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Electronic Comprehensive Validation Package (eCVP)

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COMPREHENSIVE VALIDATION PACKAGE

Modified TO-17 VI

INVENTORY SHEET

Work Order #: 1606008

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Comments:

Completed by:

Vera Belitsky	Vera Belitsky / Document Control	6/22/16
(Signature)	(Print Name & Title)	(Date)

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WORK ORDER #: 1606008

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 #**	Building 30 VI
DATE RECEIVED:	06/01/2016	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	06/14/2016		

FRACTION #	NAME	TEST
01A	B30IA-1 (052816)	Modified TO-17 VI
02A	B30AA (052816)	Modified TO-17 VI
03A	B30IA-5 (052816)	Modified TO-17 VI
04A	B30IA-2 (052816)	Modified TO-17 VI
05A	B30IA-1D (052816)	Modified TO-17 VI
06A	B30IA-4 (052816)	Modified TO-17 VI
07A	B30IA-3 (052816)	Modified TO-17 VI
08A	Lab Blank	Modified TO-17 VI
09A	CCV	Modified TO-17 VI
10A	LCS	Modified TO-17 VI
10AA	LCSD	Modified TO-17 VI

CERTIFIED BY: Heidi Mayo

Technical Director

DATE: 06/14/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified EPA Method TO-17 (VI Tubes)
Anderson Mulholland & Associates, Inc.
Workorder# 1606008

Seven TO-17 VI Tube samples were received on June 01, 2016. The laboratory performed the analysis via modified EPA Method TO-17 using GC/MS in the full scan mode. TO-17 'VI' sorbent tubes are thermally desorbed onto a secondary trap. The trap is thermally desorbed to elute the components into the GC/MS system for compound separation and detection.

A modification that may be applied to EPA Method TO-17 at the client's discretion is the requirement to transport sorbent tubes at 4 deg C. Laboratory studies demonstrate a high level of stability for VOCs on the TO-17 'VI' tube at room temperature for periods of up to 14 days. Tubes can be shipped to and from the field site at ambient conditions as long as the 14-day sample hold time is upheld. Trip blanks and field surrogate spikes are used as additional control measures to monitor recovery and background contribution during tube transport.

Since the TO-17 VI application significantly extends the scope of target compounds addressed in EPA Method TO-15 and TO-17, the laboratory has implemented several method modifications outlined in the table below. Specific project requirements may over-ride the laboratory modifications.

Requirement	***TO-17***	***ATL Modifications***
Initial Calibration	%RSD</=30% with 2 allowed out up to 40%	VOC list: %RSD</=30% with 2 allowed out up to 40% SVOC list: %RSD</=30% with 2 allowed out up to 40%
Daily Calibration	%D for each target compound within +/-30%.	Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene within +/-40%D
Audit Accuracy	70-130%	Second source recovery limits for Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene = 60-140%.
Distributed Volume Pairs	Collection of distributed volume pairs required for monitoring ambient air to insure high quality.	If site is well-characterized or performance previously verified, single tube sampling may be appropriate. Distributed pairs may be impractical for soil gas collection due to configuration and volume constraints.
Analytical Precision	</=20% RPD	<30% RPD for Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene.

Receiving Notes

A Temperature Blank was included with the shipment. Temperature was measured and was not within 4±2 °C. Coolant in the form of blue ice was present. Analysis proceeded.

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. Concentrations that are below the level at which the sorbent media was certified may be false positives.

Sampling volume was supplied by the client. A sampling volume of 17.3 L was used to convert ng to

ug/m3 for the associated Lab Blank.

Definition of Data Qualifying Flags

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

B - Compound present in blank (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
B30IA-1 (052816)	1606008-01A	5/29/2016	6/ 1/2016	NA	3	6/ 1/2016	NA	Good
B30AA (052816)	1606008-02A	5/29/2016	6/ 1/2016	NA	3	6/ 1/2016	NA	Good
B30IA-5 (052816)	1606008-03A	5/29/2016	6/ 1/2016	NA	3	6/ 1/2016	NA	Good
B30IA-2 (052816)	1606008-04A	5/29/2016	6/ 1/2016	NA	3	6/ 1/2016	NA	Good
B30IA-1D (052816)	1606008-05A	5/29/2016	6/ 1/2016	NA	3	6/ 1/2016	NA	Good
B30IA-4 (052816)	1606008-06A	5/29/2016	6/ 1/2016	NA	3	6/ 1/2016	NA	Good
B30IA-3 (052816)	1606008-07A	5/29/2016	6/ 1/2016	NA	4	6/ 2/2016	NA	Good
Lab Blank	1606008-08A	NA	NA	NA	NA	6/ 1/2016	NA	Good
CCV	1606008-09A	NA	NA	NA	NA	6/ 1/2016	NA	Good
LCS	1606008-10A	NA	NA	NA	NA	6/ 1/2016	NA	Good
LCSD	1606008-10AA	NA	NA	NA	NA	6/ 1/2016	NA	Good

Sample Results and Raw Data

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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B30IA-1 (052816)

Lab ID#: 1606008-01A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.096	0.98 J	0.094 J

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Client Sample ID: B30IA-1 (052816)

Lab ID#: 1606008-01A

EPA METHOD TO-17

File Name:	**6060116**	**Date of Extraction: NA**	**Date of Collection: 5/29/16 11:10:00 AM**
Dil. Factor:	**1.00**		**Date of Analysis: 6/1/16 08:05 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.096	0.98 J	0.094 J

Air Sample Volume(L): 10.4

J = Estimated value.

Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	88	50-150

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EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01jun16.b/6060116.d
Lab Smp Id: 1606008-01A
Inj Date : 01-JUN-2016 20:05
Operator : CT Inst ID: msd6.i
Smp Info : ;1606008-01A
Misc Info : G0135616
Comment :
Method : /chem/msd6.i/01jun16.b/616z0331vi.m
Meth Date : 06-Jun-2016 10:10 atoyama Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 41
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: NaphMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.421	11.421 (1.000)	174	601791	36.0000		80.00- 120.00	100.00
11.421	11.421 (1.000)	95	610036			92.70- 152.70	101.37
11.421	11.421 (1.000)	176	593424			68.24- 128.24	98.61
$ 108 Naphthalene-d8					CAS #: 1146-65-2		
15.697	15.697 (1.374)	136	745635	21.9984	21.998	80.00- 120.00	100.00
15.697	15.697 (1.374)	108	67324			0.00- 39.41	9.03
109 Naphthalene					CAS #: 91-20-3		
15.733	15.740 (1.378)	128	39603	0.98093	0.9809	80.00- 120.00	100.00(a)
15.733	15.740 (1.378)	127	5436			0.00- 43.01	13.73

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

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INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6060116.d
Lab Smp Id: 1606008-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: G0135616

Calibration Date: 01-JUN-2016
Calibration Time: 10:25

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	580931	348559	813303	601791	3.59

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.42	11.09	11.75	11.42	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: 06-Jun-2016 10:11

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 01jun16
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1606008-01A
Level: LOW Operator: CT
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk Quant Type: ISTD
Sublist File: NaphMDL.sub
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: G0135616

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 108 Naphthalene-d8	25.000	21.998	87.99	50-150

Data File: /chem/msd6.i/01jun16.b/6060116.d

Date : 01-JUN-2016 20:05

Client ID:

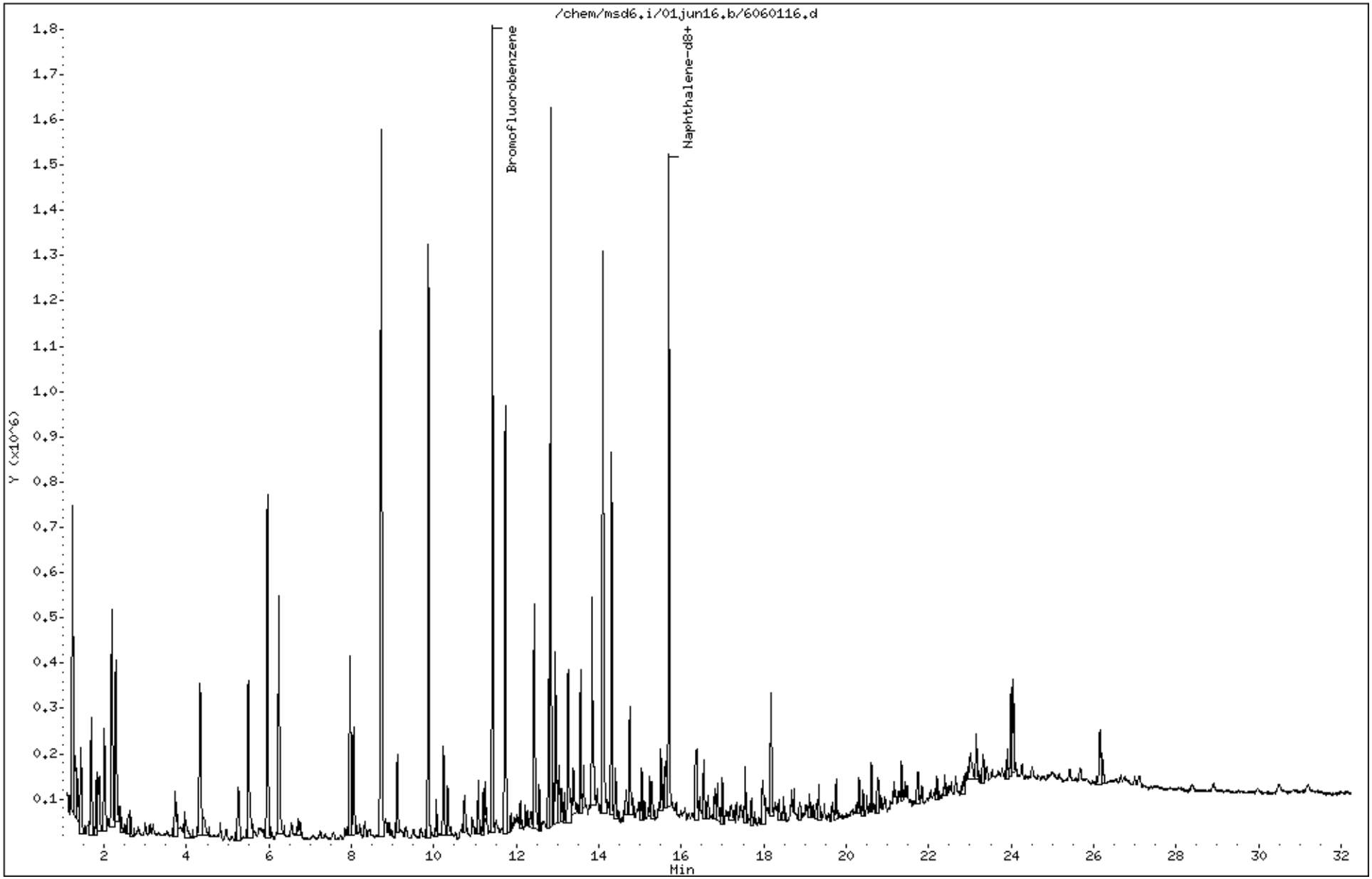
Sample Info: :1606008-01A

Column phase: RTx-624

Instrument: msd6.i

Operator: CT

Column diameter: 0.53



Data File: /chem/msd6.i/01jun16.b/6060116.d

Date : 01-JUN-2016 20:05

Client ID:

Instrument: msd6.i

Sample Info: ;1606008-01A

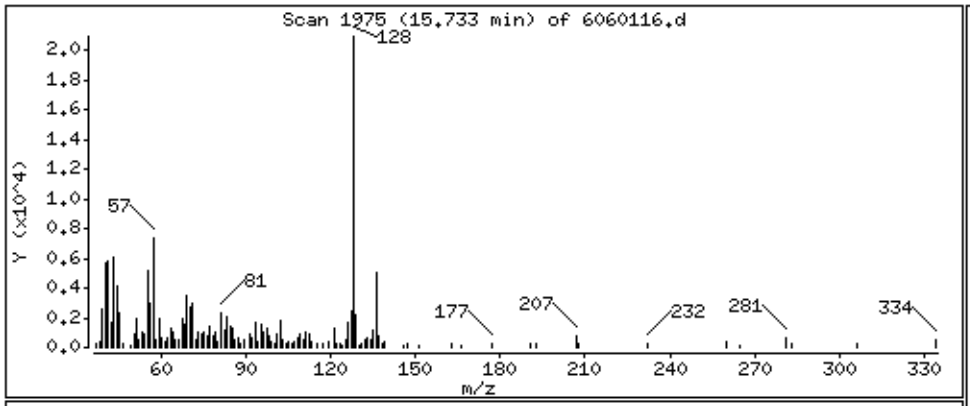
Operator: CT

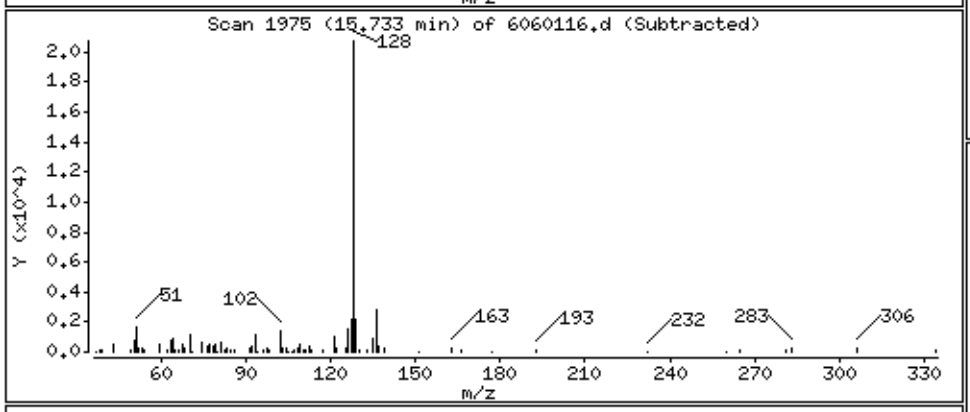
Column phase: RTx-624

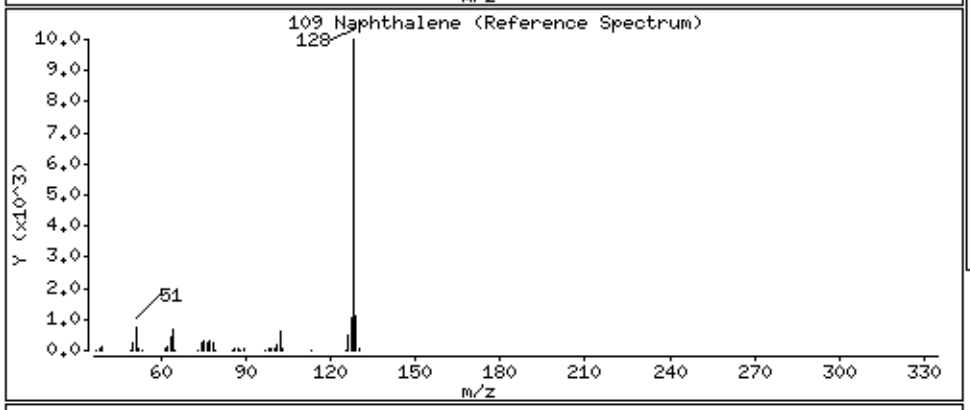
Column diameter: 0.53

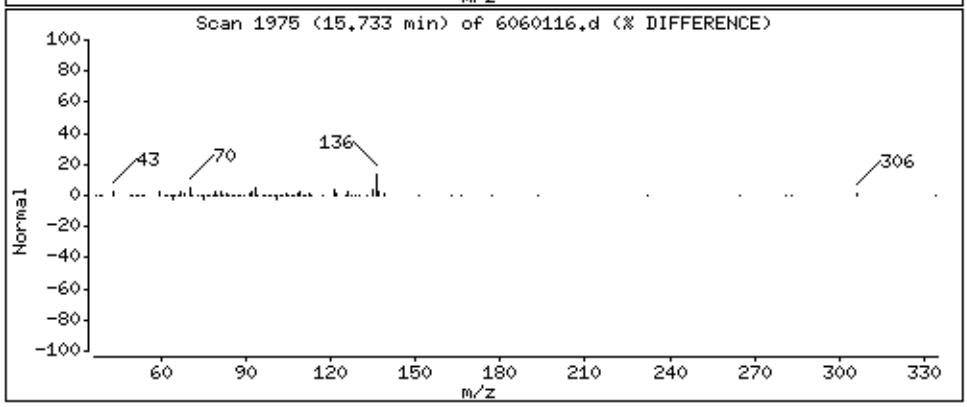
109 Naphthalene

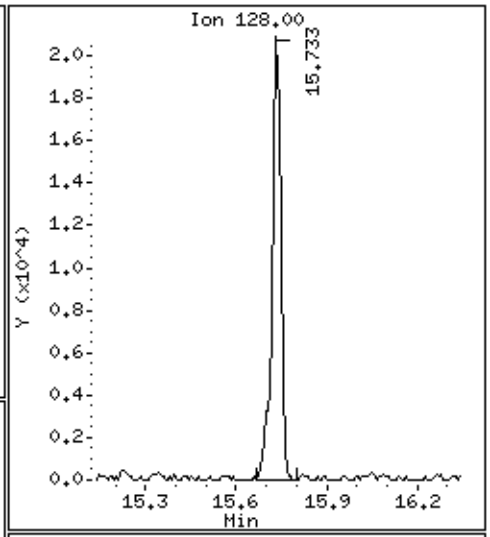
Concentration: 0.9809 NG

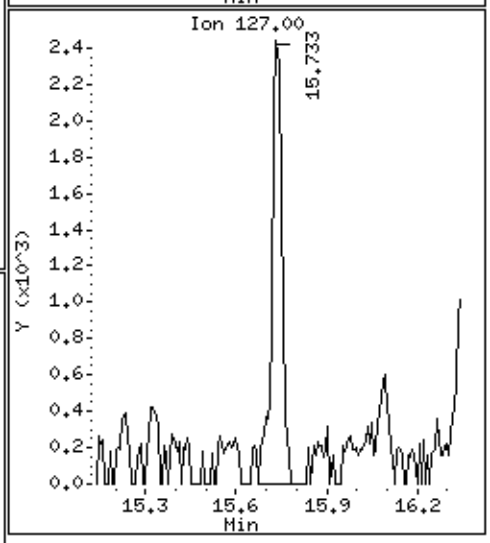












Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B30AA (052816)

Lab ID#: 1606008-02A

No Detections Were Found.

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Client Sample ID: B30AA (052816)

Lab ID#: 1606008-02A

EPA METHOD TO-17

File Name:	**6060117**	**Date of Extraction: NA**	**Date of Collection: 5/29/16 6:14:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 6/1/16 08:44 PM**

Compound	**Rpt. Limit (ng)**	**Rpt. Limit (ug/m3)**	**Amount (ng)**	**Amount (ug/m3)**
Naphthalene	1.0	0.063	Not Detected	Not Detected

Air Sample Volume(L): 15.8
Container Type: TO-17 VI Tube

Surrogates	**%Recovery**	**Method Limits**
Naphthalene-d8	80	50-150

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EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01jun16.b/6060117.d
Lab Smp Id: 1606008-02A
Inj Date : 01-JUN-2016 20:44
Operator : CT Inst ID: msd6.i
Smp Info : ;1606008-02A
Misc Info : G0139979
Comment :
Method : /chem/msd6.i/01jun16.b/616z0331vi.m
Meth Date : 06-Jun-2016 10:10 atoyama Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 42
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: NaphMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.421	11.421 (1.000)	174	607897	36.0000		80.00- 120.00	100.00
11.421	11.421 (1.000)	95	620043			92.70- 152.70	102.00
11.421	11.421 (1.000)	176	594488			68.24- 128.24	97.79
$ 108 Naphthalene-d8					CAS #: 1146-65-2		
15.697	15.697 (1.374)	136	689877	20.1489	20.149	80.00- 120.00	100.00
15.697	15.697 (1.374)	108	62828			0.00- 39.41	9.11

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INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6060117.d
Lab Smp Id: 1606008-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: G0139979

Calibration Date: 01-JUN-2016
Calibration Time: 10:25

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	580931	348559	813303	607897	4.64

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.42	11.09	11.75	11.42	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: 06-Jun-2016 10:11

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 01jun16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1606008-02A
Level: LOW
Operator: CT
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk
Quant Type: ISTD
Sublist File: NaphMDL.sub
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: G0139979

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 108 Naphthalene-d8	25.000	20.149	80.60	50-150

Data File: /chem/msd6.i/01jun16.b/6060117.d

Date : 01-JUN-2016 20:44

Client ID:

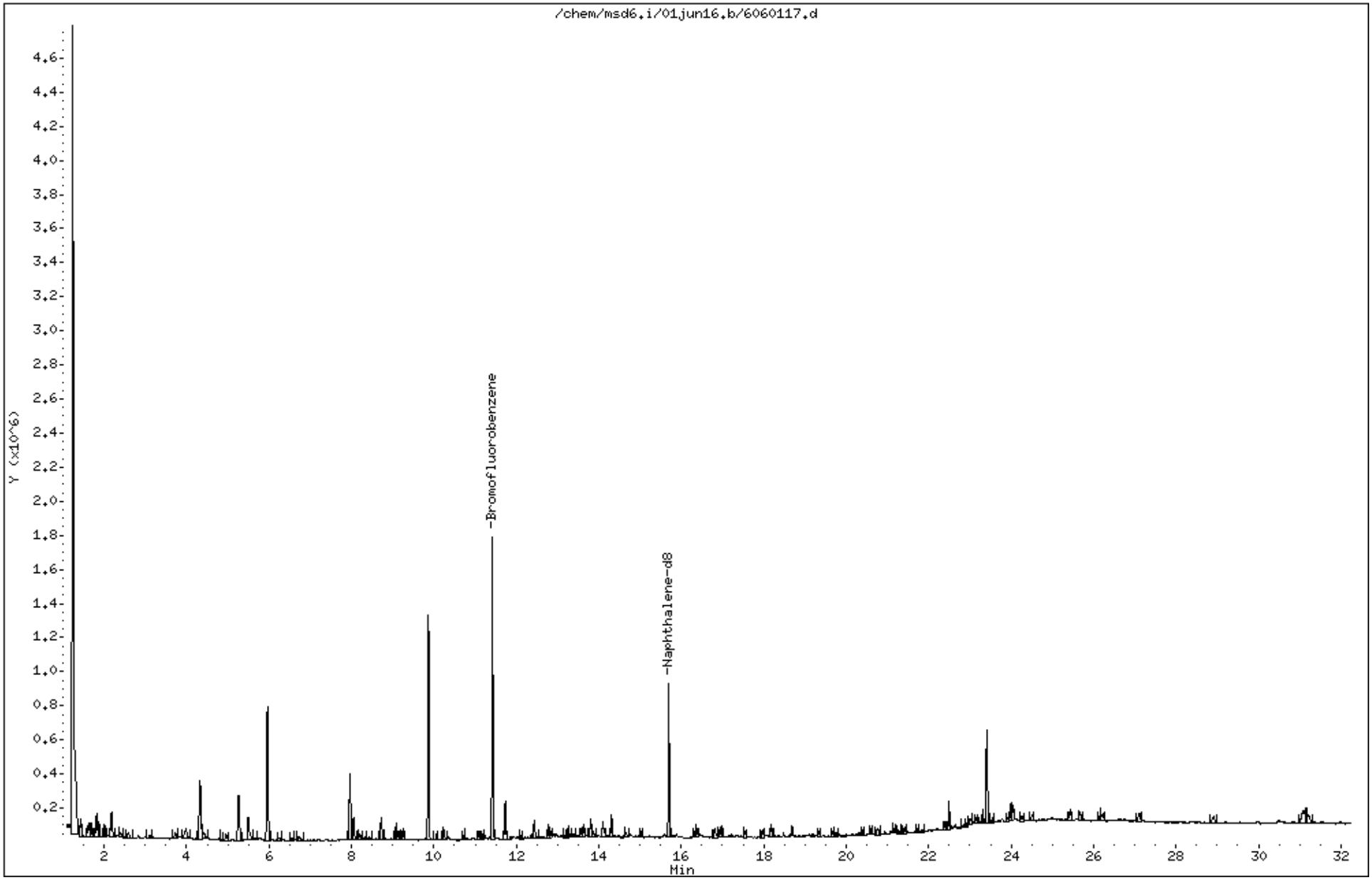
Instrument: msd6.i

Sample Info: ;1606008-02A

Operator: CT

Column phase: RTx-624

Column diameter: 0.53



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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B30IA-5 (052816)

Lab ID#: 1606008-03A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.062	2.4	0.15

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Client Sample ID: B30IA-5 (052816)

Lab ID#: 1606008-03A

EPA METHOD TO-17

File Name:	**6060118**	**Date of Extraction: NA**	**Date of Collection: 5/29/16 3:56:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 6/1/16 09:24 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.062	2.4	0.15

Air Sample Volume(L): 16.1
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	87	50-150

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EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01jun16.b/6060118.d
Lab Smp Id: 1606008-03A
Inj Date : 01-JUN-2016 21:24
Operator : CT Inst ID: msd6.i
Smp Info : ;1606008-03A
Misc Info : G0139982
Comment :
Method : /chem/msd6.i/01jun16.b/616z0331vi.m
Meth Date : 06-Jun-2016 10:10 atoyama Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 43
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: NaphMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.421	11.421 (1.000)	174	611130	36.0000		80.00- 120.00	100.00
11.421	11.421 (1.000)	95	625570			92.70- 152.70	102.36
11.421	11.421 (1.000)	176	600214			68.24- 128.24	98.21
$ 108 Naphthalene-d8					CAS #: 1146-65-2		
15.697	15.697 (1.374)	136	750535	21.8046	21.804	80.00- 120.00	100.00
15.697	15.697 (1.374)	108	68206			0.00- 39.41	9.09
109 Naphthalene					CAS #: 91-20-3		
15.733	15.740 (1.378)	128	99461	2.42589	2.426	80.00- 120.00	100.00
15.733	15.740 (1.378)	127	13397			0.00- 43.01	13.47

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INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6060118.d
Lab Smp Id: 1606008-03A
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: G0139982

Calibration Date: 01-JUN-2016
Calibration Time: 10:25

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	580931	348559	813303	611130	5.20

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.42	11.09	11.75	11.42	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: 06-Jun-2016 10:11

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 01jun16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1606008-03A
Level: LOW
Operator: CT
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk
Quant Type: ISTD
Sublist File: NaphMDL.sub
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: G0139982

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 108 Naphthalene-d8	25.000	21.804	87.22	50-150

Data File: /chem/msd6.i/01jun16.b/6060118.d

Date : 01-JUN-2016 21:24

Client ID:

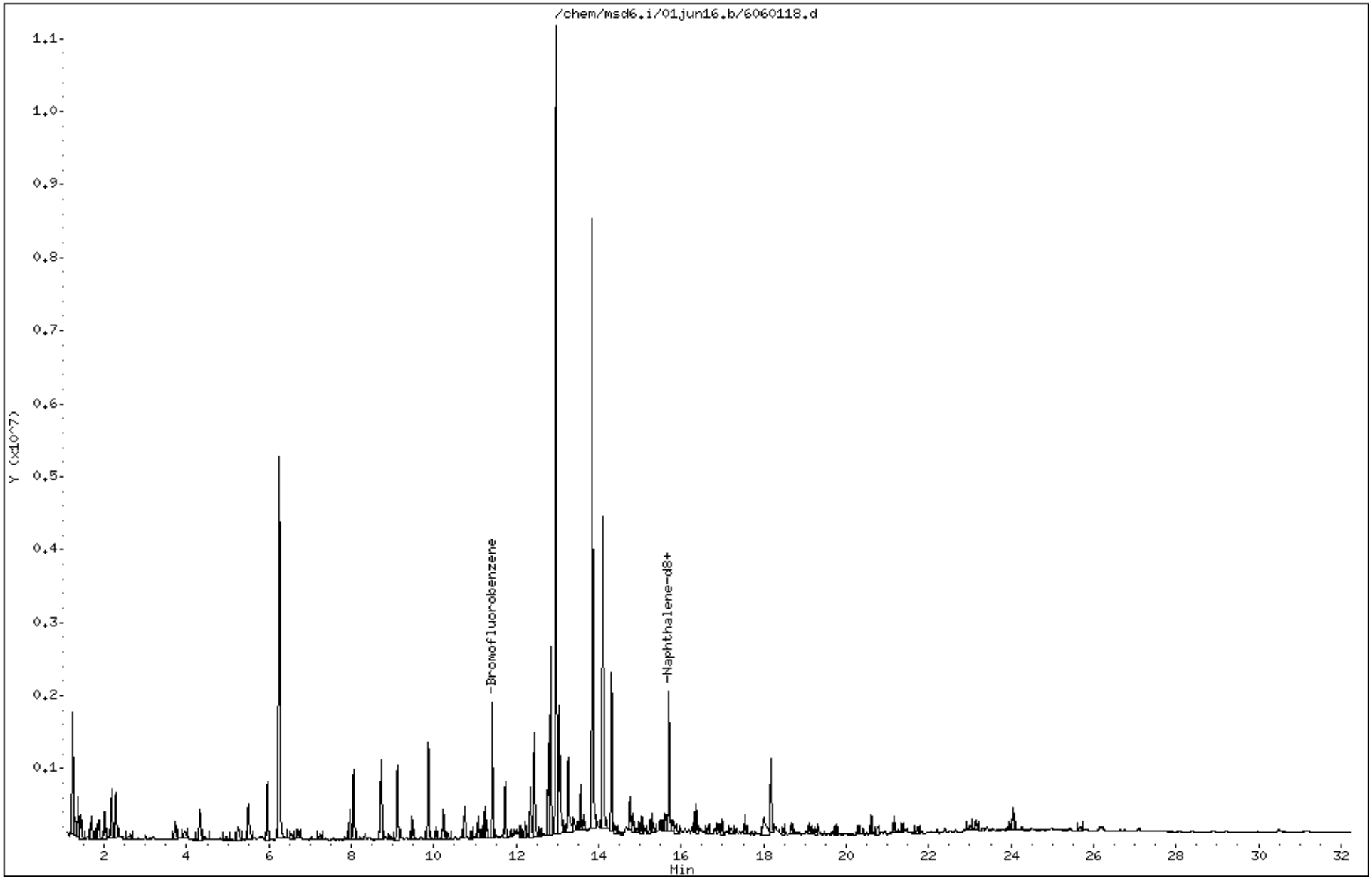
Sample Info: :1606008-03A

Column phase: RTx-624

Instrument: msd6.i

Operator: CT

Column diameter: 0.53



Data File: /chem/msd6.i/01jun16.b/6060118.d

Date : 01-JUN-2016 21:24

Client ID:

Instrument: msd6.i

Sample Info: ;1606008-03A

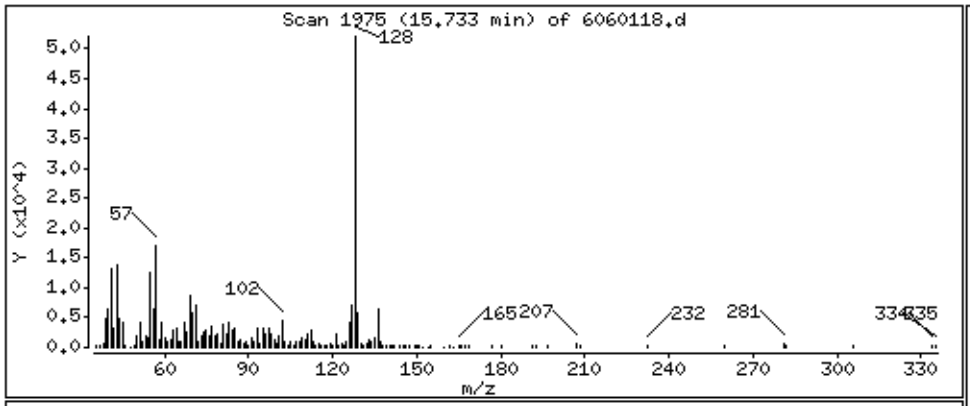
Operator: CT

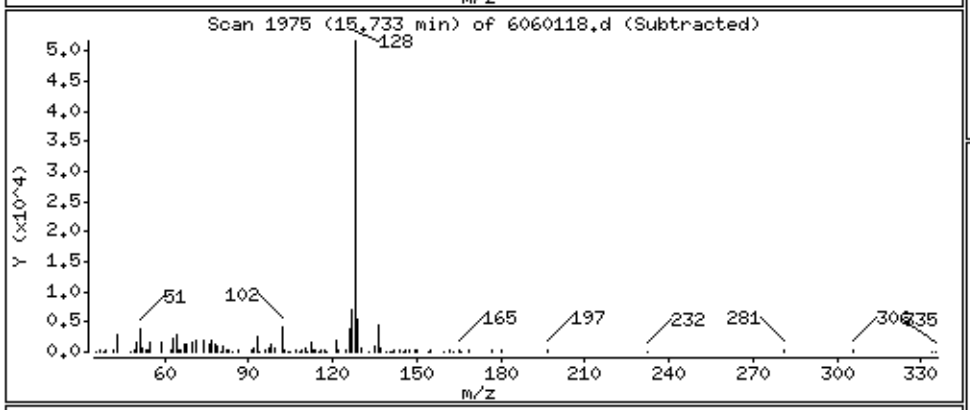
Column phase: RTx-624

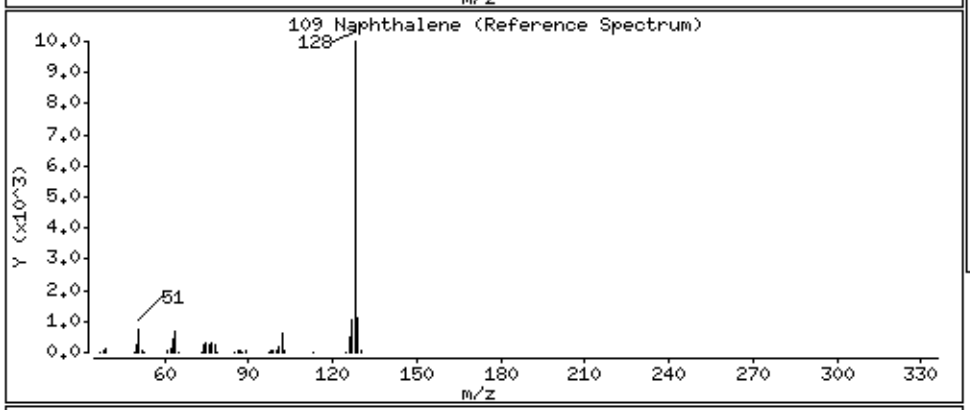
Column diameter: 0.53

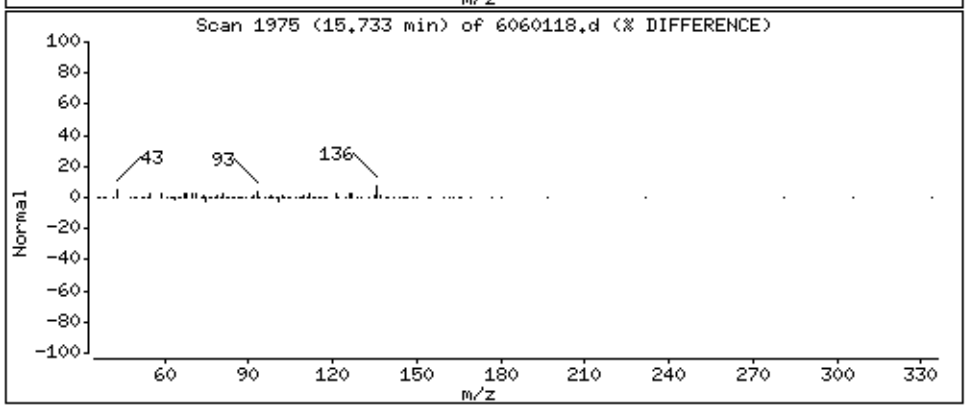
109 Naphthalene

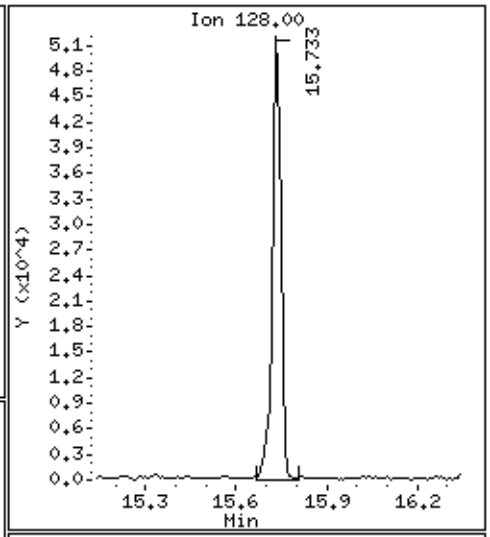
Concentration: 2.426 NG

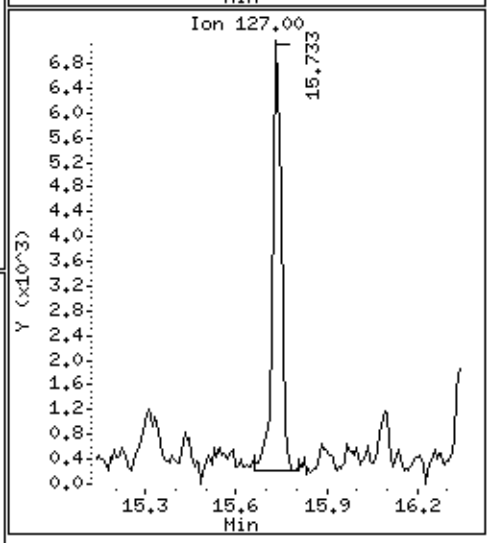












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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B30IA-2 (052816)

Lab ID#: 1606008-04A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.063	3.2	0.20

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Client Sample ID: B30IA-2 (052816)

Lab ID#: 1606008-04A

EPA METHOD TO-17

File Name:	**6060119**	**Date of Extraction: NA**	**Date of Collection: 5/29/16 5:54:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 6/1/16 10:04 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.063	3.2	0.20

Air Sample Volume(L): 15.8
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	84	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01jun16.b/6060119.d
Lab Smp Id: 1606008-04A
Inj Date : 01-JUN-2016 22:04
Operator : CT Inst ID: msd6.i
Smp Info : ;1606008-04A
Misc Info : G0144325
Comment :
Method : /chem/msd6.i/01jun16.b/616z0331vi.m
Meth Date : 06-Jun-2016 10:10 atoyama Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 44
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: NaphMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.421	11.421 (1.000)	174	630157	36.0000		80.00- 120.00	100.00
11.421	11.421 (1.000)	95	648125			92.70- 152.70	102.85
11.421	11.421 (1.000)	176	616827			68.24- 128.24	97.88
$ 108 Naphthalene-d8					CAS #: 1146-65-2		
15.697	15.697 (1.374)	136	749347	21.1127	21.113	80.00- 120.00	100.00
15.697	15.697 (1.374)	108	68662			0.00- 39.41	9.16
109 Naphthalene					CAS #: 91-20-3		
15.733	15.740 (1.378)	128	136600	3.23111	3.231	80.00- 120.00	100.00
15.733	15.740 (1.378)	127	18344			0.00- 43.01	13.43

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6060119.d
Lab Smp Id: 1606008-04A
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: G0144325

Calibration Date: 01-JUN-2016
Calibration Time: 10:25

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	580931	348559	813303	630157	8.47

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.42	11.09	11.75	11.42	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: 06-Jun-2016 10:11

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 01jun16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1606008-04A
Level: LOW
Operator: CT
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk
Quant Type: ISTD
Sublist File: NaphMDL.sub
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: G0144325

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 108 Naphthalene-d8	25.000	21.113	84.45	50-150

Data File: /chem/msd6.i/01jun16.b/6060119.d

Date : 01-JUN-2016 22:04

Client ID:

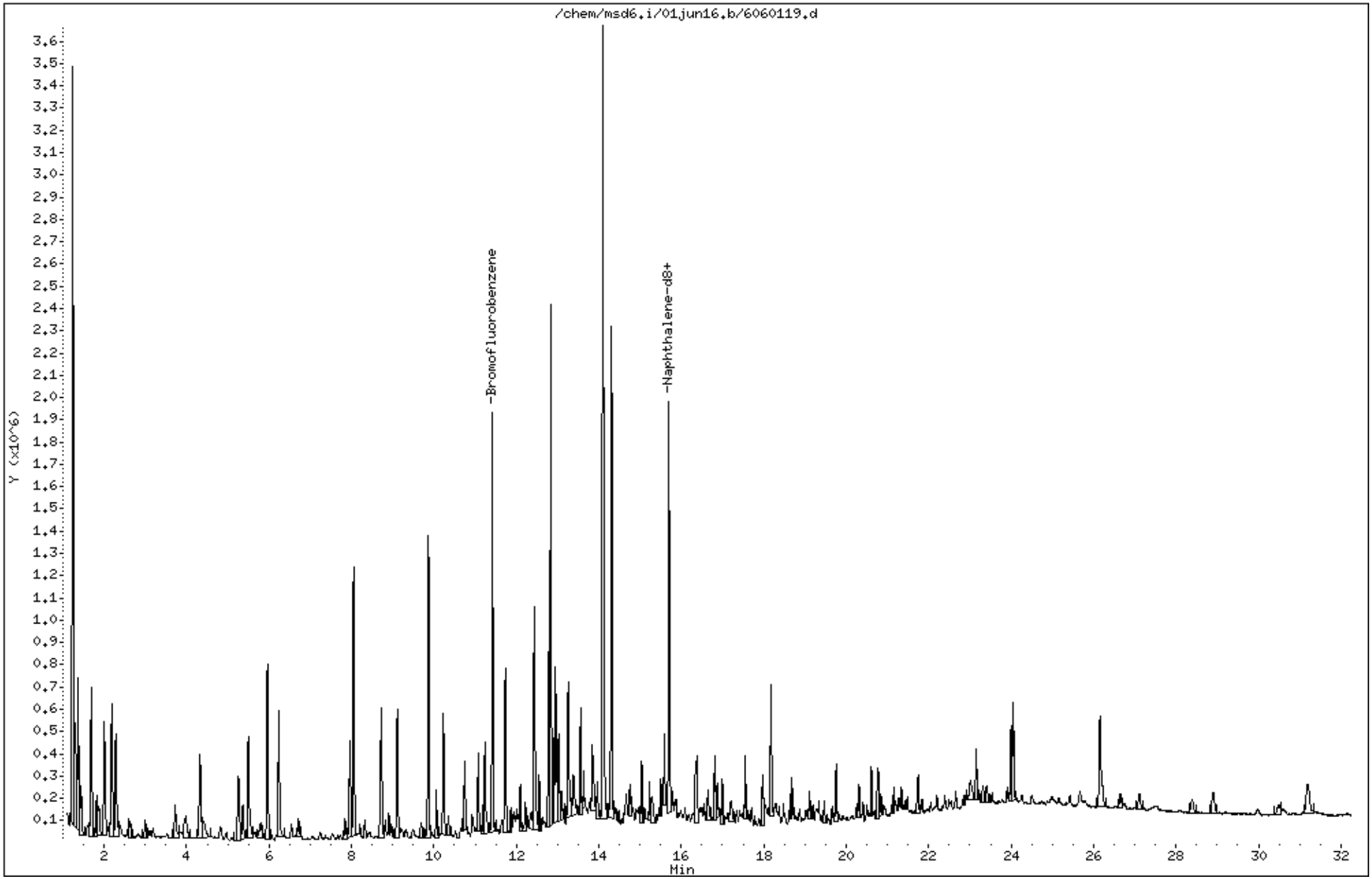
Instrument: msd6.i

Sample Info: :1606008-04A

Operator: CT

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/01jun16.b/6060119.d

Date : 01-JUN-2016 22:04

Client ID:

Instrument: msd6.i

Sample Info: ;1606008-04A

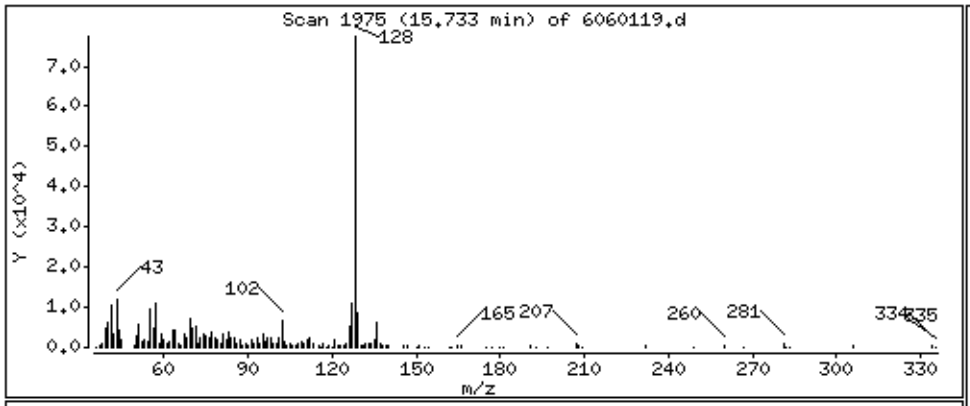
Operator: CT

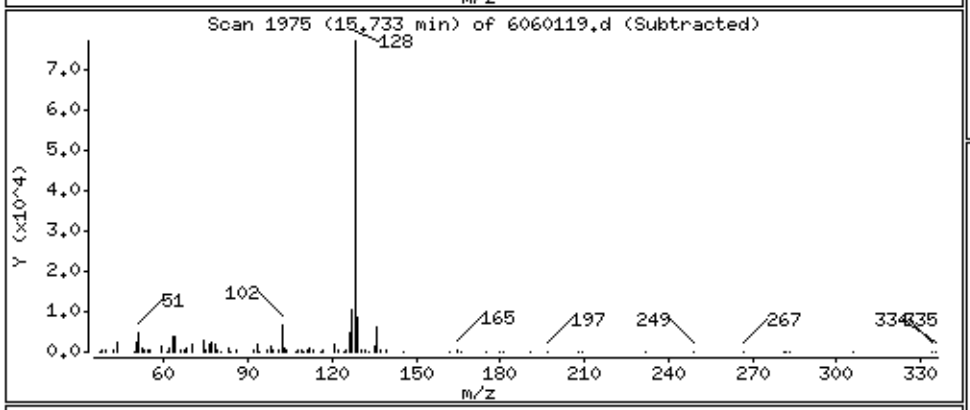
Column phase: RTx-624

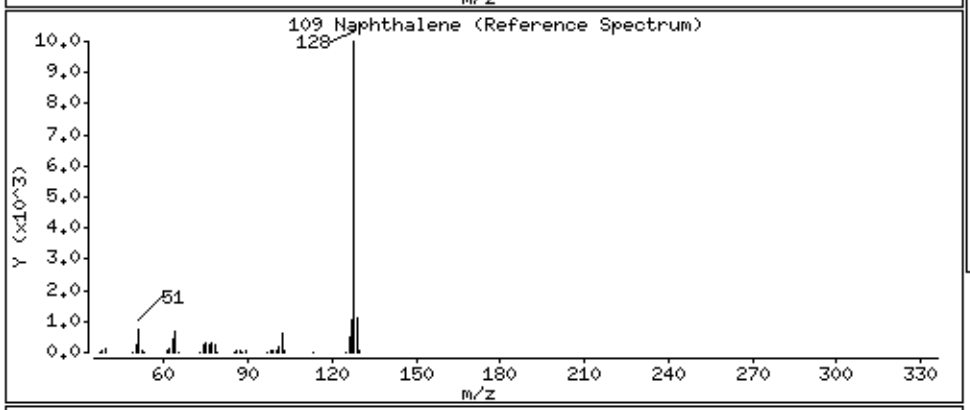
Column diameter: 0.53

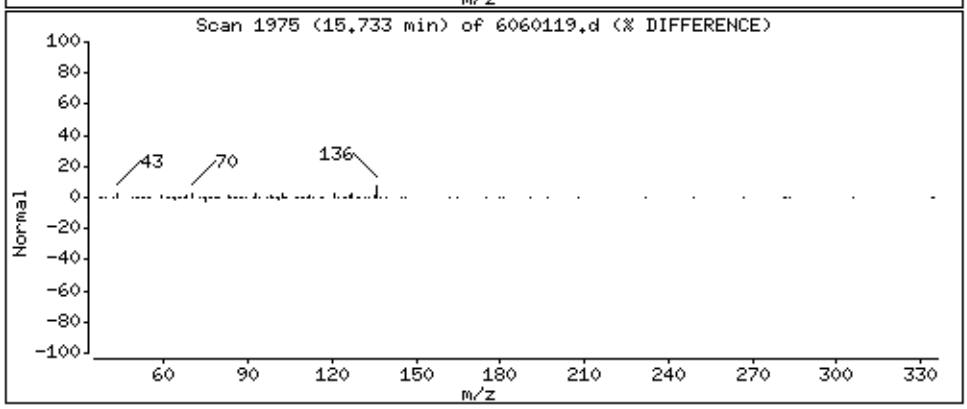
109 Naphthalene

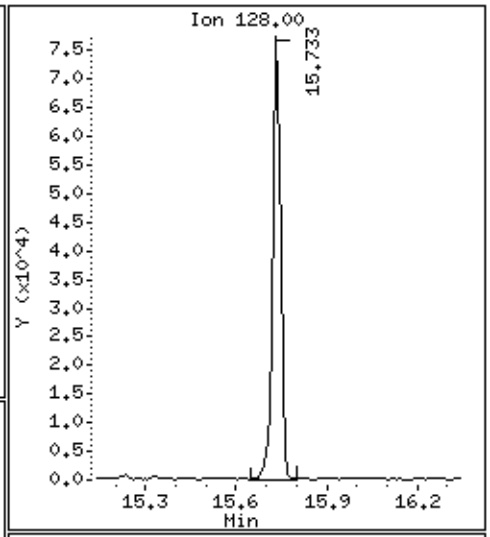
Concentration: 3.231 NG

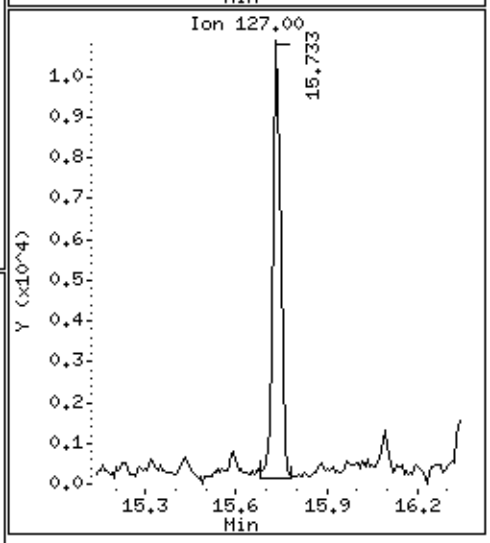












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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B30IA-1D (052816)

Lab ID#: 1606008-05A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.058	1.3	0.078

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Client Sample ID: B30IA-1D (052816)

Lab ID#: 1606008-05A

EPA METHOD TO-17

File Name:	**6060120**	**Date of Extraction: NA**	**Date of Collection: 5/29/16 5:50:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 6/1/16 10:43 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.058	1.3	0.078

Air Sample Volume(L): 17.3
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	87	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01jun16.b/6060120.d
Lab Smp Id: 1606008-05A
Inj Date : 01-JUN-2016 22:43
Operator : CT Inst ID: msd6.i
Smp Info : ;1606008-05A
Misc Info : G0154148
Comment :
Method : /chem/msd6.i/01jun16.b/616z0331vi.m
Meth Date : 06-Jun-2016 10:10 atoyama Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 45
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: NaphMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.421	11.421 (1.000)	174	625927	36.0000		80.00- 120.00	100.00
11.421	11.421 (1.000)	95	641819			92.70- 152.70	102.54
11.421	11.421 (1.000)	176	612648			68.24- 128.24	97.88
$ 108 Naphthalene-d8						CAS #: 1146-65-2	
15.697	15.697 (1.374)	136	766920	21.7539	21.754	80.00- 120.00	100.00
15.697	15.697 (1.374)	108	70327			0.00- 39.41	9.17
109 Naphthalene						CAS #: 91-20-3	
15.733	15.740 (1.378)	128	56561	1.34693	1.347	80.00- 120.00	100.00
15.733	15.740 (1.378)	127	7924			0.00- 43.01	14.01

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6060120.d
Lab Smp Id: 1606008-05A
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: G0154148

Calibration Date: 01-JUN-2016
Calibration Time: 10:25

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	580931	348559	813303	625927	7.75

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.42	11.09	11.75	11.42	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: 06-Jun-2016 10:11

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 01jun16
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1606008-05A
Level: LOW Operator: CT
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk Quant Type: ISTD
Sublist File: NaphMDL.sub
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: G0154148

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 108 Naphthalene-d8	25.000	21.754	87.02	50-150

