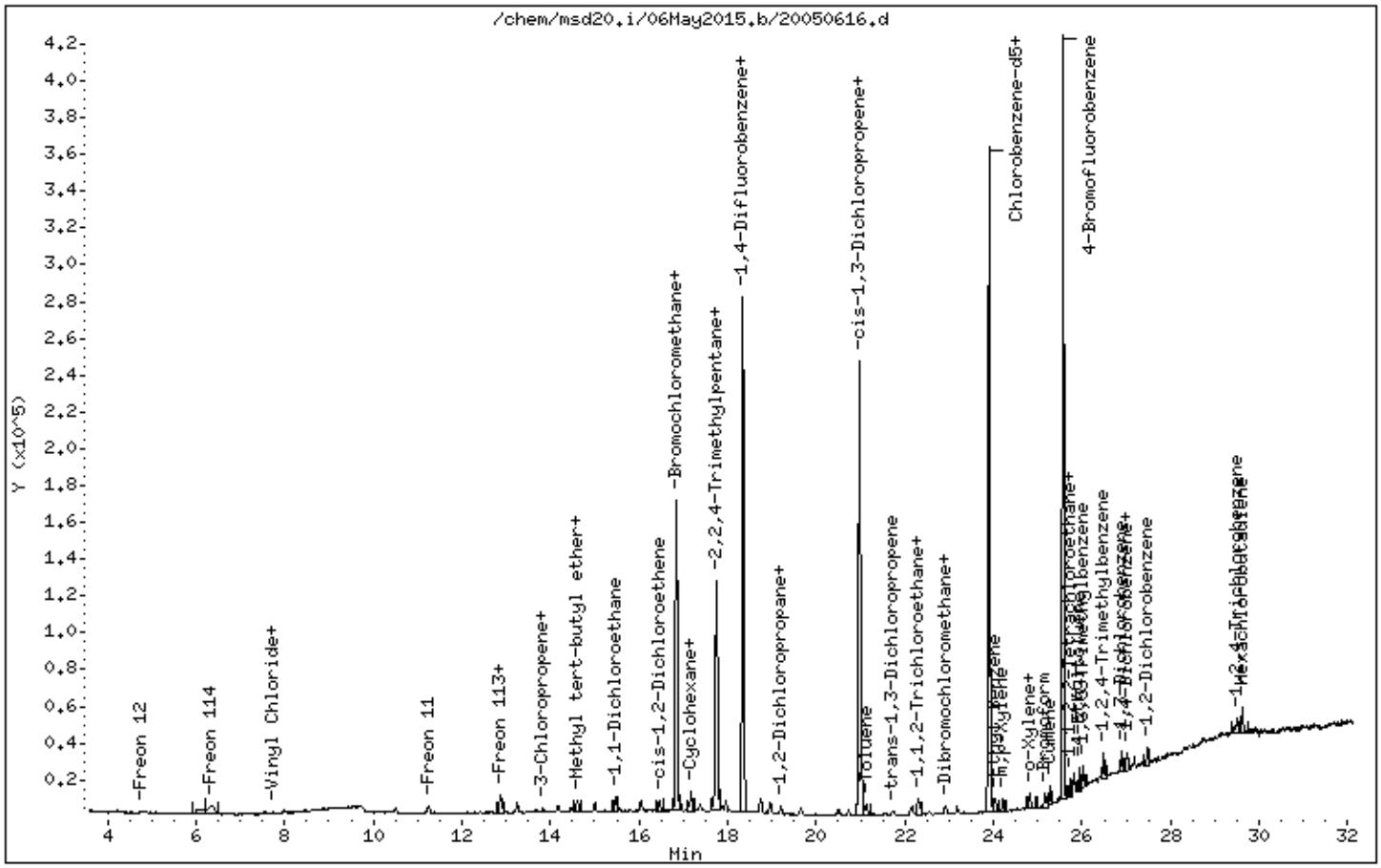
Instrument: msd20.i

Sample Info: 25mL# 2716-277

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/06May2015.b/20050605.d
Lab Smp Id: ICAL Client Smp ID: Level #7
Inj Date : 06-MAY-2015 15:57
Operator : sab Inst ID: msd20.i
Smp Info : 125mL# 2716-276
Misc Info : 0.5ppbv (1.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/06May2015.b/2015l0506a.m
Meth Date : 07-May-2015 15:11 sblack Quant Type: ISTD
Cal Date : 06-MAY-2015 15:57 Cal File: 20050605.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.279	4.279 (0.254)	41	8957	0.50000	0.5000	80.00- 120.00	100.00(M)
4.330	4.330 (0.257)	42	7358			35.77- 95.77	82.15
4.365	4.365 (0.259)	39	7491			41.14- 101.14	83.63
11 Freon 12					CAS #: 75-71-8		
4.797	4.797 (0.285)	85	33609	0.50000	0.5000	80.00- 120.00	100.00(M)
4.797	4.797 (0.285)	87	10495			2.49- 62.49	31.23
15 Freon 114					CAS #: 76-14-2		
6.352	6.352 (0.377)	135	27786	0.50000	0.5014	80.00- 120.00	100.00
6.352	6.352 (0.377)	137	8857			2.39- 62.39	31.88
6.317	6.317 (0.375)	85	33758			90.31- 150.31	121.49
17 Chloromethane					CAS #: 74-87-3		
6.697	6.697 (0.398)	50	11040	0.50000	0.5000	80.00- 120.00	100.00
6.697	6.697 (0.398)	52	3934			2.88- 62.88	35.63

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane					CAS #: 106-97-8		
7.557	7.557 (0.449)	58	1961	0.50000	0.5000	80.00- 120.00	100.00(M)
7.536	7.536 (0.447)	43	15275			662.68- 722.68	778.94
25 Vinyl Chloride					CAS #: 75-01-4		
7.704	7.704 (0.457)	62	11004	0.50000	0.4559	80.00- 120.00	100.00
7.704	7.704 (0.457)	64	3316			1.92- 61.92	30.13
26 1,3-Butadiene					CAS #: 106-99-0		
7.989	7.989 (0.474)	54	7852	0.50000	0.5000	80.00- 120.00	100.00
7.989	7.989 (0.474)	39	7624			62.52- 122.52	97.10
29 Bromomethane					CAS #: 74-83-9		
9.736	9.736 (0.578)	94	7101	0.50000	0.5000	80.00- 120.00	100.00
9.736	9.736 (0.578)	96	6886			66.00- 126.00	96.97
30 Chloroethane					CAS #: 75-00-3		
10.323	10.323 (0.613)	64	5331	0.50000	0.5000	80.00- 120.00	100.00
10.306	10.306 (0.612)	66	1940			1.26- 61.26	36.39
31 Isopentane					CAS #: 78-78-4		
10.496	10.496 (0.623)	57	8835	0.50000	0.5000	80.00- 120.00	100.00
10.479	10.479 (0.622)	43	12331			105.33- 165.33	139.57
10.513	10.513 (0.624)	42	11519			89.08- 149.08	130.38
35 Freon 11					CAS #: 75-69-4		
11.238	11.238 (0.667)	101	35323	0.50000	0.5037	80.00- 120.00	100.00
11.255	11.255 (0.668)	103	23434			35.69- 95.69	66.34
42 Ethanol					CAS #: 64-17-5		
12.400	12.400 (0.736)	45	3900	0.50000	0.5000	80.00- 120.00	100.00
12.420	12.420 (0.737)	46	1316			8.49- 68.49	33.74
12.400	12.400 (0.736)	43	1060			0.00- 51.69	27.18
49 Freon 113					CAS #: 76-13-1		
12.874	12.874 (0.764)	151	26562	0.50000	0.4446	80.00- 120.00	100.00
12.874	12.874 (0.764)	153	17596			34.25- 94.25	66.25
12.874	12.874 (0.764)	101	30117			75.92- 135.92	113.38
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.854	12.854 (0.763)	98	7873	0.50000	0.5000	80.00- 120.00	100.00
12.854	12.854 (0.763)	61	18003			183.51- 243.51	228.67
12.854	12.854 (0.763)	96	13160			126.67- 186.67	167.15
52 Acetone					CAS #: 67-64-1		
13.225	13.225 (0.785)	58	6058	0.50000	0.5000	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   52 Acetone (continued)
 13.225  13.225 (0.785)    43     17583                  250.97- 310.97   290.24
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 13.246  13.246 (0.786)    76     32712 0.50000   0.5000  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 13.659  13.659 (0.811)    45     13830 0.50000   0.5000  80.00- 120.00   100.00
 13.659  13.659 (0.811)    43      4216                    0.00-  45.99    30.48
 13.659  13.659 (0.811)    59       641                    0.00-  33.55     4.63
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 13.824  13.824 (0.821)    76      4131 0.50000   0.5000  80.00- 120.00   100.00
 13.824  13.824 (0.821)    41      9574                  207.26- 267.26   231.76
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 14.154  14.154 (0.840)    84     11930 0.50000   0.5000  80.00- 120.00   100.00
 14.154  14.154 (0.840)    49     13207                   76.26- 136.26   110.70
 14.154  14.154 (0.840)    51      4499                    2.64-  62.64    37.71
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 14.463  14.463 (0.859)    59     18027 0.50000   0.5000  80.00- 120.00   100.00
 14.463  14.463 (0.859)    41      5474                    0.00-  51.32    30.37
 14.463  14.463 (0.859)    57      1973                    0.00-  40.83    10.94
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 14.566  14.566 (0.865)    73     29464 0.50000   0.5000  80.00- 120.00   100.00
 14.566  14.566 (0.865)    57      6539                    0.00-  51.22    22.19
 14.566  14.566 (0.865)    41      7179                    0.00-  49.54    24.37
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 14.607  14.607 (0.867)    98      9112 0.50000   0.5000  80.00- 120.00   100.00
 14.607  14.607 (0.867)    61     17150                  157.09- 217.09   188.21
 14.607  14.607 (0.867)    96     13284                  124.47- 184.47   145.79
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 14.999  14.999 (0.890)    57     14930 0.50000   0.5000  80.00- 120.00   100.00
 14.999  14.999 (0.890)    43      9961                   29.42-  89.42    66.72
 14.999  14.999 (0.890)    86      2633                    0.00-  49.37    17.64
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 15.453  15.453 (0.917)    45     30956 0.50000   0.5000  80.00- 120.00   100.00
 15.453  15.453 (0.917)    87      9848                    3.40-  63.40    31.81
 15.453  15.453 (0.917)    59      3923                    0.00-  42.36    12.67
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 15.474  15.474 (0.919)    63     21798 0.50000   0.5000  80.00- 120.00   100.00
```

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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   82 1,1-Dichloroethane (continued)
 15.474  15.474 (0.919)    65      6893                     1.63-  61.63    31.62
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 15.536  15.536 (0.922)    86      2351 0.50000   0.5000  80.00- 120.00   100.00
 15.536  15.536 (0.922)    42      2358                   64.14- 124.14   100.30
 15.536  15.536 (0.922)    43     22143                 1120.67-1180.67   941.85
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 16.047  16.047 (0.953)    59     32078 0.50000   0.5000  80.00- 120.00   100.00
 16.047  16.047 (0.953)    87     14515                   17.02-  77.02    45.25
 16.047  16.047 (0.953)    41      7307                    0.00-  46.99    22.78
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 16.450  16.450 (0.977)    98      8666 0.50000   0.5000  80.00- 120.00   100.00
 16.450  16.450 (0.977)    61     16069                  140.61- 200.61   185.43
 16.450  16.450 (0.977)    96     14428                  124.22- 184.22   166.49
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.478  16.478 (0.978)    72      5667 0.50000   0.5000  80.00- 120.00   100.00
 16.478  16.478 (0.978)    43     19393                  397.61- 457.61   342.21
 16.478  16.478 (0.978)    57      1633                    0.00-  58.47    28.82
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.844  16.844 (1.000)    42     11428 0.50000   0.5000  80.00- 120.00   100.00
 16.844  16.844 (1.000)    71      5126                    9.03-  69.03    44.85
 16.844  16.844 (1.000)    72      5194                   21.41-  81.41    45.45
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.844  16.844 (1.000)   130     97649 5.00000           80.00- 120.00   100.00
 16.844  16.844 (1.000)   128     74950                   48.56- 108.56    76.75
 16.844  16.844 (1.000)    49     96535                   77.31- 137.31    98.86
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.940  16.940 (1.006)    83     28115 0.50000   0.5000  80.00- 120.00   100.00
 16.940  16.940 (1.006)    85     18824                   35.24-  95.24    66.95
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.156  17.156 (1.019)    84     15548 0.50000   0.5000  80.00- 120.00   100.00
 17.156  17.156 (1.019)    56     16724                   72.40- 132.40   107.56
 17.156  17.156 (1.019)    41      9068                   20.65-  80.65    58.32
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.180  17.180 (1.020)    97     27719 0.50000   0.4620  80.00- 120.00   100.00
 17.180  17.180 (1.020)    99     17091                   34.49-  94.49    61.66
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.372  17.372 (1.031)   119     17260 0.50000   0.4875  80.00- 120.00   100.00
 17.372  17.372 (1.031)   117     18861                   73.26- 133.26   109.28
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.684  17.684 (1.050)    56     15029 0.50000   0.5000  80.00- 120.00   100.00
 17.684  17.684 (1.050)    57     44800                  268.82- 328.82   298.09
 17.684  17.684 (1.050)    41     16560                   49.41- 109.41   110.19
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.732  17.732 (0.967)    78     38724 0.50000   0.5000  80.00- 120.00   100.00
 17.732  17.732 (0.967)    77      9769                    0.00-  53.11    25.23
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.756  17.756 (1.054)    65    124009 5.00000    4.761  80.00- 120.00   100.00
 17.756  17.756 (1.054)    67     65993                   27.32-  87.32    53.22
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 17.804  17.804 (0.971)    87      7674 0.50000   0.5000  80.00- 120.00   100.00
 17.804  17.804 (0.971)    73     33069                  366.84- 426.84   430.92
 17.804  17.804 (0.971)    55     10275                   65.45- 125.45   133.89
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.876  17.876 (0.974)    62     17186 0.50000   0.4798  80.00- 120.00   100.00
 17.876  17.876 (0.974)    64      5920                    2.42-  62.42    34.45
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 17.948  17.948 (0.978)    57      9066 0.50000   0.5000  80.00- 120.00   100.00
 17.948  17.948 (0.978)   100      3968                   21.23-  81.23    43.77
 17.948  17.948 (0.978)    43     15973                  145.72- 205.72   176.19
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 18.344  18.344 (1.000)   114    399199 5.00000           80.00- 120.00   100.00
 18.344  18.344 (1.000)    88     60604                    0.00-  44.67    15.18
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.745  18.745 (1.022)   130     19279 0.50000   0.4806  80.00- 120.00   100.00
 18.745  18.745 (1.022)    95     17930                   56.13- 116.13    93.00
 18.745  18.745 (1.022)    97     11426                   26.55-  86.55    59.27
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 18.969  18.969 (1.034)    83     20081 0.50000   0.5000  80.00- 120.00   100.00
 18.969  18.969 (1.034)    98     10161                   18.58-  78.58    50.60
 18.969  18.969 (1.034)    55     15602                   38.68-  98.68    77.70
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 19.214  19.214 (1.047)    63     13079 0.50000   0.5000  80.00- 120.00   100.00
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  132 1,2-Dichloropropane (continued)
 19.214  19.214 (1.047)    62      9214                    40.14- 100.14    70.45
 19.214  19.214 (1.047)    41      7878                    17.79-  77.79    60.23
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.348  19.348 (1.055)    88      7750 0.50000   0.5000  80.00- 120.00   100.00
 19.348  19.348 (1.055)    58      5487                    30.40-  90.40    70.80
 19.348  19.348 (1.055)    57      1705                     0.00-  48.90    22.00
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.660  19.660 (0.823)    83     23702 0.50000   0.5256  80.00- 120.00   100.00
 19.660  19.660 (0.823)    85     15032                    34.06-  94.06    63.42
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.496  20.496 (1.117)    75     18654 0.50000   0.5000  80.00- 120.00   100.00
 20.496  20.496 (1.117)    77      6596                     1.74-  61.74    35.36
 20.496  20.496 (1.117)    39      8051                    10.68-  70.68    43.16
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.730  20.730 (1.130)    43     17013 0.50000   0.5000  80.00- 120.00   100.00
 20.730  20.730 (1.130)    58      6661                    12.69-  72.69    39.15
 20.730  20.730 (1.130)    85      3465                     0.00-  51.10    20.37
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.979  20.979 (1.144)    98    361146 5.00000    4.973  80.00- 120.00   100.00
 20.979  20.979 (1.144)    70     37820                     0.00-  40.06    10.47
 20.979  20.979 (1.144)   100    236867                    36.64-  96.64    65.59
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 21.135  21.135 (1.152)    91     42846 0.50000   0.5000  80.00- 120.00   100.00
 21.135  21.135 (1.152)    92     24930                    29.36-  89.36    58.19
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 21.723  21.723 (0.909)    75     16137 0.50000   0.5000  80.00- 120.00   100.00
 21.723  21.723 (0.909)    77      5234                     2.80-  62.80    32.43
 21.723  21.723 (0.909)    39      6625                     9.93-  69.93    41.05
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 22.159  22.159 (0.927)    97     16215 0.50000   0.4883  80.00- 120.00   100.00
 22.159  22.159 (0.927)    99     10206                    31.16-  91.16    62.94
 22.159  22.159 (0.927)    83     13793                    52.03- 112.03    85.06
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.304  22.304 (0.934)   166     27518 0.50000   0.4824  80.00- 120.00   100.00
 22.304  22.304 (0.934)   129     17961                    36.29-  96.29    65.27
 22.304  22.304 (0.934)   131     17393                    35.02-  95.02    63.21
-------------------------------------------------------------------------------
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  158 2-Hexanone                                     CAS #: 591-78-6
 22.537  22.537 (0.943)    58      7600 0.50000   0.5000  80.00- 120.00   100.00
 22.537  22.537 (0.943)    43     13717                  138.91- 198.91   180.49
 22.537  22.537 (0.943)   100      1908                    0.00-  53.53    25.11
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
 22.914  22.914 (0.959)   129     23467 0.50000   0.5234  80.00- 120.00   100.00
 22.914  22.914 (0.959)   127     19038                   46.93- 106.93    81.13
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
 23.176  23.176 (0.970)   107     21792 0.50000   0.4729  80.00- 120.00   100.00
 23.176  23.176 (0.970)   109     20656                   66.13- 126.13    94.79
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                               CAS #: 3114-55-4
 23.892  23.892 (1.000)   117    338587 5.00000           80.00- 120.00   100.00
 23.892  23.892 (1.000)    82    170823                   18.57-  78.57    50.45
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
 23.933  23.933 (1.002)   112     38088 0.50000   0.5000  80.00- 120.00   100.00
 23.933  23.933 (1.002)   114     12105                    2.12-  62.12    31.78
 23.933  23.933 (1.002)    77     22700                   25.79-  85.79    59.60
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
 24.036  24.036 (1.006)   106     15098 0.50000   0.5000  80.00- 120.00   100.00
 24.036  24.036 (1.006)    91     44827                  269.24- 329.24   296.91
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
 24.201  24.201 (1.013)   106     15620 0.50000   0.5000  80.00- 120.00   100.00
 24.222  24.222 (1.014)    91     29705                  160.53- 220.53   190.17
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
 24.820  24.820 (1.039)   106     14486 0.50000   0.5000  80.00- 120.00   100.00
 24.820  24.820 (1.039)    91     29004                  168.41- 228.41   200.22
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
 24.840  24.840 (1.040)   104     17387 0.50000   0.5000  80.00- 120.00   100.00
 24.840  24.840 (1.040)    78      8734                   16.68-  76.68    50.23
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
 25.179  25.179 (1.054)   173     23037 0.50000   0.4672  80.00- 120.00   100.00
 25.160  25.160 (1.053)   171     10834                   21.43-  81.43    47.03
-------------------------------------------------------------------------------
  175 Cumene                                         CAS #: 98-82-8
 25.293  25.293 (1.059)   105     45801 0.50000   0.5000  80.00- 120.00   100.00
 25.293  25.293 (1.059)   120     12588                    0.00-  58.79    27.48
-------------------------------------------------------------------------------
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.578  25.578 (1.071)   174    194777 5.00000    4.911  80.00- 120.00   100.00
 25.578  25.578 (1.071)    95    198919                   70.67- 130.67   102.13
 25.578  25.578 (1.071)   176    189325                   67.63- 127.63    97.20
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 25.767  25.767 (1.079)    83     30042 0.50000   0.4607  80.00- 120.00   100.00
 25.767  25.767 (1.079)    85     19967                   34.87-  94.87    66.46
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
 25.824  25.824 (1.081)    91     45066 0.50000   0.5000  80.00- 120.00   100.00
 25.824  25.824 (1.081)   120     11601                    0.00-  55.88    25.74
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 25.957  25.957 (1.086)   105     37706 0.50000   0.5000  80.00- 120.00   100.00
 25.957  25.957 (1.086)   120     12438                    3.93-  63.93    32.99
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 26.033  26.033 (1.090)   105     34041 0.50000   0.4162  80.00- 120.00   100.00
 26.033  26.033 (1.090)   120     18100                   20.38-  80.38    53.17
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 26.488  26.488 (1.109)   105     34796 0.50000   0.3828  80.00- 120.00   100.00
 26.488  26.488 (1.109)   120     16485                   19.25-  79.25    47.38
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 26.894  26.894 (1.126)   146     26233 0.50000   0.3922  80.00- 120.00   100.00
 26.894  26.894 (1.126)   148     17044                   34.22-  94.22    64.97
 26.894  26.894 (1.126)   111      9306                    6.18-  66.18    35.47
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 27.018  27.018 (1.131)   146     23095 0.50000   0.3772  80.00- 120.00   100.00
 27.018  27.018 (1.131)   148     14921                   34.44-  94.44    64.61
 27.018  27.018 (1.131)   111      8504                    4.83-  64.83    36.82
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 27.174  27.174 (1.137)    91     19212 0.50000   0.5000  80.00- 120.00   100.00
 27.174  27.174 (1.137)   126      4680                    0.00-  54.01    24.36
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 27.470  27.470 (1.150)   146     22407 0.50000   0.3563  80.00- 120.00   100.00
 27.470  27.470 (1.150)   148     15167                   33.85-  93.85    67.69
 27.486  27.486 (1.150)   111      7832                    6.72-  66.72    34.95
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 29.497  29.497 (1.235)   180     22538 0.50000   0.3514  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)							
29.497	29.497 (1.235)	182	20974			66.47- 126.47	93.06
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.622	29.622 (1.240)	225	22093	0.50000	0.5000	80.00- 120.00	100.00
29.622	29.622 (1.240)	223	13772			33.07- 93.07	62.34

QC Flag Legend

M - Compound response manually integrated.

Report Date: 07-May-2015 15:11

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20050605.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: sab
Method File: /chem/msd20.i/06May2015.b/2015l0506a.m
Misc Info: 0.5ppbv (1.0ppbv)

Calibration Date: 06-MAY-2015
Calibration Time: 16:39
Client Smp ID: Level #7
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	98180	58908	137452	97649	-0.54
123 1,4-Difluorobenze	392208	235325	549091	399199	1.78
163 Chlorobenzene-d5	339954	203972	475936	338587	-0.40

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.84	16.51	17.17	16.84	0.00
123 1,4-Difluorobenze	18.34	18.01	18.67	18.34	0.00
163 Chlorobenzene-d5	23.89	23.56	24.22	23.89	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd20.i/06May2015.b/20050605.d

Date : 06-MAY-2015 15:57

Client ID: Level #7

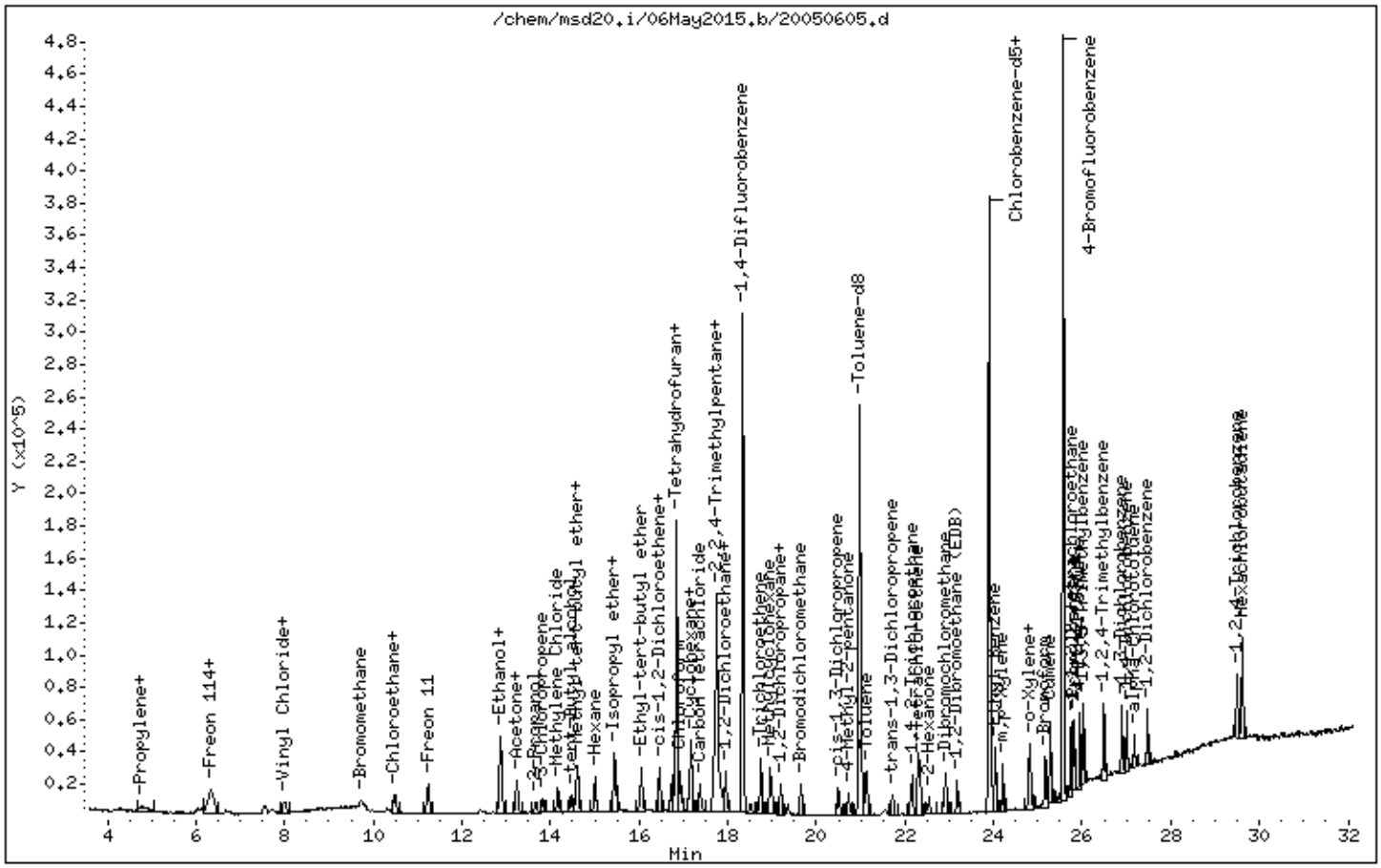
Instrument: msd20.i

Sample Info: 125mL# 2716-276

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/06May2015.b/20050706.d
Lab Smp Id: ICAL Client Smp ID: Level #8
Inj Date : 07-MAY-2015 18:37
Operator : cb Inst ID: msd20.i
Smp Info : 250mL# 2716-277
Misc Info : 1.0ppbv (1.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/06May2015.b/2015l0506a.m
Meth Date : 07-May-2015 19:52 cbond Quant Type: ISTD
Cal Date : 07-MAY-2015 18:37 Cal File: 20050706.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.313	4.313 (0.256)	41	15173	1.00000	0.9541	80.00- 120.00	100.00(M)
4.296	4.296 (0.255)	42	0			35.77- 95.77	0.00
4.279	4.279 (0.254)	39	0			41.14- 101.14	0.00
11 Freon 12					CAS #: 75-71-8		
4.832	4.832 (0.287)	85	66250	1.00000	1.053	80.00- 120.00	100.00(M)
4.814	4.814 (0.286)	87	22059			2.49- 62.49	33.30
15 Freon 114					CAS #: 76-14-2		
6.352	6.352 (0.377)	135	54199	1.00000	1.046	80.00- 120.00	100.00
6.386	6.386 (0.379)	137	18487			2.39- 62.39	34.11
6.352	6.352 (0.377)	85	67004			90.31- 150.31	123.63
17 Chloromethane					CAS #: 74-87-3		
6.749	6.749 (0.401)	50	20933	1.00000	1.023	80.00- 120.00	100.00
6.749	6.749 (0.401)	52	4705			2.88- 62.88	22.48

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane					CAS #: 106-97-8		
7.568	7.568 (0.449)	58	4594	1.00000	1.097	80.00- 120.00	100.00
7.568	7.568 (0.449)	43	30317			662.68- 722.68	659.93
25 Vinyl Chloride					CAS #: 75-01-4		
7.726	7.726 (0.459)	62	21876	1.00000	1.015	80.00- 120.00	100.00
7.736	7.736 (0.459)	64	4164			1.92- 61.92	19.03
26 1,3-Butadiene					CAS #: 106-99-0		
8.010	8.010 (0.476)	54	15061	1.00000	0.9651	80.00- 120.00	100.00
8.010	8.010 (0.476)	39	13871			62.52- 122.52	92.10
29 Bromomethane					CAS #: 74-83-9		
9.754	9.754 (0.579)	94	15832	1.00000	0.9388	80.00- 120.00	100.00
9.736	9.736 (0.578)	96	13891			66.00- 126.00	87.74
30 Chloroethane					CAS #: 75-00-3		
10.323	10.323 (0.613)	64	10597	1.00000	1.024	80.00- 120.00	100.00
10.341	10.341 (0.614)	66	3232			1.26- 61.26	30.50
31 Isopentane					CAS #: 78-78-4		
10.496	10.496 (0.623)	57	16739	1.00000	0.9897	80.00- 120.00	100.00
10.496	10.496 (0.623)	43	25050			105.33- 165.33	149.65
10.496	10.496 (0.623)	42	22045			89.08- 149.08	131.70
35 Freon 11					CAS #: 75-69-4		
11.255	11.255 (0.668)	101	68391	1.00000	1.037	80.00- 120.00	100.00
11.255	11.255 (0.668)	103	44663			35.69- 95.69	65.31
42 Ethanol					CAS #: 64-17-5		
12.420	12.420 (0.737)	45	7438	1.00000	1.016	80.00- 120.00	100.00
12.420	12.420 (0.737)	46	2417			8.49- 68.49	32.50
12.420	12.420 (0.737)	43	1809			0.00- 51.69	24.32
49 Freon 113					CAS #: 76-13-1		
12.874	12.874 (0.764)	151	53988	1.00000	1.017	80.00- 120.00	100.00
12.874	12.874 (0.764)	153	34946			34.25- 94.25	64.73
12.874	12.874 (0.764)	101	58232			75.92- 135.92	107.86
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.874	12.874 (0.764)	98	15635	1.00000	1.015	80.00- 120.00	100.00
12.854	12.854 (0.763)	61	35693			183.51- 243.51	228.29
12.874	12.874 (0.764)	96	24710			126.67- 186.67	158.04
52 Acetone					CAS #: 67-64-1		
13.225	13.225 (0.785)	58	12772	1.00000	1.177	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   52 Acetone (continued)
 13.225  13.225 (0.785)    43     37284                  250.97- 310.97   291.92
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 13.246  13.246 (0.786)    76     66034 1.00000   0.9952  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 13.679  13.679 (0.812)    45     27475 1.00000   0.9087  80.00- 120.00   100.00
 13.659  13.659 (0.811)    43      7951                    0.00-  45.99    28.94
 13.679  13.679 (0.812)    59      1078                    0.00-  33.55     3.92
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 13.824  13.824 (0.821)    76      7426 1.00000   0.8181  80.00- 120.00   100.00
 13.824  13.824 (0.821)    41     18173                  207.26- 267.26   244.72
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 14.154  14.154 (0.840)    84     25258 1.00000    1.094  80.00- 120.00   100.00
 14.154  14.154 (0.840)    49     26459                   76.26- 136.26   104.75
 14.174  14.174 (0.842)    51      8312                    2.64-  62.64    32.91
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 14.463  14.463 (0.859)    59     36845 1.00000   0.9098  80.00- 120.00   100.00
 14.463  14.463 (0.859)    41     10930                    0.00-  51.32    29.66
 14.463  14.463 (0.859)    57      3812                    0.00-  40.83    10.35
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 14.587  14.587 (0.866)    73     60480 1.00000   0.9688  80.00- 120.00   100.00
 14.566  14.566 (0.865)    57     12982                    0.00-  51.22    21.46
 14.566  14.566 (0.865)    41     14103                    0.00-  49.54    23.32
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 14.608  14.608 (0.867)    98     16693 1.00000   0.9864  80.00- 120.00   100.00
 14.608  14.608 (0.867)    61     34132                  157.09- 217.09   204.47
 14.608  14.608 (0.867)    96     27837                  124.47- 184.47   166.76
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 14.999  14.999 (0.890)    57     31324 1.00000   0.9753  80.00- 120.00   100.00
 14.999  14.999 (0.890)    43     19515                   29.42-  89.42    62.30
 14.999  14.999 (0.890)    86      6245                    0.00-  49.37    19.94
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 15.453  15.453 (0.917)    45     63402 1.00000   0.9789  80.00- 120.00   100.00
 15.453  15.453 (0.917)    87     20194                    3.40-  63.40    31.85
 15.453  15.453 (0.917)    59      7890                    0.00-  42.36    12.44
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 15.474  15.474 (0.919)    63     44490 1.00000    1.056  80.00- 120.00   100.00
```

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   82 1,1-Dichloroethane (continued)
 15.474  15.474 (0.919)    65     13708                     1.63-  61.63    30.81
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 15.536  15.536 (0.922)    86      5630 1.00000   0.9582  80.00- 120.00   100.00
 15.536  15.536 (0.922)    42      4502                   64.14- 124.14    79.96
 15.536  15.536 (0.922)    43     44303                  1120.67-1180.67   786.91
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 16.047  16.047 (0.953)    59     65223 1.00000   0.9506  80.00- 120.00   100.00
 16.047  16.047 (0.953)    87     29054                   17.02-  77.02    44.55
 16.047  16.047 (0.953)    41     13680                    0.00-  46.99    20.97
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 16.450  16.450 (0.977)    98     17281 1.00000    1.000  80.00- 120.00   100.00
 16.450  16.450 (0.977)    61     31938                  140.61- 200.61   184.82
 16.450  16.450 (0.977)    96     27764                  124.22- 184.22   160.66
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.478  16.478 (0.978)    72     11312 1.00000   0.9882  80.00- 120.00   100.00
 16.478  16.478 (0.978)    43     39742                  397.61- 457.61   351.33
 16.464  16.464 (0.977)    57      3359                    0.00-  58.47    29.69
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.844  16.844 (1.000)    42     21533 1.00000   0.9581  80.00- 120.00   100.00
 16.844  16.844 (1.000)    71     10040                    9.03-  69.03    46.63
 16.844  16.844 (1.000)    72     10454                   21.41-  81.41    48.55
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.844  16.844 (1.000)   130     93022 5.00000           80.00- 120.00   100.00
 16.844  16.844 (1.000)   128     71306                   48.56- 108.56    76.65
 16.844  16.844 (1.000)    49     90419                   77.31- 137.31    97.20
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.940  16.940 (1.006)    83     52984 1.00000    1.003  80.00- 120.00   100.00
 16.940  16.940 (1.006)    85     34128                   35.24-  95.24    64.41
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.156  17.156 (1.019)    84     33022 1.00000   0.9952  80.00- 120.00   100.00
 17.156  17.156 (1.019)    56     34626                   72.40- 132.40   104.86
 17.156  17.156 (1.019)    41     18050                   20.65-  80.65    54.66
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.180  17.180 (1.020)    97     54054 1.00000   0.9804  80.00- 120.00   100.00
 17.180  17.180 (1.020)    99     34628                   34.49-  94.49    64.06
-------------------------------------------------------------------------------
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.372  17.372 (1.031)   119     36326 1.00000    1.010  80.00- 120.00   100.00
 17.372  17.372 (1.031)   117     37226                    73.26- 133.26   102.48
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.684  17.684 (1.050)    56     30345 1.00000   0.9548  80.00- 120.00   100.00
 17.684  17.684 (1.050)    57    114379                   268.82- 328.82   376.93
 17.684  17.684 (1.050)    41     23610                    49.41- 109.41    77.81
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.732  17.732 (0.967)    78     75778 1.00000   0.9380  80.00- 120.00   100.00
 17.732  17.732 (0.967)    77     18179                     0.00-  53.11    23.99
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.756  17.756 (1.054)    65    120253 5.00000    5.139  80.00- 120.00   100.00
 17.756  17.756 (1.054)    67     64228                    27.32-  87.32    53.41
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 17.804  17.804 (0.971)    87     15996 1.00000   0.8880  80.00- 120.00   100.00
 17.804  17.804 (0.971)    73     66765                   366.84- 426.84   417.39
 17.804  17.804 (0.971)    55     19263                    65.45- 125.45   120.42
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.876  17.876 (0.974)    62     32635 1.00000   0.9492  80.00- 120.00   100.00
 17.876  17.876 (0.974)    64     10943                     2.42-  62.42    33.53
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 17.948  17.948 (0.978)    57     19011 1.00000   0.9534  80.00- 120.00   100.00
 17.948  17.948 (0.978)   100      8132                    21.23-  81.23    42.78
 17.948  17.948 (0.978)    43     32734                   145.72- 205.72   172.18
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 18.344  18.344 (1.000)   114    393378 5.00000           80.00- 120.00   100.00
 18.344  18.344 (1.000)    88     58936                     0.00-  44.67    14.98
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.746  18.746 (1.022)   130     39874 1.00000   0.9603  80.00- 120.00   100.00
 18.746  18.746 (1.022)    95     35192                    56.13- 116.13    88.26
 18.746  18.746 (1.022)    97     23101                    26.55-  86.55    57.93
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 18.969  18.969 (1.034)    83     42281 1.00000   0.9284  80.00- 120.00   100.00
 18.969  18.969 (1.034)    98     20269                    18.58-  78.58    47.94
 18.969  18.969 (1.034)    55     31570                    38.68-  98.68    74.67
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 19.214  19.214 (1.047)    63     25726 1.00000   0.9305  80.00- 120.00   100.00
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  132 1,2-Dichloropropane (continued)
 19.214  19.214 (1.047)    62     18618                    40.14- 100.14    72.37
 19.214  19.214 (1.047)    41     14585                    17.79-  77.79    56.69
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.348  19.348 (1.055)    88     17322 1.00000   0.9494  80.00- 120.00   100.00
 19.348  19.348 (1.055)    58     11420                    30.40-  90.40    65.93
 19.348  19.348 (1.055)    57      3630                     0.00-  48.90    20.96
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.660  19.660 (0.823)    83     46550 1.00000   0.9358  80.00- 120.00   100.00
 19.660  19.660 (0.823)    85     30702                    34.06-  94.06    65.95
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.496  20.496 (1.117)    75     40061 1.00000   0.8938  80.00- 120.00   100.00
 20.496  20.496 (1.117)    77     12576                     1.74-  61.74    31.39
 20.496  20.496 (1.117)    39     17553                    10.68-  70.68    43.82
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.730  20.730 (1.130)    43     36681 1.00000   0.8447  80.00- 120.00   100.00
 20.730  20.730 (1.130)    58     15620                    12.69-  72.69    42.58
 20.730  20.730 (1.130)    85      7133                     0.00-  51.10    19.45
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.979  20.979 (1.144)    98    362574 5.00000    4.968  80.00- 120.00   100.00
 20.979  20.979 (1.144)    70     37044                     0.00-  40.06    10.22
 20.979  20.979 (1.144)   100    240470                    36.64-  96.64    66.32
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 21.135  21.135 (1.152)    91     85601 1.00000   0.9560  80.00- 120.00   100.00
 21.135  21.135 (1.152)    92     48998                    29.36-  89.36    57.24
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 21.723  21.723 (0.909)    75     33964 1.00000   0.9034  80.00- 120.00   100.00
 21.723  21.723 (0.909)    77     11723                     2.80-  62.80    34.52
 21.723  21.723 (0.909)    39     13963                     9.93-  69.93    41.11
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 22.159  22.159 (0.927)    97     32232 1.00000   0.9640  80.00- 120.00   100.00
 22.159  22.159 (0.927)    99     20234                    31.16-  91.16    62.78
 22.159  22.159 (0.927)    83     26749                    52.03- 112.03    82.99
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.304  22.304 (0.934)   166     54381 1.00000   0.9678  80.00- 120.00   100.00
 22.304  22.304 (0.934)   129     39128                    36.29-  96.29    71.95
 22.304  22.304 (0.934)   131     36129                    35.02-  95.02    66.44
-------------------------------------------------------------------------------
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  158 2-Hexanone                                     CAS #: 591-78-6
 22.537  22.537 (0.943)    58     16769 1.00000   0.7631  80.00- 120.00   100.00
 22.537  22.537 (0.943)    43     31124                  138.91- 198.91   185.60
 22.537  22.537 (0.943)   100      4008                    0.00-  53.53    23.90
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
 22.914  22.914 (0.959)   129     48407 1.00000   0.8889  80.00- 120.00   100.00
 22.914  22.914 (0.959)   127     36752                   46.93- 106.93    75.92
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
 23.176  23.176 (0.970)   107     46808 1.00000   0.9322  80.00- 120.00   100.00
 23.176  23.176 (0.970)   109     46328                   66.13- 126.13    98.97
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                               CAS #: 3114-55-4
 23.892  23.892 (1.000)   117    333521 5.00000           80.00- 120.00   100.00
 23.892  23.892 (1.000)    82    168383                   18.57-  78.57    50.49
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
 23.933  23.933 (1.002)   112     73817 1.00000   0.9739  80.00- 120.00   100.00
 23.933  23.933 (1.002)   114     23003                    2.12-  62.12    31.16
 23.933  23.933 (1.002)    77     41529                   25.79-  85.79    56.26
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
 24.036  24.036 (1.006)   106     31352 1.00000   0.9313  80.00- 120.00   100.00
 24.036  24.036 (1.006)    91     92958                  269.24- 329.24   296.50
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
 24.222  24.222 (1.014)   106     31574 1.00000   0.8954  80.00- 120.00   100.00
 24.222  24.222 (1.014)    91     59955                  160.53- 220.53   189.89
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
 24.820  24.820 (1.039)   106     30421 1.00000   0.9214  80.00- 120.00   100.00
 24.820  24.820 (1.039)    91     60557                  168.41- 228.41   199.06
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
 24.841  24.841 (1.040)   104     36330 1.00000   0.8041  80.00- 120.00   100.00
 24.841  24.841 (1.040)    78     18103                   16.68-  76.68    49.83
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
 25.180  25.180 (1.054)   173     48314 1.00000   0.8548  80.00- 120.00   100.00
 25.180  25.180 (1.054)   171     23975                   21.43-  81.43    49.62
-------------------------------------------------------------------------------
  175 Cumene                                         CAS #: 98-82-8
 25.293  25.293 (1.059)   105     91276 1.00000   0.8688  80.00- 120.00   100.00
 25.293  25.293 (1.059)   120     25936                    0.00-  58.79    28.41
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.578	25.578 (1.071)	174	191285	5.00000	4.788	80.00- 120.00	100.00
25.578	25.578 (1.071)	95	196953			70.67- 130.67	102.96
25.578	25.578 (1.071)	176	186592			67.63- 127.63	97.55
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.767	25.767 (1.079)	83	61703	1.00000	0.9695	80.00- 120.00	100.00
25.767	25.767 (1.079)	85	39559			34.87- 94.87	64.11
182 Propylbenzene					CAS #: 103-65-1		
25.824	25.824 (1.081)	91	82894	1.00000	0.8372	80.00- 120.00	100.00
25.824	25.824 (1.081)	120	21146			0.00- 55.88	25.51
188 4-Ethyltoluene					CAS #: 622-96-8		
25.957	25.957 (1.086)	105	68254	1.00000	0.8475	80.00- 120.00	100.00
25.957	25.957 (1.086)	120	20936			3.93- 63.93	30.67
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
26.033	26.033 (1.090)	105	62774	1.00000	0.8522	80.00- 120.00	100.00
26.033	26.033 (1.090)	120	32636			20.38- 80.38	51.99
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.488	26.488 (1.109)	105	64101	1.00000	0.8914	80.00- 120.00	100.00
26.488	26.488 (1.109)	120	30510			19.25- 79.25	47.60
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.909	26.909 (1.126)	146	49627	1.00000	0.8389	80.00- 120.00	100.00
26.909	26.909 (1.126)	148	31650			34.22- 94.22	63.78
26.894	26.894 (1.126)	111	18937			6.18- 66.18	38.16
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
27.018	27.018 (1.131)	146	42933	1.00000	0.8128	80.00- 120.00	100.00
27.018	27.018 (1.131)	148	27404			34.44- 94.44	63.83
27.018	27.018 (1.131)	111	15038			4.83- 64.83	35.03
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.174	27.174 (1.137)	91	38530	1.00000	0.7547	80.00- 120.00	100.00
27.174	27.174 (1.137)	126	10095			0.00- 54.01	26.20
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.486	27.486 (1.150)	146	42674	1.00000	0.8186	80.00- 120.00	100.00
27.486	27.486 (1.150)	148	28492			33.85- 93.85	66.77
27.471	27.471 (1.150)	111	17036			6.72- 66.72	39.92
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.497	29.497 (1.235)	180	44458	1.00000	0.9632	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)							
29.497	29.497 (1.235)	182	41608			66.47- 126.47	93.59
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.622	29.622 (1.240)	225	40381	1.00000	0.9586	80.00- 120.00	100.00
29.622	29.622 (1.240)	223	26015			33.07- 93.07	64.42
228 Naphthalene					CAS #: 91-20-3		
29.902	29.902 (1.252)	128	7072	0.10000	0.1140	80.00- 120.00	100.00(a)
29.902	29.902 (1.252)	127	1155			0.00- 43.71	16.33

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20050706.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: cb
Method File: /chem/msd20.i/06May2015.b/2015l0506a.m
Misc Info: 1.0ppbv (1.0ppbv)

Calibration Date: 07-MAY-2015
Calibration Time: 14:04
Client Smp ID: Level #8
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	94879	56927	132831	93022	-1.96
123 1,4-Difluorobenze	388701	233221	544181	393378	1.20
163 Chlorobenzene-d5	341986	205192	478780	333521	-2.48

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.84	16.51	17.17	16.84	0.00
123 1,4-Difluorobenze	18.34	18.01	18.67	18.34	0.00
163 Chlorobenzene-d5	23.89	23.56	24.22	23.89	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd20.i/06May2015.b/20050706.d

Date : 07-MAY-2015 18:37

Client ID: Level #8

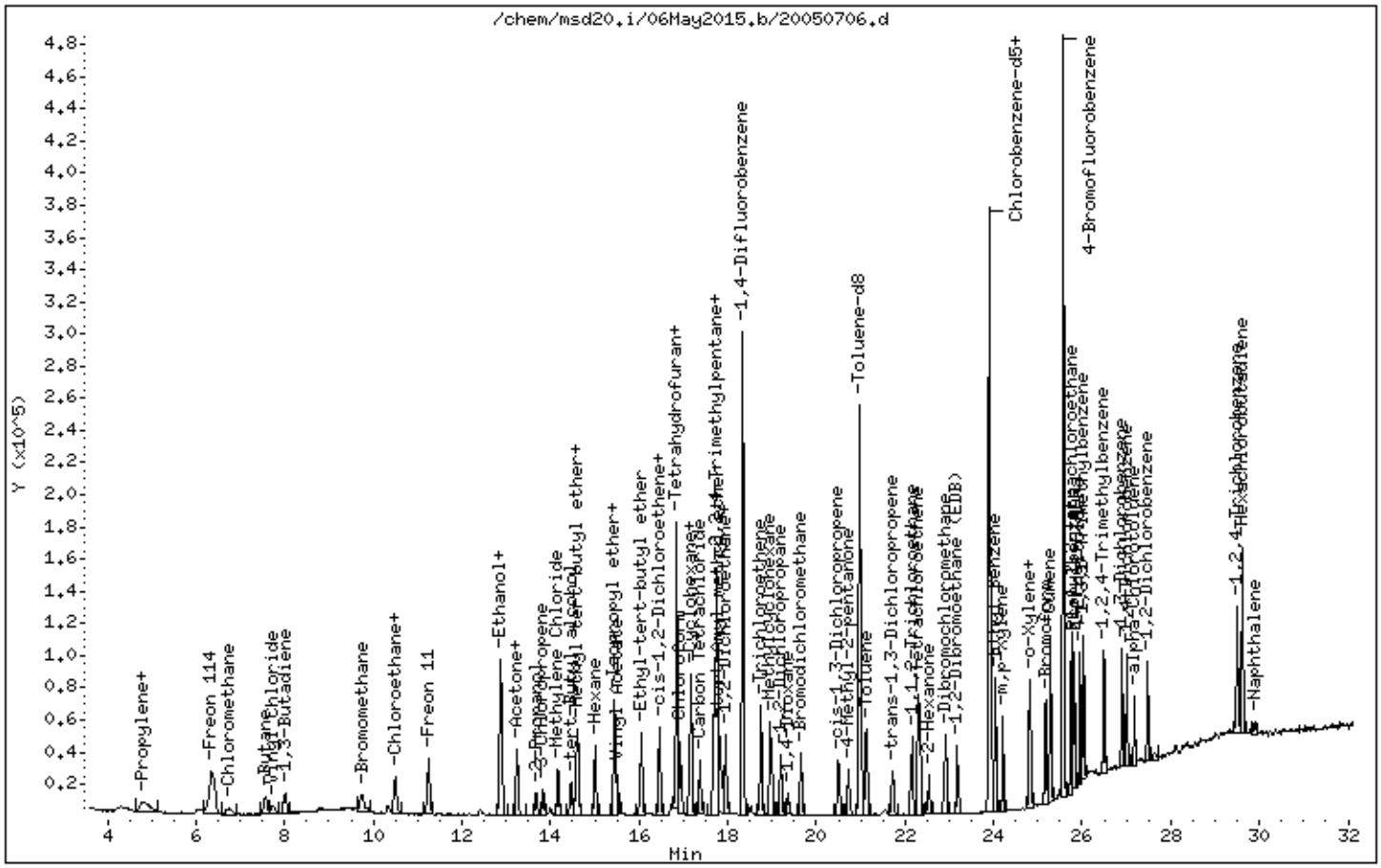
Instrument: msd20.i

Sample Info: 250mL# 2716-277

Operator: cb

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/06May2015.b/20050606.d
Lab Smp Id: ICAL Client Smp ID: Level #12
Inj Date : 06-MAY-2015 16:39
Operator : sab Inst ID: msd20.i
Smp Info : 25mL# 2716-136
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/06May2015.b/2015l0506a.m
Meth Date : 07-May-2015 15:11 sblack Quant Type: ISTD
Cal Date : 06-MAY-2015 16:39 Cal File: 20050606.d
Als bottle: 1 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.330	4.330 (0.257)	41	86055	5.00000	4.886	80.00- 120.00	100.00(M)
4.313	4.313 (0.256)	42	62944			35.77- 95.77	73.14
4.313	4.313 (0.256)	39	64962			41.14- 101.14	75.49
11 Freon 12					CAS #: 75-71-8		
4.814	4.814 (0.286)	85	356092	5.00000	5.131	80.00- 120.00	100.00
4.780	4.780 (0.284)	87	115617			2.49- 62.49	32.47
15 Freon 114					CAS #: 76-14-2		
6.352	6.352 (0.377)	135	285207	5.00000	5.078	80.00- 120.00	100.00
6.352	6.352 (0.377)	137	92923			2.39- 62.39	32.58
6.352	6.352 (0.377)	85	352942			90.31- 150.31	123.75
17 Chloromethane					CAS #: 74-87-3		
6.714	6.714 (0.399)	50	101326	5.00000	4.772	80.00- 120.00	100.00
6.714	6.714 (0.399)	52	34759			2.88- 62.88	34.30