Data File: /chem/msd6.i/01jun16.b/6060120.d

Date : 01-JUN-2016 22:43

Client ID:

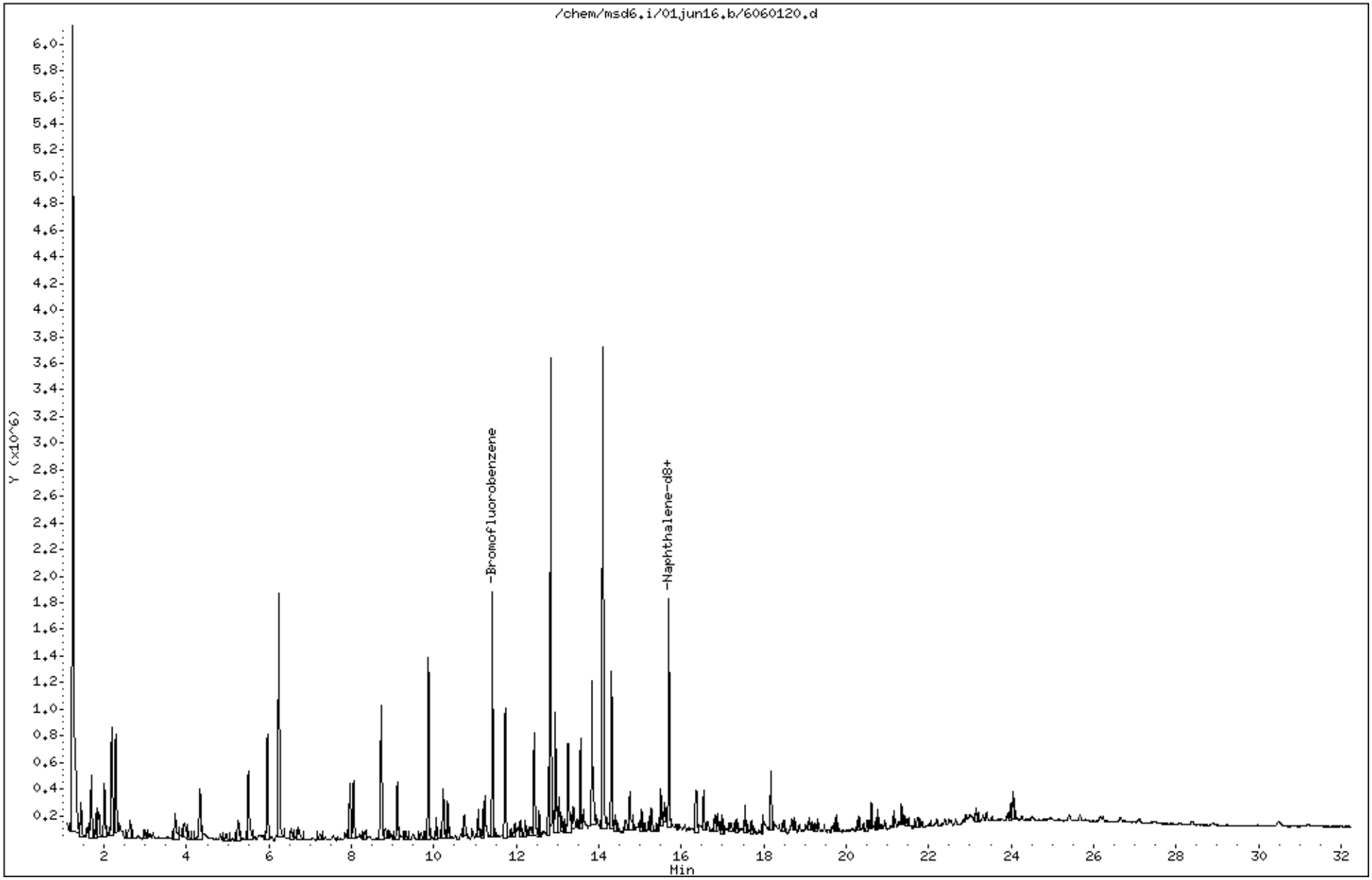
Instrument: msd6.i

Sample Info: :1606008-05A

Operator: CT

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/01jun16.b/6060120.d

Date : 01-JUN-2016 22:43

Client ID:

Instrument: msd6.i

Sample Info: ;1606008-05A

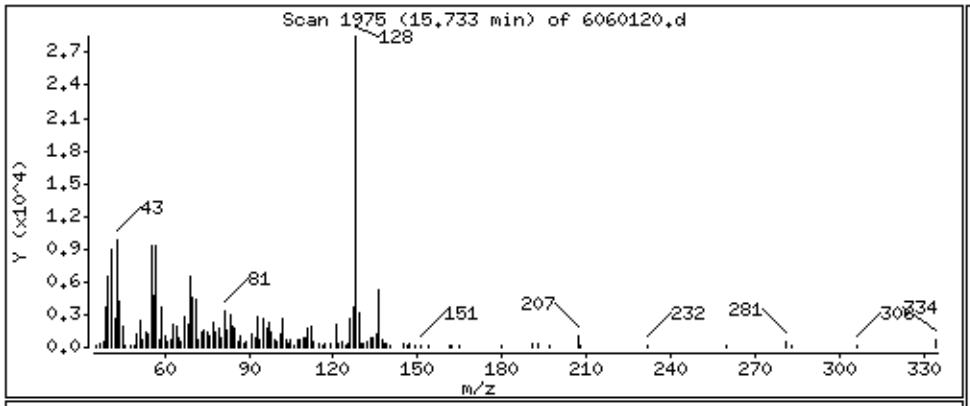
Operator: CT

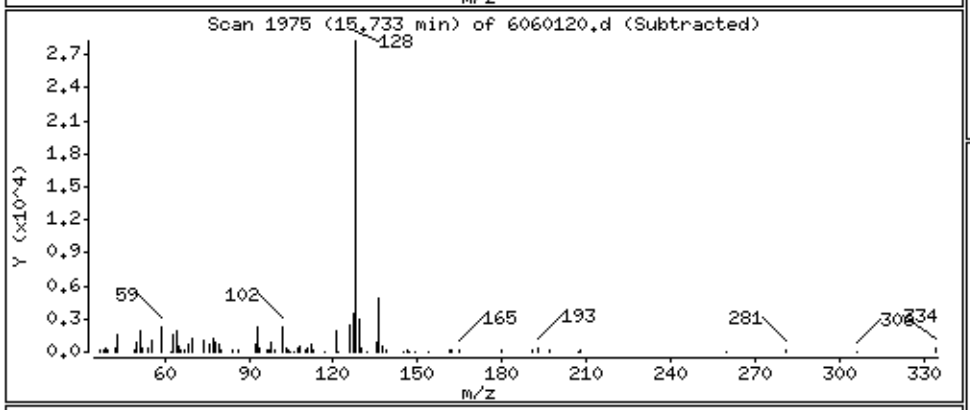
Column phase: RTx-624

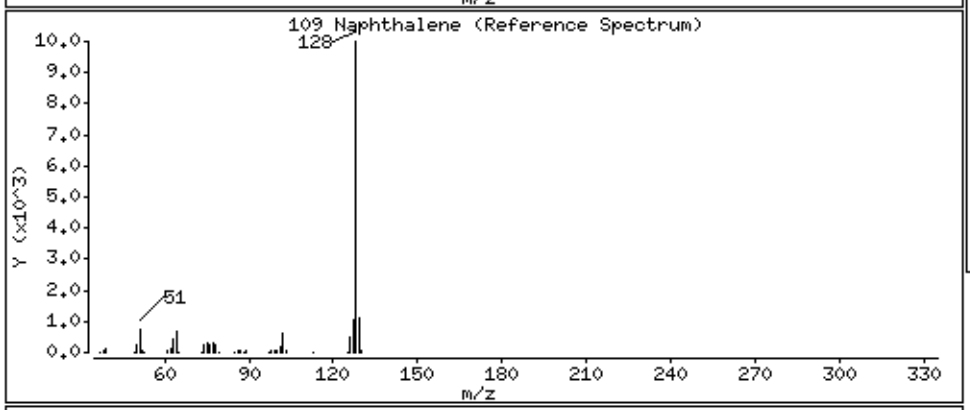
Column diameter: 0.53

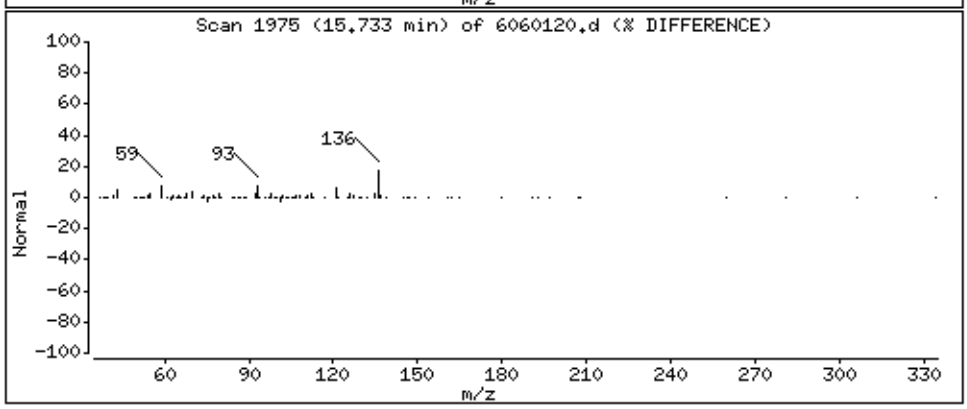
109 Naphthalene

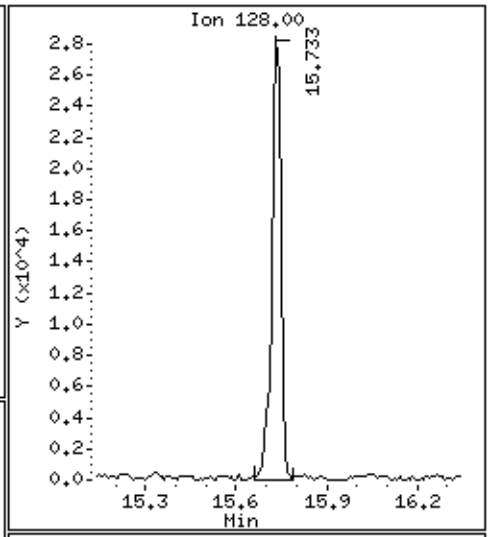
Concentration: 1.347 NG

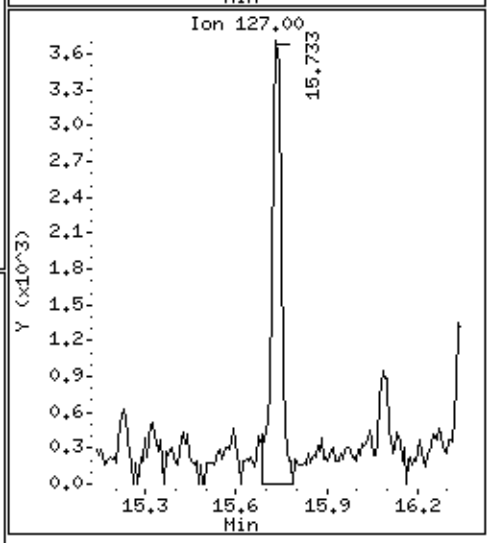












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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B30IA-4 (052816)

Lab ID#: 1606008-06A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.063	1.5	0.095

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Client Sample ID: B30IA-4 (052816)

Lab ID#: 1606008-06A

EPA METHOD TO-17

File Name:	**6060121**	**Date of Extraction: NA**	**Date of Collection: 5/29/16 6:04:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 6/1/16 11:23 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.063	1.5	0.095

Air Sample Volume(L): 15.8
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	84	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01jun16.b/6060121.d
Lab Smp Id: 1606008-06A
Inj Date : 01-JUN-2016 23:23
Operator : CT Inst ID: msd6.i
Smp Info : ;1606008-06A
Misc Info : G0135687
Comment :
Method : /chem/msd6.i/01jun16.b/616z0331vi.m
Meth Date : 06-Jun-2016 10:10 atoyama Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 46
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: NaphMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.421	11.421 (1.000)	174	618184	36.0000		80.00- 120.00	100.00
11.421	11.421 (1.000)	95	636100			92.70- 152.70	102.90
11.421	11.421 (1.000)	176	606188			68.24- 128.24	98.06
$ 108 Naphthalene-d8					CAS #: 1146-65-2		
15.697	15.697 (1.374)	136	733019	21.0527	21.053	80.00- 120.00	100.00
15.697	15.697 (1.374)	108	68636			0.00- 39.41	9.36
109 Naphthalene					CAS #: 91-20-3		
15.733	15.740 (1.378)	128	62463	1.50611	1.506	80.00- 120.00	100.00
15.733	15.740 (1.378)	127	8040			0.00- 43.01	12.87

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6060121.d
Lab Smp Id: 1606008-06A
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: G0135687

Calibration Date: 01-JUN-2016
Calibration Time: 10:25

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	580931	348559	813303	618184	6.41

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.42	11.09	11.75	11.42	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: 06-Jun-2016 10:12

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 01jun16
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1606008-06A
Level: LOW Operator: CT
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk Quant Type: ISTD
Sublist File: NaphMDL.sub
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: G0135687

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 108 Naphthalene-d8	25.000	21.053	84.21	50-150

Data File: /chem/msd6.i/01jun16.b/6060121.d

Date : 01-JUN-2016 23:23

Client ID:

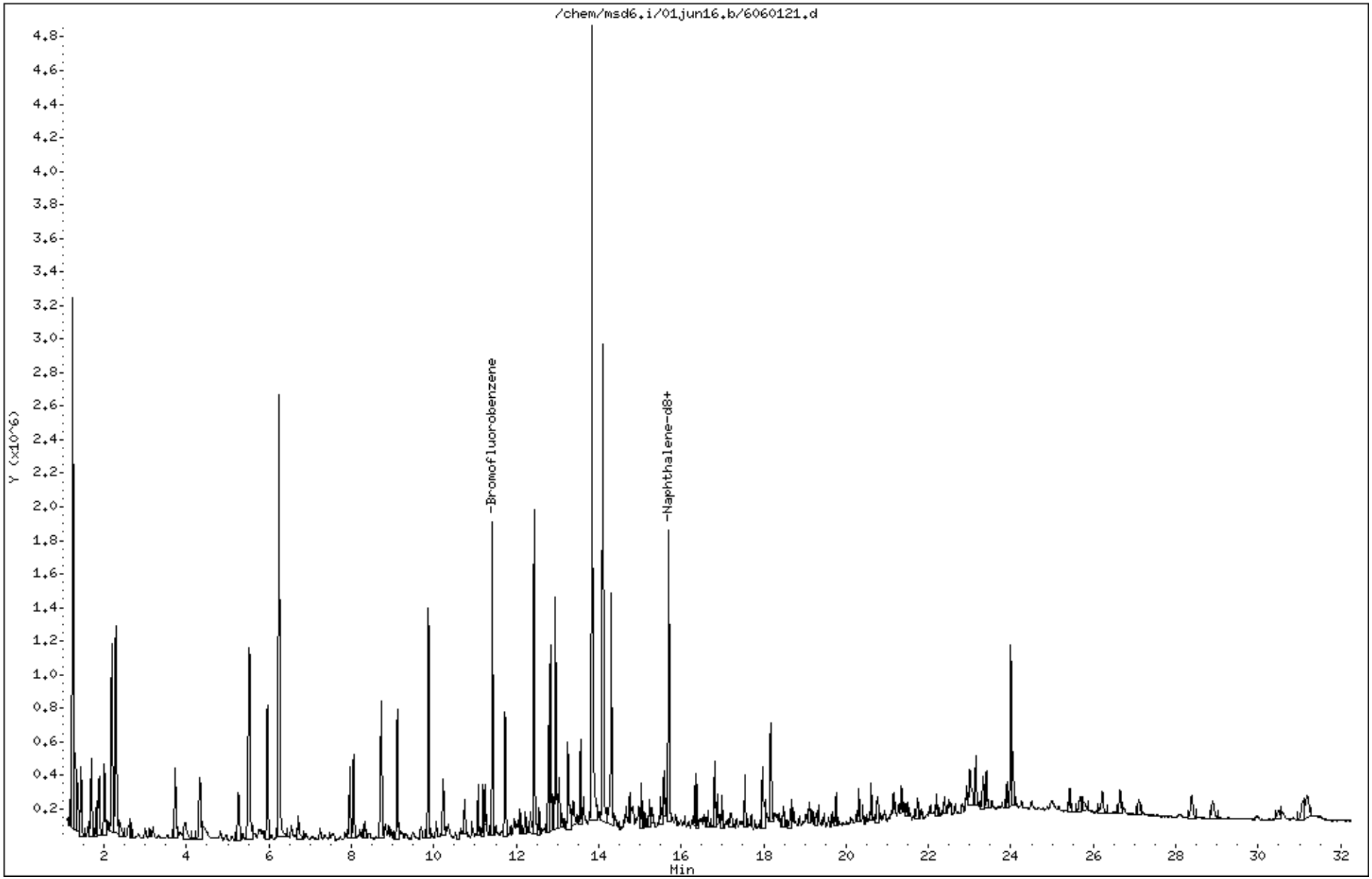
Instrument: msd6.i

Sample Info: ;1606008-06A

Operator: CT

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/01jun16.b/6060121.d

Date : 01-JUN-2016 23:23

Client ID:

Instrument: msd6.i

Sample Info: ;1606008-06A

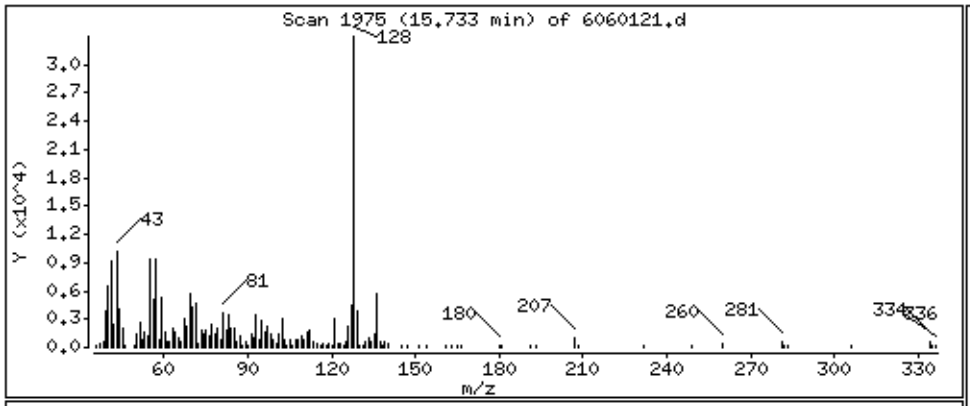
Operator: CT

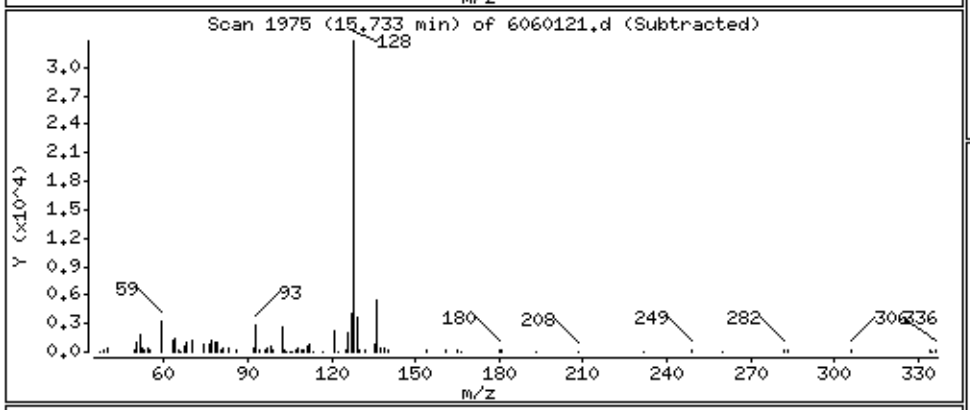
Column phase: RTx-624

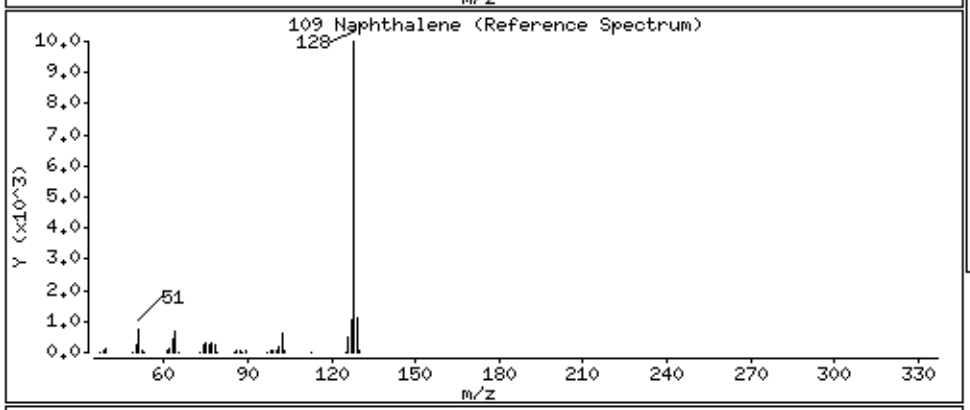
Column diameter: 0.53

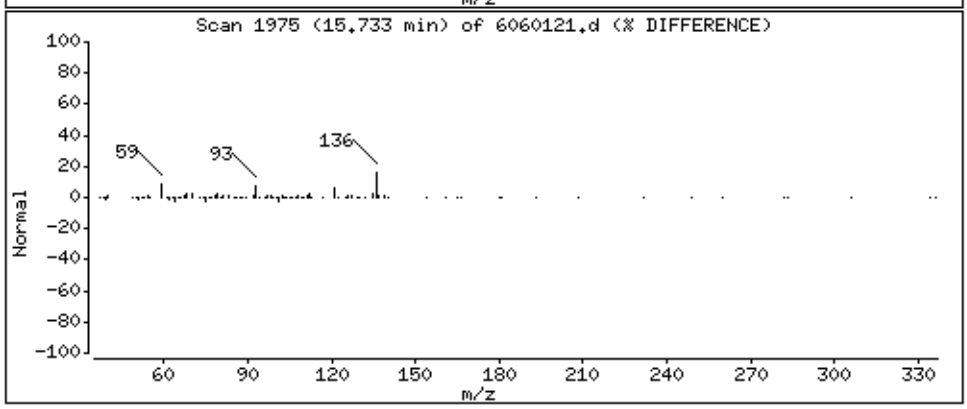
109 Naphthalene

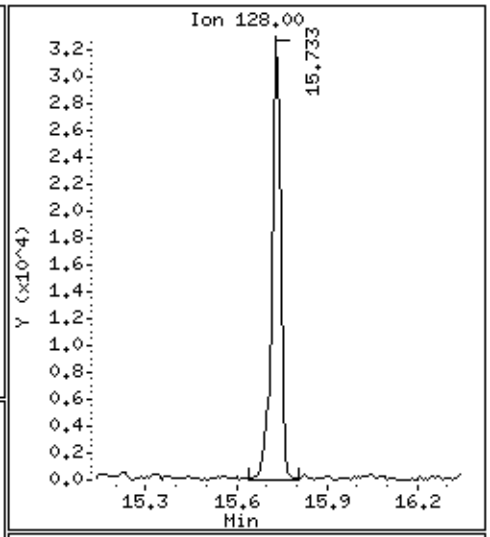
Concentration: 1.506 NG

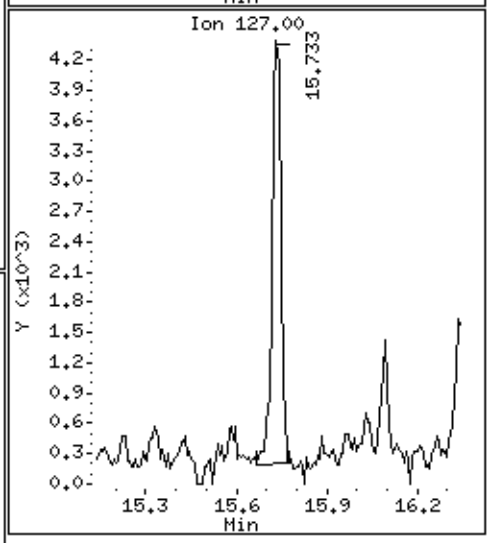












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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B30IA-3 (052816)

Lab ID#: 1606008-07A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.064	1.1	0.069

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Client Sample ID: B30IA-3 (052816)

Lab ID#: 1606008-07A

EPA METHOD TO-17

File Name:	**6060122**	**Date of Extraction: NA**	**Date of Collection: 5/29/16 5:45:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 6/2/16 12:03 AM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.064	1.1	0.069

Air Sample Volume(L): 15.6
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	81	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01jun16.b/6060122.d
Lab Smp Id: 1606008-07A
Inj Date : 02-JUN-2016 00:03
Operator : CT Inst ID: msd6.i
Smp Info : ;1606008-07A
Misc Info : G0147370
Comment :
Method : /chem/msd6.i/01jun16.b/616z0331vi.m
Meth Date : 06-Jun-2016 10:10 atoyama Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 47
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: NaphMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.421	11.421 (1.000)	174	617668	36.0000		80.00- 120.00	100.00
11.421	11.421 (1.000)	95	639617			92.70- 152.70	103.55
11.421	11.421 (1.000)	176	605734			68.24- 128.24	98.07
$ 108 Naphthalene-d8					CAS #: 1146-65-2		
15.697	15.697 (1.374)	136	707579	20.3390	20.339	80.00- 120.00	100.00
15.697	15.697 (1.374)	108	64847			0.00- 39.41	9.16
109 Naphthalene					CAS #: 91-20-3		
15.733	15.740 (1.378)	128	44467	1.07308	1.073	80.00- 120.00	100.00
15.733	15.740 (1.378)	127	6443			0.00- 43.01	14.49

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6060122.d
Lab Smp Id: 1606008-07A
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: G0147370

Calibration Date: 01-JUN-2016
Calibration Time: 10:25

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	580931	348559	813303	617668	6.32

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.42	11.09	11.75	11.42	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: 06-Jun-2016 10:12

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 01jun16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1606008-07A
Level: LOW
Operator: CT
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk
Quant Type: ISTD
Sublist File: NaphMDL.sub
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: G0147370

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 108 Naphthalene-d8	25.000	20.339	81.36	50-150

Data File: /chem/msd6.i/01jun16.b/6060122.d

Date : 02-JUN-2016 00:03

Client ID:

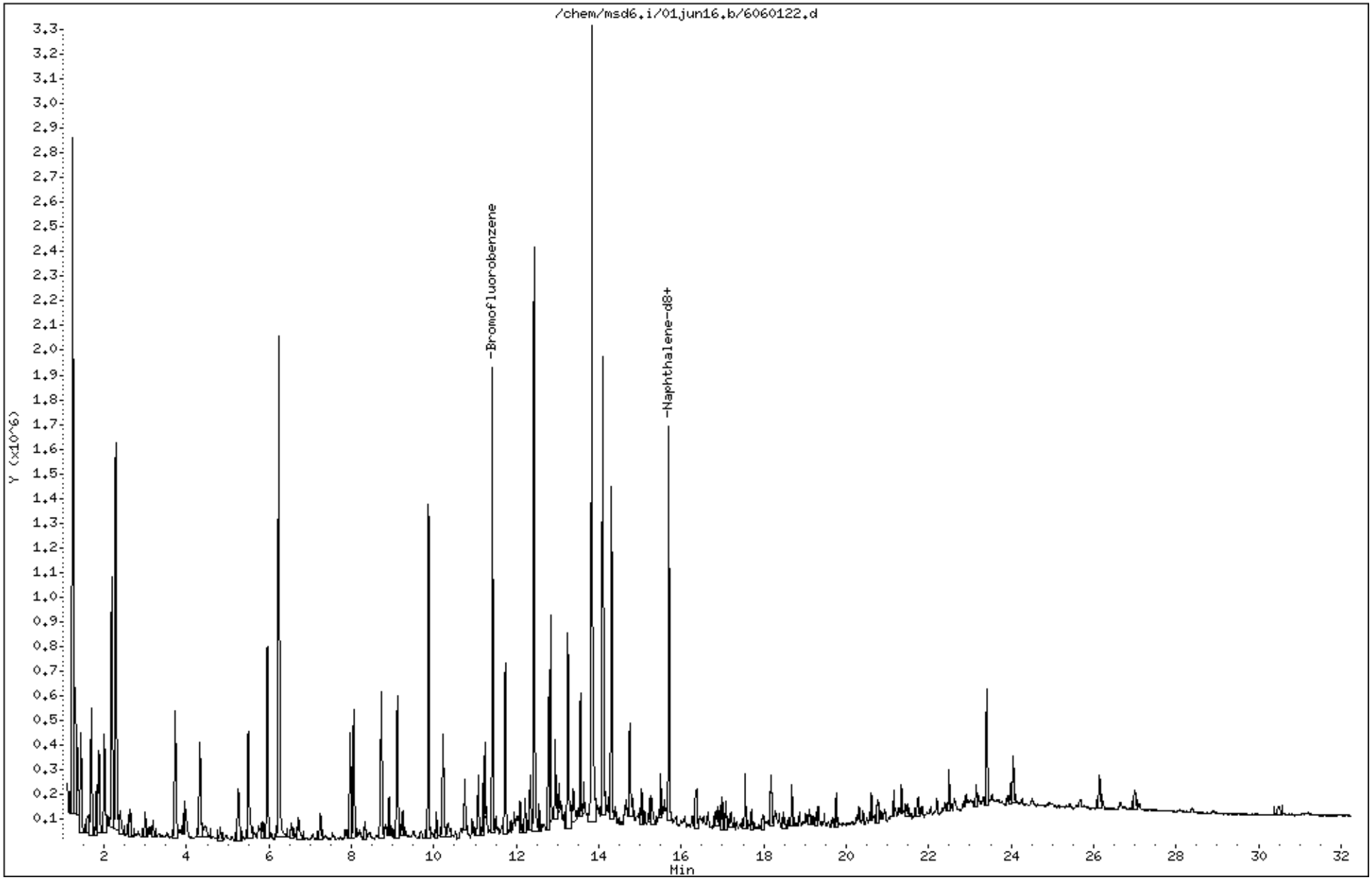
Instrument: msd6.i

Sample Info: :1606008-07A

Operator: CT

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/01jun16.b/6060122.d

Date : 02-JUN-2016 00:03

Client ID:

Instrument: msd6.i

Sample Info: ;1606008-07A

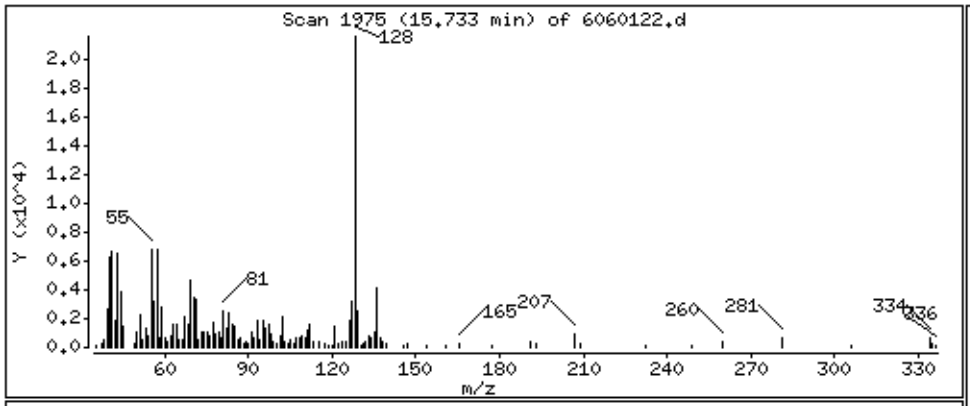
Operator: CT

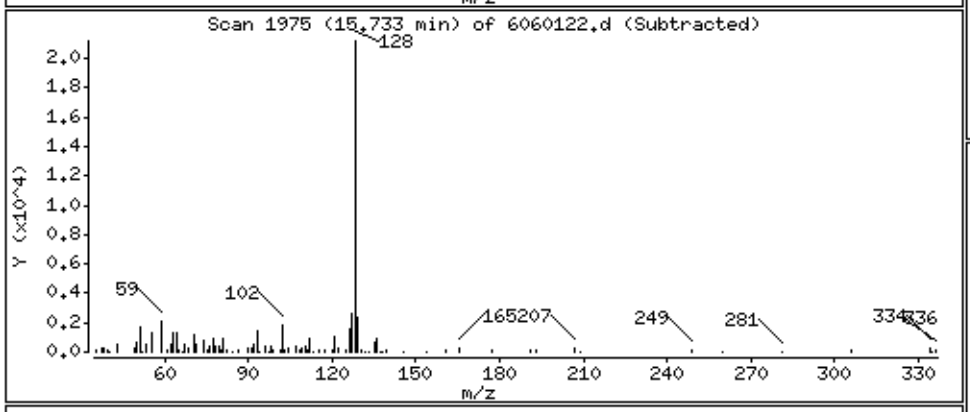
Column phase: RTx-624

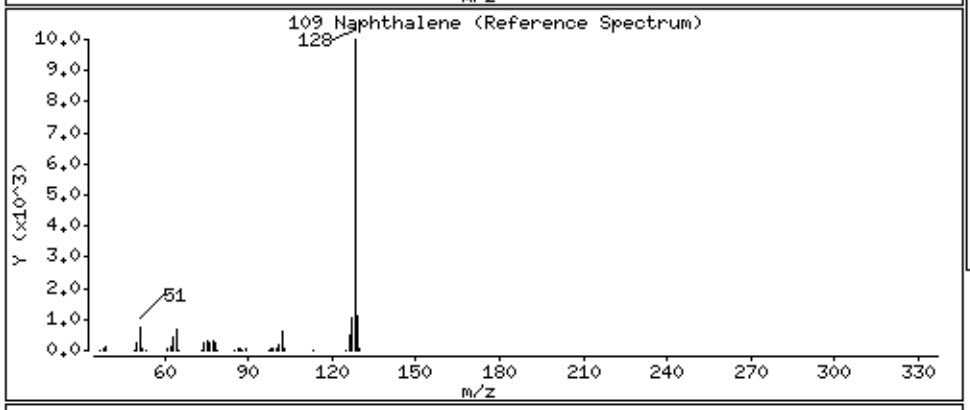
Column diameter: 0.53

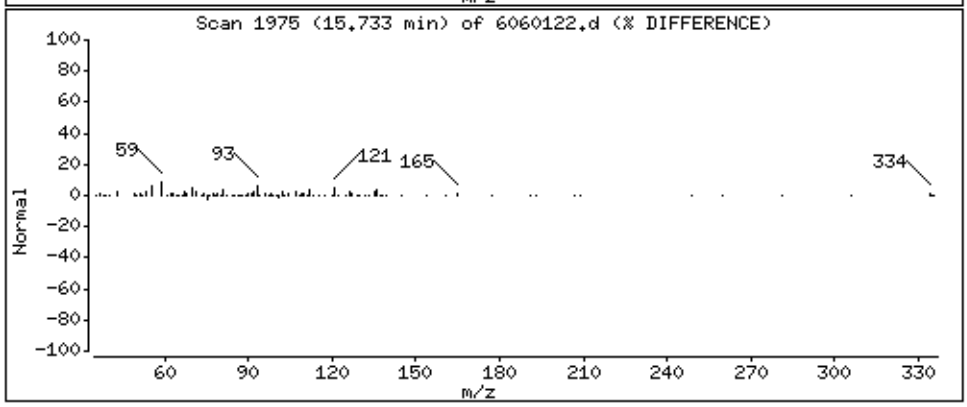
109 Naphthalene

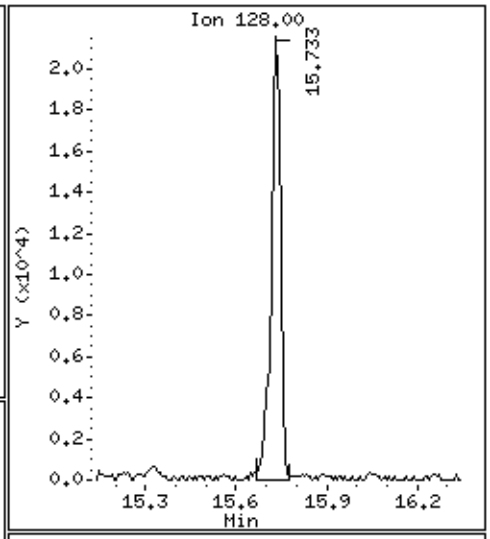
Concentration: 1.073 NG

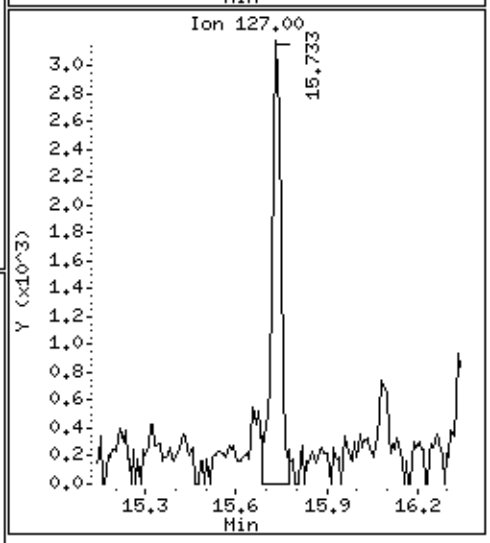












QC Results and Raw Data

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Client Sample ID: Lab Blank

Lab ID#: 1606008-08A

EPA METHOD TO-17

File Name:	**6060106a**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 6/1/16 12:24 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.058	Not Detected	Not Detected

Air Sample Volume(L): 17.3
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Naphthalene-d8	84	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01jun16.b/6060106a.d
Lab Smp Id: DP Lab Blank Client Smp ID: Lab Blank
Inj Date : 01-JUN-2016 12:24
Operator : CT Inst ID: msd6.i
Smp Info : ;DP Lab Blank;Lab Blank
Misc Info : G0148388
Comment :
Method : /chem/msd6.i/01jun16.b/616z0331vi.m
Meth Date : 06-Jun-2016 10:10 atoyama Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 13 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: NaphMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.435	11.421 (1.000)	174	597299	36.0000		80.00- 120.00	100.00
11.435	11.421 (1.000)	95	600443			92.70- 152.70	100.53
11.435	11.421 (1.000)	176	588946			68.24- 128.24	98.60
$ 108 Naphthalene-d8					CAS #: 1146-65-2		
15.697	15.697 (1.373)	136	702921	20.8941	20.894	80.00- 120.00	100.00
15.697	15.697 (1.373)	108	63319			0.00- 39.41	9.01

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6060106a.d
Lab Smp Id: DP Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: G0148388

Calibration Date: 01-JUN-2016
Calibration Time: 10:25
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	580931	348559	813303	597299	2.82

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.42	11.09	11.75	11.44	0.13

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: 06-Jun-2016 10:11

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 01jun16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: DP Lab Blank
Client Smp ID: Lab Blank
Level: LOW
Operator: CT
Data Type: MS DATA
SampleType: BLANK
SpikeList File: VOC+PAHlcs50.spk
Quant Type: ISTD
Sublist File: NaphMDL.sub
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: G0148388

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 108 Naphthalene-d8	25.000	20.894	83.58	50-150

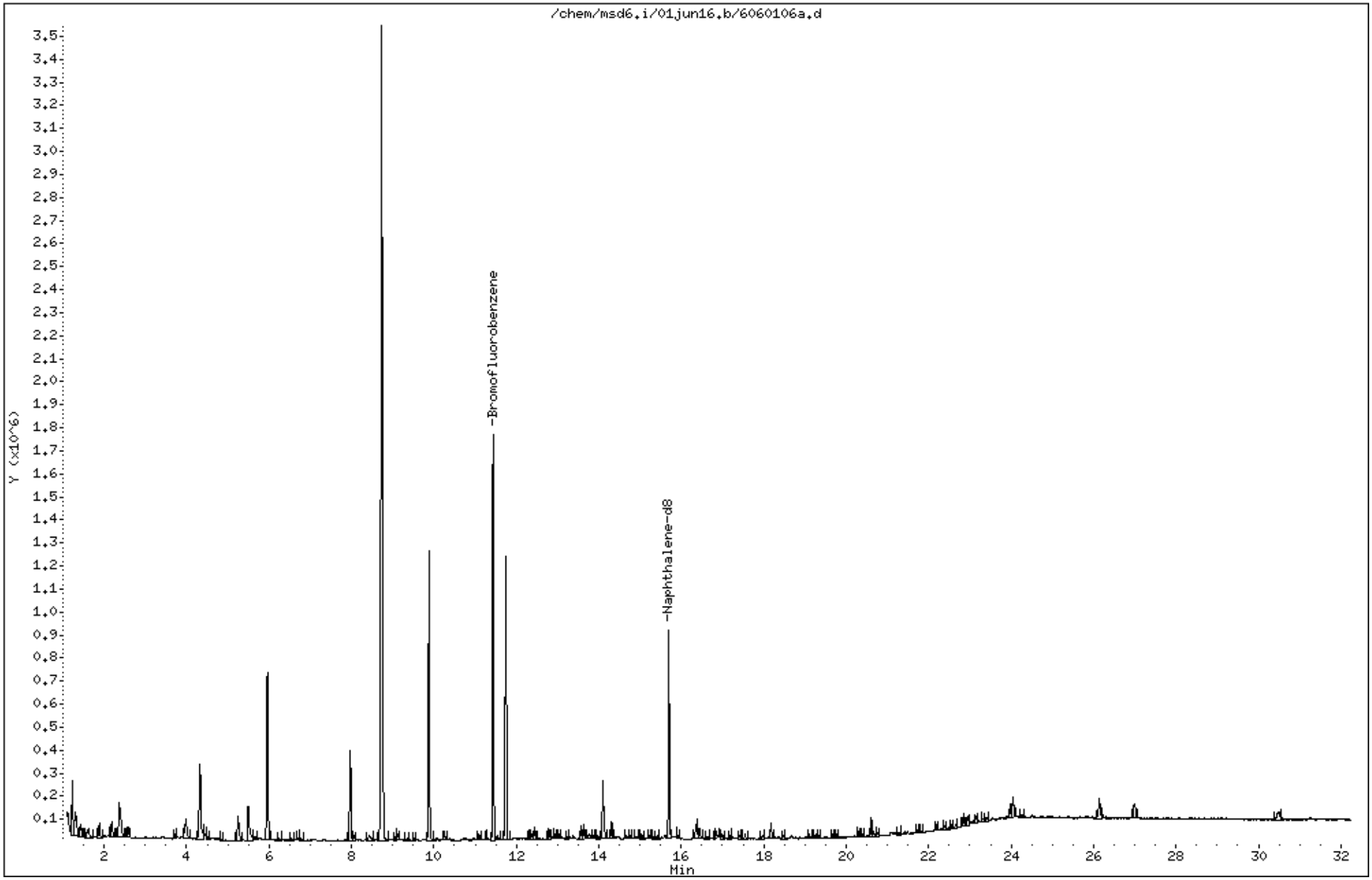
Data File: /chem/msd6.i/01jun16.b/6060106a.d
Date : 01-JUN-2016 12:24
Client ID: Lab Blank
Sample Info: ;DP Lab Blank;Lab Blank

Instrument: msd6.i

Operator: CT

Column phase: RTx-624

Column diameter: 0.53



LEVEL-IV VALIDATABLE

EPA METHOD TO-17

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1606008

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY								
		Naphthalene-d8	#		#		#		#	TOTAL OUT
01	B30IA-1 (052816)	88								0
02	B30AA (052816)	80								0
03	B30IA-5 (052816)	87								0
04	B30IA-2 (052816)	84								0
05	B30IA-1D (052816)	87								0
06	B30IA-4 (052816)	84								0
07	B30IA-3 (052816)	81								0
08	Lab Blank	84								0
09	CCV	86								0
10	LCS	84								0
11	LCSD	83								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

Naphthalene-d8 50 - 150

* Designates values outside of QC limits

LEVEL-IV VALIDATABLE

EPA Method TO-17

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AIR TOXICS, LTD

SDG No: 1606008

Lab File ID: 6060103.d

Date Analyzed: 06/01/2016

Instrument ID: msd6.i

Time Analyzed: 10:25 AM

		4-Bromofluorobenzene Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
	24-HOUR STD	580931		11.42									
	UPPER LIMIT	813303		11.75									
	LOWER LIMIT	348559		11.09									
	CLIENT SAMPLE NO												
01	B30IA-1 (052816)	601791		11.42									
02	B30AA (052816)	607897		11.42									
03	B30IA-5 (052816)	611130		11.42									
04	B30IA-2 (052816)	630157		11.42									
05	B30IA-1D (052816)	625927		11.42									
06	B30IA-4 (052816)	618184		11.42									
07	B30IA-3 (052816)	617668		11.42									
08	Lab Blank	597299		11.44									
09	CCV	580931		11.42									
10	LCS	611144		11.44									
11	LCSD	527022		11.42									
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: 6060105.d & 6060104.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 6/1/16 & 6/1/16

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
91-20-3	Naphthalene	94		94		0	

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 : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Calibration File Names:
Level 1: /chem/msd6.i/31mar16.b/6033102.d
Level 2: /chem/msd6.i/31mar16.b/6033103.d
Level 3: /chem/msd6.i/31mar16.b/6033124.d
Level 4: /chem/msd6.i/31mar16.b/6033105.d
Level 5: /chem/msd6.i/31mar16.b/6033106.d
Level 6: /chem/msd6.i/31mar16.b/6033107.d
Level 7: /chem/msd6.i/31mar16.b/6033108.d
Level 8: /chem/msd6.i/31mar16.b/6033109.d

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
	250.000 Level 7	500.000 Level 8						
1 Propylene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
2 Dichlorodifluoromethane/Fr12	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
3 Freon 114	0.43434	0.50438	0.46707	0.48648	0.46956	0.48011		
	0.46076	0.43325					0.46699	5.245
4 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
5 Butane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
6 Vinyl Chloride	+++++	0.78321	0.74359	0.74519	0.72714	0.73029		
	0.71377	0.68797					0.73302	4.024
7 1,3-Butadiene	0.68393	0.75219	0.76889	0.69240	0.69313	0.68346		
	0.67615	0.65229					0.70031	5.648

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1 250.000 Level 7	5.000 Level 2 500.000 Level 8	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
8 Bromomethane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
9 Chloroethane	+++++ 0.33066	0.57428 0.33772	0.51412	0.49029	0.35236	0.34512	0.42065	24.269
10 Isopentane	0.52006 0.52964	0.58077 0.50850	0.53285	0.55268	0.53265	0.54051	0.53721	4.080
11 Trichlorofluoromethane/Fr11	0.78668 0.88131	0.82414 0.86669	0.81064	0.82142	0.81851	0.82252	0.82899	3.681
12 Vinyl Bromide	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Ethanol	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
14 1,1-Dichloroethene	0.33167 0.31984	0.36642 0.30253	0.35631	0.34028	0.32681	0.32712	0.33387	6.079
15 Freon 113	0.45328 0.48053	0.49891 0.45556	0.47579	0.49345	0.48071	0.49016	0.47855	3.492
16 Acetone	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon123a	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1 250.000 Level 7	5.000 Level 2 500.000 Level 8	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
18 Carbon Disulfide	2.29051	2.26136	1.96757	1.92455	1.83125	1.81845		
	1.79347	1.73565					1.95285	10.874
19 2-Propanol	*****	*****	2.43821	1.98720	1.64559	1.64661		
	1.63926	1.54449					1.81689	18.732
20 Pentane	*****	*****	*****	*****	*****	*****		
	*****	*****					*****	*****
21 3-Chloropropene	*****	*****	*****	*****	*****	*****		
	*****	*****					*****	*****
22 Methylene Chloride	*****	*****	*****	1.12901	0.82715	0.77875		
	0.73542	0.70004					0.83408	20.574
23 Acrolein	*****	*****	*****	*****	*****	*****		
	*****	*****					*****	*****
24 tert-Butyl-Alcohol	*****	*****	*****	*****	*****	*****		
	*****	*****					*****	*****
25 trans-1,2-Dichloroethene	0.31164	0.36344	0.33360	0.33667	0.33469	0.33638		
	0.33063	0.32217					0.33365	4.431
26 MTBE	1.34430	1.48980	1.20558	1.38905	1.41987	1.46776		
	1.41649	*****					1.39041	6.804
27 Acrylonitrile	*****	*****	*****	*****	*****	*****		
	*****	*****					*****	*****

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
	250.000 Level 7	500.000 Level 8						
28 Hexane	0.98564	1.06377	0.95880	0.99012	0.96562	0.96435		
	0.94589	0.90953					0.97296	4.561
29 1,1-Dichloroethane	0.83277	0.96616	0.85720	0.90583	0.88939	0.89790		
	0.88510	0.85834					0.88659	4.551
30 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
31 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
32 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
33 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
34 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
35 t-Butylethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
36 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
37 cis-1,2-Dichloroethene	0.35705	0.38817	0.35262	0.36192	0.35283	0.35513		
	0.35119	0.34296					0.35773	3.754

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1 250.000 Level 7	5.000 Level 2 500.000 Level 8	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
38 2-Butanone	+++++	+++++	+++++	0.50064	0.35580	0.33977		
	0.31888	0.31064					0.36515	21.303
39 2-Chloroethyl vinyl ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
41 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
42 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
43 Octane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
44 Chloroform	0.86608	0.92272	0.84837	0.86536	0.84484	0.84156		
	0.81969	0.80341					0.85150	4.200
45 1,1,1-Trichloroethane	0.15288	0.16993	0.15049	0.17314	0.17851	0.18278		
	0.18012	0.17557					0.17043	7.192
46 Cyclohexane	0.16860	0.17767	0.16996	0.17285	0.17396	0.17795		
	0.17679	0.17275					0.17382	2.004
47 Carbon Tetrachloride	0.12269	0.15394	0.12421	0.15000	0.15869	0.16393		
	0.16092	0.15698					0.14892	10.929
48 Benzene	+++++	0.66399	0.49658	0.53393	0.51142	0.45199		
	0.44472	0.42815					0.50440	15.897

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
	250.000 Level 7	500.000 Level 8						
50 1,2-Dichloroethane	0.15933	0.15691	0.15160	0.15562	0.15648	0.15877		
	0.15429	0.14938					0.15530	2.206
51 2,2,4-Trimethylpentane	0.49973	0.54592	0.52863	0.53346	0.54052	0.54040		
	0.53175	0.50023					0.52758	3.394
52 tert-amyl-Methyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
53 Heptane	0.12264	0.12283	0.11578	0.11695	0.11746	0.11845		
	0.11814	0.11558					0.11848	2.375
55 Decane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
56 Trichloroethene	0.13949	0.15009	0.15559	0.15010	0.13390	0.12909		
	0.12851	0.12196					0.13859	8.816
57 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
58 Methyl Cyclohexane	0.20444	0.22215	0.21248	0.21336	0.21980	0.22047		
	0.21961	0.21410					0.21580	2.723
59 1,2-Dichloropropane	0.11093	0.11768	0.10456	0.11386	0.12082	0.12295		
	0.12180	0.11845					0.11638	5.376
60 1,4-Dioxane	0.10123	0.10267	0.09620	0.09773	0.09818	0.10036		
	0.09996	0.09766					0.09925	2.175

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

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Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
	250.000 Level 7	500.000 Level 8						
61 Undecane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
62 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
63 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
64 cis-1,3-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
65 4-Methyl-2-pentanone	0.10665	0.11890	0.11166	0.11031	0.11739	0.11919		
	0.11734	0.11250					0.11424	4.033
67 Toluene	0.66470	0.61072	0.57867	0.55937	0.56301	0.56215		
	0.54954	0.52446					0.57658	7.494
68 1,1,1,2-Tetrachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
69 trans-1,3-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
70 1,1,2-Trichloroethane	0.11963	0.11796	0.11364	0.11321	0.11764	0.11889		
	0.11668	0.11206					0.11622	2.457
71 Tetrachloroethene	0.14377	0.15540	0.14835	0.14917	0.15388	0.15667		
	0.15809	0.15363					0.15237	3.184

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1 250.000 Level 7	5.000 Level 2 500.000 Level 8	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
72 2-Hexanone	0.16540 0.18228	0.18093 0.17719	0.15857	0.16002	0.18082	0.18541	0.17383	6.191
73 Dibromochloromethane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
74 1,2-Dibromoethane	0.13352 0.14778	0.14528 0.14316	0.13736	0.13374	0.14951	0.15454	0.14311	5.353
75 Bromobenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
76 1,2,3-Trichloropropane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
77 2-Chlorotoluene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
78 4-Chlorotoluene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
80 tert-Butylbenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
81 Chlorobenzene	0.36313 0.36915	0.38755 0.35181	0.36474	0.36260	0.37707	0.37701	0.36913	3.007
82 Ethyl Benzene	0.19498 0.20352	0.20886 0.19641	0.19970	0.19414	0.20281	0.20707	0.20094	2.753