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   23 Butane                                     CAS #: 106-97-8
  7.567   7.567 (0.449)    58     23972 5.00000    5.487  80.00- 120.00   100.00
  7.567   7.567 (0.449)    43    163759                  662.68- 722.68   683.13
-------------------------------------------------------------------------------
   25 Vinyl Chloride                             CAS #: 75-01-4
  7.725   7.725 (0.459)    62    119016 5.00000    4.936  80.00- 120.00   100.00
  7.725   7.725 (0.459)    64     36917                    1.92-  61.92    31.02
-------------------------------------------------------------------------------
   26 1,3-Butadiene                              CAS #: 106-99-0
  7.999   7.999 (0.475)    54     85581 5.00000    5.202  80.00- 120.00   100.00
  8.010   8.010 (0.476)    39     79657                   62.52- 122.52    93.08
-------------------------------------------------------------------------------
   29 Bromomethane                               CAS #: 74-83-9
  9.736   9.736 (0.578)    94    103313 5.00000    5.913  80.00- 120.00   100.00
  9.753   9.753 (0.579)    96     97047                   66.00- 126.00    93.93
-------------------------------------------------------------------------------
   30 Chloroethane                               CAS #: 75-00-3
 10.323  10.323 (0.613)    64     57602 5.00000    5.180  80.00- 120.00   100.00
 10.323  10.323 (0.613)    66     18809                    1.26-  61.26    32.65
-------------------------------------------------------------------------------
   31 Isopentane                                 CAS #: 78-78-4
 10.496  10.496 (0.623)    57     94792 5.00000    5.162  80.00- 120.00   100.00
 10.496  10.496 (0.623)    43    130479                  105.33- 165.33   137.65
 10.513  10.513 (0.624)    42    115362                   89.08- 149.08   121.70
-------------------------------------------------------------------------------
   35 Freon 11                                   CAS #: 75-69-4
 11.255  11.255 (0.668)   101    370589 5.00000    5.168  80.00- 120.00   100.00
 11.255  11.255 (0.668)   103    241322                   35.69-  95.69    65.12
-------------------------------------------------------------------------------
   42 Ethanol                                    CAS #: 64-17-5
 12.399  12.399 (0.736)    45     39488 5.00000    5.018  80.00- 120.00   100.00
 12.399  12.399 (0.736)    46     14903                    8.49-  68.49    37.74
 12.399  12.399 (0.736)    43      9806                    0.00-  51.69    24.83
-------------------------------------------------------------------------------
   49 Freon 113                                  CAS #: 76-13-1
 12.874  12.874 (0.764)   151    285522 5.00000    4.833  80.00- 120.00   100.00
 12.874  12.874 (0.764)   153    182775                   34.25-  94.25    64.01
 12.874  12.874 (0.764)   101    307667                   75.92- 135.92   107.76
-------------------------------------------------------------------------------
   50 1,1-Dichloroethene                         CAS #: 75-35-4
 12.874  12.874 (0.764)    98     85470 5.00000    5.192  80.00- 120.00   100.00
 12.874  12.874 (0.764)    61    194222                  183.51- 243.51   227.24
 12.874  12.874 (0.764)    96    134990                  126.67- 186.67   157.94
-------------------------------------------------------------------------------
   52 Acetone                                    CAS #: 67-64-1
 13.225  13.225 (0.785)    58     57573 5.00000    4.859  80.00- 120.00   100.00
```

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   52 Acetone (continued)
 13.225  13.225 (0.785)    43    167098                   250.97- 310.97   290.24
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 13.246  13.246 (0.786)    76    377846 5.00000    5.346  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 13.659  13.659 (0.811)    45    165058 5.00000    5.428  80.00- 120.00   100.00
 13.659  13.659 (0.811)    43     38954                    0.00-  45.99    23.60
 13.659  13.659 (0.811)    59      7521                    0.00-  33.55     4.56
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 13.844  13.844 (0.822)    76     53725 5.00000    5.640  80.00- 120.00   100.00
 13.824  13.824 (0.821)    41    124583                  207.26- 267.26   231.89
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 14.174  14.174 (0.842)    84    125033 5.00000    5.104  80.00- 120.00   100.00
 14.154  14.154 (0.840)    49    135028                   76.26- 136.26   107.99
 14.154  14.154 (0.840)    51     42725                    2.64-  62.64    34.17
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 14.442  14.442 (0.857)    59    226788 5.00000    5.558  80.00- 120.00   100.00
 14.442  14.442 (0.857)    41     55404                    0.00-  51.32    24.43
 14.442  14.442 (0.857)    57     24403                    0.00-  40.83    10.76
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 14.566  14.566 (0.865)    73    359703 5.00000    5.484  80.00- 120.00   100.00
 14.566  14.566 (0.865)    57     77334                    0.00-  51.22    21.50
 14.566  14.566 (0.865)    41     72401                    0.00-  49.54    20.13
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 14.607  14.607 (0.867)    98     93226 5.00000    5.044  80.00- 120.00   100.00
 14.607  14.607 (0.867)    61    183750                  157.09- 217.09   197.10
 14.607  14.607 (0.867)    96    145663                  124.47- 184.47   156.25
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 14.999  14.999 (0.890)    57    184698 5.00000    5.516  80.00- 120.00   100.00
 14.999  14.999 (0.890)    43    109385                   29.42-  89.42    59.22
 14.999  14.999 (0.890)    86     34804                    0.00-  49.37    18.84
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 15.453  15.453 (0.917)    45    372915 5.00000    5.451  80.00- 120.00   100.00
 15.453  15.453 (0.917)    87    123003                    3.40-  63.40    32.98
 15.453  15.453 (0.917)    59     46891                    0.00-  42.36    12.57
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 15.474  15.474 (0.919)    63    236867 5.00000    5.194  80.00- 120.00   100.00
```

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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   82 1,1-Dichloroethane (continued)
 15.474  15.474 (0.919)    65     74537                     1.63-  61.63    31.47
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 15.536  15.536 (0.922)    86     33092 5.00000    5.833  80.00- 120.00   100.00
 15.536  15.536 (0.922)    42     23531                   64.14- 124.14    71.11
 15.536  15.536 (0.922)    43    289147                  1120.67-1180.67   873.77
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 16.047  16.047 (0.953)    59    389963 5.00000    5.473  80.00- 120.00   100.00
 16.047  16.047 (0.953)    87    181080                   17.02-  77.02    46.44
 16.047  16.047 (0.953)    41     73397                    0.00-  46.99    18.82
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 16.450  16.450 (0.977)    98     99979 5.00000    5.343  80.00- 120.00   100.00
 16.450  16.450 (0.977)    61    176139                  140.61- 200.61   176.18
 16.450  16.450 (0.977)    96    151738                  124.22- 184.22   151.77
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.464  16.464 (0.977)    72     64689 5.00000    5.317  80.00- 120.00   100.00
 16.464  16.464 (0.977)    43    224671                  397.61- 457.61   347.31
 16.464  16.464 (0.977)    57     18718                    0.00-  58.47    28.94
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.844  16.844 (1.000)    42    125013 5.00000    5.211  80.00- 120.00   100.00
 16.844  16.844 (1.000)    71     58802                    9.03-  69.03    47.04
 16.844  16.844 (1.000)    72     59487                   21.41-  81.41    47.58
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.844  16.844 (1.000)   130     98180 5.00000           80.00- 120.00   100.00
 16.844  16.844 (1.000)   128     75988                   48.56- 108.56    77.40
 16.844  16.844 (1.000)    49     95594                   77.31- 137.31    97.37
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.940  16.940 (1.006)    83    289646 5.00000    5.061  80.00- 120.00   100.00
 16.940  16.940 (1.006)    85    187231                   35.24-  95.24    64.64
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.156  17.156 (1.019)    84    190482 5.00000    5.492  80.00- 120.00   100.00
 17.156  17.156 (1.019)    56    196731                   72.40- 132.40   103.28
 17.156  17.156 (1.019)    41    101570                   20.65-  80.65    53.32
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.180  17.180 (1.020)    97    301424 5.00000    4.998  80.00- 120.00   100.00
 17.180  17.180 (1.020)    99    195579                   34.49-  94.49    64.89
-------------------------------------------------------------------------------
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  106 Carbon Tetrachloride                         CAS #: 56-23-5
 17.372  17.372 (1.031)   119    206262 5.00000    5.503  80.00- 120.00   100.00
 17.372  17.372 (1.031)   117    217507                   73.26- 133.26   105.45
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                       CAS #: 540-84-1
 17.684  17.684 (1.050)    56    174616 5.00000    5.361  80.00- 120.00   100.00
 17.684  17.684 (1.050)    57    547315                  268.82- 328.82   313.44
 17.684  17.684 (1.050)    41    136120                   49.41- 109.41    77.95
-------------------------------------------------------------------------------
  116 Benzene                                      CAS #: 71-43-2
 17.732  17.732 (0.967)    78    427342 5.00000    5.290  80.00- 120.00   100.00
 17.732  17.732 (0.967)    77     98493                    0.00-  53.11    23.05
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                        CAS #: 17060-07-0
 17.756  17.756 (1.054)    65    120482 5.00000    4.727  80.00- 120.00   100.00
 17.756  17.756 (1.054)    67     71935                   27.32-  87.32    59.71
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                       CAS #: 994-05-8
 17.804  17.804 (0.971)    87     99376 5.00000    5.686  80.00- 120.00   100.00
 17.804  17.804 (0.971)    73    393303                  366.84- 426.84   395.77
 17.804  17.804 (0.971)    55    104674                   65.45- 125.45   105.33
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                           CAS #: 107-06-2
 17.876  17.876 (0.974)    62    180251 5.00000    5.081  80.00- 120.00   100.00
 17.876  17.876 (0.974)    64     58782                    2.42-  62.42    32.61
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 17.948  17.948 (0.978)    57    111691 5.00000    5.563  80.00- 120.00   100.00
 17.948  17.948 (0.978)   100     44669                   21.23-  81.23    39.99
 17.948  17.948 (0.978)    43    195919                  145.72- 205.72   175.41
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 18.344  18.344 (1.000)   114    392208 5.00000           80.00- 120.00   100.00
 18.344  18.344 (1.000)    88     59803                    0.00-  44.67    15.25
-------------------------------------------------------------------------------
  125 Trichloroethene                              CAS #: 79-01-6
 18.745  18.745 (1.022)   130    223967 5.00000    5.436  80.00- 120.00   100.00
 18.745  18.745 (1.022)    95    197599                   56.13- 116.13    88.23
 18.745  18.745 (1.022)    97    130688                   26.55-  86.55    58.35
-------------------------------------------------------------------------------
  127 Methylcyclohexane                            CAS #: 108-87-2
 18.969  18.969 (1.034)    83    249529 5.00000    5.584  80.00- 120.00   100.00
 18.969  18.969 (1.034)    98    122850                   18.58-  78.58    49.23
 18.969  18.969 (1.034)    55    175875                   38.68-  98.68    70.48
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                          CAS #: 78-87-5
 19.214  19.214 (1.047)    63    146208 5.00000    5.322  80.00- 120.00   100.00
```

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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  132 1,2-Dichloropropane (continued)
 19.214  19.214 (1.047)    62    103352                   40.14- 100.14    70.69
 19.214  19.214 (1.047)    41     73732                   17.79-  77.79    50.43
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.348  19.348 (1.055)    88    104758 5.00000    5.791  80.00- 120.00   100.00
 19.348  19.348 (1.055)    58     65310                   30.40-  90.40    62.34
 19.348  19.348 (1.055)    57     21455                    0.00-  48.90    20.48
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.660  19.660 (0.823)    83    285317 5.00000    5.798  80.00- 120.00   100.00
 19.660  19.660 (0.823)    85    185565                   34.06-  94.06    65.04
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.496  20.496 (1.117)    75    244105 5.00000    5.712  80.00- 120.00   100.00
 20.496  20.496 (1.117)    77     79622                    1.74-  61.74    32.62
 20.496  20.496 (1.117)    39    101334                   10.68-  70.68    41.51
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.730  20.730 (1.130)    43    245820 5.00000    5.952  80.00- 120.00   100.00
 20.730  20.730 (1.130)    58    102384                   12.69-  72.69    41.65
 20.730  20.730 (1.130)    85     51236                    0.00-  51.10    20.84
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.979  20.979 (1.144)    98    370475 5.00000    5.127  80.00- 120.00   100.00
 20.979  20.979 (1.144)    70     38190                    0.00-  40.06    10.31
 20.979  20.979 (1.144)   100    245958                   36.64-  96.64    66.39
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 21.135  21.135 (1.152)    91    481299 5.00000    5.334  80.00- 120.00   100.00
 21.135  21.135 (1.152)    92    284292                   29.36-  89.36    59.07
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 21.723  21.723 (0.909)    75    210268 5.00000    5.648  80.00- 120.00   100.00
 21.723  21.723 (0.909)    77     68588                    2.80-  62.80    32.62
 21.723  21.723 (0.909)    39     84441                    9.93-  69.93    40.16
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 22.159  22.159 (0.927)    97    184168 5.00000    5.337  80.00- 120.00   100.00
 22.159  22.159 (0.927)    99    112896                   31.16-  91.16    61.30
 22.159  22.159 (0.927)    83    150468                   52.03- 112.03    81.70
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.304  22.304 (0.934)   166    302505 5.00000    5.185  80.00- 120.00   100.00
 22.304  22.304 (0.934)   129    207403                   36.29-  96.29    68.56
 22.304  22.304 (0.934)   131    199332                   35.02-  95.02    65.89
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
158 2-Hexanone					CAS #: 591-78-6		
22.537	22.537 (0.943)	58	121982	5.00000	6.152	80.00- 120.00	100.00
22.537	22.537 (0.943)	43	209199			138.91- 198.91	171.50
22.537	22.537 (0.943)	100	28276			0.00- 53.53	23.18
160 Dibromochloromethane					CAS #: 124-48-1		
22.914	22.914 (0.959)	129	323215	5.00000	6.269	80.00- 120.00	100.00
22.914	22.914 (0.959)	127	246812			46.93- 106.93	76.36
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
23.176	23.176 (0.970)	107	290319	5.00000	5.784	80.00- 120.00	100.00
23.176	23.176 (0.970)	109	277784			66.13- 126.13	95.68
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.892	23.892 (1.000)	117	339954	5.00000		80.00- 120.00	100.00
23.892	23.892 (1.000)	82	172236			18.57- 78.57	50.66
165 Chlorobenzene					CAS #: 108-90-7		
23.933	23.933 (1.002)	112	406308	5.00000	5.151	80.00- 120.00	100.00
23.933	23.933 (1.002)	114	130552			2.12- 62.12	32.13
23.933	23.933 (1.002)	77	216923			25.79- 85.79	53.39
167 Ethyl Benzene					CAS #: 100-41-4		
24.036	24.036 (1.006)	106	184529	5.00000	5.490	80.00- 120.00	100.00
24.036	24.036 (1.006)	91	562224			269.24- 329.24	304.68
169 m,p-Xylene					CAS #: 108-38-3		
24.222	24.222 (1.014)	106	195324	5.00000	5.546	80.00- 120.00	100.00
24.222	24.222 (1.014)	91	374346			160.53- 220.53	191.65
171 o-Xylene					CAS #: 95-47-6		
24.820	24.820 (1.039)	106	183781	5.00000	5.582	80.00- 120.00	100.00
24.820	24.820 (1.039)	91	372747			168.41- 228.41	202.82
172 Styrene					CAS #: 100-42-5		
24.840	24.840 (1.040)	104	254251	5.00000	5.929	80.00- 120.00	100.00
24.840	24.840 (1.040)	78	124028			16.68- 76.68	48.78
174 Bromoform					CAS #: 75-25-2		
25.179	25.179 (1.054)	173	331248	5.00000	6.013	80.00- 120.00	100.00
25.179	25.179 (1.054)	171	167233			21.43- 81.43	50.49
175 Cumene					CAS #: 98-82-8		
25.293	25.293 (1.059)	105	588182	5.00000	5.612	80.00- 120.00	100.00
25.293	25.293 (1.059)	120	166088			0.00- 58.79	28.24

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.578  25.578 (1.071)   174    204054 5.00000    5.082  80.00- 120.00   100.00
 25.578  25.578 (1.071)    95    209477                   70.67- 130.67   102.66
 25.578  25.578 (1.071)   176    197929                   67.63- 127.63    97.00
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 25.767  25.767 (1.079)    83    352356 5.00000    5.248  80.00- 120.00   100.00
 25.767  25.767 (1.079)    85    228788                   34.87-  94.87    64.93
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
 25.824  25.824 (1.081)    91    512648 5.00000    5.312  80.00- 120.00   100.00
 25.824  25.824 (1.081)   120    130609                    0.00-  55.88    25.48
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 25.957  25.957 (1.086)   105    404642 5.00000    5.166  80.00- 120.00   100.00
 25.957  25.957 (1.086)   120    129588                    3.93-  63.93    32.03
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 26.033  26.033 (1.090)   105    367257 5.00000    4.635  80.00- 120.00   100.00
 26.033  26.033 (1.090)   120    189246                   20.38-  80.38    51.53
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 26.488  26.488 (1.109)   105    339039 5.00000    4.063  80.00- 120.00   100.00
 26.488  26.488 (1.109)   120    166754                   19.25-  79.25    49.18
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 26.894  26.894 (1.126)   146    287678 5.00000    4.499  80.00- 120.00   100.00
 26.894  26.894 (1.126)   148    185476                   34.22-  94.22    64.47
 26.894  26.894 (1.126)   111    108365                    6.18-  66.18    37.67
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 27.018  27.018 (1.131)   146    251931 5.00000    4.360  80.00- 120.00   100.00
 27.018  27.018 (1.131)   148    162630                   34.44-  94.44    64.55
 27.018  27.018 (1.131)   111     87993                    4.83-  64.83    34.93
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 27.174  27.174 (1.137)    91    267132 5.00000    5.807  80.00- 120.00   100.00
 27.174  27.174 (1.137)   126     59702                    0.00-  54.01    22.35
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 27.470  27.470 (1.150)   146    246508 5.00000    4.212  80.00- 120.00   100.00
 27.470  27.470 (1.150)   148    159523                   33.85-  93.85    64.71
 27.470  27.470 (1.150)   111     94149                    6.72-  66.72    38.19
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 29.497  29.497 (1.235)   180    216424 5.00000    3.773  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)							
29.497	29.497 (1.235)	182	204685			66.47- 126.47	94.58
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.622	29.622 (1.240)	225	203961	5.00000	4.790	80.00- 120.00	100.00
29.622	29.622 (1.240)	223	128241			33.07- 93.07	62.88
228 Naphthalene					CAS #: 91-20-3		
29.902	29.902 (1.252)	128	30087	0.50000	0.5000	80.00- 120.00	100.00
29.902	29.902 (1.252)	127	4580			0.00- 43.71	15.22

QC Flag Legend

M - Compound response manually integrated.

Report Date: 07-May-2015 15:11

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20050606.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: sab
Method File: /chem/msd20.i/06May2015.b/2015l0506a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 06-MAY-2015
Calibration Time: 16:39
Client Smp ID: Level #12
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	98180	58908	137452	98180	0.00
123 1,4-Difluorobenze	392208	235325	549091	392208	0.00
163 Chlorobenzene-d5	339954	203972	475936	339954	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.84	16.51	17.17	16.84	0.00
123 1,4-Difluorobenze	18.34	18.01	18.67	18.34	0.00
163 Chlorobenzene-d5	23.89	23.56	24.22	23.89	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd20.i/06May2015.b/20050606.d

Date : 06-MAY-2015 16:39

Client ID: Level #12

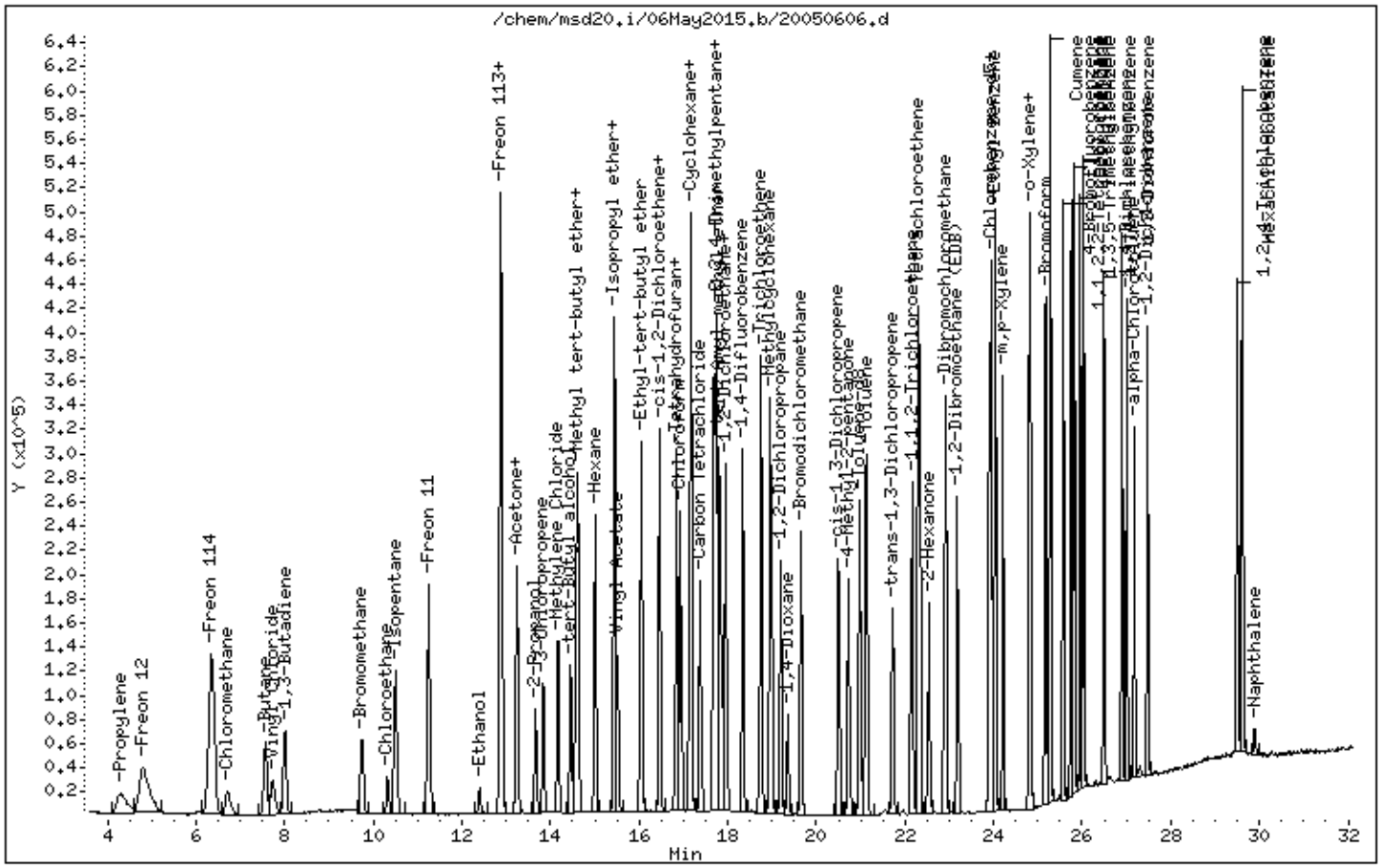
Instrument: msd20.i

Sample Info: 25mL# 2716-136

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/06May2015.b/20050607.d
Lab Smp Id: ICAL Client Smp ID: Level #13
Inj Date : 06-MAY-2015 17:56
Operator : EA Inst ID: msd20.i
Smp Info : 50mL# 2716-136
Misc Info : 10ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/06May2015.b/2015l0506a.m
Meth Date : 07-May-2015 15:11 sblack Quant Type: ISTD
Cal Date : 06-MAY-2015 17:56 Cal File: 20050607.d
Als bottle: 1 Calibration Sample, Level: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.313	4.313 (0.256)	41	172002	10.0000	10.005	80.00- 120.00	100.00
4.313	4.313 (0.256)	42	81898			35.77- 95.77	47.61
4.296	4.296 (0.255)	39	120850			41.14- 101.14	70.26
11 Freon 12					CAS #: 75-71-8		
4.797	4.797 (0.285)	85	659646	10.0000	9.824	80.00- 120.00	100.00
4.780	4.780 (0.284)	87	216107			2.49- 62.49	32.76
15 Freon 114					CAS #: 76-14-2		
6.352	6.352 (0.377)	135	527856	10.0000	9.720	80.00- 120.00	100.00
6.334	6.334 (0.376)	137	174129			2.39- 62.39	32.99
6.334	6.334 (0.376)	85	647667			90.31- 150.31	122.70
17 Chloromethane					CAS #: 74-87-3		
6.697	6.697 (0.398)	50	185447	10.0000	9.274	80.00- 120.00	100.00
6.697	6.697 (0.398)	52	60452			2.88- 62.88	32.60

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane					CAS #: 106-97-8		
7.546	7.546 (0.448)	58	43958	10.0000	10.204	80.00- 120.00	100.00
7.546	7.546 (0.448)	43	308176			662.68- 722.68	701.07
25 Vinyl Chloride					CAS #: 75-01-4		
7.715	7.715 (0.458)	62	222667	10.0000	9.591	80.00- 120.00	100.00
7.715	7.715 (0.458)	64	70733			1.92- 61.92	31.77
26 1,3-Butadiene					CAS #: 106-99-0		
7.989	7.989 (0.474)	54	158132	10.0000	9.898	80.00- 120.00	100.00
7.999	7.999 (0.475)	39	150096			62.52- 122.52	94.92
29 Bromomethane					CAS #: 74-83-9		
9.736	9.736 (0.578)	94	199235	10.0000	11.063	80.00- 120.00	100.00
9.736	9.736 (0.578)	96	187034			66.00- 126.00	93.88
30 Chloroethane					CAS #: 75-00-3		
10.323	10.323 (0.613)	64	108679	10.0000	10.009	80.00- 120.00	100.00
10.323	10.323 (0.613)	66	35129			1.26- 61.26	32.32
31 Isopentane					CAS #: 78-78-4		
10.496	10.496 (0.623)	57	179140	10.0000	9.998	80.00- 120.00	100.00
10.496	10.496 (0.623)	43	245422			105.33- 165.33	137.00
10.496	10.496 (0.623)	42	214264			89.08- 149.08	119.61
35 Freon 11					CAS #: 75-69-4		
11.238	11.238 (0.667)	101	679882	10.0000	9.784	80.00- 120.00	100.00
11.238	11.238 (0.667)	103	445149			35.69- 95.69	65.47
42 Ethanol					CAS #: 64-17-5		
12.379	12.379 (0.735)	45	75081	10.0000	9.849	80.00- 120.00	100.00
12.379	12.379 (0.735)	46	29074			8.49- 68.49	38.72
12.379	12.379 (0.735)	43	18920			0.00- 51.69	25.20
49 Freon 113					CAS #: 76-13-1		
12.874	12.874 (0.764)	151	523362	10.0000	9.291	80.00- 120.00	100.00
12.874	12.874 (0.764)	153	338191			34.25- 94.25	64.62
12.874	12.874 (0.764)	101	567592			75.92- 135.92	108.45
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.854	12.854 (0.763)	98	160797	10.0000	10.005	80.00- 120.00	100.00
12.854	12.854 (0.763)	61	363057			183.51- 243.51	225.79
12.854	12.854 (0.763)	96	250181			126.67- 186.67	155.59
52 Acetone					CAS #: 67-64-1		
13.205	13.205 (0.784)	58	106768	10.0000	9.475	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
52 Acetone (continued)							
13.205	13.205 (0.784)	43	319463			250.97- 310.97	299.21
56 Carbon Disulfide					CAS #: 75-15-0		
13.246	13.246 (0.786)	76	711714	10.0000	10.210	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.659	13.659 (0.811)	45	330075	10.0000	10.720	80.00- 120.00	100.00
13.659	13.659 (0.811)	43	72200			0.00- 45.99	21.87
13.659	13.659 (0.811)	59	14388			0.00- 33.55	4.36
58 3-Chloropropene					CAS #: 107-05-1		
13.824	13.824 (0.821)	76	102492	10.0000	10.660	80.00- 120.00	100.00
13.824	13.824 (0.821)	41	242791			207.26- 267.26	236.89
66 Methylene Chloride					CAS #: 75-09-2		
14.154	14.154 (0.840)	84	230149	10.0000	9.748	80.00- 120.00	100.00
14.154	14.154 (0.840)	49	251486			76.26- 136.26	109.27
14.154	14.154 (0.840)	51	78559			2.64- 62.64	34.13
71 tert-Butyl alcohol					CAS #: 75-65-0		
14.443	14.443 (0.857)	59	444716	10.0000	10.749	80.00- 120.00	100.00
14.443	14.443 (0.857)	41	100469			0.00- 51.32	22.59
14.443	14.443 (0.857)	57	47376			0.00- 40.83	10.65
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.566	14.566 (0.865)	73	686751	10.0000	10.474	80.00- 120.00	100.00
14.566	14.566 (0.865)	57	144211			0.00- 51.22	21.00
14.566	14.566 (0.865)	41	136148			0.00- 49.54	19.82
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.608	14.608 (0.867)	98	172550	10.0000	9.706	80.00- 120.00	100.00
14.608	14.608 (0.867)	61	340651			157.09- 217.09	197.42
14.608	14.608 (0.867)	96	269936			124.47- 184.47	156.44
78 Hexane					CAS #: 110-54-3		
14.999	14.999 (0.890)	57	348789	10.0000	10.440	80.00- 120.00	100.00
14.999	14.999 (0.890)	43	208979			29.42- 89.42	59.92
14.999	14.999 (0.890)	86	65797			0.00- 49.37	18.86
83 Isopropyl ether					CAS #: 108-20-3		
15.453	15.453 (0.917)	45	705772	10.0000	10.373	80.00- 120.00	100.00
15.453	15.453 (0.917)	87	232829			3.40- 63.40	32.99
15.453	15.453 (0.917)	59	88184			0.00- 42.36	12.49
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.474	15.474 (0.919)	63	437822	10.0000	9.891	80.00- 120.00	100.00

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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   82 1,1-Dichloroethane (continued)
 15.474  15.474 (0.919)    65    141656                     1.63-  61.63    32.35
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 15.536  15.536 (0.922)    86     66413 10.0000   11.247  80.00- 120.00   100.00
 15.536  15.536 (0.922)    42     50808                   64.14- 124.14    76.50
 15.536  15.536 (0.922)    43    613714                  1120.67-1180.67   924.09
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 16.047  16.047 (0.953)    59    748862 10.0000   10.500  80.00- 120.00   100.00
 16.047  16.047 (0.953)    87    350942                   17.02-  77.02    46.86
 16.047  16.047 (0.953)    41    134312                    0.00-  46.99    17.94
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 16.450  16.450 (0.977)    98    184481 10.0000   10.068  80.00- 120.00   100.00
 16.450  16.450 (0.977)    61    327198                  140.61- 200.61   177.36
 16.450  16.450 (0.977)    96    284211                  124.22- 184.22   154.06
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.464  16.464 (0.977)    72    122311 10.0000   10.198  80.00- 120.00   100.00
 16.464  16.464 (0.977)    43    423169                  397.61- 457.61   345.98
 16.464  16.464 (0.977)    57     35802                    0.00-  58.47    29.27
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.820  16.820 (0.999)    42    243766 10.0000   10.270  80.00- 120.00   100.00
 16.820  16.820 (0.999)    71    112888                    9.03-  69.03    46.31
 16.844  16.844 (1.000)    72    118961                   21.41-  81.41    48.80
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.844  16.844 (1.000)   130     95819 5.00000           80.00- 120.00   100.00
 16.844  16.844 (1.000)   128     74897                   48.56- 108.56    78.17
 16.844  16.844 (1.000)    49     95961                   77.31- 137.31   100.15
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.940  16.940 (1.006)    83    541570 10.0000    9.795  80.00- 120.00   100.00
 16.940  16.940 (1.006)    85    352322                   35.24-  95.24    65.06
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.156  17.156 (1.019)    84    355088 10.0000   10.322  80.00- 120.00   100.00
 17.156  17.156 (1.019)    56    367328                   72.40- 132.40   103.45
 17.156  17.156 (1.019)    41    185792                   20.65-  80.65    52.32
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.180  17.180 (1.020)    97    562578 10.0000    9.664  80.00- 120.00   100.00
 17.180  17.180 (1.020)    99    365618                   34.49-  94.49    64.99
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.372  17.372 (1.031)   119    391883 10.0000   10.525  80.00- 120.00   100.00
 17.372  17.372 (1.031)   117    409305                   73.26- 133.26   104.45
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.684  17.684 (1.050)    56    433655 10.0000   12.165  80.00- 120.00   100.00
 17.684  17.684 (1.050)    57   1331198                  268.82- 328.82   306.97
 17.684  17.684 (1.050)    41    331076                   49.41- 109.41    76.35
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.732  17.732 (0.967)    78    786860 10.0000    9.889  80.00- 120.00   100.00
 17.732  17.732 (0.967)    77    183949                    0.00-  53.11    23.38
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.756  17.756 (1.054)    65    116045 5.00000    4.744  80.00- 120.00   100.00
 17.756  17.756 (1.054)    67     74658                   27.32-  87.32    64.34
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 17.804  17.804 (0.971)    87    189851 10.0000   10.625  80.00- 120.00   100.00
 17.804  17.804 (0.971)    73    763892                  366.84- 426.84   402.36
 17.804  17.804 (0.971)    55    189331                   65.45- 125.45    99.73
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.876  17.876 (0.974)    62    335175 10.0000    9.651  80.00- 120.00   100.00
 17.876  17.876 (0.974)    64    108793                    2.42-  62.42    32.46
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 17.948  17.948 (0.978)    57    211118 10.0000   10.403  80.00- 120.00   100.00
 17.948  17.948 (0.978)   100     84957                   21.23-  81.23    40.24
 17.948  17.948 (0.978)    43    368745                  145.72- 205.72   174.66
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 18.344  18.344 (1.000)   114    388448 5.00000           80.00- 120.00   100.00
 18.344  18.344 (1.000)    88     58214                    0.00-  44.67    14.99
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.746  18.746 (1.022)   130    417132 10.0000   10.165  80.00- 120.00   100.00
 18.746  18.746 (1.022)    95    366543                   56.13- 116.13    87.87
 18.746  18.746 (1.022)    97    242528                   26.55-  86.55    58.14
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 18.969  18.969 (1.034)    83    476914 10.0000   10.505  80.00- 120.00   100.00
 18.969  18.969 (1.034)    98    230891                   18.58-  78.58    48.41
 18.969  18.969 (1.034)    55    336951                   38.68-  98.68    70.65
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 19.214  19.214 (1.047)    63    281178 10.0000   10.221  80.00- 120.00   100.00
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  132 1,2-Dichloropropane (continued)
 19.214  19.214 (1.047)    62    192599                    40.14- 100.14    68.50
 19.214  19.214 (1.047)    41    138381                    17.79-  77.79    49.21
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.348  19.348 (1.055)    88    197748 10.0000   10.668  80.00- 120.00   100.00
 19.348  19.348 (1.055)    58    124419                    30.40-  90.40    62.92
 19.348  19.348 (1.055)    57     39302                     0.00-  48.90    19.87
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.660  19.660 (0.823)    83    542176 10.0000   10.742  80.00- 120.00   100.00
 19.660  19.660 (0.823)    85    351031                    34.06-  94.06    64.74
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.496  20.496 (1.117)    75    479024 10.0000   10.841  80.00- 120.00   100.00
 20.496  20.496 (1.117)    77    155947                     1.74-  61.74    32.56
 20.496  20.496 (1.117)    39    196861                    10.68-  70.68    41.10
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.730  20.730 (1.130)    43    488788 10.0000   11.221  80.00- 120.00   100.00
 20.730  20.730 (1.130)    58    204682                    12.69-  72.69    41.88
 20.730  20.730 (1.130)    85    102798                     0.00-  51.10    21.03
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.979  20.979 (1.144)    98    368657 5.00000    5.112  80.00- 120.00   100.00
 20.979  20.979 (1.144)    70     37787                     0.00-  40.06    10.25
 20.979  20.979 (1.144)   100    244781                    36.64-  96.64    66.40
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 21.135  21.135 (1.152)    91    904970 10.0000   10.084  80.00- 120.00   100.00
 21.135  21.135 (1.152)    92    536515                    29.36-  89.36    59.29
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 21.723  21.723 (0.909)    75    416031 10.0000   10.751  80.00- 120.00   100.00
 21.723  21.723 (0.909)    77    130958                     2.80-  62.80    31.48
 21.723  21.723 (0.909)    39    163262                     9.93-  69.93    39.24
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 22.159  22.159 (0.927)    97    347268 10.0000   10.045  80.00- 120.00   100.00
 22.159  22.159 (0.927)    99    216792                    31.16-  91.16    62.43
 22.159  22.159 (0.927)    83    286241                    52.03- 112.03    82.43
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.304  22.304 (0.934)   166    570822 10.0000    9.834  80.00- 120.00   100.00
 22.304  22.304 (0.934)   129    381312                    36.29-  96.29    66.80
 22.304  22.304 (0.934)   131    370631                    35.02-  95.02    64.93
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  158 2-Hexanone                                     CAS #: 591-78-6
 22.537  22.537 (0.943)    58    252126 10.0000   11.657  80.00- 120.00   100.00
 22.537  22.537 (0.943)    43    428430                  138.91- 198.91   169.93
 22.537  22.537 (0.943)   100     59406                    0.00-  53.53    23.56
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
 22.914  22.914 (0.959)   129    635632 10.0000   11.647  80.00- 120.00   100.00
 22.914  22.914 (0.959)   127    489455                   46.93- 106.93    77.00
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
 23.176  23.176 (0.970)   107    549358 10.0000   10.689  80.00- 120.00   100.00
 23.176  23.176 (0.970)   109    518490                   66.13- 126.13    94.38
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                               CAS #: 3114-55-4
 23.892  23.892 (1.000)   117    340082 5.00000           80.00- 120.00   100.00
 23.892  23.892 (1.000)    82    170061                   18.57-  78.57    50.01
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
 23.933  23.933 (1.002)   112    769940 10.0000    9.837  80.00- 120.00   100.00
 23.933  23.933 (1.002)   114    248062                    2.12-  62.12    32.22
 23.933  23.933 (1.002)    77    406639                   25.79-  85.79    52.81
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
 24.036  24.036 (1.006)   106    358237 10.0000   10.427  80.00- 120.00   100.00
 24.036  24.036 (1.006)    91   1065256                  269.24- 329.24   297.36
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
 24.222  24.222 (1.014)   106    380667 10.0000   10.523  80.00- 120.00   100.00
 24.222  24.222 (1.014)    91    727173                  160.53- 220.53   191.03
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
 24.820  24.820 (1.039)   106    360268 10.0000   10.607  80.00- 120.00   100.00
 24.820  24.820 (1.039)    91    728590                  168.41- 228.41   202.24
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
 24.841  24.841 (1.040)   104    520211 10.0000   11.324  80.00- 120.00   100.00
 24.841  24.841 (1.040)    78    254325                   16.68-  76.68    48.89
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
 25.180  25.180 (1.054)   173    659074 10.0000   11.401  80.00- 120.00   100.00
 25.180  25.180 (1.054)   171    341451                   21.43-  81.43    51.81
-------------------------------------------------------------------------------
  175 Cumene                                         CAS #: 98-82-8
 25.293  25.293 (1.059)   105   1147492 10.0000   10.611  80.00- 120.00   100.00
 25.293  25.293 (1.059)   120    328264                    0.00-  58.79    28.61
-------------------------------------------------------------------------------
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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.578	25.578 (1.071)	174	209256	5.00000	5.156	80.00- 120.00	100.00
25.578	25.578 (1.071)	95	212640			70.67- 130.67	101.62
25.578	25.578 (1.071)	176	203139			67.63- 127.63	97.08
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.767	25.767 (1.079)	83	663830	10.0000	9.913	80.00- 120.00	100.00
25.767	25.767 (1.079)	85	425822			34.87- 94.87	64.15
182 Propylbenzene					CAS #: 103-65-1		
25.824	25.824 (1.081)	91	1019610	10.0000	10.367	80.00- 120.00	100.00
25.824	25.824 (1.081)	120	259272			0.00- 55.88	25.43
188 4-Ethyltoluene					CAS #: 622-96-8		
25.957	25.957 (1.086)	105	806125	10.0000	10.190	80.00- 120.00	100.00
25.957	25.957 (1.086)	120	253959			3.93- 63.93	31.50
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
26.033	26.033 (1.090)	105	722803	10.0000	9.324	80.00- 120.00	100.00
26.033	26.033 (1.090)	120	368849			20.38- 80.38	51.03
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.488	26.488 (1.109)	105	630289	10.0000	8.043	80.00- 120.00	100.00
26.488	26.488 (1.109)	120	303778			19.25- 79.25	48.20
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.909	26.909 (1.126)	146	568650	10.0000	9.143	80.00- 120.00	100.00
26.909	26.909 (1.126)	148	367160			34.22- 94.22	64.57
26.894	26.894 (1.126)	111	207312			6.18- 66.18	36.46
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
27.018	27.018 (1.131)	146	501288	10.0000	8.970	80.00- 120.00	100.00
27.018	27.018 (1.131)	148	321277			34.44- 94.44	64.09
27.018	27.018 (1.131)	111	177296			4.83- 64.83	35.37
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.174	27.174 (1.137)	91	578550	10.0000	11.579	80.00- 120.00	100.00
27.174	27.174 (1.137)	126	133098			0.00- 54.01	23.01
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.486	27.486 (1.150)	146	492828	10.0000	8.764	80.00- 120.00	100.00
27.486	27.486 (1.150)	148	316606			33.85- 93.85	64.24
27.486	27.486 (1.150)	111	187663			6.72- 66.72	38.08
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.497	29.497 (1.235)	180	398109	10.0000	7.514	80.00- 120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)								
29.497	29.497	(1.235)	182	382686			66.47- 126.47	96.13
227 Hexachlorobutadiene						CAS #: 87-68-3		
29.622	29.622	(1.240)	225	391399	10.0000	9.444	80.00- 120.00	100.00
29.622	29.622	(1.240)	223	243815			33.07- 93.07	62.29
228 Naphthalene						CAS #: 91-20-3		
29.902	29.902	(1.252)	128	61458	1.00000	1.010	80.00- 120.00	100.00
29.902	29.902	(1.252)	127	8366			0.00- 43.71	13.61

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20050607.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: EA
Method File: /chem/msd20.i/06May2015.b/2015l0506a.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 06-MAY-2015
Calibration Time: 16:39
Client Smp ID: Level #13
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	98180	58908	137452	95819	-2.40
123 1,4-Difluorobenze	392208	235325	549091	388448	-0.96
163 Chlorobenzene-d5	339954	203972	475936	340082	0.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.84	16.51	17.17	16.84	0.00
123 1,4-Difluorobenze	18.34	18.01	18.67	18.34	0.00
163 Chlorobenzene-d5	23.89	23.56	24.22	23.89	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd20.i/06May2015.b/20050607.d

Date : 06-MAY-2015 17:56

Client ID: Level #13

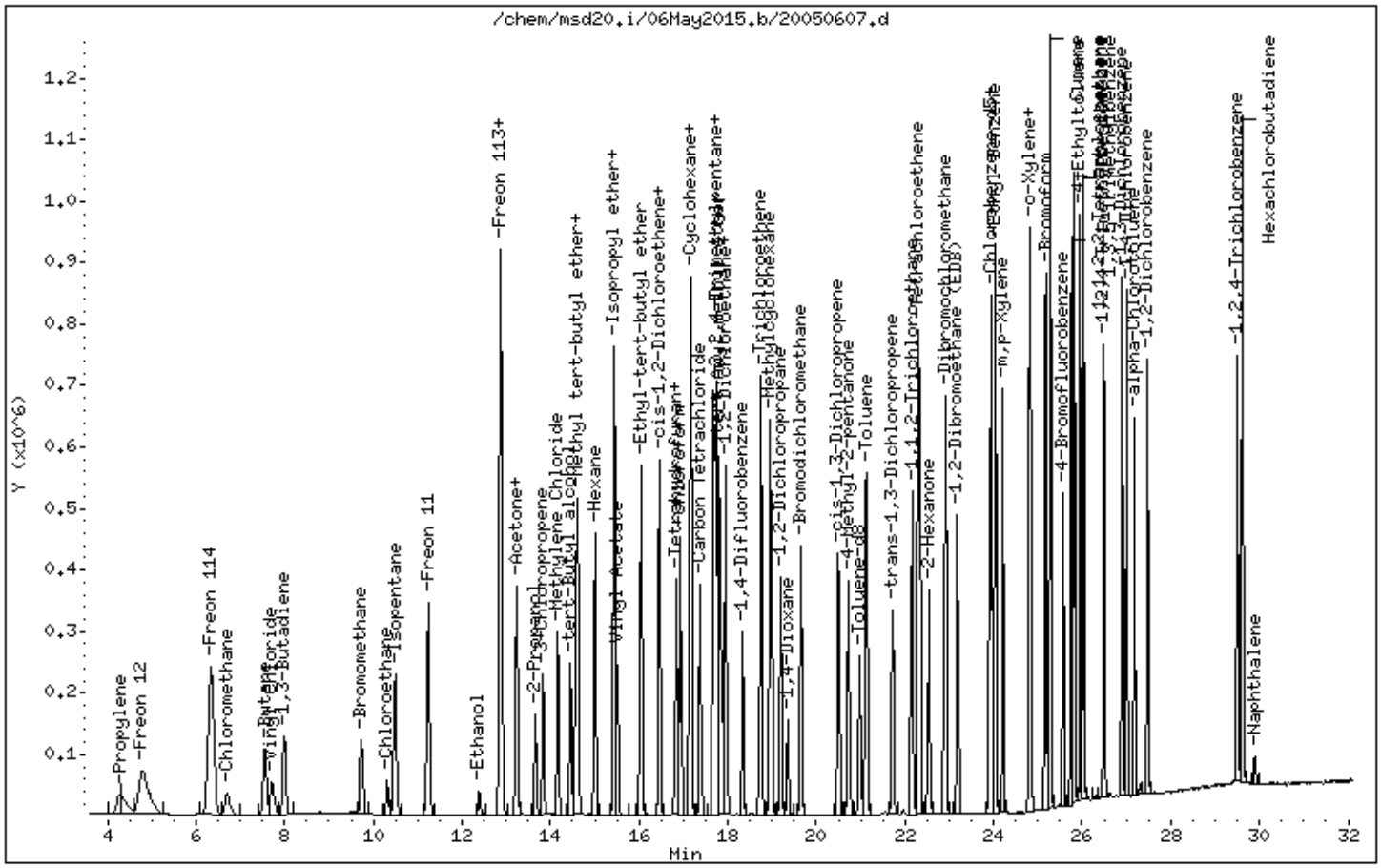
Instrument: msd20.i

Sample Info: 50mL# 2716-136

Operator: EA

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/06May2015.b/20050608.d
Lab Smp Id: ICAL Client Smp ID: Level #15
Inj Date : 06-MAY-2015 18:54
Operator : EA Inst ID: msd20.i
Smp Info : 100mL# 2716-136
Misc Info : 20ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/06May2015.b/2015l0506a.m
Meth Date : 07-May-2015 15:11 sblack Quant Type: ISTD
Cal Date : 06-MAY-2015 18:54 Cal File: 20050608.d
Als bottle: 1 Calibration Sample, Level: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.296	4.296 (0.255)	41	335908	20.0000	19.166	80.00- 120.00	100.00
4.313	4.313 (0.256)	42	225533			35.77- 95.77	67.14
4.296	4.296 (0.255)	39	238367			41.14- 101.14	70.96
11 Freon 12					CAS #: 75-71-8		
4.797	4.797 (0.285)	85	1270236	20.0000	18.700	80.00- 120.00	100.00
4.780	4.780 (0.284)	87	414040			2.49- 62.49	32.60
15 Freon 114					CAS #: 76-14-2		
6.352	6.352 (0.377)	135	1014956	20.0000	18.436	80.00- 120.00	100.00
6.369	6.369 (0.378)	137	328241			2.39- 62.39	32.34
6.352	6.352 (0.377)	85	1247914			90.31- 150.31	122.95
17 Chloromethane					CAS #: 74-87-3		
6.714	6.714 (0.399)	50	356843	20.0000	17.876	80.00- 120.00	100.00
6.732	6.732 (0.400)	52	115947			2.88- 62.88	32.49

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane					CAS #: 106-97-8		
7.557	7.557 (0.449)	58	87346	20.0000	19.712	80.00- 120.00	100.00
7.567	7.567 (0.449)	43	602332			662.68- 722.68	689.59
25 Vinyl Chloride					CAS #: 75-01-4		
7.715	7.715 (0.458)	62	436605	20.0000	18.529	80.00- 120.00	100.00
7.725	7.725 (0.459)	64	140510			1.92- 61.92	32.18
26 1,3-Butadiene					CAS #: 106-99-0		
7.999	7.999 (0.475)	54	315675	20.0000	19.330	80.00- 120.00	100.00
7.999	7.999 (0.475)	39	293817			62.52- 122.52	93.08
29 Bromomethane					CAS #: 74-83-9		
9.736	9.736 (0.578)	94	360541	20.0000	19.524	80.00- 120.00	100.00
9.736	9.736 (0.578)	96	342441			66.00- 126.00	94.98
30 Chloroethane					CAS #: 75-00-3		
10.323	10.323 (0.613)	64	216934	20.0000	19.493	80.00- 120.00	100.00
10.323	10.323 (0.613)	66	69957			1.26- 61.26	32.25
31 Isopentane					CAS #: 78-78-4		
10.496	10.496 (0.623)	57	358094	20.0000	19.497	80.00- 120.00	100.00
10.496	10.496 (0.623)	43	483164			105.33- 165.33	134.93
10.496	10.496 (0.623)	42	418657			89.08- 149.08	116.91
35 Freon 11					CAS #: 75-69-4		
11.255	11.255 (0.668)	101	1319407	20.0000	18.675	80.00- 120.00	100.00
11.255	11.255 (0.668)	103	865302			35.69- 95.69	65.58
42 Ethanol					CAS #: 64-17-5		
12.399	12.399 (0.736)	45	156689	20.0000	19.914	80.00- 120.00	100.00
12.399	12.399 (0.736)	46	59799			8.49- 68.49	38.16
12.399	12.399 (0.736)	43	34270			0.00- 51.69	21.87
49 Freon 113					CAS #: 76-13-1		
12.874	12.874 (0.764)	151	1033363	20.0000	18.157	80.00- 120.00	100.00
12.874	12.874 (0.764)	153	665064			34.25- 94.25	64.36
12.874	12.874 (0.764)	101	1103394			75.92- 135.92	106.78
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.854	12.854 (0.763)	98	322694	20.0000	19.567	80.00- 120.00	100.00
12.854	12.854 (0.763)	61	710083			183.51- 243.51	220.05
12.854	12.854 (0.763)	96	497095			126.67- 186.67	154.05
52 Acetone					CAS #: 67-64-1		
13.204	13.204 (0.784)	58	213738	20.0000	18.738	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
52 Acetone (continued)							
13.204	13.204 (0.784)	43	628780			250.97- 310.97	294.18
56 Carbon Disulfide					CAS #: 75-15-0		
13.246	13.246 (0.786)	76	1413992	20.0000	19.718	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.658	13.658 (0.811)	45	689568	20.0000	21.226	80.00- 120.00	100.00
13.658	13.658 (0.811)	43	139786			0.00- 45.99	20.27
13.658	13.658 (0.811)	59	30075			0.00- 33.55	4.36
58 3-Chloropropene					CAS #: 107-05-1		
13.824	13.824 (0.821)	76	207187	20.0000	20.630	80.00- 120.00	100.00
13.824	13.824 (0.821)	41	488444			207.26- 267.26	235.75
66 Methylene Chloride					CAS #: 75-09-2		
14.154	14.154 (0.840)	84	454740	20.0000	18.957	80.00- 120.00	100.00
14.154	14.154 (0.840)	49	494360			76.26- 136.26	108.71
14.154	14.154 (0.840)	51	154134			2.64- 62.64	33.89
71 tert-Butyl alcohol					CAS #: 75-65-0		
14.442	14.442 (0.857)	59	929795	20.0000	21.280	80.00- 120.00	100.00
14.442	14.442 (0.857)	41	197864			0.00- 51.32	21.28
14.442	14.442 (0.857)	57	96888			0.00- 40.83	10.42
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.566	14.566 (0.865)	73	1371566	20.0000	20.178	80.00- 120.00	100.00
14.566	14.566 (0.865)	57	286482			0.00- 51.22	20.89
14.566	14.566 (0.865)	41	259365			0.00- 49.54	18.91
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.607	14.607 (0.867)	98	336308	20.0000	18.699	80.00- 120.00	100.00
14.607	14.607 (0.867)	61	655614			157.09- 217.09	194.94
14.607	14.607 (0.867)	96	525073			124.47- 184.47	156.13
78 Hexane					CAS #: 110-54-3		
14.999	14.999 (0.890)	57	691920	20.0000	20.028	80.00- 120.00	100.00
14.999	14.999 (0.890)	43	407052			29.42- 89.42	58.83
14.999	14.999 (0.890)	86	128810			0.00- 49.37	18.62
83 Isopropyl ether					CAS #: 108-20-3		
15.453	15.453 (0.917)	45	1409859	20.0000	20.036	80.00- 120.00	100.00
15.453	15.453 (0.917)	87	468386			3.40- 63.40	33.22
15.453	15.453 (0.917)	59	172236			0.00- 42.36	12.22
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.474	15.474 (0.919)	63	847550	20.0000	18.873	80.00- 120.00	100.00

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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   82 1,1-Dichloroethane (continued)
 15.474  15.474 (0.919)    65    275415                     1.63-  61.63    32.50
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 15.536  15.536 (0.922)    86    134262 20.0000   21.462  80.00- 120.00   100.00
 15.536  15.536 (0.922)    42     98571                    64.14- 124.14    73.42
 15.536  15.536 (0.922)    43   1240758                  1120.67-1180.67   924.13
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 16.047  16.047 (0.953)    59   1516580 20.0000   20.427  80.00- 120.00   100.00
 16.047  16.047 (0.953)    87    708185                    17.02-  77.02    46.70
 16.047  16.047 (0.953)    41    258843                     0.00-  46.99    17.07
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 16.450  16.450 (0.977)    98    363080 20.0000   19.372  80.00- 120.00   100.00
 16.450  16.450 (0.977)    61    643279                   140.61- 200.61   177.17
 16.450  16.450 (0.977)    96    560004                   124.22- 184.22   154.24
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.464  16.464 (0.977)    72    247346 20.0000   19.965  80.00- 120.00   100.00
 16.464  16.464 (0.977)    43    827269                   397.61- 457.61   334.46
 16.464  16.464 (0.977)    57     71307                     0.00-  58.47    28.83
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.820  16.820 (0.999)    42    485380 20.0000   19.838  80.00- 120.00   100.00
 16.820  16.820 (0.999)    71    223335                     9.03-  69.03    46.01
 16.820  16.820 (0.999)    72    240624                    21.41-  81.41    49.57
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.844  16.844 (1.000)   130     99038 5.00000           80.00- 120.00   100.00
 16.844  16.844 (1.000)   128     75016                    48.56- 108.56    75.74
 16.844  16.844 (1.000)    49     96718                    77.31- 137.31    97.66
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.940  16.940 (1.006)    83   1064296 20.0000   18.950  80.00- 120.00   100.00
 16.940  16.940 (1.006)    85    693537                    35.24-  95.24    65.16
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.156  17.156 (1.019)    84    709635 20.0000   19.968  80.00- 120.00   100.00
 17.156  17.156 (1.019)    56    733989                    72.40- 132.40   103.43
 17.156  17.156 (1.019)    41    365218                    20.65-  80.65    51.47
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.180  17.180 (1.020)    97   1116237 20.0000   18.824  80.00- 120.00   100.00
 17.180  17.180 (1.020)    99    725630                    34.49-  94.49    65.01
-------------------------------------------------------------------------------
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.372  17.372 (1.031)   119    791886 20.0000   20.459  80.00- 120.00   100.00
 17.372  17.372 (1.031)   117    820671                   73.26- 133.26   103.63
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.684  17.684 (1.050)    56    679452 20.0000   18.807  80.00- 120.00   100.00
 17.684  17.684 (1.050)    57   2128356                  268.82- 328.82   313.25
 17.684  17.684 (1.050)    41    507675                   49.41- 109.41    74.72
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.732  17.732 (0.967)    78   1539768 20.0000   19.279  80.00- 120.00   100.00
 17.732  17.732 (0.967)    77    361784                    0.00-  53.11    23.50
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.756  17.756 (1.054)    65    114851 5.00000    4.627  80.00- 120.00   100.00
 17.756  17.756 (1.054)    67     86326                   27.32-  87.32    75.16
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 17.804  17.804 (0.971)    87    387383 20.0000   20.989  80.00- 120.00   100.00
 17.804  17.804 (0.971)    73   1527725                  366.84- 426.84   394.37
 17.804  17.804 (0.971)    55    362939                   65.45- 125.45    93.69
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.876  17.876 (0.974)    62    652851 20.0000   18.785  80.00- 120.00   100.00
 17.876  17.876 (0.974)    64    214063                    2.42-  62.42    32.79
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 17.948  17.948 (0.978)    57    421684 20.0000   20.339  80.00- 120.00   100.00
 17.948  17.948 (0.978)   100    170077                   21.23-  81.23    40.33
 17.948  17.948 (0.978)    43    732036                  145.72- 205.72   173.60
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 18.344  18.344 (1.000)   114    394617 5.00000           80.00- 120.00   100.00
 18.344  18.344 (1.000)    88     58585                    0.00-  44.67    14.85
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.745  18.745 (1.022)   130    829849 20.0000   19.925  80.00- 120.00   100.00
 18.745  18.745 (1.022)    95    736321                   56.13- 116.13    88.73
 18.745  18.745 (1.022)    97    481627                   26.55-  86.55    58.04
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 18.969  18.969 (1.034)    83    951133 20.0000   20.463  80.00- 120.00   100.00
 18.969  18.969 (1.034)    98    457760                   18.58-  78.58    48.13
 18.969  18.969 (1.034)    55    669748                   38.68-  98.68    70.42
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 19.214  19.214 (1.047)    63    560205 20.0000   20.034  80.00- 120.00   100.00
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  132 1,2-Dichloropropane (continued)
 19.214  19.214 (1.047)    62    383259                    40.14- 100.14    68.41
 19.214  19.214 (1.047)    41    271880                    17.79-  77.79    48.53
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.348  19.348 (1.055)    88    401313 20.0000   20.968  80.00- 120.00   100.00
 19.348  19.348 (1.055)    58    246954                    30.40-  90.40    61.54
 19.348  19.348 (1.055)    57     78573                     0.00-  48.90    19.58
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.660  19.660 (0.823)    83   1093848 20.0000   21.099  80.00- 120.00   100.00
 19.660  19.660 (0.823)    85    707840                    34.06-  94.06    64.71
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.496  20.496 (1.117)    75    990243 20.0000   21.506  80.00- 120.00   100.00
 20.496  20.496 (1.117)    77    316648                     1.74-  61.74    31.98
 20.496  20.496 (1.117)    39    403615                    10.68-  70.68    40.76
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.730  20.730 (1.130)    43   1007703 20.0000   22.009  80.00- 120.00   100.00
 20.730  20.730 (1.130)    58    424188                    12.69-  72.69    42.09
 20.730  20.730 (1.130)    85    213497                     0.00-  51.10    21.19
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.979  20.979 (1.144)    98    371413 5.00000    5.056  80.00- 120.00   100.00
 20.979  20.979 (1.144)    70     39170                     0.00-  40.06    10.55
 20.979  20.979 (1.144)   100    246072                    36.64-  96.64    66.25
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 21.135  21.135 (1.152)    91   1787348 20.0000   19.703  80.00- 120.00   100.00
 21.135  21.135 (1.152)    92   1055526                    29.36-  89.36    59.06
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 21.723  21.723 (0.909)    75    846314 20.0000   21.169  80.00- 120.00   100.00
 21.723  21.723 (0.909)    77    272656                     2.80-  62.80    32.22
 21.723  21.723 (0.909)    39    329784                     9.93-  69.93    38.97
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 22.159  22.159 (0.927)    97    681574 20.0000   19.568  80.00- 120.00   100.00
 22.159  22.159 (0.927)    99    430200                    31.16-  91.16    63.12
 22.159  22.159 (0.927)    83    564589                    52.03- 112.03    82.84
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.304  22.304 (0.934)   166   1145289 20.0000   19.580  80.00- 120.00   100.00
 22.304  22.304 (0.934)   129    769007                    36.29-  96.29    67.15
 22.304  22.304 (0.934)   131    743319                    35.02-  95.02    64.90
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  158 2-Hexanone                                     CAS #: 591-78-6
 22.537  22.537 (0.943)    58    530659 20.0000   23.007  80.00- 120.00   100.00
 22.537  22.537 (0.943)    43    903610                  138.91- 198.91   170.28
 22.537  22.537 (0.943)   100    129670                    0.00-  53.53    24.44
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
 22.914  22.914 (0.959)   129   1304827 20.0000   22.782  80.00- 120.00   100.00
 22.914  22.914 (0.959)   127   1007129                   46.93- 106.93    77.18
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
 23.176  23.176 (0.970)   107   1108543 20.0000   21.020  80.00- 120.00   100.00
 23.176  23.176 (0.970)   109   1050084                   66.13- 126.13    94.73
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                               CAS #: 3114-55-4
 23.892  23.892 (1.000)   117    344499 5.00000           80.00- 120.00   100.00
 23.892  23.892 (1.000)    82    174702                   18.57-  78.57    50.71
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
 23.933  23.933 (1.002)   112   1524942 20.0000   19.420  80.00- 120.00   100.00
 23.933  23.933 (1.002)   114    493242                    2.12-  62.12    32.34
 23.933  23.933 (1.002)    77    819116                   25.79-  85.79    53.71
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
 24.036  24.036 (1.006)   106    712632 20.0000   20.355  80.00- 120.00   100.00
 24.036  24.036 (1.006)    91   2144850                  269.24- 329.24   300.98
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
 24.201  24.201 (1.013)   106    769933 20.0000   20.749  80.00- 120.00   100.00
 24.201  24.201 (1.013)    91   1466673                  160.53- 220.53   190.49
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
 24.820  24.820 (1.039)   106    731274 20.0000   20.926  80.00- 120.00   100.00
 24.820  24.820 (1.039)    91   1474667                  168.41- 228.41   201.66
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
 24.840  24.840 (1.040)   104   1096023 20.0000   22.551  80.00- 120.00   100.00
 24.840  24.840 (1.040)    78    526554                   16.68-  76.68    48.04
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
 25.179  25.179 (1.054)   173   1398483 20.0000   22.989  80.00- 120.00   100.00
 25.179  25.179 (1.054)   171    719684                   21.43-  81.43    51.46
-------------------------------------------------------------------------------
  175 Cumene                                         CAS #: 98-82-8
 25.293  25.293 (1.059)   105   2352814 20.0000   21.088  80.00- 120.00   100.00
 25.293  25.293 (1.059)   120    668358                    0.00-  58.79    28.41
-------------------------------------------------------------------------------
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.578  25.578 (1.071)   174    216577 5.00000    5.212  80.00- 120.00   100.00
 25.578  25.578 (1.071)    95    213692                   70.67- 130.67    98.67
 25.578  25.578 (1.071)   176    207254                   67.63- 127.63    95.70
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 25.767  25.767 (1.079)    83   1323119 20.0000   19.601  80.00- 120.00   100.00
 25.767  25.767 (1.079)    85    850673                   34.87-  94.87    64.29
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
 25.824  25.824 (1.081)    91   2084910 20.0000   20.687  80.00- 120.00   100.00
 25.824  25.824 (1.081)   120    544653                    0.00-  55.88    26.12
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 25.957  25.957 (1.086)   105   1643219 20.0000   20.377  80.00- 120.00   100.00
 25.957  25.957 (1.086)   120    527853                    3.93-  63.93    32.12
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 26.033  26.033 (1.090)   105   1400215 20.0000   18.227  80.00- 120.00   100.00
 26.033  26.033 (1.090)   120    721558                   20.38-  80.38    51.53
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 26.488  26.488 (1.109)   105   1200601 20.0000   15.900  80.00- 120.00   100.00
 26.488  26.488 (1.109)   120    576062                   19.25-  79.25    47.98
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 26.894  26.894 (1.126)   146   1158000 20.0000   18.683  80.00- 120.00   100.00
 26.894  26.894 (1.126)   148    743831                   34.22-  94.22    64.23
 26.894  26.894 (1.126)   111    425767                    6.18-  66.18    36.77
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 27.018  27.018 (1.131)   146   1020888 20.0000   18.395  80.00- 120.00   100.00
 27.018  27.018 (1.131)   148    655830                   34.44-  94.44    64.24
 27.018  27.018 (1.131)   111    361924                    4.83-  64.83    35.45
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 27.174  27.174 (1.137)    91   1275950 20.0000   23.668  80.00- 120.00   100.00
 27.174  27.174 (1.137)   126    303694                    0.00-  54.01    23.80
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 27.470  27.470 (1.150)   146   1001011 20.0000   18.009  80.00- 120.00   100.00
 27.470  27.470 (1.150)   148    648243                   33.85-  93.85    64.76
 27.470  27.470 (1.150)   111    385817                    6.72-  66.72    38.54
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 29.497  29.497 (1.235)   180    802374 20.0000   15.744  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)							
29.497	29.497 (1.235)	182	772621			66.47- 126.47	96.29
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.622	29.622 (1.240)	225	878865	20.0000	20.693	80.00- 120.00	100.00
29.622	29.622 (1.240)	223	543127			33.07- 93.07	61.80
228 Naphthalene					CAS #: 91-20-3		
29.902	29.902 (1.252)	128	131722	2.00000	2.090	80.00- 120.00	100.00
29.887	29.887 (1.251)	127	17266			0.00- 43.71	13.11

Report Date: 07-May-2015 15:11

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20050608.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: EA
Method File: /chem/msd20.i/06May2015.b/2015l0506a.m
Misc Info: 20ppbv (50ppbv)

Calibration Date: 06-MAY-2015
Calibration Time: 16:39
Client Smp ID: Level #15
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	98180	58908	137452	99038	0.87
123 1,4-Difluorobenze	392208	235325	549091	394617	0.61
163 Chlorobenzene-d5	339954	203972	475936	344499	1.34

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.84	16.51	17.17	16.84	0.00
123 1,4-Difluorobenze	18.34	18.01	18.67	18.34	0.00
163 Chlorobenzene-d5	23.89	23.56	24.22	23.89	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd20.i/06May2015.b/20050608.d

Date : 06-MAY-2015 18:54

Client ID: Level #15

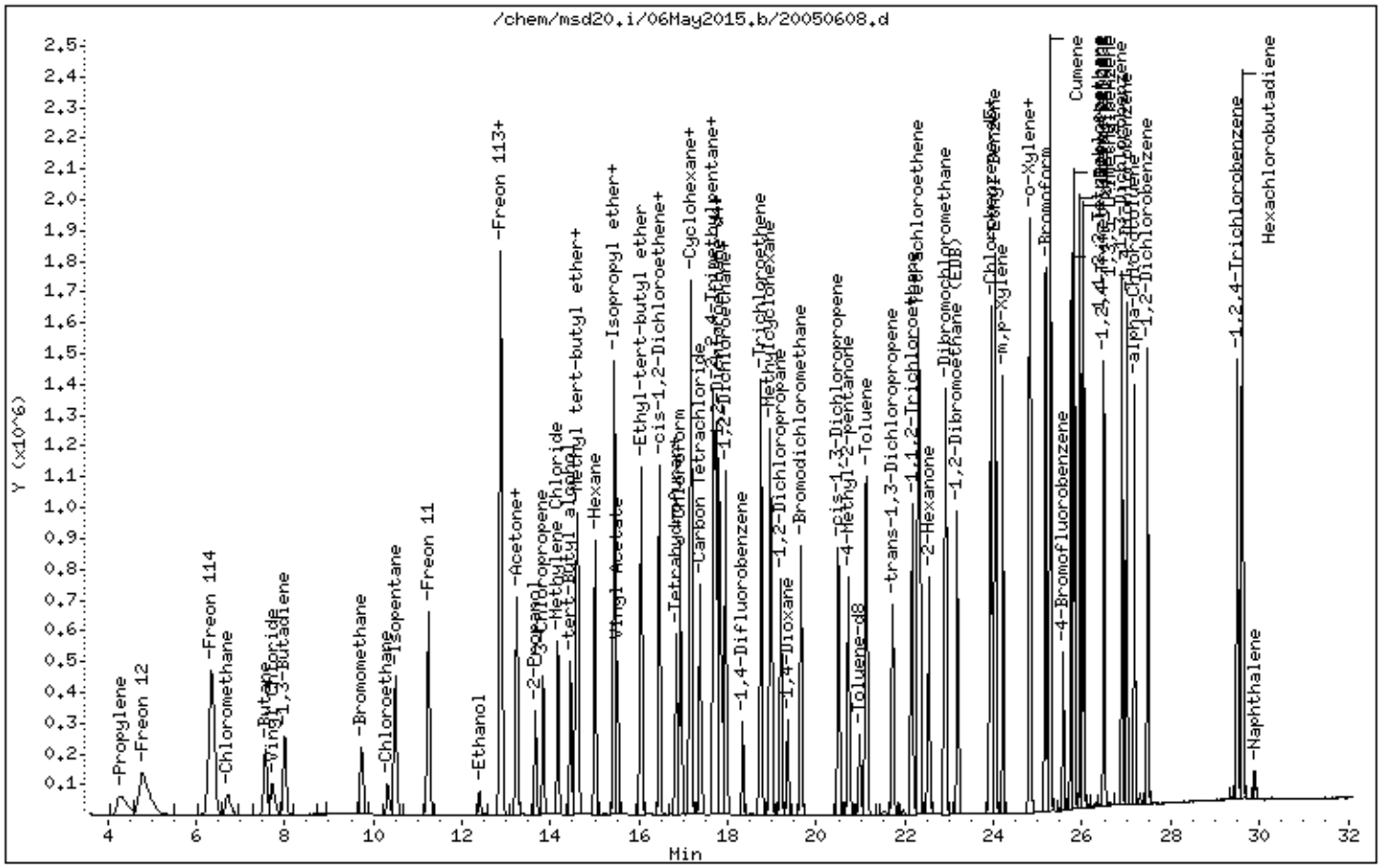
Instrument: msd20.i

Sample Info: 100mL# 2716-136

Operator: EA

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/06May2015.b/20050609.d
Lab Smp Id: ICAL Client Smp ID: Level #16
Inj Date : 06-MAY-2015 19:56
Operator : EA Inst ID: msd20.i
Smp Info : 200mL# 2716-136
Misc Info : 40ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/06May2015.b/2015l0506a.m
Meth Date : 07-May-2015 15:11 sblack Quant Type: ISTD
Cal Date : 06-MAY-2015 19:56 Cal File: 20050609.d
Als bottle: 1 Calibration Sample, Level: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.313	4.313 (0.256)	41	633364	40.0000	35.897	80.00- 120.00	100.00
4.313	4.313 (0.256)	42	435007			35.77- 95.77	68.68
4.330	4.330 (0.257)	39	466577			41.14- 101.14	73.67
11 Freon 12					CAS #: 75-71-8		
4.797	4.797 (0.285)	85	2395378	40.0000	35.181	80.00- 120.00	100.00
4.797	4.797 (0.285)	87	778982			2.49- 62.49	32.52
15 Freon 114					CAS #: 76-14-2		
6.369	6.369 (0.378)	135	1957780	40.0000	35.258	80.00- 120.00	100.00
6.369	6.369 (0.378)	137	634419			2.39- 62.39	32.41
6.369	6.369 (0.378)	85	2377368			90.31- 150.31	121.43
17 Chloromethane					CAS #: 74-87-3		
6.732	6.732 (0.400)	50	678058	40.0000	34.108	80.00- 120.00	100.00
6.732	6.732 (0.400)	52	223102			2.88- 62.88	32.90

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane					CAS #: 106-97-8		
7.574	7.574 (0.450)	58	170515	40.0000	37.783	80.00- 120.00	100.00
7.574	7.574 (0.450)	43	1172218			662.68- 722.68	687.46
25 Vinyl Chloride					CAS #: 75-01-4		
7.732	7.732 (0.459)	62	838831	40.0000	35.288	80.00- 120.00	100.00
7.732	7.732 (0.459)	64	269280			1.92- 61.92	32.10
26 1,3-Butadiene					CAS #: 106-99-0		
8.016	8.016 (0.476)	54	605396	40.0000	36.654	80.00- 120.00	100.00
8.016	8.016 (0.476)	39	556500			62.52- 122.52	91.92
29 Bromomethane					CAS #: 74-83-9		
9.743	9.743 (0.579)	94	702199	40.0000	37.420	80.00- 120.00	100.00
9.743	9.743 (0.579)	96	662902			66.00- 126.00	94.40
30 Chloroethane					CAS #: 75-00-3		
10.330	10.330 (0.613)	64	425812	40.0000	37.610	80.00- 120.00	100.00
10.330	10.330 (0.613)	66	137953			1.26- 61.26	32.40
31 Isopentane					CAS #: 78-78-4		
10.502	10.502 (0.624)	57	692095	40.0000	37.145	80.00- 120.00	100.00
10.502	10.502 (0.624)	43	937073			105.33- 165.33	135.40
10.502	10.502 (0.624)	42	802553			89.08- 149.08	115.96
35 Freon 11					CAS #: 75-69-4		
11.245	11.245 (0.668)	101	2519933	40.0000	35.347	80.00- 120.00	100.00
11.245	11.245 (0.668)	103	1649343			35.69- 95.69	65.45
42 Ethanol					CAS #: 64-17-5		
12.403	12.403 (0.736)	45	305506	40.0000	38.060	80.00- 120.00	100.00
12.403	12.403 (0.736)	46	118380			8.49- 68.49	38.75
12.403	12.403 (0.736)	43	66309			0.00- 51.69	21.70
49 Freon 113					CAS #: 76-13-1		
12.877	12.877 (0.765)	151	1992258	40.0000	34.786	80.00- 120.00	100.00
12.877	12.877 (0.765)	153	1287500			34.25- 94.25	64.63
12.877	12.877 (0.765)	101	2121562			75.92- 135.92	106.49
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.857	12.857 (0.763)	98	624120	40.0000	37.275	80.00- 120.00	100.00
12.857	12.857 (0.763)	61	1360248			183.51- 243.51	217.95
12.857	12.857 (0.763)	96	966327			126.67- 186.67	154.83
52 Acetone					CAS #: 67-64-1		
13.208	13.208 (0.784)	58	417292	40.0000	36.258	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   52 Acetone (continued)
 13.208  13.208 (0.784)    43   1221618                   250.97- 310.97   292.75
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 13.249  13.249 (0.787)    76   2754692 40.0000   37.730  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 13.662  13.662 (0.811)    45   1402254 40.0000   41.429  80.00- 120.00   100.00(A)
 13.662  13.662 (0.811)    43    275399                    0.00-  45.99    19.64
 13.662  13.662 (0.811)    59     61335                    0.00-  33.55     4.37
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 13.827  13.827 (0.821)    76    413176 40.0000   39.875  80.00- 120.00   100.00
 13.827  13.827 (0.821)    41    939553                  207.26- 267.26   227.40
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 14.157  14.157 (0.841)    84    884149 40.0000   36.481  80.00- 120.00   100.00
 14.157  14.157 (0.841)    49    950152                   76.26- 136.26   107.47
 14.157  14.157 (0.841)    51    294982                    2.64-  62.64    33.36
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 14.446  14.446 (0.858)    59   1845862 40.0000   40.727  80.00- 120.00   100.00(A)
 14.446  14.446 (0.858)    41    372227                    0.00-  51.32    20.17
 14.446  14.446 (0.858)    57    196900                    0.00-  40.83    10.67
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 14.570  14.570 (0.865)    73   2641622 40.0000   38.087  80.00- 120.00   100.00
 14.570  14.570 (0.865)    57    547948                    0.00-  51.22    20.74
 14.570  14.570 (0.865)    41    480577                    0.00-  49.54    18.19
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 14.611  14.611 (0.868)    98    651210 40.0000   35.953  80.00- 120.00   100.00
 14.611  14.611 (0.868)    61   1260577                  157.09- 217.09   193.57
 14.611  14.611 (0.868)    96   1010297                  124.47- 184.47   155.14
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 15.003  15.003 (0.891)    57   1333427 40.0000   37.875  80.00- 120.00   100.00
 15.003  15.003 (0.891)    43    775924                   29.42-  89.42    58.19
 15.003  15.003 (0.891)    86    254859                    0.00-  49.37    19.11
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 15.436  15.436 (0.917)    45   2674771 40.0000   37.409  80.00- 120.00   100.00
 15.456  15.456 (0.918)    87    916328                    3.40-  63.40    34.26
 15.456  15.456 (0.918)    59    331747                    0.00-  42.36    12.40
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 15.477  15.477 (0.919)    63   1611086 40.0000   35.681  80.00- 120.00   100.00
```

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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   82 1,1-Dichloroethane (continued)
 15.477  15.477 (0.919)    65    515038                     1.63-  61.63    31.97
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 15.518  15.518 (0.921)    86    269195 40.0000   41.329  80.00- 120.00   100.00(A)
 15.518  15.518 (0.921)    42    186517                   64.14- 124.14    69.29
 15.518  15.518 (0.921)    43   2364117                  1120.67-1180.67   878.22
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 16.043  16.043 (0.953)    59   2967915 40.0000   38.965  80.00- 120.00   100.00
 16.043  16.043 (0.953)    87   1393770                   17.02-  77.02    46.96
 16.043  16.043 (0.953)    41    484174                    0.00-  46.99    16.31
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 16.447  16.447 (0.977)    98    704452 40.0000   37.067  80.00- 120.00   100.00
 16.447  16.447 (0.977)    61   1227127                  140.61- 200.61   174.20
 16.447  16.447 (0.977)    96   1089315                  124.22- 184.22   154.63
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.460  16.460 (0.977)    72    476009 40.0000   37.737  80.00- 120.00   100.00
 16.460  16.460 (0.977)    43   1589641                  397.61- 457.61   333.95
 16.474  16.474 (0.978)    57    137138                    0.00-  58.47    28.81
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.841  16.841 (1.000)    42    940730 40.0000   37.758  80.00- 120.00   100.00
 16.841  16.841 (1.000)    71    444946                    9.03-  69.03    47.30
 16.841  16.841 (1.000)    72    473078                   21.41-  81.41    50.29
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.841  16.841 (1.000)   130    102263 5.00000           80.00- 120.00   100.00
 16.841  16.841 (1.000)   128     79108                   48.56- 108.56    77.36
 16.841  16.841 (1.000)    49    101539                   77.31- 137.31    99.29
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.937  16.937 (1.006)    83   2057241 40.0000   36.295  80.00- 120.00   100.00
 16.937  16.937 (1.006)    85   1334295                   35.24-  95.24    64.86
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.153  17.153 (1.019)    84   1387161 40.0000   38.222  80.00- 120.00   100.00
 17.153  17.153 (1.019)    56   1408799                   72.40- 132.40   101.56
 17.153  17.153 (1.019)    41    685224                   20.65-  80.65    49.40
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.177  17.177 (1.020)    97   2159609 40.0000   35.980  80.00- 120.00   100.00
 17.177  17.177 (1.020)    99   1410575                   34.49-  94.49    65.32
-------------------------------------------------------------------------------
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.393  17.393 (1.033)   119   1543912 40.0000   38.852  80.00- 120.00   100.00
 17.393  17.393 (1.033)   117   1620451                   73.26- 133.26   104.96
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.680  17.680 (1.050)    56   1320377 40.0000   36.230  80.00- 120.00   100.00
 17.680  17.680 (1.050)    57   4157458                  268.82- 328.82   314.87
 17.680  17.680 (1.050)    41    969801                   49.41- 109.41    73.45
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.728  17.728 (0.967)    78   2942301 40.0000   36.940  80.00- 120.00   100.00
 17.728  17.728 (0.967)    77    685376                    0.00-  53.11    23.29
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.752  17.752 (1.054)    65    129827 5.00000    5.055  80.00- 120.00   100.00
 17.752  17.752 (1.054)    67     83649                   27.32-  87.32    64.43
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 17.800  17.800 (0.971)    87    753998 40.0000   40.157  80.00- 120.00   100.00(A)
 17.800  17.800 (0.971)    73   2984697                  366.84- 426.84   395.85
 17.800  17.800 (0.971)    55    680450                   65.45- 125.45    90.25
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.872  17.872 (0.974)    62   1240738 40.0000   35.854  80.00- 120.00   100.00
 17.872  17.872 (0.974)    64    405486                    2.42-  62.42    32.68
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 17.968  17.968 (0.980)    57    813347 40.0000   38.872  80.00- 120.00   100.00
 17.968  17.968 (0.980)   100    341640                   21.23-  81.23    42.00
 17.968  17.968 (0.980)    43   1402957                  145.72- 205.72   172.49
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 18.340  18.340 (1.000)   114    401065 5.00000           80.00- 120.00   100.00
 18.340  18.340 (1.000)    88     60536                    0.00-  44.67    15.09
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.742  18.742 (1.022)   130   1636168 40.0000   38.872  80.00- 120.00   100.00
 18.742  18.742 (1.022)    95   1437717                   56.13- 116.13    87.87
 18.742  18.742 (1.022)    97    939244                   26.55-  86.55    57.41
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 18.965  18.965 (1.034)    83   1860857 40.0000   39.512  80.00- 120.00   100.00
 18.965  18.965 (1.034)    98    903049                   18.58-  78.58    48.53
 18.965  18.965 (1.034)    55   1282380                   38.68-  98.68    68.91
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 19.211  19.211 (1.047)    63   1095498 40.0000   38.828  80.00- 120.00   100.00
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  132 1,2-Dichloropropane (continued)
 19.211  19.211 (1.047)    62    756931                    40.14- 100.14    69.09
 19.211  19.211 (1.047)    41    513939                    17.79-  77.79    46.91
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.344  19.344 (1.055)    88    791420 40.0000   40.547  80.00- 120.00   100.00(A)
 19.344  19.344 (1.055)    58    484064                    30.40-  90.40    61.16
 19.344  19.344 (1.055)    57    152544                     0.00-  48.90    19.27
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.657  19.657 (0.823)    83   2147332 40.0000   40.658  80.00- 120.00   100.00(A)
 19.657  19.657 (0.823)    85   1388603                    34.06-  94.06    64.67
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.499  20.499 (1.118)    75   1983179 40.0000   41.881  80.00- 120.00   100.00(A)
 20.499  20.499 (1.118)    77    632323                     1.74-  61.74    31.88
 20.499  20.499 (1.118)    39    793937                    10.68-  70.68    40.03
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.717  20.717 (1.130)    43   1984909 40.0000   42.096  80.00- 120.00   100.00(A)
 20.733  20.733 (1.130)    58    846922                    12.69-  72.69    42.67
 20.733  20.733 (1.130)    85    427431                     0.00-  51.10    21.53
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.982  20.982 (1.144)    98    377079 5.00000    5.042  80.00- 120.00   100.00
 20.982  20.982 (1.144)    70     39903                     0.00-  40.06    10.58
 20.982  20.982 (1.144)   100    251061                    36.64-  96.64    66.58
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 21.122  21.122 (1.152)    91   3426745 40.0000   37.701  80.00- 120.00   100.00
 21.122  21.122 (1.152)    92   2029203                    29.36-  89.36    59.22
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 21.727  21.727 (0.909)    75   1682445 40.0000   41.149  80.00- 120.00   100.00(A)
 21.727  21.727 (0.909)    77    538655                     2.80-  62.80    32.02
 21.727  21.727 (0.909)    39    634815                     9.93-  69.93    37.73
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 22.162  22.162 (0.927)    97   1333179 40.0000   38.061  80.00- 120.00   100.00
 22.162  22.162 (0.927)    99    832163                    31.16-  91.16    62.42
 22.162  22.162 (0.927)    83   1097726                    52.03- 112.03    82.34
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.308  22.308 (0.934)   166   2225280 40.0000   37.866  80.00- 120.00   100.00
 22.308  22.308 (0.934)   129   1485049                    36.29-  96.29    66.74
 22.308  22.308 (0.934)   131   1442711                    35.02-  95.02    64.83
-------------------------------------------------------------------------------
```

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  158 2-Hexanone                                   CAS #: 591-78-6
 22.540  22.540 (0.943)    58   1080679 40.0000   44.768  80.00- 120.00   100.00(A)
 22.540  22.540 (0.943)    43   1819840                  138.91- 198.91   168.40
 22.540  22.540 (0.943)   100    264324                    0.00-  53.53    24.46
-------------------------------------------------------------------------------
  160 Dibromochloromethane                         CAS #: 124-48-1
 22.917  22.917 (0.959)   129   2592082 40.0000   43.738  80.00- 120.00   100.00(A)
 22.917  22.917 (0.959)   127   2010523                   46.93- 106.93    77.56
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                      CAS #: 106-93-4
 23.179  23.179 (0.970)   107   2128271 40.0000   39.787  80.00- 120.00   100.00
 23.179  23.179 (0.970)   109   2036316                   66.13- 126.13    95.68
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 23.895  23.895 (1.000)   117    349800 5.00000           80.00- 120.00   100.00
 23.895  23.895 (1.000)    82    176122                   18.57-  78.57    50.35
-------------------------------------------------------------------------------
  165 Chlorobenzene                                CAS #: 108-90-7
 23.936  23.936 (1.002)   112   2945148 40.0000   37.512  80.00- 120.00   100.00
 23.936  23.936 (1.002)   114    952899                    2.12-  62.12    32.35
 23.936  23.936 (1.002)    77   1557867                   25.79-  85.79    52.90
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 24.039  24.039 (1.006)   106   1409847 40.0000   39.726  80.00- 120.00   100.00
 24.039  24.039 (1.006)    91   4178180                  269.24- 329.24   296.36
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.204  24.204 (1.013)   106   1521983 40.0000   40.314  80.00- 120.00   100.00(A)
 24.204  24.204 (1.013)    91   2893600                  160.53- 220.53   190.12
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.823  24.823 (1.039)   106   1450693 40.0000   40.704  80.00- 120.00   100.00(A)
 24.823  24.823 (1.039)    91   2892797                  168.41- 228.41   199.41
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 24.844  24.844 (1.040)   104   2211849 40.0000   43.765  80.00- 120.00   100.00(A)
 24.844  24.844 (1.040)    78   1048325                   16.68-  76.68    47.40
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 25.164  25.164 (1.053)   173   2834276 40.0000   44.788  80.00- 120.00   100.00(A)
 25.164  25.164 (1.053)   171   1456311                   21.43-  81.43    51.38
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 25.296  25.296 (1.059)   105   4704997 40.0000   41.215  80.00- 120.00   100.00(A)
 25.296  25.296 (1.059)   120   1344401                    0.00-  58.79    28.57
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.581	25.581 (1.071)	174	223299	5.00000	5.241	80.00- 120.00	100.00
25.581	25.581 (1.071)	95	225060			70.67- 130.67	100.79
25.581	25.581 (1.071)	176	214732			67.63- 127.63	96.16
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.752	25.752 (1.078)	83	2545901	40.0000	37.592	80.00- 120.00	100.00
25.752	25.752 (1.078)	85	1651252			34.87- 94.87	64.86
182 Propylbenzene					CAS #: 103-65-1		
25.827	25.827 (1.081)	91	4276817	40.0000	41.421	80.00- 120.00	100.00(A)
25.827	25.827 (1.081)	120	1118847			0.00- 55.88	26.16
188 4-Ethyltoluene					CAS #: 622-96-8		
25.960	25.960 (1.086)	105	3380691	40.0000	41.024	80.00- 120.00	100.00(A)
25.960	25.960 (1.086)	120	1086066			3.93- 63.93	32.13
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
26.036	26.036 (1.090)	105	2720000	40.0000	35.632	80.00- 120.00	100.00
26.036	26.036 (1.090)	120	1410637			20.38- 80.38	51.86
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.491	26.491 (1.109)	105	2304507	40.0000	31.356	80.00- 120.00	100.00
26.491	26.491 (1.109)	120	1114582			19.25- 79.25	48.37
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.897	26.897 (1.126)	146	2346475	40.0000	37.711	80.00- 120.00	100.00
26.897	26.897 (1.126)	148	1512269			34.22- 94.22	64.45
26.897	26.897 (1.126)	111	864983			6.18- 66.18	36.86
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
27.006	27.006 (1.130)	146	2119051	40.0000	37.983	80.00- 120.00	100.00
27.006	27.006 (1.130)	148	1354849			34.44- 94.44	63.94
27.006	27.006 (1.130)	111	748992			4.83- 64.83	35.35
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.178	27.178 (1.137)	91	2735266	40.0000	47.596	80.00- 120.00	100.00(A)
27.178	27.178 (1.137)	126	658393			0.00- 54.01	24.07
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.474	27.474 (1.150)	146	2063519	40.0000	37.093	80.00- 120.00	100.00
27.474	27.474 (1.150)	148	1330694			33.85- 93.85	64.49
27.474	27.474 (1.150)	111	783963			6.72- 66.72	37.99
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.500	29.500 (1.235)	180	1465045	40.0000	29.761	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)							
29.500	29.500 (1.235)	182	1413659			66.47- 126.47	96.49
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.625	29.625 (1.240)	225	1886300	40.0000	42.937	80.00- 120.00	100.00(A)
29.625	29.625 (1.240)	223	1177668			33.07- 93.07	62.43
228 Naphthalene					CAS #: 91-20-3		
29.890	29.890 (1.251)	128	236726	4.00000	3.770	80.00- 120.00	100.00
29.890	29.890 (1.251)	127	29217			0.00- 43.71	12.34

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Report Date: 07-May-2015 15:11

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20050609.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: EA
Method File: /chem/msd20.i/06May2015.b/2015l0506a.m
Misc Info: 40ppbv (50ppbv)

Calibration Date: 06-MAY-2015
Calibration Time: 16:39
Client Smp ID: Level #16
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	98180	58908	137452	102263	4.16
123 1,4-Difluorobenze	392208	235325	549091	401065	2.26
163 Chlorobenzene-d5	339954	203972	475936	349800	2.90

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.84	16.51	17.17	16.84	-0.02
123 1,4-Difluorobenze	18.34	18.01	18.67	18.34	-0.02
163 Chlorobenzene-d5	23.89	23.56	24.22	23.89	0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd20.i/06May2015.b/20050609.d

Date : 06-MAY-2015 19:56

Client ID: Level #16

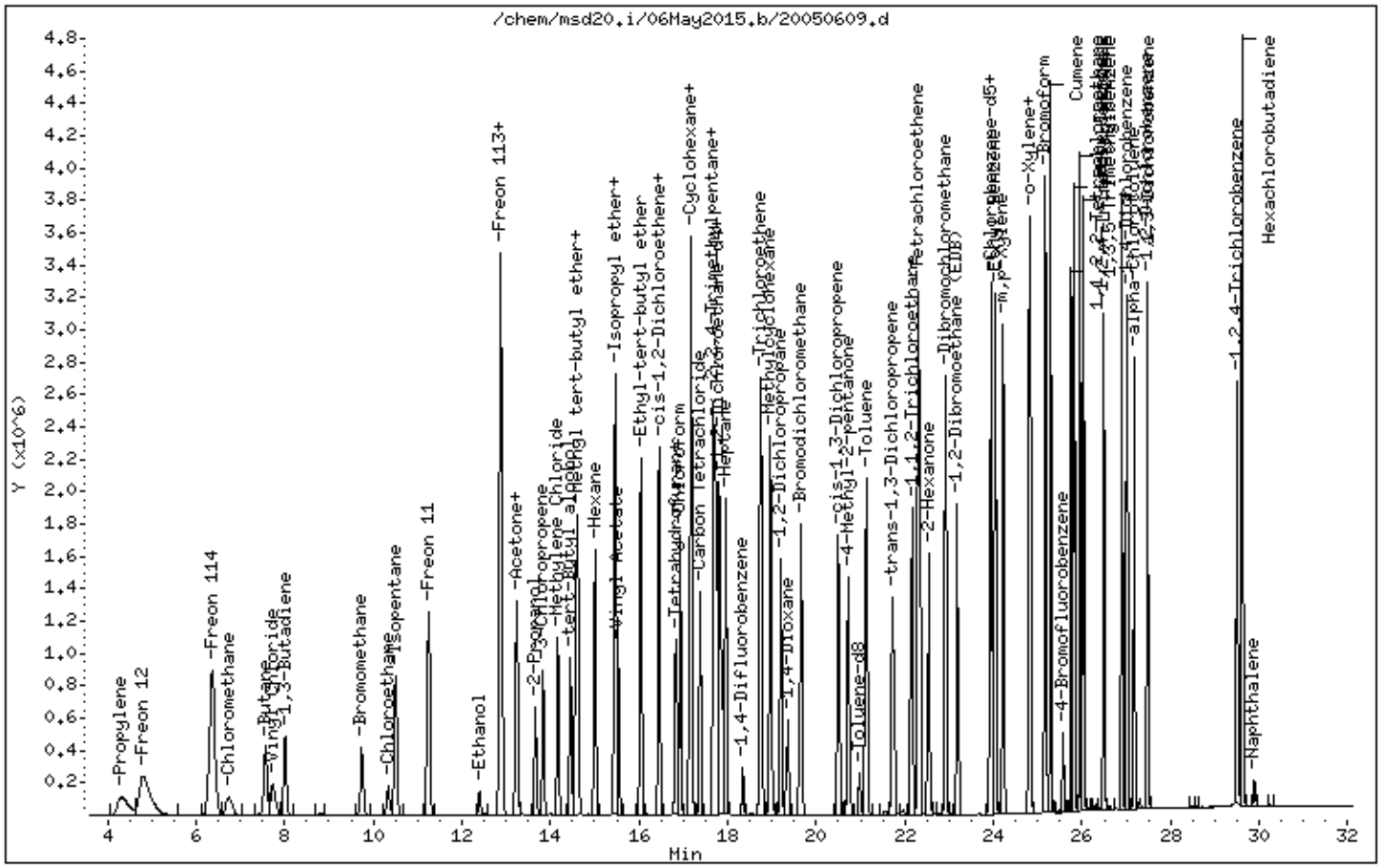
Instrument: msd20.i

Sample Info: 200mL# 2716-136

Operator: EA

Column phase: RTX-624

Column diameter: 0.32



Report Date : 17-Feb-2015 09:43

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

0.1 ppbv LL MDL
5 ppbv MDL FOR 1,2,4-TCB, HEXACHLOROBUTADIENE
#2716-65 (1.0 ppbv) = 25 mL LOAD.

Method File: /chem/msd20.i/11Feb2015.b/201510210a.m
Batch File: /chem/msd20.i/11Feb2015.b
Inst ID: msd20.i

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	20021106	20021107	20021108	20021109	20021110	20021111	20021112	20021113
INJ.DATE:	11-FEB-2015	11-FEB-2015	11-FEB-2015	12-FEB-2015	12-FEB-2015	12-FEB-2015	12-FEB-2015	12-FEB-2015
INJ.TIME:	21:29	22:27	23:09	05:35	06:25	07:11	07:57	08:55

ppbv (RLS)

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
9 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
10 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
11 Freon 12	✓104.15	✓114.41	✓97.72	✓97.77	✓111.18	✓105.01	✓104.43	✓111.78	✓105.81	✓6.26	✓18.75	100
12 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
13 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
14 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
15 Freon 114	113.36	112.82	113.21	109.99	117.91	105.15	110.24	111.57	111.78	3.64	10.91	100
16 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
17 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

NOTE: THE MDL FOR BENZENE IS > 1/2 RL
(RL = 0.1 ppbv, MDL = 0.078).

Reviewer 1 [signature] Date: 2/17/15
Reviewer 2 [signature] 2/17/15 Date: 2/17/15

$\bar{x} = 0.018$

$2(\bar{x}) = 0.037$

ALL 0.1 COMPOUNDS - RATIO OF THE MEAN RECOVERED CONCENTRATION AND THE MDL IS BETWEEN 1 AND 20

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2015.b/201510210a.m
Batch File: /chem/msd20.i/11Feb2015.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
18 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
19 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
20 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
21 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
22 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
23 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
24 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
25 Vinyl Chloride	107.74	109.35	111.19	106.15	108.60	107.00	112.30	102.80	108.14	2.98	8.94	100
26 1,3-Butadiene	124.85	121.35	110.06	117.08	121.53	116.03	112.72	132.68	119.54	7.20	21.58	100
27 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
28 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
29 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
31 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
33 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
34 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
35 Freon 11	117.93	108.13	109.91	105.17	118.04	109.33	118.63	110.74	112.23	5.21	15.61	100
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
37 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
38 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
39 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2015.b/201510210a.m
Batch File: /chem/msd20.i/11Feb2015.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
40 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
41 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
42 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
43 1,2-Dichloro-1-fluoroe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
44 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
45 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
46 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
47 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
48 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
49 Freon 113	105.76	112.97	101.03	107.16	112.96	107.31	103.31	105.39	106.99	4.22	12.65	100
50 1,1-Dichloroethene	110.33	109.05	108.33	98.85	103.50	117.60	105.75	92.52	105.74	7.62	22.85	100
51 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
52 Acetone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
53 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
54 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
55 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
56 Carbon Disulfide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
57 2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
58 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
59 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
60 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
61 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
62 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
63 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
64 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
65 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
66 Methylene Chloride	120.83	113.66	121.56	126.96	106.46	120.12	114.69	125.41	118.71	6.75	20.25	100
67 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
68 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
69 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
70 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
71 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
72 Methyl tert-butyl ethe	119.86	115.90	108.87	103.42	110.53	107.23	110.48	112.00	111.04	5.07	15.21	100
73 trans-1,2-Dichloroethe	104.67	104.18	106.70	117.89	110.21	108.55	101.32	118.73	109.03	6.34	19.01	100
74 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
75 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
76 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
77 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
78 Hexane	108.84	115.62	111.52	114.32	101.03	115.51	115.16	108.90	111.36	5.04	15.10	100
79 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
80 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
81 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
82 1,1-Dichloroethane	99.13	110.91	109.93	103.13	119.60	107.26	112.84	112.18	109.37	6.27	18.81	100
83 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
84 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
85 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
86 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
87 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
88 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
89 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
90 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
91 cis-1,2-Dichloroethene	125.23	118.38	106.85	98.52	101.51	102.36	105.53	111.40	108.72	9.13	27.37	100
92 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
93 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
94 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
95 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
96 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
97 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 98 Bromochloromethane	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
99 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
100 Chloroform	104.94	113.89	107.97	103.80	104.16	105.68	111.03	111.40	107.86	3.82	11.46	100
101 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
102 Cyclohexane	116.84	109.67	106.17	94.84	104.07	101.23	98.16	107.55	104.82	6.91	20.73	100
103 1,1,1-Trichloroethane	112.31	102.49	105.07	103.30	99.99	102.71	109.13	102.31	104.66	4.08	12.22	100
104 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
105 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
106 Carbon Tetrachloride	95.53	95.14	100.16	98.78	97.65	98.57	105.79	95.40	98.38	3.51	10.53	100
107 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
108 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
109 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
110 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
111 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 112 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
113 2,2,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
114 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
115 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
116 Benzene	167.01	112.74	122.27	166.96	129.39	118.31	172.31	167.55	144.57	26.00	77.95	100
$ 117 1,2-Dichloroethane-d4	4042.31	3982.49	4017.06	4005.04	4101.16	4100.50	4158.79	4082.95	4061.29	59.51	178.42	
118 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
119 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
120 1,2-Dichloroethane	118.40	115.49	120.37	118.57	112.88	101.52	120.50	121.86	116.20	6.60	19.80	100
121 Heptane	106.46	110.55	108.06	104.98	110.71	115.19	108.58	106.84	108.92	3.20	9.61	100
122 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 123 1,4-Difluorobenzene	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
124 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
125 Trichloroethene	127.14	122.68	131.77	140.95	130.43	122.77	120.56	128.38	128.09	6.54	19.62	100
126 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
127 Methylcyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
128 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
129 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
130 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
131 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
132 1,2-Dichloropropane	109.58	117.24	112.65	109.77	113.14	111.66	109.76	102.72	110.81	4.14	12.41	100
133 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
134 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
135 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
136 1,4-Dioxane	115.17	117.20	115.51	138.29	116.89	104.15	96.60	122.68	115.81	12.31	36.91	100
137 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
138 Bromodichloromethane	103.38	114.13	104.83	115.39	106.94	105.65	104.15	97.00	106.43	5.93	17.79	100
139 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
140 bis(chloromethyl) Ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
141 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
142 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
143 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
144 cis-1,3-Dichloropropen	104.14	106.51	100.58	96.77	100.52	87.44	97.59	101.25	99.35	5.76	17.27	100
145 4-Methyl-2-pentanone	113.55	111.00	105.48	117.24	113.23	98.92	118.39	112.35	111.27	6.35	19.05	100
$ 146 Toluene-d8	4937.59	4961.86	4970.71	5011.54	4995.79	4956.50	4991.54	4973.58	4974.89	23.83	71.45	
147 Toluene	114.49	117.97	108.15	118.62	113.19	114.59	121.35	103.70	114.01	5.76	17.28	100
148 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
149 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
150 trans-1,3-Dichloroprop	89.01	97.03	97.13	89.90	92.48	90.42	91.66	91.86	92.44	3.08	9.22	100
151 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
152 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
153 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
154 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
155 1,1,2-Trichloroethane	100.29	114.75	109.42	102.92	103.51	102.78	101.30	101.80	104.60	4.94	14.81	100
156 Tetrachloroethene	110.96	111.81	110.64	111.24	107.22	109.83	103.79	105.57	108.88	2.98	8.93	100
157 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
158 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
159 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
160 Dibromochloromethane	98.08	91.81	93.37	100.12	93.29	96.96	86.67	90.61	93.86	4.37	13.10	100
161 1,2-Dibromoethane (EDB	104.66	97.72	98.05	108.00	106.52	95.92	95.47	103.53	101.23	5.00	14.98	100
162 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 163 Chlorobenzene-d5	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
164 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
165 Chlorobenzene	107.98	110.22	107.65	108.15	105.33	101.96	103.90	102.43	105.95	3.00	8.99	100
166 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
167 Ethyl Benzene	108.22	105.90	111.87	104.94	106.18	94.61	92.83	113.29	104.73	7.41	22.21	100
168 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
169 m,p-Xylene	99.37	101.44	106.67	96.31	104.36	107.70	97.22	98.78	101.48	4.32	12.95	100
170 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
171 o-Xylene	107.91	100.42	99.84	99.25	106.66	109.44	101.33	113.26	104.76	5.25	15.74	100
172 Styrene	89.32	86.32	86.37	93.14	82.63	86.72	90.31	82.44	87.15	3.68	11.02	100
173 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
174 Bromoform	87.24	87.82	84.07	78.02	80.70	88.09	85.62	83.17	84.34	3.60	10.80	100
175 Cumene	101.39	108.46	104.14	104.51	108.12	96.52	108.28	103.59	104.38	4.09	12.27	100
176 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 177 4-Bromofluorobenzene	4907.16	4942.47	5005.24	4931.45	4890.92	4925.48	5109.28	4794.21	4938.28	90.96	272.70	
178 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
179 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
180 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
181 1,1,2,2-Tetrachloroeth	99.66	101.20	106.97	90.17	94.05	95.03	106.76	95.85	98.71	6.05	18.15	100
182 Propylbenzene	121.89	121.32	132.16	118.98	126.07	120.67	131.79	126.09	124.87	5.04	15.11	100

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
183 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
184 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
185 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
186 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
187 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
188 4-Ethyltoluene	127.15	132.55	141.72	126.42	131.72	128.31	139.40	139.22	133.31	6.05	18.14	ppb
189 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
190 1,3,5-Trimethylbenzene	124.12	126.53	137.43	114.09	124.87	120.78	127.40	124.87	125.01	6.55	19.64	ppb
191 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
192 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
193 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
194 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
195 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
196 1,2,4-Trimethylbenzene	129.49	134.27	129.53	132.32	130.60	132.01	135.67	134.55	132.30	2.35	7.06	ppb
197 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
198 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
199 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
200 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
201 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
202 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
203 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
204 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
205 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2015.b/201510210a.m
Batch File: /chem/msd20.i/11Feb2015.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
206 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
207 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
208 1,3-Dichlorobenzene	111.07	126.13	126.04	110.47	114.61	118.66	124.42	116.24	118.46	6.44	19.30	100
209 1,4-Dichlorobenzene	116.63	124.55	130.52	127.42	126.61	120.45	125.76	130.47	125.30	4.77	14.31	100
210 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
212 alpha-Chlorotoluene	96.89	100.28	95.10	93.43	91.07	101.38	95.95	86.90	95.12	4.73	14.17	100
213 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
214 1,2-Dichlorobenzene	121.88	121.73	126.66	106.68	113.38	114.10	131.19	116.07	118.96	7.92	23.75	100
215 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
216 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
217 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
218 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
219 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
220 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
221 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
222 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
223 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
224 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
225 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
226 1,2,4-Trichlorobenzene	112.84	102.31	132.40	91.21	84.58	93.18	100.78	99.08	102.05	14.88	44.60	500
227 Hexachlorobutadiene	119.72	124.67	151.04	105.79	111.15	111.87	121.96	134.30	122.56	14.58	43.70	500
228 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
229 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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	Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
	230 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	231 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	234 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	235 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	236 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
M	237 1,2-Dichloroethene (To	229.90	222.56	213.55	216.40	211.72	210.91	206.85	230.13	217.75	8.83	26.46	N/A
M	238 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
M	239 Total Xylene	207.28	201.86	206.51	195.56	211.01	217.14	198.55	212.05	206.24	7.26	21.76	N/A
M	240 3 and 4-Ethyltoluene	127.15	132.55	141.72	126.42	131.72	128.31	139.40	139.22	133.31	6.05	18.14	↓
	241 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	242 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	243 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	244 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	245 TPH reference MineralS	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	246 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	247 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	248 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	249 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	250 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	251 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	252 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	253 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
254 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C6-C8 Aliphatic ref He	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
268 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
269 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
270 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Report Date : 17-Feb-2015 10:30

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0.5ppbv LL MDL
#27116-65 (1.0ppbv)
125mL LOAD.

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	20021206	20021207	20021208	20021209	20021210	20021211	20021212	20021213
INJ.DATE:	12-FEB-2015	12-FEB-2015	12-FEB-2015	12-FEB-2015	12-FEB-2015	12-FEB-2015	13-FEB-2015	13-FEB-2015
INJ.TIME:	18:37	19:34	20:37	21:24	22:21	23:14	07:59	08:48

Per (RL)

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
9 Propylene	✓564.35	✓453.36	✓532.59	✓531.33	✓540.48	✓540.64	✓547.27	✓466.02	✓522.01	✓39.94	✓119.74	500
10 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
11 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
12 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
13 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
14 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
15 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
16 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
17 Chloromethane	545.39	519.94	534.40	514.22	501.49	510.28	521.47	486.81	516.75	18.29	54.84	500

Reviewer 1 [signature] Date: 2/17/15
Reviewer 2 [signature] Date: 2/17/15

$\bar{X} = 0.0649$

$2\sigma = 0.130$

All 0.5ppbv Compounds - RATIO OF THE MEAN RECOVERED CONCENTRATION AND THE MDL VALUE IS BETWEEN 1 AND 20.

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
18 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
19 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
20 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
21 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
22 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
23 Butane	470.19	526.81	535.05	561.95	501.29	508.21	552.80	493.01	518.66	31.15	93.39	500
24 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
25 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
26 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
27 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
28 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
29 Bromomethane	415.79	463.55	469.16	481.13	468.84	480.46	485.06	504.04	471.00	25.61	76.79	500
30 Chloroethane	441.89	461.63	491.97	453.37	480.03	465.39	481.64	458.13	466.76	16.62	49.82	500
31 Isopentane	526.90	496.77	499.38	482.67	498.41	499.12	551.41	521.29	509.49	22.08	66.21	500
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
33 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
34 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
35 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
37 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
38 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
39 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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40 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
41 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
42 Ethanol	523.52	484.60	519.31	535.64	488.09	538.78	498.33	553.07	517.67	25.07	75.17	500
43 1,2-Dichloro-1-fluoroe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
44 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
45 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
46 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
47 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
48 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
49 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
50 1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
51 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
52 Acetone	564.81	545.11	542.89	559.31	564.97	567.54	587.22	542.56	559.30	15.40	46.18	500
53 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
54 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
55 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
56 Carbon Disulfide	494.44	490.14	498.99	500.79	500.40	485.23	503.97	465.82	492.47	12.41	37.22	500
57 2-Propanol	538.50	505.31	414.77	514.33	530.49	414.01	431.75	507.07	482.03	52.68	157.94	500
58 3-Chloropropene	469.97	467.30	519.03	483.58	505.11	449.82	494.22	497.76	485.85	22.62	67.82	500
59 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
60 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
61 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
62 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
63 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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64 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
65 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
66 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
67 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
68 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
69 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
70 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
71 tert-Butyl alcohol	449.91	451.74	481.55	490.14	461.49	463.10	493.32	460.09	468.92	17.02	51.04	500
72 Methyl tert-butyl ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
73 trans-1,2-Dichloroethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
74 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
75 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
76 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
77 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
78 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
79 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
80 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
81 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
82 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
83 Isopropyl ether	497.97	487.69	505.69	505.84	482.30	485.80	502.56	495.53	495.42	9.23	27.67	500
84 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
85 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
86 Vinyl Acetate	406.17	405.06	448.04	432.69	401.56	417.01	467.94	412.45	423.86	23.75	71.20	500

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
87 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
88 Ethyl-tert-butyl ether	496.46	484.71	490.21	499.76	479.39	484.01	504.25	482.78	490.20	9.01	27.01	500
89 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
90 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
91 cis-1,2-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
92 2-Butanone	505.24	463.28	497.73	491.69	504.84	500.53	465.45	491.38	490.02	16.67	49.97	500
93 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
94 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
95 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
96 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
97 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 98 Bromochloromethane	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
99 Tetrahydrofuran	548.43	513.29	457.14	541.12	431.45	436.88	441.59	443.48	476.67	49.26	147.68	500
100 Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
101 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
102 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
103 1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
104 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
105 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
106 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
107 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
108 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
109 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
110 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
111 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 112 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
113 2,2,4-Trimethylpentane	493.07	484.71	484.61	506.12	490.04	482.29	502.66	494.90	492.30	8.68	26.03	500
114 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
115 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
116 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 117 1,2-Dichloroethane-d4	4148.18	4167.42	4162.04	4265.71	4155.04	4235.38	4285.74	4172.27	4198.97	54.63	163.78	
118 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
119 tert-Amyl methyl ether	502.27	481.24	468.02	419.87	471.90	491.31	476.00	469.49	472.51	24.28	72.80	500
120 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
121 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
122 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 123 1,4-Difluorobenzene	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
124 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
125 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
126 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
127 Methylcyclohexane	476.49	495.81	489.70	465.52	482.95	477.67	475.86	462.63	478.33	11.19	33.55	500
128 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
129 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
130 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
131 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
132 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
133 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
134 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
135 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
136 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
137 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
138 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
139 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
140 bis(chloromethyl) Ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
141 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
142 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
143 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
144 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
145 4-Methyl-2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 146 Toluene-d8	4867.66	4962.86	4986.72	4992.93	5046.85	4975.40	4988.10	4963.84	4973.05	50.08	150.15	
147 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
148 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
149 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
150 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
151 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
152 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
153 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
154 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
155 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
156 Tetrachloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
157 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
158 2-Hexanone	419.45	459.44	408.98	444.06	414.20	431.84	408.95	414.59	425.19	18.38	55.11	500

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
159 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 Dibromochloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1,2-Dibromoethane (EDB	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 163 Chlorobenzene-d5	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00
164 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
165 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
166 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Ethyl Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
168 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
169 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
171 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 Cumene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
176 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 177 4-Bromofluorobenzene	4805.71	4836.10	4855.23	4926.45	4843.52	4948.05	4800.20	4836.42	4856.46	53.47	160.31
178 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
179 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
180 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 1,1,2,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
182 Propylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
183 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
184 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
185 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
186 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
189 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
190 1,3,5-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
191 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
193 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
195 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
196 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
197 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
200 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
202 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
203 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
205 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
206 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
207 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
208 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
209 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
214 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
215 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
216 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
217 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
220 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
223 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 Naphthalene	68.89	75.06	77.74	65.15	80.77	71.96	66.67	60.58	70.85	6.81	20.40
229 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

500 ~~500~~ ppbv

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
230 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
234 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
235 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
236 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 237 1,2-Dichloroethene (To	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 238 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 239 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 240 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/12Feb2015.b/201510210a.m
Batch File: /chem/msd20.i/12Feb2015.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
254 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C6-C8 Aliphatic ref He	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
268 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
269 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
270 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Client Sample ID: CCV

Lab ID#: 1506153A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061005**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/15 11:58 AM**

Compound	%Recovery
Freon 12	116
Freon 114	112
Chloromethane	112
Vinyl Chloride	114
1,3-Butadiene	114
Bromomethane	127
Chloroethane	116
Freon 11	114
Ethanol	109
Freon 113	108
1,1-Dichloroethene	113
Acetone	110
2-Propanol	115
Carbon Disulfide	116
3-Chloropropene	112
Methylene Chloride	110
Methyl tert-butyl ether	119
trans-1,2-Dichloroethene	112
Hexane	120
1,1-Dichloroethane	115
2-Butanone (Methyl Ethyl Ketone)	117
cis-1,2-Dichloroethene	115
Tetrahydrofuran	118
Chloroform	112
1,1,1-Trichloroethane	111
Cyclohexane	118
Carbon Tetrachloride	130
2,2,4-Trimethylpentane	116
Benzene	111
1,2-Dichloroethane	110
Heptane	119
Trichloroethene	112
1,2-Dichloropropane	114
1,4-Dioxane	121
Bromodichloromethane	121
cis-1,3-Dichloropropene	116
4-Methyl-2-pentanone	126
Toluene	114
trans-1,3-Dichloropropene	118
1,1,2-Trichloroethane	114
Tetrachloroethene	113
2-Hexanone	122

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Client Sample ID: CCV

Lab ID#: 1506153A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061005**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/15 11:58 AM**

Compound	%Recovery
Dibromochloromethane	125
1,2-Dibromoethane (EDB)	118
Chlorobenzene	112
Ethyl Benzene	119
m,p-Xylene	122
o-Xylene	121
Styrene	122
Bromoform	125
Cumene	120
1,1,2,2-Tetrachloroethane	117
Propylbenzene	116
4-Ethyltoluene	114
1,3,5-Trimethylbenzene	110
1,2,4-Trimethylbenzene	105
1,3-Dichlorobenzene	107
1,4-Dichlorobenzene	105
alpha-Chlorotoluene	117
1,2-Dichlorobenzene	106
1,2,4-Trichlorobenzene	87
Hexachlorobutadiene	95
Naphthalene	88

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	102	70-130

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd20.i Injection Date: 10-JUN-2015 11:58
Lab File ID: 20061005.d Init. Cal. Date(s): 06-MAY-2015 07-MAY-2015
Analysis Type: AIR Init. Cal. Times: 15:08 18:37
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd20.i/10Jun2015.b/2015l0506a.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	%D / %DRIFT	MAX	CURVE TYPE	
9 Propylene	0.85483	0.44870	0.010	47.51053	40.00000		Averaged	<-
11 Freon 12	3.38274	3.94379	0.010	-16.58576	30.00000		Averaged	
15 Freon 114	2.78461	3.12635	0.010	-12.27266	30.00000		Averaged	
17 Chloromethane	0.99751	1.11990	0.010	-12.26905	30.00000		Averaged	
23 Butane	0.22503	0.25535	0.010	-13.47153	40.00000		Averaged	
25 Vinyl Chloride	1.15878	1.32616	0.010	-14.44515	30.00000		Averaged	
26 1,3-Butadiene	0.83883	0.95956	0.010	-14.39257	30.00000		Averaged	
29 Bromomethane	0.90642	1.15519	0.010	-27.44484	30.00000		Averaged	
30 Chloroethane	0.55624	0.64281	0.010	-15.56382	30.00000		Averaged	
31 Isopentane	0.90911	1.06708	0.010	-17.37589	40.00000		Averaged	
35 Freon 11	3.54329	4.04683	0.010	-14.21099	30.00000		Averaged	
42 Ethanol	0.39369	0.43074	0.010	-9.41177	30.00000		Averaged	
49 Freon 113	2.85265	3.09483	0.010	-8.48983	30.00000		Averaged	
50 1,1-Dichloroethene	0.82773	0.93292	0.010	-12.70779	30.00000		Averaged	
52 Acetone	0.58334	0.64377	0.010	-10.35986	30.00000		Averaged	
56 Carbon Disulfide	3.56636	4.14182	0.010	-16.13573	30.00000		Averaged	
57 2-Propanol	1.62523	1.86279	0.010	-14.61707	30.00000		Averaged	
58 3-Chloropropene	0.48790	0.54429	0.010	-11.55745	30.00000		Averaged	
66 Methylene Chloride	1.24069	1.35990	0.010	-9.60808	30.00000		Averaged	
71 tert-Butyl alcohol	2.17673	2.54049	0.010	-16.71114	40.00000		Averaged	
72 Methyl tert-butyl ether	3.35554	4.00829	0.010	-19.45286	30.00000		Averaged	
73 trans-1,2-Dichloroethene	0.90960	1.02027	0.010	-12.16710	30.00000		Averaged	
78 Hexane	1.72629	2.08032	0.010	-20.50836	30.00000		Averaged	
83 Isopropyl ether	3.48125	4.23995	0.010	-21.79376	40.00000		Averaged	
82 1,1-Dichloroethane	2.26463	2.61283	0.010	-15.37578	30.00000		Averaged	
86 Vinyl Acetate	0.31582	0.37321	0.010	-18.17013	40.00000		Averaged	
88 Ethyl-tert-butyl ether	3.68775	4.36587	0.010	-18.38834	40.00000		Averaged	
91 cis-1,2-Dichloroethene	0.92885	1.06945	0.010	-15.13638	30.00000		Averaged	
92 2-Butanone	0.61528	0.71992	0.010	-17.00672	30.00000		Averaged	
99 Tetrahydrofuran	1.20803	1.42022	0.010	-17.56548	30.00000		Averaged	
100 Chloroform	2.83839	3.19109	0.010	-12.42598	30.00000		Averaged	
102 Cyclohexane	1.78348	2.09671	0.010	-17.56284	30.00000		Averaged	
103 1,1,1-Trichloroethane	2.96349	3.30343	0.010	-11.47095	30.00000		Averaged	
106 Carbon Tetrachloride	1.93376	2.51281	0.010	-29.94438	30.00000		Averaged	
113 2,2,4-Trimethylpentane	1.70835	1.98465	0.010	-16.17366	30.00000		Averaged	
116 Benzene	1.02685	1.14114	0.010	-11.13027	30.00000		Averaged	

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd20.i Injection Date: 10-JUN-2015 11:58
Lab File ID: 20061005.d Init. Cal. Date(s): 06-MAY-2015 07-MAY-2015
Analysis Type: AIR Init. Cal. Times: 15:08 18:37
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd20.i/10Jun2015.b/2015l0506a.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 117 1,2-Dichloroethane-d4	1.25776	1.27629	0.010	-1.47316	30.00000	Averaged
119 tert-Amyl methyl ether	0.22895	0.26677	0.010	-16.51890	40.00000	Averaged
120 1,2-Dichloroethane	0.43702	0.47969	0.010	-9.76382	30.00000	Averaged
121 Heptane	0.25344	0.30111	0.010	-18.80825	30.00000	Averaged
125 Trichloroethene	0.52774	0.58882	0.010	-11.57315	30.00000	Averaged
127 Methylcyclohexane	0.57884	0.68207	0.010	-17.83366	40.00000	Averaged
132 1,2-Dichloropropane	0.35141	0.39999	0.010	-13.82461	30.00000	Averaged
136 1,4-Dioxane	0.23189	0.28104	0.010	-21.19421	30.00000	Averaged
138 Bromodichloromethane	0.74572	0.90021	0.010	-20.71752	30.00000	Averaged
144 cis-1,3-Dichloropropene	0.56971	0.66060	0.010	-15.95486	30.00000	Averaged
145 4-Methyl-2-pentanone	0.55196	0.69543	0.010	-25.99300	30.00000	Averaged
$ 146 Toluene-d8	0.92756	0.95158	0.010	-2.58987	30.00000	Averaged
147 Toluene	1.13809	1.30257	0.010	-14.45227	30.00000	Averaged
150 trans-1,3-Dichloropropene	0.56361	0.66579	0.010	-18.13054	30.00000	Averaged
155 1,1,2-Trichloroethane	0.50127	0.57052	0.010	-13.81553	30.00000	Averaged
156 Tetrachloroethene	0.84233	0.95335	0.010	-13.17942	30.00000	Averaged
158 2-Hexanone	0.32944	0.40104	0.010	-21.73551	30.00000	Averaged
160 Dibromochloromethane	0.81639	1.02160	0.010	-25.13637	30.00000	Averaged
161 1,2-Dibromoethane (EDB)	0.75273	0.88702	0.010	-17.83943	30.00000	Averaged
165 Chlorobenzene	1.13628	1.27613	0.010	-12.30750	30.00000	Averaged
167 Ethyl Benzene	0.50467	0.59907	0.010	-18.70412	30.00000	Averaged
169 m,p-Xylene	0.52865	0.64443	0.010	-21.89981	30.00000	Averaged
171 o-Xylene	0.49498	0.59996	0.010	-21.20810	30.00000	Averaged
172 Styrene	0.67736	0.82637	0.010	-21.99870	30.00000	Averaged
174 Bromoform	0.84732	1.05892	0.010	-24.97306	30.00000	Averaged
175 Cumene	1.57504	1.88330	0.010	-19.57125	30.00000	Averaged
$ 177 4-Bromofluorobenzene	0.59891	0.61119	0.010	-2.05101	30.00000	Averaged
181 1,1,2,2-Tetrachloroethane	0.95410	1.11766	0.010	-17.14376	30.00000	Averaged
182 Propylbenzene	1.48440	1.71461	0.010	-15.50871	30.00000	Averaged
188 4-Ethyltoluene	1.20735	1.37774	0.010	-14.11327	30.00000	Averaged
190 1,3,5-Trimethylbenzene	1.10423	1.21151	0.010	-9.71600	30.00000	Averaged
196 1,2,4-Trimethylbenzene	1.07806	1.13162	0.010	-4.96842	30.00000	Averaged
208 1,3-Dichlorobenzene	0.88684	0.94632	0.010	-6.70629	30.00000	Averaged
209 1,4-Dichlorobenzene	0.79183	0.83428	0.010	-5.36135	30.00000	Averaged
212 alpha-Chlorotoluene	0.76534	0.89783	0.010	-17.31103	30.00000	Averaged

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd20.i Injection Date: 10-JUN-2015 11:58
Lab File ID: 20061005.d Init. Cal. Date(s): 06-MAY-2015 07-MAY-2015
Analysis Type: AIR Init. Cal. Times: 15:08 18:37
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd20.i/10Jun2015.b/2015l0506a.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
214 1,2-Dichlorobenzene	0.78147	0.82892	0.010	-6.07215	30.00000	Averaged
226 1,2,4-Trichlorobenzene	0.69193	0.60067	0.010	13.18897	30.00000	Averaged
227 Hexachlorobutadiene	0.63154	0.59783	0.010	5.33681	30.00000	Averaged
228 Naphthalene	0.93013	0.81397	0.010	12.48795	40.00000	Averaged

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/10Jun2015.b/20061005.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 10-JUN-2015 11:58
Operator : sab Inst ID: msd20.i
Smp Info : 25mL# 2716-291
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/10Jun2015.b/2015l0506a.m
Meth Date : 10-Jun-2015 13:11 chemist Quant Type: ISTD
Cal Date : 07-MAY-2015 12:38 Cal File: 20050616.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.330	4.279 (0.257)	41	67100	5.00000	5.573	80.00- 120.00	100.00(M)
4.279	4.279 (0.254)	42	47214			35.77- 95.77	70.36
4.296	4.296 (0.255)	39	51979			41.14- 101.14	77.46
11 Freon 12					CAS #: 75-71-8		
4.797	4.797 (0.285)	85	277727	5.00000	5.829	80.00- 120.00	100.00
4.814	4.814 (0.286)	87	91301			2.49- 62.49	32.87
15 Freon 114					CAS #: 76-14-2		
6.352	6.352 (0.377)	135	220161	5.00000	5.614	80.00- 120.00	100.00
6.352	6.352 (0.377)	137	69574			2.39- 62.39	31.60
6.334	6.334 (0.376)	85	272961			90.31- 150.31	123.98
17 Chloromethane					CAS #: 74-87-3		
6.697	6.697 (0.398)	50	78864	5.00000	5.613	80.00- 120.00	100.00
6.697	6.697 (0.398)	52	26242			2.88- 62.88	33.27

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   23 Butane                                          CAS #: 106-97-8
  7.557   7.557 (0.449)    58     17982 5.00000    5.674  80.00- 120.00   100.00
  7.557   7.557 (0.449)    43    128682                  662.68- 722.68   715.61
-------------------------------------------------------------------------------
   25 Vinyl Chloride                                  CAS #: 75-01-4
  7.725   7.725 (0.459)    62     93390 5.00000    5.722  80.00- 120.00   100.00
  7.715   7.715 (0.458)    64     29994                    1.92-  61.92    32.12
-------------------------------------------------------------------------------
   26 1,3-Butadiene                                   CAS #: 106-99-0
  7.999   7.999 (0.475)    54     67573 5.00000    5.720  80.00- 120.00   100.00
  7.999   7.999 (0.475)    39     64289                   62.52- 122.52    95.14
-------------------------------------------------------------------------------
   29 Bromomethane                                    CAS #: 74-83-9
  9.736   9.736 (0.578)    94     81349 5.00000    6.372  80.00- 120.00   100.00
  9.736   9.736 (0.578)    96     78321                   66.00- 126.00    96.28
-------------------------------------------------------------------------------
   30 Chloroethane                                    CAS #: 75-00-3
 10.323  10.323 (0.613)    64     45267 5.00000    5.778  80.00- 120.00   100.00
 10.323  10.323 (0.613)    66     14125                    1.26-  61.26    31.20
-------------------------------------------------------------------------------
   31 Isopentane                                      CAS #: 78-78-4
 10.496  10.496 (0.623)    57     75145 5.00000    5.869  80.00- 120.00   100.00
 10.496  10.496 (0.623)    43    102825                  105.33- 165.33   136.84
 10.496  10.496 (0.623)    42     91397                   89.08- 149.08   121.63
-------------------------------------------------------------------------------
   35 Freon 11                                        CAS #: 75-69-4
 11.238  11.238 (0.667)   101    284982 5.00000    5.710  80.00- 120.00   100.00
 11.255  11.255 (0.668)   103    187508                   35.69-  95.69    65.80
-------------------------------------------------------------------------------
   42 Ethanol                                         CAS #: 64-17-5
 12.396  12.396 (0.736)    45     30333 5.00000    5.470  80.00- 120.00   100.00
 12.396  12.396 (0.736)    46     12065                    8.49-  68.49    39.78
 12.376  12.376 (0.735)    43      7738                    0.00-  51.69    25.51
-------------------------------------------------------------------------------
   49 Freon 113                                       CAS #: 76-13-1
 12.871  12.871 (0.764)   151    217942 5.00000    5.424  80.00- 120.00   100.00
 12.871  12.871 (0.764)   153    139878                   34.25-  94.25    64.18
 12.871  12.871 (0.764)   101    233650                   75.92- 135.92   107.21
-------------------------------------------------------------------------------
   50 1,1-Dichloroethene                              CAS #: 75-35-4
 12.871  12.871 (0.764)    98     65697 5.00000    5.635  80.00- 120.00   100.00
 12.871  12.871 (0.764)    61    150742                  183.51- 243.51   229.45
 12.850  12.850 (0.763)    96    103111                  126.67- 186.67   156.95
-------------------------------------------------------------------------------
   52 Acetone                                         CAS #: 67-64-1
 13.222  13.222 (0.785)    58     45335 5.00000    5.518  80.00- 120.00   100.00
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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   52 Acetone (continued)
 13.222  13.222 (0.785)    43    134549                   250.97- 310.97   296.79
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 13.242  13.242 (0.786)    76    291672 5.00000    5.807  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 13.655  13.655 (0.811)    45    131179 5.00000    5.731  80.00- 120.00   100.00
 13.655  13.655 (0.811)    43     31177                     0.00-  45.99    23.77
 13.655  13.655 (0.811)    59      5741                     0.00-  33.55     4.38
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 13.820  13.820 (0.821)    76     38329 5.00000    5.578  80.00- 120.00   100.00
 13.820  13.820 (0.821)    41     93621                   207.26- 267.26   244.26
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 14.150  14.150 (0.840)    84     95765 5.00000    5.480  80.00- 120.00   100.00
 14.150  14.150 (0.840)    49    106926                    76.26- 136.26   111.65
 14.150  14.150 (0.840)    51     33166                     2.64-  62.64    34.63
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 14.439  14.439 (0.857)    59    178904 5.00000    5.836  80.00- 120.00   100.00
 14.439  14.439 (0.857)    41     42917                     0.00-  51.32    23.99
 14.439  14.439 (0.857)    57     18244                     0.00-  40.83    10.20
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 14.563  14.563 (0.865)    73    282269 5.00000    5.973  80.00- 120.00   100.00
 14.563  14.563 (0.865)    57     60353                     0.00-  51.22    21.38
 14.563  14.563 (0.865)    41     59120                     0.00-  49.54    20.94
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 14.604  14.604 (0.867)    98     71848 5.00000    5.608  80.00- 120.00   100.00
 14.604  14.604 (0.867)    61    142957                   157.09- 217.09   198.97
 14.604  14.604 (0.867)    96    111315                   124.47- 184.47   154.93
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 14.996  14.996 (0.890)    57    146498 5.00000    6.025  80.00- 120.00   100.00
 14.996  14.996 (0.890)    43     88773                    29.42-  89.42    60.60
 14.996  14.996 (0.890)    86     27118                     0.00-  49.37    18.51
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 15.450  15.450 (0.917)    45    298582 5.00000    6.090  80.00- 120.00   100.00
 15.450  15.450 (0.917)    87     95248                     3.40-  63.40    31.90
 15.450  15.450 (0.917)    59     37178                     0.00-  42.36    12.45
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 15.470  15.470 (0.919)    63    183998 5.00000    5.769  80.00- 120.00   100.00
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   82 1,1-Dichloroethane (continued)
 15.470  15.470 (0.919)    65     59833                     1.63-  61.63    32.52
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 15.532  15.532 (0.922)    86     26281 5.00000    5.908  80.00- 120.00   100.00
 15.532  15.532 (0.922)    42     20397                   64.14- 124.14    77.61
 15.532  15.532 (0.922)    43    225366                  1120.67-1180.67   857.50
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 16.043  16.043 (0.953)    59    307449 5.00000    5.919  80.00- 120.00   100.00
 16.043  16.043 (0.953)    87    140815                   17.02-  77.02    45.80
 16.043  16.043 (0.953)    41     57732                    0.00-  46.99    18.78
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 16.447  16.447 (0.977)    98     75311 5.00000    5.757  80.00- 120.00   100.00
 16.447  16.447 (0.977)    61    136676                  140.61- 200.61   181.48
 16.447  16.447 (0.977)    96    116062                  124.22- 184.22   154.11
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.460  16.460 (0.977)    72     50698 5.00000    5.850  80.00- 120.00   100.00
 16.460  16.460 (0.977)    43    177094                  397.61- 457.61   349.31
 16.460  16.460 (0.977)    57     15555                    0.00-  58.47    30.68
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.841  16.841 (1.000)    42    100014 5.00000    5.878  80.00- 120.00   100.00
 16.841  16.841 (1.000)    71     44813                    9.03-  69.03    44.81
 16.841  16.841 (1.000)    72     46969                   21.41-  81.41    46.96
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.841  16.841 (1.000)   130     70421 5.00000           80.00- 120.00   100.00
 16.841  16.841 (1.000)   128     54495                   48.56- 108.56    77.39
 16.841  16.841 (1.000)    49     72639                   77.31- 137.31   103.15
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.937  16.937 (1.006)    83    224720 5.00000    5.621  80.00- 120.00   100.00
 16.937  16.937 (1.006)    85    147571                   35.24-  95.24    65.67
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.153  17.153 (1.019)    84    147652 5.00000    5.878  80.00- 120.00   100.00
 17.153  17.153 (1.019)    56    153472                   72.40- 132.40   103.94
 17.153  17.153 (1.019)    41     79606                   20.65-  80.65    53.91
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.177  17.177 (1.020)    97    232631 5.00000    5.574  80.00- 120.00   100.00
 17.177  17.177 (1.020)    99    152749                   34.49-  94.49    65.66
-------------------------------------------------------------------------------
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.369  17.369 (1.031)   119    176955 5.00000    6.497  80.00- 120.00   100.00
 17.369  17.369 (1.031)   117    184339                   73.26- 133.26   104.17
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.681  17.681 (1.050)    56    139761 5.00000    5.809  80.00- 120.00   100.00
 17.681  17.681 (1.050)    57    438750                  268.82- 328.82   313.93
 17.681  17.681 (1.050)    41    106583                   49.41- 109.41    76.26
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.729  17.729 (0.967)    78    330059 5.00000    5.556  80.00- 120.00   100.00
 17.729  17.729 (0.967)    77     79075                    0.00-  53.11    23.96
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.753  17.753 (1.054)    65     89878 5.00000    5.074  80.00- 120.00   100.00
 17.753  17.753 (1.054)    67     49626                   27.32-  87.32    55.21
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 17.801  17.801 (0.971)    87     77160 5.00000    5.826  80.00- 120.00   100.00
 17.801  17.801 (0.971)    73    313118                  366.84- 426.84   405.80
 17.801  17.801 (0.971)    55     82525                   65.45- 125.45   106.95
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.872  17.872 (0.974)    62    138744 5.00000    5.488  80.00- 120.00   100.00
 17.872  17.872 (0.974)    64     46201                    2.42-  62.42    33.30
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 17.944  17.944 (0.978)    57     87092 5.00000    5.940  80.00- 120.00   100.00
 17.944  17.944 (0.978)   100     35514                   21.23-  81.23    40.78
 17.944  17.944 (0.978)    43    155048                  145.72- 205.72   178.03
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 18.341  18.341 (1.000)   114    289237 5.00000           80.00- 120.00   100.00
 18.341  18.341 (1.000)    88     42924                    0.00-  44.67    14.84
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.742  18.742 (1.022)   130    170307 5.00000    5.579  80.00- 120.00   100.00
 18.742  18.742 (1.022)    95    149955                   56.13- 116.13    88.05
 18.742  18.742 (1.022)    97     98441                   26.55-  86.55    57.80
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 18.965  18.965 (1.034)    83    197281 5.00000    5.892  80.00- 120.00   100.00
 18.965  18.965 (1.034)    98     92476                   18.58-  78.58    46.88
 18.965  18.965 (1.034)    55    139206                   38.68-  98.68    70.56
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 19.211  19.211 (1.047)    63    115692 5.00000    5.691  80.00- 120.00   100.00
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  132 1,2-Dichloropropane (continued)
 19.211  19.211 (1.047)    62     80703                   40.14- 100.14    69.76
 19.211  19.211 (1.047)    41     58467                   17.79-  77.79    50.54
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.344  19.344 (1.055)    88     81286 5.00000    6.060  80.00- 120.00   100.00
 19.344  19.344 (1.055)    58     52243                   30.40-  90.40    64.27
 19.344  19.344 (1.055)    57     15577                    0.00-  48.90    19.16
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.657  19.657 (0.823)    83    223814 5.00000    6.036  80.00- 120.00   100.00
 19.657  19.657 (0.823)    85    144517                   34.06-  94.06    64.57
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.499  20.499 (1.118)    75    191071 5.00000    5.798  80.00- 120.00   100.00
 20.499  20.499 (1.118)    77     61498                    1.74-  61.74    32.19
 20.499  20.499 (1.118)    39     82031                   10.68-  70.68    42.93
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.717  20.717 (1.130)    43    201143 5.00000    6.300  80.00- 120.00   100.00
 20.717  20.717 (1.130)    58     81277                   12.69-  72.69    40.41
 20.717  20.717 (1.130)    85     41188                    0.00-  51.10    20.48
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.982  20.982 (1.144)    98    275232 5.00000    5.129  80.00- 120.00   100.00
 20.982  20.982 (1.144)    70     28581                    0.00-  40.06    10.38
 20.982  20.982 (1.144)   100    182110                   36.64-  96.64    66.17
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 21.123  21.123 (1.152)    91    376751 5.00000    5.723  80.00- 120.00   100.00
 21.123  21.123 (1.152)    92    221683                   29.36-  89.36    58.84
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 21.727  21.727 (0.909)    75    165531 5.00000    5.906  80.00- 120.00   100.00
 21.727  21.727 (0.909)    77     53109                    2.80-  62.80    32.08
 21.727  21.727 (0.909)    39     66559                    9.93-  69.93    40.21
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 22.162  22.162 (0.927)    97    141844 5.00000    5.691  80.00- 120.00   100.00
 22.162  22.162 (0.927)    99     90504                   31.16-  91.16    63.81
 22.162  22.162 (0.927)    83    118495                   52.03- 112.03    83.54
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.308  22.308 (0.934)   166    237025 5.00000    5.659  80.00- 120.00   100.00
 22.308  22.308 (0.934)   129    158406                   36.29-  96.29    66.83
 22.308  22.308 (0.934)   131    153942                   35.02-  95.02    64.95
-------------------------------------------------------------------------------
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  158 2-Hexanone                                     CAS #: 591-78-6
 22.540  22.540 (0.943)    58     99709 5.00000    6.087  80.00- 120.00   100.00
 22.540  22.540 (0.943)    43    171822                  138.91- 198.91   172.32
 22.540  22.540 (0.943)   100     22501                    0.00-  53.53    22.57
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
 22.918  22.918 (0.959)   129    253993 5.00000    6.257  80.00- 120.00   100.00
 22.918  22.918 (0.959)   127    192555                   46.93- 106.93    75.81
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
 23.179  23.179 (0.970)   107    220534 5.00000    5.892  80.00- 120.00   100.00
 23.179  23.179 (0.970)   109    209773                   66.13- 126.13    95.12
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                               CAS #: 3114-55-4
 23.895  23.895 (1.000)   117    248624 5.00000           80.00- 120.00   100.00
 23.895  23.895 (1.000)    82    129177                   18.57-  78.57    51.96
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
 23.936  23.936 (1.002)   112    317277 5.00000    5.615  80.00- 120.00   100.00
 23.936  23.936 (1.002)   114    101655                    2.12-  62.12    32.04
 23.936  23.936 (1.002)    77    172965                   25.79-  85.79    54.52
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
 24.019  24.019 (1.005)   106    148942 5.00000    5.935  80.00- 120.00   100.00
 24.019  24.019 (1.005)    91    443971                  269.24- 329.24   298.08
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
 24.204  24.204 (1.013)   106    160220 5.00000    6.095  80.00- 120.00   100.00
 24.204  24.204 (1.013)    91    307199                  160.53- 220.53   191.74
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
 24.803  24.803 (1.038)   106    149164 5.00000    6.060  80.00- 120.00   100.00
 24.803  24.803 (1.038)    91    301412                  168.41- 228.41   202.07
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
 24.844  24.844 (1.040)   104    205454 5.00000    6.100  80.00- 120.00   100.00
 24.844  24.844 (1.040)    78    103523                   16.68-  76.68    50.39
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
 25.164  25.164 (1.053)   173    263274 5.00000    6.249  80.00- 120.00   100.00
 25.164  25.164 (1.053)   171    134778                   21.43-  81.43    51.19
-------------------------------------------------------------------------------
  175 Cumene                                         CAS #: 98-82-8
 25.278  25.278 (1.058)   105    468233 5.00000    5.978  80.00- 120.00   100.00
 25.278  25.278 (1.058)   120    131637                    0.00-  58.79    28.11
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.581	25.581 (1.071)	174	151957	5.00000	5.102	80.00- 120.00	100.00
25.562	25.562 (1.070)	95	155339			70.67- 130.67	102.23
25.581	25.581 (1.071)	176	145601			67.63- 127.63	95.82
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.752	25.752 (1.078)	83	277878	5.00000	5.857	80.00- 120.00	100.00
25.752	25.752 (1.078)	85	179593			34.87- 94.87	64.63
182 Propylbenzene					CAS #: 103-65-1		
25.809	25.809 (1.080)	91	426294	5.00000	5.775	80.00- 120.00	100.00
25.828	25.828 (1.081)	120	106429			0.00- 55.88	24.97
188 4-Ethyltoluene					CAS #: 622-96-8		
25.960	25.960 (1.086)	105	342540	5.00000	5.706	80.00- 120.00	100.00
25.960	25.960 (1.086)	120	109831			3.93- 63.93	32.06
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
26.036	26.036 (1.090)	105	301212	5.00000	5.486	80.00- 120.00	100.00
26.036	26.036 (1.090)	120	155916			20.38- 80.38	51.76
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.491	26.491 (1.109)	105	281348	5.00000	5.248	80.00- 120.00	100.00
26.491	26.491 (1.109)	120	135105			19.25- 79.25	48.02
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.897	26.897 (1.126)	146	235277	5.00000	5.335	80.00- 120.00	100.00
26.897	26.897 (1.126)	148	153334			34.22- 94.22	65.17
26.897	26.897 (1.126)	111	89509			6.18- 66.18	38.04
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
27.006	27.006 (1.130)	146	207422	5.00000	5.268	80.00- 120.00	100.00
27.006	27.006 (1.130)	148	133886			34.44- 94.44	64.55
27.006	27.006 (1.130)	111	74127			4.83- 64.83	35.74
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.162	27.162 (1.137)	91	223222	5.00000	5.866	80.00- 120.00	100.00
27.162	27.162 (1.137)	126	52260			0.00- 54.01	23.41
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.474	27.474 (1.150)	146	206089	5.00000	5.304	80.00- 120.00	100.00
27.474	27.474 (1.150)	148	131706			33.85- 93.85	63.91
27.474	27.474 (1.150)	111	78848			6.72- 66.72	38.26
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.485	29.485 (1.234)	180	149340	5.00000	4.340	80.00- 120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)								
29.485	29.485	(1.234)	182	143547			66.47- 126.47	96.12
227 Hexachlorobutadiene						CAS #: 87-68-3		
29.610	29.610	(1.239)	225	148635	5.00000	4.733	80.00- 120.00	100.00
29.610	29.610	(1.239)	223	92894			33.07- 93.07	62.50
228 Naphthalene						CAS #: 91-20-3		
29.890	29.890	(1.251)	128	20237	0.50000	0.4376	80.00- 120.00	100.00(a)
29.890	29.890	(1.251)	127	3292			0.00- 43.71	16.27

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061005.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: sab
Method File: /chem/msd20.i/10Jun2015.b/2015l0506a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 10-JUN-2015
Calibration Time: 09:12
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	71421	42853	99989	70421	-1.40
123 1,4-Difluorobenze	285244	171146	399342	289237	1.40
163 Chlorobenzene-d5	250328	150197	350459	248624	-0.68

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.84	16.51	17.17	16.84	0.00
123 1,4-Difluorobenze	18.34	18.01	18.67	18.34	0.00
163 Chlorobenzene-d5	23.90	23.57	24.23	23.90	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd20.i/10Jun2015.b/20061005.d

Date : 10-JUN-2015 11:58

Client ID: CCV

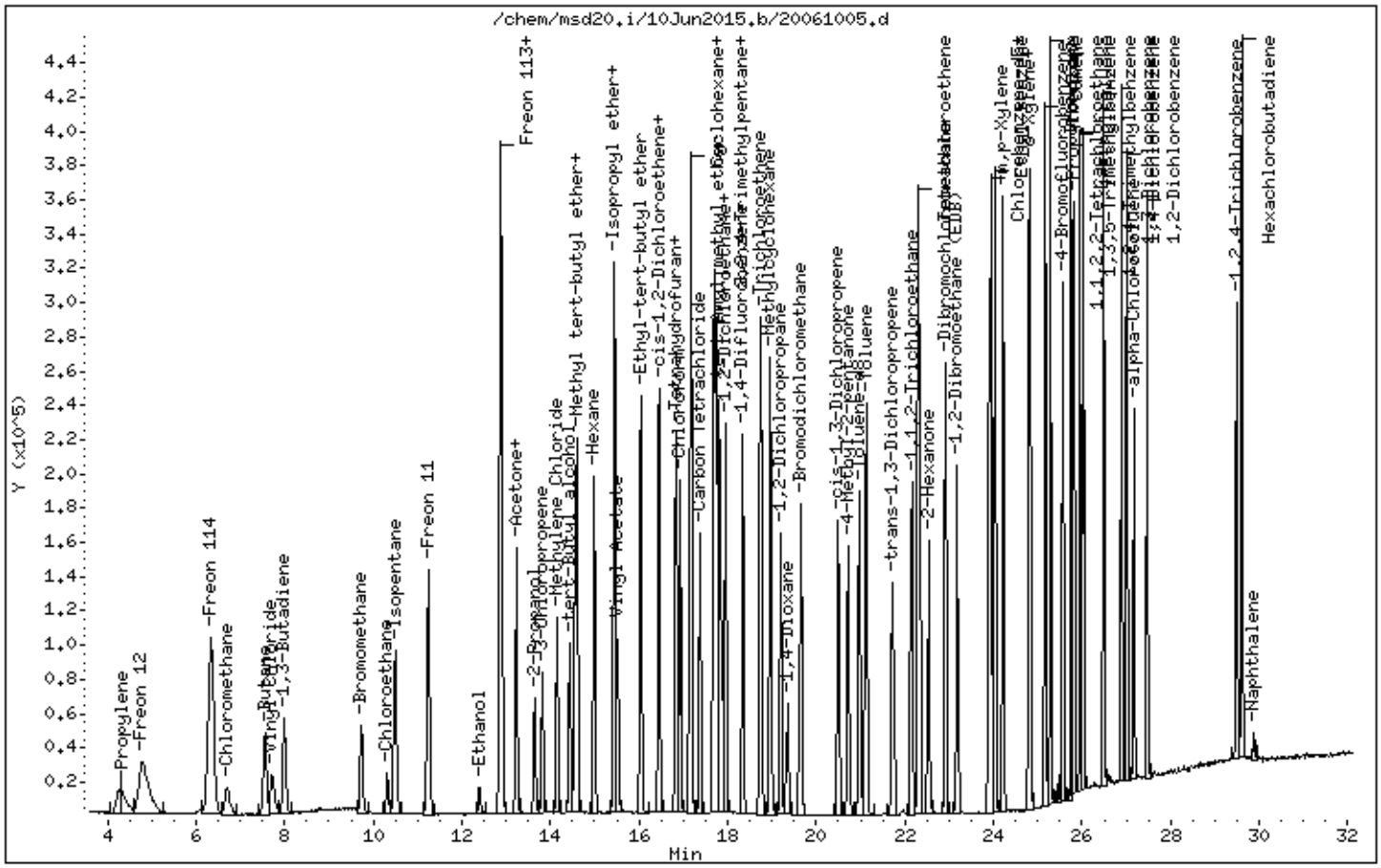
Instrument: msd20.i

Sample Info: 25mL# 2716-291

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1506153A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061003**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/15 10:03 AM**	

Compound	%Recovery	Method Limits
Freon 12	108	70-130
Freon 114	107	70-130
Chloromethane	103	70-130
Vinyl Chloride	108	70-130
1,3-Butadiene	103	70-130
Bromomethane	117	70-130
Chloroethane	107	70-130
Freon 11	107	70-130
Ethanol	109	70-130
Freon 113	95	70-130
1,1-Dichloroethene	102	70-130
Acetone	100	70-130
2-Propanol	109	70-130
Carbon Disulfide	90	70-130
3-Chloropropene	101	70-130
Methylene Chloride	99	70-130
Methyl tert-butyl ether	102	70-130
trans-1,2-Dichloroethene	86	70-130
Hexane	104	70-130
1,1-Dichloroethane	103	70-130
2-Butanone (Methyl Ethyl Ketone)	103	70-130
cis-1,2-Dichloroethene	113	70-130
Tetrahydrofuran	103	70-130
Chloroform	100	70-130
1,1,1-Trichloroethane	100	70-130
Cyclohexane	104	70-130
Carbon Tetrachloride	118	70-130
2,2,4-Trimethylpentane	130	70-130
Benzene	99	70-130
1,2-Dichloroethane	97	70-130
Heptane	106	70-130
Trichloroethene	99	70-130
1,2-Dichloropropane	103	70-130
1,4-Dioxane	106	70-130
Bromodichloromethane	110	70-130
cis-1,3-Dichloropropene	97	70-130
4-Methyl-2-pentanone	113	70-130
Toluene	102	70-130
trans-1,3-Dichloropropene	104	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	100	70-130
2-Hexanone	110	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1506153A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061003**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/15 10:03 AM**	

Compound	**%Recovery**	**Method Limits**
Dibromochloromethane	112	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	99	70-130
Ethyl Benzene	104	70-130
m,p-Xylene	109	70-130
o-Xylene	111	70-130
Styrene	109	70-130
Bromoform	113	70-130
Cumene	109	70-130
1,1,2,2-Tetrachloroethane	108	70-130
Propylbenzene	108	70-130
4-Ethyltoluene	106	70-130
1,3,5-Trimethylbenzene	102	70-130
1,2,4-Trimethylbenzene	97	70-130
1,3-Dichlorobenzene	102	70-130
1,4-Dichlorobenzene	100	70-130
alpha-Chlorotoluene	115	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	100	70-130
Hexachlorobutadiene	106	70-130
Naphthalene	80	60-140

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	101	70-130

Report Date: 10-Jun-2015 13:12

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 10Jun2015
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: LCS
Client Smp ID: LCS
Level: LOW
Operator: sab
Data Type: MS DATA
SampleType: LCS
SpikeList File: AT12.spk
Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msd20.i/10Jun2015.b/2015l0506a.m
Misc Info: 5.0ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	5.000	4.940	98.80	60-140
11 Freon 12	5.000	5.401	108.02	70-130
15 Freon 114	5.000	5.336	106.71	70-130
17 Chloromethane	5.000	5.171	103.42	70-130
23 Butane	5.000	5.423	108.47	60-140
25 Vinyl Chloride	5.000	5.381	107.63	70-130
26 1,3-Butadiene	5.000	5.139	102.79	70-130
29 Bromomethane	5.000	5.834	116.67	70-130
30 Chloroethane	5.000	5.330	106.60	70-130
31 Isopentane	5.000	5.325	106.51	60-140
35 Freon 11	5.000	5.341	106.82	70-130
42 Ethanol	5.000	5.457	109.14	70-130
49 Freon 113	5.000	4.748	94.97	70-130
50 1,1-Dichloroethene	5.000	5.105	102.11	70-130
52 Acetone	5.000	4.994	99.88	70-130
56 Carbon Disulfide	5.000	4.518	90.37	70-130
57 2-Propanol	5.000	5.457	109.14	70-130
58 3-Chloropropene	5.000	5.071	101.43	70-130
66 Methylene Chloride	5.000	4.966	99.31	70-130
72 Methyl tert-butyl	5.000	5.093	101.86	70-130
73 trans-1,2-Dichloro	5.000	4.320	86.39	70-130
78 Hexane	5.000	5.189	103.78	70-130
82 1,1-Dichloroethane	5.000	5.153	103.06	70-130
86 Vinyl Acetate	5.000	5.015	100.29	60-140
91 cis-1,2-Dichloroet	5.000	5.672	113.45	70-130
92 2-Butanone	5.000	5.159	103.17	70-130
99 Tetrahydrofuran	5.000	5.163	103.26	70-130
100 Chloroform	5.000	5.000	100.00	70-130
103 1,1,1-Trichloroeth	5.000	4.988	99.76	70-130
106 Carbon Tetrachlori	5.000	5.923	118.46	70-130
102 Cyclohexane	5.000	5.178	103.56	70-130
113 2,2,4-Trimethylpen	5.000	6.475	129.51	70-130
116 Benzene	5.000	4.952	99.04	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	5.000	4.845	96.91	70-130
121 Heptane	5.000	5.279	105.58	70-130
125 Trichloroethene	5.000	4.948	98.96	70-130
127 Methylcyclohexane	5.000	5.167	103.34	60-140
132 1,2-Dichloropropan	5.000	5.158	103.17	70-130
136 1,4-Dioxane	5.000	5.323	106.46	70-130
138 Bromodichlorometha	5.000	5.487	109.74	70-130
144 cis-1,3-Dichloropr	5.000	4.846	96.93	70-130
145 4-Methyl-2-pentano	5.000	5.669	113.38	70-130
147 Toluene	5.000	5.075	101.50	70-130
150 trans-1,3-Dichloro	5.000	5.196	103.91	70-130
155 1,1,2-Trichloroeth	5.000	5.115	102.31	70-130
156 Tetrachloroethene	5.000	4.994	99.87	70-130
158 2-Hexanone	5.000	5.479	109.58	70-130
160 Dibromochlorometha	5.000	5.593	111.87	70-130
161 1,2-Dibromoethane	5.000	5.255	105.11	70-130
165 Chlorobenzene	5.000	4.973	99.45	70-130
167 Ethyl Benzene	5.000	5.220	104.40	70-130
169 m,p-Xylene	5.000	5.448	108.96	70-130
171 o-Xylene	5.000	5.565	111.30	70-130
172 Styrene	5.000	5.445	108.89	70-130
174 Bromoform	5.000	5.633	112.66	70-130
175 Cumene	5.000	5.455	109.10	70-130
181 1,1,2,2-Tetrachlor	5.000	5.398	107.97	70-130
182 Propylbenzene	5.000	5.410	108.20	70-130
188 4-Ethyltoluene	5.000	5.295	105.90	70-130
190 1,3,5-Trimethylben	5.000	5.111	102.23	70-130
196 1,2,4-Trimethylben	5.000	4.832	96.63	70-130
208 1,3-Dichlorobenzen	5.000	5.108	102.16	70-130
209 1,4-Dichlorobenzen	5.000	5.029	100.58	70-130
212 alpha-Chlorotoluen	5.000	5.758	115.17	70-130
214 1,2-Dichlorobenzen	5.000	5.005	100.11	70-130
226 1,2,4-Trichloroben	5.000	5.015	100.31	70-130
227 Hexachlorobutadien	5.000	5.329	106.59	70-130
228 Naphthalene	0.5000	0.4009	80.17	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.966	99.33	70-130
$ 146 Toluene-d8	5.000	5.086	101.73	70-130
$ 177 4-Bromofluorobenze	5.000	5.054	101.07	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/10Jun2015.b/20061003.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 10-JUN-2015 10:03
Operator : sab Inst ID: msd20.i
Smp Info : 25mL# 2736-218
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/10Jun2015.b/2015l0506a.m
Meth Date : 10-Jun-2015 13:11 chemist Quant Type: ISTD
Cal Date : 07-MAY-2015 12:38 Cal File: 20050616.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.279	4.330 (0.254)	41	60317	4.94009	4.940	80.00- 120.00	100.00(M)
4.296	4.279 (0.255)	42	42738			35.77- 95.77	70.86
4.296	4.296 (0.255)	39	46456			41.14- 101.14	77.02
11 Freon 12					CAS #: 75-71-8		
4.797	4.797 (0.285)	85	260954	5.40095	5.401	80.00- 120.00	100.00
4.780	4.814 (0.284)	87	78048			2.49- 62.49	29.91
15 Freon 114					CAS #: 76-14-2		
6.334	6.352 (0.376)	135	212217	5.33569	5.336	80.00- 120.00	100.00
6.352	6.352 (0.377)	137	68769			2.39- 62.39	32.41
6.334	6.334 (0.376)	85	244480			90.31- 150.31	115.20
17 Chloromethane					CAS #: 74-87-3		
6.714	6.697 (0.399)	50	73672	5.17081	5.171	80.00- 120.00	100.00
6.697	6.697 (0.398)	52	23980			2.88- 62.88	32.55

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
23 Butane					CAS #: 106-97-8		
7.557	7.557 (0.449)	58	17432	5.42340	5.423	80.00- 120.00	100.00
7.557	7.557 (0.449)	43	121529			662.68- 722.68	697.16
25 Vinyl Chloride					CAS #: 75-01-4		
7.715	7.725 (0.458)	62	89068	5.38142	5.381	80.00- 120.00	100.00
7.725	7.715 (0.459)	64	27419			1.92- 61.92	30.78
26 1,3-Butadiene					CAS #: 106-99-0		
7.989	7.999 (0.474)	54	61577	5.13947	5.139	80.00- 120.00	100.00
7.989	7.999 (0.474)	39	57322			62.52- 122.52	93.09
29 Bromomethane					CAS #: 74-83-9		
9.736	9.736 (0.578)	94	75526	5.83365	5.834	80.00- 120.00	100.00
9.736	9.736 (0.578)	96	70569			66.00- 126.00	93.44
30 Chloroethane					CAS #: 75-00-3		
10.323	10.323 (0.613)	64	42347	5.33012	5.330	80.00- 120.00	100.00
10.323	10.323 (0.613)	66	13518			1.26- 61.26	31.92
31 Isopentane					CAS #: 78-78-4		
10.496	10.496 (0.623)	57	69151	5.32543	5.325	80.00- 120.00	100.00
10.496	10.496 (0.623)	43	94907			105.33- 165.33	137.25
10.496	10.496 (0.623)	42	85403			89.08- 149.08	123.50
35 Freon 11					CAS #: 75-69-4		
11.238	11.238 (0.667)	101	270298	5.34085	5.341	80.00- 120.00	100.00
11.238	11.255 (0.667)	103	176722			35.69- 95.69	65.38
42 Ethanol					CAS #: 64-17-5		
12.396	12.396 (0.736)	45	30686	5.45710	5.457	80.00- 120.00	100.00
12.396	12.396 (0.736)	46	11588			8.49- 68.49	37.76
12.396	12.376 (0.736)	43	7477			0.00- 51.69	24.37
49 Freon 113					CAS #: 76-13-1		
12.871	12.871 (0.764)	151	193475	4.74844	4.748	80.00- 120.00	100.00
12.871	12.871 (0.764)	153	124561			34.25- 94.25	64.38
12.871	12.871 (0.764)	101	211206			75.92- 135.92	109.16
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.850	12.871 (0.763)	98	60358	5.10528	5.105	80.00- 120.00	100.00
12.850	12.871 (0.763)	61	139254			183.51- 243.51	230.71
12.850	12.850 (0.763)	96	93291			126.67- 186.67	154.56
52 Acetone					CAS #: 67-64-1		
13.222	13.222 (0.785)	58	41609	4.99391	4.994	80.00- 120.00	100.00

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   52 Acetone (continued)
 13.222  13.222 (0.785)    43    122669                   250.97- 310.97   294.81
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 13.242  13.242 (0.786)    76    230159 4.51832    4.518  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 13.655  13.655 (0.811)    45    126680 5.45719    5.457  80.00- 120.00   100.00
 13.655  13.655 (0.811)    43     29042                    0.00-  45.99    22.93
 13.655  13.655 (0.811)    59      5232                    0.00-  33.55     4.13
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 13.820  13.820 (0.821)    76     35341 5.07136    5.071  80.00- 120.00   100.00
 13.820  13.820 (0.821)    41     84948                   207.26- 267.26   240.37
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 14.150  14.150 (0.840)    84     87997 4.96568    4.966  80.00- 120.00   100.00
 14.150  14.150 (0.840)    49     97545                   76.26- 136.26   110.85
 14.150  14.150 (0.840)    51     30317                    2.64-  62.64    34.45
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 14.563  14.563 (0.865)    73    244086 5.09277    5.093  80.00- 120.00   100.00
 14.563  14.563 (0.865)    57     50643                    0.00-  51.22    20.75
 14.563  14.563 (0.865)    41     52196                    0.00-  49.54    21.38
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 14.604  14.604 (0.867)    98     56120 4.31959    4.320  80.00- 120.00   100.00
 14.604  14.604 (0.867)    61    111981                   157.09- 217.09   199.54
 14.604  14.604 (0.867)    96     86276                   124.47- 184.47   153.73
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 14.996  14.996 (0.890)    57    127943 5.18893    5.189  80.00- 120.00   100.00
 14.996  14.996 (0.890)    43     77098                   29.42-  89.42    60.26
 14.996  14.996 (0.890)    86     23936                    0.00-  49.37    18.71
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 15.470  15.470 (0.919)    63    166672 5.15277    5.153  80.00- 120.00   100.00
 15.470  15.470 (0.919)    65     52783                    1.63-  61.63    31.67
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                   CAS #: 108-05-4
 15.532  15.532 (0.922)    86     22621 5.01464    5.015  80.00- 120.00   100.00
 15.532  15.532 (0.922)    42     17216                   64.14- 124.14    76.11
 15.532  15.532 (0.922)    43    194426                  1120.67-1180.67   859.49
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                          CAS #: 156-59-2
 16.447  16.447 (0.977)    98     75255 5.67235    5.672  80.00- 120.00   100.00
```