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
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Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1 250.000 Level 7	5.000 Level 2 500.000 Level 8	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
83 sec-Butylbenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
84 m,p-Xylene	0.27303 0.25458	0.29447 0.24963	0.25520	0.24445	0.25428	0.25923	0.26061	6.136
85 p-Cymene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
86 1,2,3-Trimethylbenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
87 Butylbenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
88 o-Xylene	0.52509 0.53454	0.58187 0.50589	0.55003	0.53323	0.55368	0.55287	0.54215	4.201
89 Styrene	0.95659 0.92371	1.03957 0.86703	0.89822	0.88466	0.95185	0.95779	0.93493	5.836
90 Bromoform	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
91 Cumene	1.32369 1.40841	1.56761 1.21565	1.47863	1.43301	1.49662	1.48287	1.42581	7.779
93 1,2-Dibromo-3-Chloropropane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1 250.000 Level 7	5.000 Level 2 500.000 Level 8	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
94 1,1,2,2-Tetrachloroethane	0.40857 0.51904	0.46373 0.49485	0.40040	0.42904	0.51127	0.54374	0.47133	11.477
95 1,3,5-Trichlorobenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
96 Propylbenzene	1.55942 1.66749	1.92359 1.31431	1.78149	1.69849	1.78132	1.76610	1.68653	10.881
97 4-Ethyltoluene	0.36990 0.43691	0.47488 0.41253	0.44799	0.41943	0.45433	0.45484	0.43385	7.547
98 1,3,5-Trimethylbenzene	0.52724 0.60794	0.67607 0.56918	0.63645	0.59626	0.64266	0.63765	0.61168	7.713
99 1,2,3-Trichlorobenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
100 1,2,4-Trimethylbenzene	0.48950 0.56173	0.66554 0.52708	0.59193	0.54494	0.59324	0.58613	0.57001	9.242
101 1,3-Dichlorobenzene	0.57935 0.69708	0.81719 0.65407	0.74373	0.69424	0.73513	0.72293	0.70547	9.861
102 1,4-Dichlorobenzene	0.56889 0.69619	0.81897 0.65623	0.74424	0.68559	0.74161	0.72347	0.70440	10.400
103 Phenol	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1 250.000 Level 7	5.000 Level 2 500.000 Level 8	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
217 2-Methylphenol	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
218 3-Methylphenol/4-Methylphenol	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
104 alpha-Chlorotoluene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
105 1,2-Dichlorobenzene	0.52722 0.66492	0.74531 0.63036	0.70648	0.66191	0.70576	0.69098	0.66662	9.931
106 1,2,4-Trichlorobenzene	0.42101 0.46904	0.51528 0.46666	0.42701	0.39468	0.50041	0.47234	0.45830	8.966
107 Hexachlorobutadiene	0.26643 0.25289	0.20223 0.25445	0.20383	0.19078	0.26141	0.25217	0.23552	13.114
109 Naphthalene	3.62499 1.95606	3.19161 +++++	2.07042	1.94161	2.09201	2.02971	2.41520	28.653
110 2-Methylnaphthalene	1.52644 1.27856	1.88591 +++++	1.25746	1.20809	1.31226	1.30348	1.39603	17.074
111 1-Methylnaphthalene	1.32010 1.17025	1.66046 +++++	1.14509	1.10097	1.20330	1.18726	1.25535	15.215
112 Acenaphthylene	+++++ 1.96568	2.64033 +++++	1.86920	1.78696	2.05622	1.98360	2.05033	14.824

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1 / 250.000 Level 7	5.000 Level 2 / 500.000 Level 8	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
113 Acenaphthene	+++++	1.32614	1.01025	0.98706	1.08437	1.10654		
	1.13570	+++++					1.10834	10.909
114 Fluorene	+++++	1.37714	0.99376	0.92314	0.93835	1.15032		
	1.21431	+++++					1.09950	16.326
115 Phenanthrene	+++++	2.35766	1.73275	1.53938	1.88832	1.78064		
	1.83840	+++++					1.85619	14.737
116 Anthracene	+++++	2.06316	1.64806	1.42879	1.82892	1.74945		
	1.83022	+++++					1.75810	12.037
117 Fluoranthene	+++++	1.89609	1.35152	1.02252	1.28168	1.02065		
	1.17435	+++++					1.29114	25.184
118 Pyrene	+++++	2.01334	1.39158	1.06047	1.32129	1.04297		
	1.21775	+++++					1.34123	26.627
$ 49 1,2-Dichloroethane-d4	+++++	0.12574	0.12324	0.12145	0.12306	0.12325		
	0.11437	+++++					0.12185	3.213
$ 66 Toluene-d8	+++++	0.45318	0.46598	0.45779	0.48658	0.48059		
	0.46603	+++++					0.46836	2.758
$ 108 Naphthalene-d8	+++++	2.64559	1.89004	1.83829	1.87907	1.93518		
	1.97772	+++++					2.02765	15.117