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   91 cis-1,2-Dichloroethene (continued)
 16.447  16.447 (0.977)    61    137378                  140.61- 200.61   182.55
 16.447  16.447 (0.977)    96    116271                  124.22- 184.22   154.50
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.461  16.460 (0.977)    72     45335 5.15860    5.159  80.00- 120.00   100.00
 16.461  16.460 (0.977)    43    156325                  397.61- 457.61   344.82
 16.461  16.460 (0.977)    57     12841                    0.00-  58.47    28.32
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.841  16.841 (1.000)    42     89085 5.16300    5.163  80.00- 120.00   100.00
 16.841  16.841 (1.000)    71     40231                    9.03-  69.03    45.16
 16.841  16.841 (1.000)    72     43177                   21.41-  81.41    48.47
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.841  16.841 (1.000)   130     71416 5.00000           80.00- 120.00   100.00
 16.841  16.841 (1.000)   128     54707                   48.56- 108.56    76.60
 16.841  16.841 (1.000)    49     72744                   77.31- 137.31   101.86
-------------------------------------------------------------------------------
  100 Chloroform                                  CAS #: 67-66-3
 16.937  16.937 (1.006)    83    202710 5.00009    5.000  80.00- 120.00   100.00
 16.937  16.937 (1.006)    85    132302                   35.24-  95.24    65.27
-------------------------------------------------------------------------------
  102 Cyclohexane                                 CAS #: 110-82-7
 17.153  17.153 (1.019)    84    131906 5.17811    5.178  80.00- 120.00   100.00
 17.153  17.153 (1.019)    56    137832                   72.40- 132.40   104.49
 17.153  17.153 (1.019)    41     72911                   20.65-  80.65    55.27
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                       CAS #: 71-55-6
 17.177  17.177 (1.020)    97    211138 4.98812    4.988  80.00- 120.00   100.00
 17.177  17.177 (1.020)    99    137950                   34.49-  94.49    65.34
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                        CAS #: 56-23-5
 17.369  17.369 (1.031)   119    163601 5.92323    5.923  80.00- 120.00   100.00
 17.369  17.369 (1.031)   117    170112                   73.26- 133.26   103.98
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                      CAS #: 540-84-1
 17.681  17.681 (1.050)    56    158002 6.47532    6.475  80.00- 120.00   100.00
 17.681  17.681 (1.050)    57    394857                  268.82- 328.82   249.91
 17.681  17.681 (1.050)    41     97478                   49.41- 109.41    61.69
-------------------------------------------------------------------------------
  116 Benzene                                     CAS #: 71-43-2
 17.729  17.729 (0.967)    78    296861 4.95211    4.952  80.00- 120.00   100.00
 17.729  17.729 (0.967)    77     68984                    0.00-  53.11    23.24
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                       CAS #: 17060-07-0
 17.753  17.753 (1.054)    65     89222 4.96647    4.966  80.00- 120.00   100.00
```

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 117 1,2-Dichloroethane-d4 (continued)
 17.753  17.753 (1.054)    67     52519                    27.32-  87.32    58.86
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                           CAS #: 107-06-2
 17.873  17.872 (0.974)    62    123617 4.84528    4.845  80.00- 120.00   100.00
 17.873  17.872 (0.974)    64     40797                     2.42-  62.42    33.00
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 17.945  17.944 (0.978)    57     78107 5.27901    5.279  80.00- 120.00   100.00
 17.945  17.944 (0.978)   100     30725                    21.23-  81.23    39.34
 17.945  17.944 (0.978)    43    138551                   145.72- 205.72   177.39
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 18.341  18.341 (1.000)   114    291895 5.00000           80.00- 120.00   100.00
 18.341  18.341 (1.000)    88     43682                     0.00-  44.67    14.96
-------------------------------------------------------------------------------
  125 Trichloroethene                              CAS #: 79-01-6
 18.742  18.742 (1.022)   130    152436 4.94778    4.948  80.00- 120.00   100.00
 18.742  18.742 (1.022)    95    136769                    56.13- 116.13    89.72
 18.742  18.742 (1.022)    97     88104                    26.55-  86.55    57.80
-------------------------------------------------------------------------------
  127 Methylcyclohexane                            CAS #: 108-87-2
 18.965  18.965 (1.034)    83    174608 5.16708    5.167  80.00- 120.00   100.00
 18.965  18.965 (1.034)    98     84655                    18.58-  78.58    48.48
 18.965  18.965 (1.034)    55    124298                    38.68-  98.68    71.19
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                          CAS #: 78-87-5
 19.211  19.211 (1.047)    63    105828 5.15859    5.158  80.00- 120.00   100.00
 19.211  19.211 (1.047)    62     72973                    40.14- 100.14    68.95
 19.211  19.211 (1.047)    41     54378                    17.79-  77.79    51.38
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.345  19.344 (1.055)    88     72060 5.32297    5.323  80.00- 120.00   100.00
 19.345  19.344 (1.055)    58     46556                    30.40-  90.40    64.61
 19.345  19.344 (1.055)    57     14680                     0.00-  48.90    20.37
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.657  19.657 (0.823)    83    205922 5.48694    5.487  80.00- 120.00   100.00
 19.657  19.657 (0.823)    85    134312                    34.06-  94.06    65.22
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.499  20.499 (1.118)    75    161187 4.84642    4.846  80.00- 120.00   100.00
 20.499  20.499 (1.118)    77     50574                     1.74-  61.74    31.38
 20.499  20.499 (1.118)    39     67786                    10.68-  70.68    42.05
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.717  20.717 (1.130)    43    182671 5.66902    5.669  80.00- 120.00   100.00
```