Calibration History

Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Start Cal Date: 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
30-MAR-2016 18:14	VOC+naphsnoSS	/chem/msd6.i/31mar16.b/6033102.d
Cal Level: 2 , Cal Amount: 5.00000		
30-MAR-2016 18:54	VOC+PAH_ICAL	/chem/msd6.i/31mar16.b/6033103.d
Cal Level: 3 , Cal Amount: 10.00000		
31-MAR-2016 10:19	PAHical	/chem/msd6.i/31mar16.b/6033124.d
30-MAR-2016 19:34	VOC_L1	/chem/msd6.i/31mar16.b/6033104.d
Cal Level: 4 , Cal Amount: 25.00000		
30-MAR-2016 20:13	VOC+PAH_ICAL	/chem/msd6.i/31mar16.b/6033105.d
Cal Level: 5 , Cal Amount: 50.00000		
30-MAR-2016 20:53	VOC+PAH_ICAL	/chem/msd6.i/31mar16.b/6033106.d
Cal Level: 6 , Cal Amount: 100.00000		
30-MAR-2016 21:33	VOC+PAH_ICAL	/chem/msd6.i/31mar16.b/6033107.d
Cal Level: 7 , Cal Amount: 250.00000		
30-MAR-2016 22:12	VOC+PAH_ICAL	/chem/msd6.i/31mar16.b/6033108.d
Cal Level: 8 , Cal Amount: 500.00000		

```
+=================================================================================+
|30-MAR-2016 22:52 |VOC_ICALnoSS     |/chem/msd6.i/31mar16.b/6033109.d        |
+------------------+-----------------+----------------------------------------+


Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5
+------------------+-----------------+----------------------------------------+
| Ccal Level: 5 , Ccal Amount: 50.000                                          |
+=================================================================================+
|30-MAR-2016 20:53 |VOC+PAH_ICAL     |/chem/msd6.i/31mar16.b/6033106.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 5 , Ccal Amount: 50.000                                          |
+=================================================================================+
|30-MAR-2016 20:53 |VOC+PAH_ICAL     |/chem/msd6.i/31mar16.b/6033106a.d       |
+------------------+-----------------+----------------------------------------+
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Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 31-Mar-2016 11:04 lantonic
Curve Type : Average

DB 4/1/16
LA 3/31/16

Calibration File Names:
Level 1: /chem/msd6.i/31mar16.b/6033102.d
Level 2: /chem/msd6.i/31mar16.b/6033103.d
Level 3: /chem/msd6.i/31mar16.b/6033124.d
Level 4: /chem/msd6.i/31mar16.b/6033105.d
Level 5: /chem/msd6.i/31mar16.b/6033106.d
Level 6: /chem/msd6.i/31mar16.b/6033107.d
Level 7: /chem/msd6.i/31mar16.b/6033108.d
Level 8: /chem/msd6.i/31mar16.b/6033109.d

Please see Calibration History page(s) for all the calibration files.

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
	250.000 Level 7	500.000 Level 8						
3 Freon 114	0.43434	0.50438	0.46707	0.48648	0.46956	0.48016		
	0.46076	0.43325					0.46700	5.246
6 Vinyl Chloride	0.70211	0.78321	0.74359	0.74519	0.72714	0.73029		
	0.71377	0.68797					0.72916	4.034
7 1,3-Butadiene	0.68393	0.75219	0.76889	0.69240	0.69313	0.68346		
	0.67615	0.65229					0.70031	5.648
9 Chloroethane	+++++	0.57428	0.51412	0.49029	0.36050	0.35427		
	0.33066	0.33772					0.42312	23.662
10 Isopentane	0.52006	0.58077	0.53285	0.55268	0.53265	0.54051		
	0.52964	0.50850					0.53721	4.080
11 Trichlorofluoromethane/Fr11	0.78668	0.82414	0.81064	0.82142	0.81851	0.82301		
	0.88131	0.86669					0.82905	3.679
15 Freon 113	0.45328	0.49891	0.47579	0.49345	0.48071	0.49016		
	0.48053	0.45556					0.47855	3.492

Initial Calibration Narrative

An 8 point calibration curve was performed on instrument MSD-6 using VI sorbent media on March 31, 2016 for VOC+PAH compounds.

- The VOC compounds were spiked in a vapor phase onto the VI tubes using the ATIS.
- The PAH compounds were spiked directly onto the tube.
- ICAL name: 616z0331vi.m
- Units: in ng
- Markes Unity Method: VI.mth
- Chemstation Method: TO17+PAH.m
- DE study for PAH @ 100ng : file # 6033111.d (passed)
- DE study for PAH @ 250ng : file # 6033112.d (passed)
- The Level 3 was reanalyzed for PAH's only due to unacceptable linearity of several PAH compounds.
- VOC ICV file: 6033113.d
- PAH ICV file: 6033125.d
- **The RL for Vinyl Chloride was raised from 2.6ng to 5.1ng due to the MDL study.**
- MDL: 4/1/16

@ Air Toxics Ltd. Run Log for MSD-6 Method TO14 & TO15
BFB verification of 176/174 Ratio: (266965 / 272448) x100% = 97.99%
Standard ID 2299-607 Exp. date 7/13/16
Bromochloromethane 225139 File ID: 6033113
1,4-Difluorobenzene 874568 Compound: toluene
Chlorobenzene-d5 795881 InitialIS: UA
Verification CCV IS vs ICAL mid-point (-40%)
Calculation Check: BFB: 515685

UA 3/31/16

~~ppbv~~ ng of compound = (Area of sample / Area of IS) * (Concentration of IS / RRF) = (1402763 / 804807) * (24.0 / 0.57659) = 72.550ng

Method: 6162033/VI.m

Data Directory: C:\msdchem\1\DATA\31Mar16.b\

Use	SampleName		Port pos.	Injection Time	Init.
1) ✓	6033101.D Comments	OK for tube cert.			
;BFB;BFB		G0143775	11	30 Mar 2016 17:35	UA
2) ✓	6033102.D Comments				
;VI VOC+PAH ICAL1,1.0ngSurr		2516-232-1ml(6/11/16),274	1	30 Mar 2016 18:14	
3) ✓	6033103.D Comments				
;VI VOC+PAH ICAL2,2.0ngSurr		2516-232-2ml(6/11/16),274	2	30 Mar 2016 18:54	
4) ✓	6033104.D Comments	for VOC's only			
;VI VOC+PAH ICAL3,5.0ngSurr		2516-232-3ml(6/11/16),274	3	30 Mar 2016 19:34	
5) ✓	6033105.D Comments				
;VI VOC+PAH ICAL4,10ngSurr		2516-232-6ml(6/11/16),274	4	30 Mar 2016 20:13	
6) ✓	6033106.D Comments				
;VI VOC+PAH ICAL5,25ngSurr		2516-232-20ml(6/11/16),27	5	30 Mar 2016 20:53	
7) ✓	6033107.D Comments				
;VI VOC+PAH ICAL6,50ngSurr		2516-232-50ml(6/11/16),27	6	30 Mar 2016 21:33	
8) ✓	6033108.D Comments				
;VI VOC+PAH ICAL7,100ngSurr		2516-232-100ml(6/11/16),2	7	30 Mar 2016 22:12	
9) ✓	6033109.D Comments				
;VI VOC+PAH ICAL8,noSurr		2516-232-200ml(6/11/16),n	8	30 Mar 2016 22:52	
10) ✓	6033110.D Comments				
;Blank		G0149258	1	30 Mar 2016 23:32	
11) ✓	6033111.D Comments				
;VI PAH DE study,100ng		G0150893	6	31 Mar 2016 00:11	
12) ✓	6033112.D Comments				
;VI PAH DE study,250ng		G0150557	7	31 Mar 2016 00:51	
13) ✓	6033113.D Comments	for VOC's only			
;VI VOC+PAH ICV/LCS;LCS, 25ngS		2516-231-20ml(6/11/16),27	9	31 Mar 2016 1:31	
13) ✓	6033114.D Comments	for VOC's only			
;VI VOC+PAH LCSD;LCSD, 25ngS		2516-231-20ml(6/11/16),27	9	31 Mar 2016 2:10	
14) ✓	6033115.D Comments				
;Lab Blank;Lab Blank		G0153856	10	31 Mar 2016 2:50	
15) X	6033116.D Comments	tube leak			
;VI Tube Cert		G0143655	12	31 Mar 2016 3:29	
16) ✓	6033117.D Comments				
;VI Tube Cert		G0132020	13	31 Mar 2016 4:08	

[illegible] 2/31/16

17) ✓ 6033118.D Comments 2-mn, 1-mn ~ RL
;VI Tube Cert G0147211 14 31 Mar 2016 4:48 LA

18) ✓ 6033119.D Comments
;VI Tube Cert G0149256 15 31 Mar 2016 5:28

19) X 6033120.D Comments front-inlet shutdown
;VI Tube Cert G0139965 16 31 Mar 2016 6:07

20) X XXXXXXX.D Comments re-used file -- tube leak -- no data exists.
;VI Tube Cert G0148382 17 31 Mar 2016 X:XX

21) ✓ 6033121.D Comments
;VI Tube Cert G0147226 18 31 Mar 2016 8:12

22) ✓ 6033122.D Comments
;VI Tube Cert G0132025 19 31 Mar 2016 8:51

23) ✓ 6033123.D Comments
;VI Tube Cert G0143671 20 31 Mar 2016 9:31

24) ✓ 6033124.D Comments
;VI PAH ICAL 3 2744-31-10(7/5/16) 1 31 Mar 2016 10:19

25) ✓ 6033125.D Comments
;VI PAH ICV/LCS;LCS 2744-32-50(7/20/16) 2 31 Mar 2016 10:58

Lynette Antonucelli 3/31/16

Desorption Efficiency (%DE) Verification - EPA Method TO-17

Target Method:	616z0331vi
Instrument Method:	TO17+PAH.m
Initial Run File:	6033108
Repeat Run File:	6033112

Compound	Enter mass (ng) Initial Run (m_i)	Repeat Run (m_r)	%DE
Naphthalene	202.5	0.3	99.9%
2-Methylnaphthalene	228.9	0.2	99.9%
Acenaphthylene	221.0	0.2	99.9%
Acenaphthene	285.4	0.1	100.0%
Fluorene	316.1	1.4	99.6%
Phenanthrene	249.5	2.9	98.9%
Anthracene	272.6	5.6	98.0%
Fluoranthene*	280.8	25.4	91.7%
Pyrene*	253.6	22.8	91.8%

Acceptance criterion $\geq$ 95%
*Acceptance criterion $\geq$ 90%

$$\%DE = [(m_i)/(m_i + m_r)] \times 100\%$$

Where m_i = mass measured in initial run (ng)
m_r = mass measured in repeat run (ng)

Desorption Efficiency (%DE) Verification - EPA Method TO-17

Target Method:	616z0331vi
Instrument Method:	TO17+PAH.m
Initial Run File:	6033107
Repeat Run File:	6033111

Compound	Enter mass (ng) Initial Run (m_i)	Repeat Run (m_r)	%DE
Naphthalene	84.0	0.2	99.8%
2-Methylnaphthalene	93.4	0.2	99.8%
Acenaphthylene	96.7	0.2	99.8%
Acenaphthene	99.8	0.1	99.9%
Fluorene	104.6	1.0	99.1%
Phenanthrene	95.9	2.0	98.0%
Anthracene	99.5	2.9	97.2%
Fluoranthene*	79.0	12.7	**86.2%**
Pyrene*	77.8	12.6	**86.1%**

Acceptance criterion $\geq$ 95%
*Acceptance criterion $\geq$ 90%

$$\%DE = [(m_i)/(m_i + m_r)] \times 100\%$$

Where m_i = mass measured in initial run (ng)
m_r = mass measured in repeat run (ng)

of ppbv to ng based on amount spiked onto TO-17 tube

Mass (ng) = Amount (ppbv) * (MW/24.45)* Vol spiked (mL) * (1L/1000 mL)

Enter working standard #1 conc		200							
Enter working standard #2 conc		1000							
Working Standard (Enter 1 or 2)		2	2	2	2	2	2	2	2
Volume spiked (mL) =>		1	2	3	6	20	50	100	200
Compound	**MW**	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**	**Level 6**	**Level 7**	**Level 8**
Propylene	42.08	1.72	3.44	5.16	10.3	34.4	86.1	172	344
Freon 12	120.92	4.95	9.89	14.84	29.7	98.9	247.3	495	989
Freon 114	170.93	6.99	13.98	20.97	41.9	139.8	349.6	699	1398
Chloromethane	50.49	2.07	4.13	6.20	12.4	41.3	103.3	207	413
Butane	58.12	2.38	4.75	7.13	14.3	47.5	118.9	238	475
Vinyl Chloride	62.5	2.56	5.11	7.67	15.3	51.1	127.8	256	511
1,3-Butadiene	54.09	2.21	4.42	6.64	13.3	44.2	110.6	221	442
Bromomethane	94.95	3.88	7.77	11.65	23.3	77.7	194.2	388	777
Chloroethane	64.52	2.64	5.28	7.92	15.8	52.8	131.9	264	528
Isopentane	72.15	2.95	5.90	8.85	17.7	59.0	147.5	295	590
Freon 11	137.37	5.62	11.24	16.86	33.7	112.4	280.9	562	1124
Ethanol	46.07	1.88	3.77	5.65	11.3	37.7	94.2	188	377
1,1-Dichloroethene	96.95	3.97	7.93	11.90	23.8	79.3	198.3	397	793
Freon 113	187.39	7.66	15.33	22.99	46.0	153.3	383.2	766	1533
Carbon disulfide	76.14	3.11	6.23	9.34	18.7	62.3	155.7	311	623
Acetone	58.08	2.38	4.75	7.13	14.3	47.5	118.8	238	475
3-Chloropropene	76.53	3.13	6.26	9.39	18.8	62.6	156.5	313	626
2-Propanol	60.09	2.46	4.92	7.37	14.7	49.2	122.9	246	492
Methylene Chloride	84.94	3.47	6.95	10.42	20.8	69.5	173.7	347	695
trans-1,2-Dichloroethene	96.94	3.96	7.93	11.89	23.8	79.3	198.2	396	793