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  145 4-Methyl-2-pentanone (continued)
 20.717  20.717 (1.130)    58     75111                    12.69-  72.69    41.12
 20.717  20.717 (1.130)    85     36858                     0.00-  51.10    20.18
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.982  20.982 (1.144)    98    275428 5.08639    5.086  80.00- 120.00   100.00
 20.982  20.982 (1.144)    70     28623                     0.00-  40.06    10.39
 20.982  20.982 (1.144)   100    181160                    36.64-  96.64    65.77
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 21.123  21.123 (1.152)    91    337182 5.07495    5.075  80.00- 120.00   100.00
 21.123  21.123 (1.152)    92    196005                    29.36-  89.36    58.13
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 21.727  21.727 (0.909)    75    147369 5.19555    5.196  80.00- 120.00   100.00
 21.727  21.727 (0.909)    77     47483                     2.80-  62.80    32.22
 21.727  21.727 (0.909)    39     60723                     9.93-  69.93    41.20
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 22.162  22.162 (0.927)    97    129049 5.11549    5.115  80.00- 120.00   100.00
 22.162  22.162 (0.927)    99     81459                    31.16-  91.16    63.12
 22.162  22.162 (0.927)    83    107823                    52.03- 112.03    83.55
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.308  22.308 (0.934)   166    211688 4.99360    4.994  80.00- 120.00   100.00
 22.308  22.308 (0.934)   129    143224                    36.29-  96.29    67.66
 22.308  22.308 (0.934)   131    138576                    35.02-  95.02    65.46
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
 22.540  22.540 (0.943)    58     90839 5.47897    5.479  80.00- 120.00   100.00
 22.540  22.540 (0.943)    43    162275                   138.91- 198.91   178.64
 22.540  22.540 (0.943)   100     20767                     0.00-  53.53    22.86
-------------------------------------------------------------------------------
  160 Dibromochloromethane                         CAS #: 124-48-1
 22.918  22.918 (0.959)   129    229810 5.59338    5.593  80.00- 120.00   100.00
 22.918  22.918 (0.959)   127    174255                    46.93- 106.93    75.83
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                      CAS #: 106-93-4
 23.179  23.179 (0.970)   107    199085 5.25530    5.255  80.00- 120.00   100.00
 23.179  23.179 (0.970)   109    190624                    66.13- 126.13    95.75
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 23.895  23.895 (1.000)   117    251634 5.00000           80.00- 120.00   100.00
 23.895  23.895 (1.000)    82    125691                    18.57-  78.57    49.95
-------------------------------------------------------------------------------
  165 Chlorobenzene                                CAS #: 108-90-7
 23.936  23.936 (1.002)   112    284366 4.97269    4.973  80.00- 120.00   100.00
```

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  165 Chlorobenzene (continued)
 23.936  23.936 (1.002)   114     90755                     2.12-  62.12    31.91
 23.936  23.936 (1.002)    77    150493                    25.79-  85.79    52.92
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 24.019  24.019 (1.005)   106    132580 5.21997    5.220  80.00- 120.00   100.00
 24.019  24.019 (1.005)    91    404349                  269.24- 329.24   304.98
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.204  24.204 (1.013)   106    144943 5.44787    5.448  80.00- 120.00   100.00
 24.204  24.204 (1.013)    91    279620                  160.53- 220.53   192.92
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.803  24.803 (1.038)   106    138630 5.56503    5.565  80.00- 120.00   100.00
 24.803  24.803 (1.038)    91    283550                  168.41- 228.41   204.54
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 24.844  24.844 (1.040)   104    185602 5.44460    5.445  80.00- 120.00   100.00
 24.844  24.844 (1.040)    78     93959                   16.68-  76.68    50.62
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 25.164  25.164 (1.053)   173    240212 5.63310    5.633  80.00- 120.00   100.00
 25.164  25.164 (1.053)   171    123203                   21.43-  81.43    51.29
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 25.278  25.278 (1.058)   105    432389 5.45485    5.455  80.00- 120.00   100.00
 25.278  25.278 (1.058)   120    120494                    0.00-  58.79    27.87
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 25.581  25.581 (1.071)   174    152325 5.05371    5.054  80.00- 120.00   100.00
 25.562  25.562 (1.070)    95    155464                   70.67- 130.67   102.06
 25.581  25.581 (1.071)   176    147108                   67.63- 127.63    96.58
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 25.752  25.752 (1.078)    83    259208 5.39831    5.398  80.00- 120.00   100.00
 25.752  25.752 (1.078)    85    164459                   34.87-  94.87    63.45
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 25.809  25.809 (1.080)    91    404157 5.41002    5.410  80.00- 120.00   100.00
 25.828  25.828 (1.081)   120    102579                    0.00-  55.88    25.38
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 25.960  25.960 (1.086)   105    321727 5.29488    5.295  80.00- 120.00   100.00
 25.960  25.960 (1.086)   120    104318                    3.93-  63.93    32.42
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 26.036  26.036 (1.090)   105    284057 5.11149    5.111  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
190 1,3,5-Trimethylbenzene (continued)							
26.036	26.036 (1.090)	120	145916			20.38- 80.38	51.37
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.491	26.491 (1.109)	105	262143	4.83166	4.832	80.00- 120.00	100.00
26.491	26.491 (1.109)	120	127816			19.25- 79.25	48.76
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.897	26.897 (1.126)	146	227978	5.10795	5.108	80.00- 120.00	100.00
26.897	26.897 (1.126)	148	144427			34.22- 94.22	63.35
26.897	26.897 (1.126)	111	84846			6.18- 66.18	37.22
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
27.006	27.006 (1.130)	146	200400	5.02883	5.029	80.00- 120.00	100.00
27.006	27.006 (1.130)	148	128059			34.44- 94.44	63.90
27.006	27.006 (1.130)	111	70805			4.83- 64.83	35.33
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.162	27.162 (1.137)	91	221792	5.75825	5.758	80.00- 120.00	100.00
27.162	27.162 (1.137)	126	51033			0.00- 54.01	23.01
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.474	27.474 (1.150)	146	196854	5.00535	5.005	80.00- 120.00	100.00
27.474	27.474 (1.150)	148	128955			33.85- 93.85	65.51
27.474	27.474 (1.150)	111	75654			6.72- 66.72	38.43
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.485	29.485 (1.234)	180	174647	5.01535	5.015	80.00- 120.00	100.00
29.485	29.485 (1.234)	182	169151			66.47- 126.47	96.85
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.610	29.610 (1.239)	225	169382	5.32929	5.329	80.00- 120.00	100.00
29.610	29.610 (1.239)	223	103791			33.07- 93.07	61.28
228 Naphthalene					CAS #: 91-20-3		
29.890	29.890 (1.251)	128	18765	0.40087	0.4009	80.00- 120.00	100.00(a)
29.890	29.890 (1.251)	127	2950			0.00- 43.71	15.72

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061003.d
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: sab
Method File: /chem/msd20.i/10Jun2015.b/2015l0506a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 10-JUN-2015
Calibration Time: 11:58
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	70421	42253	98589	71416	1.41
123 1,4-Difluorobenze	289237	173542	404932	291895	0.92
163 Chlorobenzene-d5	248624	149174	348074	251634	1.21

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.84	16.51	17.17	16.84	0.00
123 1,4-Difluorobenze	18.34	18.01	18.67	18.34	0.00
163 Chlorobenzene-d5	23.90	23.57	24.23	23.90	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd20.i/10Jun2015.b/20061003.d

Date : 10-JUN-2015 10:03

Client ID: LCS

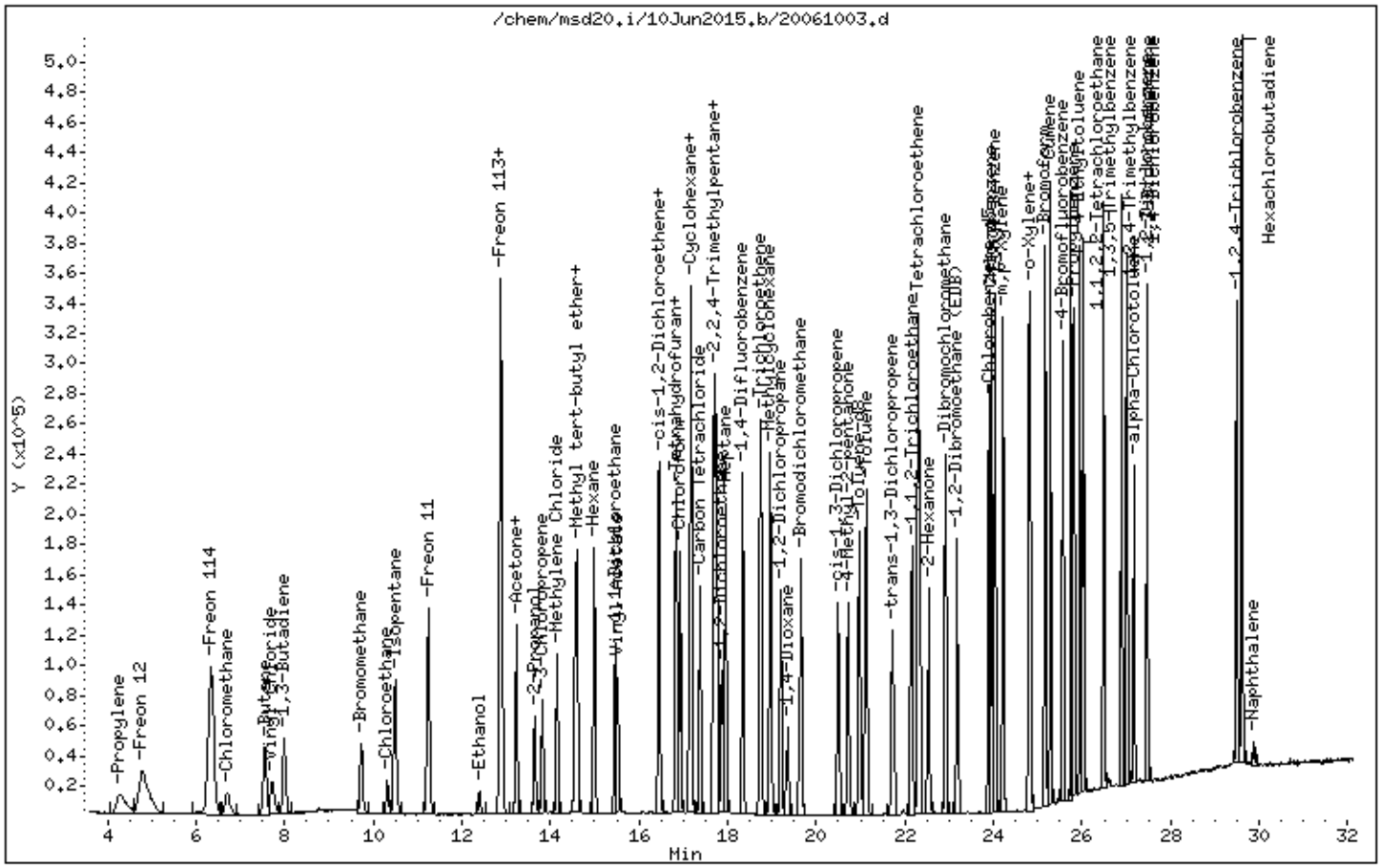
Instrument: msd20.i

Sample Info: 25mL# 2736-218

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



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Client Sample ID: LCSD

Lab ID#: 1506153A-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061004**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/15 11:08 AM**	

Compound	%Recovery	Method Limits
Freon 12	105	70-130
Freon 114	104	70-130
Chloromethane	100	70-130
Vinyl Chloride	104	70-130
1,3-Butadiene	98	70-130
Bromomethane	115	70-130
Chloroethane	104	70-130
Freon 11	104	70-130
Ethanol	106	70-130
Freon 113	93	70-130
1,1-Dichloroethene	99	70-130
Acetone	94	70-130
2-Propanol	106	70-130
Carbon Disulfide	88	70-130
3-Chloropropene	98	70-130
Methylene Chloride	95	70-130
Methyl tert-butyl ether	98	70-130
trans-1,2-Dichloroethene	85	70-130
Hexane	102	70-130
1,1-Dichloroethane	99	70-130
2-Butanone (Methyl Ethyl Ketone)	99	70-130
cis-1,2-Dichloroethene	111	70-130
Tetrahydrofuran	101	70-130
Chloroform	98	70-130
1,1,1-Trichloroethane	98	70-130
Cyclohexane	101	70-130
Carbon Tetrachloride	116	70-130
2,2,4-Trimethylpentane	100	70-130
Benzene	99	70-130
1,2-Dichloroethane	99	70-130
Heptane	105	70-130
Trichloroethene	98	70-130
1,2-Dichloropropane	101	70-130
1,4-Dioxane	106	70-130
Bromodichloromethane	109	70-130
cis-1,3-Dichloropropene	94	70-130
4-Methyl-2-pentanone	112	70-130
Toluene	100	70-130
trans-1,3-Dichloropropene	103	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	100	70-130
2-Hexanone	106	70-130

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Client Sample ID: LCSD

Lab ID#: 1506153A-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061004**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/15 11:08 AM**	

Compound	**%Recovery**	**Method Limits**
Dibromochloromethane	108	70-130
1,2-Dibromoethane (EDB)	104	70-130
Chlorobenzene	98	70-130
Ethyl Benzene	103	70-130
m,p-Xylene	102	70-130
o-Xylene	105	70-130
Styrene	101	70-130
Bromoform	109	70-130
Cumene	102	70-130
1,1,2,2-Tetrachloroethane	103	70-130
Propylbenzene	97	70-130
4-Ethyltoluene	96	70-130
1,3,5-Trimethylbenzene	95	70-130
1,2,4-Trimethylbenzene	90	70-130
1,3-Dichlorobenzene	91	70-130
1,4-Dichlorobenzene	90	70-130
alpha-Chlorotoluene	101	70-130
1,2-Dichlorobenzene	90	70-130
1,2,4-Trichlorobenzene	78	70-130
Hexachlorobutadiene	84	70-130
Naphthalene	57 Q	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	98	70-130

Report Date: 10-Jun-2015 13:12

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 10Jun2015
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: LCSD
Client Smp ID: LCSD
Level: LOW
Operator: sab
Data Type: MS DATA
SampleType: LCSD
SpikeList File: AT12.spk
Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msd20.i/10Jun2015.b/2015l0506a.m
Misc Info: 5.0ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	5.000	5.192	103.83	60-140
11 Freon 12	5.000	5.262	105.25	70-130
15 Freon 114	5.000	5.209	104.18	70-130
17 Chloromethane	5.000	4.995	99.90	70-130
23 Butane	5.000	5.265	105.31	60-140
25 Vinyl Chloride	5.000	5.176	103.52	70-130
26 1,3-Butadiene	5.000	4.918	98.36	70-130
29 Bromomethane	5.000	5.749	114.98	70-130
30 Chloroethane	5.000	5.175	103.50	70-130
31 Isopentane	5.000	5.160	103.21	60-140
35 Freon 11	5.000	5.214	104.28	70-130
42 Ethanol	5.000	5.316	106.32	70-130
49 Freon 113	5.000	4.674	93.48	70-130
50 1,1-Dichloroethene	5.000	4.942	98.84	70-130
52 Acetone	5.000	4.700	94.00	70-130
56 Carbon Disulfide	5.000	4.416	88.31	70-130
57 2-Propanol	5.000	5.312	106.24	70-130
58 3-Chloropropene	5.000	4.886	97.72	70-130
66 Methylene Chloride	5.000	4.758	95.17	70-130
72 Methyl tert-butyl	5.000	4.898	97.97	70-130
73 trans-1,2-Dichloro	5.000	4.236	84.73	70-130
78 Hexane	5.000	5.094	101.89	70-130
82 1,1-Dichloroethane	5.000	4.964	99.28	70-130
86 Vinyl Acetate	5.000	4.915	98.30	60-140
91 cis-1,2-Dichloroet	5.000	5.535	110.70	70-130
92 2-Butanone	5.000	4.935	98.70	70-130
99 Tetrahydrofuran	5.000	5.054	101.07	70-130
100 Chloroform	5.000	4.898	97.97	70-130
103 1,1,1-Trichloroeth	5.000	4.914	98.28	70-130
106 Carbon Tetrachlori	5.000	5.795	115.90	70-130
102 Cyclohexane	5.000	5.061	101.22	70-130
113 2,2,4-Trimethylpen	5.000	5.021	100.43	70-130
116 Benzene	5.000	4.972	99.44	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	5.000	4.968	99.36	70-130
121 Heptane	5.000	5.264	105.29	70-130
125 Trichloroethene	5.000	4.900	98.00	70-130
127 Methylcyclohexane	5.000	5.078	101.55	60-140
132 1,2-Dichloropropan	5.000	5.068	101.35	70-130
136 1,4-Dioxane	5.000	5.305	106.10	70-130
138 Bromodichlorometha	5.000	5.460	109.20	70-130
144 cis-1,3-Dichloropr	5.000	4.713	94.26	70-130
145 4-Methyl-2-pentano	5.000	5.623	112.46	70-130
147 Toluene	5.000	4.996	99.91	70-130
150 trans-1,3-Dichloro	5.000	5.160	103.19	70-130
155 1,1,2-Trichloroeth	5.000	5.105	102.10	70-130
156 Tetrachloroethene	5.000	4.976	99.52	70-130
158 2-Hexanone	5.000	5.322	106.44	70-130
160 Dibromochlorometha	5.000	5.392	107.84	70-130
161 1,2-Dibromoethane	5.000	5.196	103.93	70-130
165 Chlorobenzene	5.000	4.906	98.12	70-130
167 Ethyl Benzene	5.000	5.138	102.75	70-130
169 m,p-Xylene	5.000	5.118	102.37	70-130
171 o-Xylene	5.000	5.247	104.93	70-130
172 Styrene	5.000	5.031	100.62	70-130
174 Bromoform	5.000	5.460	109.21	70-130
175 Cumene	5.000	5.088	101.76	70-130
181 1,1,2,2-Tetrachlor	5.000	5.169	103.37	70-130
182 Propylbenzene	5.000	4.874	97.48	70-130
188 4-Ethyltoluene	5.000	4.812	96.25	70-130
190 1,3,5-Trimethylben	5.000	4.749	94.98	70-130
196 1,2,4-Trimethylben	5.000	4.483	89.67	70-130
208 1,3-Dichlorobenzen	5.000	4.545	90.90	70-130
209 1,4-Dichlorobenzen	5.000	4.494	89.89	70-130
212 alpha-Chlorotoluen	5.000	5.056	101.12	70-130
214 1,2-Dichlorobenzen	5.000	4.484	89.69	70-130
226 1,2,4-Trichloroben	5.000	3.908	78.17	70-130
227 Hexachlorobutadien	5.000	4.225	84.50	70-130
228 Naphthalene	0.5000	0.2871	57.41*	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.994	99.87	70-130
$ 146 Toluene-d8	5.000	5.107	102.15	70-130
$ 177 4-Bromofluorobenze	5.000	4.903	98.06	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/10Jun2015.b/20061004.d
Lab Smp Id: LCSD Client Smp ID: LCSD
Inj Date : 10-JUN-2015 11:08
Operator : sab Inst ID: msd20.i
Smp Info : 25mL# 2736-218
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/10Jun2015.b/2015l0506a.m
Meth Date : 10-Jun-2015 13:11 chemist Quant Type: ISTD
Cal Date : 07-MAY-2015 12:38 Cal File: 20050616.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.279	4.330 (0.254)	41	64011	5.19168	5.192	80.00- 120.00	100.00
4.296	4.279 (0.255)	42	28128			35.77- 95.77	43.94
4.279	4.296 (0.254)	39	30908			41.14- 101.14	48.29
11 Freon 12					CAS #: 75-71-8		
4.780	4.797 (0.284)	85	256753	5.26234	5.262	80.00- 120.00	100.00
4.814	4.814 (0.286)	87	82936			2.49- 62.49	32.30
15 Freon 114					CAS #: 76-14-2		
6.352	6.352 (0.377)	135	209219	5.20918	5.209	80.00- 120.00	100.00
6.334	6.352 (0.376)	137	67693			2.39- 62.39	32.36
6.334	6.334 (0.376)	85	239502			90.31- 150.31	114.47
17 Chloromethane					CAS #: 74-87-3		
6.697	6.697 (0.398)	50	71863	4.99482	4.995	80.00- 120.00	100.00
6.714	6.697 (0.399)	52	24827			2.88- 62.88	34.55

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
23 Butane					CAS #: 106-97-8		
7.553	7.557 (0.448)	58	17090	5.26532	5.265	80.00- 120.00	100.00
7.553	7.557 (0.448)	43	120031			662.68- 722.68	702.35
25 Vinyl Chloride					CAS #: 75-01-4		
7.722	7.725 (0.458)	62	86509	5.17600	5.176	80.00- 120.00	100.00
7.711	7.715 (0.458)	64	28147			1.92- 61.92	32.54
26 1,3-Butadiene					CAS #: 106-99-0		
7.985	7.999 (0.474)	54	59500	4.91784	4.918	80.00- 120.00	100.00
7.995	7.999 (0.475)	39	57422			62.52- 122.52	96.51
29 Bromomethane					CAS #: 74-83-9		
9.726	9.736 (0.578)	94	75161	5.74903	5.749	80.00- 120.00	100.00
9.726	9.736 (0.578)	96	70409			66.00- 126.00	93.68
30 Chloroethane					CAS #: 75-00-3		
10.313	10.323 (0.612)	64	41520	5.17523	5.175	80.00- 120.00	100.00
10.313	10.323 (0.612)	66	13459			1.26- 61.26	32.42
31 Isopentane					CAS #: 78-78-4		
10.503	10.496 (0.624)	57	67665	5.16034	5.160	80.00- 120.00	100.00
10.485	10.496 (0.623)	43	94881			105.33- 165.33	140.22
10.485	10.496 (0.623)	42	82306			89.08- 149.08	121.64
35 Freon 11					CAS #: 75-69-4		
11.245	11.238 (0.668)	101	266472	5.21407	5.214	80.00- 120.00	100.00
11.245	11.255 (0.668)	103	173586			35.69- 95.69	65.14
42 Ethanol					CAS #: 64-17-5		
12.382	12.396 (0.735)	45	30185	5.31582	5.316	80.00- 120.00	100.00
12.382	12.396 (0.735)	46	11449			8.49- 68.49	37.93
12.382	12.376 (0.735)	43	6927			0.00- 51.69	22.95
49 Freon 113					CAS #: 76-13-1		
12.878	12.871 (0.765)	151	192314	4.67407	4.674	80.00- 120.00	100.00
12.878	12.871 (0.765)	153	123242			34.25- 94.25	64.08
12.878	12.871 (0.765)	101	210415			75.92- 135.92	109.41
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.857	12.871 (0.763)	98	59001	4.94199	4.942	80.00- 120.00	100.00
12.857	12.871 (0.763)	61	134198			183.51- 243.51	227.45
12.857	12.850 (0.763)	96	93166			126.67- 186.67	157.91
52 Acetone					CAS #: 67-64-1		
13.208	13.222 (0.784)	58	39545	4.70006	4.700	80.00- 120.00	100.00

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   52 Acetone (continued)
 13.208  13.222 (0.784)    43    121662                   250.97- 310.97   307.65
-------------------------------------------------------------------------------
   56 Carbon Disulfide                               CAS #: 75-15-0
 13.228  13.242 (0.786)    76    227135 4.41561    4.416  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                     CAS #: 67-63-0
 13.641  13.655 (0.810)    45    124518 5.31191    5.312  80.00- 120.00   100.00
 13.641  13.655 (0.810)    43     29391                    0.00-  45.99    23.60
 13.641  13.655 (0.810)    59      5504                    0.00-  33.55     4.42
-------------------------------------------------------------------------------
   58 3-Chloropropene                                CAS #: 107-05-1
 13.827  13.820 (0.821)    76     34384 4.88607    4.886  80.00- 120.00   100.00
 13.827  13.820 (0.821)    41     82130                  207.26- 267.26   238.86
-------------------------------------------------------------------------------
   66 Methylene Chloride                             CAS #: 75-09-2
 14.157  14.150 (0.841)    84     85153 4.75848    4.758  80.00- 120.00   100.00
 14.157  14.150 (0.841)    49     97021                   76.26- 136.26   113.94
 14.157  14.150 (0.841)    51     30130                    2.64-  62.64    35.38
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                        CAS #: 1634-04-4
 14.570  14.563 (0.865)    73    237076 4.89843    4.898  80.00- 120.00   100.00
 14.570  14.563 (0.865)    57     49871                    0.00-  51.22    21.04
 14.570  14.563 (0.865)    41     52414                    0.00-  49.54    22.11
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                       CAS #: 156-60-5
 14.611  14.604 (0.868)    98     55580 4.23644    4.236  80.00- 120.00   100.00
 14.611  14.604 (0.868)    61    109440                  157.09- 217.09   196.91
 14.611  14.604 (0.868)    96     86769                  124.47- 184.47   156.12
-------------------------------------------------------------------------------
   78 Hexane                                         CAS #: 110-54-3
 15.003  14.996 (0.891)    57    126842 5.09427    5.094  80.00- 120.00   100.00
 15.003  14.996 (0.891)    43     77327                   29.42-  89.42    60.96
 15.003  14.996 (0.891)    86     23667                    0.00-  49.37    18.66
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                             CAS #: 75-34-3
 15.457  15.470 (0.918)    63    162143 4.96402    4.964  80.00- 120.00   100.00
 15.457  15.470 (0.918)    65     52622                    1.63-  61.63    32.45
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                  CAS #: 108-05-4
 15.518  15.532 (0.921)    86     22388 4.91475    4.915  80.00- 120.00   100.00
 15.518  15.532 (0.921)    42     15947                   64.14- 124.14    71.23
 15.518  15.532 (0.921)    43    193509                 1120.67-1180.67   864.34
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                         CAS #: 156-59-2
 16.447  16.447 (0.977)    98     74153 5.53496    5.535  80.00- 120.00   100.00
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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   91 cis-1,2-Dichloroethene (continued)
 16.447  16.447 (0.977)    61    135576                  140.61- 200.61   182.83
 16.447  16.447 (0.977)    96    114849                  124.22- 184.22   154.88
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.461  16.460 (0.977)    72     43796 4.93504    4.935  80.00- 120.00   100.00
 16.461  16.460 (0.977)    43    155243                  397.61- 457.61   354.47
 16.461  16.460 (0.977)    57     12330                    0.00-  58.47    28.15
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.841  16.841 (1.000)    42     88052 5.05352    5.054  80.00- 120.00   100.00
 16.841  16.841 (1.000)    71     38653                    9.03-  69.03    43.90
 16.841  16.841 (1.000)    72     42175                   21.41-  81.41    47.90
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.841  16.841 (1.000)   130     72117 5.00000           80.00- 120.00   100.00
 16.841  16.841 (1.000)   128     55300                   48.56- 108.56    76.68
 16.841  16.841 (1.000)    49     73740                   77.31- 137.31   102.25
-------------------------------------------------------------------------------
  100 Chloroform                                  CAS #: 67-66-3
 16.937  16.937 (1.006)    83    200542 4.89853    4.898  80.00- 120.00   100.00
 16.937  16.937 (1.006)    85    130965                   35.24-  95.24    65.31
-------------------------------------------------------------------------------
  102 Cyclohexane                                 CAS #: 110-82-7
 17.153  17.153 (1.019)    84    130187 5.06095    5.061  80.00- 120.00   100.00
 17.153  17.153 (1.019)    56    136909                   72.40- 132.40   105.16
 17.153  17.153 (1.019)    41     70160                   20.65-  80.65    53.89
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                       CAS #: 71-55-6
 17.177  17.177 (1.020)    97    210038 4.91390    4.914  80.00- 120.00   100.00
 17.177  17.177 (1.020)    99    134122                   34.49-  94.49    63.86
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                        CAS #: 56-23-5