MTBE	88.15	3.61	7.21	10.82	21.6	72.1	180.3	361	721
tert-Butyl alcohol	74.12	3.03	6.06	9.09	18.2	60.6	151.6	303	606
Hexane	86.17	3.52	7.05	10.57	21.1	70.5	176.2	352	705
1,1-dichloroethane	98.97	4.05	8.10	12.14	24.3	81.0	202.4	405	810
Isopropyl ether	102.18	4.18	8.36	12.54	25.1	83.6	209.0	418	836
Vinyl acetate	86.09	3.52	7.04	10.56	21.1	70.4	176.1	352	704
t-butylethyl ether	102.17	4.18	8.36	12.54	25.1	83.6	208.9	418	836
cis-1,2-Dichloroethene	96.94	3.96	7.93	11.89	23.8	79.3	198.2	396	793
2-butanone	72.1	2.95	5.90	8.85	17.7	59.0	147.4	295	590
Tetrahydrofuran	72.1	2.95	5.90	8.85	17.7	59.0	147.4	295	590

Chloroform	119.39	4.88	9.77	14.65	29.3	97.7	244.2	488	977
Cyclohexane	84.16	3.44	6.88	10.33	20.7	68.8	172.1	344	688
1,1,1-Trichloroethane	133.42	5.46	10.91	16.37	32.7	109.1	272.8	546	1091
Carbon tetrachloride	153.84	6.29	12.58	18.88	37.8	125.8	314.6	629	1258
2,2,4-Trimethylpentane	114.23	4.67	9.34	14.02	28.0	93.4	233.6	467	934
Benzene	78.11	3.19	6.39	9.58	19.2	63.9	159.7	319	639
tert-amyl-methyl ether	102.18	4.18	8.36	12.54	25.1	83.6	209.0	418	836
1,2-Dichloroethane	98.96	4.05	8.09	12.14	24.3	80.9	202.4	405	809
Heptane	100.2	4.10	8.20	12.29	24.6	82.0	204.9	410	820
Trichloroethene	131.4	5.37	10.75	16.12	32.2	107.5	268.7	537	1075
Methylcyclohexane	98.19	4.02	8.03	12.05	24.1	80.3	200.8	402	803
1,2-Dichloropropane	112.99	4.62	9.24	13.86	27.7	92.4	231.1	462	924
1,4-Dioxane	88.11	3.60	7.21	10.81	21.6	72.1	180.2	360	721
Bromodichloromethane	163.83	6.70	13.40	20.10	40.2	134.0	335.0	670	1340
cis-1,3-Dichloropropene	110.97	4.54	9.08	13.62	27.2	90.8	226.9	454	908
4-Methyl-2-pentanone	100.16	4.10	8.19	12.29	24.6	81.9	204.8	410	819
Toluene	92.13	3.77	7.54	11.30	22.6	75.4	188.4	377	754
trans-1,3-Dichloropropene	110.97	4.54	9.08	13.62	27.2	90.8	226.9	454	908
1,1,2-Trichloroethane	133.42	5.46	10.91	16.37	32.7	109.1	272.8	546	1091
Tetrachloroethene	165.85	6.78	13.57	20.35	40.7	135.7	339.2	678	1357
2-Hexanone	100.16	4.10	8.19	12.29	24.6	81.9	204.8	410	819
Dibromochloromethane	208.29	8.52	17.04	25.56	51.1	170.4	426.0	852	1704
1,2-Dibromoethane	187.861	7.68	15.37	23.05	46.1	153.7	384.2	768	1537
Chlorobenzene	112.56	4.60	9.21	13.81	27.6	92.1	230.2	460	921
ethyl benzene	106.16	4.34	8.68	13.03	26.1	86.8	217.1	434	868
m,p-Xylene	106.17	4.34	8.68	13.03	26.1	86.8	217.1	434	868
o-Xylene	106.17	4.34	8.68	13.03	26.1	86.8	217.1	434	868
Styrene	104.14	4.26	8.52	12.78	25.6	85.2	213.0	426	852
Bromoform	252.77	10.34	20.68	31.01	62.0	206.8	516.9	1034	2068
cumene	120.19	4.92	9.83	14.75	29.5	98.3	245.8	492	983
1,1,2,2-Tetrachloroethane	167.86	6.87	13.73	20.60	41.2	137.3	343.3	687	1373
Propylbenzene	120.2	4.92	9.83	14.75	29.5	98.3	245.8	492	983
4-Ethyltoluene	120.2	4.92	9.83	14.75	29.5	98.3	245.8	492	983
1,3,5-Trimethylbenzene	120.2	4.92	9.83	14.75	29.5	98.3	245.8	492	983
1,2,4-Trimethylbenzene	120.2	4.92	9.83	14.75	29.5	98.3	245.8	492	983
1,3-Dichlorobenzene	147.01	6.01	12.03	18.04	36.1	120.3	300.6	601	1203
1,4-Dichlorobenzene	147.01	6.01	12.03	18.04	36.1	120.3	300.6	601	1203
alpha-Chlorotoluene	126.58	5.18	10.35	15.53	31.1	103.5	258.9	518	1035
1,2-Dichlorobenzene	147.01	6.01	12.03	18.04	36.1	120.3	300.6	601	1203
1,2,4-Trichlorobenzene	181.46	7.42	14.84	22.27	44.5	148.4	371.1	742	1484

Hexachlorobutadiene	260.76	10.67	21.33	32.00	64.0	213.3	533.3	1067	2133
Naphthalene	128	0.52	1.05	1.57	3.14	10.47	26.18	52.35	104.70

Compound	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**	**Level 6**	**Level 7**	**Level 8**
Naphthalene	1.00	5.0	10.0	25	50	25	100	250
2-Methylnaphthalene	1.00	5.0	10.0	25	50	25	100	250
1-Methylnaphthalene	1.00	5.0	10.0	25	50	25	100	250
Acenaphthylene	1.00	5.0	10.0	25	50	25	100	250
Acenaphthene	1.00	5.0	10.0	25	50	25	100	250
Fluorene	1.00	5.0	10.0	25	50	25	100	250
Phenanthrene	1.00	5.0	10.0	25	50	25	100	250
Anthracene	1.00	5.0	10.0	25	50	25	100	250
Fluoranthene	1.00	5.0	10.0	25	50	25	100	250
Pyrene	1.00	5.0	10.0	25	50	25	100	250

Mass (ng) = Amount (ppbv) * (MW/24.45)* Vol spiked (mL) * (1L/1000 mL)

Enter IS/Surr standard concen **1000**

5

Internal Standards/Surrogates	**MW**
Bromofluorobenzene	174.998
Bromochloromethane	129.39
1,4-Difluorobenzene	114.0928
Chlorobenzene-d5	117.56

Field Surrogates	**Mass (ng)**
1,2-Dichloroethane-d4	25
Toluene-d8	25
Naphthalene-d8	25

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033125.d
Lab Smp Id: VI PAH ICV/LCS Client Smp ID: LCS
Inj Date : 31-MAR-2016 10:58
Operator : LA Inst ID: msd6.i
Smp Info : ;VI PAH ICV/LCS;LCS
Misc Info : 2744-32-50(7/20/16)
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 2 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAHical.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.464	11.464 (1.000)	174	497715	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	613990			92.70- 152.70	123.36
11.464	11.464 (1.000)	176	487002			68.24- 128.24	97.85
109 Naphthalene					CAS #: 91-20-3		
15.783	15.783 (1.377)	128	1604416	48.0491	48.049	80.00- 120.00	100.00
15.783	15.790 (1.377)	127	209626			0.00- 43.01	13.07
110 2-Methylnaphthalene					CAS #: 91-57-6		
17.237	17.237 (1.504)	142	1053731	54.5956	54.596	80.00- 120.00	100.00
17.237	17.237 (1.504)	141	921513			57.55- 117.55	87.45
17.237	17.237 (1.504)	115	348162			2.88- 62.88	33.04
111 1-Methylnaphthalene					CAS #: 90-12-0		
17.452	17.459 (1.522)	142	950307	54.7547	54.755	80.00- 120.00	100.00
17.452	17.459 (1.522)	141	865783			60.83- 120.83	91.11
17.452	17.452 (1.522)	115	330530			4.35- 64.35	34.78
112 Acenaphthylene					CAS #: 208-96-8		
19.307	19.315 (1.684)	152	1604635	56.6074	56.607	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
112 Acenaphthylene (continued)							
19.307	19.307 (1.684)	151	325131			0.00- 50.47	20.26
19.307	19.307 (1.684)	153	207869			0.00- 42.99	12.95
113 Acenaphthene					CAS #: 83-32-9		
19.572	19.572 (1.707)	154	816408	53.2789	53.279	80.00- 120.00	100.00
19.572	19.572 (1.707)	152	435494			23.49- 83.49	53.34
19.572	19.572 (1.707)	153	901879			81.41- 141.41	110.47
114 Fluorene					CAS #: 86-73-7		
20.726	20.726 (1.808)	166	774445	50.9467	50.947	80.00- 120.00	100.00
20.726	20.726 (1.808)	165	747347			66.52- 126.52	96.50
115 Phenanthrene					CAS #: 85-01-8		
22.910	22.910 (1.998)	178	1356859	52.8729	52.873	80.00- 120.00	100.00
22.910	22.910 (1.998)	176	266887			0.00- 49.64	19.67
22.910	22.910 (1.998)	179	208417			0.00- 45.22	15.36
116 Anthracene					CAS #: 120-12-7		
23.018	23.018 (2.008)	178	1298307	53.4140	53.414	80.00- 120.00	100.00
23.018	23.018 (2.008)	176	244520			0.00- 49.04	18.83
23.018	23.018 (2.008)	179	197754			0.00- 45.28	15.23
117 Fluoranthene					CAS #: 206-44-0		
26.255	26.256 (2.290)	202	1029889	57.6953	57.695	80.00- 120.00	100.00
26.255	26.256 (2.290)	101	188420			0.00- 48.21	18.30
118 Pyrene					CAS #: 129-00-0		
27.122	27.129 (2.366)	202	1052297	56.7487	56.749	80.00- 120.00	100.00
27.122	27.122 (2.366)	101	224095			0.00- 51.09	21.30
27.122	27.129 (2.366)	100	183935			0.00- 47.66	17.48

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6033125.d
Lab Smp Id: VI PAH ICV/LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2744-32-50(7/20/16)

Calibration Date: 30-MAR-2016
Calibration Time: 20:53
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	515685	309411	721959	497715	-3.48

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	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: 04-Apr-2016 12:10

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 31mar16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: VI PAH ICV/LCS
Client Smp ID: LCS
Level: LOW
Operator: LA
Data Type: MS DATA
SampleType: LCS
SpikeList File: PAH.spk
Quant Type: ISTD
Sublist File: PAHical.sub
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2744-32-50(7/20/16)

SPIKE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
109 Naphthalene	50.000	48.049	96.10	70-130
110 2-Methylnaphthalen	50.000	54.596	109.19	70-130
111 1-Methylnaphthalen	50.000	54.755	109.51	70-130
112 Acenaphthylene	50.000	56.607	113.21	70-130
113 Acenaphthene	50.000	53.279	106.56	70-130
114 Fluorene	50.000	50.947	101.89	60-140
115 Phenanthrene	50.000	52.873	105.75	60-140
116 Anthracene	50.000	53.414	106.83	60-140
117 Fluoranthene	50.000	57.695	115.39	60-140
118 Pyrene	50.000	56.749	113.50	60-140

Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

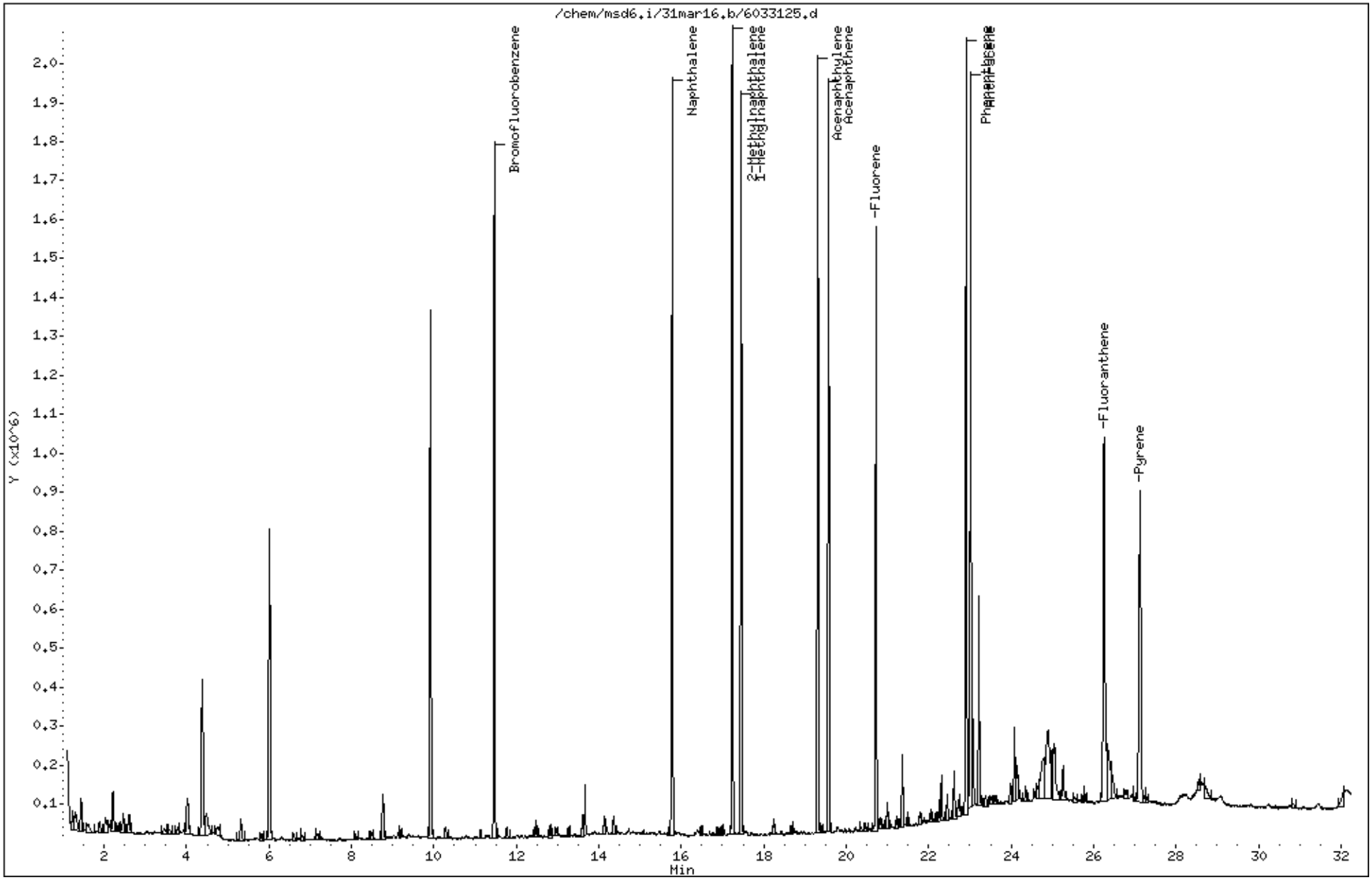
Sample Info: ;VI PAH ICV/LCS;LCS

Column phase: RTx-624

Instrument: msd6.i

Operator: LA

Column diameter: 0.53



Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

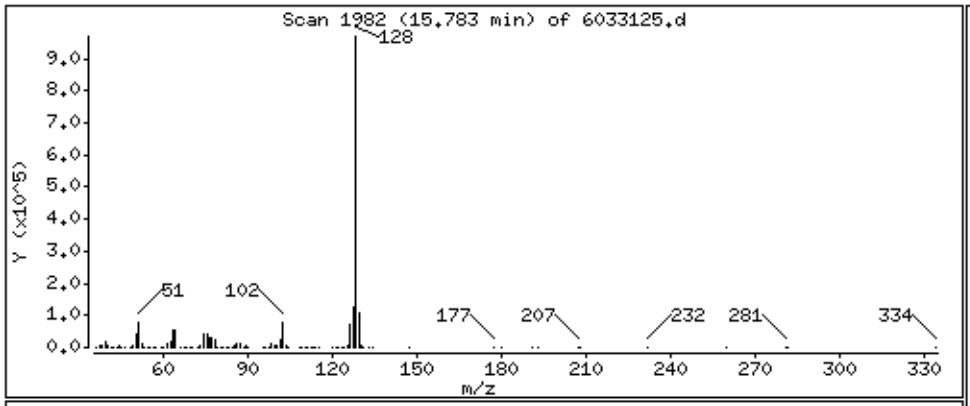
Operator: LA

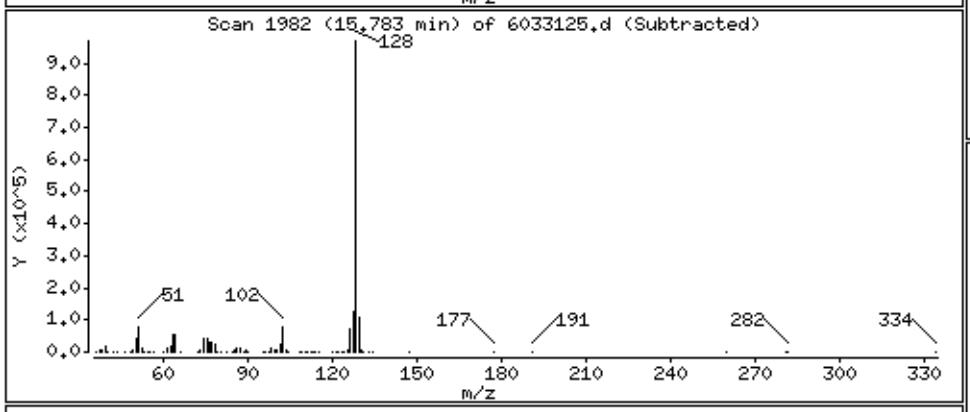
Column phase: RTx-624

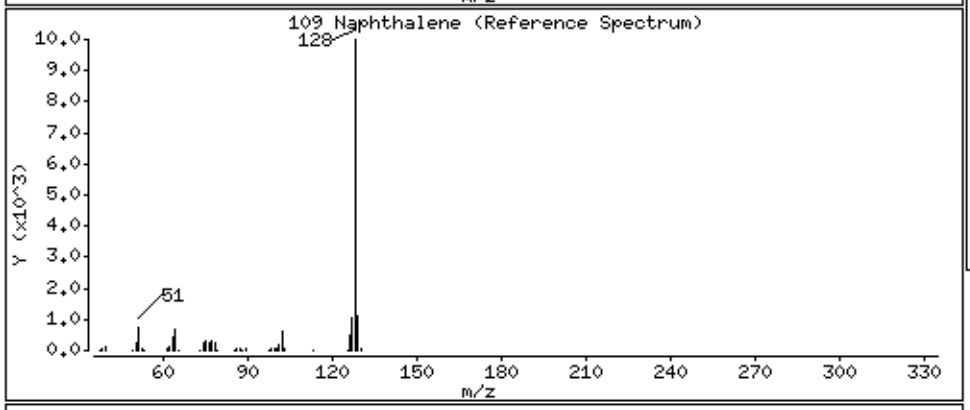
Column diameter: 0.53

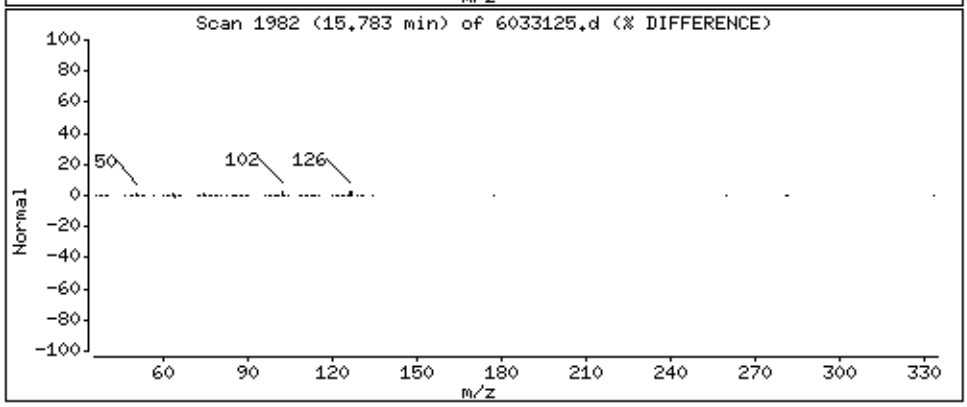
109 Naphthalene

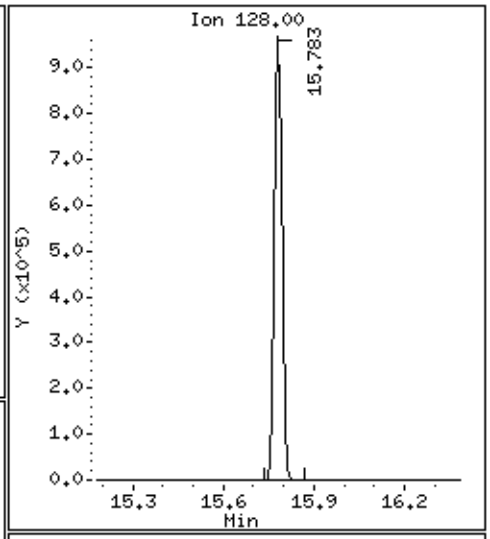
Concentration: 48.049 NG

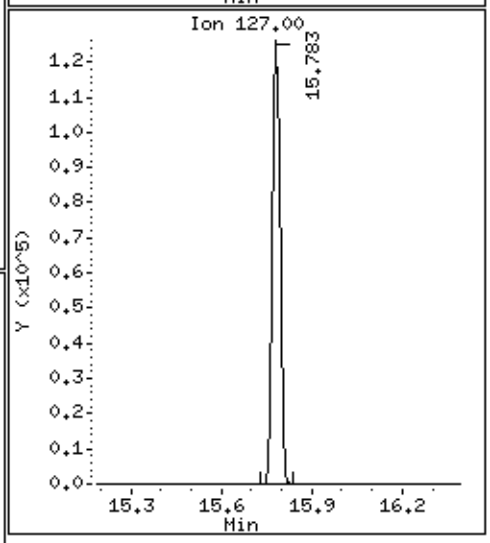












Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

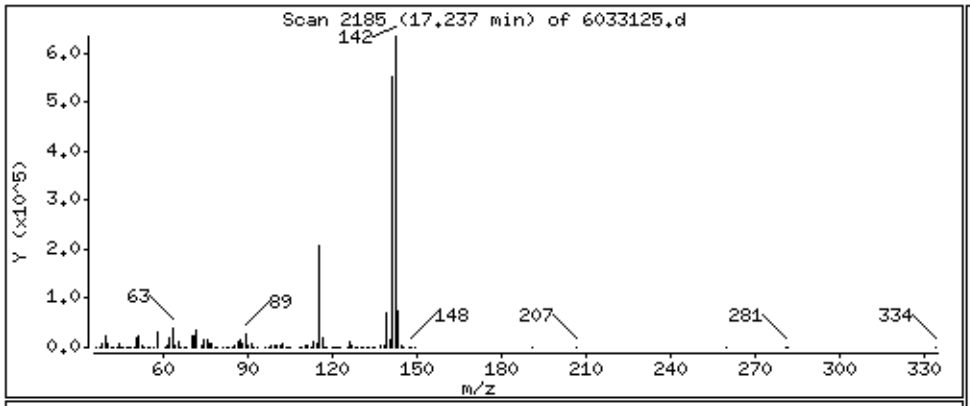
Operator: LA

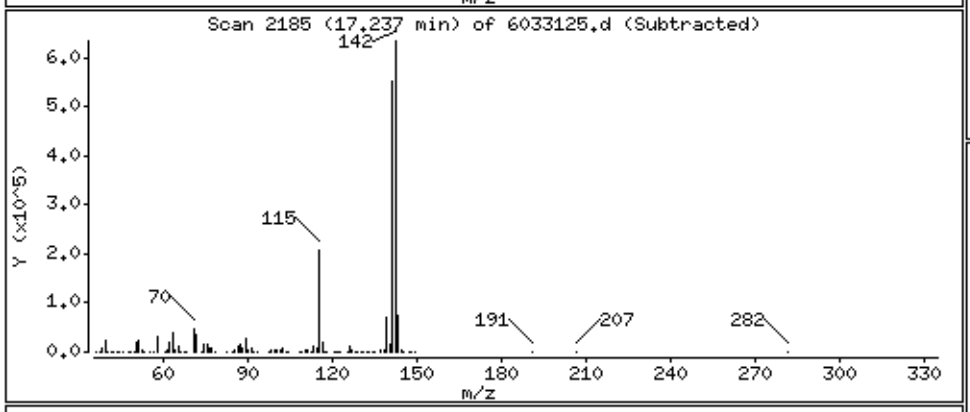
Column phase: RTx-624

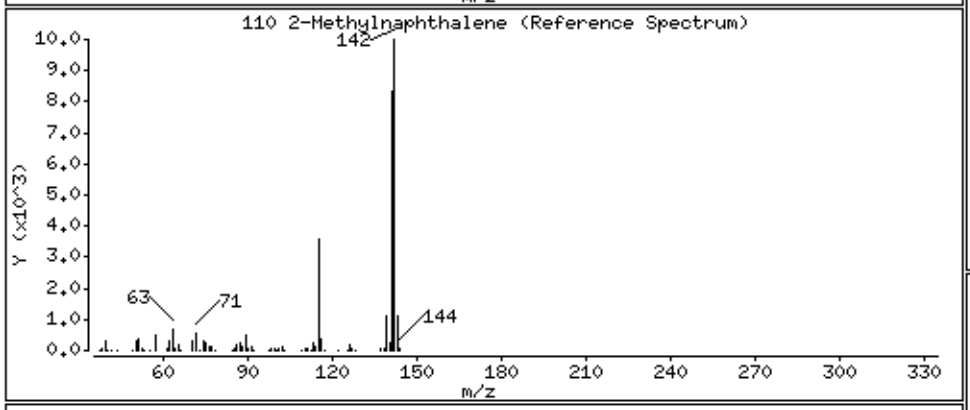
Column diameter: 0.53

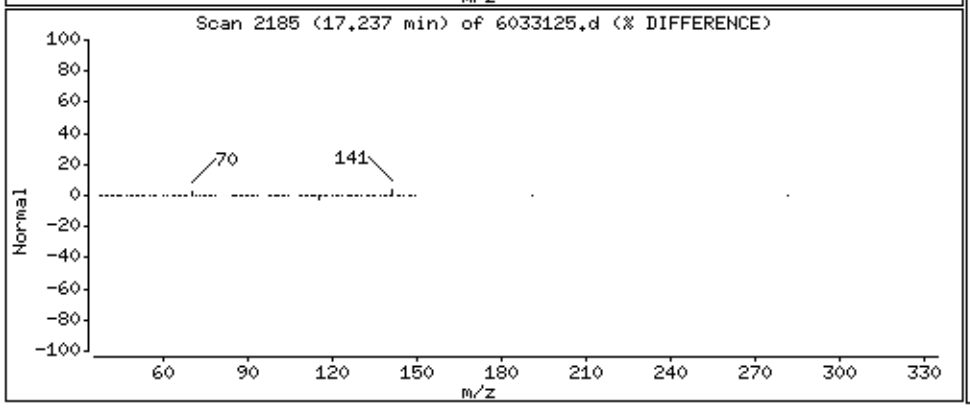
110 2-Methylnaphthalene

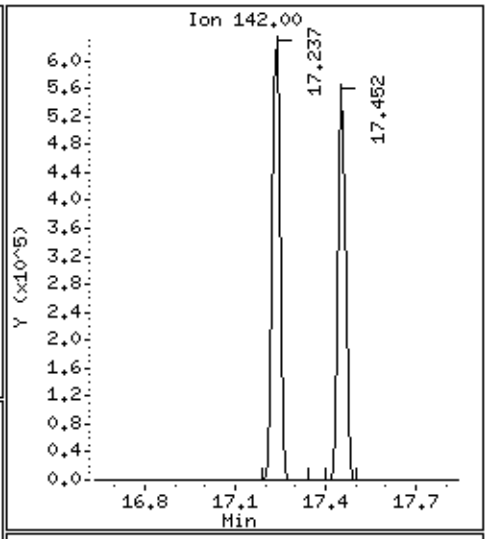
Concentration: 54.596 NG

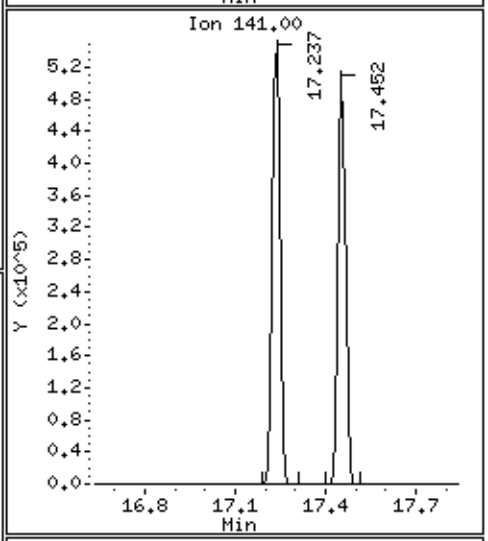


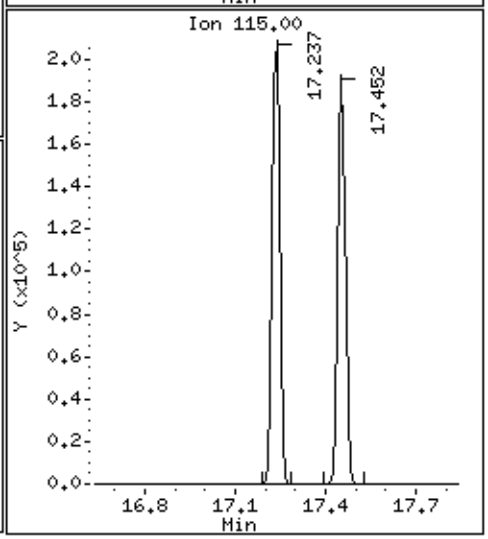












Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

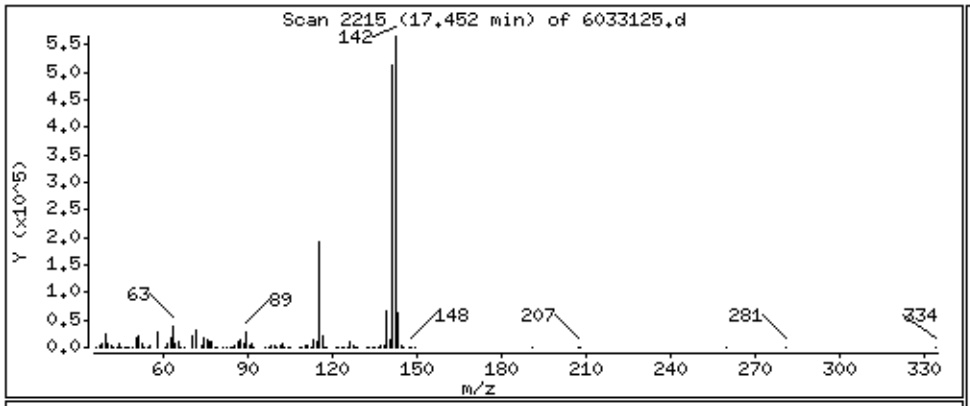
Operator: LA

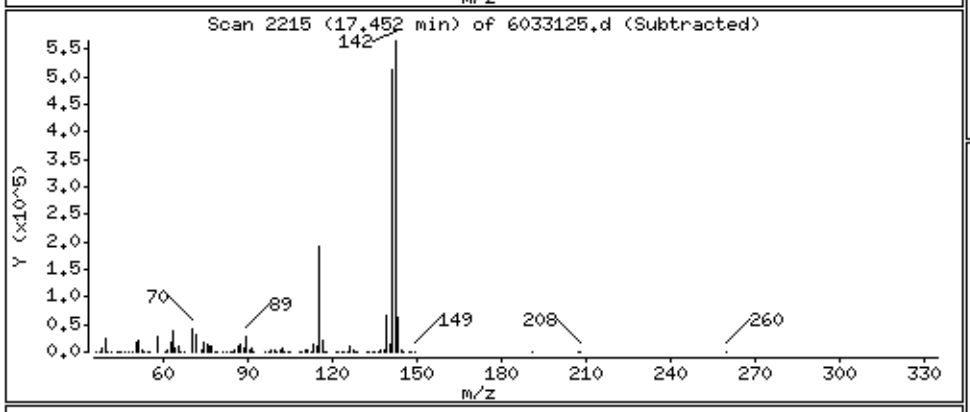
Column phase: RTx-624

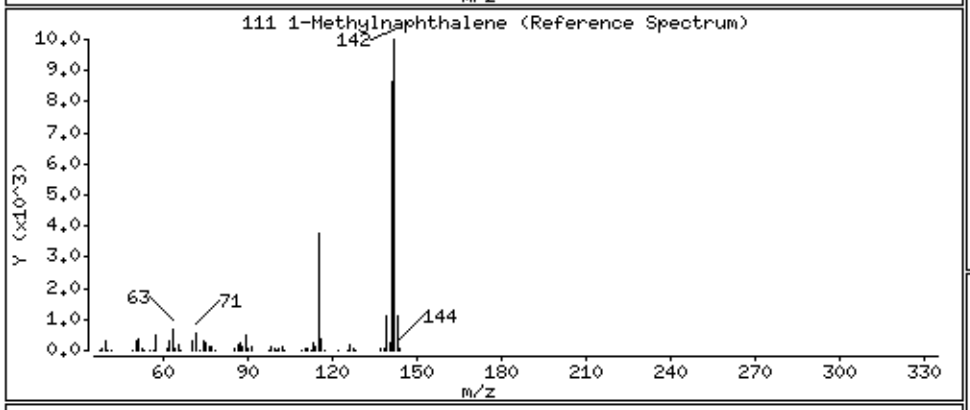
Column diameter: 0.53

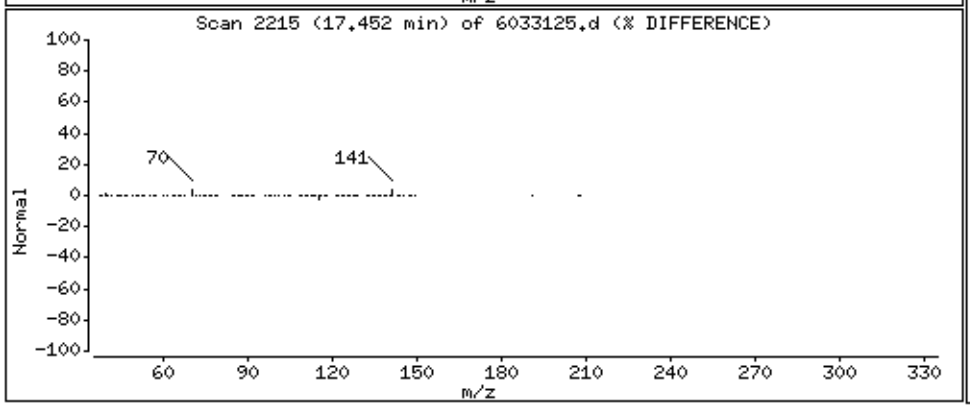
111 1-Methylnaphthalene

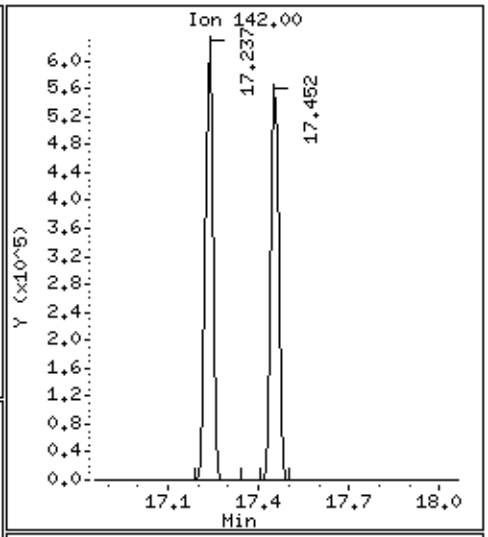
Concentration: 54.755 NG

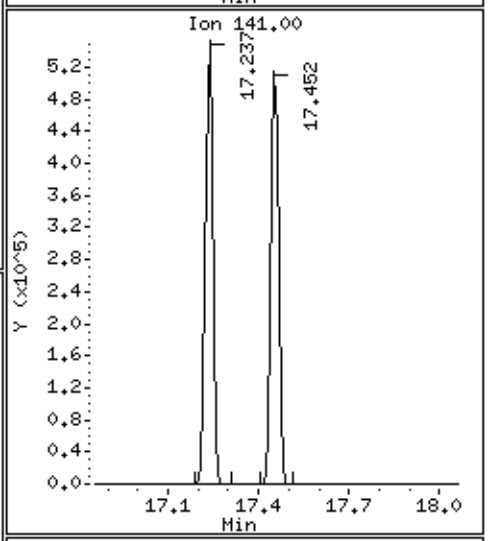


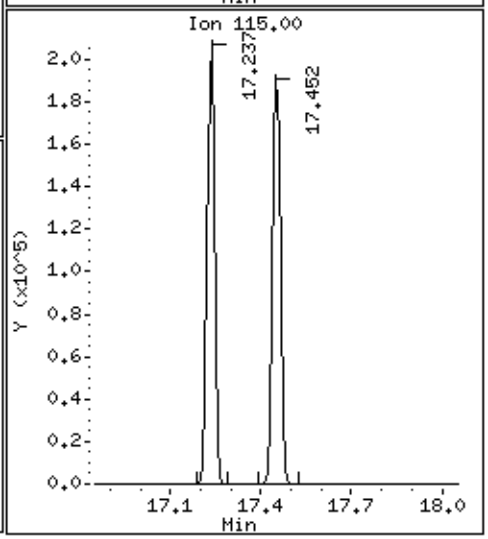












Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

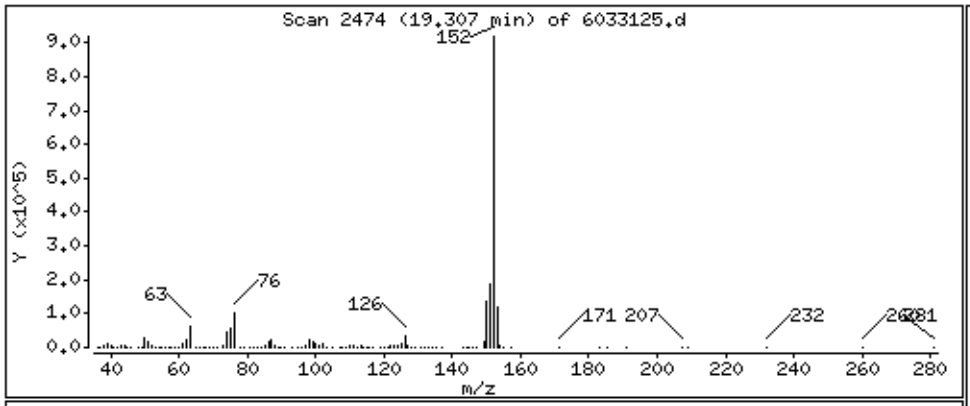
Operator: LA

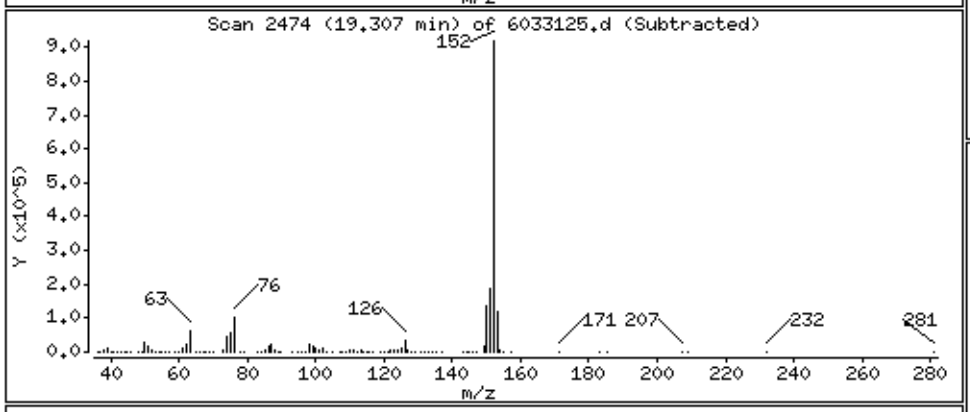
Column phase: RTx-624

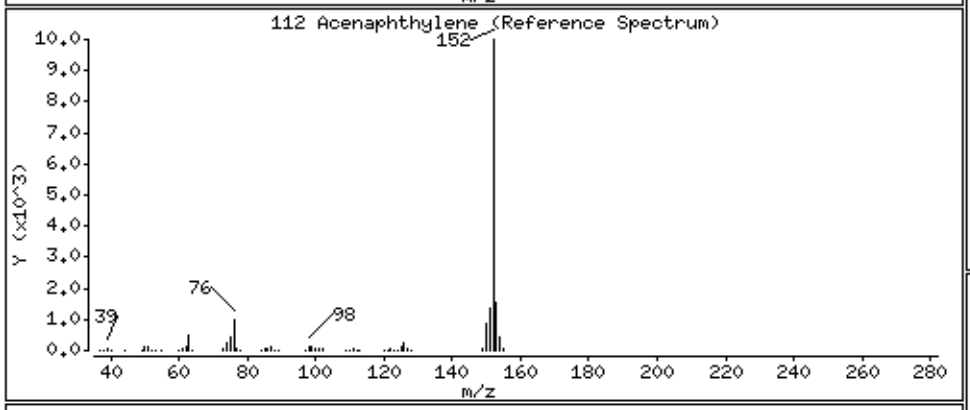
Column diameter: 0.53

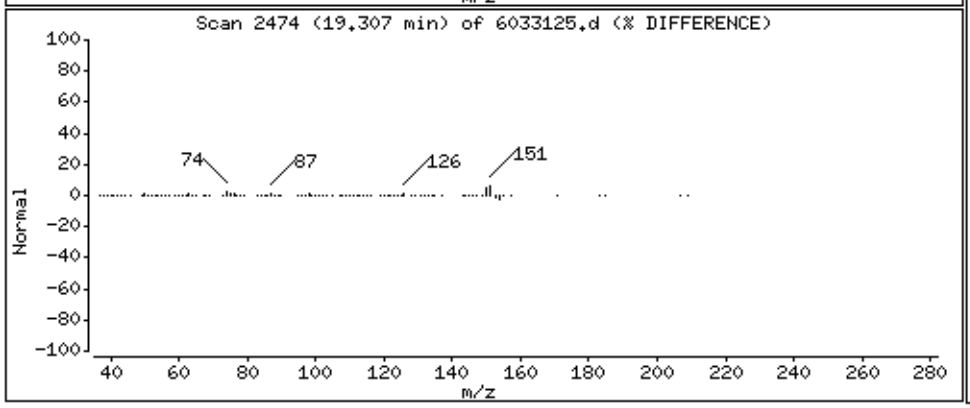
112 Acenaphthylene

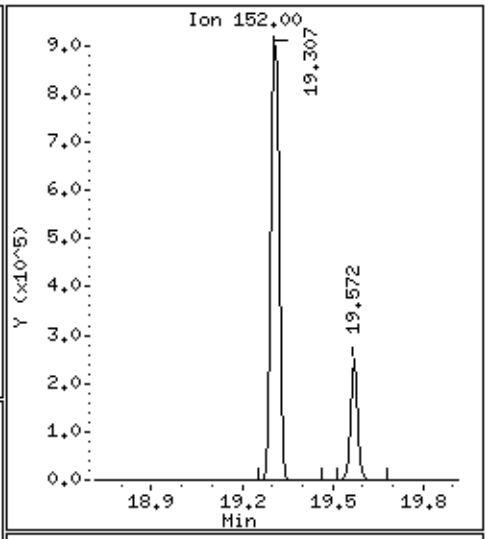
Concentration: 56.607 NG

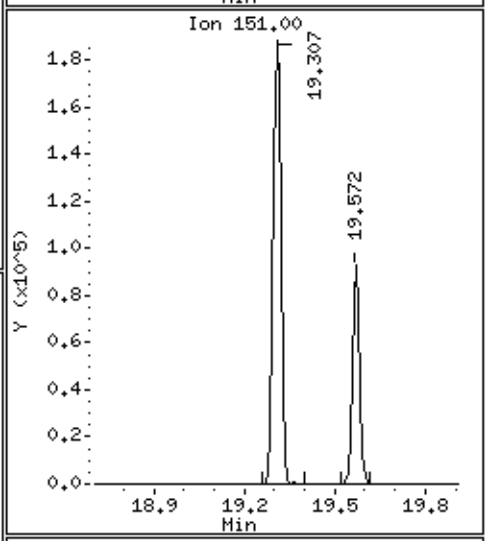


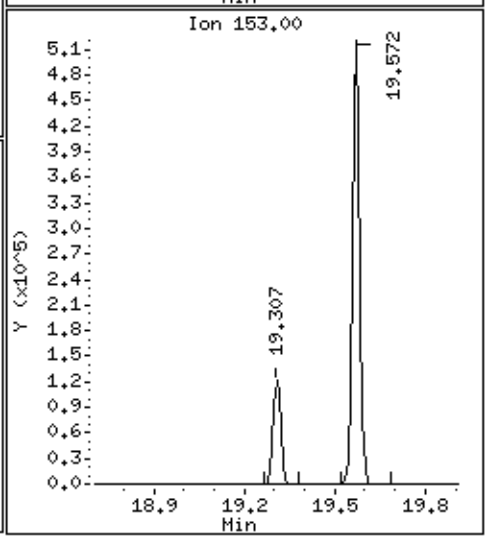












Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

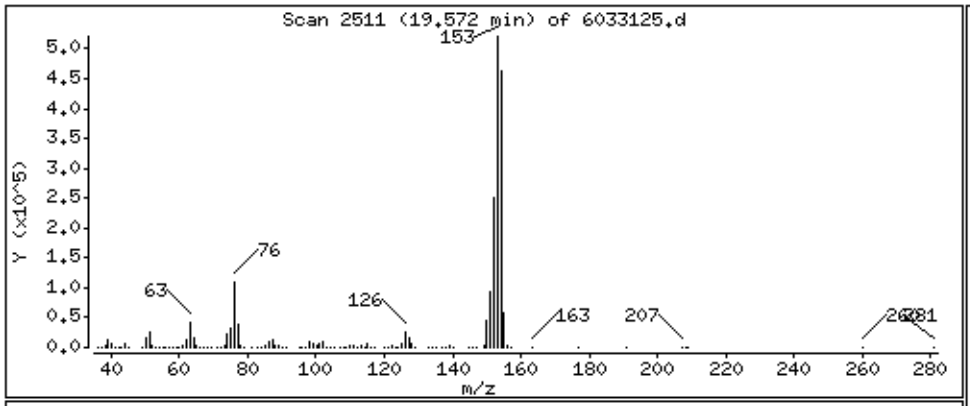
Operator: LA

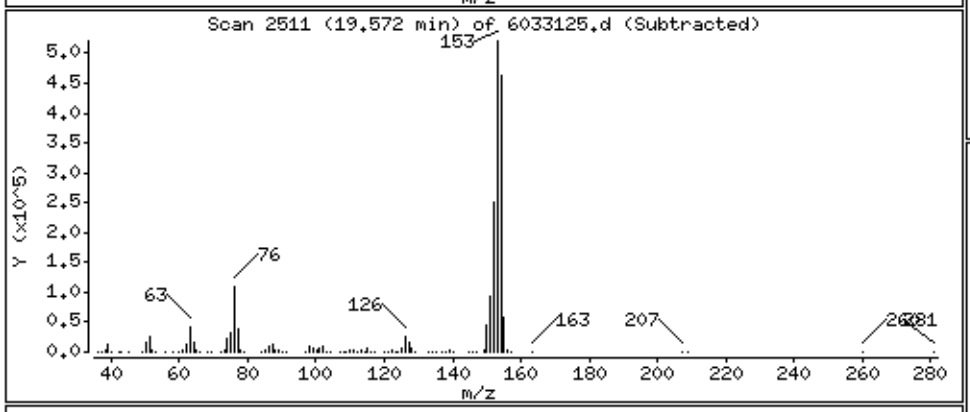
Column phase: RTx-624

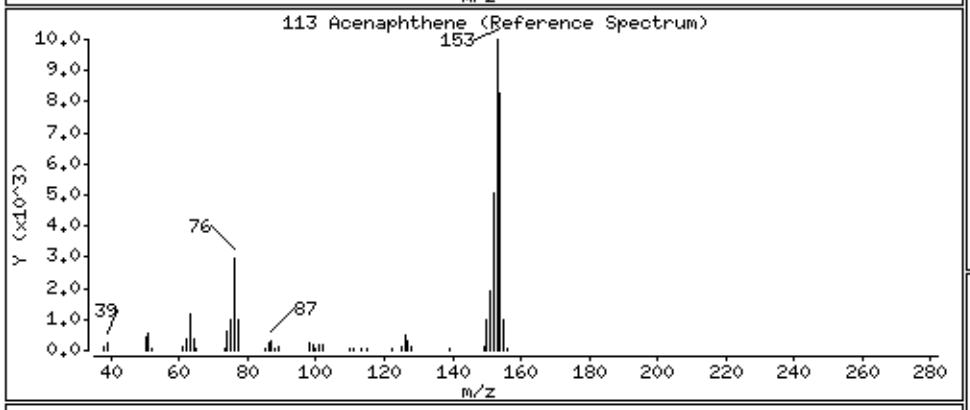
Column diameter: 0.53

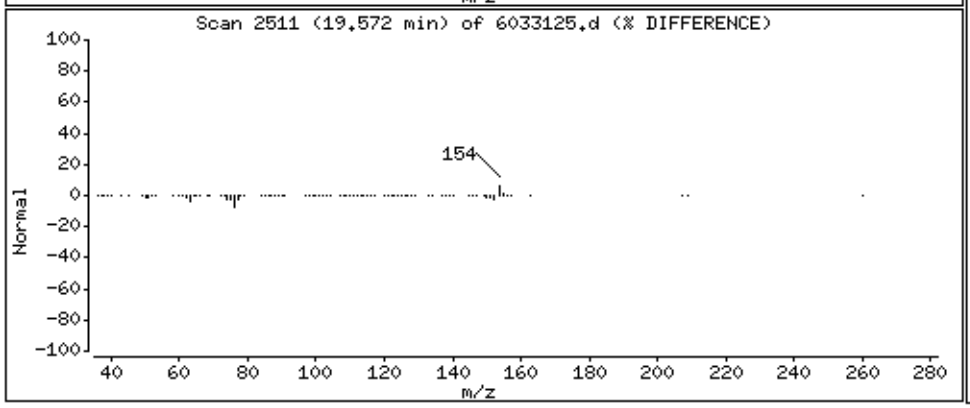
113 Acenaphthene

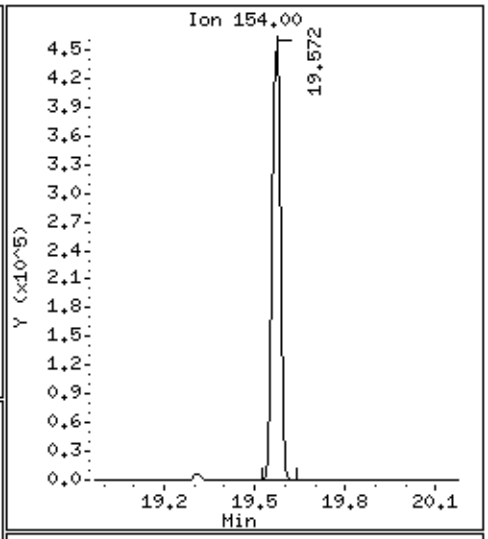
Concentration: 53.279 NG

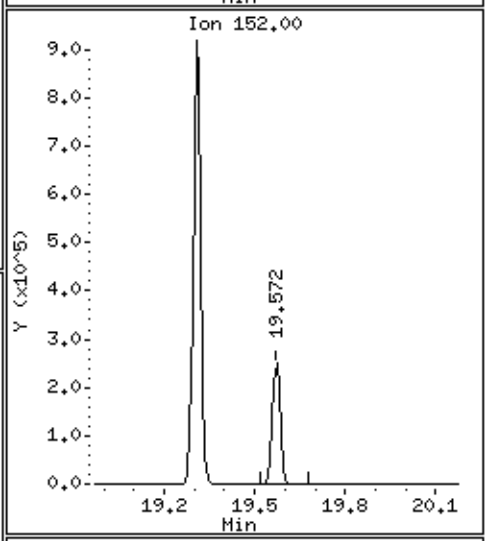


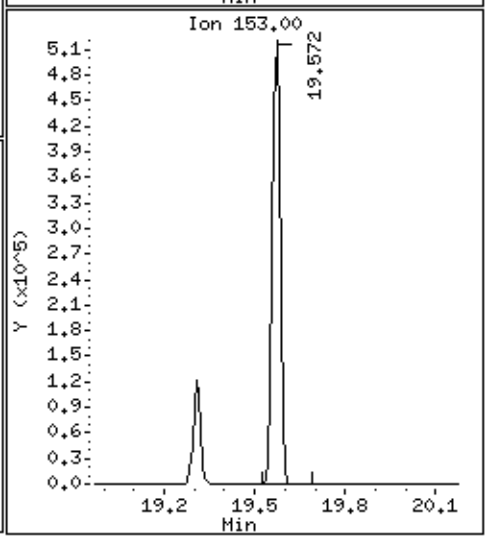












Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

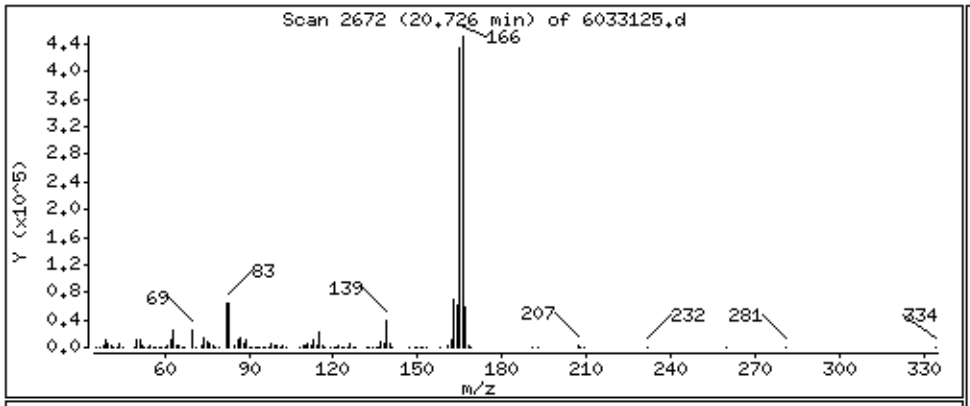
Operator: LA

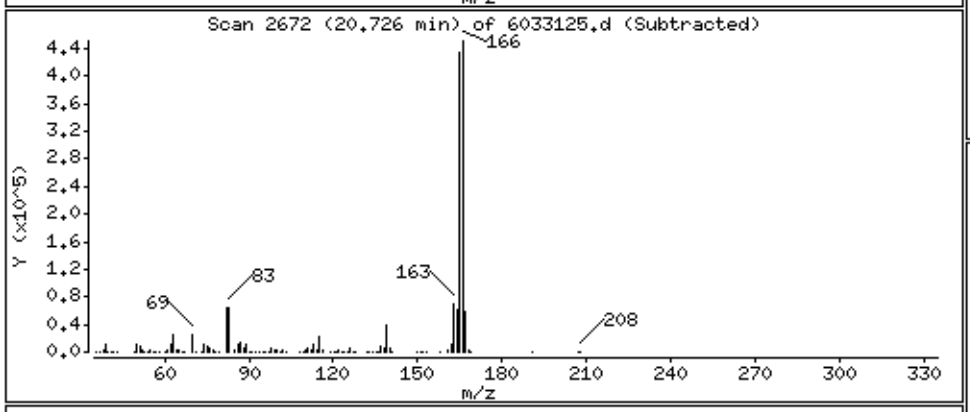
Column phase: RTx-624

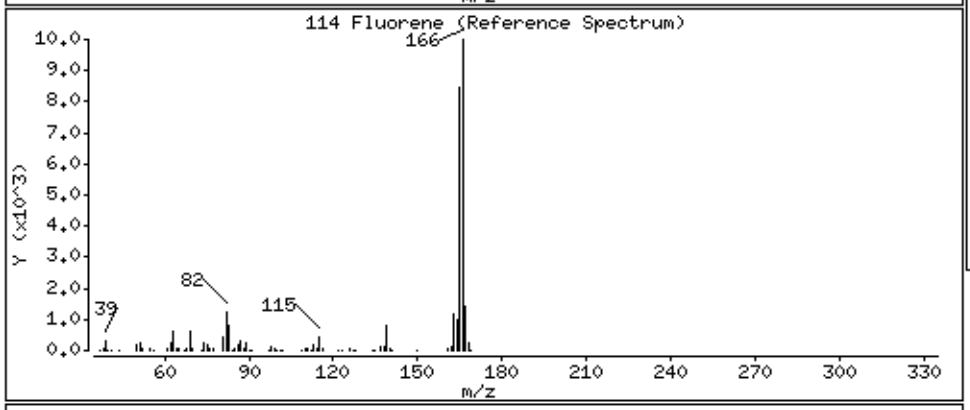
Column diameter: 0.53

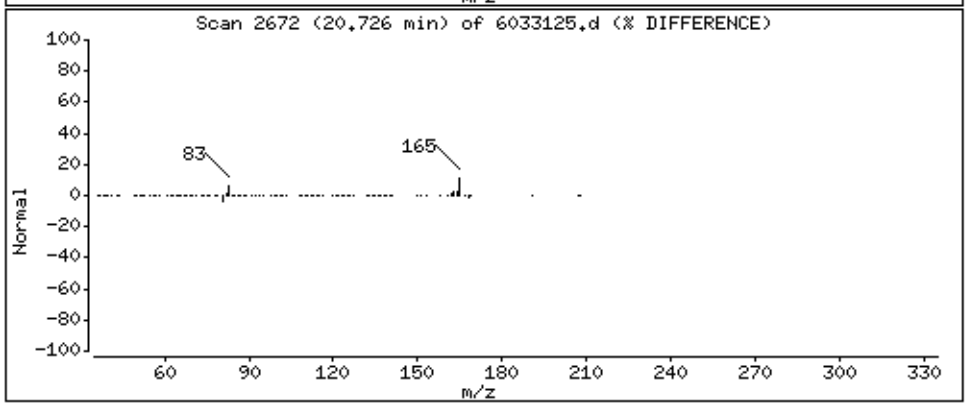
114 Fluorene

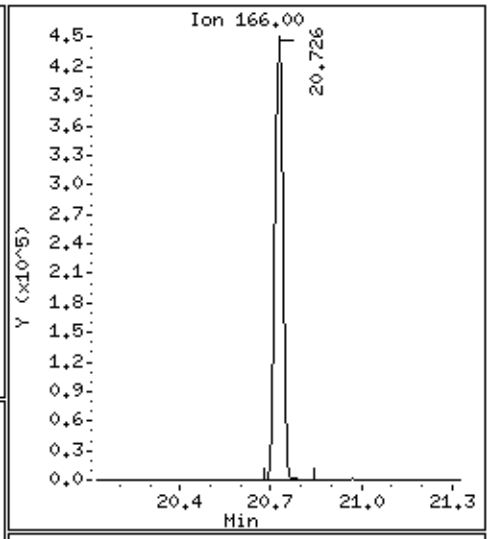
Concentration: 50.947 NG

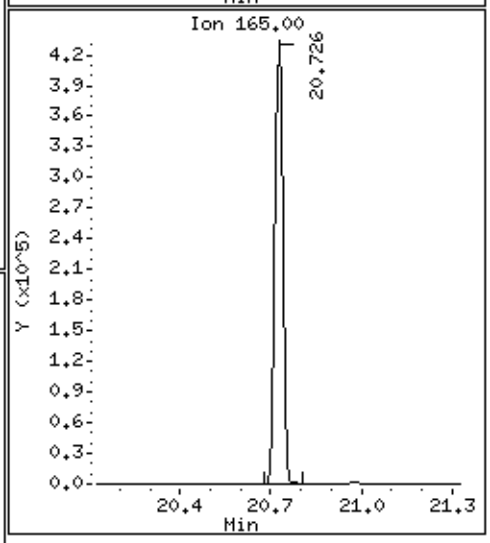












Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

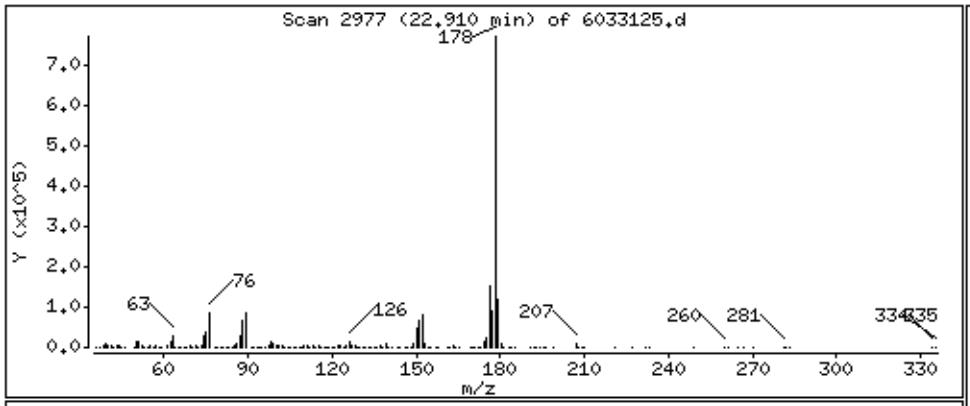
Operator: LA

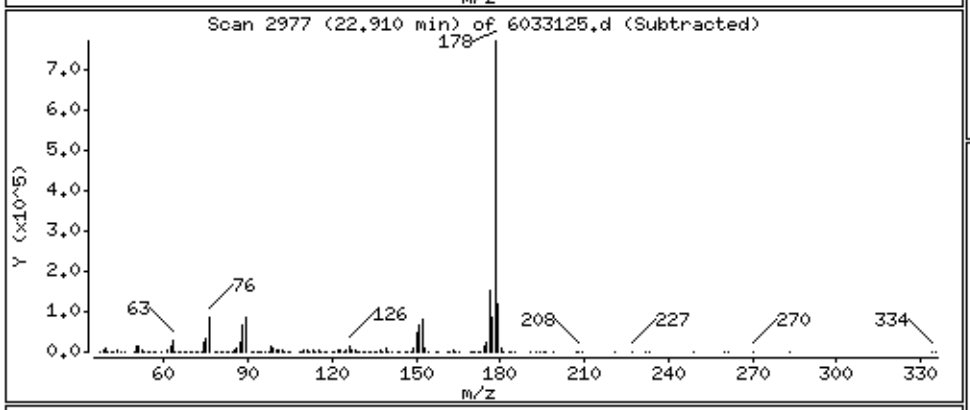
Column phase: RTx-624

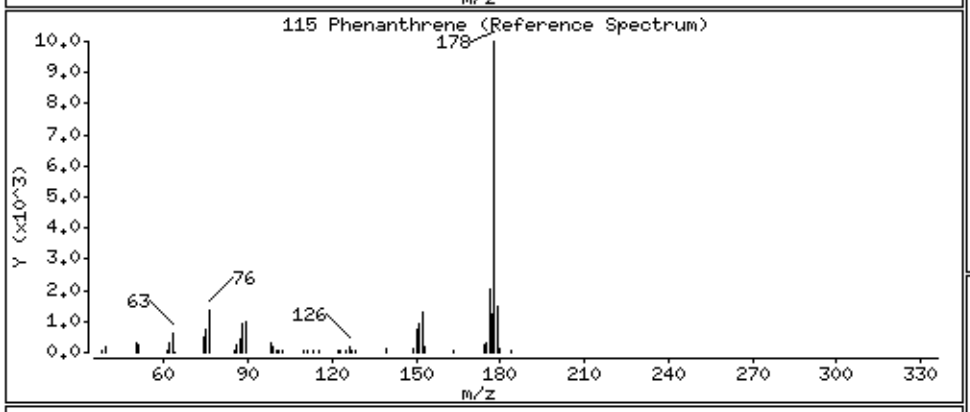
Column diameter: 0.53

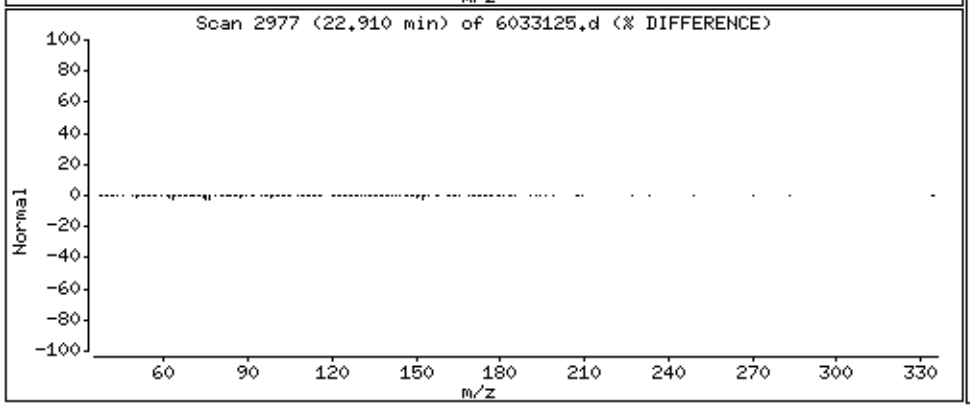
115 Phenanthrene

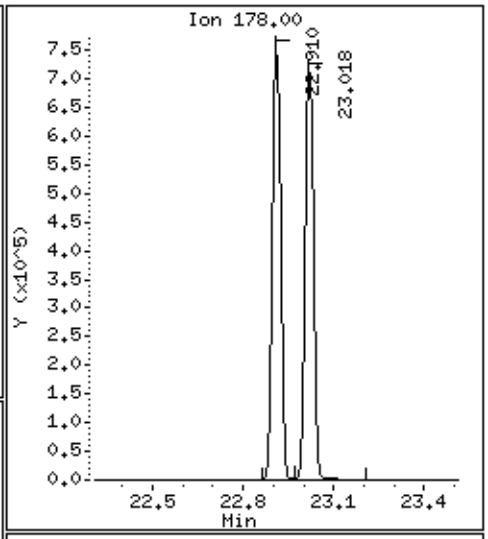
Concentration: 52.873 NG

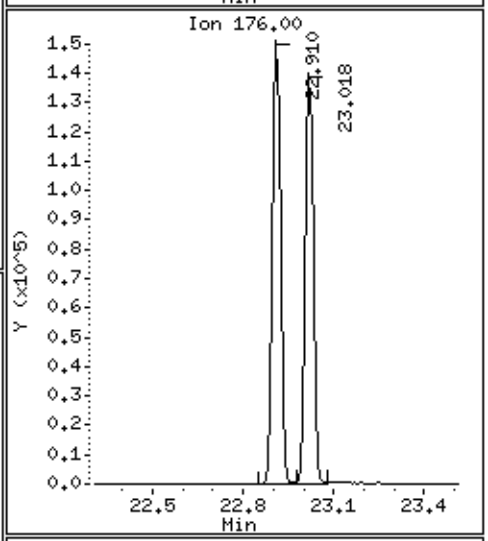


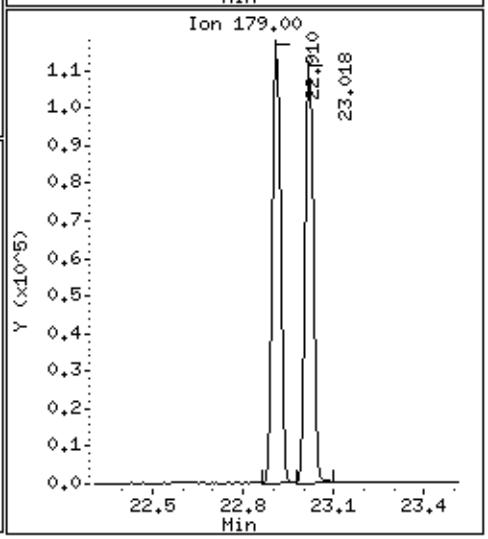












Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

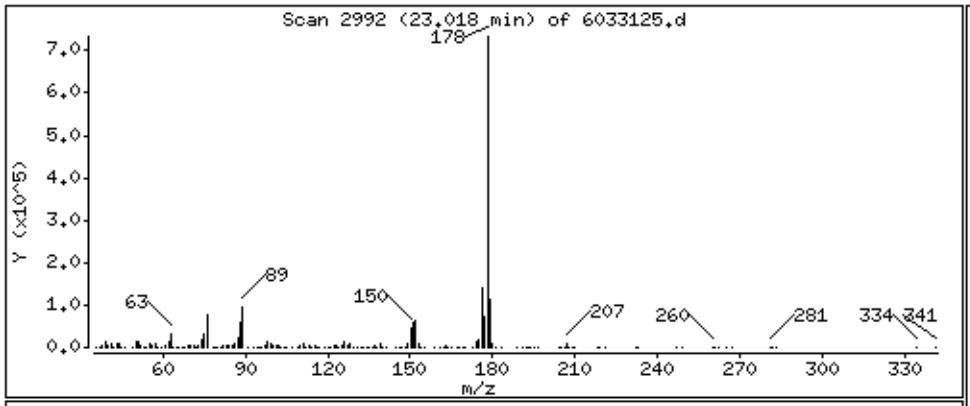
Operator: LA

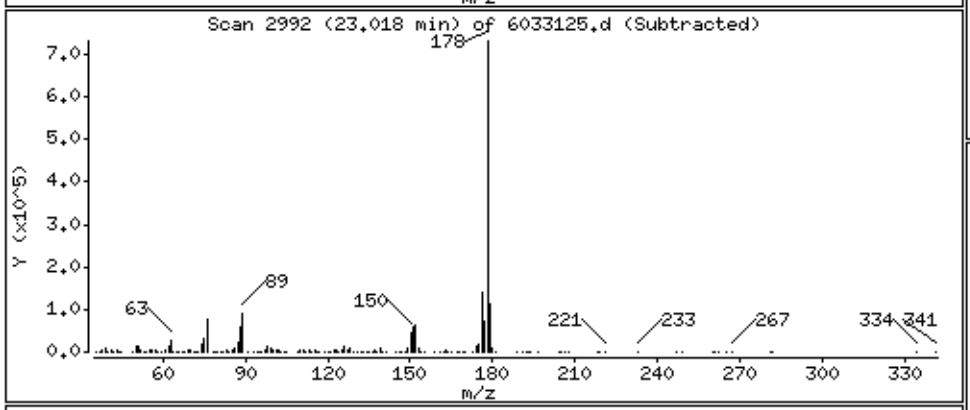
Column phase: RTx-624

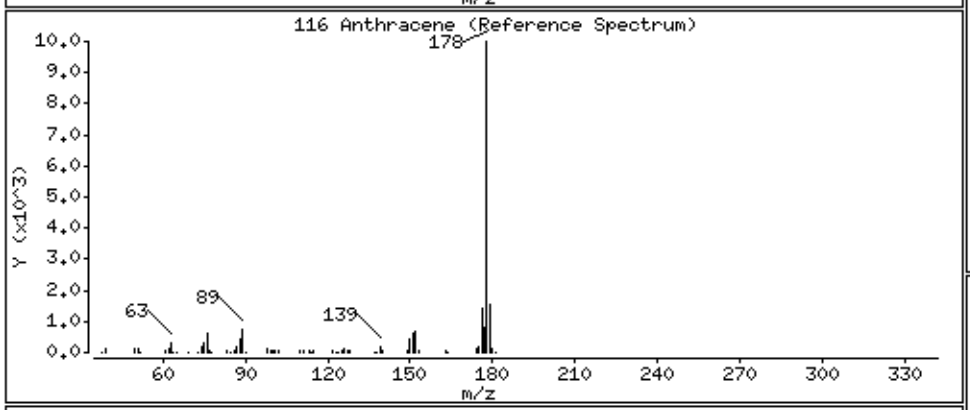
Column diameter: 0.53

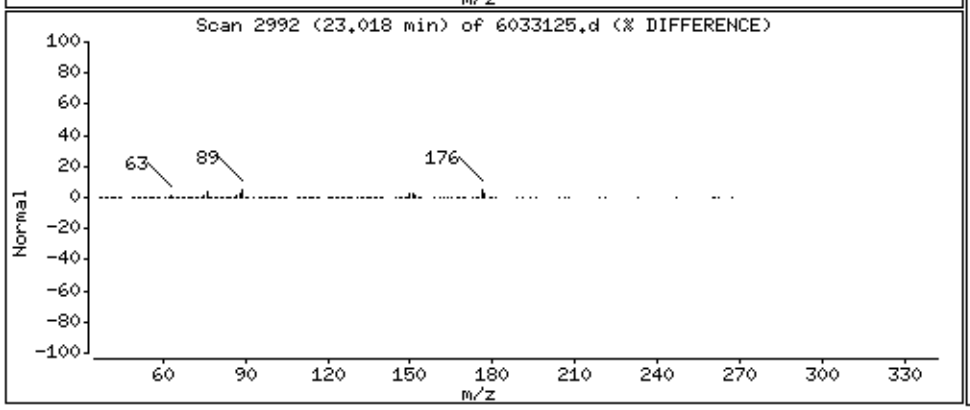
116 Anthracene

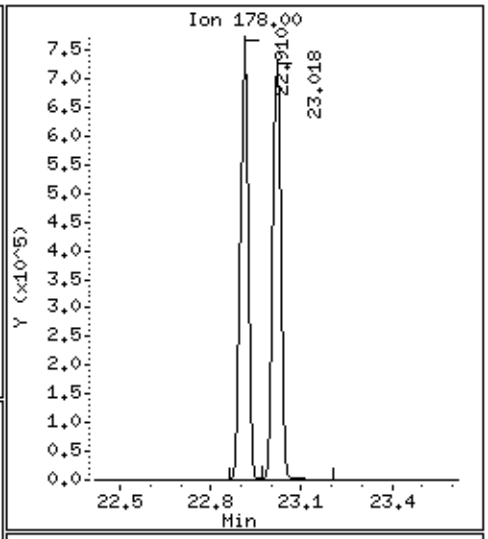
Concentration: 53.414 NG

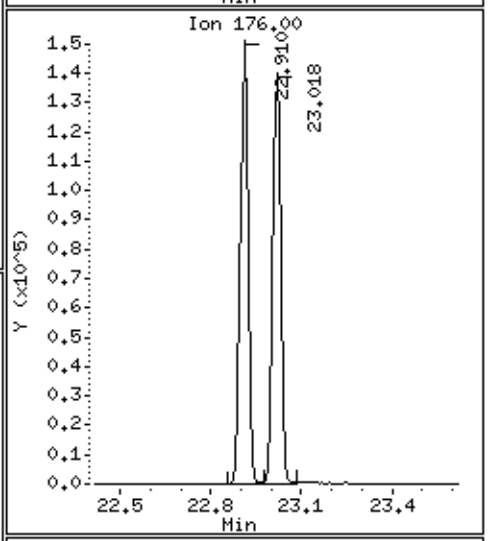


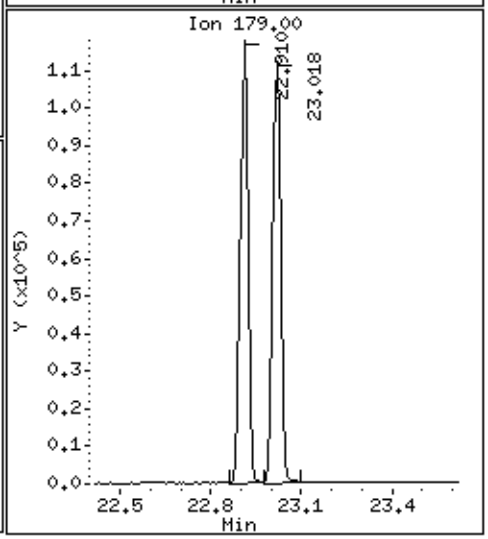












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Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

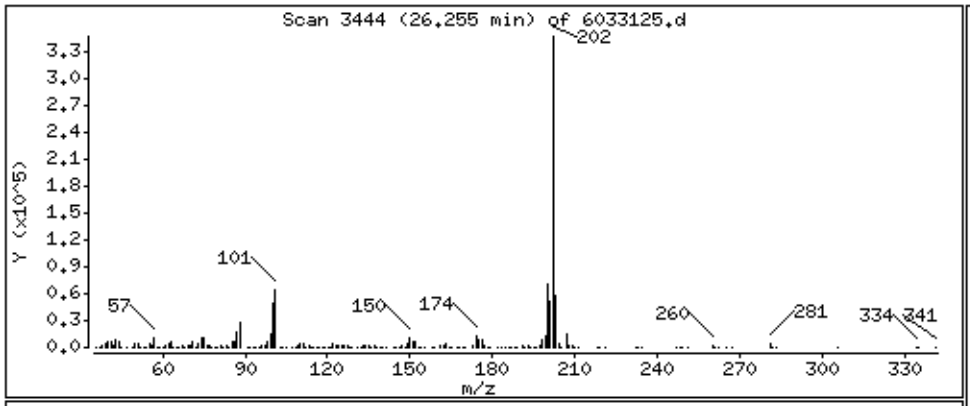
Operator: LA

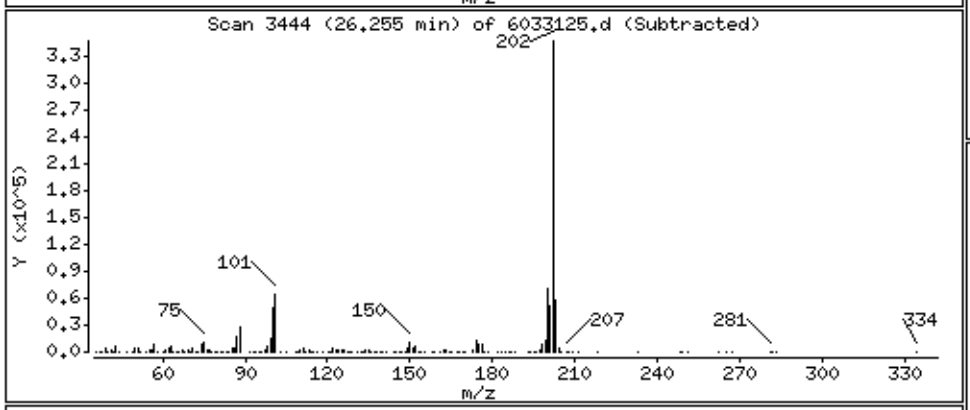
Column phase: RTx-624

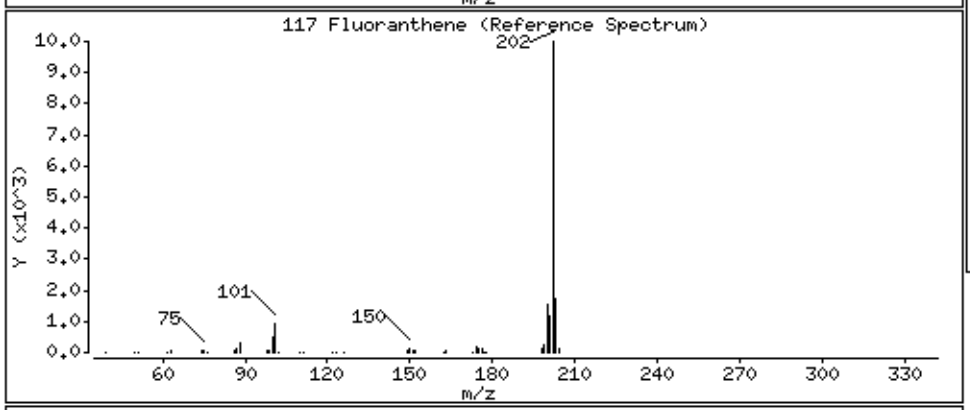
Column diameter: 0.53

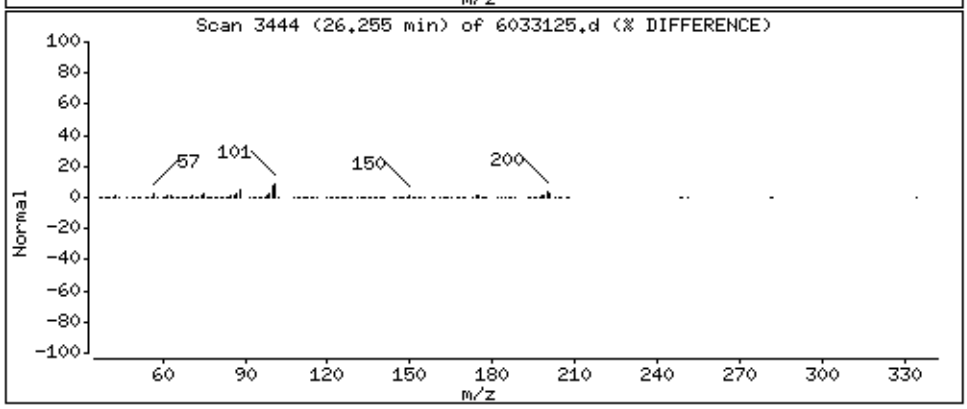
117 Fluoranthene

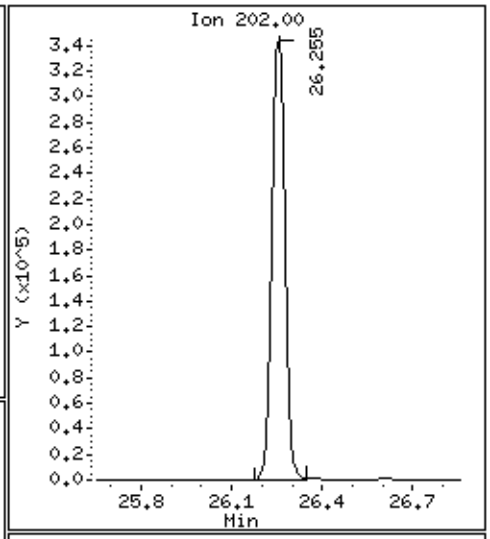
Concentration: 57.695 NG

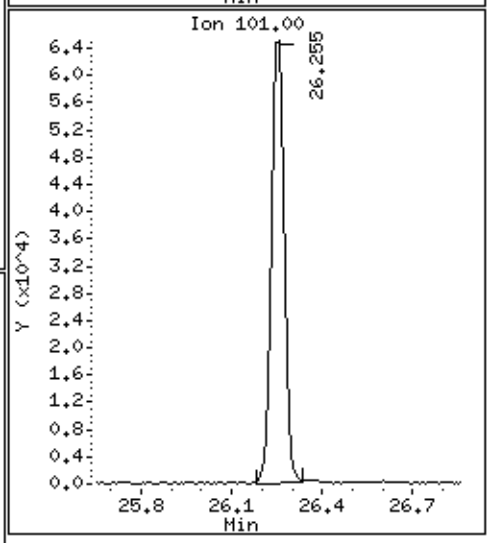












Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

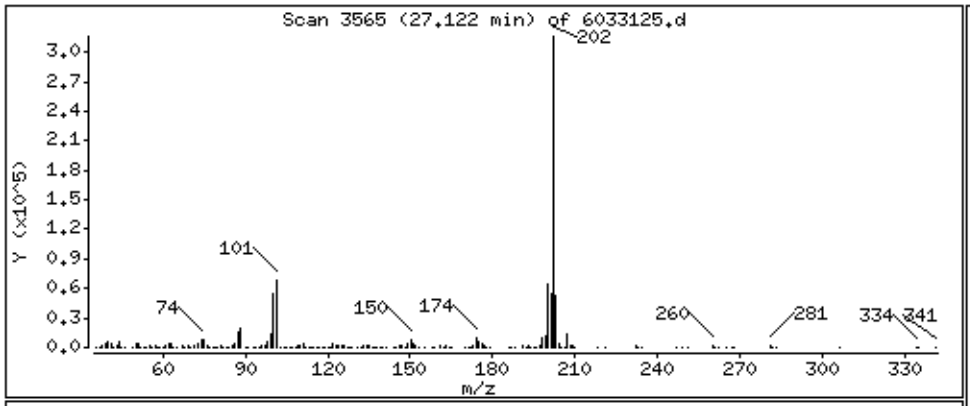
Operator: LA

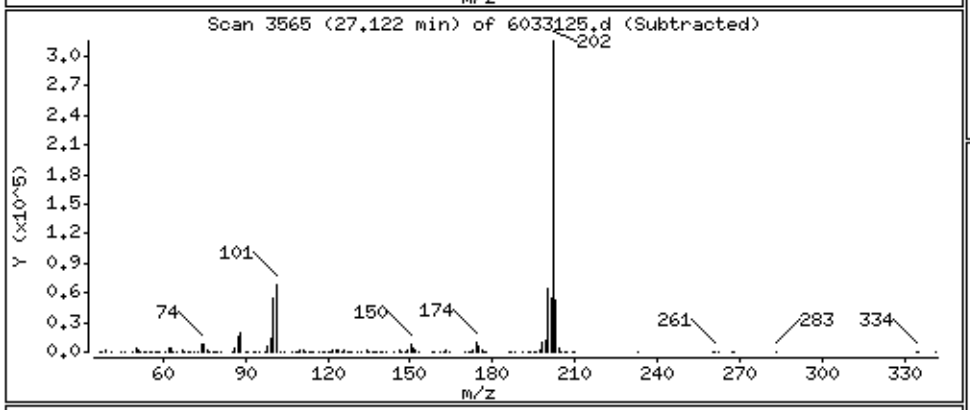
Column phase: RTx-624

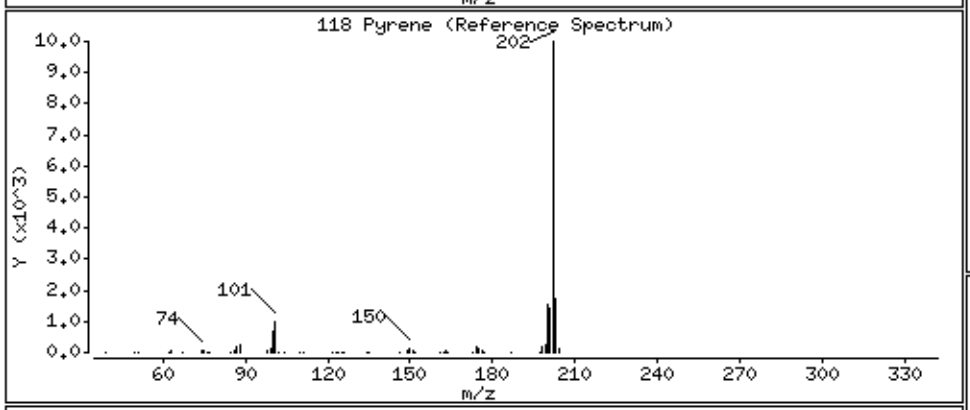
Column diameter: 0.53

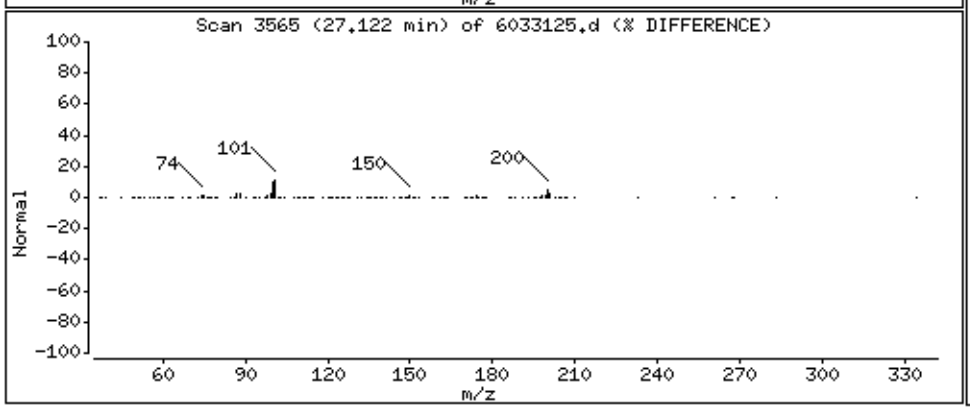
118 Pyrene

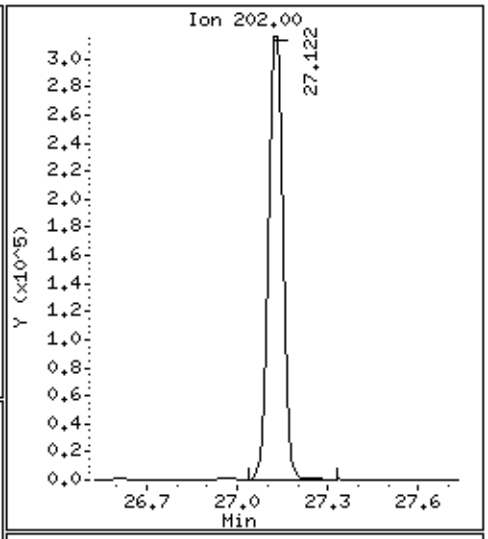
Concentration: 56.749 NG

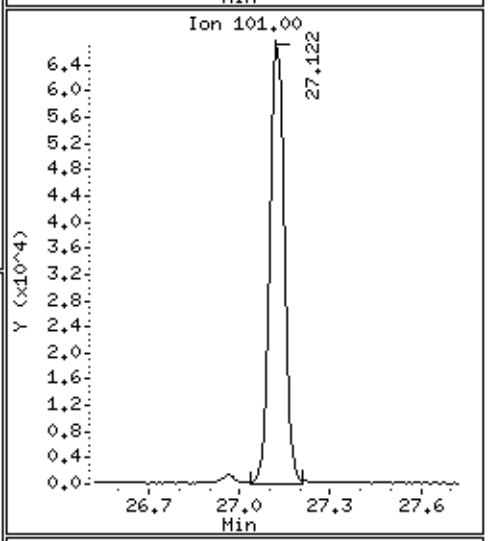


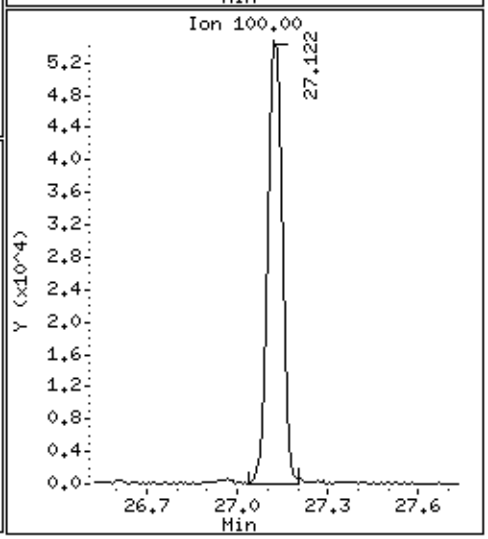












Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033113.d
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Inj Date : 31-MAR-2016 01:31
Operator : LA Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr
Misc Info : 2516-231-20ml(6/11/16),2744-32-50(7/20/16)
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC_L1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 40 Bromochloromethane						CAS #: 74-97-5	
4.387	4.372 (1.000)	130	229505	26.0000		80.00- 120.00	100.00
4.387	4.372 (1.000)	128	176904			48.25- 108.25	77.08
4.387	4.372 (1.000)	49	315391			107.14- 167.14	137.42
* 54 1,4-Difluorobenzene						CAS #: 540-36-3	
6.013	6.006 (1.000)	114	873306	23.0000		80.00- 120.00	100.00
6.013	6.006 (1.000)	88	133968			0.00- 45.65	15.34
* 79 Chlorobenzene-d5						CAS #: 3114-55-4	
9.924	9.910 (1.000)	117	804807	24.0000		80.00- 120.00	100.00
9.924	9.910 (1.000)	82	422024			23.14- 83.14	52.44
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.485	11.464 (1.000)	174	508146	36.0000		80.00- 120.00	100.00
11.478	11.464 (1.000)	95	640829			92.70- 152.70	126.11
11.485	11.464 (1.000)	176	499109			68.24- 128.24	98.22
$ 49 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.311	5.318 (0.883)	65	114294	24.7032	24.703	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
$ 49 1,2-Dichloroethane-d4 (continued)							
5.311	5.318 (0.883)	67	59792			22.28- 82.28	52.31
$ 66 Toluene-d8					CAS #: 2037-26-5		
8.011	8.011 (0.807)	98	387362	24.6637	24.664	80.00- 120.00	100.00
8.011	8.011 (0.807)	70	42445			0.00- 40.54	10.96
8.018	8.011 (0.808)	100	252096			35.01- 95.01	65.08
$ 108 Naphthalene-d8					CAS #: 1146-65-2		
15.755	15.747 (1.372)	136	642430	22.4464	22.446	80.00- 120.00	100.00
15.755	15.747 (1.372)	108	60640			0.00- 39.41	9.44
3 Freon 114					CAS #: 76-14-2		
1.269	1.269 (0.289)	135	617534	149.807	149.81	80.00- 120.00	100.00
1.269	1.269 (0.289)	137	198482			2.17- 62.17	32.14
6 Vinyl Chloride					CAS #: 75-01-4		
1.395	1.395 (0.318)	62	337956	52.2305	52.230	80.00- 120.00	100.00
1.395	1.395 (0.318)	64	126947			12.66- 72.66	37.56
7 1,3-Butadiene					CAS #: 106-99-0		
1.409	1.409 (0.321)	54	265044	42.8758	42.876	80.00- 120.00	100.00
1.395	1.409 (0.318)	39	421518			133.58- 193.58	159.04
9 Chloroethane					CAS #: 75-00-3		
1.661	1.661 (0.379)	64	169580	45.6704	45.670	80.00- 120.00	100.00
1.661	1.661 (0.379)	66	48897			0.00- 58.31	28.83
1.661	1.661 (0.379)	49	50299			0.00- 59.65	29.66
10 Isopentane					CAS #: 78-78-4		
1.703	1.717 (0.388)	57	283885	59.8663	59.866	80.00- 120.00	100.00
1.703	1.717 (0.388)	43	464575			134.33- 194.33	163.65
11 Trichlorofluoromethane/Fr11					CAS #: 75-69-4		
1.828	1.828 (0.417)	101	852578	116.511	116.51	80.00- 120.00	100.00
1.828	1.828 (0.417)	103	558768			35.98- 95.98	65.54
15 Freon 113					CAS #: 76-13-1		
2.195	2.209 (0.500)	151	637481	150.912	150.91	80.00- 120.00	100.00
2.195	2.209 (0.500)	153	407337			34.66- 94.66	63.90
2.195	2.209 (0.500)	101	760728			88.64- 148.64	119.33
14 1,1-Dichloroethene					CAS #: 75-35-4		
2.202	2.202 (0.502)	98	227185	77.0873	77.087	80.00- 120.00	100.00
2.202	2.202 (0.502)	96	356315			127.15- 187.15	156.84
2.202	2.202 (0.502)	61	595959			230.60- 290.60	262.32

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.381	2.388 (0.543)	76	892494	51.7747	51.775	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.310	2.310 (0.526)	45	808640	50.4205	50.420	80.00- 120.00	100.00
2.310	2.310 (0.526)	43	150372			0.00- 49.91	18.60
2.310	2.310 (0.526)	59	27600			0.00- 33.48	3.41
22 Methylene Chloride					CAS #: 75-09-2		
2.610	2.610 (0.595)	49	502659	68.2731	68.273	80.00- 120.00	100.00
2.610	2.610 (0.595)	84	344089			38.62- 98.62	68.45
2.610	2.610 (0.595)	51	154634			0.43- 60.43	30.76
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.854	2.868 (0.651)	98	201479	68.4091	68.409	80.00- 120.00	100.00
2.854	2.868 (0.651)	61	465651			200.79- 260.79	231.12
2.854	2.868 (0.651)	96	318210			126.39- 186.39	157.94
26 MTBE					CAS #: 1634-04-4		
2.832	2.840 (0.646)	73	959414	78.1709	78.171	80.00- 120.00	100.00
2.832	2.840 (0.646)	57	238788			0.00- 54.76	24.89
2.832	2.840 (0.646)	41	257793			0.00- 56.57	26.87
28 Hexane					CAS #: 110-54-3		
3.133	3.140 (0.714)	57	595132	69.2943	69.294	80.00- 120.00	100.00
3.133	3.140 (0.714)	43	431993			41.77- 101.77	72.59
3.133	3.140 (0.714)	86	80421			0.00- 43.88	13.51
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.320	3.327 (0.757)	63	641712	81.9976	81.998	80.00- 120.00	100.00
3.320	3.327 (0.757)	65	202840			1.71- 61.71	31.61
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.036	4.043 (0.920)	98	269863	85.4604	85.460	80.00- 120.00	100.00
4.036	4.043 (0.920)	96	426378			126.11- 186.11	158.00
4.036	4.043 (0.920)	61	574827			179.91- 239.91	213.01
38 2-Butanone					CAS #: 78-93-3		
4.014	4.021 (0.915)	72	186497	57.8612	57.861	80.00- 120.00	100.00(a)
4.014	4.021 (0.915)	43	948458			469.10- 529.10	508.56
4.014	4.021 (0.915)	57	69198			6.15- 66.15	37.10
44 Chloroform					CAS #: 67-66-3		
4.559	4.573 (1.039)	83	731038	97.2600	97.260	80.00- 120.00	100.00
4.566	4.573 (1.041)	85	478368			35.99- 95.99	65.44

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.874	4.881 (0.811)	84	460526	69.7789	69.779	80.00- 120.00	100.00
4.874	4.881 (0.811)	56	612725			102.79- 162.79	133.05
4.874	4.881 (0.811)	41	391308			54.37- 114.37	84.97
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.781	4.788 (0.795)	97	762809	117.880	117.88	80.00- 120.00	100.00
4.781	4.788 (0.795)	99	494734			34.68- 94.68	64.86
47 Carbon Tetrachloride					CAS #: 56-23-5		
5.010	5.017 (0.833)	119	778553	137.688	137.69	80.00- 120.00	100.00
5.010	5.017 (0.833)	117	809698			73.19- 133.19	104.00
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.533	5.540 (0.920)	57	1895883	94.6423	94.642	80.00- 120.00	100.00
5.533	5.540 (0.920)	56	606846			1.74- 61.74	32.01
5.533	5.540 (0.920)	41	582681			0.34- 60.34	30.73
48 Benzene					CAS #: 71-43-2		
5.325	5.325 (0.886)	78	1123854	58.6811	58.681	80.00- 120.00	100.00
5.325	5.325 (0.886)	77	266445			0.00- 53.53	23.71
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.425	5.440 (0.902)	62	489063	82.9402	82.940	80.00- 120.00	100.00
5.425	5.440 (0.902)	64	159916			2.15- 62.15	32.70
53 Heptane					CAS #: 142-82-5		
5.834	5.841 (0.970)	71	364422	81.0085	81.008	80.00- 120.00	100.00
5.834	5.841 (0.970)	43	812319			188.80- 248.80	222.91
5.834	5.841 (0.970)	57	374775			71.78- 131.78	102.84
56 Trichloroethene					CAS #: 79-01-6		
6.314	6.321 (1.050)	95	529864	100.691	100.69	80.00- 120.00	100.00
6.314	6.321 (1.050)	130	550702			74.74- 134.74	103.93
6.314	6.321 (1.050)	97	343640			34.87- 94.87	64.85
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.614	6.629 (1.100)	83	667572	81.4711	81.471	80.00- 120.00	100.00
6.614	6.629 (1.100)	98	296712			14.22- 74.22	44.45
6.614	6.629 (1.100)	55	593918			58.24- 118.24	88.97
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.679	6.686 (1.111)	63	434537	98.3340	98.334	80.00- 120.00	100.00
6.679	6.686 (1.111)	62	300119			39.32- 99.32	69.07
6.679	6.686 (1.111)	41	278763			37.26- 97.26	64.15

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.794	6.801 (1.130)	88	266355	70.6792	70.679	80.00- 120.00	100.00
6.794	6.801 (1.130)	58	195352			41.28- 101.28	73.34
6.794	6.801 (1.130)	57	88109			0.62- 60.62	33.08
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.904	7.904 (1.314)	58	366465	84.4823	84.482	80.00- 120.00	100.00