 17.369  17.369 (1.031)   119    161628 5.79491    5.795  80.00- 120.00   100.00
 17.369  17.369 (1.031)   117    167523                   73.26- 133.26   103.65
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                      CAS #: 540-84-1
 17.681  17.681 (1.050)    56    123726 5.02132    5.021  80.00- 120.00   100.00
 17.681  17.681 (1.050)    57    389169                  268.82- 328.82   314.54
 17.681  17.681 (1.050)    41     96502                   49.41- 109.41    78.00
-------------------------------------------------------------------------------
  116 Benzene                                     CAS #: 71-43-2
 17.729  17.729 (0.967)    78    295819 4.97200    4.972  80.00- 120.00   100.00
 17.729  17.729 (0.967)    77     68767                    0.00-  53.11    23.25
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                       CAS #: 17060-07-0
 17.753  17.753 (1.054)    65     90590 4.99360    4.994  80.00- 120.00   100.00
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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 117 1,2-Dichloroethane-d4 (continued)
 17.753  17.753 (1.054)    67     51008                    27.32-  87.32    56.31
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                           CAS #: 107-06-2
 17.873  17.872 (0.974)    62    125797 4.96797    4.968  80.00- 120.00   100.00
 17.873  17.872 (0.974)    64     40184                     2.42-  62.42    31.94
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 17.945  17.944 (0.978)    57     77309 5.26454    5.264  80.00- 120.00   100.00
 17.945  17.944 (0.978)   100     30590                    21.23-  81.23    39.57
 17.945  17.944 (0.978)    43    135849                   145.72- 205.72   175.72
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 18.341  18.341 (1.000)   114    289707 5.00000           80.00- 120.00   100.00
 18.341  18.341 (1.000)    88     43877                     0.00-  44.67    15.15
-------------------------------------------------------------------------------
  125 Trichloroethene                              CAS #: 79-01-6
 18.742  18.742 (1.022)   130    149837 4.90015    4.900  80.00- 120.00   100.00
 18.742  18.742 (1.022)    95    132392                    56.13- 116.13    88.36
 18.742  18.742 (1.022)    97     87457                    26.55-  86.55    58.37
-------------------------------------------------------------------------------
  127 Methylcyclohexane                            CAS #: 108-87-2
 18.965  18.965 (1.034)    83    170302 5.07772    5.078  80.00- 120.00   100.00
 18.965  18.965 (1.034)    98     81609                    18.58-  78.58    47.92
 18.965  18.965 (1.034)    55    122557                    38.68-  98.68    71.96
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                          CAS #: 78-87-5
 19.211  19.211 (1.047)    63    103182 5.06759    5.068  80.00- 120.00   100.00
 19.211  19.211 (1.047)    62     71218                    40.14- 100.14    69.02
 19.211  19.211 (1.047)    41     53923                    17.79-  77.79    52.26
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.345  19.344 (1.055)    88     71280 5.30512    5.305  80.00- 120.00   100.00
 19.345  19.344 (1.055)    58     45843                    30.40-  90.40    64.31
 19.345  19.344 (1.055)    57     14808                     0.00-  48.90    20.77
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.657  19.657 (0.823)    83    203011 5.46006    5.460  80.00- 120.00   100.00
 19.657  19.657 (0.823)    85    133352                    34.06-  94.06    65.69
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.499  20.499 (1.118)    75    155570 4.71286    4.713  80.00- 120.00   100.00
 20.499  20.499 (1.118)    77     50130                     1.74-  61.74    32.22
 20.499  20.499 (1.118)    39     68285                    10.68-  70.68    43.89
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.717  20.717 (1.130)    43    179831 5.62303    5.623  80.00- 120.00   100.00
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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  145 4-Methyl-2-pentanone (continued)
 20.717  20.717 (1.130)    58     72498                   12.69-  72.69    40.31
 20.717  20.717 (1.130)    85     36118                    0.00-  51.10    20.08
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                  CAS #: 2037-26-5
 20.982  20.982 (1.144)    98    274487 5.10730    5.107  80.00- 120.00   100.00
 20.982  20.982 (1.144)    70     28089                    0.00-  40.06    10.23
 20.982  20.982 (1.144)   100    180696                   36.64-  96.64    65.83
-------------------------------------------------------------------------------
  147 Toluene                                     CAS #: 108-88-3
 21.123  21.123 (1.152)    91    329419 4.99555    4.996  80.00- 120.00   100.00
 21.123  21.123 (1.152)    92    193221                   29.36-  89.36    58.66
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                   CAS #: 10061-02-6
 21.727  21.727 (0.909)    75    144988 5.15950    5.160  80.00- 120.00   100.00
 21.727  21.727 (0.909)    77     47059                    2.80-  62.80    32.46
 21.727  21.727 (0.909)    39     60595                    9.93-  69.93    41.79
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                       CAS #: 79-00-5
 22.162  22.162 (0.927)    97    127585 5.10485    5.105  80.00- 120.00   100.00
 22.162  22.162 (0.927)    99     80031                   31.16-  91.16    62.73
 22.162  22.162 (0.927)    83    107006                   52.03- 112.03    83.87
-------------------------------------------------------------------------------
  156 Tetrachloroethene                           CAS #: 127-18-4
 22.308  22.308 (0.934)   166    208977 4.97584    4.976  80.00- 120.00   100.00
 22.308  22.308 (0.934)   129    139408                   36.29-  96.29    66.71
 22.308  22.308 (0.934)   131    137581                   35.02-  95.02    65.84
-------------------------------------------------------------------------------
  158 2-Hexanone                                  CAS #: 591-78-6
 22.540  22.540 (0.943)    58     87417 5.32197    5.322  80.00- 120.00   100.00
 22.540  22.540 (0.943)    43    151441                  138.91- 198.91   173.24
 22.540  22.540 (0.943)   100     20410                    0.00-  53.53    23.35
-------------------------------------------------------------------------------
  160 Dibromochloromethane                        CAS #: 124-48-1
 22.918  22.918 (0.959)   129    219480 5.39201    5.392  80.00- 120.00   100.00
 22.918  22.918 (0.959)   127    170421                   46.93- 106.93    77.65
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                     CAS #: 106-93-4
 23.179  23.179 (0.970)   107    195024 5.19634    5.196  80.00- 120.00   100.00
 23.179  23.179 (0.970)   109    188090                   66.13- 126.13    96.44
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                            CAS #: 3114-55-4
 23.895  23.895 (1.000)   117    249298 5.00000           80.00- 120.00   100.00
 23.895  23.895 (1.000)    82    125279                   18.57-  78.57    50.25
-------------------------------------------------------------------------------
  165 Chlorobenzene                               CAS #: 108-90-7
 23.936  23.936 (1.002)   112    277936 4.90579    4.906  80.00- 120.00   100.00
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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  165 Chlorobenzene (continued)
 23.936  23.936 (1.002)   114     89087                     2.12-  62.12    32.05
 23.936  23.936 (1.002)    77    148230                    25.79-  85.79    53.33
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 24.019  24.019 (1.005)   106    129277 5.13762    5.138  80.00- 120.00   100.00
 24.019  24.019 (1.005)    91    384872                  269.24- 329.24   297.71
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.204  24.204 (1.013)   106    134915 5.11847    5.118  80.00- 120.00   100.00
 24.204  24.204 (1.013)    91    260996                  160.53- 220.53   193.45
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.803  24.803 (1.038)   106    129487 5.24671    5.247  80.00- 120.00   100.00
 24.803  24.803 (1.038)    91    266010                  168.41- 228.41   205.43
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 24.844  24.844 (1.040)   104    169906 5.03087    5.031  80.00- 120.00   100.00
 24.844  24.844 (1.040)    78     86303                   16.68-  76.68    50.79
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 25.164  25.164 (1.053)   173    230684 5.46035    5.460  80.00- 120.00   100.00
 25.164  25.164 (1.053)   171    117440                   21.43-  81.43    50.91
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 25.278  25.278 (1.058)   105    399583 5.08822    5.088  80.00- 120.00   100.00
 25.278  25.278 (1.058)   120    113395                    0.00-  58.79    28.38
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 25.581  25.581 (1.071)   174    146413 4.90308    4.903  80.00- 120.00   100.00
 25.562  25.562 (1.070)    95    148384                   70.67- 130.67   101.35
 25.581  25.581 (1.071)   176    140140                   67.63- 127.63    95.72
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 25.752  25.752 (1.078)    83    245875 5.16861    5.169  80.00- 120.00   100.00
 25.752  25.752 (1.078)    85    157839                   34.87-  94.87    64.19
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 25.809  25.809 (1.080)    91    360725 4.87389    4.874  80.00- 120.00   100.00
 25.828  25.828 (1.081)   120     91388                    0.00-  55.88    25.33
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 25.960  25.960 (1.086)   105    289696 4.81240    4.812  80.00- 120.00   100.00
 25.960  25.960 (1.086)   120     92372                    3.93-  63.93    31.89
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 26.036  26.036 (1.090)   105    261469 4.74912    4.749  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
190 1,3,5-Trimethylbenzene (continued)							
26.036	26.036 (1.090)	120	134283			20.38- 80.38	51.36
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.491	26.491 (1.109)	105	240983	4.48327	4.483	80.00- 120.00	100.00
26.491	26.491 (1.109)	120	117434			19.25- 79.25	48.73
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.897	26.897 (1.126)	146	200960	4.54479	4.545	80.00- 120.00	100.00
26.897	26.897 (1.126)	148	129161			34.22- 94.22	64.27
26.897	26.897 (1.126)	111	75541			6.18- 66.18	37.59
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
27.006	27.006 (1.130)	146	177440	4.49439	4.494	80.00- 120.00	100.00
27.006	27.006 (1.130)	148	113261			34.44- 94.44	63.83
27.006	27.006 (1.130)	111	64316			4.83- 64.83	36.25
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.162	27.162 (1.137)	91	192936	5.05602	5.056	80.00- 120.00	100.00
27.162	27.162 (1.137)	126	44676			0.00- 54.01	23.16
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.474	27.474 (1.150)	146	174725	4.48431	4.484	80.00- 120.00	100.00
27.474	27.474 (1.150)	148	111639			33.85- 93.85	63.89
27.474	27.474 (1.150)	111	67724			6.72- 66.72	38.76
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.485	29.485 (1.234)	180	134842	3.90855	3.908	80.00- 120.00	100.00
29.485	29.485 (1.234)	182	130415			66.47- 126.47	96.72
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.610	29.610 (1.239)	225	133036	4.22496	4.225	80.00- 120.00	100.00
29.610	29.610 (1.239)	223	83446			33.07- 93.07	62.72
228 Naphthalene					CAS #: 91-20-3		
29.890	29.890 (1.251)	128	13313	0.28707	0.2871	80.00- 120.00	100.00(aR)
29.875	29.890 (1.250)	127	1977			0.00- 43.71	14.85

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061004.d
Lab Smp Id: LCSD
Analysis Type: VOA
Quant Type: ISTD
Operator: sab
Method File: /chem/msd20.i/10Jun2015.b/2015l0506a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 10-JUN-2015
Calibration Time: 11:58
Client Smp ID: LCSD
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	70421	42253	98589	72117	2.41
123 1,4-Difluorobenze	289237	173542	404932	289707	0.16
163 Chlorobenzene-d5	248624	149174	348074	249298	0.27

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.84	16.51	17.17	16.84	0.00
123 1,4-Difluorobenze	18.34	18.01	18.67	18.34	0.00
163 Chlorobenzene-d5	23.90	23.57	24.23	23.90	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd20.i/10Jun2015.b/20061004.d

Date : 10-JUN-2015 11:08

Client ID: LCSD

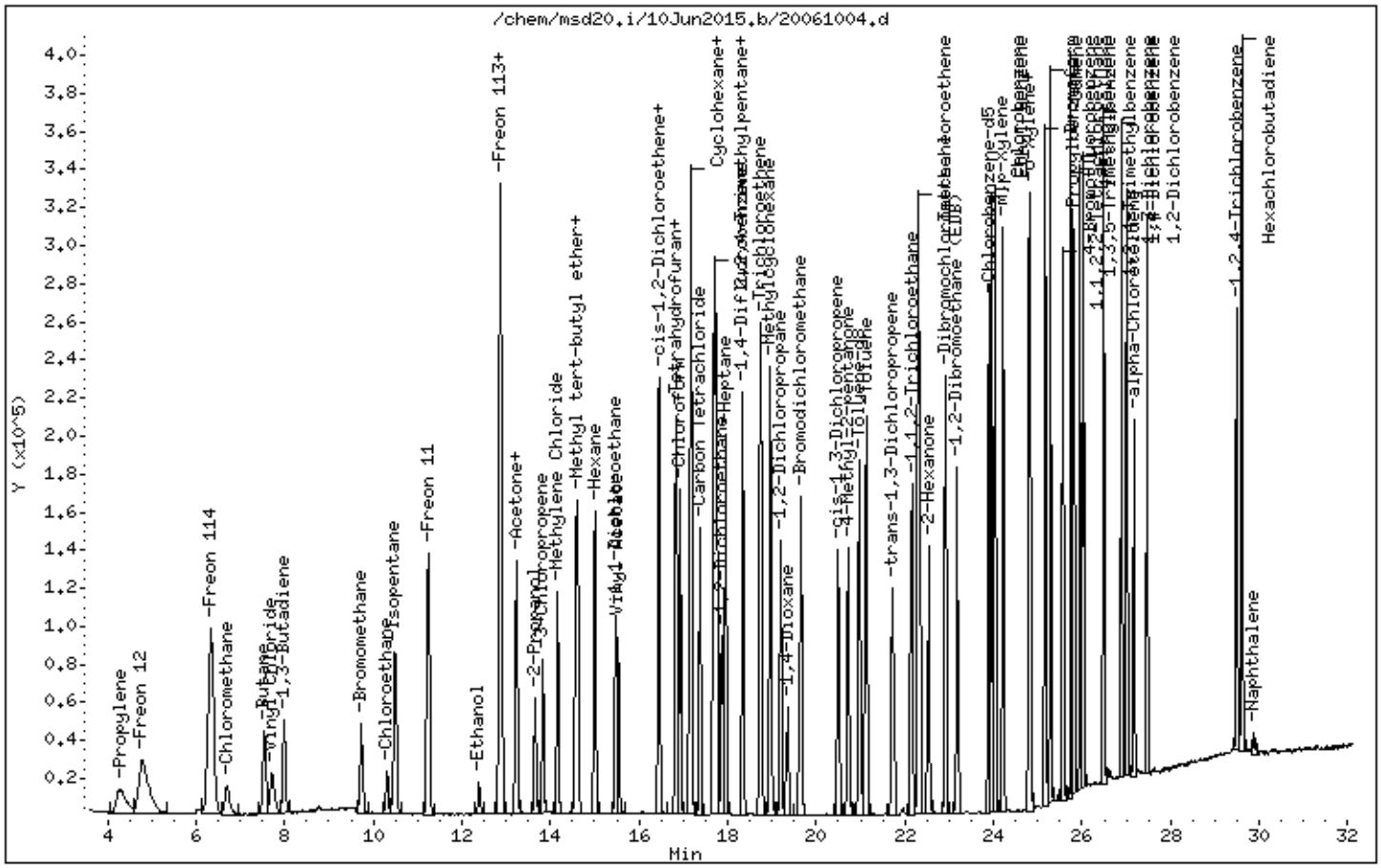
Instrument: msd20.i

Sample Info: 25mL# 2736-218

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics, Inc. **MSD-20** **Logbook #2702**

BFB Verification of 176/174 m/z Ratio: (308266/315349)100 =	97.75%
Tekmar Purge Flow:	
Vacuum:	6/10/15

IS/S Std. #:	2716-231	Exp. Date:	7/9/15
BCM	LL: 70421	Sim:	73853
1,4-DFB	289237		305429
CB-d5	248624		26125

Verified CCV IS vs ICAL mid-point (-40%D): 83

File ID:	20061005
Compound:	Toluene-d8
Initials:	

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = (275232)/(289237) x (5000)/(0.92756) = 5.129

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17 Reported Result: 5.129

Method Name: 2015LO506A / 2015SO506A

	Use	File	Lab ID#	Can#	Pressure	Amt. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	20061001	BFB Tune Check	2299-805	50mg	2ml	1.00	83	6/10/15 83 6/10/15	0844	83	
2	X	02	CCV (50ppbv)	2716-126	5ppbv	25ml	1.00	83	6/10/15	0912	83	exp 6/2/15 (expired Std)
3	✓	03	LCS (50ppbv)	2716-218	5ppbv	25ml	1.00	83		1003	83	exp 7/8/15 LCOOT
4	✓	04	LCSD (50ppbv)	↓	5ppbv	25ml	1.00	83		1108	83	↓
5	✓	05	CCV (50ppbv)	2716-291	5ppbv	25ml	1.00	83		1158	83	exp 8/7/15 LL:LOOT Sim:LOOT >40%
6	X	06	Lab Blank	34034	humid	250ml	1.00	83		1325	83	
7	✓	07	Lab Blank	↓	humid	250ml	1.00	83		1428	83	
8	✓	08	1506153-01A	33902	5.1"Hg-4.7psi	250ml	1.59	83		1543	[illegible]/Acq	
9	✓	09	-02A	6LL0054	5.7"Hg-5.1psi	250ml	1.66	[illegible]		1624	[illegible]/Acq	
10	✓	10	-03A	23925	3.7"Hg-5psi	250ml	1.53	[illegible]		1704	[illegible]/Acq	
11	✓	11	-04A	22509	6.3"Hg-4.9psi	250ml	1.69	[illegible]		1745	[illegible]/Acq	
12	✓	12	1506079 -01A	33861	3.5"Hg-5psi	250ml	1.52	[illegible]		1826	[illegible]	
13	✓	13	-04A	12947	2.8"Hg-5.2psi	250ml	1.50	[illegible]		1907	[illegible]/	"E" 2 drop
14	✓	14	-06A	33789	4.1"Hg-4.4psi	250ml	1.52	[illegible]		2017	[illegible]/	

Reviewed 6/10/15 Date

Eurofins Air Toxics Inc.

Data file : /chem/msd20.i/06May2015.b/20050601.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 06-MAY-2015 13:05
Operator : sab Inst ID: msd20.i
Smp Info : 2.0uL# 2299-791 ; BFB Tune Check
Misc Info : 50ng
Comment :
Method : /chem/msd20.i/06May2015.b/bfb60.m
Meth Date : 23-Feb-2015 08:54 efinn Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
6.426	6.640	-0.214	95	460160			100.00- 100.00	100.00
6.426	6.640	-0.214	50	70976			8.00- 40.00	15.42
6.426	6.640	-0.214	75	208331			30.00- 66.00	45.27
6.426	6.640	-0.214	96	31182			5.00- 9.00	6.78
6.426	6.640	-0.214	173	2297			0.00- 1.99	0.52
6.426	6.640	-0.214	174	443029			50.00- 120.00	96.28
6.426	6.640	-0.214	175	31640			4.00- 9.00	7.14
6.426	6.640	-0.214	176	432779			93.00- 101.00	97.69
6.426	6.640	-0.214	177	27750			5.00- 9.00	6.41

Data File: /chem/msd20.i/06May2015.b/20050601.d

Date : 06-MAY-2015 13:05

Client ID: BFB

Instrument: msd20.i

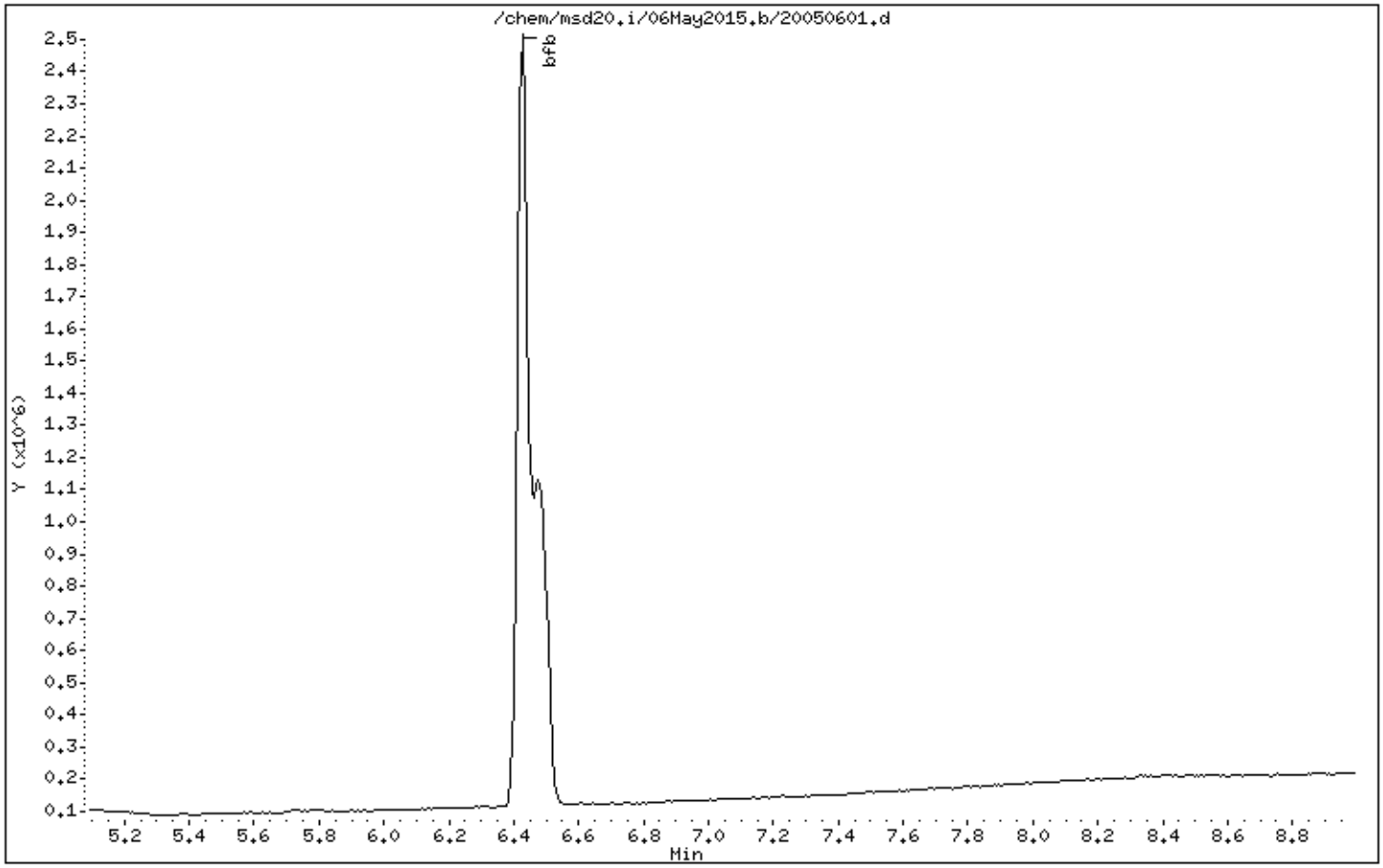
Sample Info: 2.0uL# 2299-791 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: sab

Column phase:

Column diameter: 2.00



Data File: /chem/msd20.i/06May2015.b/20050601.d

Date : 06-MAY-2015 13:05

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-791 ; BFB Tune Check

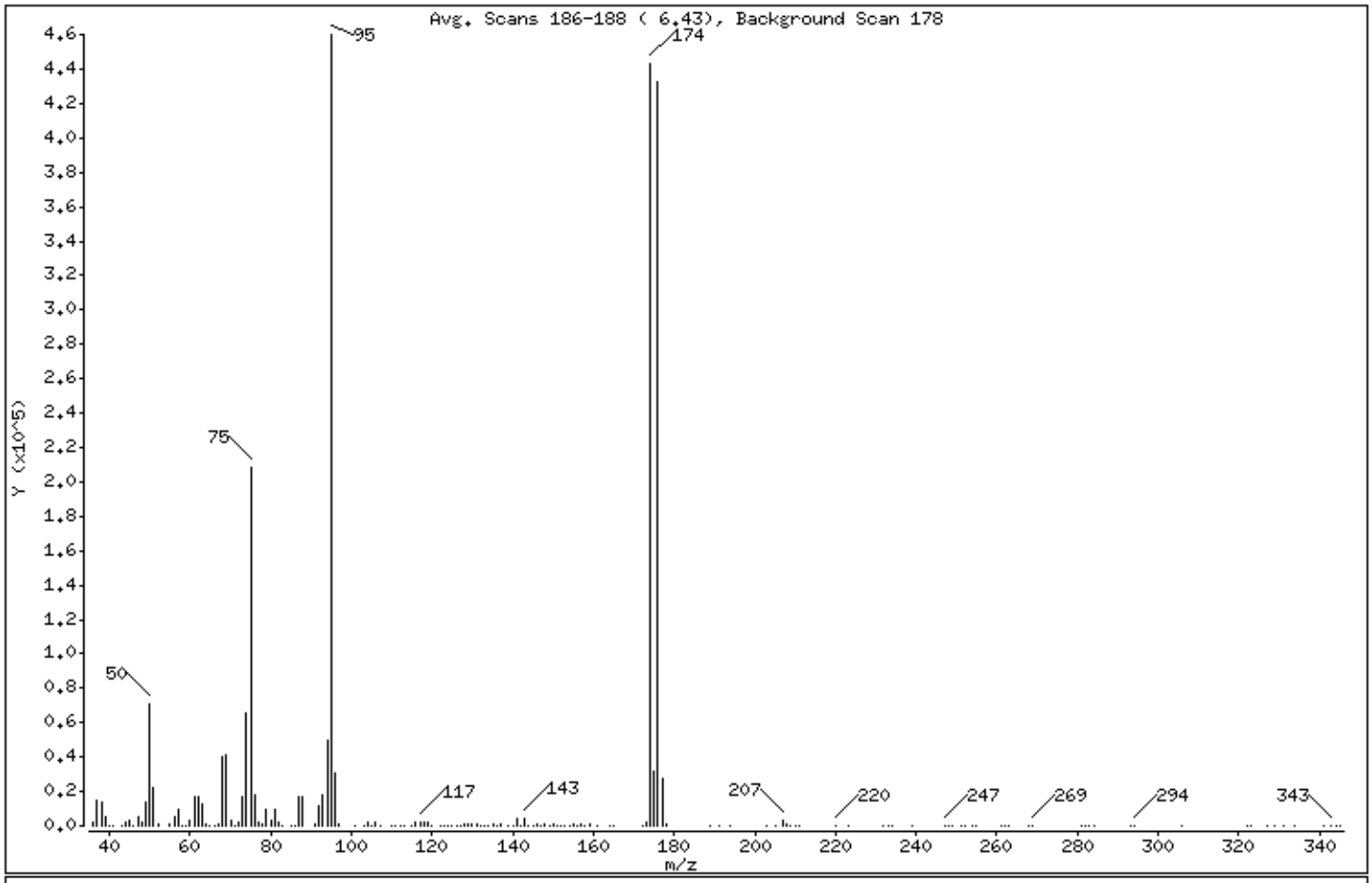
Volume Injected (uL): 1.0

Operator: sab

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	15.42
75	30.00 - 66.00% of mass 95	45.27
96	5.00 - 9.00% of mass 95	6.78
173	Less than 1.99% of mass 174	0.50 (0.52)
174	50.00 - 120.00% of mass 95	96.28
175	4.00 - 9.00% of mass 174	6.88 (7.14)
176	93.00 - 101.00% of mass 174	94.05 (97.69)
177	5.00 - 9.00% of mass 176	6.03 (6.41)

Data File: /chem/msd20.i/06May2015.b/20050601.d

Date : 06-MAY-2015 13:05

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-791 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: sab

Column phase:

Column diameter: 2.00

Data File: 20050601.d
Spectrum: Avg. Scans 186-188 (6.43), Background Scan 178
Location of Maximum: 95.00
Number of points: 164

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2634	81.00	9540	134.00	23	209.00	184
37.00	15277	82.00	2256	135.00	656	210.00	115
38.00	13771	83.00	297	136.00	176	211.00	114
39.00	5381	85.00	180	137.00	633	220.00	122
40.00	189	86.00	488	139.00	161	223.00	14
41.00	156	87.00	17312	140.00	291	232.00	9
43.00	367	88.00	17016	141.00	4133	233.00	21
44.00	1711	91.00	1275	142.00	513	234.00	15
45.00	3113	92.00	11420	143.00	4266	239.00	13
46.00	236	93.00	17480	144.00	285	247.00	116
47.00	4919	94.00	49944	145.00	454	248.00	51
48.00	1989	95.00	460160	146.00	627	249.00	2
49.00	13824	96.00	31176	147.00	346	251.00	54
50.00	70976	97.00	1288	148.00	1090	252.00	57
51.00	22056	101.00	54	149.00	362	254.00	78
52.00	930	103.00	194	150.00	574	255.00	38
55.00	940	104.00	1912	151.00	54	261.00	16
56.00	5306	105.00	501	152.00	226	262.00	10
57.00	9801	106.00	1794	153.00	387	263.00	50
58.00	483	107.00	451	154.00	291	268.00	20
59.00	129	110.00	281	155.00	1165	269.00	469
60.00	3147	111.00	373	156.00	197	281.00	249
61.00	16584	112.00	295	157.00	891	282.00	428
62.00	16800	113.00	347	158.00	354	283.00	164
63.00	13037	115.00	247	159.00	529	284.00	76
64.00	1247	116.00	1660	161.00	524	293.00	22
65.00	297	117.00	2624	164.00	43	294.00	70
66.00	132	118.00	1592	165.00	135	306.00	11
67.00	1070	119.00	2244	172.00	432	322.00	95
68.00	40376	120.00	217	173.00	2297	323.00	111
69.00	40976	122.00	55	174.00	443008	327.00	78
70.00	3055	123.00	196	175.00	31640	329.00	18
71.00	233	124.00	274	176.00	432768	331.00	31
72.00	1956	125.00	252	177.00	27744	334.00	70
73.00	16600	126.00	324	178.00	810	341.00	139

Data File: /chem/msd20.i/06May2015.b/20050601.d

Date : 06-MAY-2015 13:05

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-791 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: sab

Column phase:

Column diameter: 2.00

Data File: 20050601.d
Spectrum: Avg. Scans 186-188 (6.43), Background Scan 178
Location of Maximum: 95.00
Number of points: 164

m/z	Y	m/z	Y	m/z	Y	m/z	Y
74.00	65848	127.00	271	189.00	14	343.00	288
75.00	208320	128.00	1510	191.00	99	344.00	150
76.00	18064	129.00	818	194.00	85	345.00	149
77.00	2348	130.00	1520	203.00	57		
78.00	1487	131.00	760	205.00	102		
79.00	9713	132.00	197	207.00	3064		
80.00	3182	133.00	22	208.00	948		

Eurofins Air Toxics Inc.

Data file : /chem/msd20.i/07May2015.b/20050701.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 07-MAY-2015 13:32
Operator : sab Inst ID: msd20.i
Smp Info : 2.0uL# 2299-791 ; BFB Tune Check
Misc Info : 50ng
Comment :
Method : /chem/msd20.i/07May2015.b/bfb60.m
Meth Date : 23-Feb-2015 08:54 efinn Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
6.426	6.640	-0.214	95	332160			100.00- 100.00	100.00
6.426	6.640	-0.214	50	53165			8.00- 40.00	16.01
6.426	6.640	-0.214	75	152345			30.00- 66.00	45.86
6.426	6.640	-0.214	96	22785			5.00- 9.00	6.86
6.426	6.640	-0.214	173	1525			0.00- 1.99	0.49
6.426	6.640	-0.214	174	313258			50.00- 120.00	94.31
6.426	6.640	-0.214	175	22133			4.00- 9.00	7.07
6.426	6.640	-0.214	176	304279			93.00- 101.00	97.13
6.426	6.640	-0.214	177	19613			5.00- 9.00	6.45

Data File: /chem/msd20.i/07May2015.b/20050701.d

Date : 07-MAY-2015 13:32

Client ID: BFB

Instrument: msd20.i

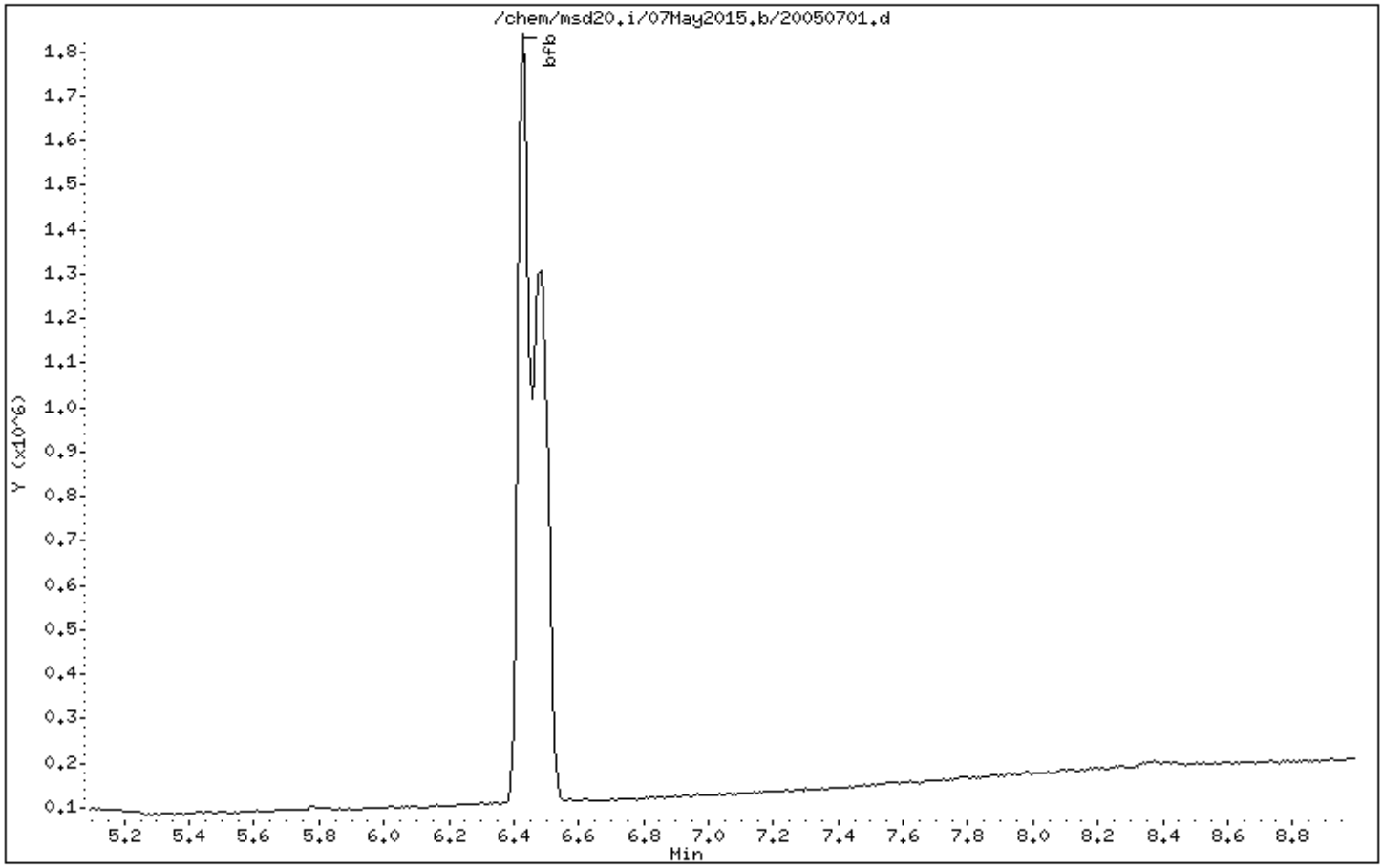
Sample Info: 2.0uL# 2299-791 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: sab

Column phase:

Column diameter: 2.00



Data File: /chem/msd20.i/07May2015.b/20050701.d

Date : 07-MAY-2015 13:32

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-791 ; BFB Tune Check

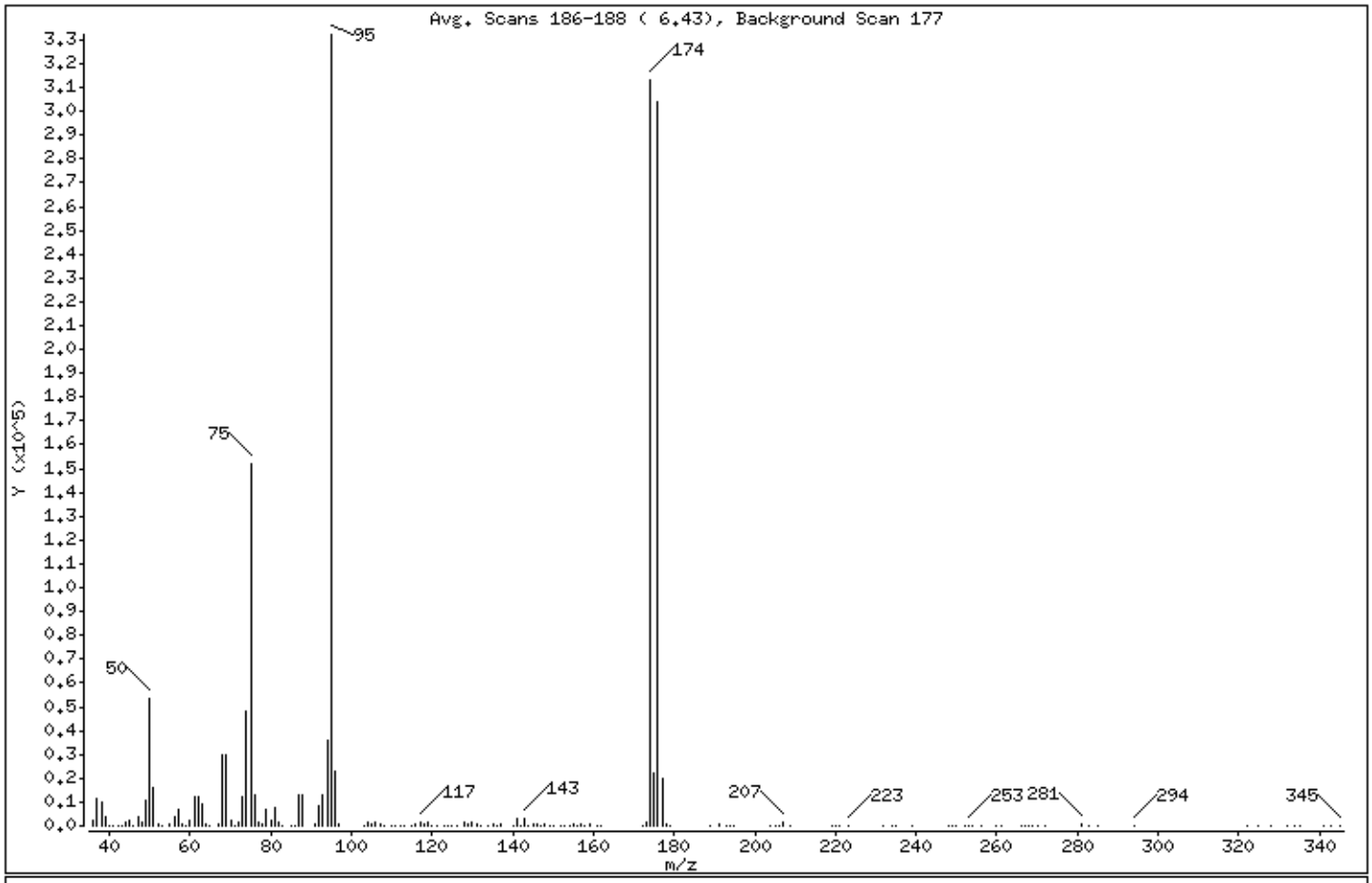
Volume Injected (uL): 1.0

Operator: sab

Column phase:

Column diameter: 2.00

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	16.01
75	30.00 - 66.00% of mass 95	45.86
96	5.00 - 9.00% of mass 95	6.86
173	Less than 1.99% of mass 174	0.46 (0.49)
174	50.00 - 120.00% of mass 95	94.31
175	4.00 - 9.00% of mass 174	6.66 (7.07)
176	93.00 - 101.00% of mass 174	91.61 (97.13)
177	5.00 - 9.00% of mass 176	5.90 (6.45)

Data File: /chem/msd20.i/07May2015.b/20050701.d

Date : 07-MAY-2015 13:32

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-791 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: sab

Column phase:

Column diameter: 2.00

Data File: 20050701.d
Spectrum: Avg. Scans 186-188 (6.43), Background Scan 177
Location of Maximum: 95.00
Number of points: 162

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2011	79.00	6993	132.00	16	206.00	35
37.00	11215	80.00	2331	134.00	42	207.00	1634
38.00	10291	81.00	7397	135.00	460	209.00	310
39.00	4160	82.00	1620	136.00	56	219.00	165
40.00	182	83.00	255	137.00	653	220.00	146
41.00	114	85.00	67	140.00	198	221.00	26
42.00	208	86.00	371	141.00	2901	223.00	240
43.00	190	87.00	12904	142.00	380	232.00	28
44.00	1390	88.00	12830	143.00	3177	234.00	76
45.00	2207	91.00	767	144.00	175	235.00	183
46.00	245	92.00	8589	145.00	419	239.00	92
47.00	3510	93.00	12655	146.00	623	248.00	50
48.00	1422	94.00	35560	147.00	343	249.00	11
49.00	10372	95.00	332160	148.00	775	250.00	18
50.00	53160	96.00	22784	149.00	138	252.00	54
51.00	15948	97.00	633	150.00	363	253.00	250
52.00	731	103.00	180	152.00	108	254.00	115
53.00	58	104.00	1287	153.00	283	256.00	53
55.00	739	105.00	465	154.00	245	260.00	119
56.00	3786	106.00	1219	155.00	837	261.00	58
57.00	7250	107.00	400	156.00	257	266.00	26
58.00	387	108.00	46	157.00	652	267.00	163
59.00	138	110.00	254	158.00	250	268.00	56
60.00	2409	111.00	322	159.00	512	269.00	302
61.00	12240	112.00	269	161.00	370	270.00	221
62.00	12298	113.00	271	162.00	62	272.00	10
63.00	9535	115.00	304	172.00	360	281.00	469
64.00	908	116.00	1129	173.00	1525	283.00	221
65.00	331	117.00	1800	174.00	313216	285.00	51
67.00	792	118.00	984	175.00	22128	294.00	166
68.00	29416	119.00	1607	176.00	304256	322.00	113
69.00	29640	120.00	126	177.00	19608	325.00	104
70.00	2354	121.00	131	178.00	487	328.00	74
71.00	212	123.00	66	179.00	90	332.00	64
72.00	1458	124.00	195	189.00	39	334.00	51

Data File: /chem/msd20.i/07May2015.b/20050701.d

Date : 07-MAY-2015 13:32

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-791 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: sab

Column phase:

Column diameter: 2.00

Data File: 20050701.d
Spectrum: Avg. Scans 186-188 (6.43), Background Scan 177
Location of Maximum: 95.00
Number of points: 162

m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	12455	125.00	165	191.00	508	335.00	129
74.00	48400	126.00	309	193.00	178	341.00	104
75.00	152320	128.00	1265	194.00	2	343.00	3
76.00	12928	129.00	609	195.00	11	345.00	144
77.00	1629	130.00	1169	204.00	66		
78.00	1075	131.00	475	205.00	12		

Eurofins Air Toxics Inc.

Data file : /chem/msd20.i/10Jun2015.b/20061001.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 10-JUN-2015 08:44
Operator : sab Inst ID: msd20.i
Smp Info : 2.0uL# 2299-805 ; BFB Tune Check
Misc Info : 50ng
Comment :
Method : /chem/msd20.i/10Jun2015.b/bfb60.m
Meth Date : 23-Feb-2015 08:54 efinn Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
6.448	6.640	-0.192	95	334080			100.00- 100.00	100.00
6.448	6.640	-0.192	50	54538			8.00- 40.00	16.32
6.448	6.640	-0.192	75	154318			30.00- 66.00	46.19
6.448	6.640	-0.192	96	22902			5.00- 9.00	6.86
6.448	6.640	-0.192	173	1703			0.00- 1.99	0.54
6.448	6.640	-0.192	174	315349			50.00- 120.00	94.39
6.448	6.640	-0.192	175	22053			4.00- 9.00	6.99
6.448	6.640	-0.192	176	308266			93.00- 101.00	97.75
6.448	6.640	-0.192	177	20354			5.00- 9.00	6.60

Data File: /chem/msd20.i/10Jun2015.b/20061001.d

Date : 10-JUN-2015 08:44

Client ID: BFB

Instrument: msd20.i

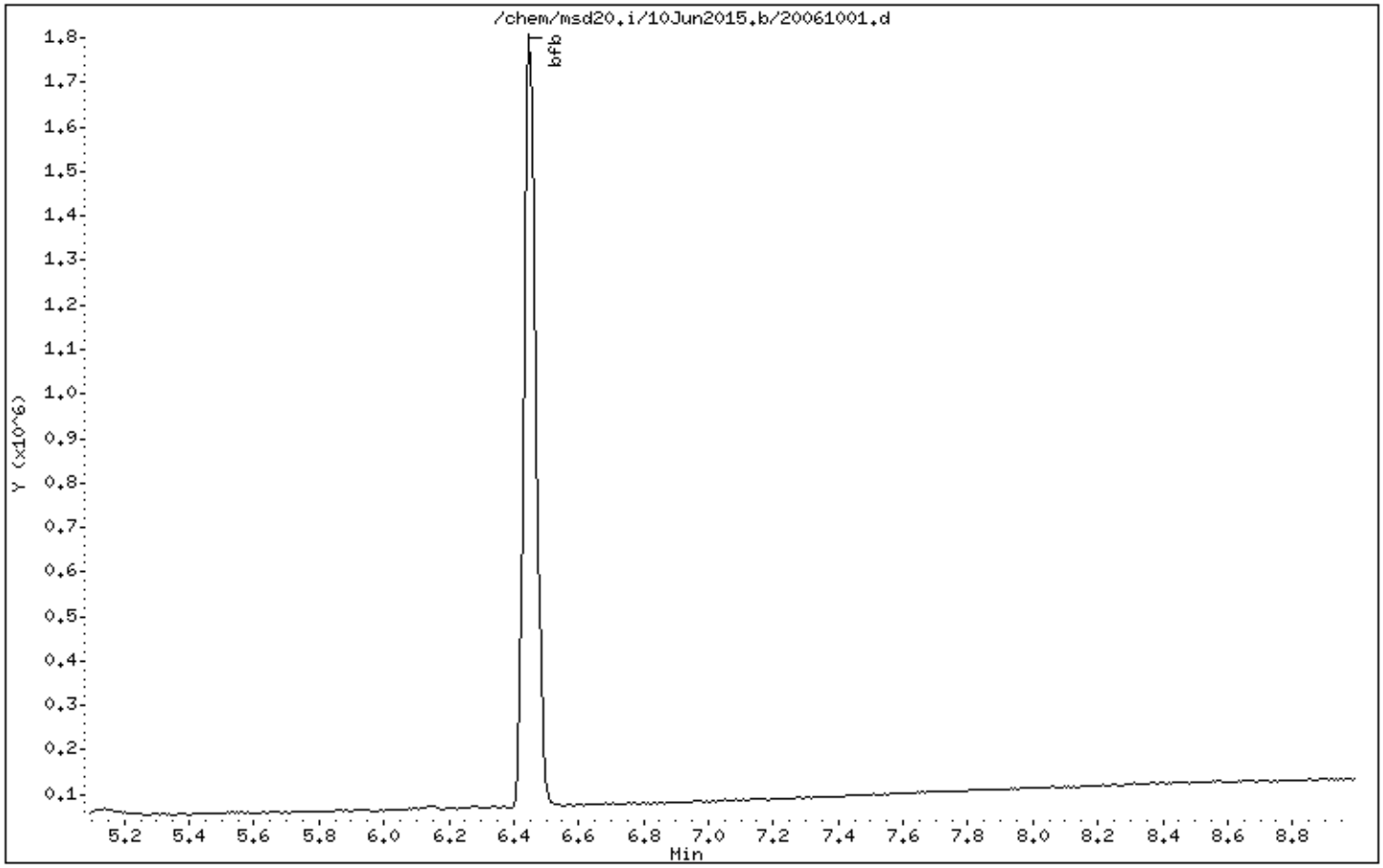
Sample Info: 2.0uL# 2299-805 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: sab

Column phase:

Column diameter: 2.00



Data File: /chem/msd20.i/10Jun2015.b/20061001.d

Date : 10-JUN-2015 08:44

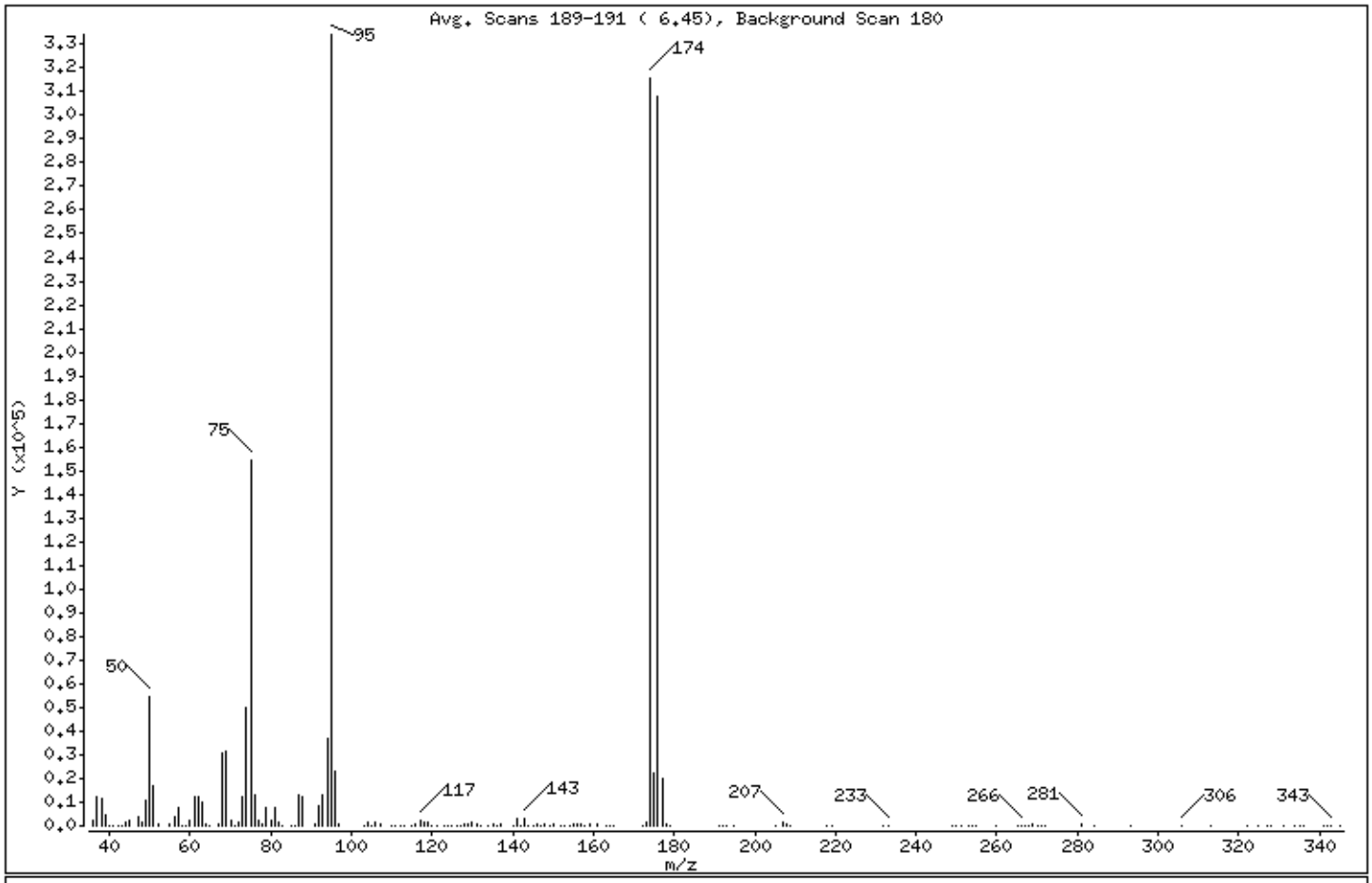
Client ID: BFB Instrument: msd20.i

Sample Info: 2.0uL# 2299-805 ; BFB Tune Check

Volume Injected (uL): 1.0 Operator: sab

Column phase: Column diameter: 2.00

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	16.32
75	30.00 - 66.00% of mass 95	46.19
96	5.00 - 9.00% of mass 95	6.86
173	Less than 1.99% of mass 174	0.51 (0.54)
174	50.00 - 120.00% of mass 95	94.39
175	4.00 - 9.00% of mass 174	6.60 (6.99)
176	93.00 - 101.00% of mass 174	92.27 (97.75)
177	5.00 - 9.00% of mass 176	6.09 (6.60)

Data File: /chem/msd20.i/10Jun2015.b/20061001.d

Date : 10-JUN-2015 08:44

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-805 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: sab

Column phase:

Column diameter: 2.00

Data File: 20061001.d
Spectrum: Avg. Scans 189-191 (6.45), Background Scan 180
Location of Maximum: 95.00
Number of points: 160

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2083	81.00	7443	135.00	736	209.00	255
37.00	12109	82.00	1901	136.00	212	218.00	5
38.00	11143	83.00	238	137.00	638	219.00	55
39.00	4350	85.00	51	140.00	239	232.00	88
40.00	162	86.00	329	141.00	3231	233.00	96
41.00	98	87.00	12880	142.00	374	249.00	120
42.00	54	88.00	12356	143.00	3270	250.00	1
43.00	319	91.00	1102	144.00	194	251.00	49
44.00	1192	92.00	8503	145.00	329	253.00	148
45.00	2254	93.00	12842	146.00	489	254.00	170
47.00	3477	94.00	37008	147.00	306	255.00	85
48.00	1427	95.00	334080	148.00	918	260.00	54
49.00	10718	96.00	22896	149.00	252	265.00	64
50.00	54536	97.00	898	150.00	408	266.00	173
51.00	16616	103.00	146	152.00	112	267.00	129
52.00	861	104.00	1189	153.00	272	268.00	30
55.00	723	105.00	345	154.00	267	269.00	658
56.00	3923	106.00	1375	155.00	772	270.00	72
57.00	7498	107.00	398	156.00	396	271.00	30
58.00	340	110.00	202	157.00	688	272.00	119
59.00	21	111.00	260	158.00	272	281.00	739
60.00	2310	112.00	235	159.00	472	284.00	78
61.00	12583	113.00	293	161.00	535	293.00	107
62.00	12580	115.00	257	163.00	114	306.00	73
63.00	9646	116.00	937	164.00	36	313.00	50
64.00	962	117.00	2093	165.00	82	322.00	41
65.00	284	118.00	1162	172.00	351	325.00	118
67.00	679	119.00	1383	173.00	1703	327.00	57
68.00	30424	120.00	206	174.00	315328	328.00	6
69.00	31200	121.00	109	175.00	22048	331.00	18
70.00	2323	123.00	53	176.00	308224	334.00	61
71.00	112	124.00	250	177.00	20352	335.00	40
72.00	1435	125.00	23	178.00	640	336.00	53
73.00	12388	126.00	209	179.00	68	341.00	7
74.00	50024	127.00	280	191.00	220	342.00	50

Data File: /chem/msd20.i/10Jun2015.b/20061001.d

Date : 10-JUN-2015 08:44

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-805 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: sab

Column phase:

Column diameter: 2.00

Data File: 20061001.d
Spectrum: Avg. Scans 189-191 (6.45), Background Scan 180
Location of Maximum: 95.00
Number of points: 160

m/z	Y	m/z	Y	m/z	Y	m/z	Y
75.00	154304	128.00	1138	192.00	10	343.00	127
76.00	13317	129.00	593	193.00	208	345.00	20
77.00	2061	130.00	1187	195.00	109		
78.00	1074	131.00	584	205.00	10		
79.00	7468	132.00	52	207.00	1802		
80.00	2393	134.00	75	208.00	588		

Shipping/ Receiving Documents

Eurofins Air Toxics, Inc. Sample Receipt Confirmation Cover Page

Thank you for choosing Eurofins Air Toxics, Inc. (EATL). We have received your samples and have listed any Sample Receipt Descrepancies below.

In order to expedite analysis and reporting, please review the attached information for accuracy.

For corrections call: **Brian Whittaker at 916-985-1000**

EATL will proceed with the analysis as specified on the Chain of Custody (COC) and Sample Receipt Summary page.

Please note : The Sample Receipt Confirmation, including the total workorder charge, is subject to change upon secondary review. Our aim is to provide a confirmation to you in a timely manner. Sample Receipt Discrepancies, if any, may not include discrepancies regarding sample receipt pressure(s). Additionally, the COC will be provided with the final report.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 .FAX (916) 985-1020
Hours 6:30 A.M to 5:30 P.M. PST

eurofins | Air Toxics

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager: Terry Taylor
Collected by: (Print and Sign) David Lindstrand
Company: AMAI Email:
Address: 2700 Westchester City: Purchase State: NY Zip: 10577
Phone: 914-251-0400 x309 Fax:

Project Info:
P.O. #:
Project #: BMS Humacao
Project Name: Building 6 Indoor Air

Turn Around Time:
☐ Normal
☒ Rush 3-Day (specify)

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	BG-1IA-2	33902	6/7/15	18:04	TO15	-30"	-5.5"		
02A	BG-2IA-2	6L0054	6/7/15	17:41		-30"	-7.0		
03A	BG-2IAD-2	23925	6/7/15	17:40		-30"	-5.0		
04A	BG-AA-3	22509	6/7/15	17:49		-30"	-8.0		
	Empty Canister	6L1269	—	—	Not Used/No Analysis	—	—		

Rec'd 6/8/15

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
David Lindstrand	6/8/15 13:00	[illegible]	6/9/15 0925
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:
Report full list of TO-15 compounds

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex	7737 7733 2454		Good	Yes No None	1506153

Form 1293 rev.11

eurofins | Air Toxics

SAMPLE RECEIPT SUMMARY

WORKORDER 1506153A

Client

Mr. Terry Taylor
Anderson Mulholland &
Associates, Inc.
2700 Westchester Avenue
Suite 417
Purchase, NY 10577
Sales Rep: N/A

Phone

(914) 251-0400

Fax

Date Promised: 06/12/15 2:00 pm
Date Completed: 6/12/15
Date Received: 6/9/15
PO#:
Project#: BMS Humacao Building 6 Indoor Air

Total $: $ 1,384.60
Logged By: CC

Fraction	Sample #	Analysis	Collected	Receipt Vac./Pres.	Amount$
01A	B6-1IA-2	Modified TO-15	6/7/2015	5.1 "Hg	$202.50
02A	B6-2IA-2	Modified TO-15	6/7/2015	5.7 "Hg	$202.50
03A	B6-2IAD-2	Modified TO-15	6/7/2015	3.7 "Hg	$202.50
04A	B6-AA-3	Modified TO-15	6/7/2015	6.3 "Hg	$202.50
05A	Lab Blank	Modified TO-15	NA	NA	$0.00
06A	CCV	Modified TO-15	NA	NA	$0.00
07A	LCS	Modified TO-15	NA	NA	$0.00
07AA	LCSD	Modified TO-15	NA	NA	$0.00

Misc. Charges	6 Liter Summa Canister (100% Certified) (5) @ $55.00 each., Shipme	$275.00
	Flow Controller-24 hr (100% Certified) (5) @ $20.00 each., Shipment	$100.00
	eCVP (4) @ $5.00 each.	$20.00
	Shipping Charges (Shipped Via DHL DHL EXPRESS WORLDWIDE	$171.60
	Duplicate Sampling T (100% Certified) (1) @ $8.00 each.	$8.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: BMS/19256

BILL TO: Accounts Payable
Anderson Mulholland & Associates, Inc.
2700 Westchester Avenue
Suite 417
Purchase, NY 10577

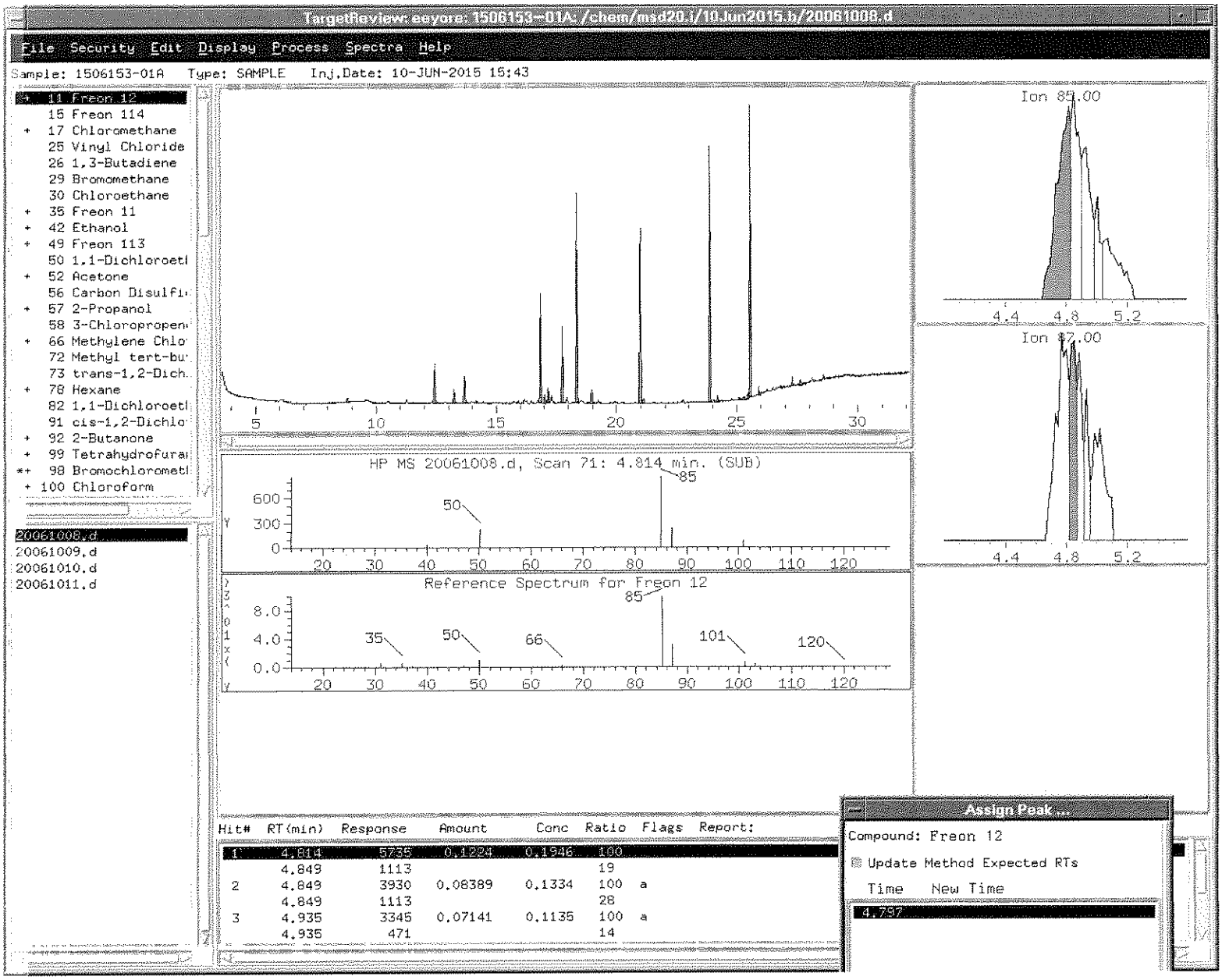
Analysis Code: pptv

REMARKS: A 50% surcharge is applied for a 72 hour turnaround time.

TERMS:

Reporting Method: Modified TO-15-LL + Naph

Other Records


TargetReview: eeyore: 1506153-01A: /chem/msd20.i/10.Jun2015.b/20061008.d
File Security Edit Display Process Spectra Help
Sample: 1506153-01A Type: SAMPLE Inj.Date: 10-JUN-2015 15:43
+ 11 Freon 12
15 Freon 114
+ 17 Chloromethane
25 Vinyl Chloride
26 1,3-Butadiene
29 Bromomethane
30 Chloroethane
+ 35 Freon 11
+ 42 Ethanol
+ 49 Freon 113
50 1,1-Dichloroeth
+ 52 Acetone
56 Carbon Disulfi
+ 57 2-Propanol
58 3-Chloropropen
+ 66 Methylene Chlo
72 Methyl tert-bu
73 trans-1,2-Dich
+ 78 Hexane
82 1,1-Dichloroeth
91 cis-1,2-Dichlo
+ 92 2-Butanone
+ 99 Tetrahydrofura
*+ 98 Bromochlorometh
+ 100 Chloroform
20061008.d
20061009.d
20061010.d
20061011.d
HP MS 20061008.d, Scan 71: 4.814 min. (SUB)
Reference Spectrum for Freon 12
Ion 85.00
Ion 87.00
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 4.814 5735 0.1224 0.1946 100
4.849 1113 19
2 4.849 3930 0.08389 0.1334 100 a
4.849 1113 28
3 4.935 3345 0.07141 0.1135 100 a
4.935 471 14
Assign Peak...
Compound: Freon 12
Update Method Expected RTs
Time New Time
4.797

Before

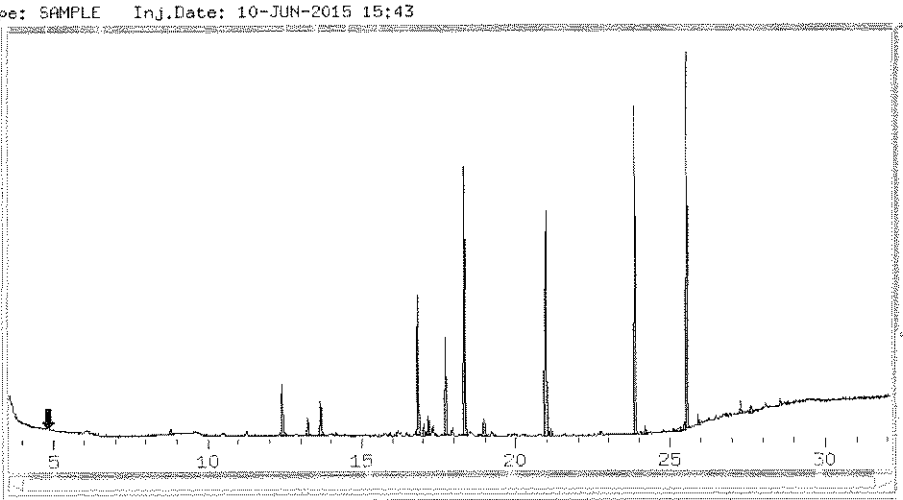
TargetReview: easyorc 1506153A-01A /Chem/msd20.i/10Jun2015.b/20061008.d

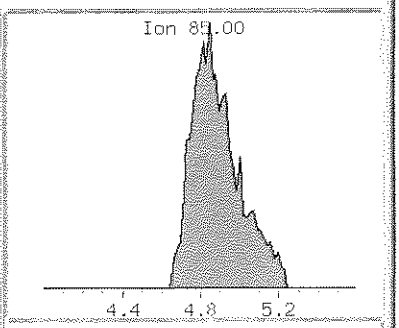
File Security Edit Display Process Spectra Help

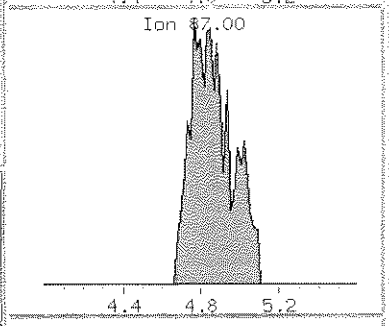
Sample: 1506153A-01A Type: SAMPLE Inj.Date: 10-JUN-2015 15:43

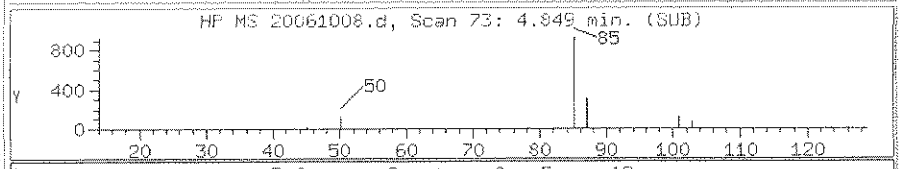
*! 11 Freon 12
15 Freon 114
+ 17 Chloromethane
25 Vinyl Chloride
26 1,3-Butadiene
29 Bromomethane
30 Chloroethane
+ 35 Freon 11
+ 42 Ethanol
+ 49 Freon 113
50 1,1-Dichloroetl
+ 52 Acetone
56 Carbon Disulfi
+ 57 2-Propanol
58 3-Chloropropen
+ 66 Methylene Chlo
72 Methyl tert-bu
73 trans-1,2-Dich
+ 78 Hexane
82 1,1-Dichloroetl
91 cis-1,2-Dichlo
+ 92 2-Butanone
+ 99 Tetrahydrofura
*+ 98 Bromochlorometl
+ 100 Chloroform

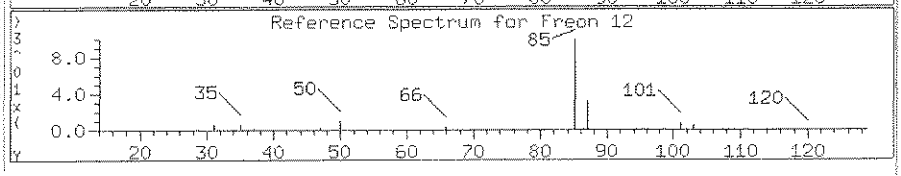
20061008.d
20061009.d
20061010.d
20061011.d











Manual Int

Time: 4.762
Area: 4653
Height: 317

Done
Help

Snap to Data
Snap to Int Marks
Overlap Peaks
Assign Baseline
Split Peak

#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
	4.849	14420	0.3078	0.4894	100	M	
	4.762	4653			32		

Mark Freon 12 Undetected.

Assign Peak...

Compound: Freon 12

Update Method Expected RTs

Time	New Time
4.797	

After Mc blisler

Correct Baseline	
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	✓

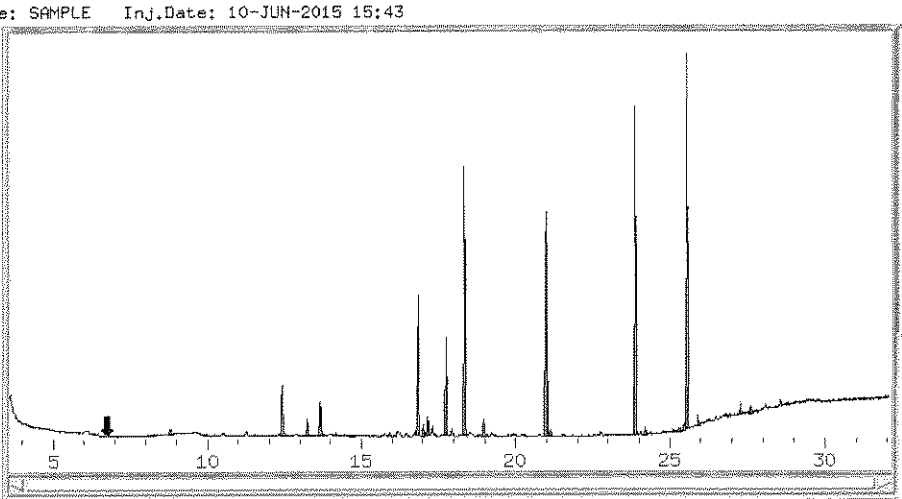
TargetReview: eeyore: 1506153-01A: /chem/msd20.i/10.Jun2015.b/20061008.d

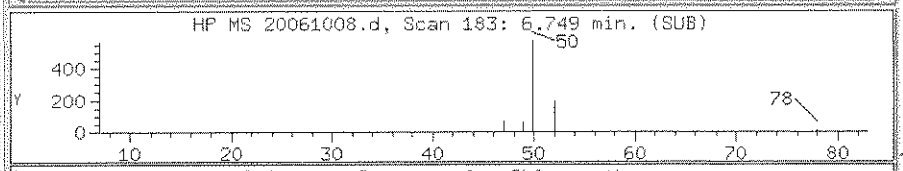
File Security Edit Display Process Spectra Help

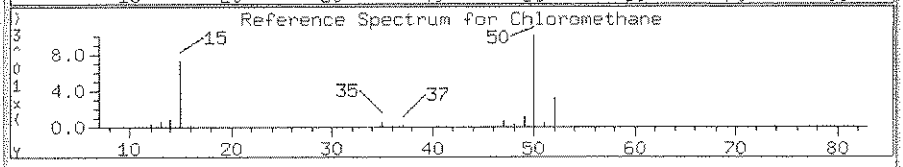
Sample: 1506153-01A Type: SAMPLE Inj.Date: 10-JUN-2015 15:43

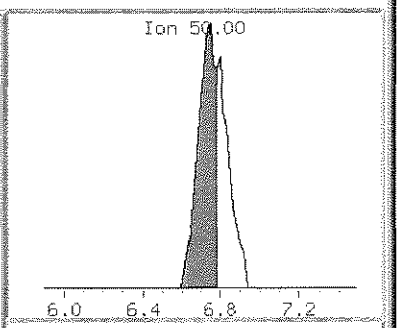
+! 11 Freon 12
15 Freon 114
+ 17 Chloromethane
25 Vinyl Chloride
26 1,3-Butadiene
29 Bromomethane
30 Chloroethane
+ 35 Freon 11
+ 42 Ethanol
+ 49 Freon 113
50 1,1-Dichloroeth
+ 52 Acetone
56 Carbon Disulfi
+ 57 2-Propanol
58 3-Chloropropen
+ 66 Methylene Chlo
72 Methyl tert-bu
73 trans-1,2-Dich
+ 78 Hexane
82 1,1-Dichloroeth
91 cis-1,2-Dichlo
+ 92 2-Butanone
+ 99 Tetrahydrofura
*+ 98 Bromochlorometh
+ 100 Chloroform

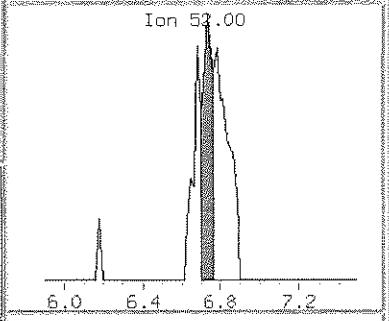
20061008.d
20061009.d
20061010.d
20061011.d











Manual Int

Time: 6.801
Area: 2537
Height: 500

Done
Help

- Snap to Data
- Snap to Int Marks
- Overlap Peaks
- Assign Baseline
- Split Peak

RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
6.749	3868	0.2800	0.4452	100	a	
6.732	916			24		
6.801	2548	0.1844	0.2932	100	a	
6.784	1113			44		

Mark Chloromethane Undetected.

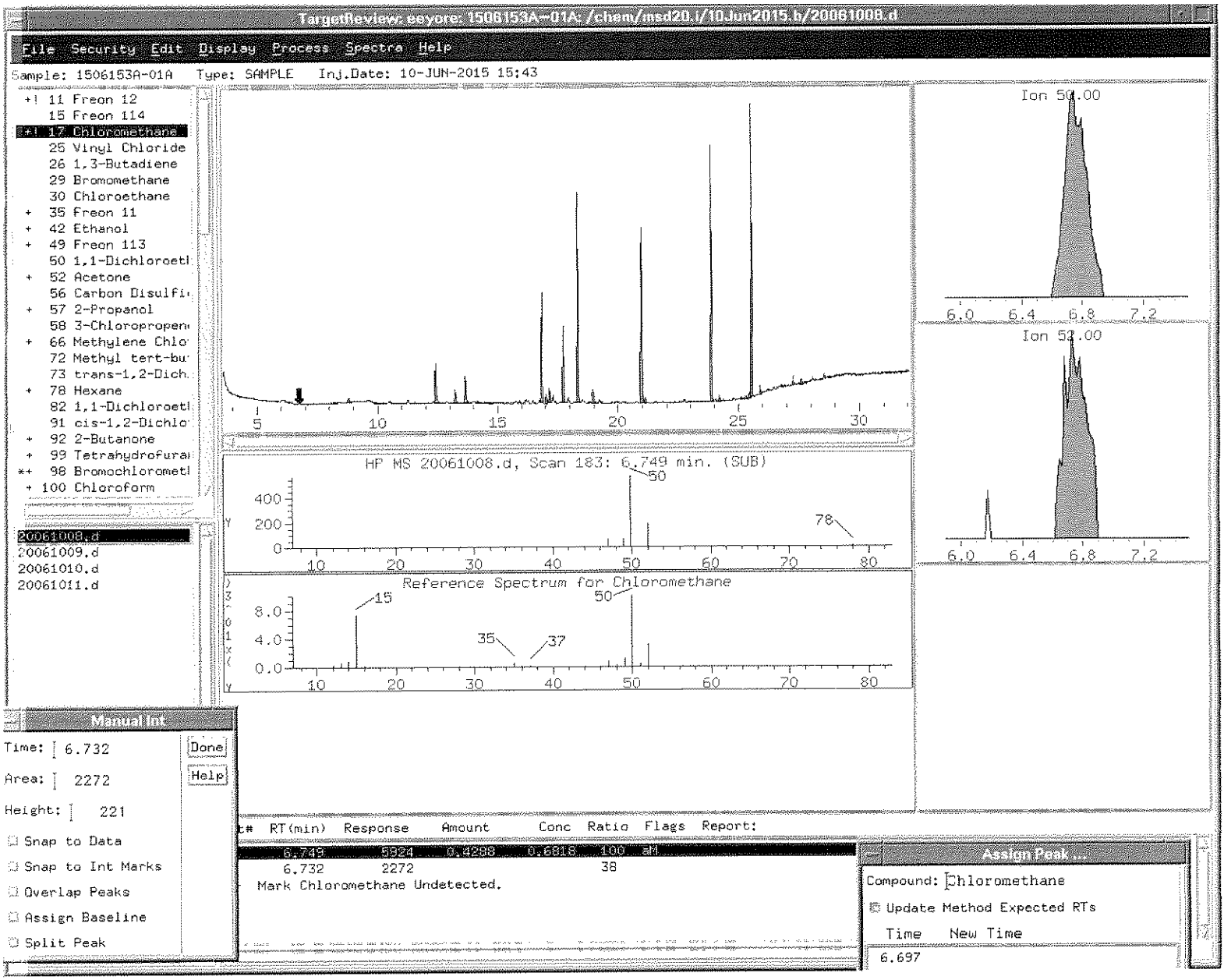
Assign Peak...

Compound: Chloromethane

Update Method Expected RTs

Time	New Time
6.697	

Before



After Mc Girlin

Correct Baseline	
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	✓

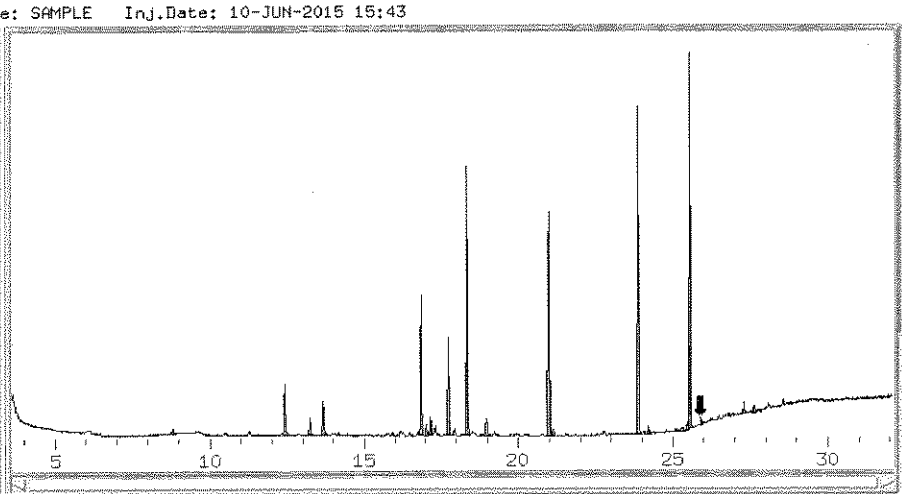
TargetReview: eeyore: 1506153-01A: /chem/msd20.i/10.Jun2015.b/20061008.d

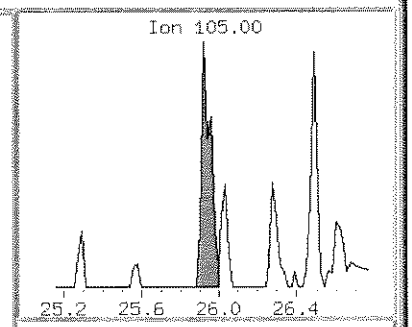
File Security Edit Display Process Spectra Help

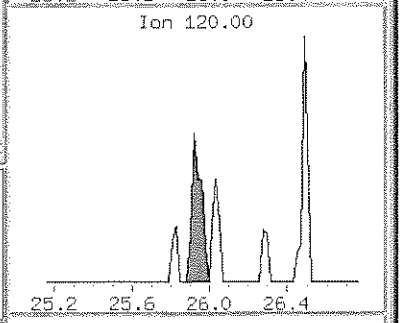
Sample: 1506153-01A Type: SAMPLE Inj.Date: 10-JUN-2015 15:43

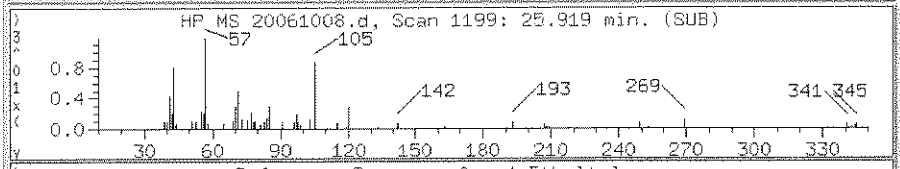
150 trans-1,3-Dich
155 1,1,2-Trichlor
156 Tetrachloroeth
158 2-Hexanone
160 Dibromochlorom
161 1,2-Dibromoeth
*+ 163 Chlorobenzene-
165 Chlorobenzene
!167 Ethyl Benzene
+ 169 m,p-Xylene
171 o-Xylene
172 Styrene
!174 Bromoform
175 Cumene
$+ 177 4-Bromofluorob
181 1,1,2,2-Tetrac
182 Propylbenzene
+ 188 4-Ethyltoluene
!190 1,3,5-Trimethy
+ 196 1,2,4-Trimethy
208 1,3-Dichlorobe
209 1,4-Dichlorobe
212 alpha-Chloroto
214 1,2-Dichlorobe
226 1,2,4-Trichlor

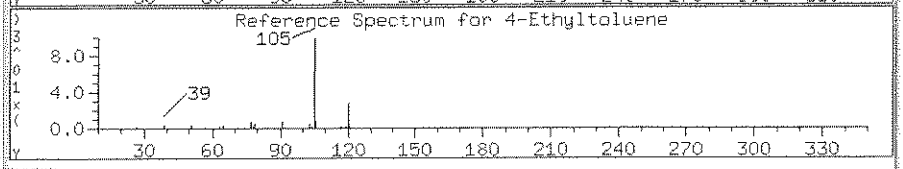
20061008.d
20061009.d
20061010.d
20061011.d











Manual Int

Time: 6.732
Area: 2272
Height: 221

Done
Help

- Snap to Data
- Snap to Int Marks
- Overlap Peaks
- Assign Baseline
- Split Peak

RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
25.919	2816	0.04710	0.07489	100	a	
25.919	1012			36		

Mark 4-Ethyltoluene Undetected.

Assign Peak...

Compound: 4-Ethyltoluene

Update Method Expected RTs

Time	New Time
25.960	

Before

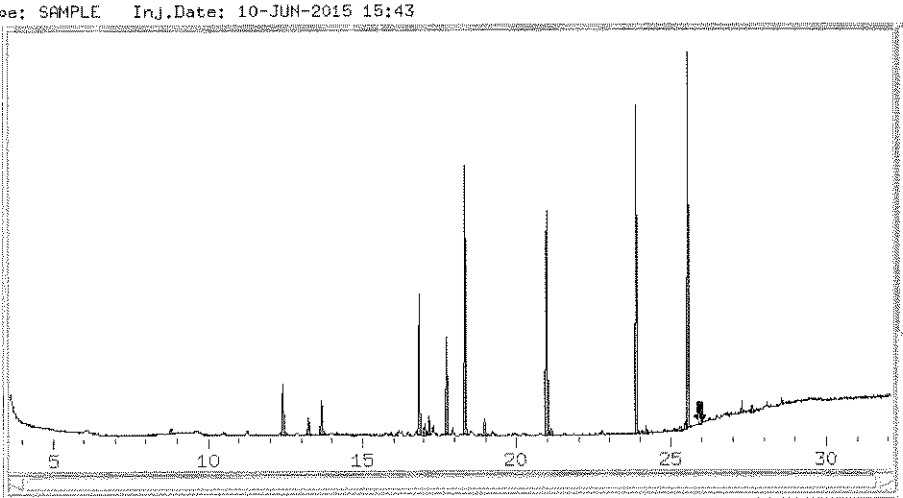
TargetReview: eeyore: 1506153A-01A: /chem/msd20.f/10Jun2015.b/20061008.d

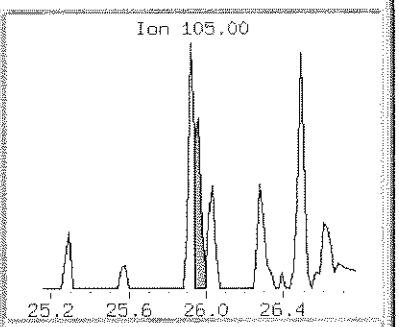
File Security Edit Display Process Spectra Help

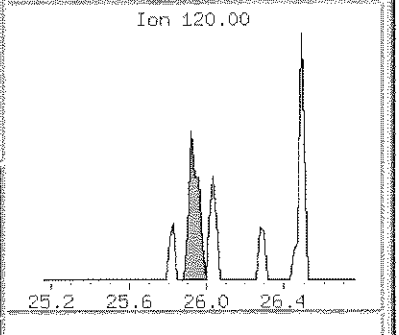
Sample: 1506153A-01A Type: SAMPLE Inj.Date: 10-JUN-2015 15:43

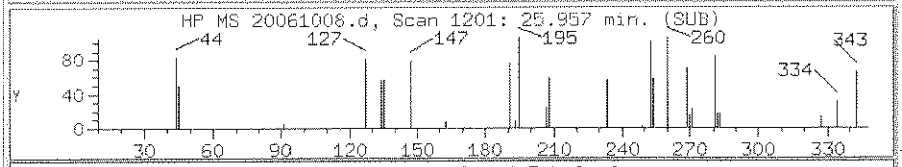
160 Dibromochlorom
161 1,2-Dibromoeth.
*+ 163 Chlorobenzene-
165 Chlorobenzene
!167 Ethyl Benzene
+ 169 m,p-Xylene
171 o-Xylene
172 Styrene
!174 Bromoform
175 Cumene
*+ 177 4-Bromofluorob
181 1,1,2,2-Tetrac
182 Propylbenzene
*!188 4-Ethyltoluene
!190 1,3,5-Trimethy.
+ 196 1,2,4-Trimethy.
208 1,3-Dichlorobe
209 1,4-Dichlorobe
212 alpha-Chloroto.
214 1,2-Dichlorobe
226 1,2,4-Trichlor
227 Hexachlorobuta
228 Naphthalene
Unk: Acetaldehyde
Unk: Cyclohexane,

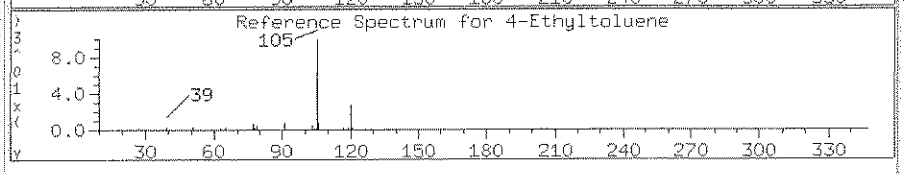
20061008.d
20061009.d
20061010.d
20061011.d











Manual Int

Time: 25.957
Area: 1599
Height: 602

Done
Help

Snap to Data
Snap to Int Marks
Overlap Peaks
Assign Baseline
Split Peak

t#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
	25.957	1599	0.02674	0.04252	100	aM	
	25.919	1012			63		

Mark 4-Ethyltoluene Undetected.

Assign Peak...

Compound: 4-Ethyltoluene

Update Method Expected RTs

Time New Time

25.960

After Mc 6/16/15

Correct Baseline	
Split Peak	✓
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	Mc 6/16/15

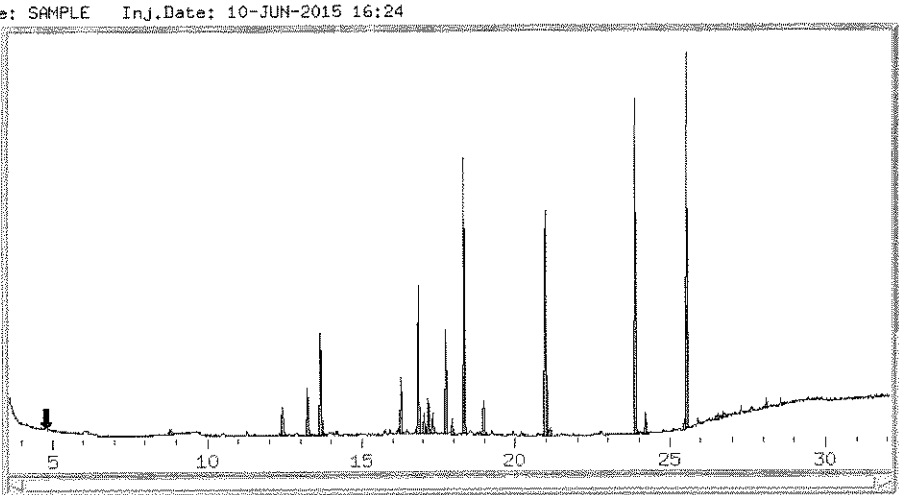
TargetReview: eeyore: 1506153-02A: /chem/msd20.i/10Jun2015.b/20061009.d

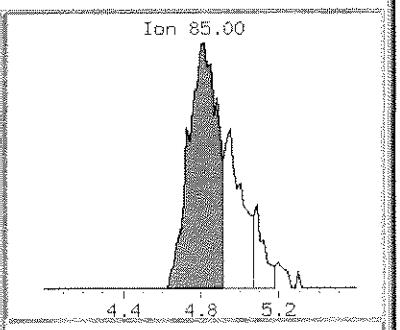
File Security Edit Display Process Spectra Help

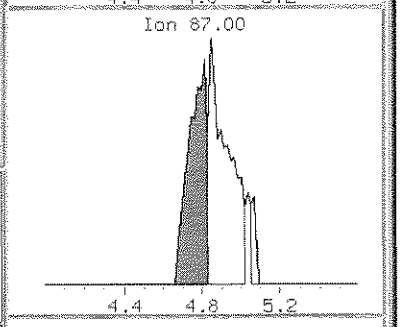
Sample: 1506153-02A Type: SAMPLE Inj.Date: 10-JUN-2015 16:24

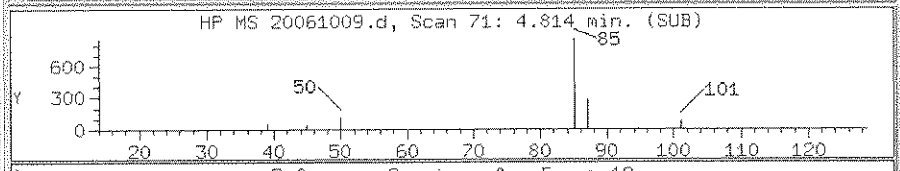
+ 11 Freon 12
15 Freon 114
+ 17 Chloromethane
25 Vinyl Chloride
26 1,3-Butadiene
29 Bromomethane
30 Chloroethane
+ 35 Freon 11
+ 42 Ethanol
+ 49 Freon 113
50 1,1-Dichloroetl
+ 52 Acetone
56 Carbon Disulfi
+ 57 2-Propanol
58 3-Chloropropen
+ 66 Methylene Chlo
72 Methyl tert-bu
73 trans-1,2-Dich
+ 78 Hexane
82 1,1-Dichloroetl
91 cis-1,2-Dichlo
+ 92 2-Butanone
+ 99 Tetrahydrofura
++ 98 Bromochlorometl
+ 100 Chloroform

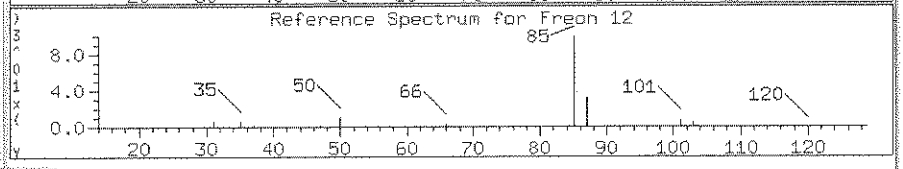
20061008.d
20061009.d
20061010.d
20061011.d











Manual Int

Time: 25.919
Area: 1820
Height: 868

Done
Help

- Snap to Data
- Snap to Int Marks
- Overlap Peaks
- Assign Baseline
- Split Peak

RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
4.814	9128	0.1962	0.3258	100		
4.814	1850			20		
4.952	3885	0.08354	0.1387	100	a	
4.849	2186			56		
5.091	1156	0.02487	0.04128	100	a	
5.073	212			18		

Assign Peak ...

Compound: Freon 12

Update Method Expected RTs

Time	New Time
4.797	

Before

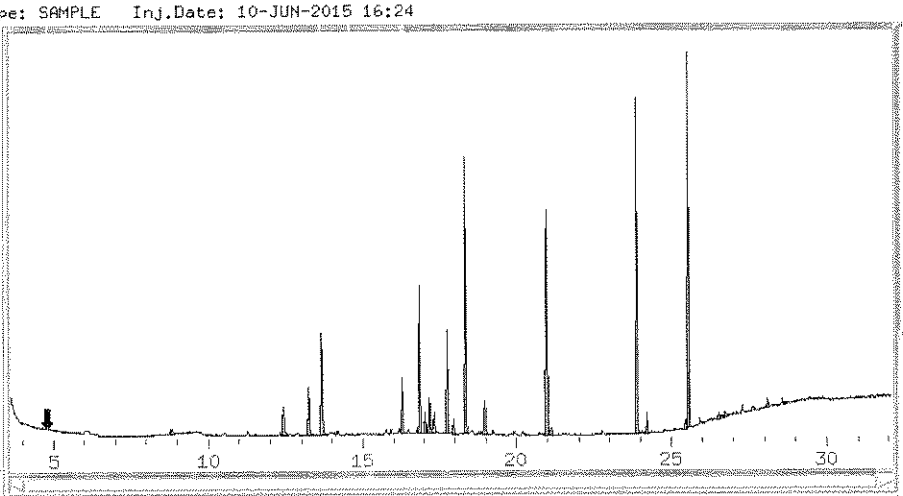
TargetReview: eeyore: 1506153A-02A: /chem/msd20.i/10Jun2015.b/20061009.d

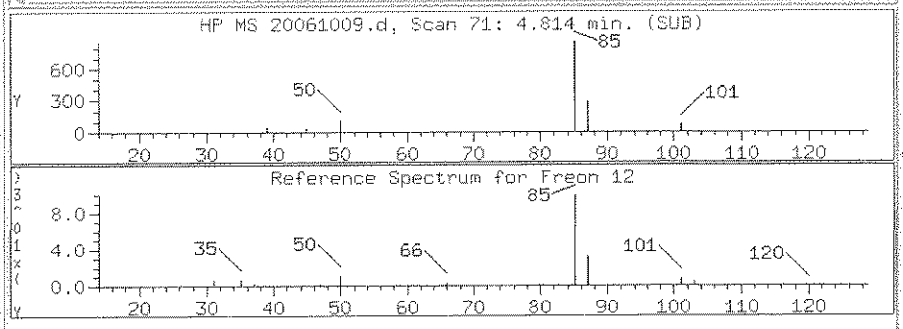
File Security Edit Display Process Spectra Help

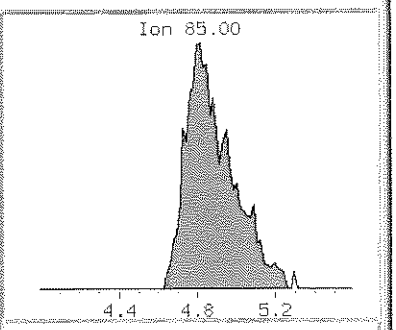
Sample: 1506153A-02A Type: SAMPLE Inj.Date: 10-JUN-2015 16:24

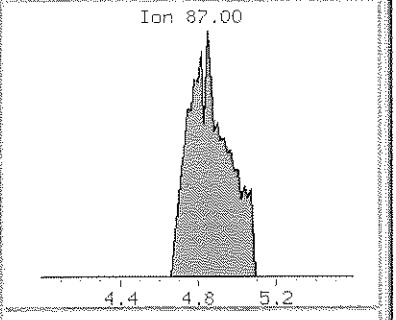
*1 11 Freon 12
15 Freon 114
+ 17 Chloromethane
25 Vinyl Chloride
26 1,3-Butadiene
29 Bromomethane
30 Chloroethane
+ 35 Freon 11
+ 42 Ethanol
+ 49 Freon 113
50 1,1-Dichloroetl
+ 52 Acetone
56 Carbon Disulfi
+ 57 2-Propanol
58 3-Chloropropen
+ 66 Methylene Chlo
72 Methyl tert-bu
73 trans-1,2-Dich.
+ 78 Hexane
82 1,1-Dichloroetl
91 cis-1,2-Dichlo
+ 92 2-Butanone
+ 99 Tetrahydrofura
*+ 98 Bromochlorometl
+ 100 Chloroform

20061008.d
20061009.d
20061010.d
20061011.d









Manual Int

Time: 4.849
Area: 4169
Height: 303

Done
Help

Snap to Data
Snap to Int Marks
Overlap Peaks
Assign Baseline
Split Peak

t#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
	4.814	13759	0.2958	0.4910	100	M	
	4.849	4169			30		

Mark Freon 12 Undetected.

Assign Peak...

Compound: Freon 12

Update Method Expected RTs

Time New Time

4.797

After CMC 6/17/16

Correct Baseline	
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	✓

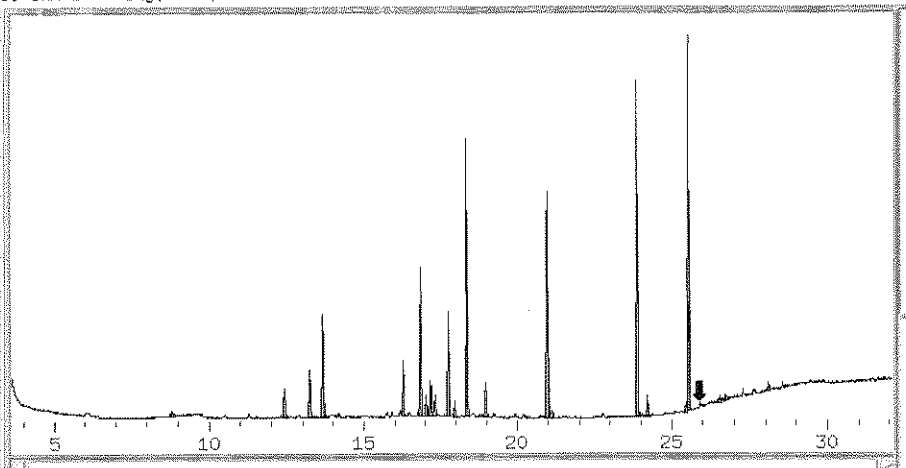
TargetReview: eeyore: 1506153-02A: /chem/msd20.i/10Jun2015.b/20061009.d

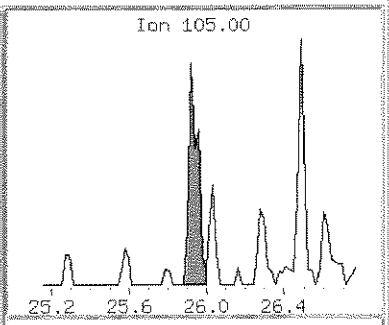
File Security Edit Display Process Spectra Help

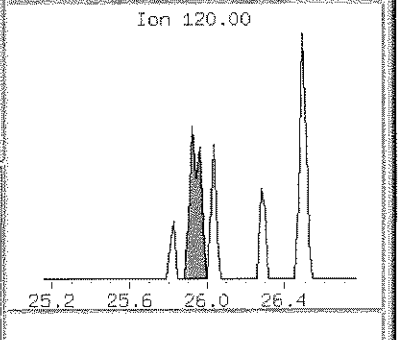
Sample: 1506153-02A Type: SAMPLE Inj.Date: 10-JUN-2015 16:24

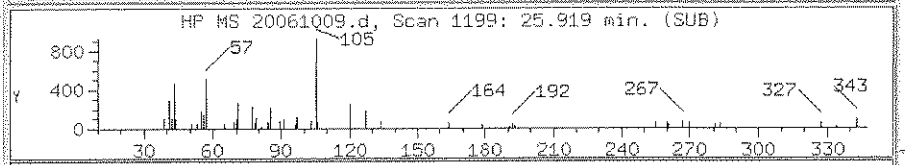
*+ 146 Toluene-d8
+ 147 Toluene
150 trans-1,3-Dich.
!155 1,1,2-Trichlor
156 Tetrachloroeth
158 2-Hexanone
160 Dibromochlorom
161 1,2-Dibromoeth.
*+ 163 Chlorobenzene-
165 Chlorobenzene
!167 Ethyl Benzene
+ 169 m,p-Xylene
171 o-Xylene
172 Styrene
!174 Bromoform
175 Cumene
$+ 177 4-Bromofluorob
181 1,1,2,2-Tetrac
182 Propylbenzene
+ 188 4-Ethyltoluene
+ 190 1,3,5-Trimethy.
+ 196 1,2,4-Trimethy.
208 1,3-Dichlorobe
209 1,4-Dichlorobe
212 alpha-Chloroto.

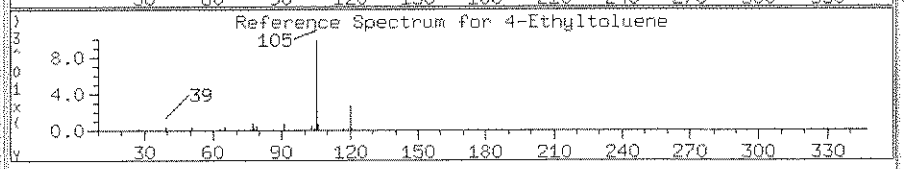
20061008.d
20061009.d
20061010.d
20061011.d











Manual Int

Time: 4.849
Area: 4169
Height: 303

Done
Help

- Snap to Data
- Snap to Int Marks
- Overlap Peaks
- Assign Baseline
- Split Peak

RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
25.919	2919	0.04927	0.08179	100	a	
25.919	955			33		

Mark 4-Ethyltoluene Undetected.

Assign Peak ...

Compound: 4-Ethyltoluene

Update Method Expected RTs

Time	New Time
25.960	

Before

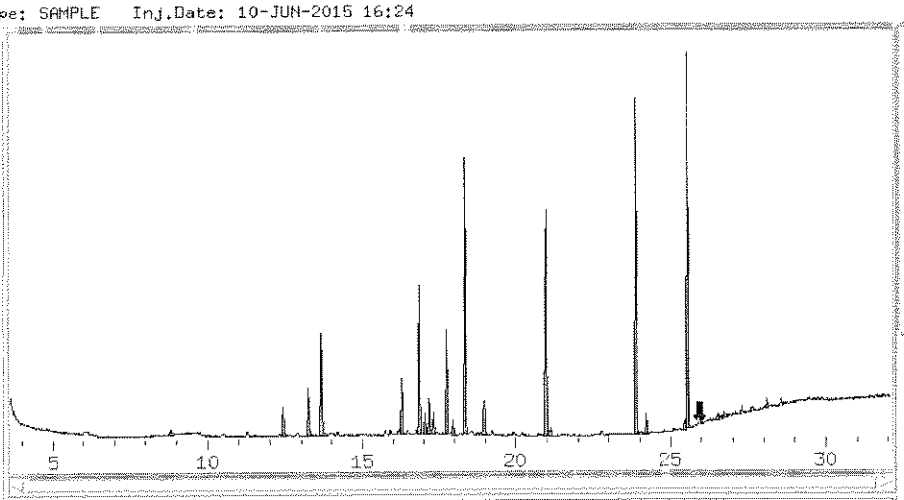
TargetReview: eeyore: 1506153A-02A: /chem/msd20.i/10Jun2015.b/20061009.d

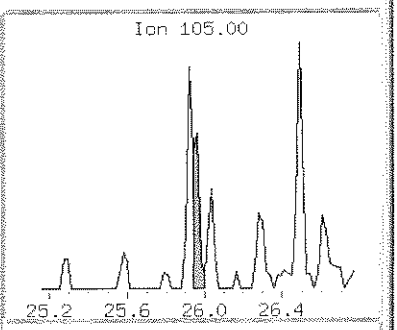
File Security Edit Display Process Spectra Help

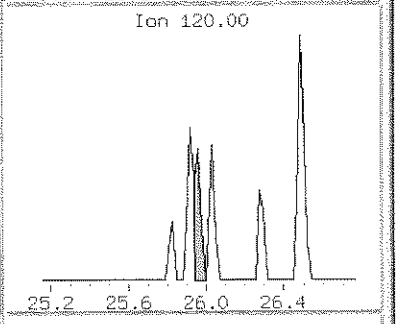
Sample: 1506153A-02A Type: SAMPLE Inj.Date: 10-JUN-2015 16:24

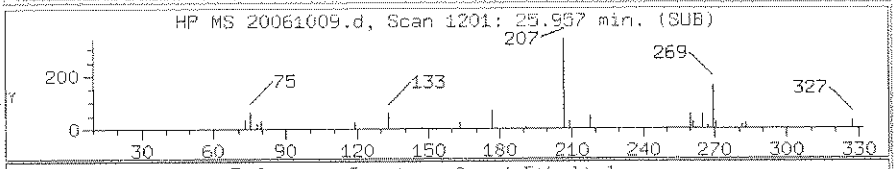
158 2-Hexanone
160 Dibromochlorom
161 1,2-Dibromoeth
** 163 Chlorobenzene-
165 Chlorobenzene
!167 Ethyl Benzene
+ 169 m,p-Xylene
171 o-Xylene
172 Styrene
!174 Bromoform
175 Cumene
** 177 4-Bromofluorob
181 1,1,2,2-Tetracl
182 Propylbenzene
+!188 4-Ethyltoluene
!190 1,3,5-Trimethy
+ 196 1,2,4-Trimethy
208 1,3-Dichlorobe
209 1,4-Dichlorobe
212 alpha-Chloroto
214 1,2-Dichlorobe
226 1,2,4-Trichlor
227 Hexachlorobuta
228 Naphthalene
Unk: Unknown

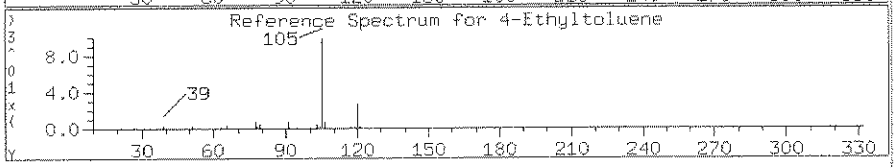
20061008.d
20061009.d
20061010.d
20061011.d











Manual Int

Time: 25.957
Area: 1594
Height: 650

Done
Help

Snap to Data
Snap to Int Marks
Overlap Peaks
Assign Baseline
Split Peak

#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
	25.957	1594	0.02691	0.04467	100	aM	
	25.957	564			35		

Mark 4-Ethyltoluene Undetected.

Assign Peak...

Compound: 4-Ethyltoluene

Update Method Expected RTs

Time	New Time
25.960	

After VM c 6ln-1u

Correct Baseline	
Split Peak	✓
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

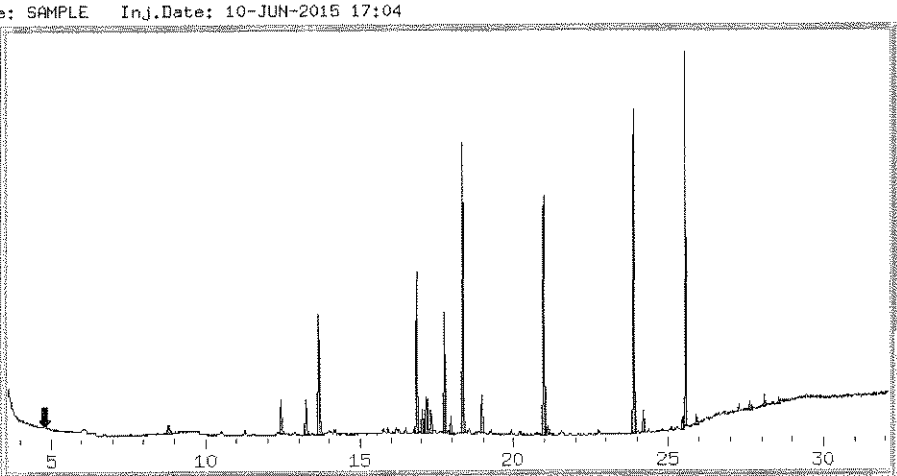
TargetReview: eeyore: 1506153-03A: /chem/msd20.i/10Jun2015.b/20061010.d

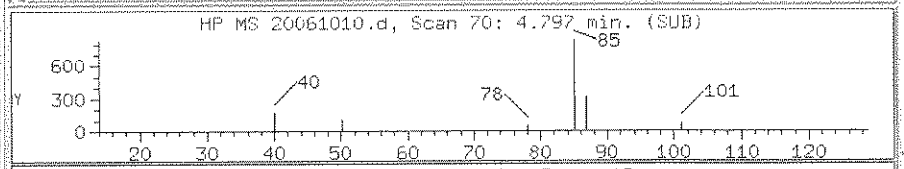
File Security Edit Display Process Spectra Help

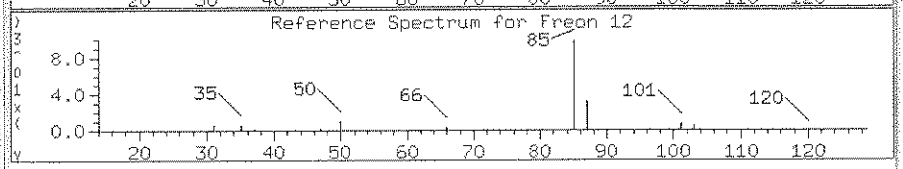
Sample: 1506153-03A Type: SAMPLE Inj.Date: 10-JUN-2015 17:04

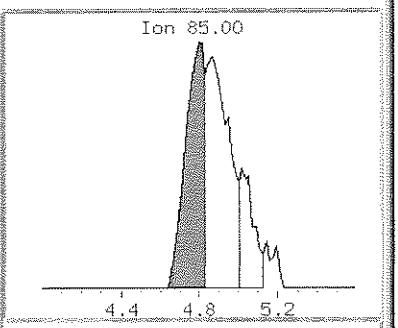
*	11	Freon 12
	15	Freon 114
+	17	Chloromethane
	25	Vinyl Chloride
	26	1,3-Butadiene
	29	Bromomethane
	30	Chloroethane
+	35	Freon 11
+	42	Ethanol
+	49	Freon 113
	50	1,1-Dichloroetl
+	52	Acetone
	56	Carbon Disulfi
+	57	2-Propanol
	58	3-Chloropropen
+	66	Methylene Chlo
	72	Methyl tert-bu
	73	trans-1,2-Dich
+	78	Hexane
	82	1,1-Dichloroetl
	91	cis-1,2-Dichlo
+	92	2-Butanone
+	99	Tetrahydrofura
**	98	Bromochlorometl
+	100	Chloroform

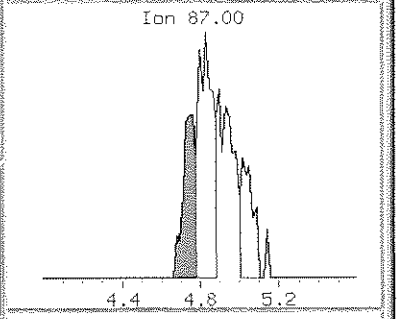
20061008.d
20061009.d
20061010.d
20061011.d











Manual Int

Time: 25.919
Area: 1974
Height: 927

Done
Help

- Snap to Data
- Snap to Int Marks
- Overlap Peaks
- Assign Baseline
- Split Peak

RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
4.797	6051	0.1298	0.1986	100		
4.763	1067			18		
4.866	6949	0.1491	0.2281	100		
4.832	1840			26		
5.022	2245	0.04818	0.07371	100	a	
5.022	759			34		

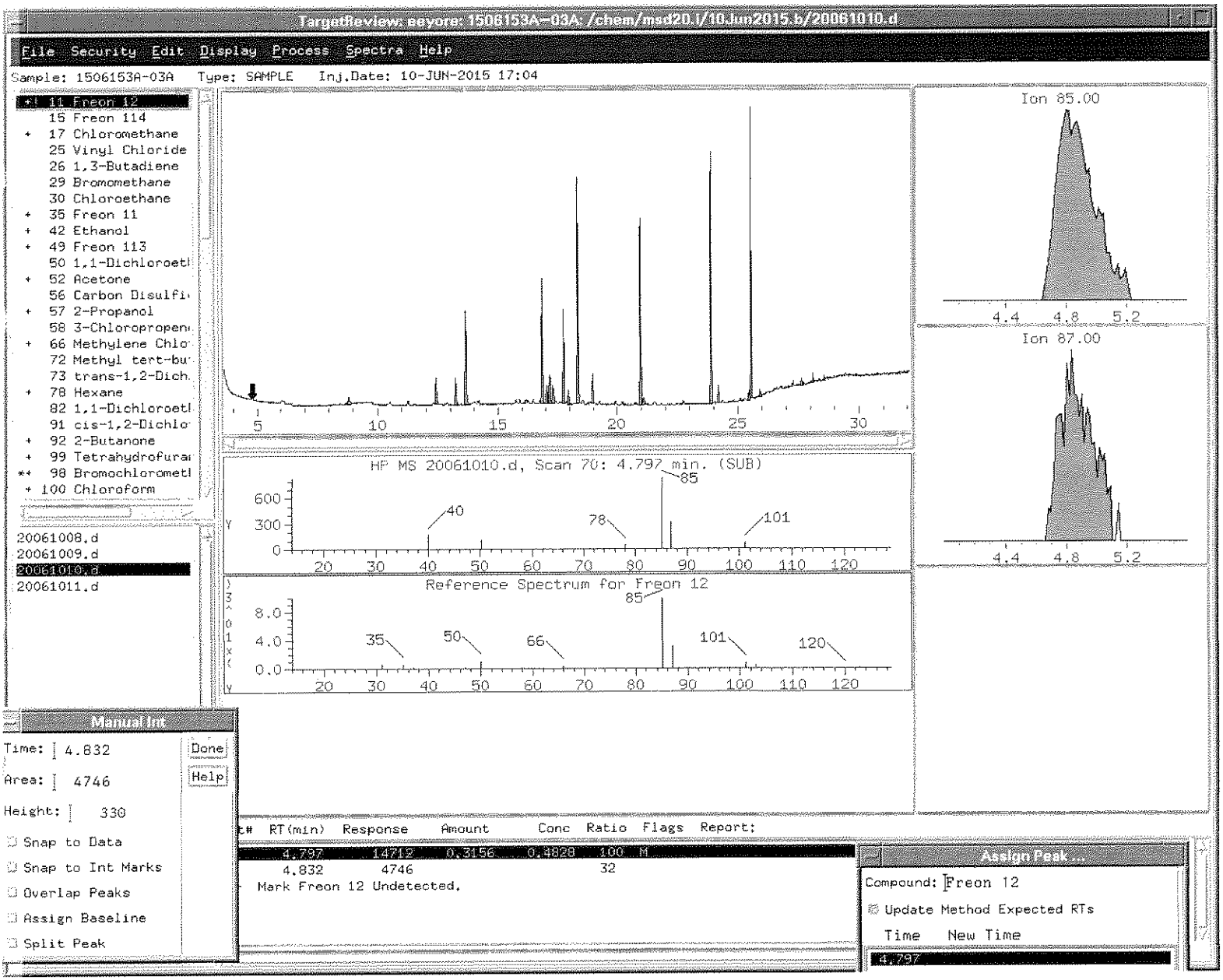
Assign Peak...

Compound: Freon 12

Update Method Expected RTs

Time	New Time
4.797	

Before



After mr 6/12/15

Correct Baseline	
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	✓

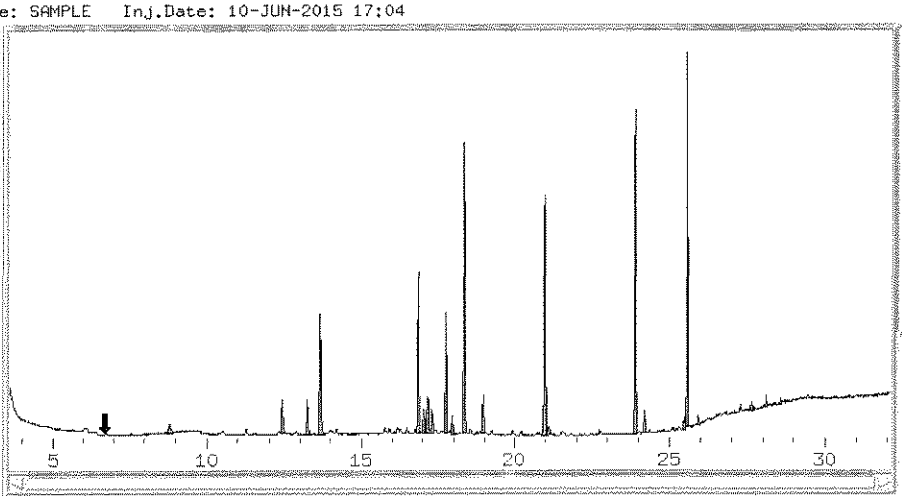
TargetReview: eeyore: 1506153-03A. /chem/msd20.i/10Jun2015.b/20061010.d

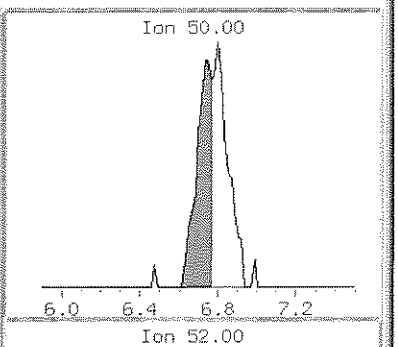
File Security Edit Display Process Spectra Help

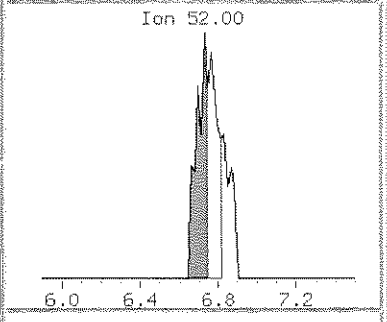
Sample: 1506153-03A Type: SAMPLE Inj.Date: 10-JUN-2015 17:04

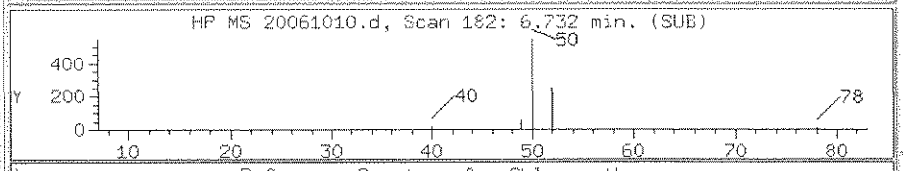
+! 11 Freon 12
15 Freon 114
+ 17 Chloromethane
25 Vinyl Chloride
26 1,3-Butadiene
29 Bromomethane
30 Chloroethane
+ 35 Freon 11
+ 42 Ethanol
+ 49 Freon 113
50 1,1-Dichloroetl
+ 52 Acetone
56 Carbon Disulfi
+ 57 2-Propanol
58 3-Chloropropen
+ 66 Methylene Chlo
72 Methyl tert-bu
73 trans-1,2-Dich
+ 78 Hexane
82 1,1-Dichloroetl
91 cis-1,2-Dichlo
+ 92 2-Butanone
+ 99 Tetrahydrofura
*+ 98 Bromochlorometl
+ 100 Chloroform

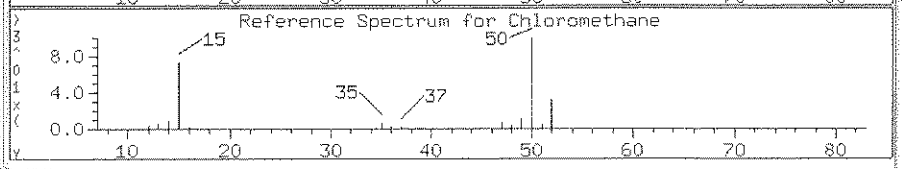
20061008.d
20061009.d
20061010.d
20061011.d











Manual Int

Time: 4.832
Area: 4746
Height: 330

Done
Help

- Snap to Data
- Snap to Int Marks
- Overlap Peaks
- Assign Baseline
- Split Peak

RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