7.904	7.904 (1.314)	43	1087063			263.34- 323.34	296.63
7.904	7.904 (1.314)	85	153294			12.32- 72.32	41.83
67 Toluene					CAS #: 108-88-3		
8.104	8.104 (0.817)	91	1402763	72.5514	72.551	80.00- 120.00	100.00
8.104	8.104 (0.817)	92	819642			28.18- 88.18	58.43
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.720	8.713 (1.450)	97	489191	110.861	110.86	80.00- 120.00	100.00
8.720	8.713 (1.450)	99	304354			32.32- 92.32	62.22
8.720	8.713 (1.450)	83	415890			54.42- 114.42	85.02
71 Tetrachloroethene					CAS #: 127-18-4		
8.778	8.771 (0.884)	166	682302	133.538	133.54	80.00- 120.00	100.00
8.778	8.771 (0.884)	129	538830			47.21- 107.21	78.97
8.778	8.771 (0.884)	131	517603			44.68- 104.68	75.86
72 2-Hexanone					CAS #: 591-78-6		
9.036	9.028 (0.910)	58	494811	84.8869	84.887	80.00- 120.00	100.00
9.036	9.028 (0.910)	43	1058965			181.19- 241.19	214.01
9.036	9.028 (0.910)	100	91743			0.00- 48.53	18.54
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.308	9.301 (0.938)	107	765434	159.498	159.50	80.00- 120.00	100.00
9.315	9.301 (0.939)	109	725296			64.88- 124.88	94.76
81 Chlorobenzene					CAS #: 108-90-7		
9.967	9.953 (1.004)	112	1140019	92.0976	92.098	80.00- 120.00	100.00
9.967	9.953 (1.004)	114	370408			2.37- 62.37	32.49
9.967	9.953 (1.004)	77	638553			25.58- 85.58	56.01
82 Ethyl Benzene					CAS #: 100-41-4		
10.117	10.103 (1.019)	106	584178	86.6975	86.697	80.00- 120.00	100.00
10.117	10.103 (1.019)	91	1834105			283.92- 343.92	313.96
84 m,p-Xylene					CAS #: 108-38-3		
10.296	10.289 (1.038)	106	734504	84.0469	84.047	80.00- 120.00	100.00
10.296	10.289 (1.038)	91	1458878			168.48- 228.48	198.62

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

   88 o-Xylene                                      CAS #: 95-47-6
 10.783  10.769 (0.939)   106    697333 91.1245   91.124  80.00- 120.00   100.00
 10.783  10.769 (0.939)    91   1467193                  179.05- 239.05   210.40
-------------------------------------------------------------------------------
   89 Styrene                                       CAS #: 100-42-5
 10.812  10.805 (0.941)   104   1175183 89.0517   89.052  80.00- 120.00   100.00
 10.812  10.805 (0.941)    78    566245                   17.71-  77.71    48.18
-------------------------------------------------------------------------------
   91 Cumene                                        CAS #: 98-82-8
 11.270  11.249 (0.981)   105   2110252 104.854   104.85  80.00- 120.00   100.00
 11.270  11.256 (0.981)   120    568646                    0.00-  56.88    26.95
 11.270  11.256 (0.981)    51    228007                    0.00-  40.57    10.80
-------------------------------------------------------------------------------
   94 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 11.700  11.686 (1.019)    83   1057471 158.949   158.95  80.00- 120.00   100.00
 11.700  11.693 (1.019)    85    692178                   35.63-  95.63    65.46
-------------------------------------------------------------------------------
   96 Propylbenzene                                 CAS #: 103-65-1
 11.808  11.786 (1.028)    91   2552755 107.233   107.23  80.00- 120.00   100.00
 11.808  11.801 (1.028)   120    607088                    0.00-  53.76    23.78
 11.808  11.801 (1.028)   105     94275                    0.00-  33.79     3.69
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                                CAS #: 622-96-8
 11.972  11.965 (1.042)   120    632486 103.282   103.28  80.00- 120.00   100.00
 11.972  11.958 (1.042)   105   2081868                  299.98- 359.98   329.16
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 12.058  12.051 (1.050)   120    888334 102.888   102.89  80.00- 120.00   100.00
 12.058  12.044 (1.050)   105   1785498                  169.84- 229.84   200.99
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 12.524  12.517 (1.090)   120    823847 102.394   102.39  80.00- 120.00   100.00
 12.524  12.517 (1.090)   105   1803633                  188.24- 248.24   218.93
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                           CAS #: 541-73-1
 12.846  12.846 (1.118)   146   1256074 126.140   126.14  80.00- 120.00   100.00
 12.846  12.846 (1.118)   148    802286                   33.94-  93.94    63.87
 12.846  12.839 (1.118)   111    496532                    9.99-  69.99    39.53
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                           CAS #: 106-46-7
 12.990  12.982 (1.131)   146   1255786 126.302   126.30  80.00- 120.00   100.00
 12.990  12.982 (1.131)   148    799177                   33.56-  93.56    63.64
 12.990  12.982 (1.131)   111    484528                    8.12-  68.12    38.58
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                           CAS #: 95-50-1
 13.427  13.419 (1.169)   146   1192903 126.778   126.78  80.00- 120.00   100.00
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
105 1,2-Dichlorobenzene (continued)								
13.427	13.419	(1.169)	148	756304			33.25- 93.25	63.40
13.427	13.419	(1.169)	111	491193			11.16- 71.16	41.18
106 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
15.475	15.475	(1.347)	180	992601	153.439	153.44	80.00- 120.00	100.00
15.475	15.475	(1.347)	182	939230			64.82- 124.82	94.62
107 Hexachlorobutadiene						CAS #: 87-68-3		
15.683	15.683	(1.365)	225	732447	220.320	220.32	80.00- 120.00	100.00
15.683	15.683	(1.365)	223	456349			32.09- 92.09	62.30

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6033113.d
Lab Smp Id: VI VOC+PAH ICV/LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-231-20ml(6/11/16),2744-32-50(7/20/16)

Calibration Date: 30-MAR-2016
Calibration Time: 20:53
Client Smp ID: LCS, 25ngSurr
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	225139	135083	315195	229505	1.94
54 1,4-Difluorobenze	874568	524741	1224395	873306	-0.14
79 Chlorobenzene-d5	795881	477529	1114233	804807	1.12
92 Bromofluorobenzen	515685	309411	721959	508146	-1.46

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.38	4.05	4.71	4.39	0.16
54 1,4-Difluorobenze	6.01	5.68	6.34	6.01	0.00
79 Chlorobenzene-d5	9.91	9.58	10.24	9.92	0.14
92 Bromofluorobenzen	11.46	11.13	11.79	11.49	0.19

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: 04-Apr-2016 12:09

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 31mar16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: VI VOC+PAH ICV/LCS
Client Smp ID: LCS, 25ngSurr
Level: LOW
Operator: LA
Data Type: MS DATA
SampleType: LCS
SpikeList File: VOClcs.spk
Quant Type: ISTD
Sublist File: VOC_L1.sub
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-231-20ml(6/11/16),2744-32-50(7/20/16)

SPIKE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
3 Freon 114	139.80	149.81	107.16	70-130
6 Vinyl Chloride	51.100	52.230	102.21	70-130
7 1,3-Butadiene	44.200	42.876	97.00	70-130
9 Chloroethane	52.800	45.670	86.50	70-130
10 Isopentane	59.000	59.866	101.47	70-130
11 Trichlorofluoromet	112.40	116.51	103.66	70-130
14 1,1-Dichloroethene	79.300	77.087	97.21	70-130
15 Freon 113	153.30	150.91	98.44	70-130
18 Carbon Disulfide	62.300	51.775	83.11	70-130
19 2-Propanol	49.200	50.420	102.48	70-130
22 Methylene Chloride	69.500	68.273	98.23	70-130
25 trans-1,2-Dichloro	79.300	68.409	86.27	70-130
26 MTBE	72.100	78.171	108.42	70-130
28 Hexane	70.500	69.294	98.29	70-130
29 1,1-Dichloroethane	81.000	81.998	101.23	70-130
37 cis-1,2-Dichloroet	79.300	85.460	107.77	70-130
38 2-Butanone	59.000	57.861	98.07	70-130
44 Chloroform	97.700	97.260	99.55	70-130
45 1,1,1-Trichloroeth	109.10	117.88	108.05	70-130
46 Cyclohexane	68.800	69.779	101.42	70-130
47 Carbon Tetrachlori	125.80	137.69	109.45	70-130
48 Benzene	63.900	58.681	91.83	70-130
50 1,2-Dichloroethane	80.900	82.940	102.52	70-130
51 2,2,4-Trimethylpen	93.400	94.642	101.33	70-130
53 Heptane	82.000	81.008	98.79	70-130
56 Trichloroethene	107.50	100.69	93.67	70-130
58 Methyl Cyclohexane	80.300	81.471	101.46	70-130
59 1,2-Dichloropropan	92.400	98.334	106.42	70-130
60 1,4-Dioxane	72.100	70.679	98.03	70-130
65 4-Methyl-2-pentano	81.900	84.482	103.15	70-130
67 Toluene	75.400	72.551	96.22	70-130
70 1,1,2-Trichloroeth	109.10	110.86	101.61	70-130
71 Tetrachloroethene	135.70	133.54	98.41	70-130

SPIKE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
72 2-Hexanone	81.900	84.887	103.65	70-130
74 1,2-Dibromoethane	153.70	159.50	103.77	70-130
81 Chlorobenzene	92.100	92.098	100.00	70-130
82 Ethyl Benzene	86.800	86.697	99.88	70-130
84 m,p-Xylene	86.800	84.047	96.83	70-130
88 o-Xylene	86.800	91.124	104.98	70-130
89 Styrene	85.200	89.052	104.52	70-130
91 Cumene	98.300	104.85	106.67	70-130
94 1,1,2,2-Tetrachlor	137.30	158.95	115.77	70-130
96 Propylbenzene	98.300	107.23	109.09	70-130
97 4-Ethyltoluene	98.300	103.28	105.07	70-130
98 1,3,5-Trimethylben	98.300	102.89	104.67	70-130
100 1,2,4-Trimethylben	98.300	102.39	104.17	70-130
101 1,3-Dichlorobenzen	120.30	126.14	104.85	70-130
102 1,4-Dichlorobenzen	120.30	126.30	104.99	70-130
105 1,2-Dichlorobenzen	120.30	126.78	105.38	70-130
106 1,2,4-Trichloroben	148.40	153.44	103.40	70-130
107 Hexachlorobutadien	213.30	220.32	103.29	70-130

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 49 1,2-Dichloroethane	25.000	24.703	98.81	50-150
$ 66 Toluene-d8	25.000	24.664	98.65	50-150
$ 108 Naphthalene-d8	25.000	22.446	89.79	50-150

Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

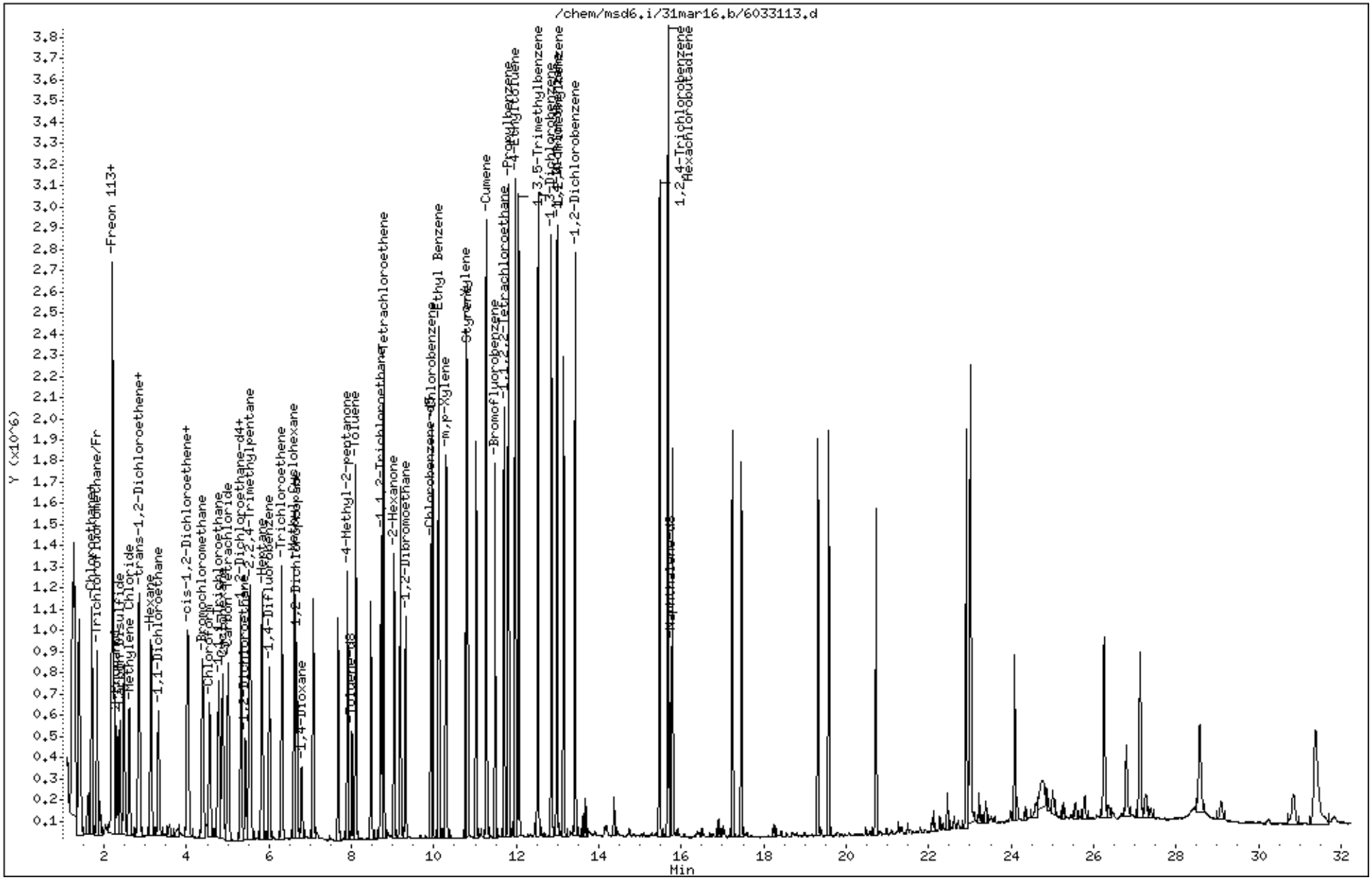
Column phase: RTx-624

Page 1

Instrument: msd6.i

Operator: LA

Column diameter: 0.53



Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

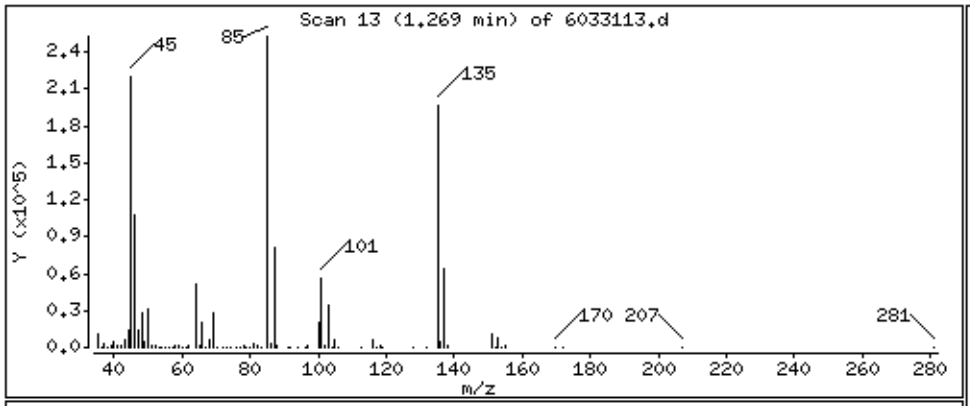
Operator: LA

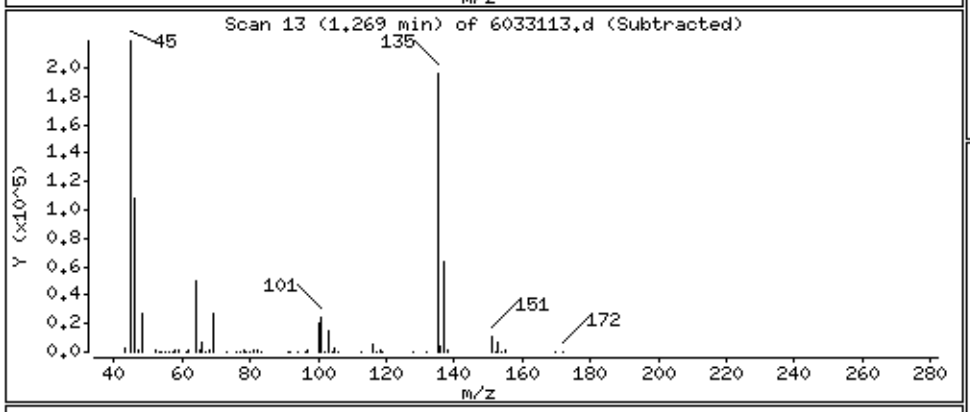
Column phase: RTx-624

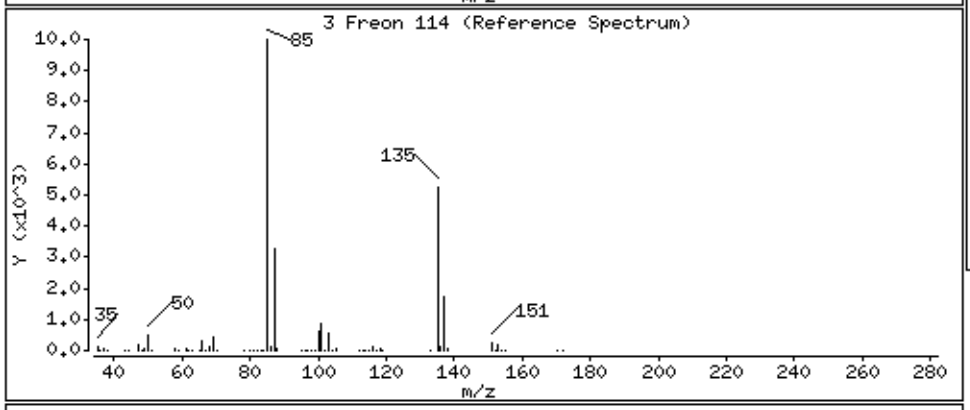
Column diameter: 0.53

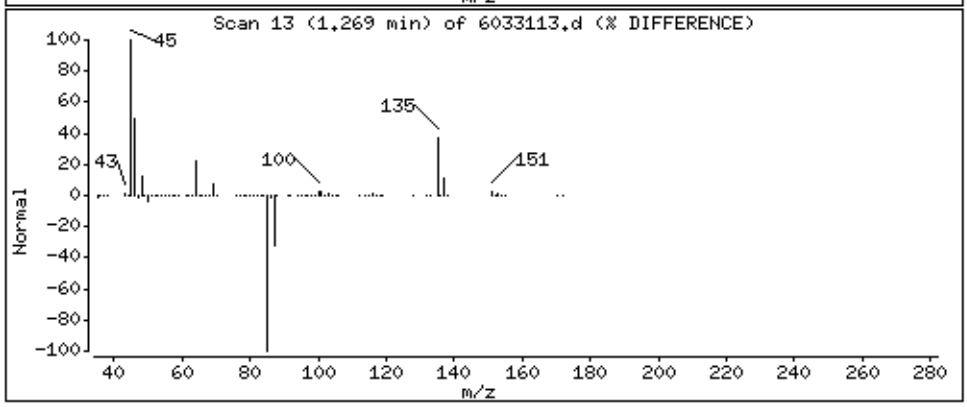
3 Freon 114

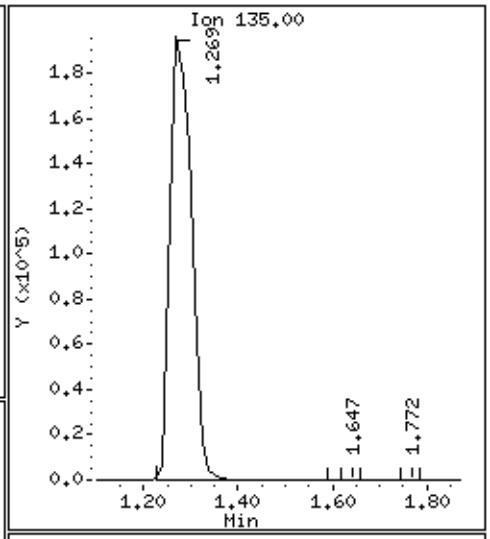
Concentration: 149.81 NG

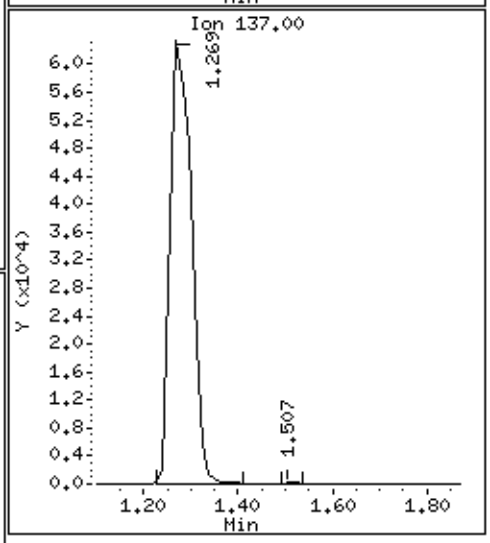












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

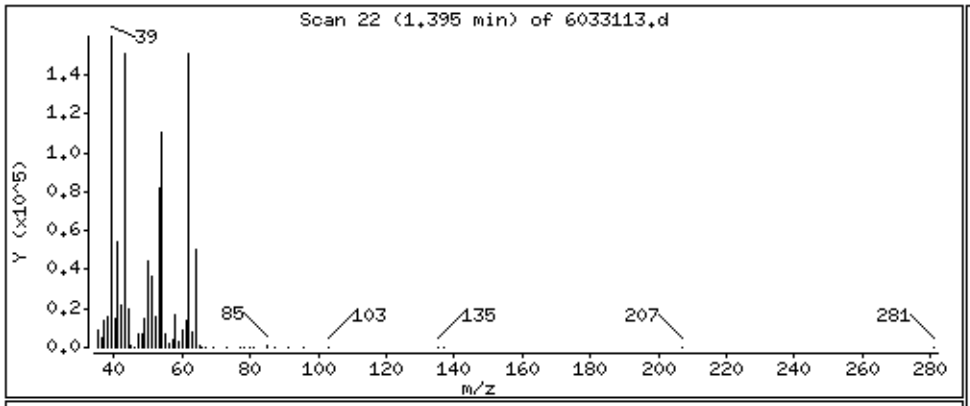
Operator: LA

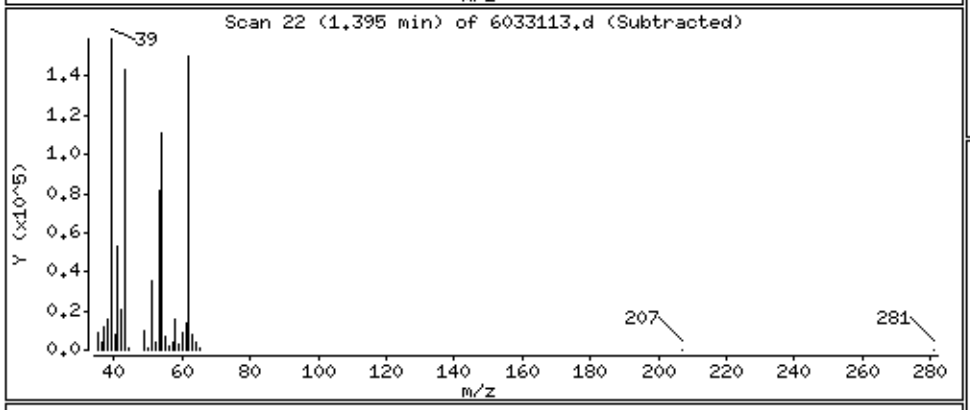
Column phase: RTx-624

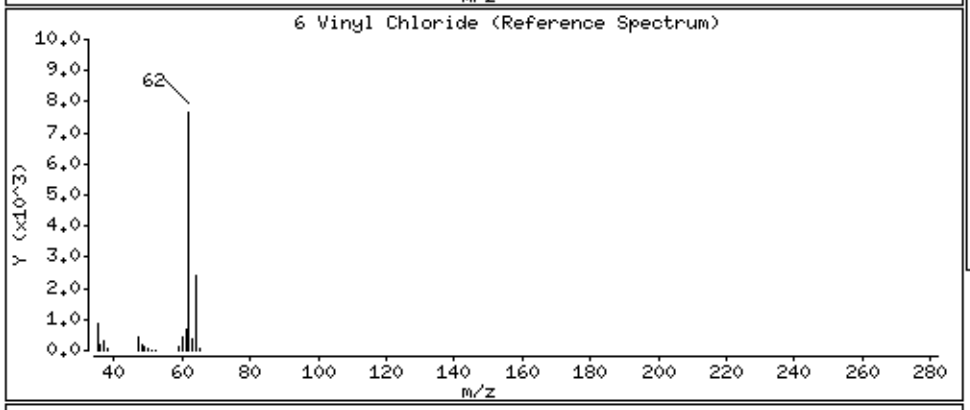
Column diameter: 0.53

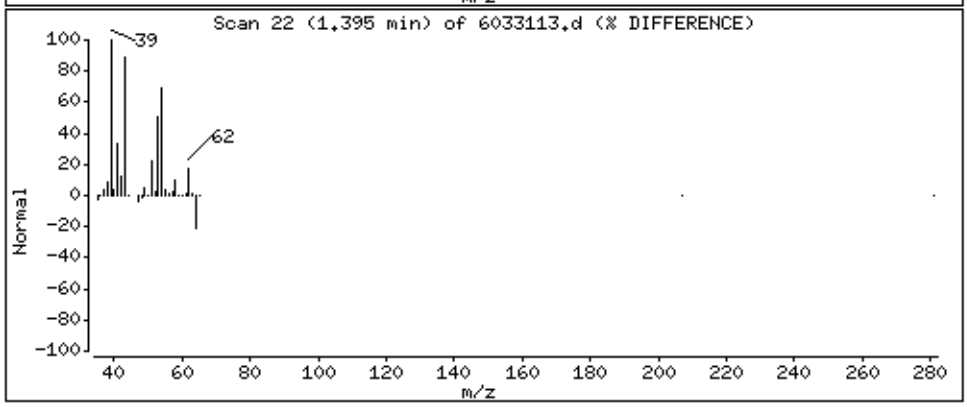