6.732	3136	0.2281	0.3490	100	a	
6.732	1031			33		
6.801	3546	0.2579	0.3946	100	a	
6.766	938			26		

Mark Chloromethane Undetected.

Assign Peak ...

Compound: Chloromethane

Update Method Expected RTs

Time	New Time
25.960	

Before

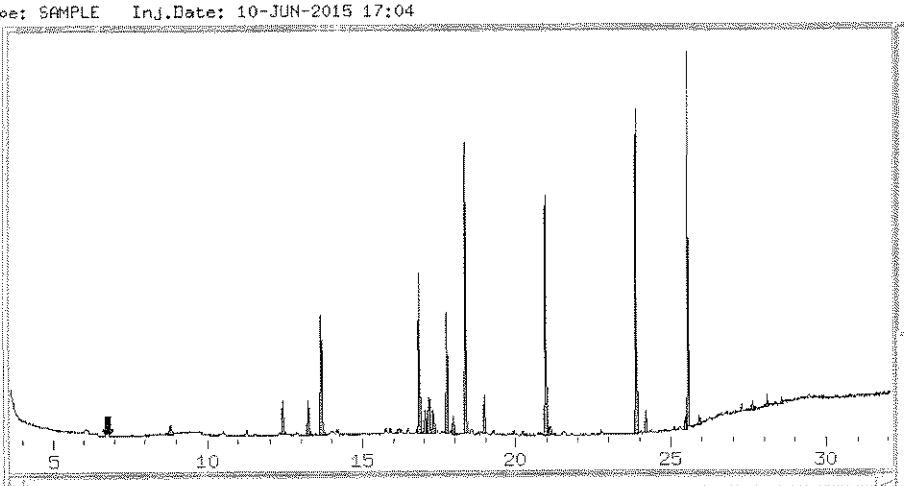
TargetReview: eeyore: 1506153A-03A: /chem/msd20.i/10Jun2015.b/20061010.d

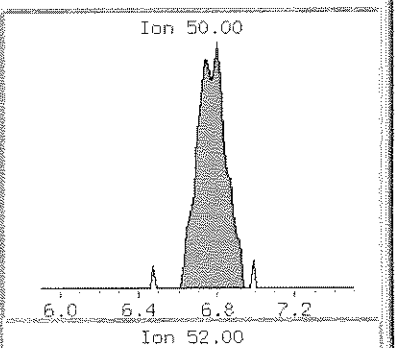
File Security Edit Display Process Spectra Help

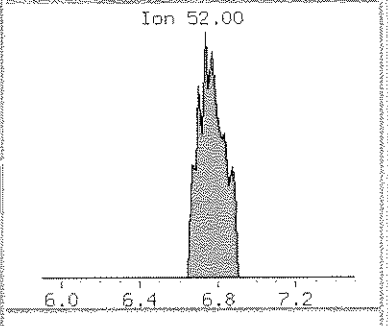
Sample: 1506153A-03A Type: SAMPLE Inj.Date: 10-JUN-2015 17:04

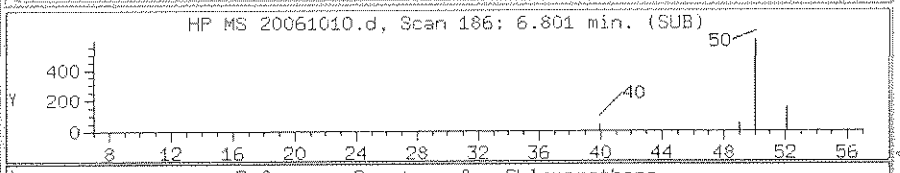
+! 11 Freon 12
15 Freon 114
+! 17 Chloromethane
25 Vinyl Chloride
26 1,3-Butadiene
29 Bromomethane
30 Chloroethane
+ 35 Freon 11
+ 42 Ethanol
+ 49 Freon 113
50 1,1-Dichloroetl
+ 52 Acetone
56 Carbon Disulfi
+ 57 2-Propanol
58 3-Chloropropen
+ 66 Methylene Chlo
72 Methyl tert-bu
73 trans-1,2-Dich.
+ 78 Hexane
82 1,1-Dichloroetl
91 cis-1,2-Dichlo
+ 92 2-Butanone
+ 99 Tetrahydrofura
*+ 98 Bromochlorometl
+ 100 Chloroform

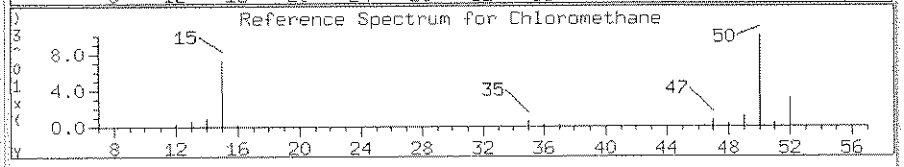
20061008.d
20061009.d
20061010.d
20061011.d











Manual Int

Time: 6.732
Area: 2227
Height: 246

Done
Help

Snap to Data
Snap to Int Marks
Overlap Peaks
Assign Baseline
Split Peak

#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
	6.801	6165	0.4484	0.6861	100	aM	
	6.732	2227			36		

Mark Chloromethane Undetected.

Assign Peak...

Compound: Chloromethane

Update Method Expected RTs

Time	New Time
6.697	

After

Correct Baseline	
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	✓
Corrected Peak Integration	

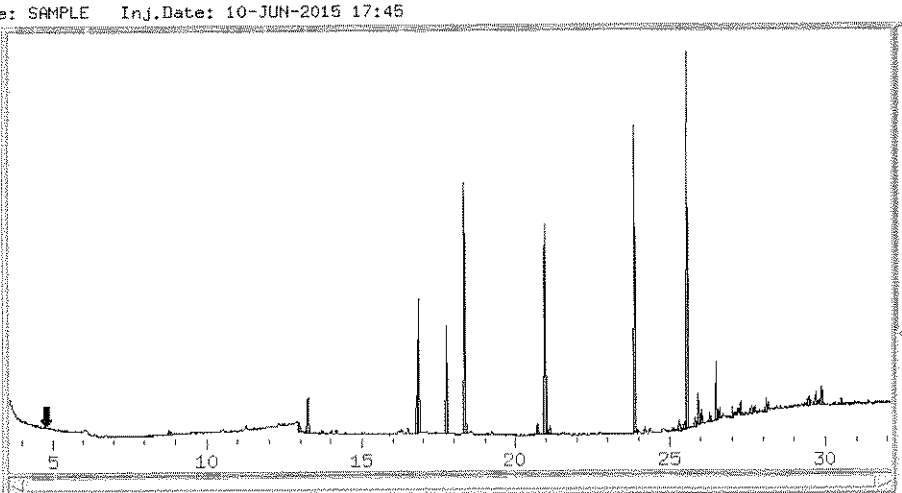
TargetReview: eeyore: 1506153-04A: /chem/msd20.i/10Jun2015.b/20061011.d

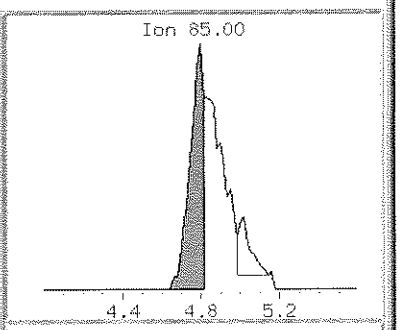
File Security Edit Display Process Spectra Help

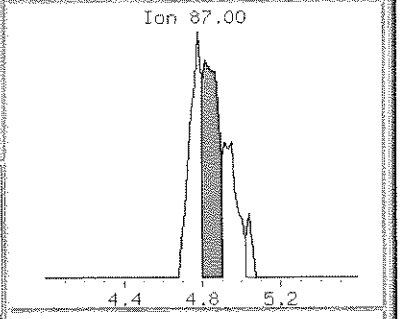
Sample: 1506153-04A Type: SAMPLE Inj.Date: 10-JUN-2015 17:45

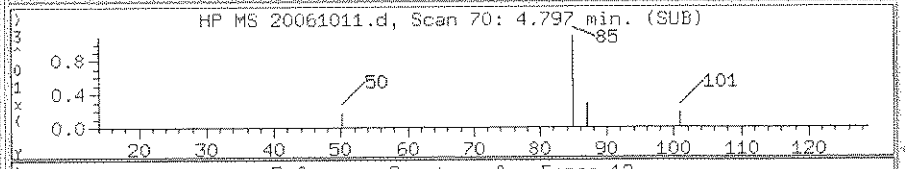
+ 11 Freon 12
15 Freon 114
+ 17 Chloromethane
25 Vinyl Chloride
26 1,3-Butadiene
29 Bromomethane
30 Chloroethane
+ 35 Freon 11
+ 42 Ethanol
+ 49 Freon 113
50 1,1-Dichloroetl
+ 52 Acetone
56 Carbon Disulfi
+ 57 2-Propanol
58 3-Chloropropen
+ 66 Methylene Chlo
72 Methyl tert-bu
73 trans-1,2-Dich.
+ 78 Hexane
82 1,1-Dichloroetl
91 cis-1,2-Dichlo
+ 92 2-Butanone
99 Tetrahydrofura
** 98 Bromochlorometl
100 Chloroform

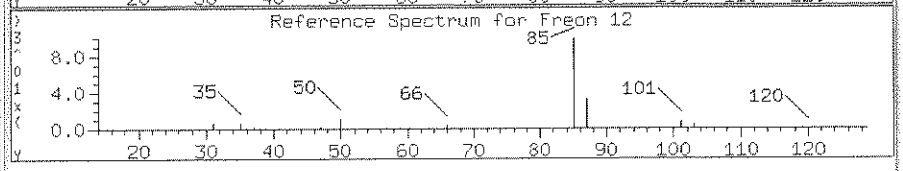
20061008.d
20061009.d
20061010.d
20061011.d











Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	4.797	5361	0.1241	0.2098	100		
	4.814	2012			38		
2	5.022	1161	0.02690	0.04547	100	a	
	5.039	211			18		

- Mark Freon 12 Undetected.

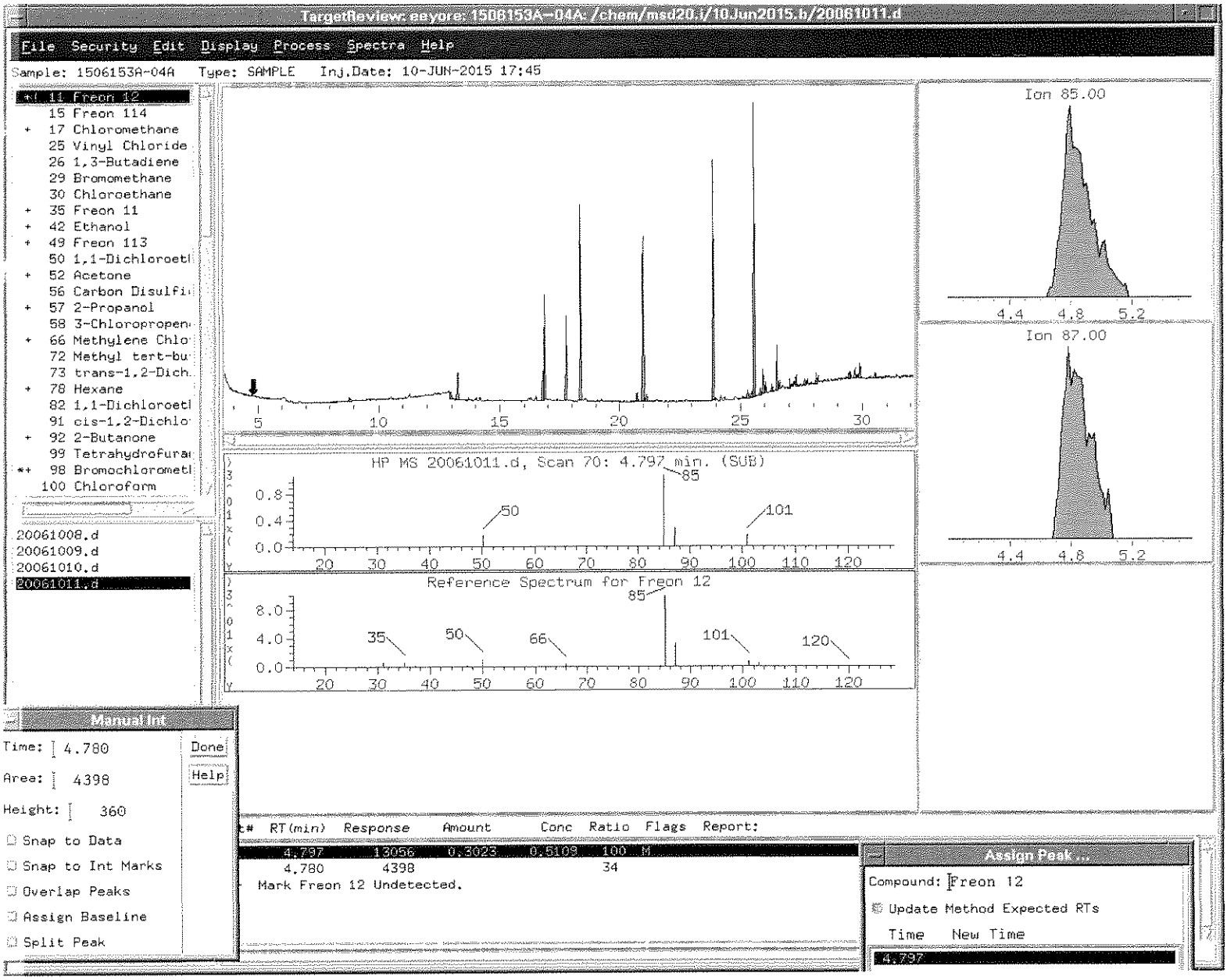
Assign Peak ...

Compound: Freon 12

Update Method Expected RTs

Time	New Time
4.797	

Before



After MA 6/12/15

Correct Baseline	
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	✓

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} - [\text{Init. Pressure ("Hg)})*(14.7\text{psi}/30\text{"Hg})]}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} + \text{Initial Pressure (psi)}}$$

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
0.0	1.34	2.02
0.2	1.35	2.03
0.4	1.36	2.05
0.5	1.36	2.05
0.6	1.37	2.06
0.8	1.38	2.08
1.0	1.39	2.09
1.2	1.40	2.10
1.4	1.40	2.12
1.5	1.41	2.13
1.6	1.42	2.13
1.8	1.42	2.15
2.0	1.44	2.16
2.2	1.45	2.18
2.4	1.46	2.20
2.5	1.46	2.20
2.6	1.47	2.21
2.8	1.48	2.23
3.0	1.49	2.24
3.2	1.50	2.26
3.4	1.51	2.28
3.5	1.52	2.29
3.6	1.52	2.30
3.8	1.53	2.31
4.0	1.55	2.33
4.2	1.56	2.35
4.4	1.57	2.37
4.5	1.58	2.38
4.6	1.58	2.39
4.8	1.60	2.40
5.0	1.61	2.42
5.2	1.62	2.44
5.4	1.63	2.46
5.5	1.64	2.47
5.6	1.65	2.48
5.8	1.66	2.50
6.0	1.68	2.52
6.2	1.69	2.55
6.4	1.70	2.57
6.5	1.71	2.58
6.6	1.72	2.59
6.8	1.73	2.61
7.0	1.75	2.64
7.2	1.76	2.66
7.4	1.78	2.68
7.5	1.79	2.69
7.6	1.79	2.70

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
7.7	1.80	2.72
7.8	1.81	2.73
8.0	1.83	2.76
8.2	1.84	2.78
8.4	1.86	2.81
8.5	1.87	2.82
8.6	1.88	2.83
8.8	1.90	2.86
9.0	1.91	2.89
9.2	1.93	2.91
9.4	1.95	2.94
9.5	1.96	2.96
9.6	1.97	2.97
9.8	1.99	3.00
10.0	2.01	3.03
10.2	2.03	3.06
10.4	2.05	3.09
10.5	2.06	3.11
10.6	2.07	3.12
10.8	2.09	3.16
11.0	2.12	3.19
11.2	2.14	3.22
11.4	2.16	3.26
11.5	2.17	3.28
11.6	2.18	3.29
11.8	2.21	3.33
12.0	2.23	3.37
12.2	2.26	3.40
12.4	2.28	3.44
12.5	2.30	3.46
12.6	2.31	3.48
12.8	2.34	3.52
13.0	2.36	3.56
13.2	2.39	3.61
13.4	2.42	3.65
13.5	2.44	3.67
13.6	2.45	3.70
13.8	2.48	3.74
14.0	2.51	3.79
14.2	2.54	3.84
14.4	2.58	3.88
14.5	2.59	3.91
14.6	2.61	3.94
14.8	2.64	3.99
15.0	2.68	4.04
15.2	2.72	4.10
15.4	2.75	4.15

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
15.5	2.77	4.18
15.6	2.79	4.21
15.8	2.83	4.27
16.0	2.87	4.33
16.2	2.91	4.39
16.4	2.96	4.46
16.5	2.98	4.49
16.6	3.00	4.52
16.8	3.05	4.59
17.0	3.09	4.66
17.2	3.14	4.74
17.4	3.19	4.81
17.5	3.22	4.85
17.6	3.24	4.89
17.8	3.30	4.97
18.0	3.35	5.05
18.2	3.41	5.14
18.4	3.47	5.22
18.5	3.50	5.27
18.6	3.53	5.32
18.8	3.59	5.41
19.0	3.65	5.51
19.2	3.72	5.61
19.4	3.79	5.72
19.5	3.83	5.77
19.6	3.87	5.83
19.8	3.94	5.94
20.0	4.02	6.06
20.2	4.10	6.18
20.4	4.19	6.31
20.5	4.23	6.38
20.6	4.28	6.45
20.8	4.37	6.59
21.0	4.47	6.73
21.2	4.57	6.89
21.4	4.67	7.05
21.5	4.73	7.13
21.6	4.79	7.22
21.8	4.90	7.39
22.0	5.03	7.58
22.4	5.29	7.98

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
22.5	5.36	8.08
22.6	5.43	8.19
22.8	5.58	8.42
23.0	5.74	8.66
23.2	5.91	8.91
23.4	6.09	9.18
23.5	6.19	9.32
23.6	6.28	9.47
23.8	6.48	9.78
24.0	6.70	10.10
24.2	6.93	10.45
24.4	7.18	10.82
24.5	7.31	11.02
24.6	7.45	11.22
24.8	7.73	11.66
25.0	8.04	12.12
25.2	8.38	12.63
25.4	8.74	13.18
25.5	8.93	13.47
25.6	9.14	13.78
25.8	9.57	14.43
26.0	10.05	15.15
26.2	10.58	15.95
26.4	11.17	16.84
26.5	11.49	17.32
26.6	11.82	17.83
26.8	12.56	18.94
27.0	13.40	20.20
27.2	14.36	21.65
27.4	15.46	23.31
27.5	16.08	24.24
27.6	16.75	25.26
27.8	18.27	27.55
28.0	20.10	30.31
28.2	22.34	33.67
28.4	25.13	37.88
28.5	26.80	40.41
28.6	28.72	43.29
28.8	33.50	50.51
29.0	40.20	60.61

Compound List

Modified TO-15-LL + Naph

CAS Number	Compound	Detection Limit ppbv	Type
75-71-8	Freon 12	0.10	
76-14-2	Freon 114	0.10	
75-35-4	1,1-Dichloroethene	0.10	
67-64-1	Acetone	0.50	
67-63-0	2-Propanol	0.50	
75-15-0	Carbon Disulfide	0.50	
75-09-2	Methylene Chloride	0.20	
1634-04-4	Methyl tert-butyl ether	0.10	
156-60-5	trans-1,2-Dichloroethene	0.10	
110-54-3	Hexane	0.10	
75-34-3	1,1-Dichloroethane	0.10	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	0.50	
156-59-2	cis-1,2-Dichloroethene	0.10	
109-99-9	Tetrahydrofuran	0.50	
67-66-3	Chloroform	0.10	
71-55-6	1,1,1-Trichloroethane	0.10	
110-82-7	Cyclohexane	0.10	
56-23-5	Carbon Tetrachloride	0.10	
71-43-2	Benzene	0.10	
107-06-2	1,2-Dichloroethane	0.10	
142-82-5	Heptane	0.10	
79-01-6	Trichloroethene	0.10	
78-87-5	1,2-Dichloropropane	0.10	
123-91-1	1,4-Dioxane	0.10	
75-27-4	Bromodichloromethane	0.10	
10061-01-5	cis-1,3-Dichloropropene	0.10	
108-10-1	4-Methyl-2-pentanone	0.10	
108-88-3	Toluene	0.10	
10061-02-6	trans-1,3-Dichloropropene	0.10	
79-00-5	1,1,2-Trichloroethane	0.10	
127-18-4	Tetrachloroethene	0.10	
591-78-6	2-Hexanone	0.50	
124-48-1	Dibromochloromethane	0.10	
106-93-4	1,2-Dibromoethane (EDB)	0.10	
108-90-7	Chlorobenzene	0.10	
100-41-4	Ethyl Benzene	0.10	
108-38-3	m,p-Xylene	0.10	
95-47-6	o-Xylene	0.10	
100-42-5	Styrene	0.10	
75-25-2	Bromoform	0.10	
98-82-8	Cumene	0.10	
79-34-5	1,1,2,2-Tetrachloroethane	0.10	
103-65-1	Propylbenzene	0.10	
622-96-8	4-Ethyltoluene	0.10	
108-67-8	1,3,5-Trimethylbenzene	0.10	
95-63-6	1,2,4-Trimethylbenzene	0.10	

Compound List

Modified TO-15-LL + Naph

CAS Number	Compound	Detection Limit ppbv	Type
541-73-1	1,3-Dichlorobenzene	0.10	
106-46-7	1,4-Dichlorobenzene	0.10	
100-44-7	alpha-Chlorotoluene	0.10	
95-50-1	1,2-Dichlorobenzene	0.10	
120-82-1	1,2,4-Trichlorobenzene	0.50	
87-68-3	Hexachlorobutadiene	0.50	
91-20-3	Naphthalene	0.50	
17060-07-0	1,2-Dichloroethane-d4		
2037-26-5	Toluene-d8		
460-00-4	4-Bromofluorobenzene		
107-05-1	3-Chloropropene	0.50	
540-84-1	2,2,4-Trimethylpentane	0.50	
74-87-3	Chloromethane	0.50	
75-01-4	Vinyl Chloride	0.10	
106-99-0	1,3-Butadiene	0.10	
74-83-9	Bromomethane	0.50	
75-00-3	Chloroethane	0.50	
75-69-4	Freon 11	0.10	
64-17-5	Ethanol	0.50	
76-13-1	Freon 113	0.10	

eurofins | Air Toxics

Media Certification Report

Canister Number: 6L#33902 w/83ml#FC00786
Can#: 101762-33902
Date : 05/06/15 1:18
Data File: o050531.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6		ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5		ND	ppbv
1,1,2-Trichloroethane	79-00-5		ND	ppbv
1,1-Dichloroethane	75-34-3		ND	ppbv
1,1-Dichloroethene	75-35-4		ND	ppbv
1,2,4-Trichlorobenzene	120-82-1		ND	ppbv
1,2,4-Trimethylbenzene	95-63-6		ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4		ND	ppbv
1,2-Dichlorobenzene	95-50-1		ND	ppbv
1,2-Dichloroethane	107-06-2		ND	ppbv
1,2-Dichloropropane	78-87-5		ND	ppbv
1,3,5-Trimethylbenzene	108-67-8		ND	ppbv
1,3-Butadiene	106-99-0		ND	ppbv
1,3-Dichlorobenzene	541-73-1		ND	ppbv
1,4-Dichlorobenzene	106-46-7		ND	ppbv
1,4-Dioxane	123-91-1		ND	ppbv
2,2,4-Trimethylpentane	540-84-1		ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3		ND	ppbv
2-Hexanone	591-78-6		ND	ppbv
2-Propanol	67-63-0		ND	ppbv
3-Chloropropene	107-05-1		ND	ppbv
4-Ethyltoluene	622-96-8		ND	ppbv
4-Methyl-2-pentanone	108-10-1		ND	ppbv
Acetone	67-64-1		ND	ppbv
alpha-Chlorotoluene	100-44-7		ND	ppbv
Benzene	71-43-2		ND	ppbv
Bromodichloromethane	75-27-4		ND	ppbv
Bromoform	75-25-2		ND	ppbv
Bromomethane	74-83-9		ND	ppbv
Carbon Disulfide	75-15-0		ND	ppbv
Carbon Tetrachloride	56-23-5		ND	ppbv
Chlorobenzene	108-90-7		ND	ppbv
Chloroethane	75-00-3		ND	ppbv
Chloroform	67-66-3		ND	ppbv
Chloromethane	74-87-3		ND	ppbv
cis-1,2-Dichloroethene	156-59-2		ND	ppbv
cis-1,3-Dichloropropene	10061-01-5		ND	ppbv
Cumene	98-82-8		ND	ppbv
Cyclohexane	110-82-7		ND	ppbv
Dibromochloromethane	124-48-1		ND	ppbv
Ethanol	64-17-5		ND	ppbv
Ethyl Benzene	100-41-4		ND	ppbv
Freon 11	75-69-4		ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1		ND	ppbv
Freon 114	76-14-2		ND	ppbv
Freon 12	75-71-8		ND	ppbv
Heptane	142-82-5		ND	ppbv
Hexachlorobutadiene	87-68-3		ND	ppbv
Hexane	110-54-3		ND	ppbv
m,p-Xylene	108-38-3		ND	ppbv
Methyl tert-butyl ether	1634-04-4		ND	ppbv
Methylene Chloride	75-09-2		ND	ppbv
Naphthalene	91-20-3		ND	ppbv
o-Xylene	95-47-6		ND	ppbv
Propylbenzene	103-65-1		ND	ppbv
Styrene	100-42-5		ND	ppbv
Tetrachloroethene	127-18-4		ND	ppbv
Tetrahydrofuran	109-99-9		ND	ppbv
Toluene	108-88-3		ND	ppbv
trans-1,2-Dichloroethene	156-60-5		ND	ppbv
trans-1,3-Dichloropropene	10061-02-6		ND	ppbv
Trichloroethene	79-01-6		ND	ppbv
Vinyl Chloride	75-01-4		ND	ppbv
4-Bromofluorobenzene	460-00-4		99.00	% Recovery

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Media Certification Report

Canister Number: 6L#6I0054 w/24hrs#40019
Can#: 101762-6L0054
Date : 05/07/15 17:56
Data File: o050709.d

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1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6		ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5		ND	ppbv
1,1,2-Trichloroethane	79-00-5		ND	ppbv
1,1-Dichloroethane	75-34-3		ND	ppbv
1,1-Dichloroethene	75-35-4		ND	ppbv
1,2,4-Trichlorobenzene	120-82-1		ND	ppbv
1,2,4-Trimethylbenzene	95-63-6		ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4		ND	ppbv
1,2-Dichlorobenzene	95-50-1		ND	ppbv
1,2-Dichloroethane	107-06-2		ND	ppbv
1,2-Dichloropropane	78-87-5		ND	ppbv
1,3,5-Trimethylbenzene	108-67-8		ND	ppbv
1,3-Butadiene	106-99-0		ND	ppbv
1,3-Dichlorobenzene	541-73-1		ND	ppbv
1,4-Dichlorobenzene	106-46-7		ND	ppbv
1,4-Dioxane	123-91-1		ND	ppbv
2,2,4-Trimethylpentane	540-84-1		ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3		ND	ppbv
2-Hexanone	591-78-6		ND	ppbv
2-Propanol	67-63-0		ND	ppbv
3-Chloropropene	107-05-1		ND	ppbv
4-Ethyltoluene	622-96-8		ND	ppbv
4-Methyl-2-pentanone	108-10-1		ND	ppbv
Acetone	67-64-1		ND	ppbv
alpha-Chlorotoluene	100-44-7		ND	ppbv
Benzene	71-43-2		ND	ppbv
Bromodichloromethane	75-27-4		ND	ppbv
Bromoform	75-25-2		ND	ppbv
Bromomethane	74-83-9		ND	ppbv
Carbon Disulfide	75-15-0		ND	ppbv
Carbon Tetrachloride	56-23-5		ND	ppbv
Chlorobenzene	108-90-7		ND	ppbv
Chloroethane	75-00-3		ND	ppbv
Chloroform	67-66-3		ND	ppbv
Chloromethane	74-87-3		ND	ppbv
cis-1,2-Dichloroethene	156-59-2		ND	ppbv
cis-1,3-Dichloropropene	10061-01-5		ND	ppbv
Cumene	98-82-8		ND	ppbv
Cyclohexane	110-82-7		ND	ppbv
Dibromochloromethane	124-48-1		ND	ppbv
Ethanol	64-17-5		ND	ppbv
Ethyl Benzene	100-41-4		ND	ppbv
Freon 11	75-69-4		ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1		ND	ppbv
Freon 114	76-14-2		ND	ppbv
Freon 12	75-71-8		ND	ppbv
Heptane	142-82-5		ND	ppbv
Hexachlorobutadiene	87-68-3		ND	ppbv
Hexane	110-54-3		ND	ppbv
m,p-Xylene	108-38-3		ND	ppbv
Methyl tert-butyl ether	1634-04-4		ND	ppbv
Methylene Chloride	75-09-2		ND	ppbv
Naphthalene	91-20-3		ND	ppbv
o-Xylene	95-47-6		ND	ppbv
Propylbenzene	103-65-1		ND	ppbv
Styrene	100-42-5		ND	ppbv
Tetrachloroethene	127-18-4		ND	ppbv
Tetrahydrofuran	109-99-9		ND	ppbv
Toluene	108-88-3		ND	ppbv
trans-1,2-Dichloroethene	156-60-5		ND	ppbv
trans-1,3-Dichloropropene	10061-02-6		ND	ppbv
Trichloroethene	79-01-6		ND	ppbv
Vinyl Chloride	75-01-4		ND	ppbv
4-Bromofluorobenzene	460-00-4		100.00	% Recovery

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1-800-985-5955

Media Certification Report

Canister Number: 6L#23925 w/24hrs#40332
Can#: 101762-23925
Date : 05/07/15 18:25
Data File: o050710.d

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6		ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5		ND	ppbv
1,1,2-Trichloroethane	79-00-5		ND	ppbv
1,1-Dichloroethane	75-34-3		ND	ppbv
1,1-Dichloroethene	75-35-4		ND	ppbv
1,2,4-Trichlorobenzene	120-82-1		ND	ppbv
1,2,4-Trimethylbenzene	95-63-6		ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4		ND	ppbv
1,2-Dichlorobenzene	95-50-1		ND	ppbv
1,2-Dichloroethane	107-06-2		ND	ppbv
1,2-Dichloropropane	78-87-5		ND	ppbv
1,3,5-Trimethylbenzene	108-67-8		ND	ppbv
1,3-Butadiene	106-99-0		ND	ppbv
1,3-Dichlorobenzene	541-73-1		ND	ppbv
1,4-Dichlorobenzene	106-46-7		ND	ppbv
1,4-Dioxane	123-91-1		ND	ppbv
2,2,4-Trimethylpentane	540-84-1		ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3		ND	ppbv
2-Hexanone	591-78-6		ND	ppbv
2-Propanol	67-63-0		ND	ppbv
3-Chloropropene	107-05-1		ND	ppbv
4-Ethyltoluene	622-96-8		ND	ppbv
4-Methyl-2-pentanone	108-10-1		ND	ppbv
Acetone	67-64-1		ND	ppbv
alpha-Chlorotoluene	100-44-7		ND	ppbv
Benzene	71-43-2		ND	ppbv
Bromodichloromethane	75-27-4		ND	ppbv
Bromoform	75-25-2		ND	ppbv
Bromomethane	74-83-9		ND	ppbv
Carbon Disulfide	75-15-0		ND	ppbv
Carbon Tetrachloride	56-23-5		ND	ppbv
Chlorobenzene	108-90-7		ND	ppbv
Chloroethane	75-00-3		ND	ppbv
Chloroform	67-66-3		ND	ppbv
Chloromethane	74-87-3		ND	ppbv
cis-1,2-Dichloroethene	156-59-2		ND	ppbv
cis-1,3-Dichloropropene	10061-01-5		ND	ppbv
Cumene	98-82-8		ND	ppbv
Cyclohexane	110-82-7		ND	ppbv
Dibromochloromethane	124-48-1		ND	ppbv
Ethanol	64-17-5		ND	ppbv
Ethyl Benzene	100-41-4		ND	ppbv
Freon 11	75-69-4		ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1		ND	ppbv
Freon 114	76-14-2		ND	ppbv
Freon 12	75-71-8		ND	ppbv
Heptane	142-82-5		ND	ppbv
Hexachlorobutadiene	87-68-3		ND	ppbv
Hexane	110-54-3		ND	ppbv
m,p-Xylene	108-38-3		ND	ppbv
Methyl tert-butyl ether	1634-04-4		ND	ppbv
Methylene Chloride	75-09-2		ND	ppbv
Naphthalene	91-20-3		ND	ppbv
o-Xylene	95-47-6		ND	ppbv
Propylbenzene	103-65-1		ND	ppbv
Styrene	100-42-5		ND	ppbv
Tetrachloroethene	127-18-4		ND	ppbv
Tetrahydrofuran	109-99-9		ND	ppbv
Toluene	108-88-3		ND	ppbv
trans-1,2-Dichloroethene	156-60-5		ND	ppbv
trans-1,3-Dichloropropene	10061-02-6		ND	ppbv
Trichloroethene	79-01-6		ND	ppbv
Vinyl Chloride	75-01-4		ND	ppbv
4-Bromofluorobenzene	460-00-4		100.00	% Recovery

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Media Certification Report

Canister Number: 6L# 22509w/24hrs#40106
Can#: 101762-22509
Date : 05/07/15 22:19
Data File: o050718.d

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6		ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5		ND	ppbv
1,1,2-Trichloroethane	79-00-5		ND	ppbv
1,1-Dichloroethane	75-34-3		ND	ppbv
1,1-Dichloroethene	75-35-4		ND	ppbv
1,2,4-Trichlorobenzene	120-82-1		ND	ppbv
1,2,4-Trimethylbenzene	95-63-6		ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4		ND	ppbv
1,2-Dichlorobenzene	95-50-1		ND	ppbv
1,2-Dichloroethane	107-06-2		ND	ppbv
1,2-Dichloropropane	78-87-5		ND	ppbv
1,3,5-Trimethylbenzene	108-67-8		ND	ppbv
1,3-Butadiene	106-99-0		ND	ppbv
1,3-Dichlorobenzene	541-73-1		ND	ppbv
1,4-Dichlorobenzene	106-46-7		ND	ppbv
1,4-Dioxane	123-91-1		ND	ppbv
2,2,4-Trimethylpentane	540-84-1		ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3		ND	ppbv
2-Hexanone	591-78-6		ND	ppbv
2-Propanol	67-63-0		ND	ppbv
3-Chloropropene	107-05-1		ND	ppbv
4-Ethyltoluene	622-96-8		ND	ppbv
4-Methyl-2-pentanone	108-10-1		ND	ppbv
Acetone	67-64-1		ND	ppbv
alpha-Chlorotoluene	100-44-7		ND	ppbv
Benzene	71-43-2		ND	ppbv
Bromodichloromethane	75-27-4		ND	ppbv
Bromoform	75-25-2		ND	ppbv
Bromomethane	74-83-9		ND	ppbv
Carbon Disulfide	75-15-0		ND	ppbv
Carbon Tetrachloride	56-23-5		ND	ppbv
Chlorobenzene	108-90-7		ND	ppbv
Chloroethane	75-00-3		ND	ppbv
Chloroform	67-66-3		ND	ppbv
Chloromethane	74-87-3		ND	ppbv
cis-1,2-Dichloroethene	156-59-2		ND	ppbv
cis-1,3-Dichloropropene	10061-01-5		ND	ppbv
Cumene	98-82-8		ND	ppbv
Cyclohexane	110-82-7		ND	ppbv
Dibromochloromethane	124-48-1		ND	ppbv
Ethanol	64-17-5		ND	ppbv
Ethyl Benzene	100-41-4		ND	ppbv
Freon 11	75-69-4		ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1		ND	ppbv
Freon 114	76-14-2		ND	ppbv
Freon 12	75-71-8		ND	ppbv
Heptane	142-82-5		ND	ppbv
Hexachlorobutadiene	87-68-3		ND	ppbv
Hexane	110-54-3		ND	ppbv
m,p-Xylene	108-38-3		ND	ppbv
Methyl tert-butyl ether	1634-04-4		ND	ppbv
Methylene Chloride	75-09-2		ND	ppbv
Naphthalene	91-20-3		ND	ppbv
o-Xylene	95-47-6		ND	ppbv
Propylbenzene	103-65-1		ND	ppbv
Styrene	100-42-5		ND	ppbv
Tetrachloroethene	127-18-4		ND	ppbv
Tetrahydrofuran	109-99-9		ND	ppbv
Toluene	108-88-3		ND	ppbv
trans-1,2-Dichloroethene	156-60-5		ND	ppbv
trans-1,3-Dichloropropene	10061-02-6		ND	ppbv
Trichloroethene	79-01-6		ND	ppbv
Vinyl Chloride	75-01-4		ND	ppbv
4-Bromofluorobenzene	460-00-4		103.00	% Recovery

Eurofins Air Toxics, Inc.	Data Review Checklist			Release Date: 03/26/15
Workorder # 1506153A	Form F1.27	Revision #11	Revision date: 03/26/15	Page 1 of 2

S1	S2	S3	S4	D	Section 1 – Spec Out				
					Initials/Instrument/Date	S1: 83/20/6-10-15	S2:	S3:	S4:
✓					Project Identification (PID), Project Requirements Table (PRT), Daily QC and ICAL met Criteria				
✓					Lumen QC and ICAL evaluation (ref. SOP/Method) report initialed and in folder				
NA					Manual Integrations included and approved				
✓				✓	Chain of Custody verified for special comments (add comments below)				
NA					Non-standard Target sublist printed				

Profile, analyses, reporting, special notes and unusual circumstances:

S1: JFlag MDL; 224TMP >25% RPD

A1	A2	A3	A4	D	Section 2 – Sample Analysis				
					Initials/Date	A1: 6/10/15	A2:	A3:	A4:
✓				✓	Internal Standard/Surrogate Recoveries, Dilution Factors, Load Volumes, Initial/Final Pressures, and Canister #s Verified				
NA				NA	a) Tedlar Bag IDs verified against COC b) Tedlar Bag ID confirmed with loading sequence/leg of instrument				
NA				NA	Manual integrations/Bag or Can Dilution Forms/Re-pressurization Forms/Bag-Can Transfer Forms present (circle all that apply)				
✓					12/24 Hr clock time & Hold Time met for all samples				
✓				✓	Re-analysis of sample(s) have been evaluated for comparability and/or samples have been checked for trends (Inf/Eff).				
✓				✓	All runs have been evaluated for potential carry-over (TPHg/non-Target/over-range compounds etc)				

Analytical and special notes: 01A-04A = Full loads 02A/03A FD - OK

D1	D2	D3	D4	T	3T	Section 3 – Target Data Reduction	Technical Review Needed? Circle one: Yes/No		T:	
						Initials/Instrument/Date	D1: MC 6/22/15	D2:	D3:	D4:
mb 6/22/15 ✓ NA						CAR # F6AF2A 3163 (if applicable)				
✓						Spectra Verified (documentation of spectral defense included if applicable)				
NA						TICs resemble reference spectra/ TICs between sample dups. are consistent (if applicable)				
✓						Lab Narrative is correct				
NA						TPH/NMOC calculations complete and included in folder				

Special notes: ~~1. CCV expired~~ MC 6/22/15 4. CKT interference
2. ✓ flag to MDL
3. %RPD >25% - 224 TMPTA

A	3T	Section 4- Atlas Data Entry	Lumen verified and included in folder	Circle one: Yes/No
		Initials/Date: MC 6/22/15	3rd Tier: (needed only for DOD or per client request)	
NA		Sample Discrepancy Report (SDR) complete and approved (if applicable)		
NA		Manually entered results are checked		
✓		At least one result per sample is verified against Target quant sheets		
✓		Appropriate data qualifier flags are applied		
✓		Final Invoice is correct/ Final PDF report, COC and EDD reviewed and correct		

Special Notes:

Note (1) *Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply*
Note (2) 3rd Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

Workorder # :				Reason for Reissue:
W	T	3T	Q	
				Reissue Request form Present
				Client or QA or Lab contact present with reason for reissue
				Review all affected data
				Report header has correct R1, R2 etc
				The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested)
				Date for Reissue in Report Header matches date in Lab Narrative
				Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc)
				Corrective Action issued - #
				The reissued workorder has been approved by QA Manager or a Technical Director

Additional Comments:

Write Up (Initials/Date)	Tech Review (Initials/Date)	*3rd Tier Review ** 3rd Tier Report Review is for DoD & Client Specific projects only* (Initials/Date)	QA Review (Initials/Date)

Workorder # :				Reason for Reissue:
W	T	3T	Q	
				Reissue Request form Present
				Client or QA or Lab contact present with reason for reissue
				Review all affected data
				Report header has correct R1, R2 etc
				The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested)
				Date for Reissue in Report Header matches date in Lab Narrative
				Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc)
				Corrective Action issued - #
				The reissued workorder has been approved by QA Manager or a Technical Director

Additional Comments:

Write Up (Initials/Date)	Tech Review (Initials/Date)	*3rd Tier Review ** 3rd Tier Report Review is for DoD & Client Specific projects only* (Initials/Date)	QA Review (Initials/Date)

Note (1) *Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply*
Note (2) 3rd Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

Not Applicable