6 Vinyl Chloride

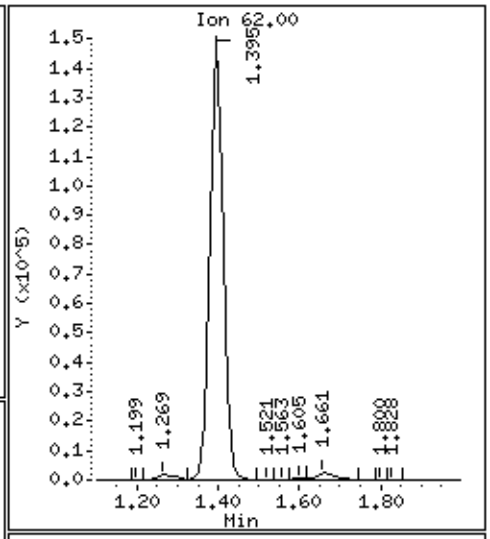
Concentration: 52.230 NG

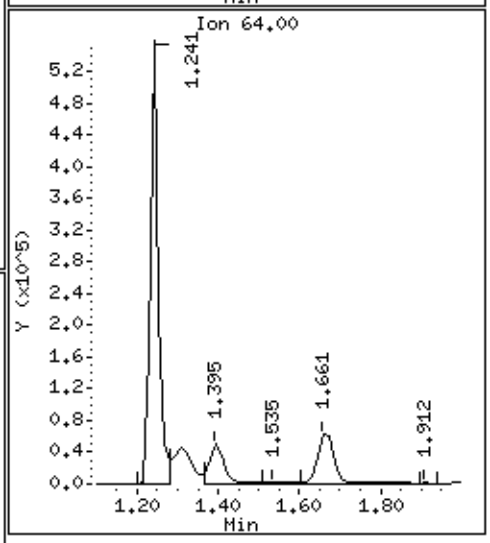












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

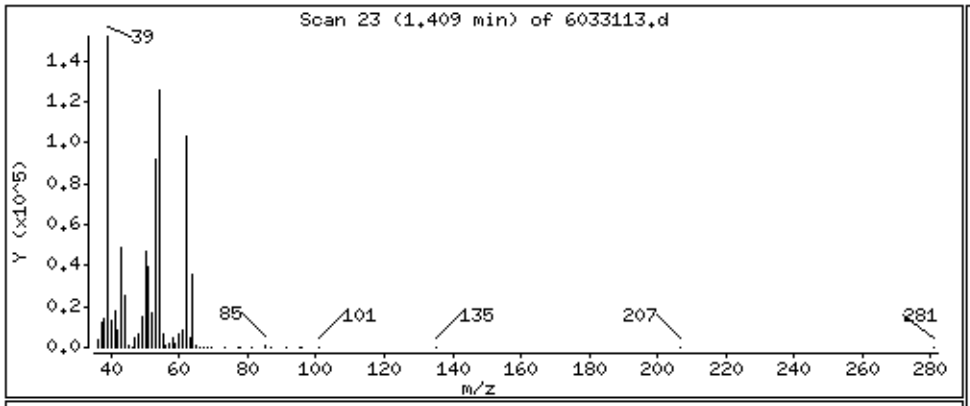
Operator: LA

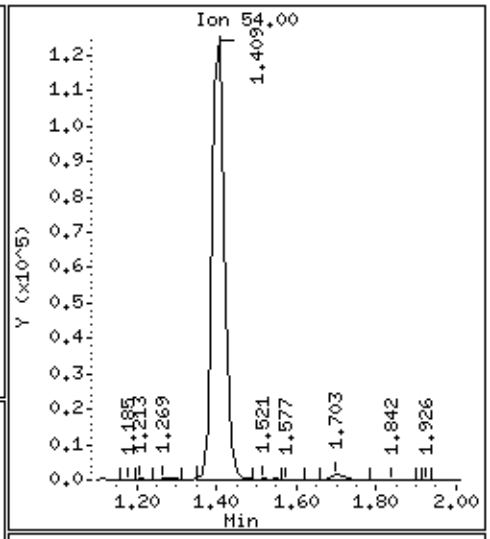
Column phase: RTx-624

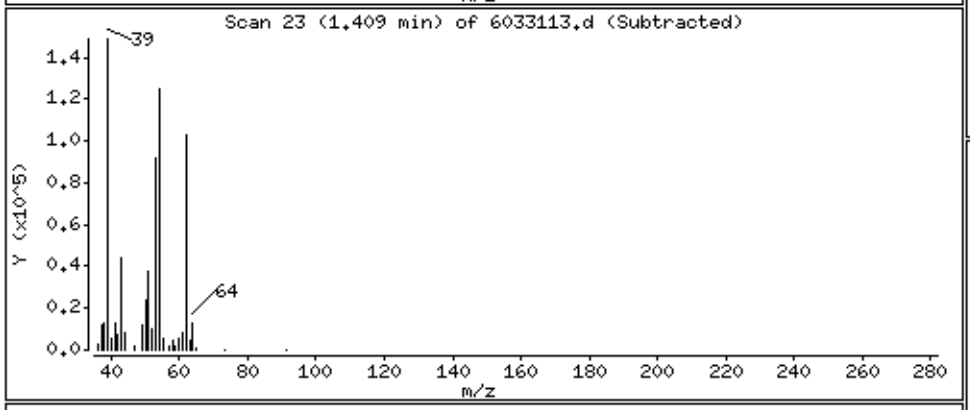
Column diameter: 0.53

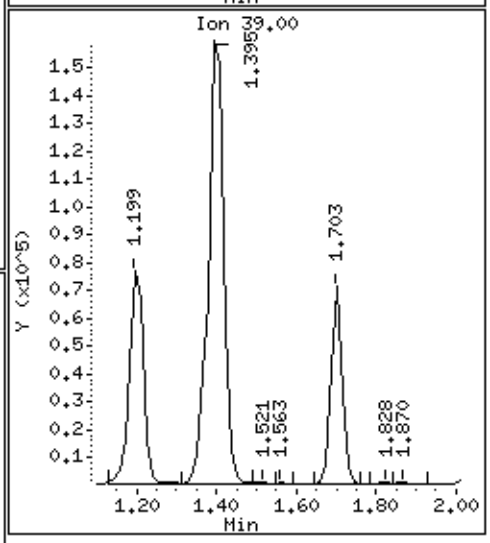
7 1,3-Butadiene

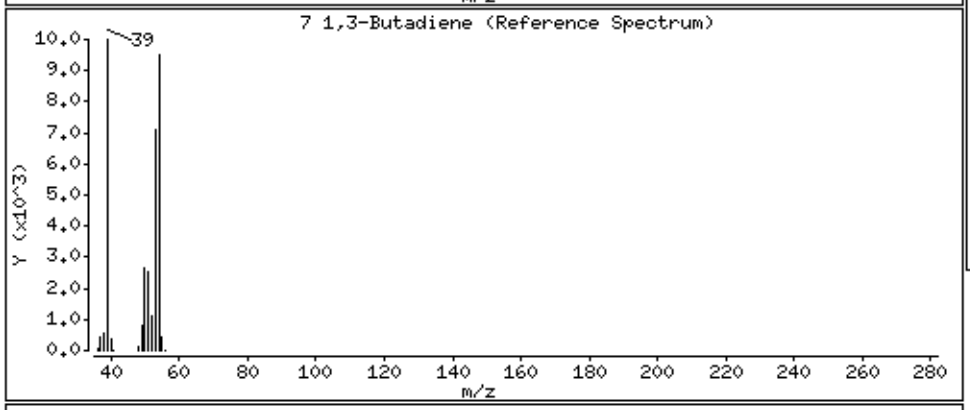
Concentration: 42.876 NG

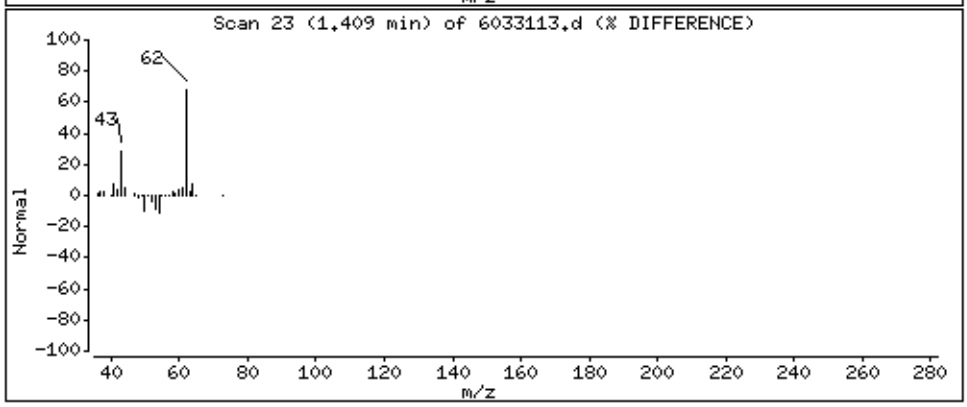












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

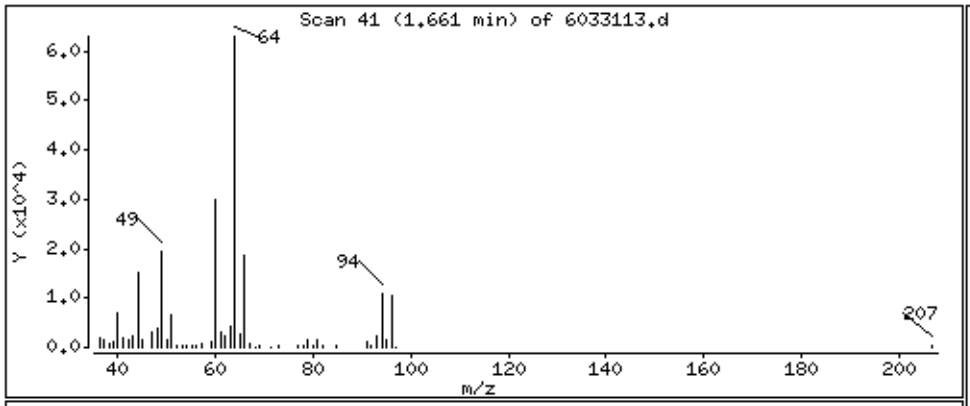
Operator: LA

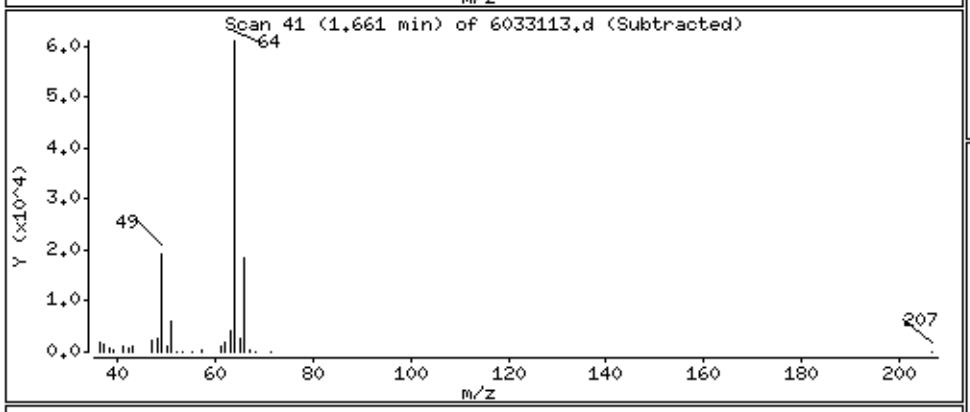
Column phase: RTx-624

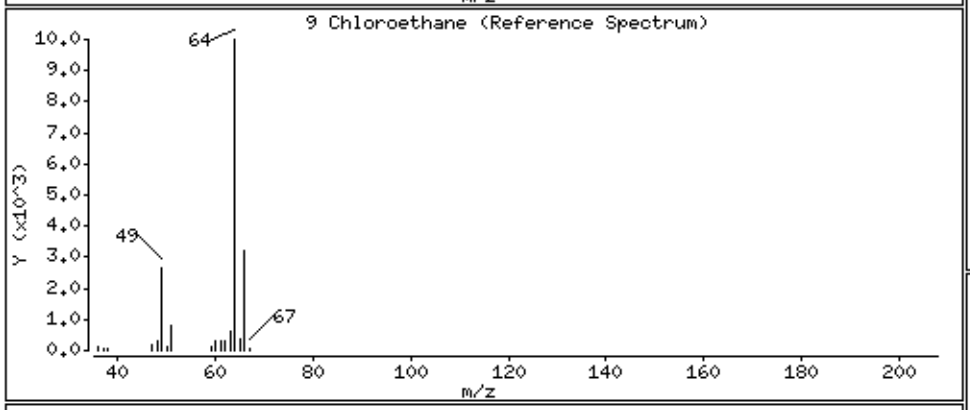
Column diameter: 0.53

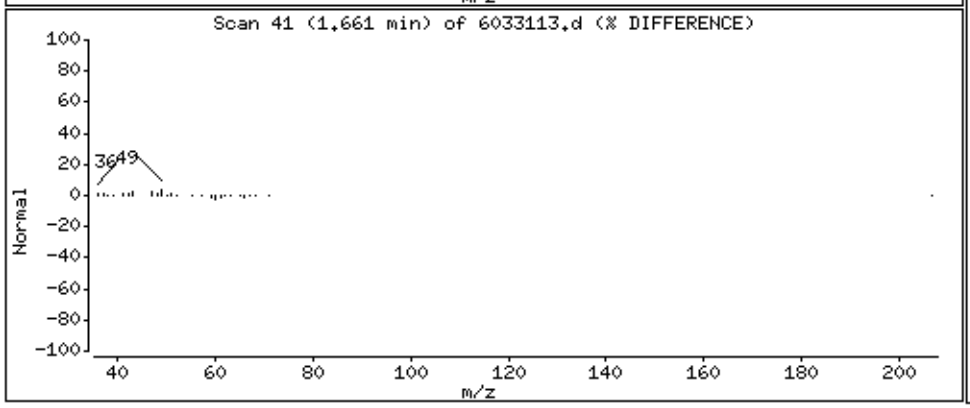
9 Chloroethane

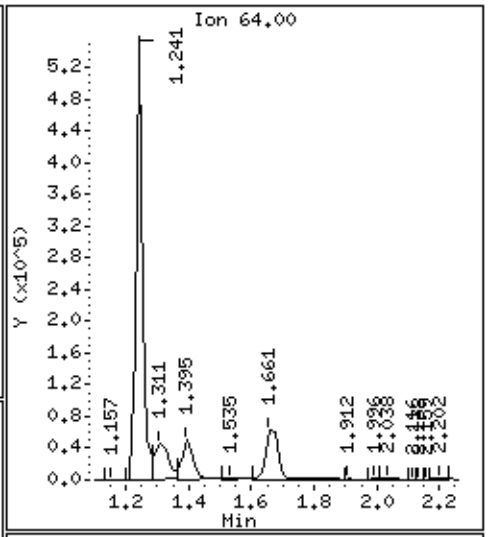
Concentration: 45.670 NG

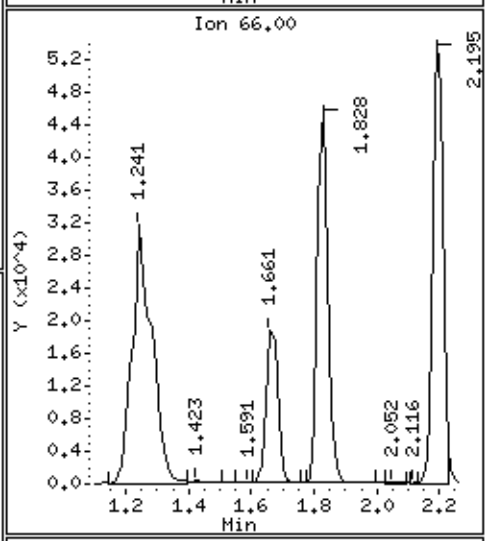


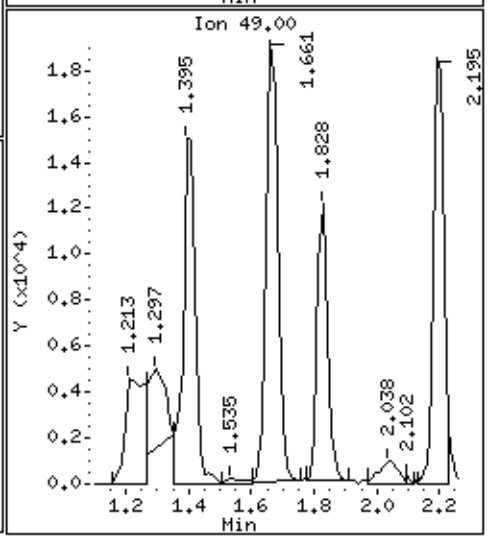












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

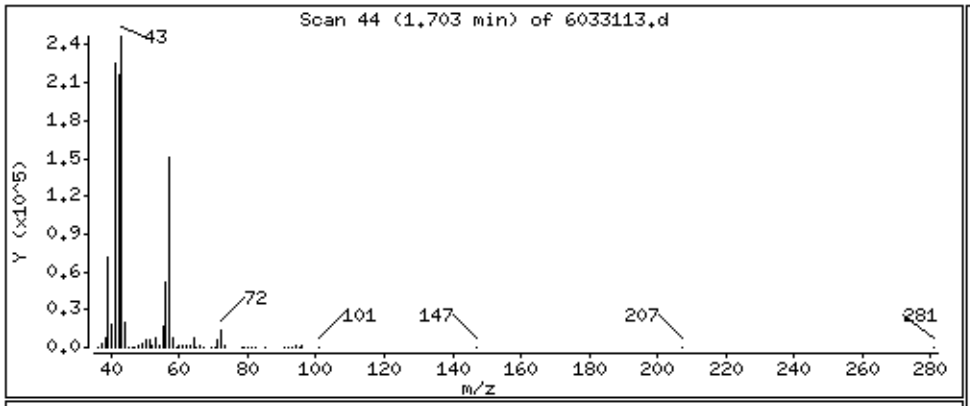
Operator: LA

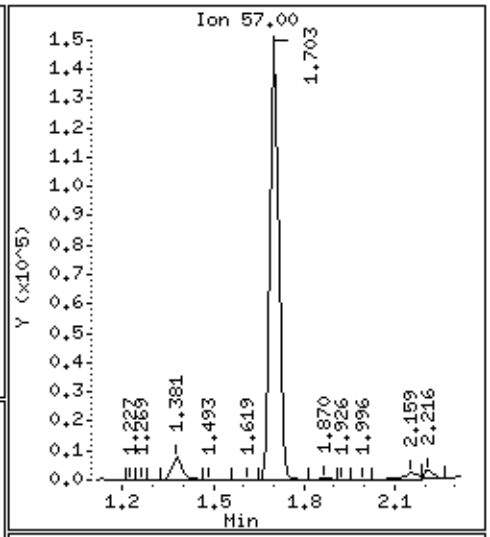
Column phase: RTx-624

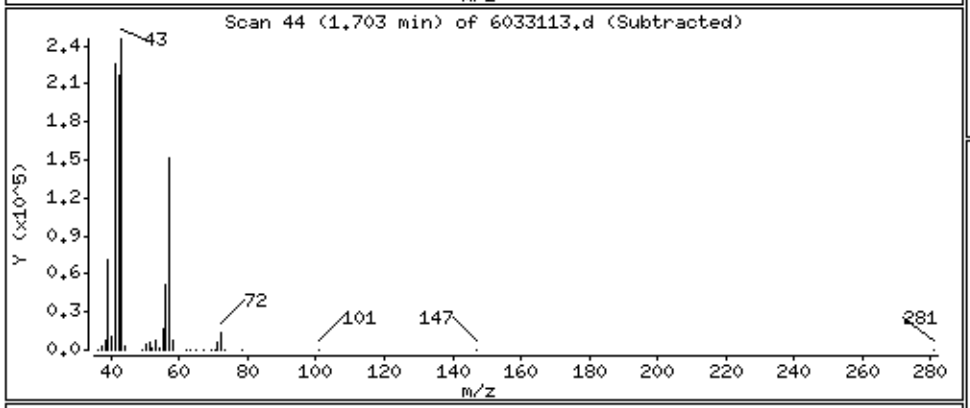
Column diameter: 0.53

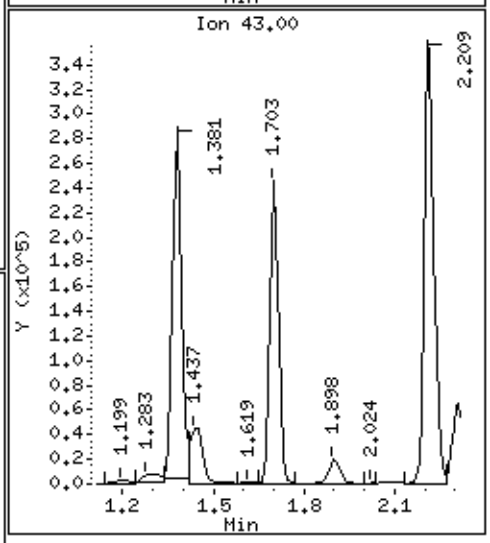
10 Isopentane

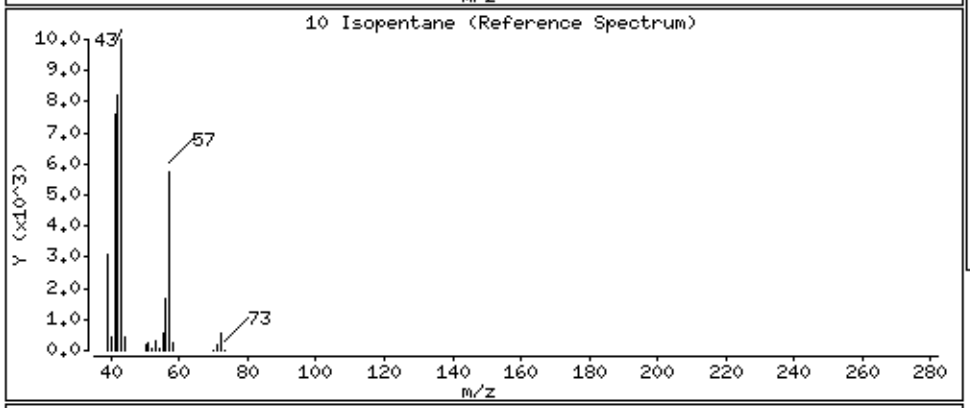
Concentration: 59.866 NG

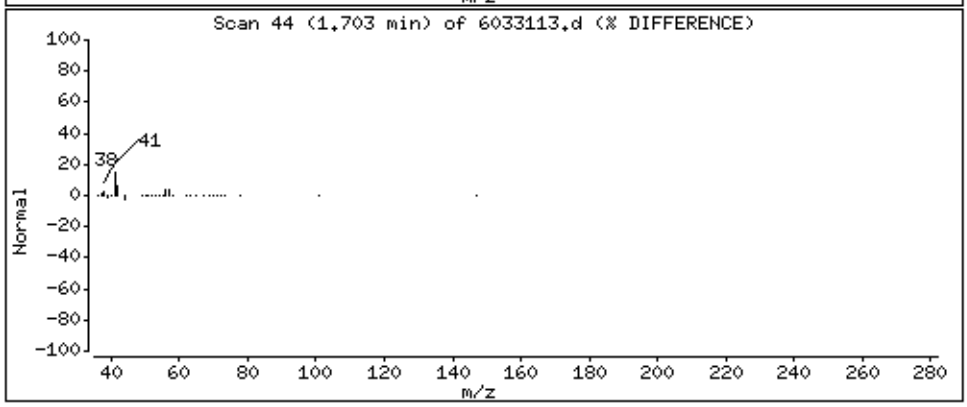












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

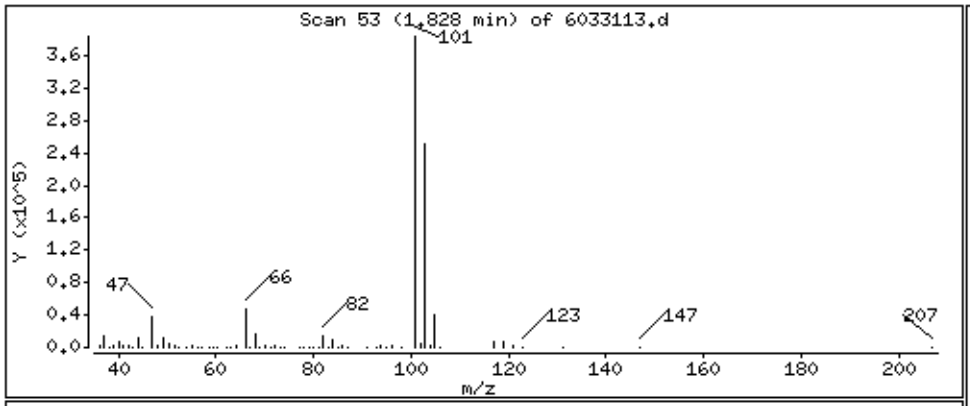
Operator: LA

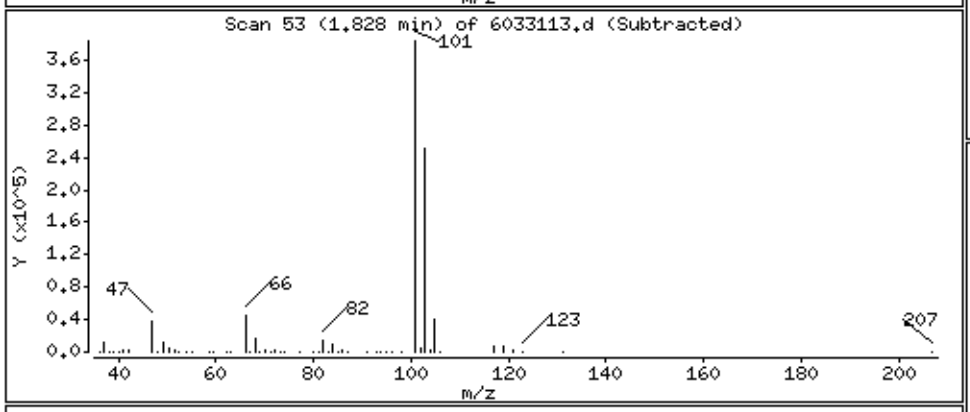
Column phase: RTx-624

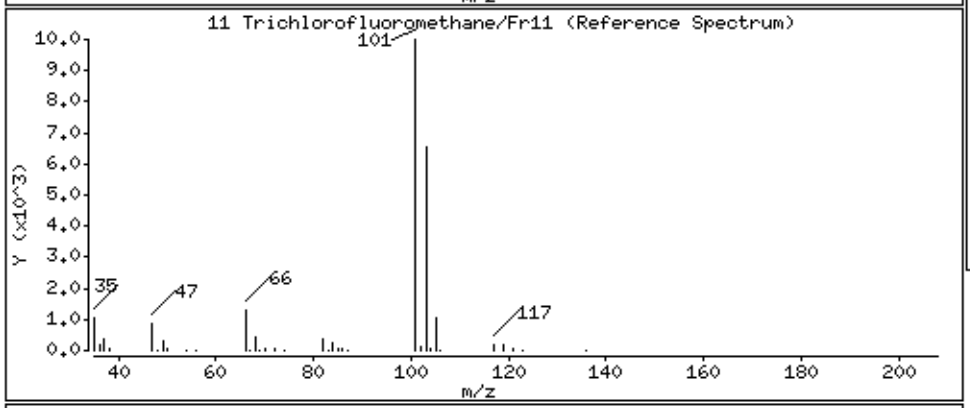
Column diameter: 0.53

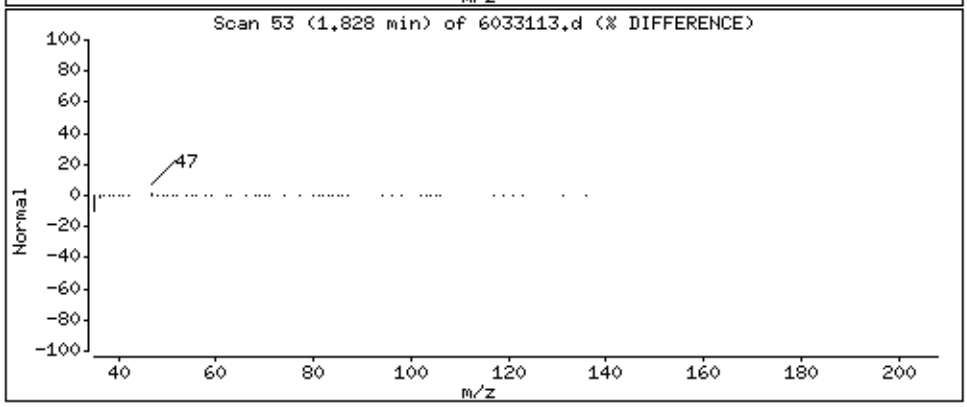
11 Trichlorofluoromethane/Fr11

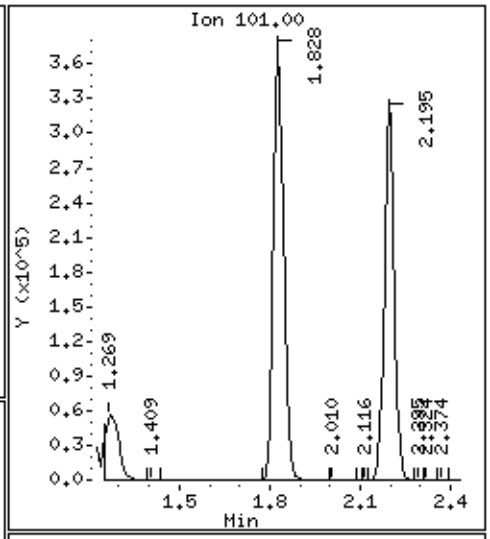
Concentration: 116.51 NG

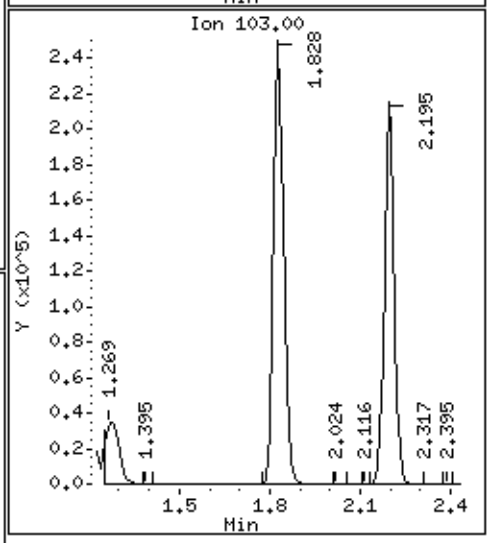












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

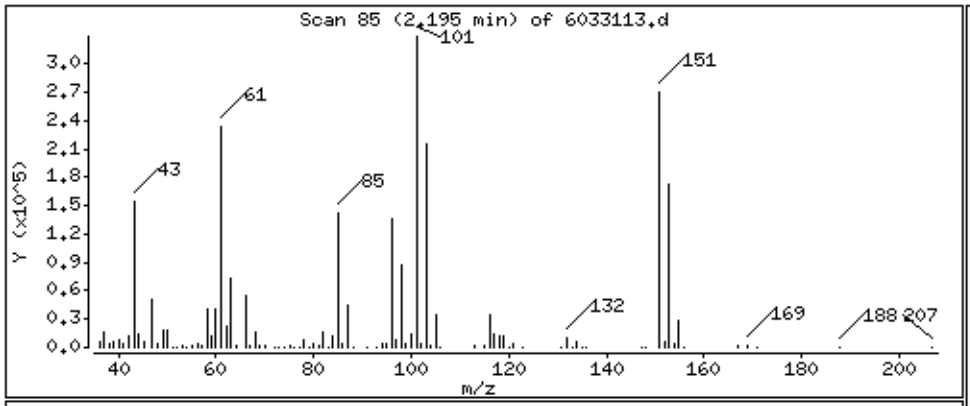
Operator: LA

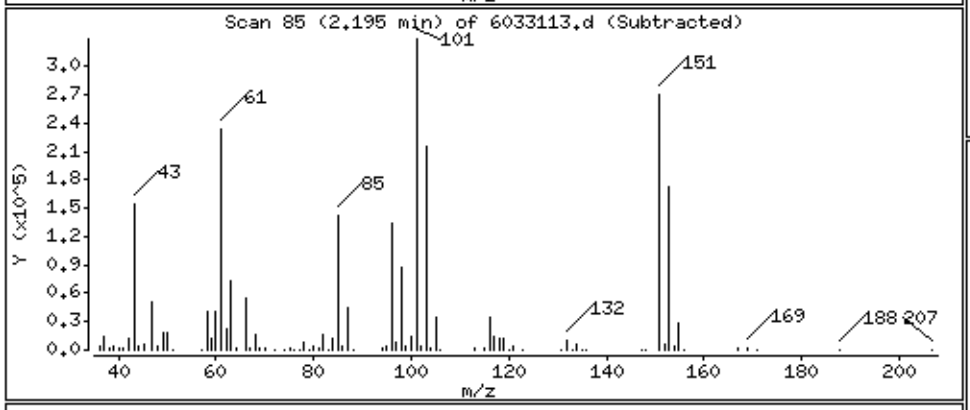
Column phase: RTx-624

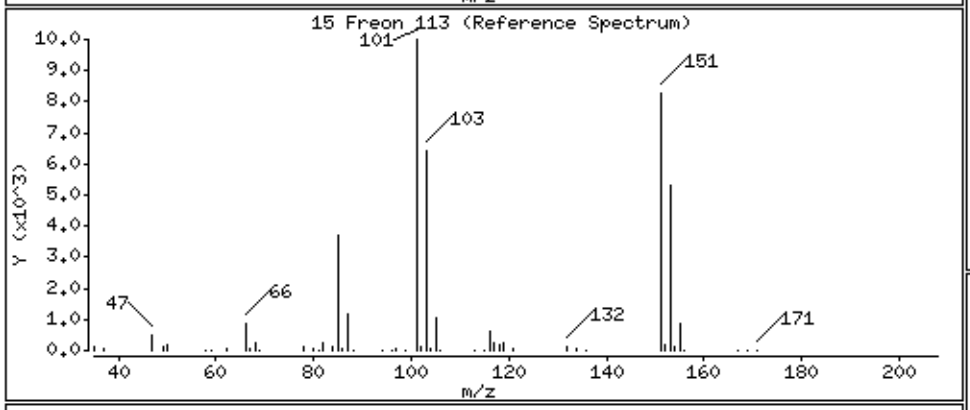
Column diameter: 0.53

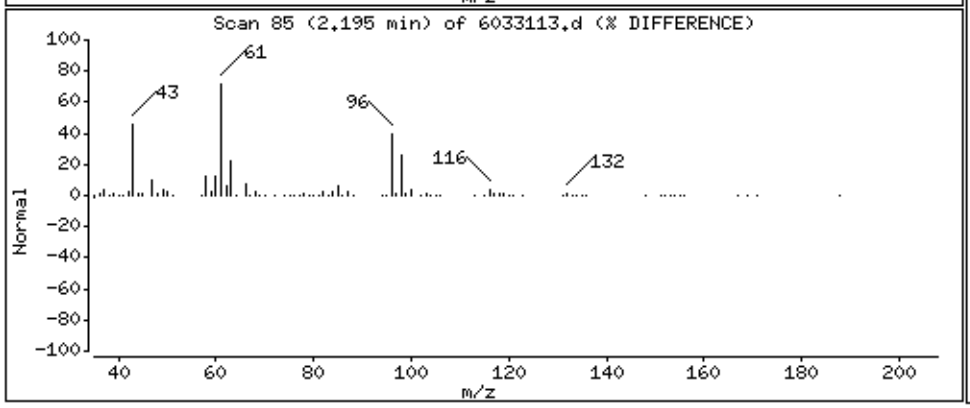
15 Freon 113

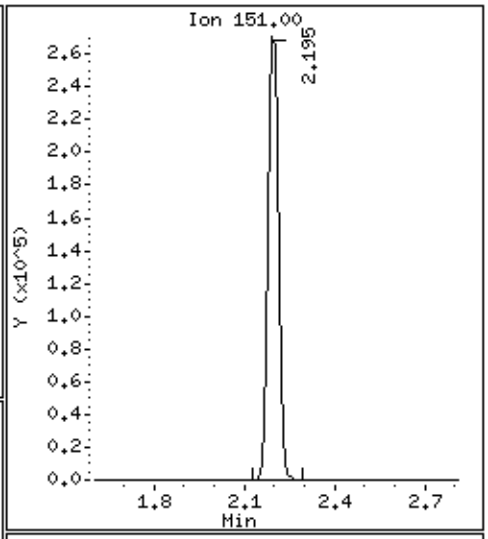
Concentration: 150.91 NG

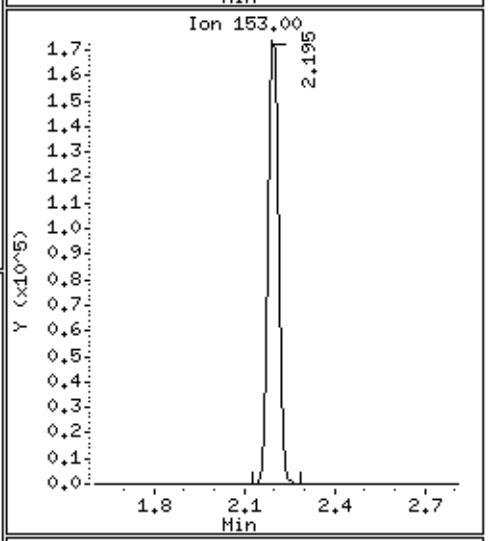


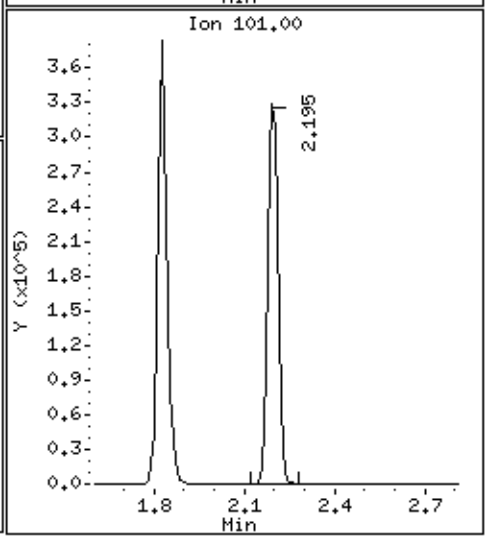












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

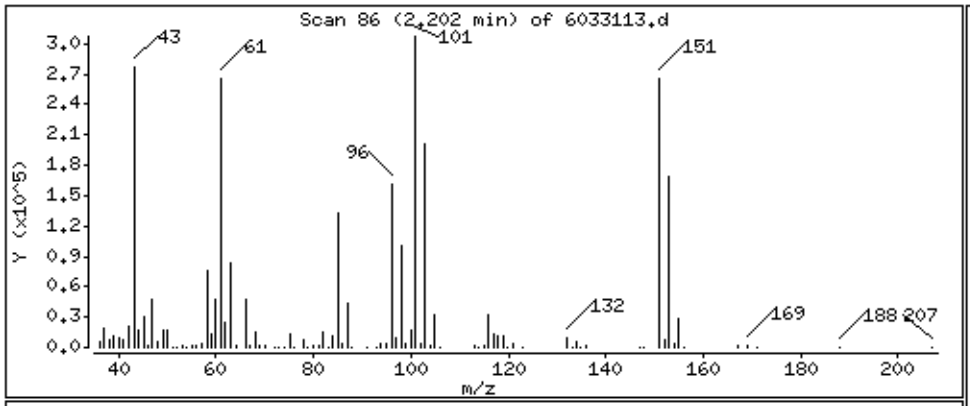
Operator: LA

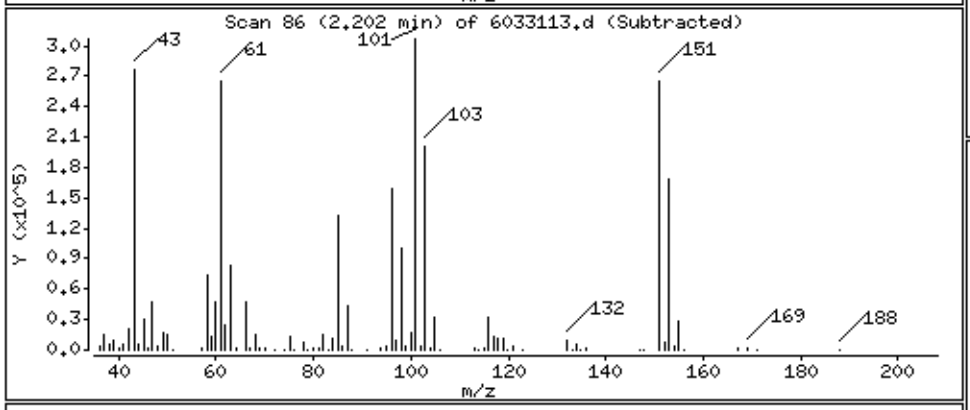
Column phase: RTx-624

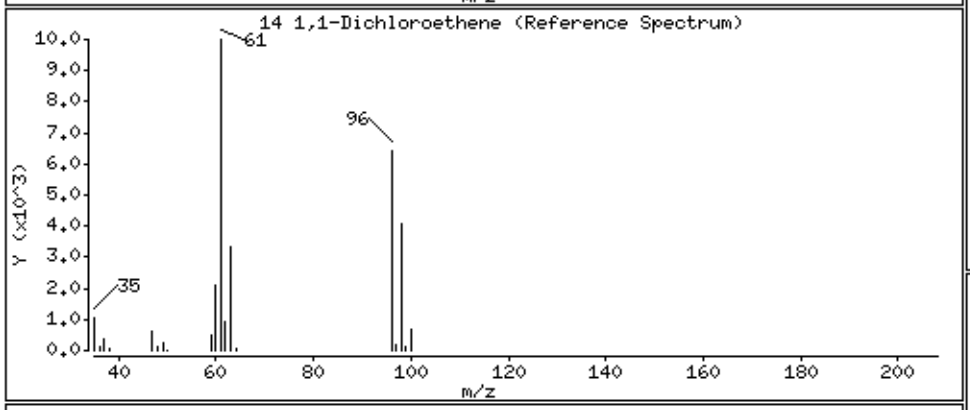
Column diameter: 0.53

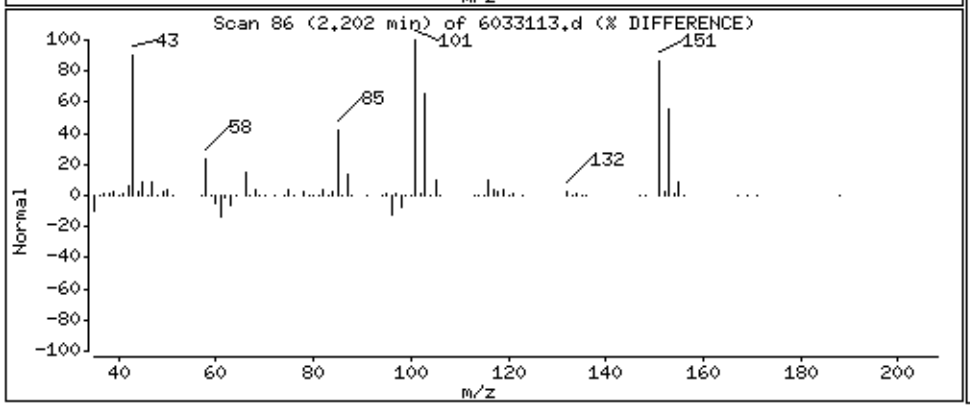
14 1,1-Dichloroethene

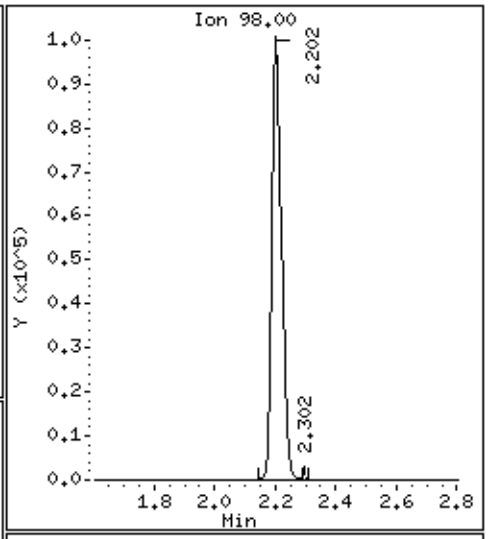
Concentration: 77.087 NG

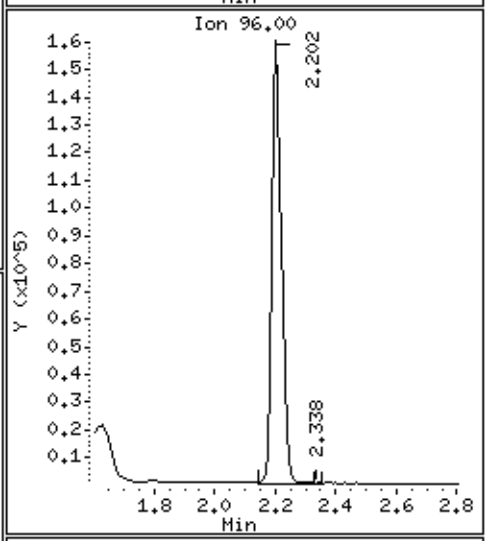


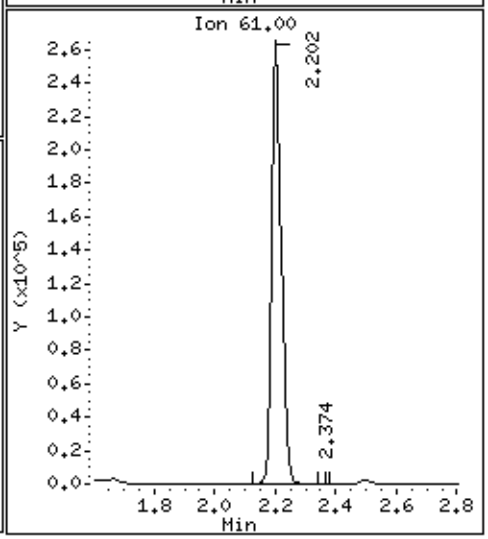












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

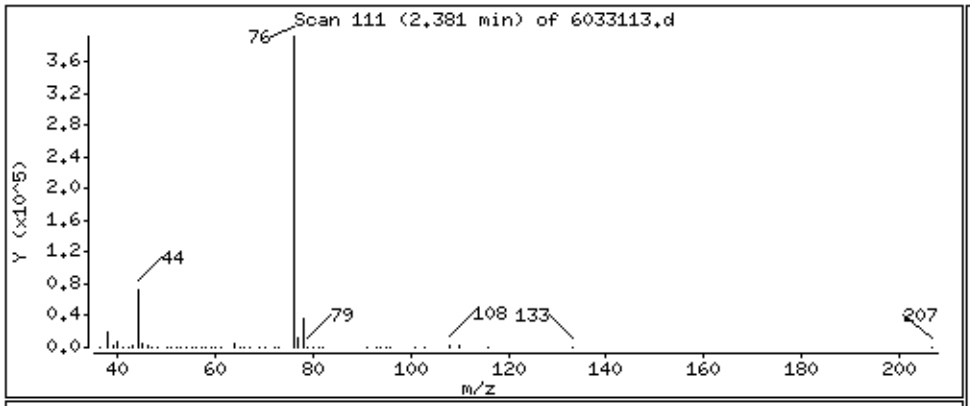
Operator: LA

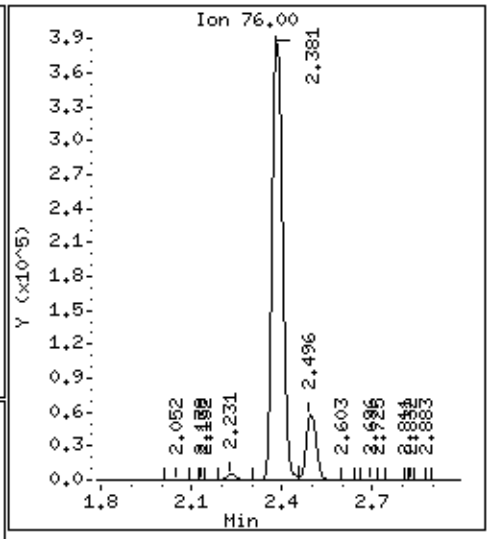
Column phase: RTx-624

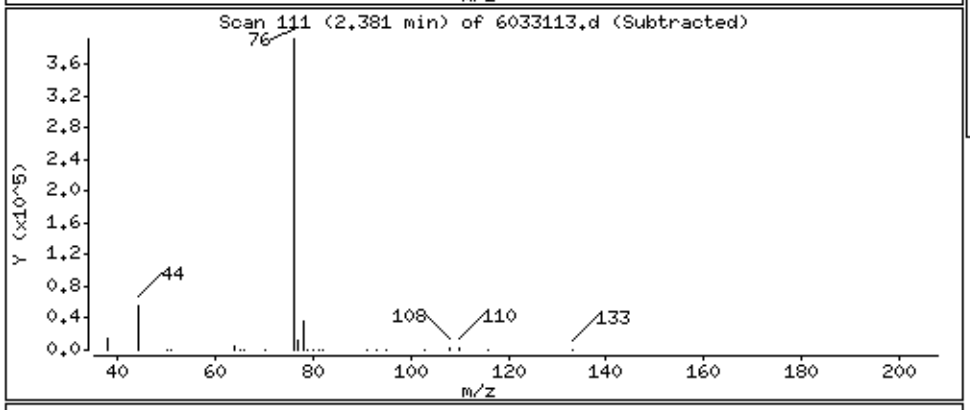
Column diameter: 0.53

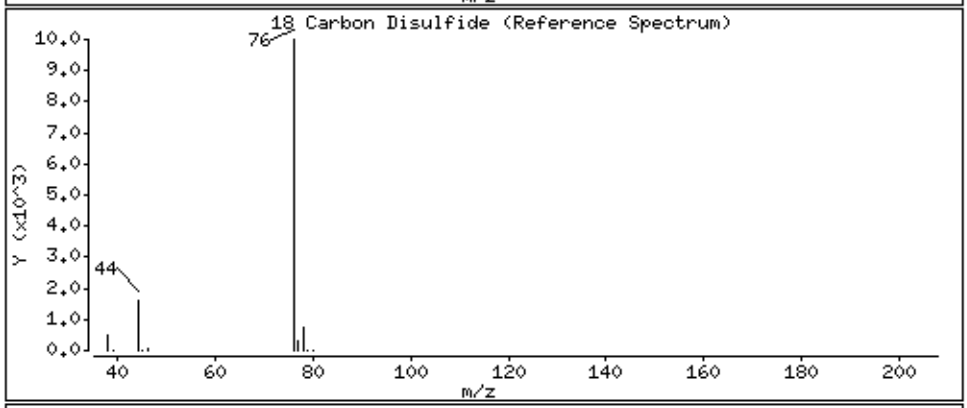
18 Carbon Disulfide

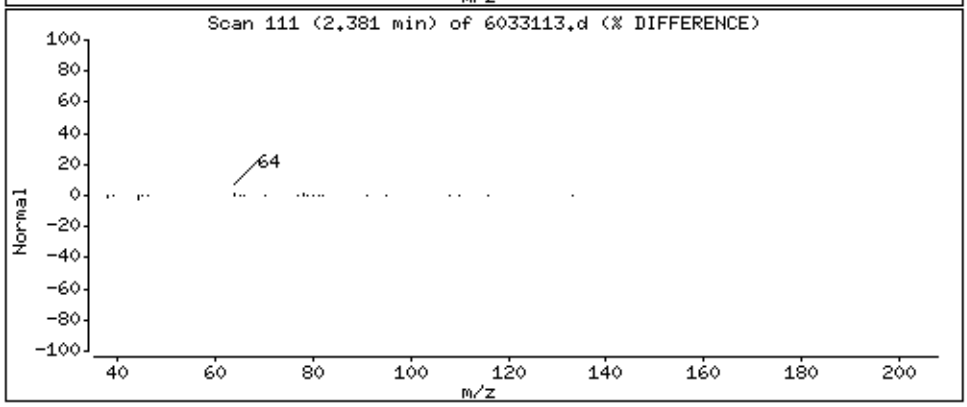
Concentration: 51.775 NG











Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

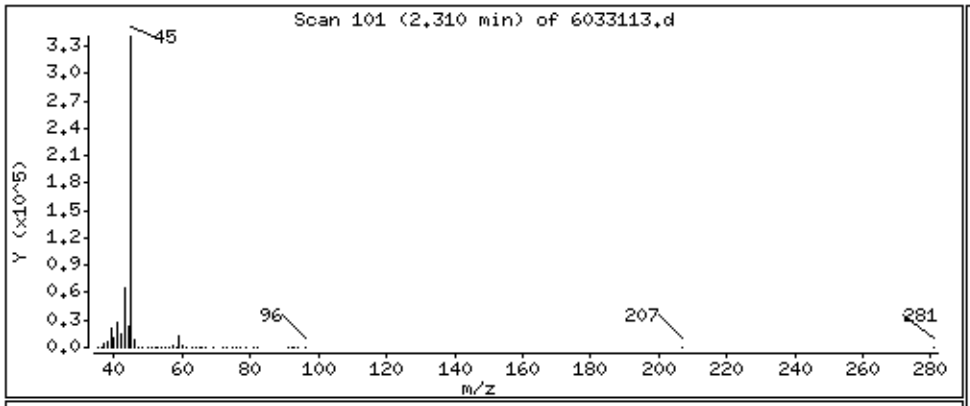
Operator: LA

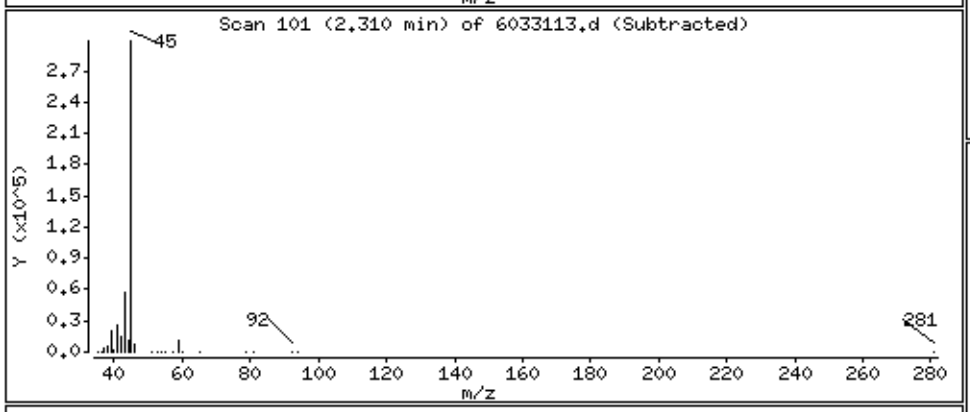
Column phase: RTx-624

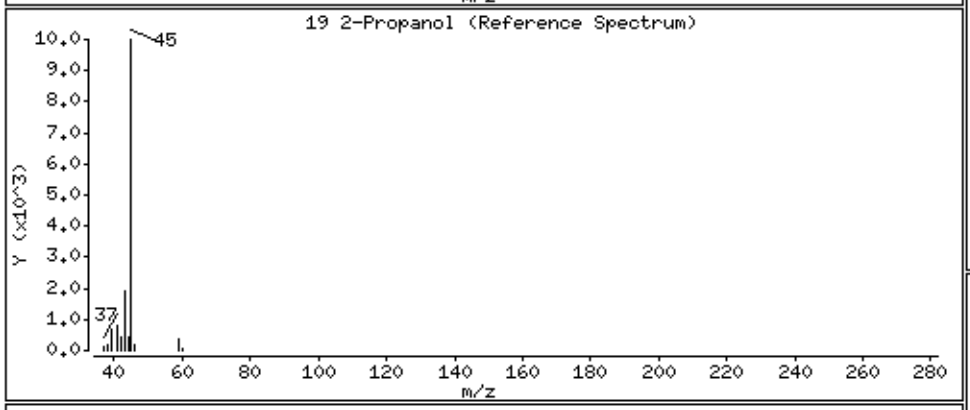
Column diameter: 0.53

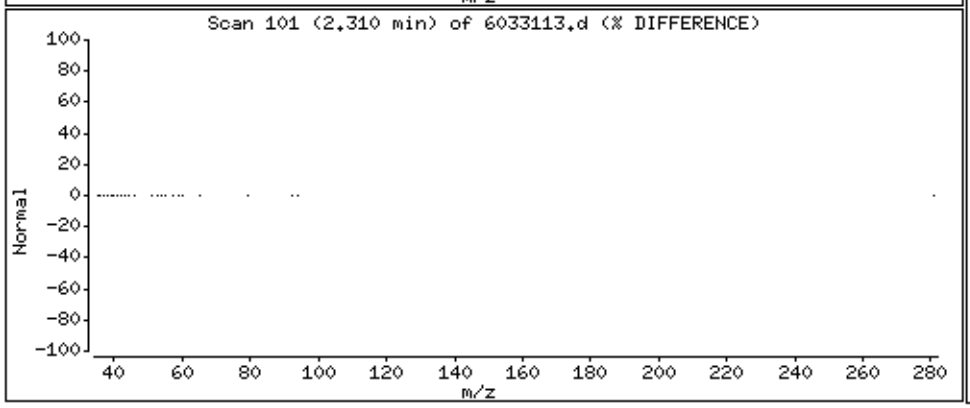
19 2-Propanol

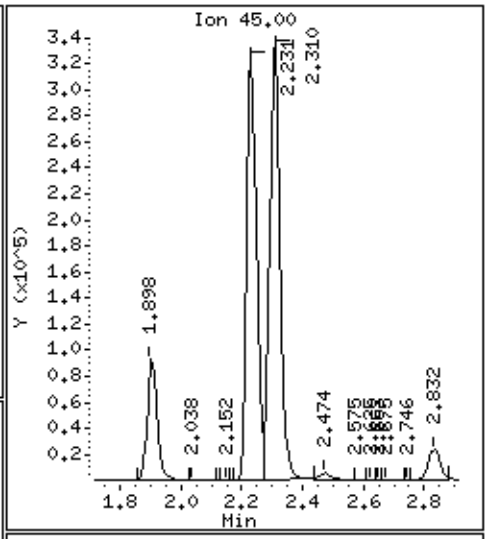
Concentration: 50.420 NG

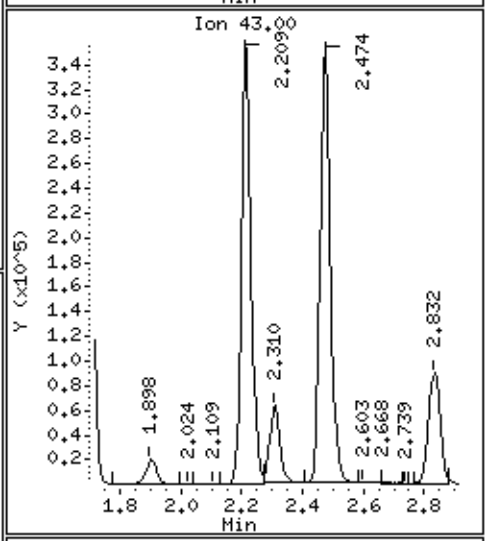


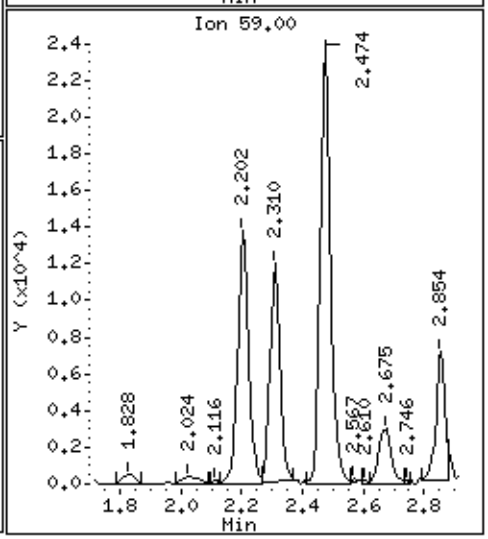












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

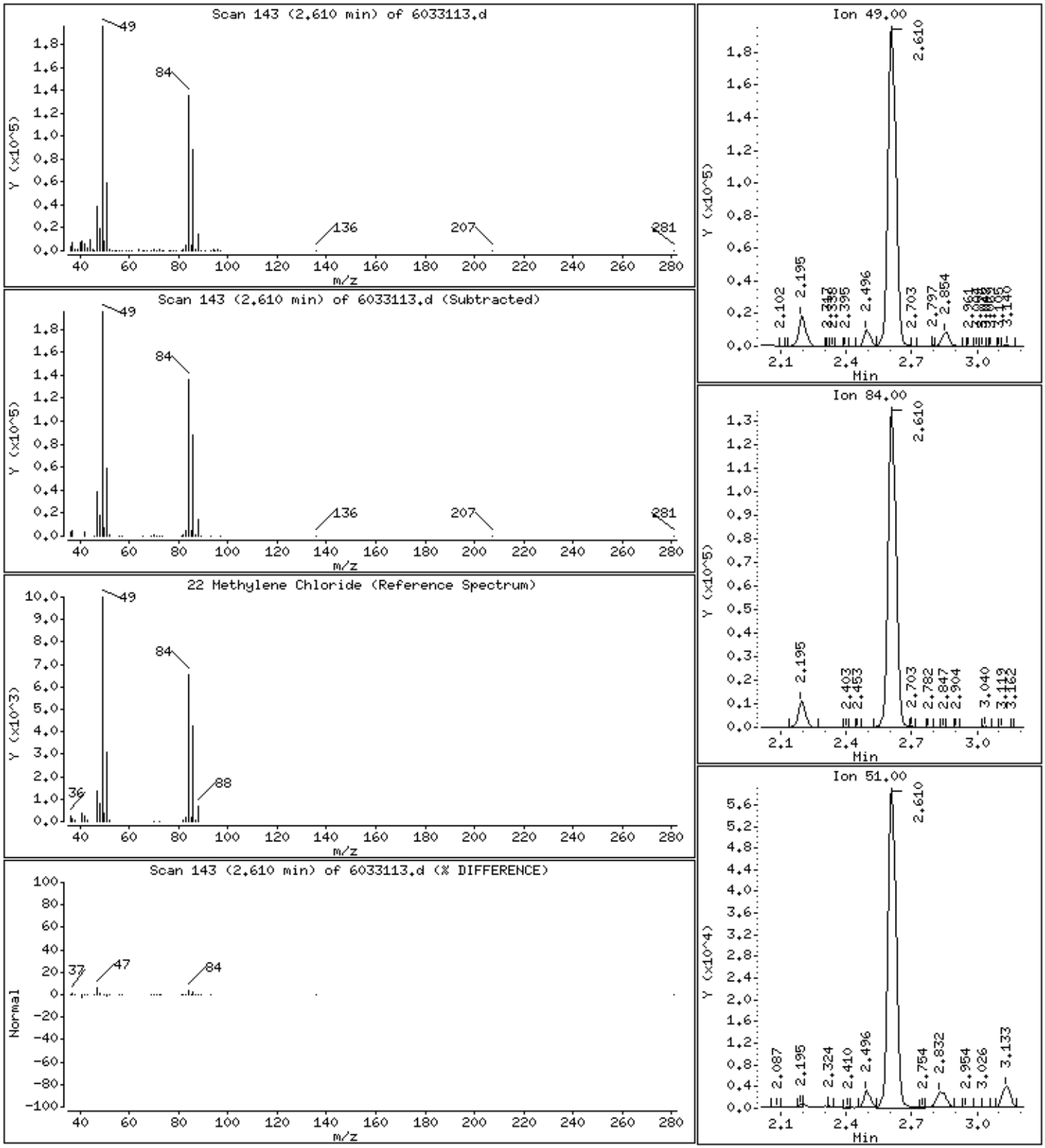
Operator: LA

Column phase: RTx-624

Column diameter: 0.53

22 Methylene Chloride

Concentration: 68.273 NG



Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

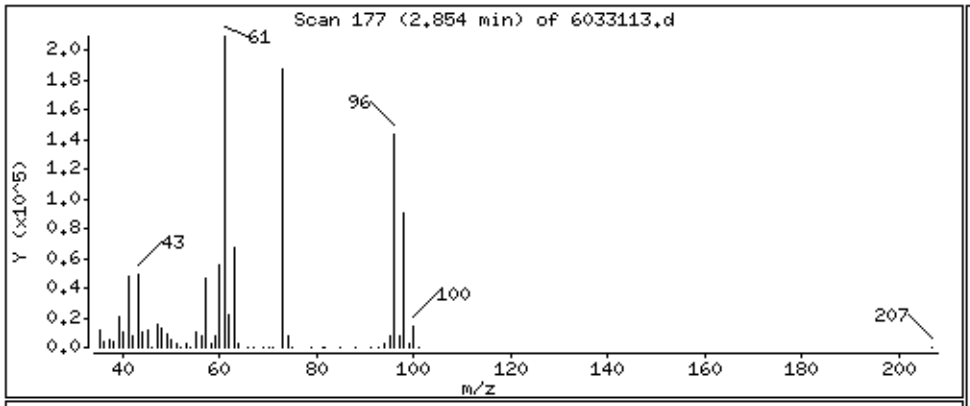
Operator: LA

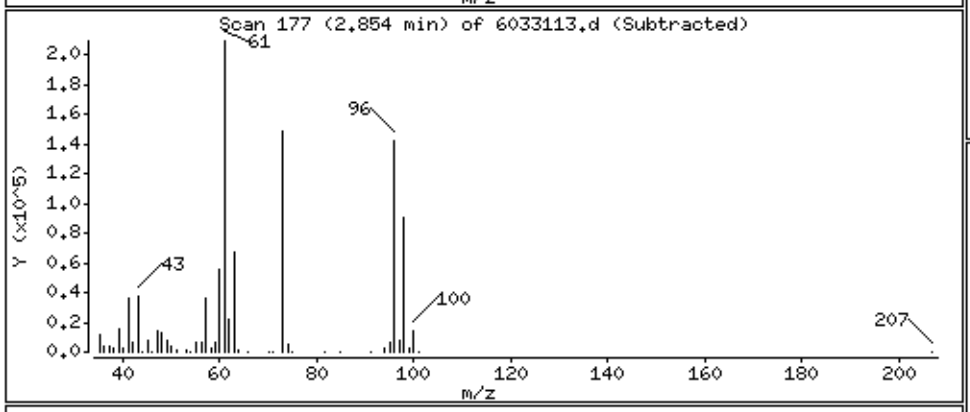
Column phase: RTx-624

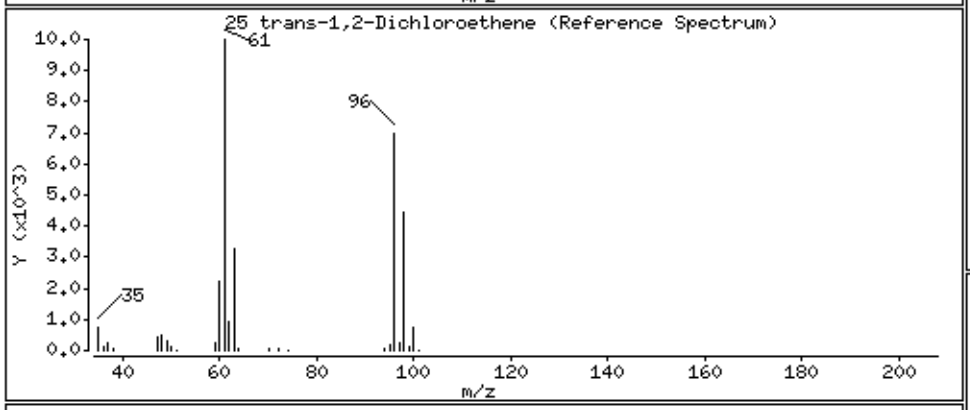
Column diameter: 0.53

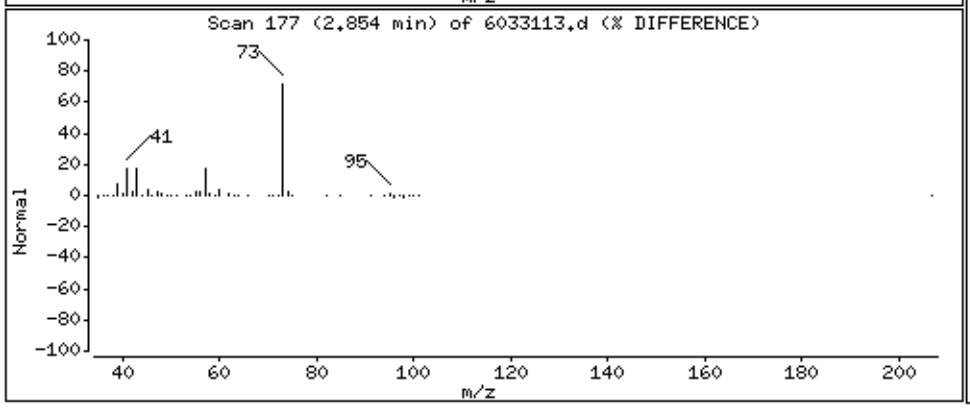
25 trans-1,2-Dichloroethene

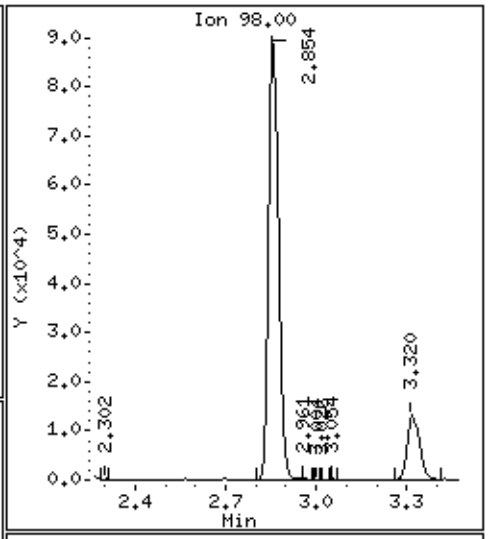
Concentration: 68.409 NG

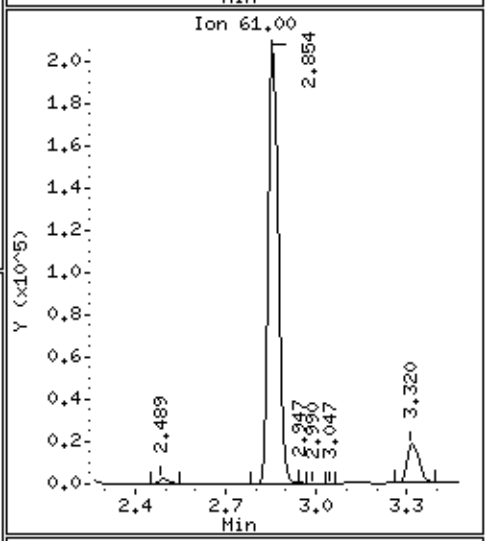


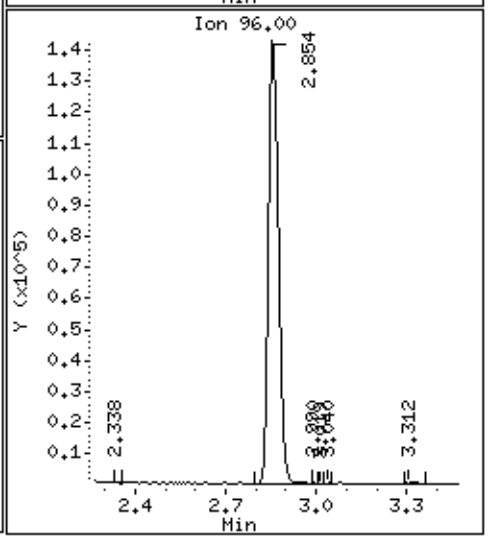












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

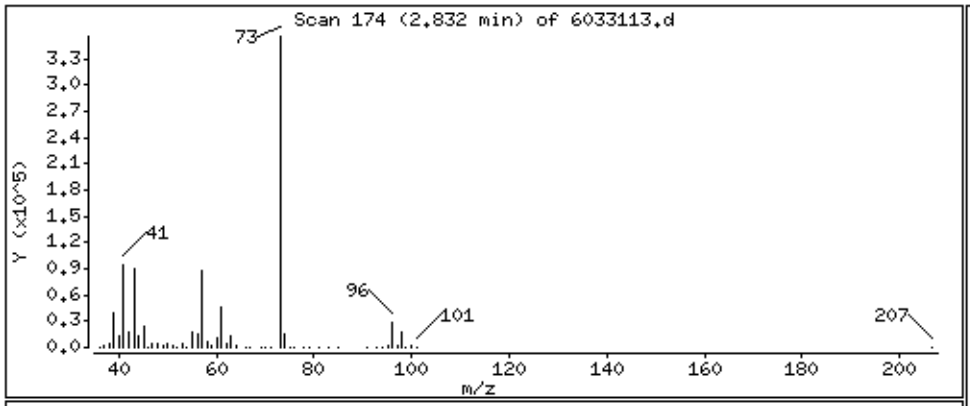
Operator: LA

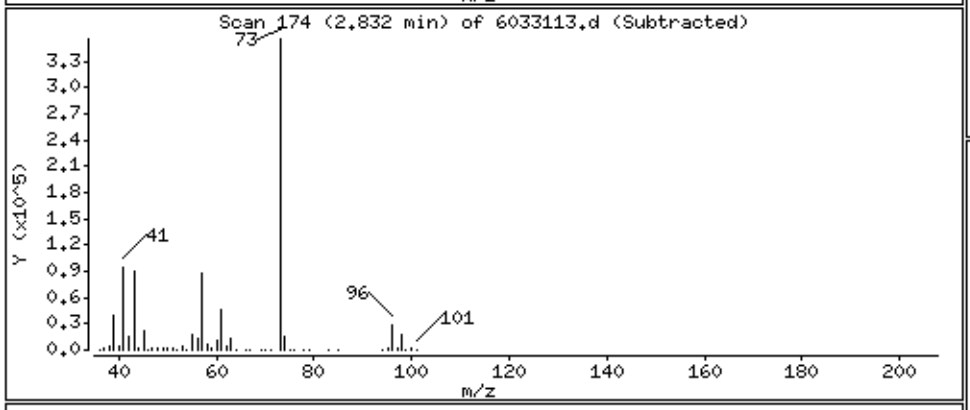
Column phase: RTx-624

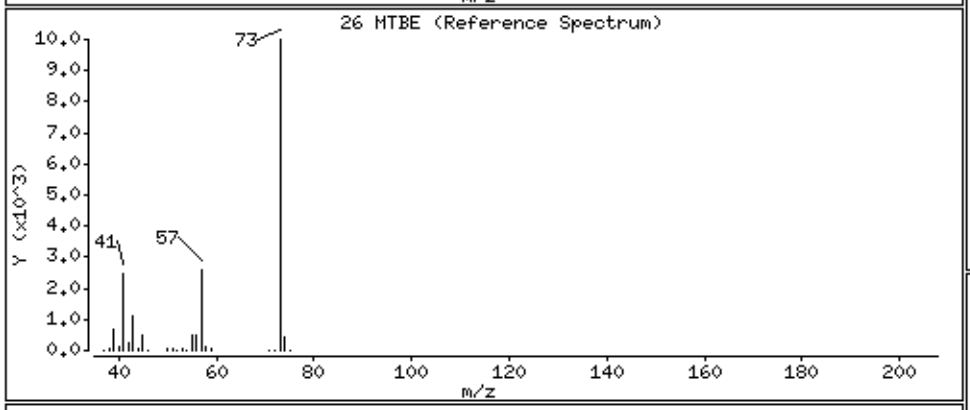
Column diameter: 0.53

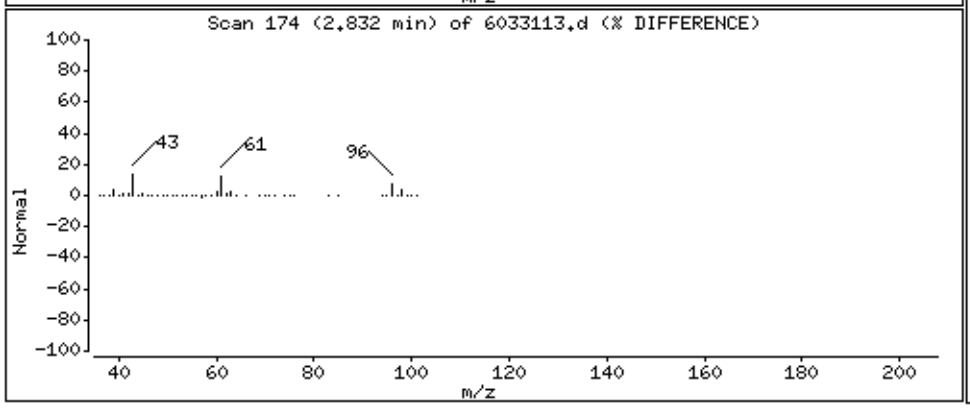
26 MTBE

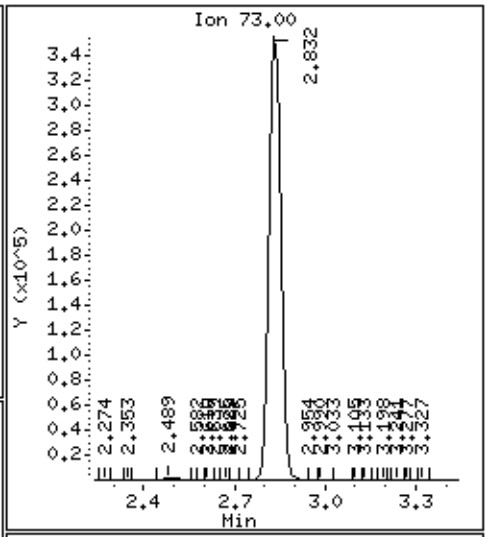
Concentration: 78.171 NG

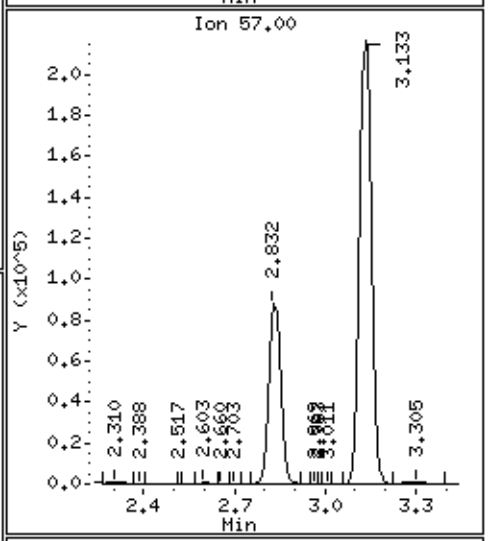


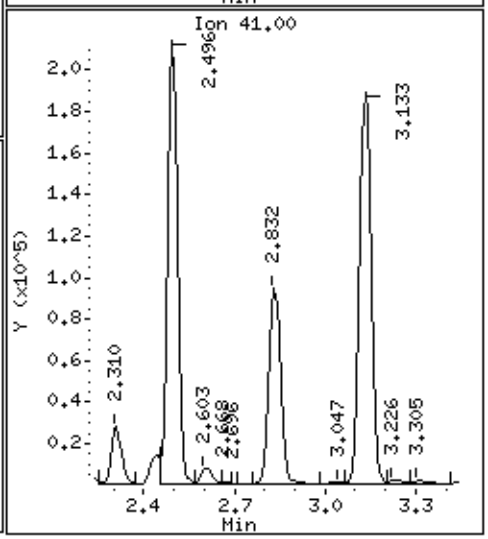












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

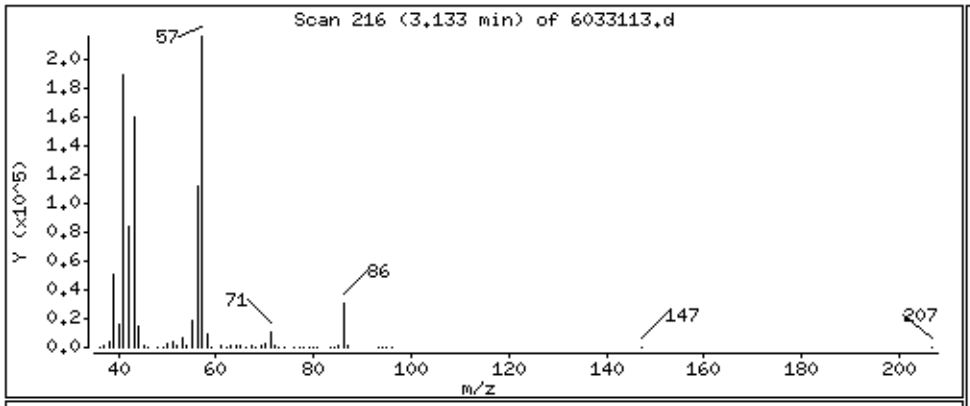
Operator: LA

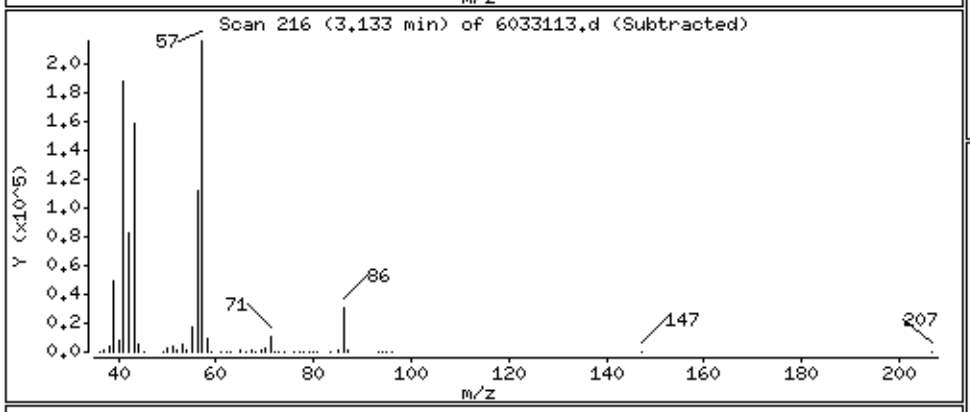
Column phase: RTx-624

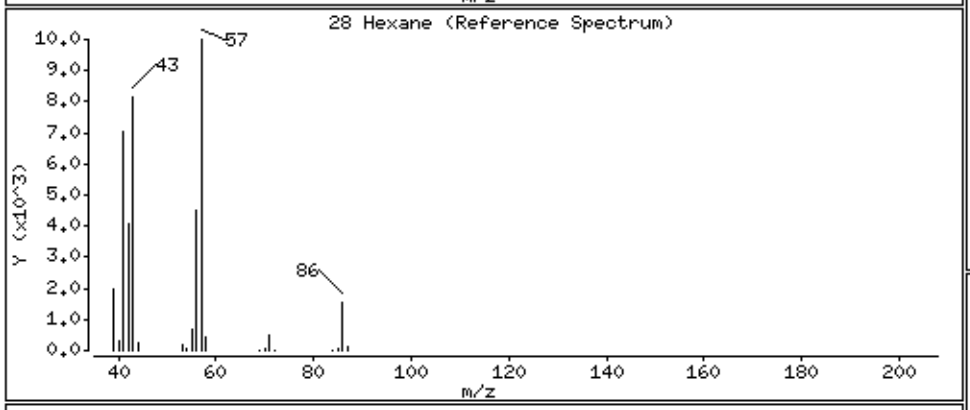
Column diameter: 0.53

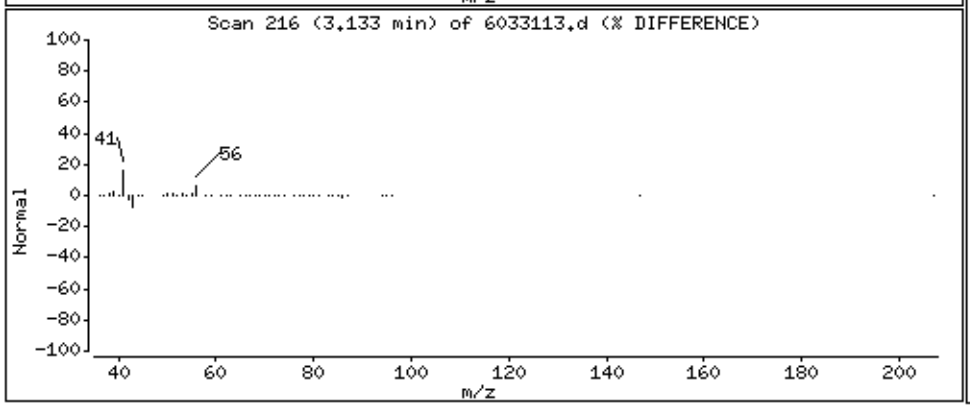
28 Hexane

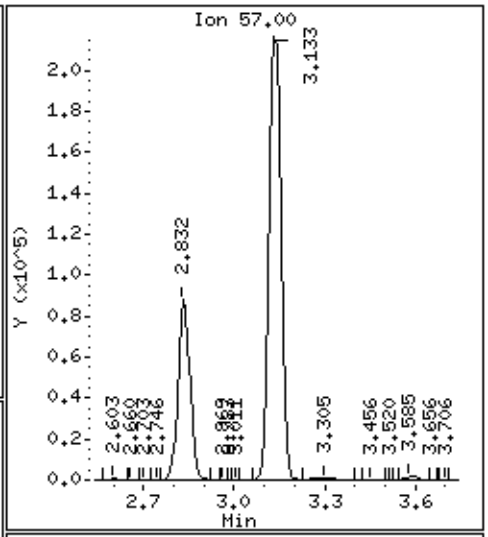
Concentration: 69.294 NG

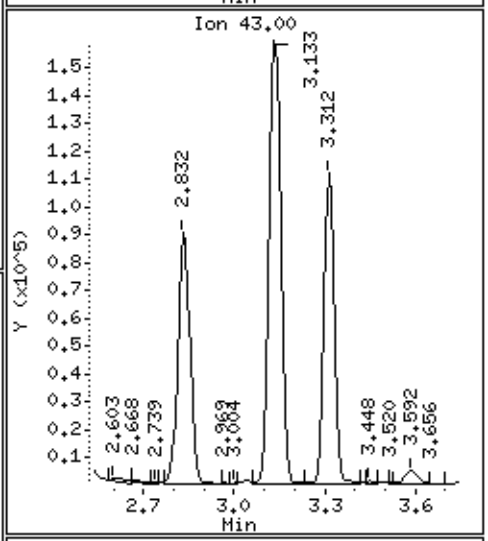


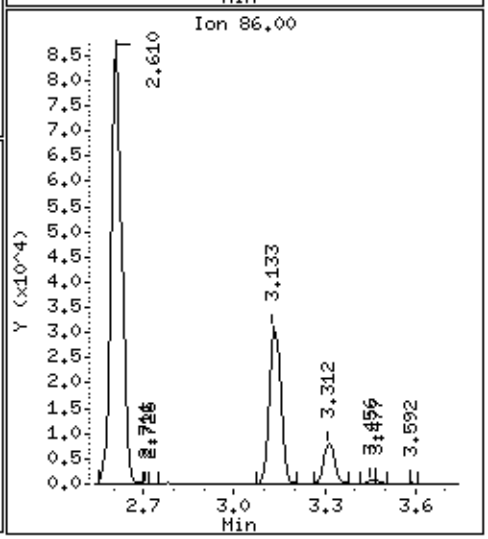












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

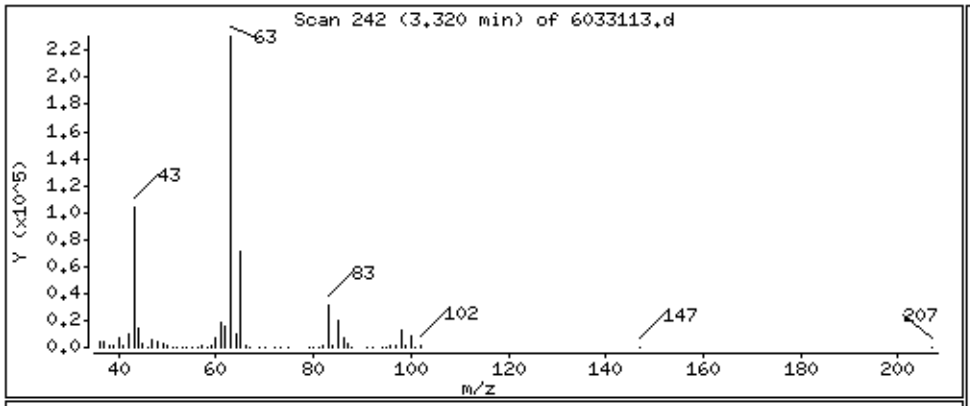
Operator: LA

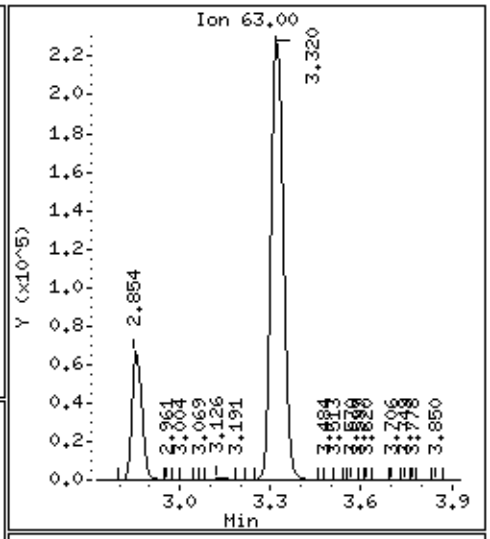
Column phase: RTx-624

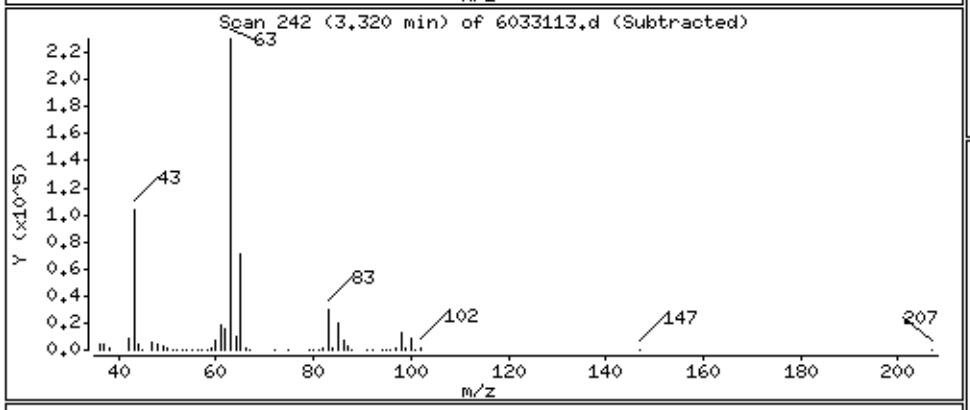
Column diameter: 0.53

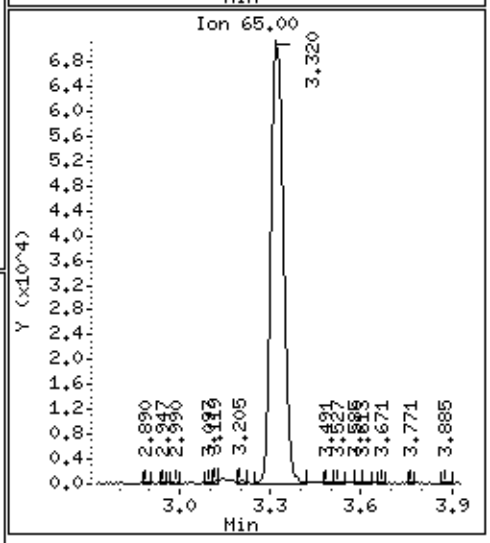
29 1,1-Dichloroethane

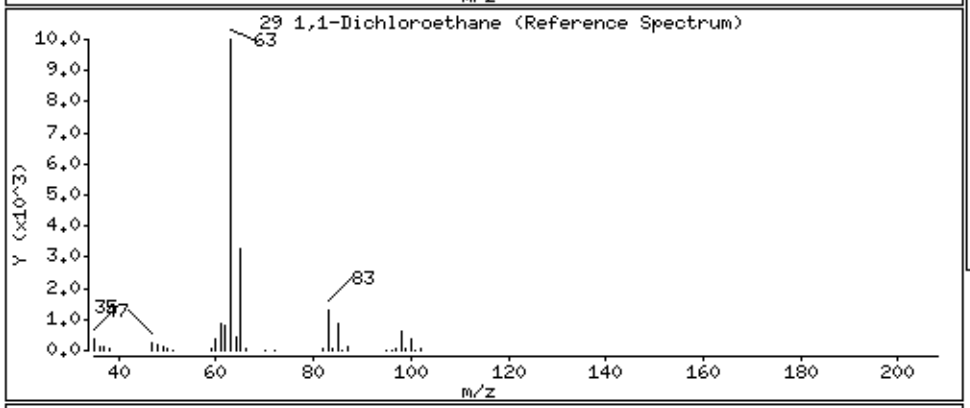
Concentration: 81.998 NG

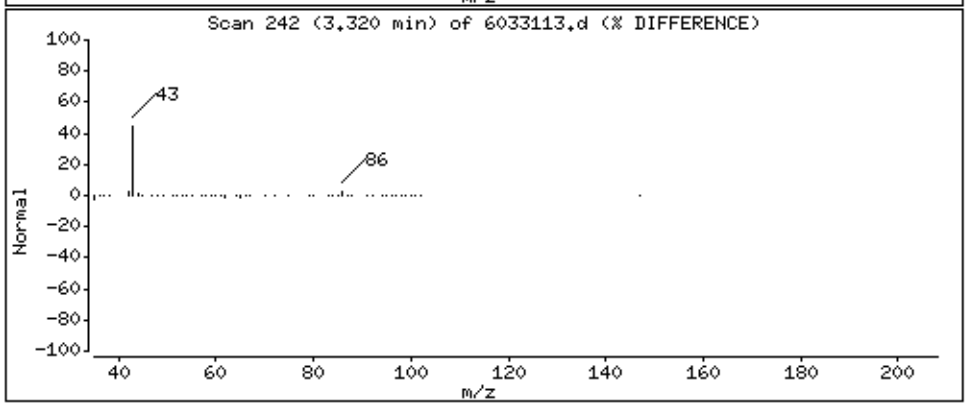












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

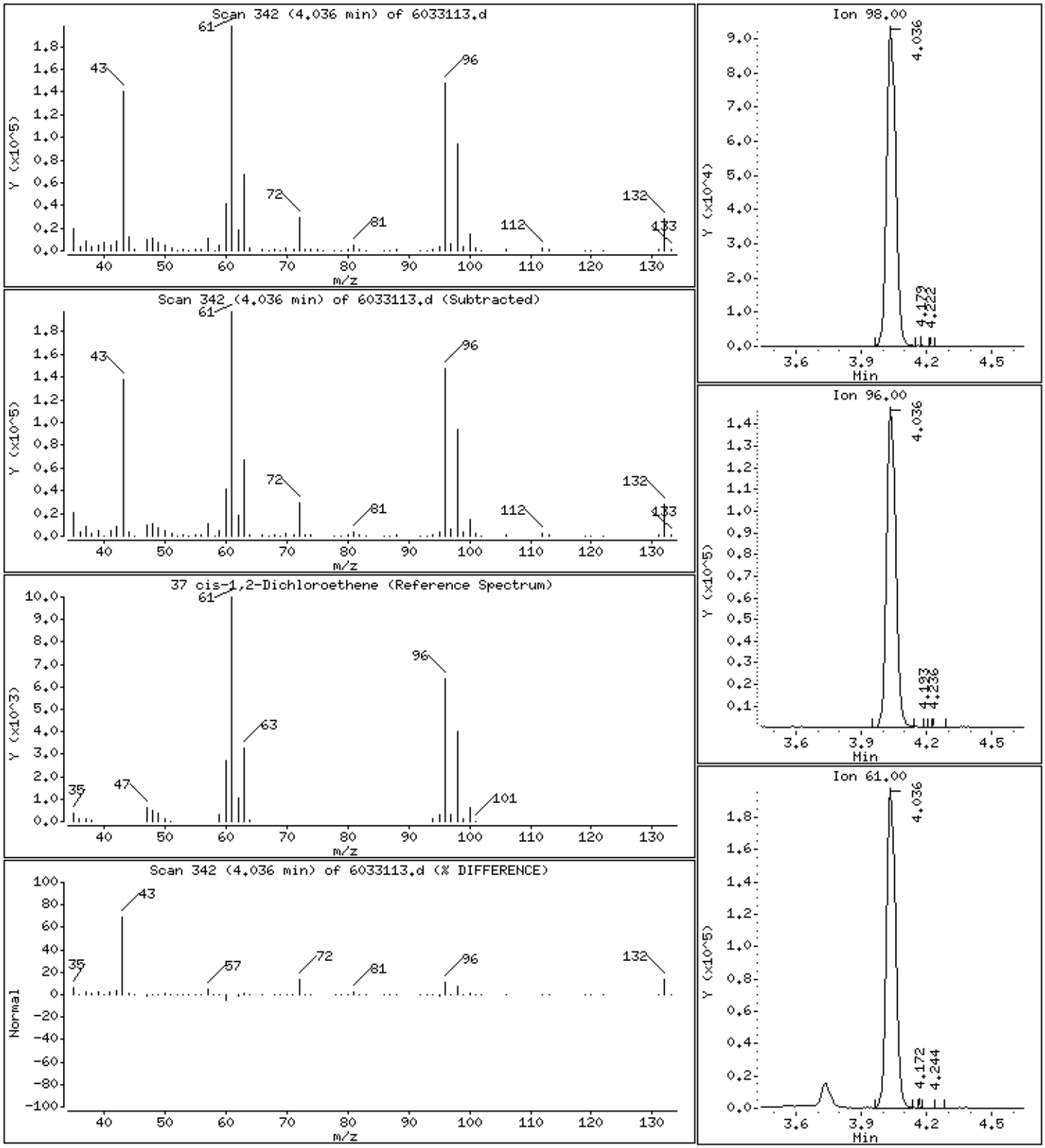
Operator: LA

Column phase: RTx-624

Column diameter: 0.53

37 cis-1,2-Dichloroethene

Concentration: 85.460 NG



Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

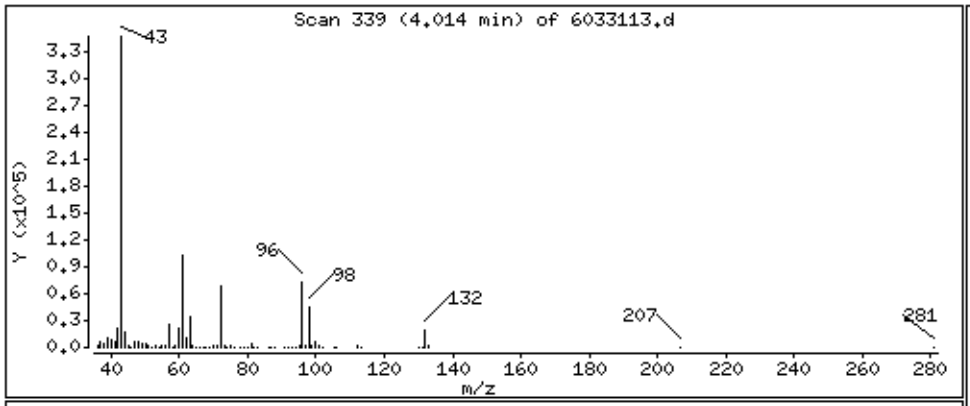
Operator: LA

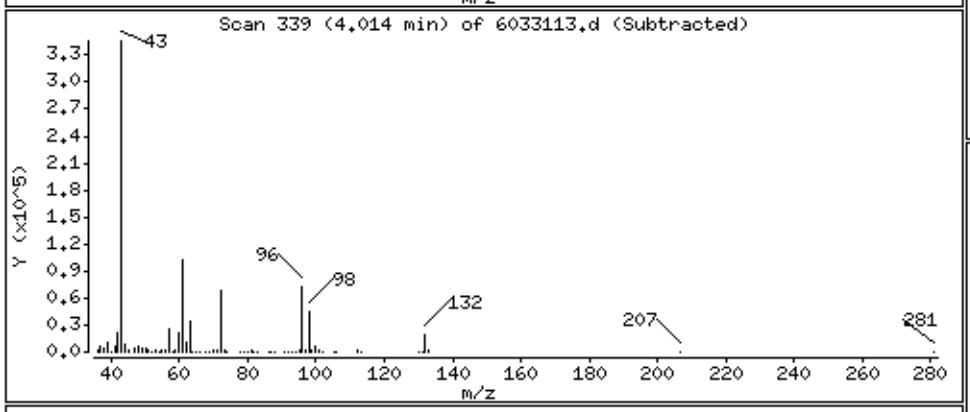
Column phase: RTx-624

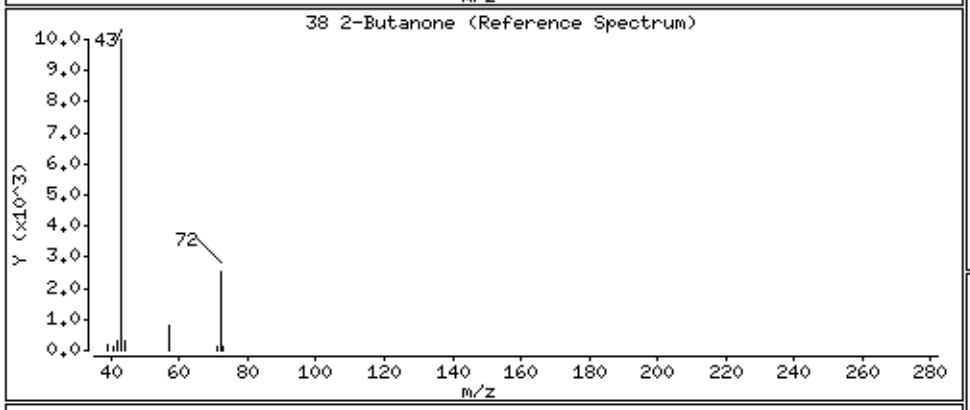
Column diameter: 0.53

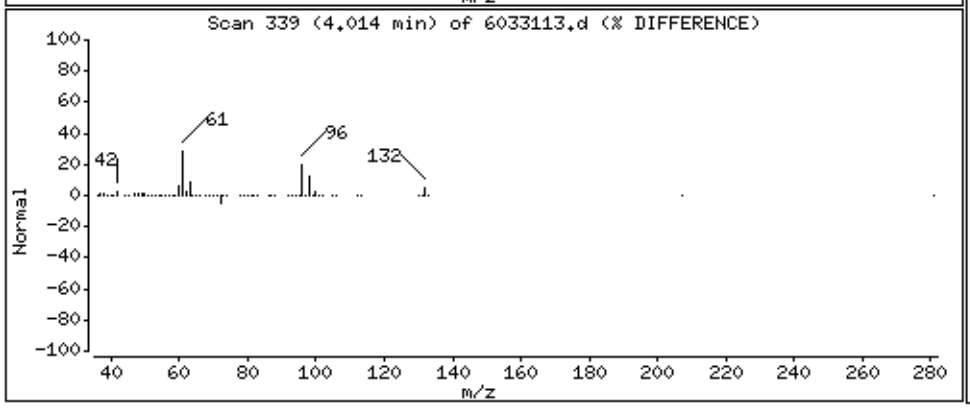
38 2-Butanone

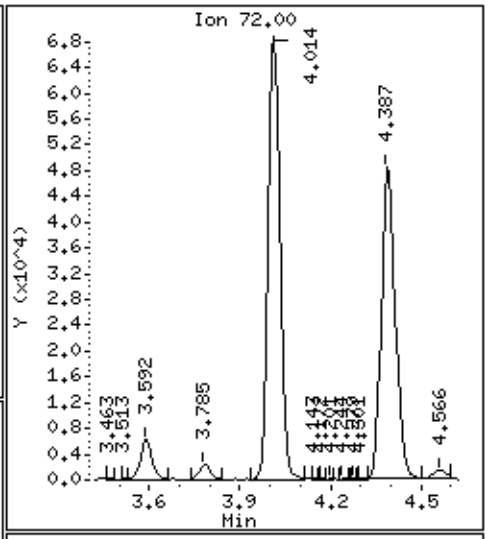
Concentration: 57.861 NG

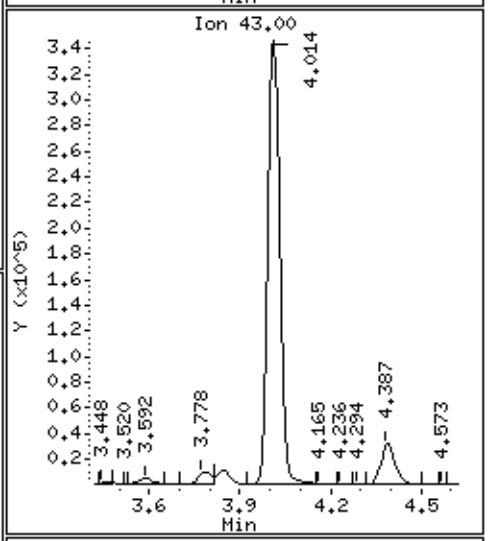


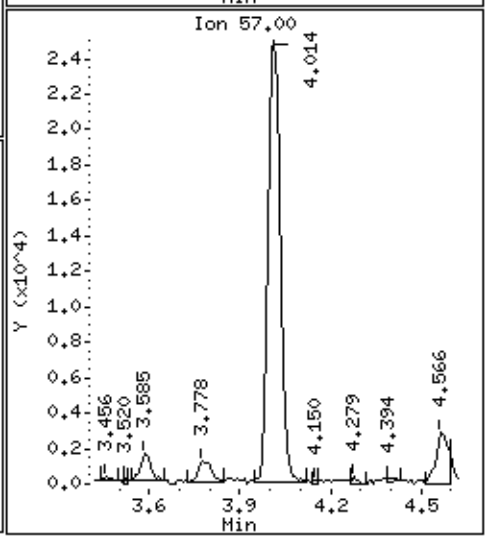












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

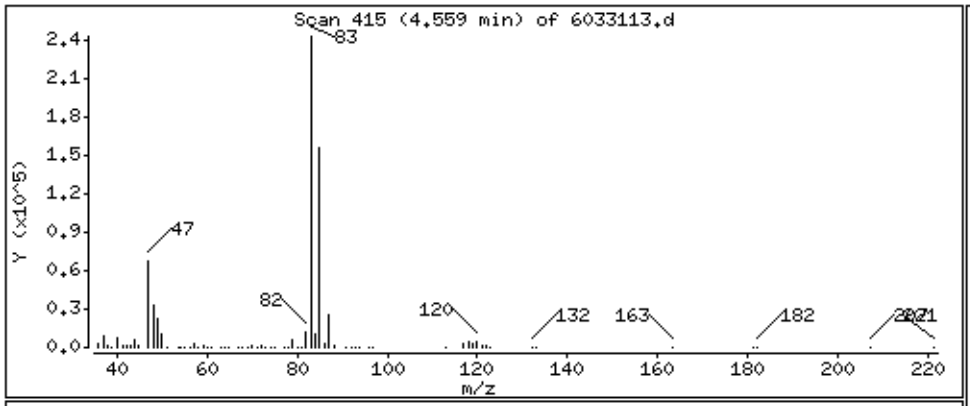
Operator: LA

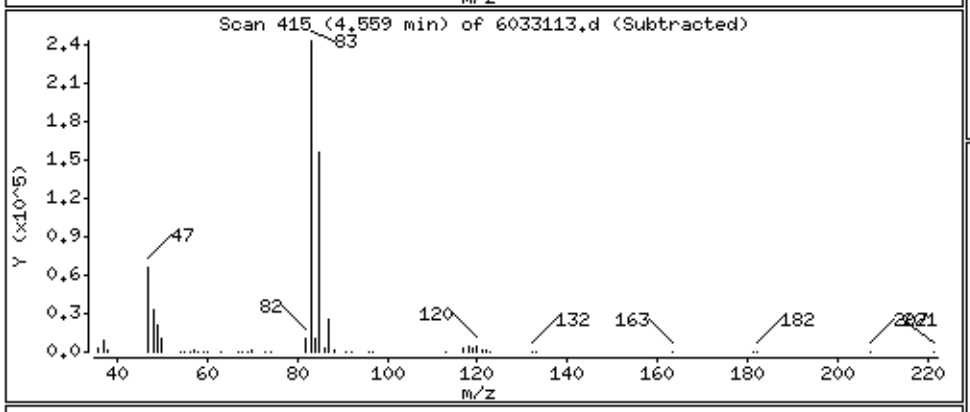
Column phase: RTx-624

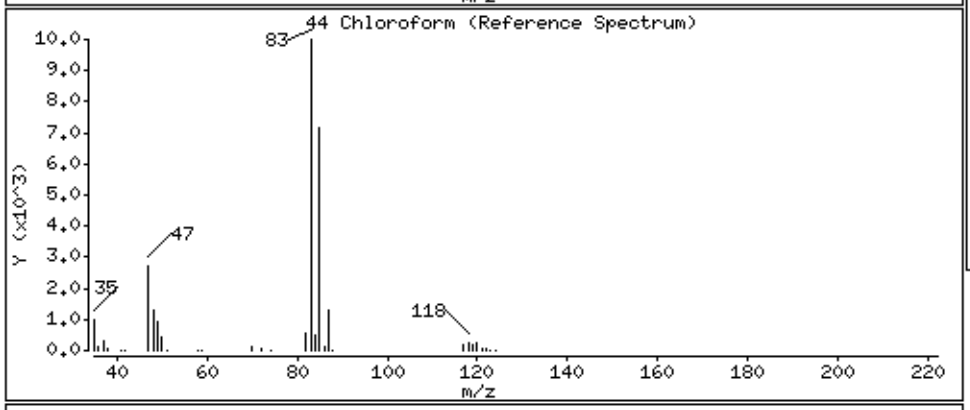
Column diameter: 0.53

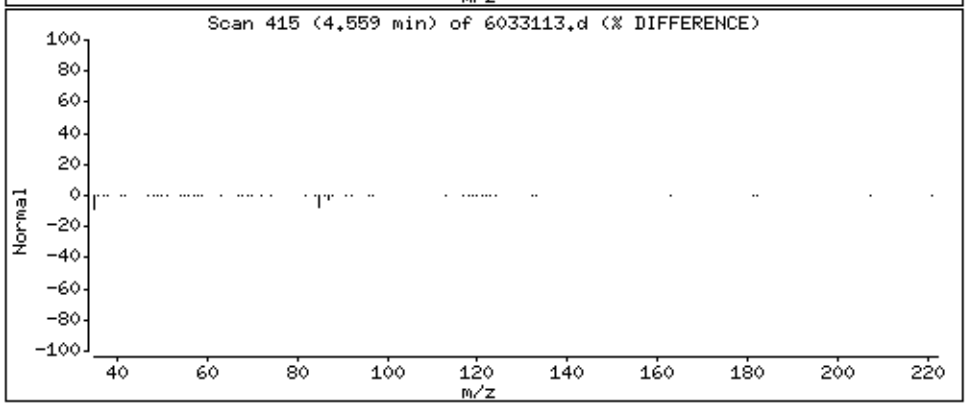
44 Chloroform

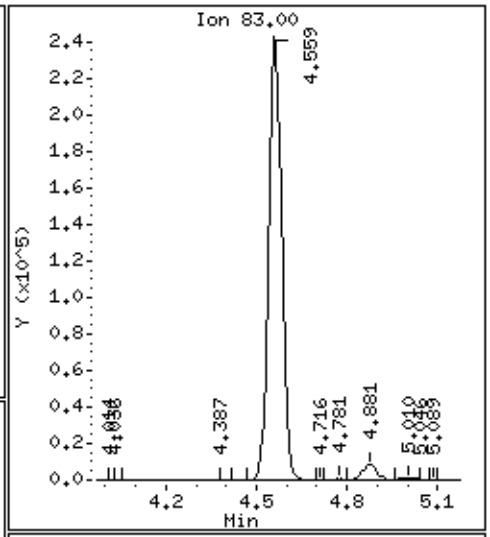
Concentration: 97.260 NG

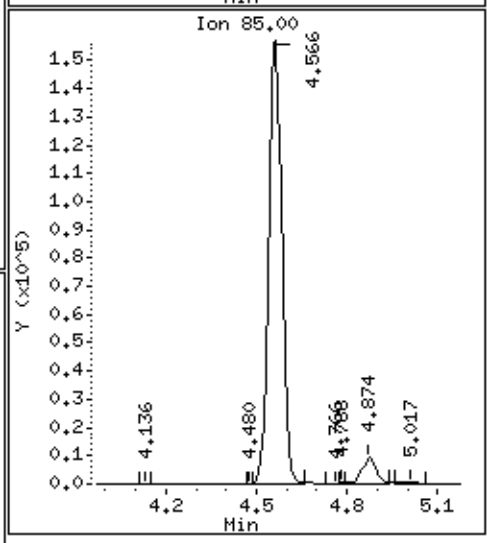












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

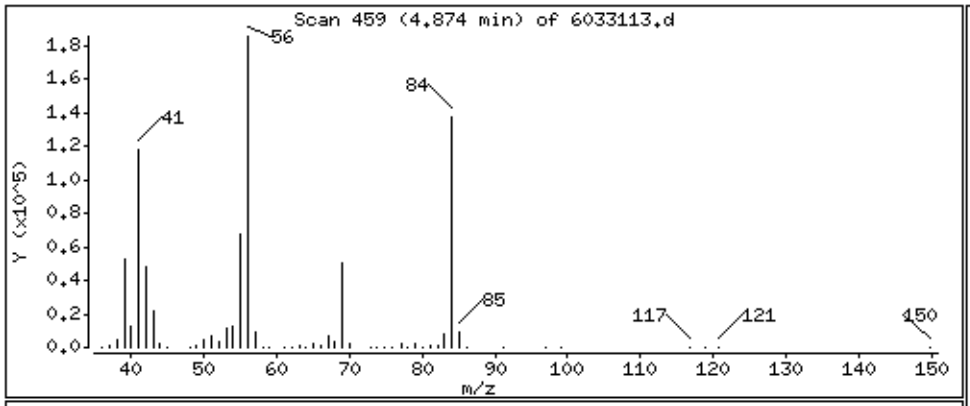
Operator: LA

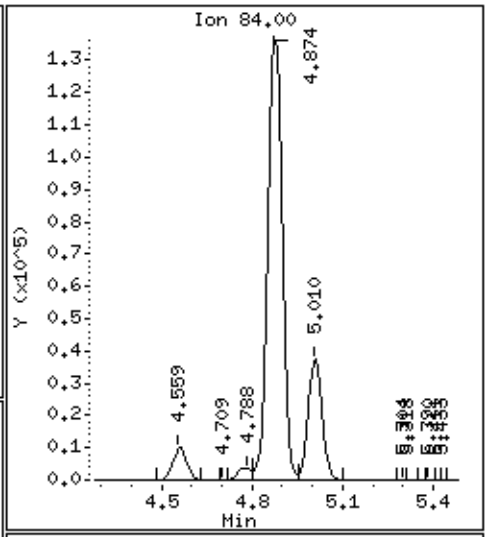
Column phase: RTx-624

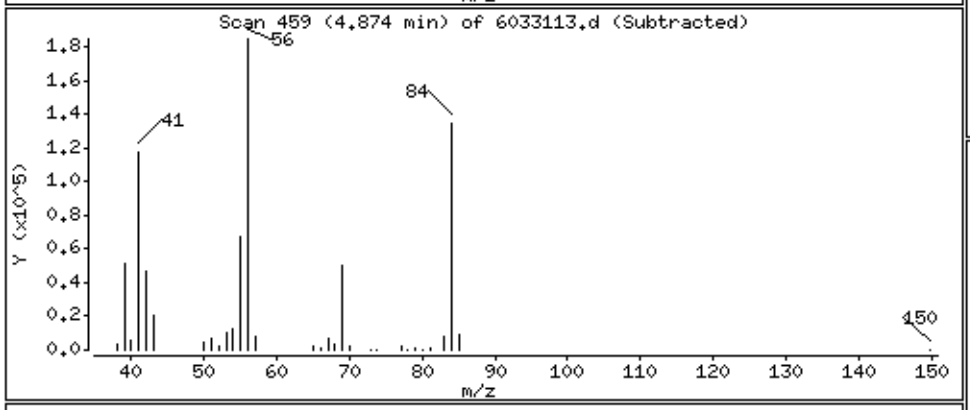
Column diameter: 0.53

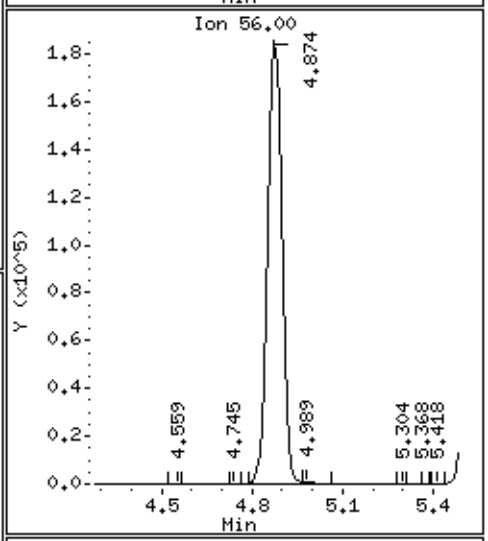
46 Cyclohexane

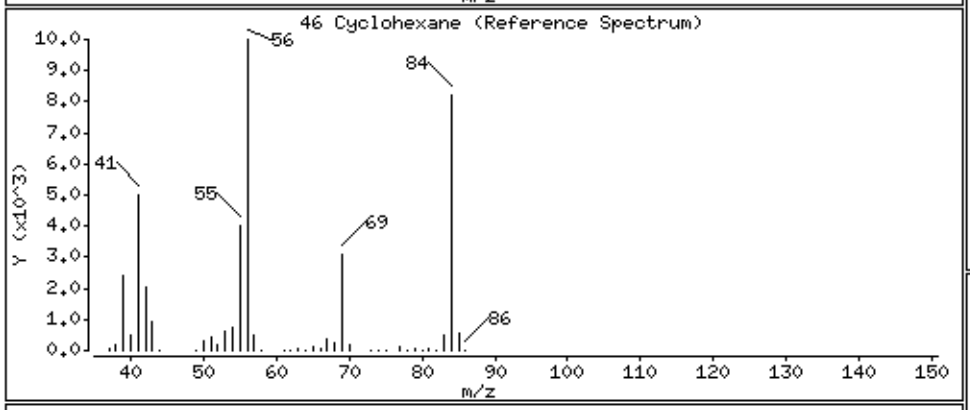
Concentration: 69.779 NG

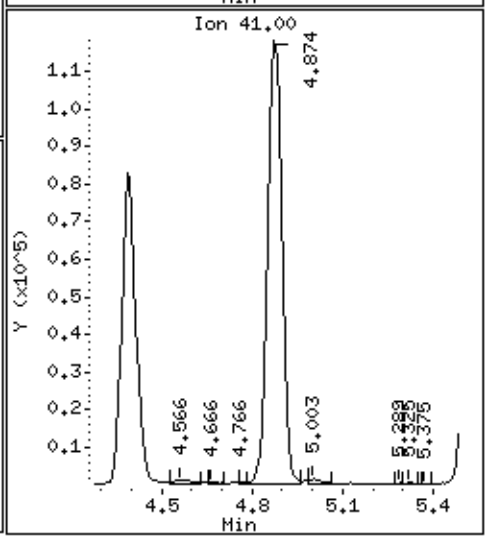


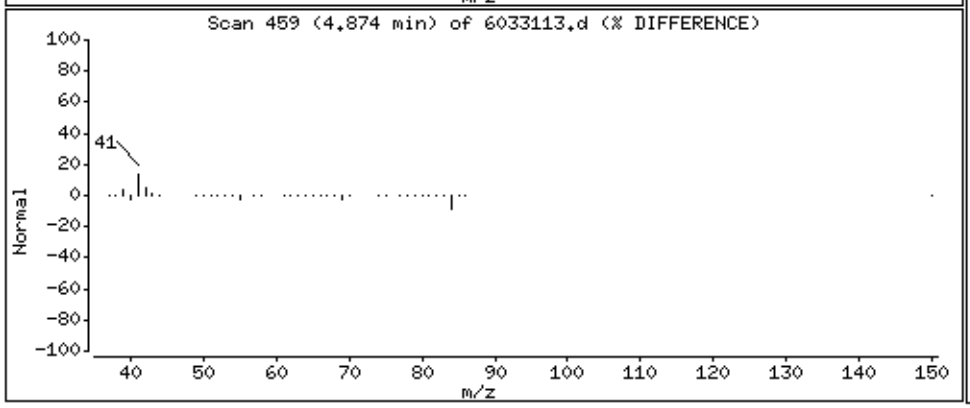












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

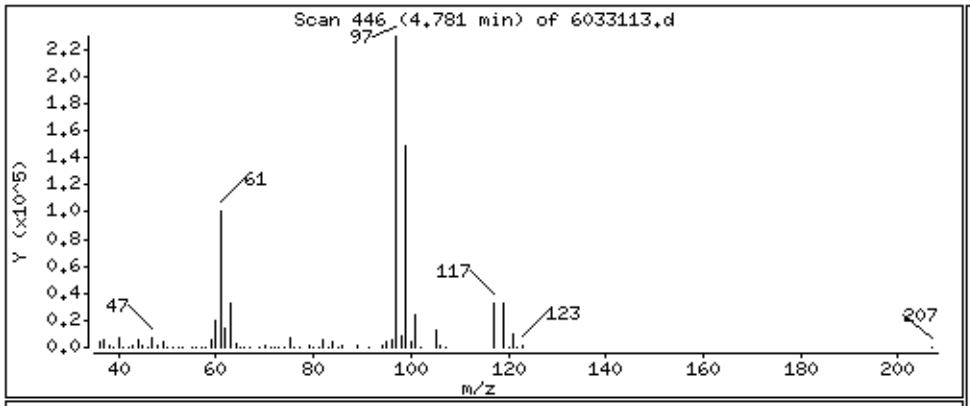
Operator: LA

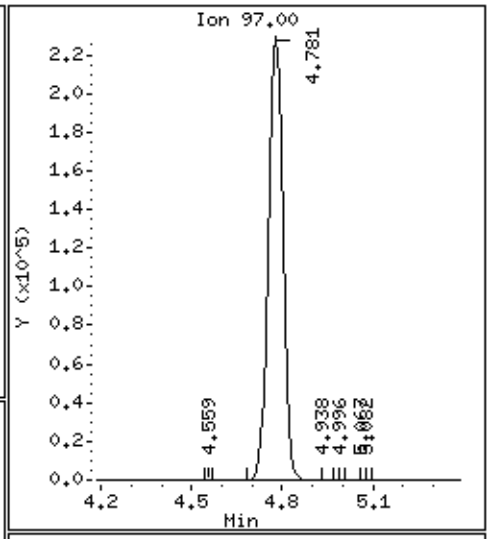
Column phase: RTx-624

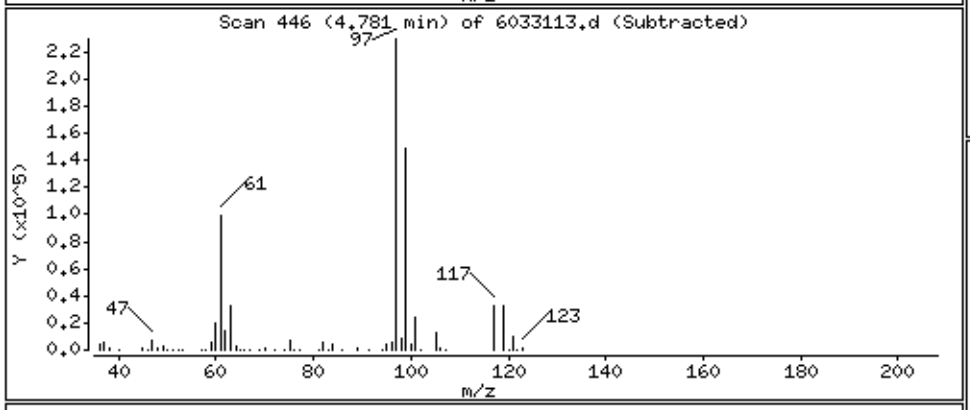
Column diameter: 0.53

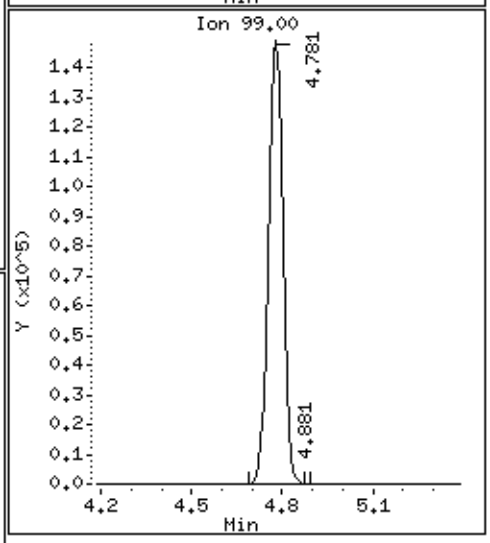
45 1,1,1-Trichloroethane

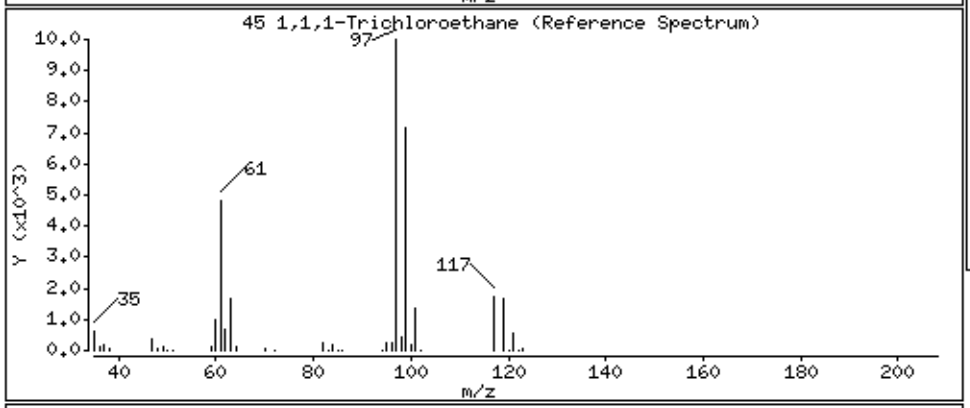
Concentration: 117.88 NG

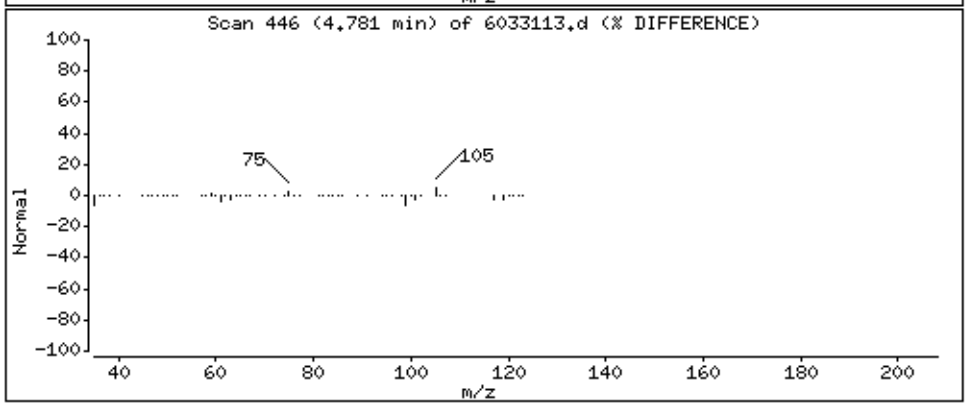












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

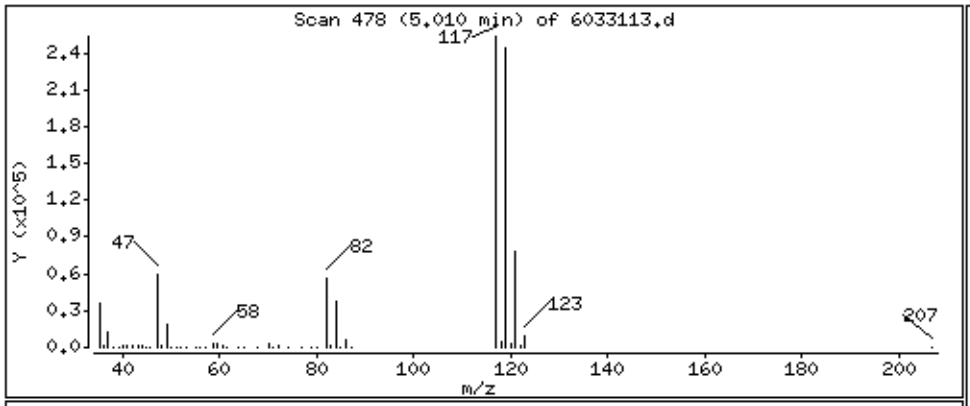
Operator: LA

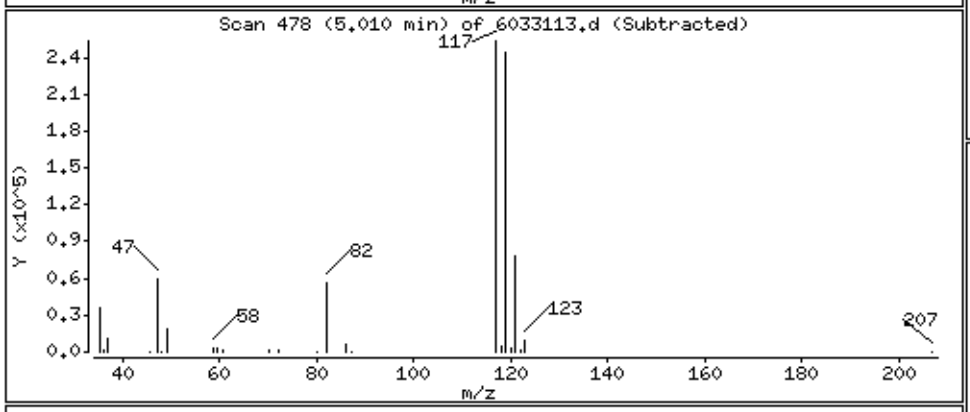
Column phase: RTx-624

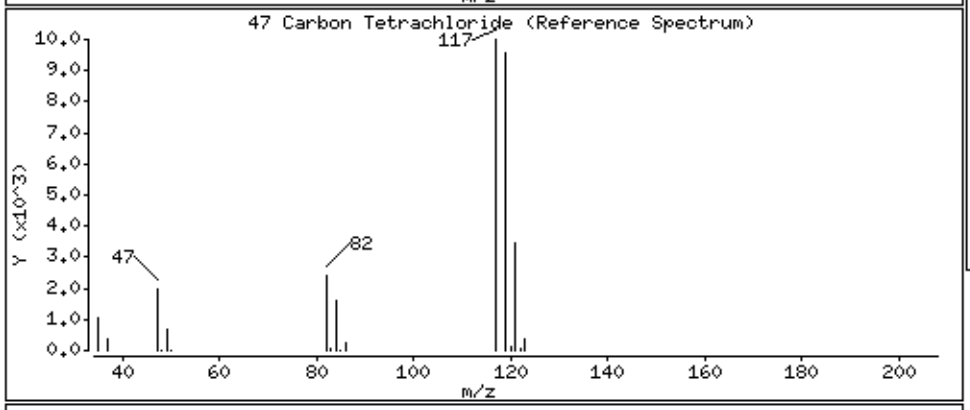
Column diameter: 0.53

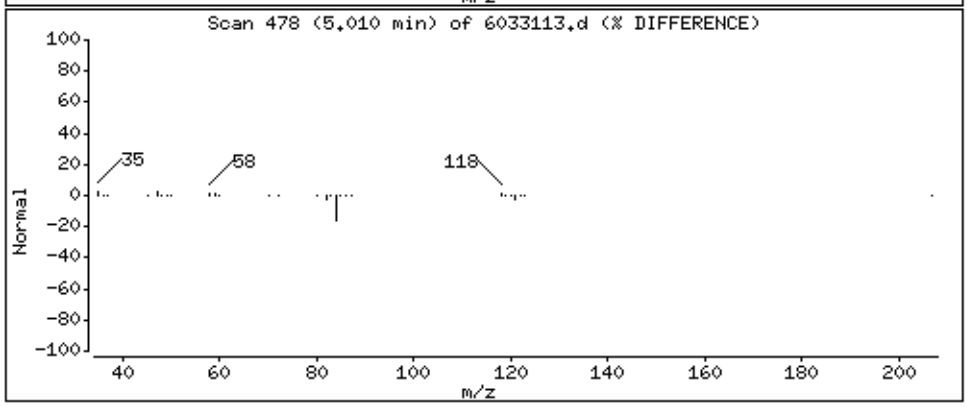
47 Carbon Tetrachloride

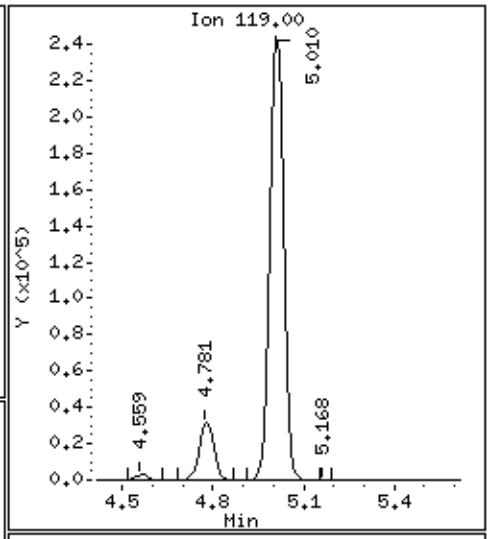
Concentration: 137.69 NG

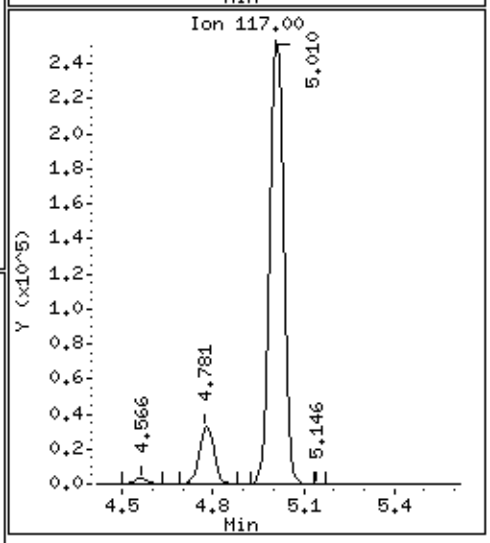












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

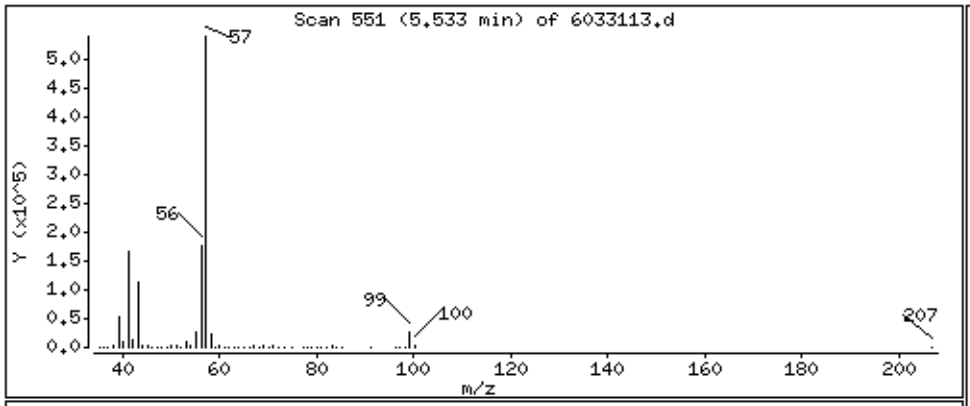
Operator: LA

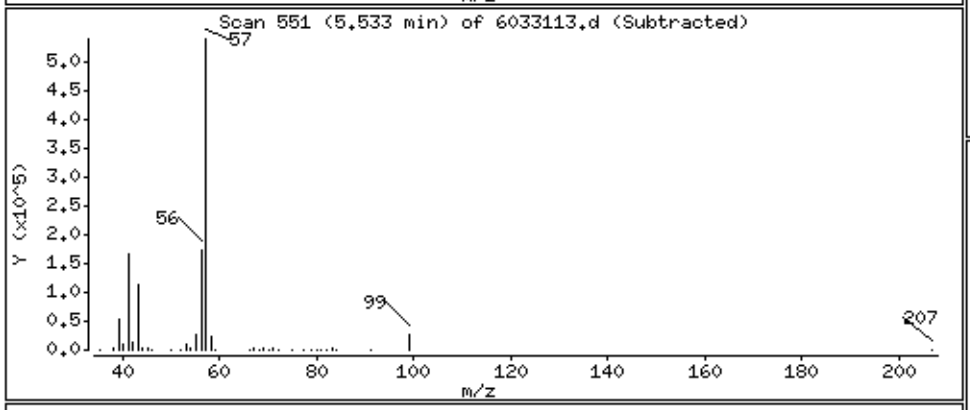
Column phase: RTx-624

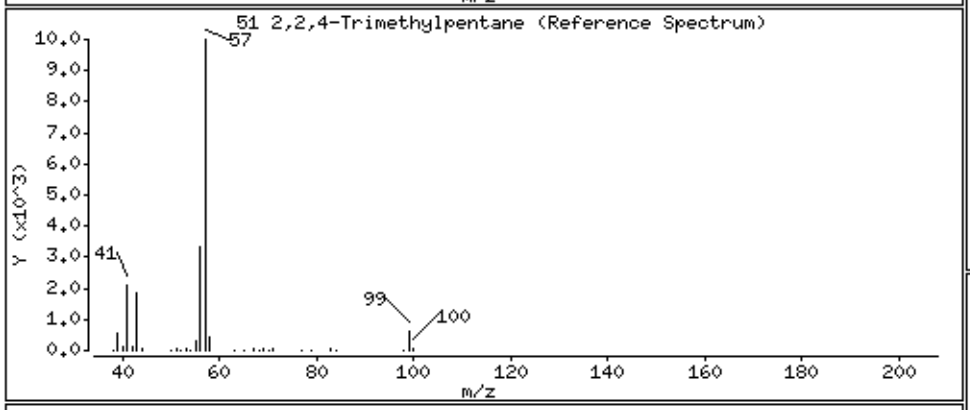
Column diameter: 0.53

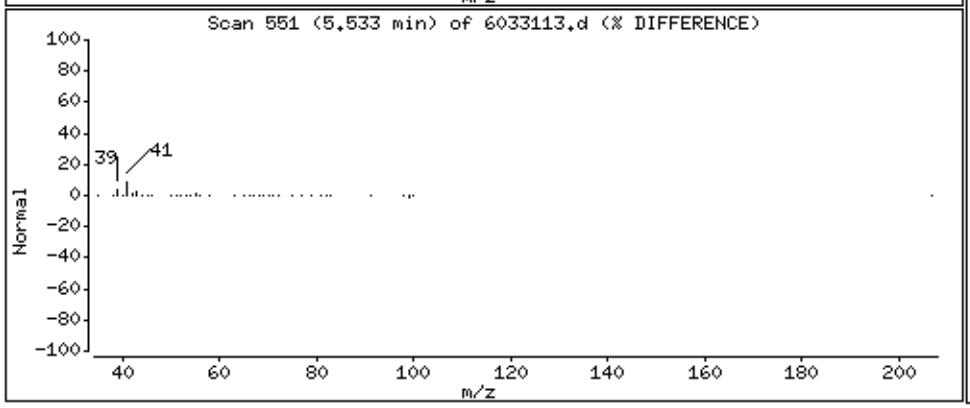
51 2,2,4-Trimethylpentane

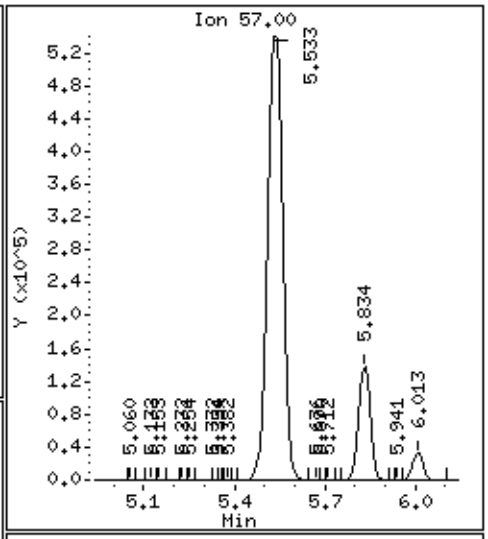
Concentration: 94.642 NG

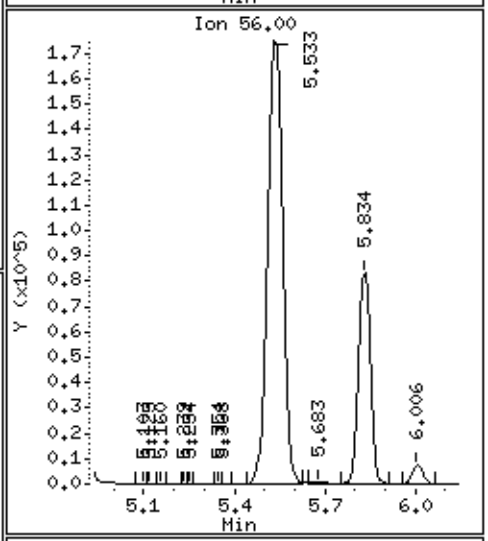


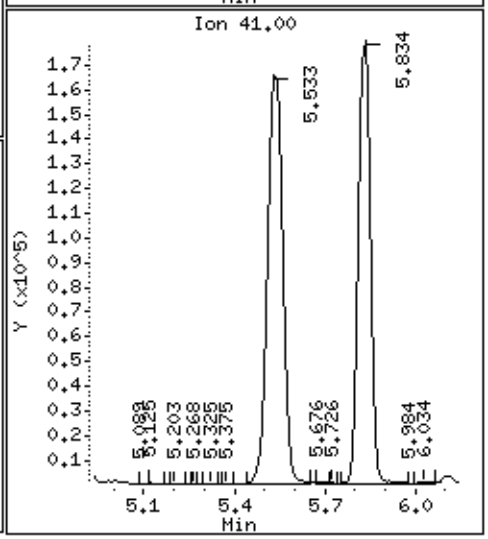












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

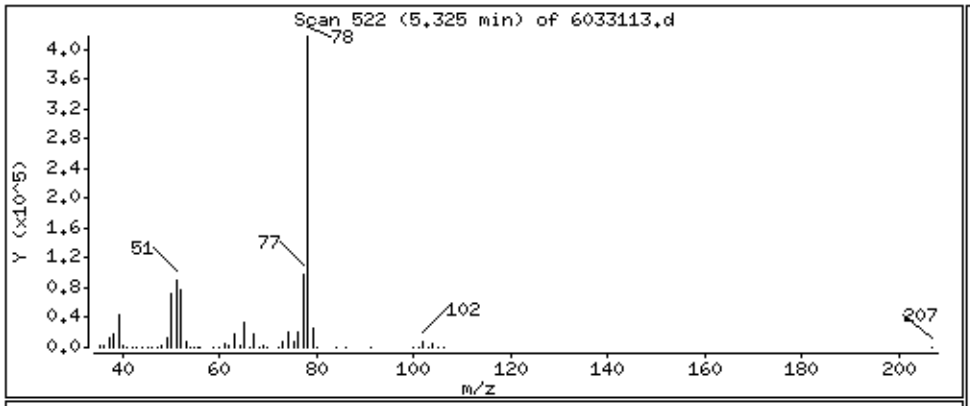
Operator: LA

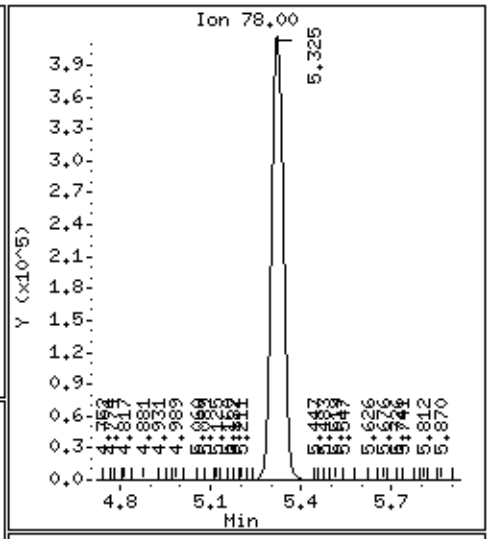
Column phase: RTx-624

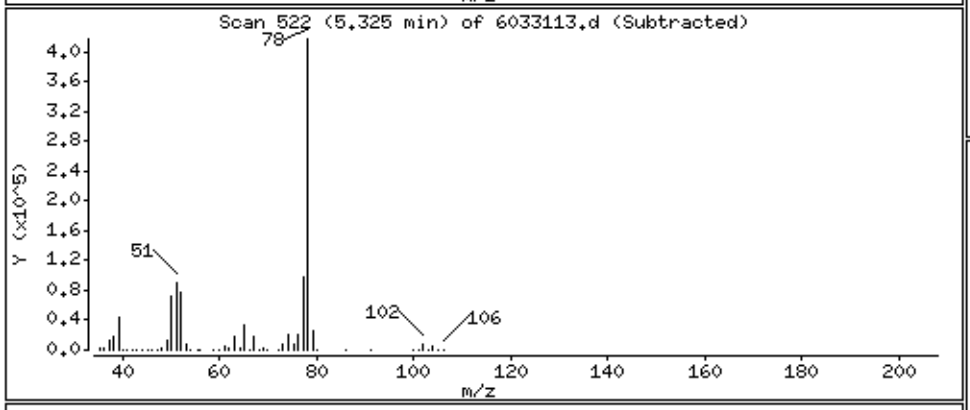
Column diameter: 0.53

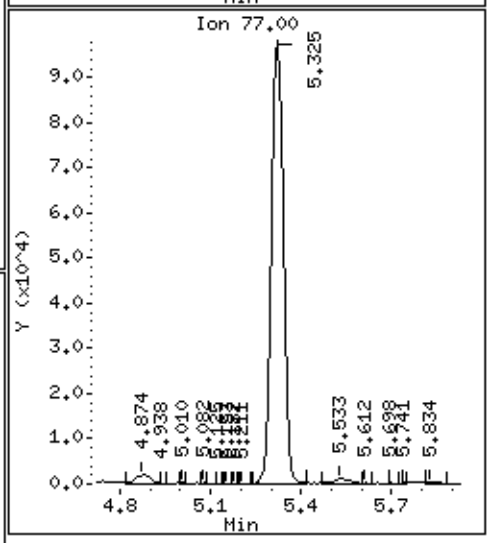
48 Benzene

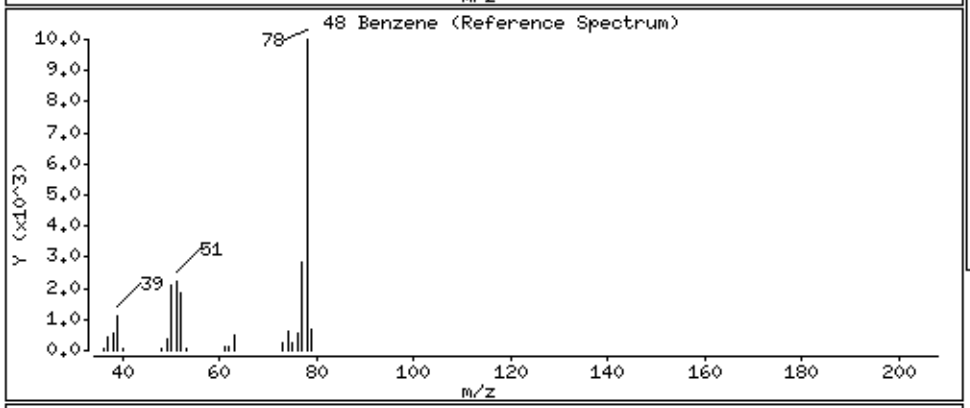
Concentration: 58.681 NG

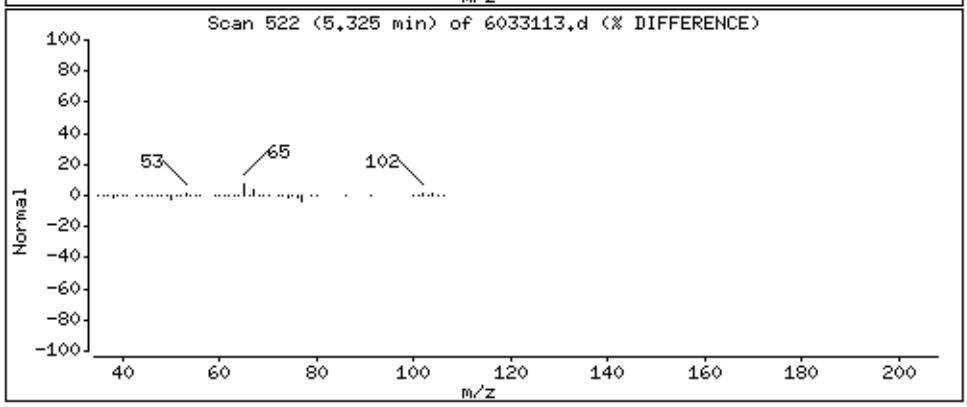












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

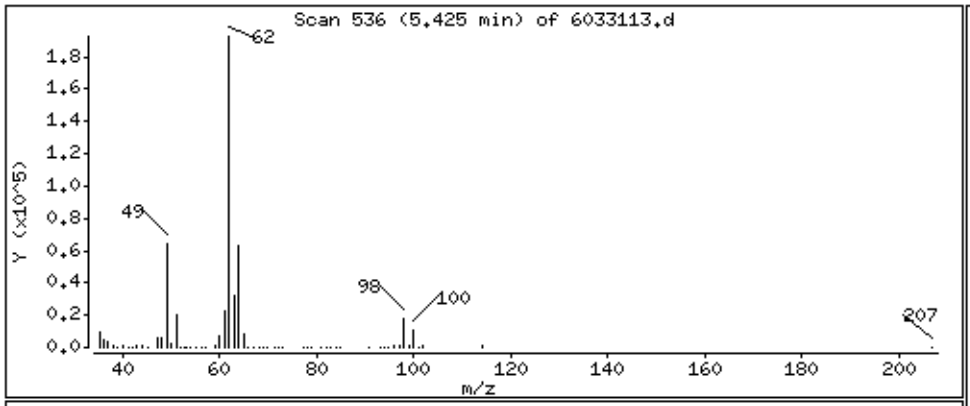
Operator: LA

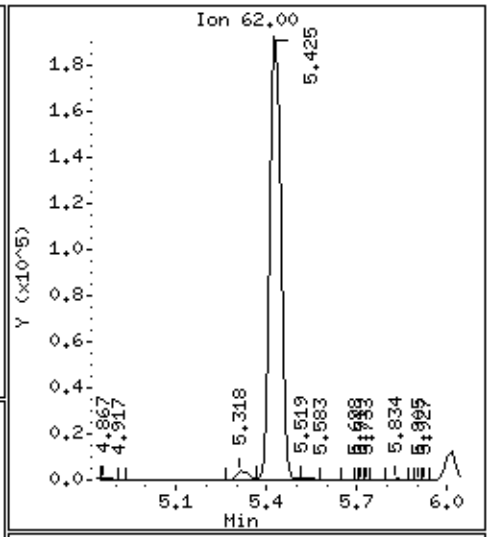
Column phase: RTx-624

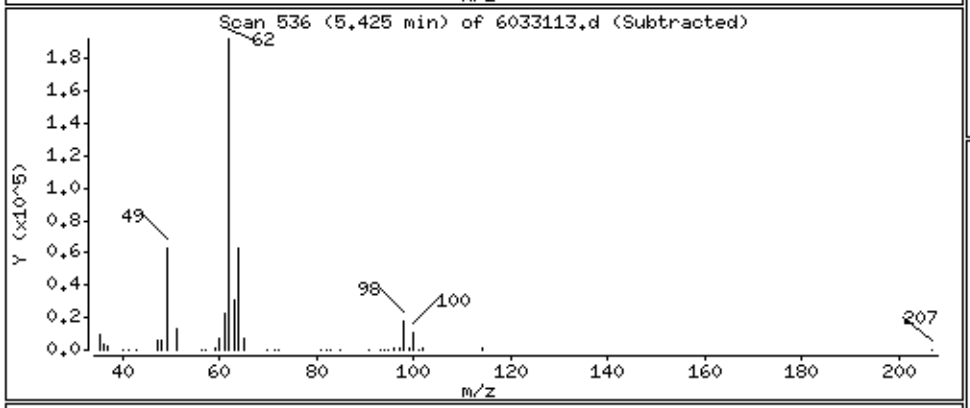
Column diameter: 0.53

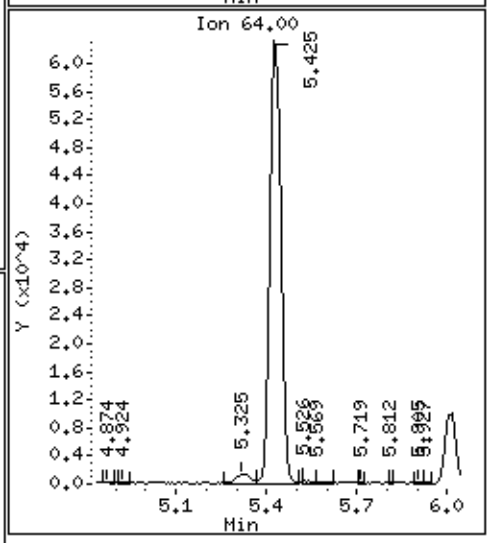
50 1,2-Dichloroethane

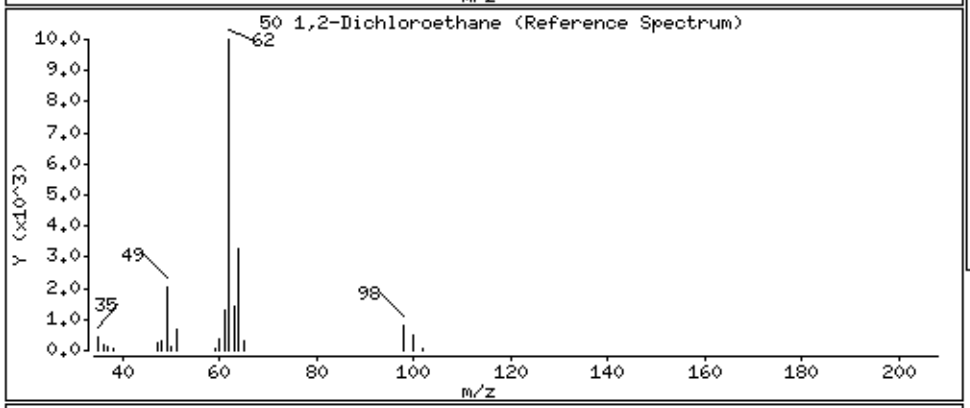
Concentration: 82.940 NG

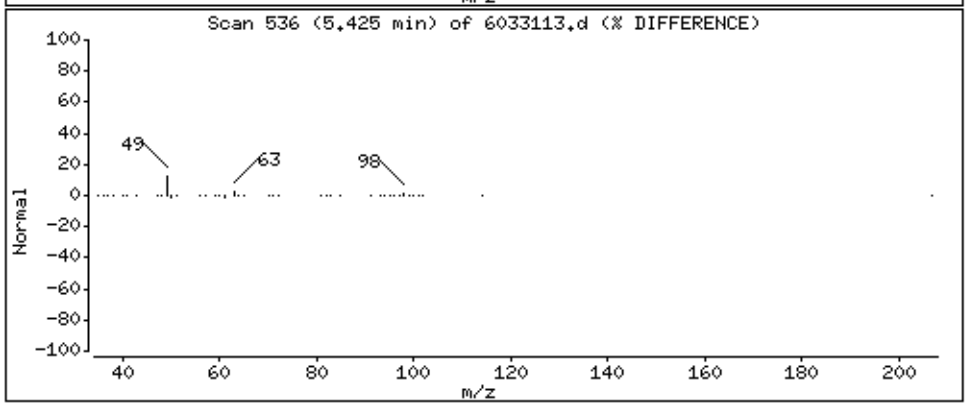












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

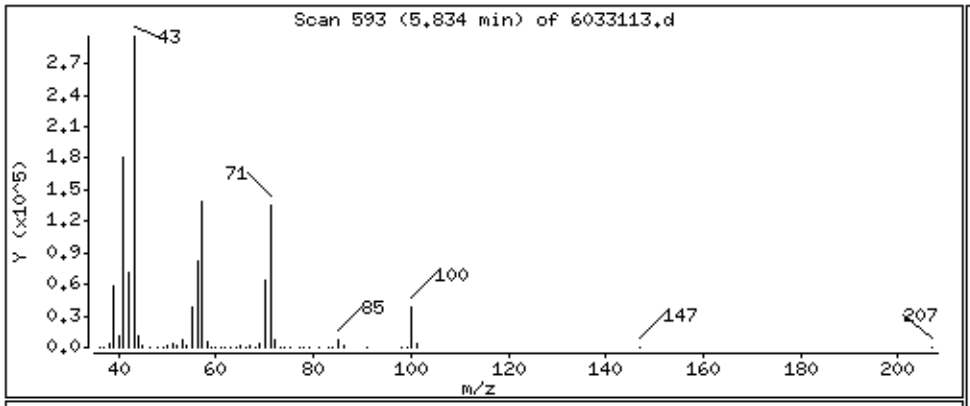
Operator: LA

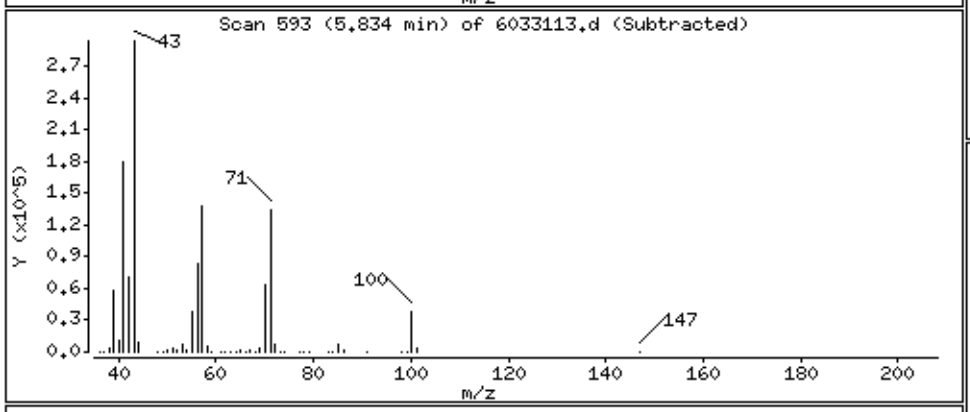
Column phase: RTx-624

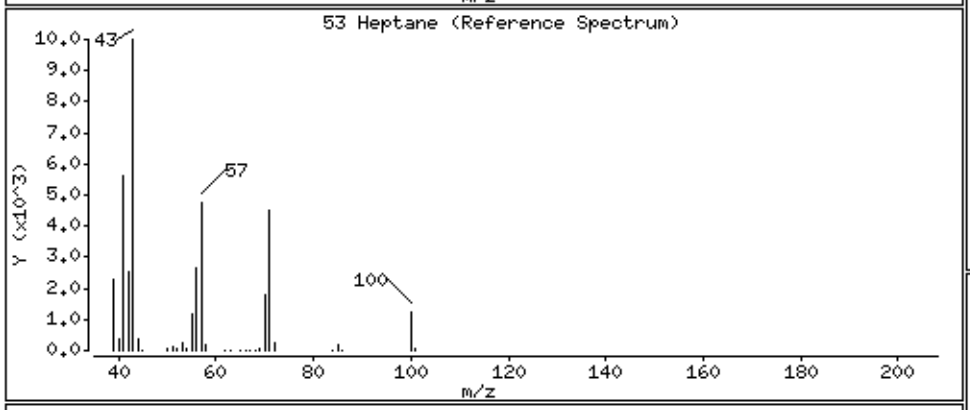
Column diameter: 0.53

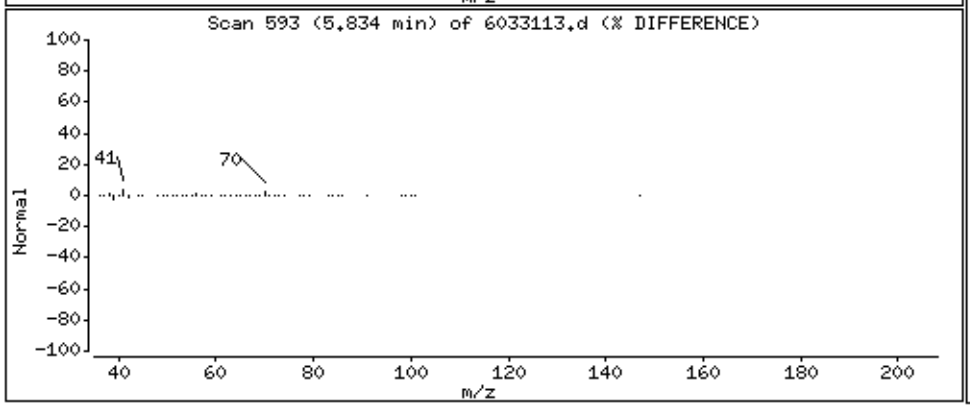
53 Heptane

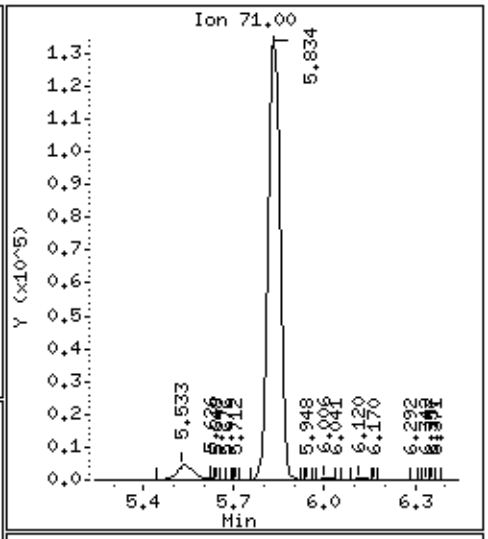
Concentration: 81.008 NG

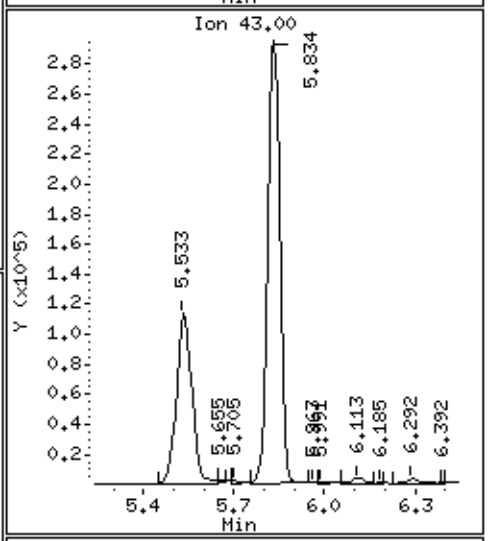


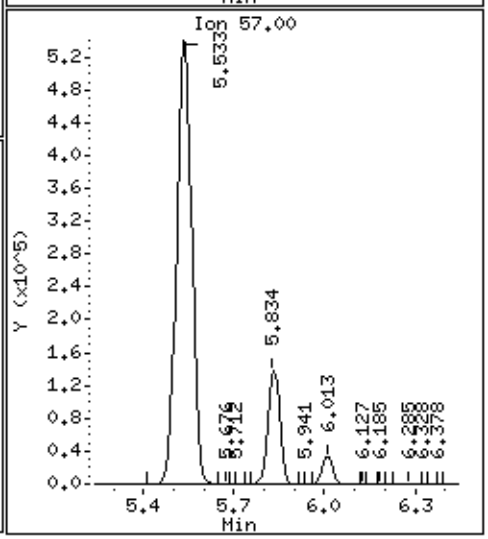












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

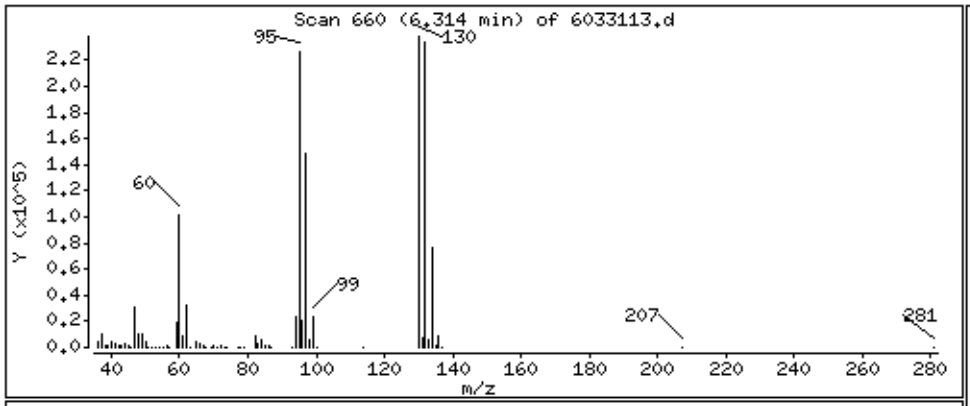
Operator: LA

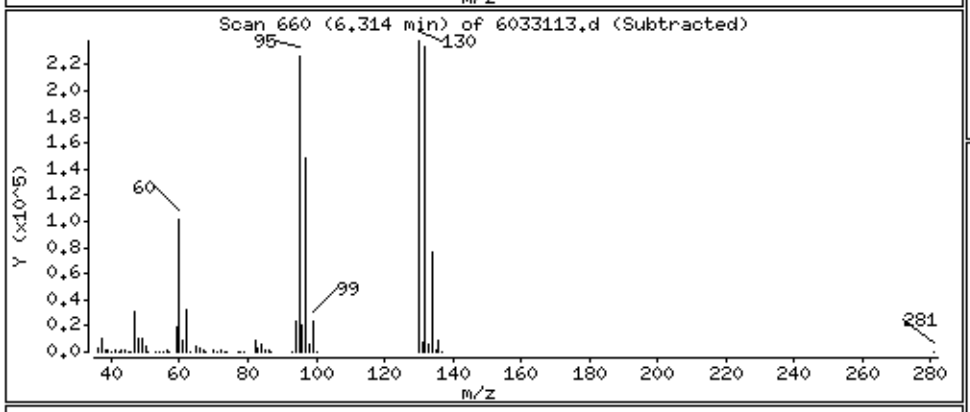
Column phase: RTx-624

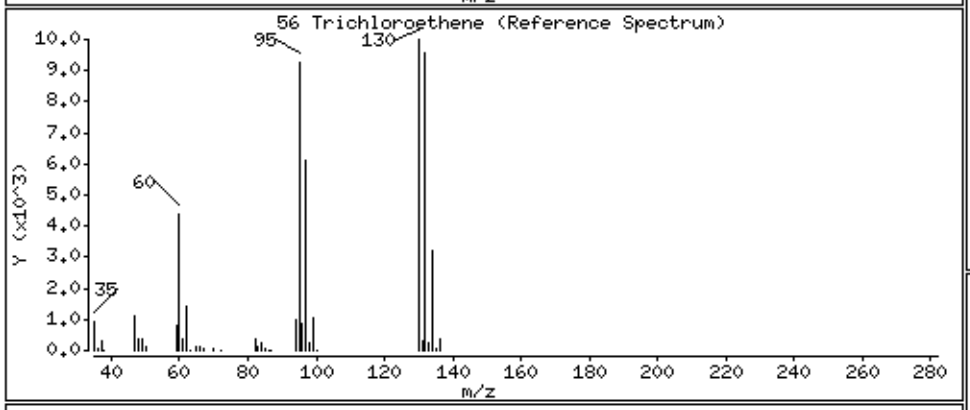
Column diameter: 0.53

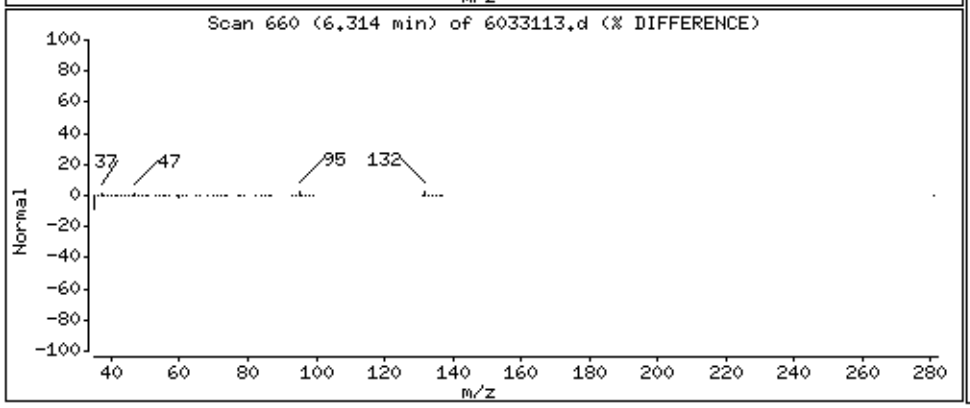
56 Trichloroethene

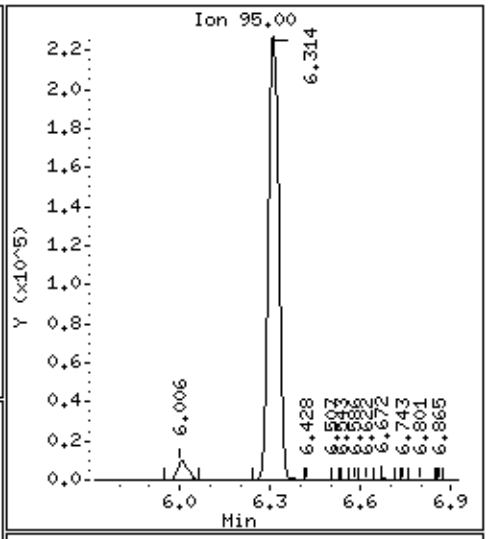
Concentration: 100.69 NG

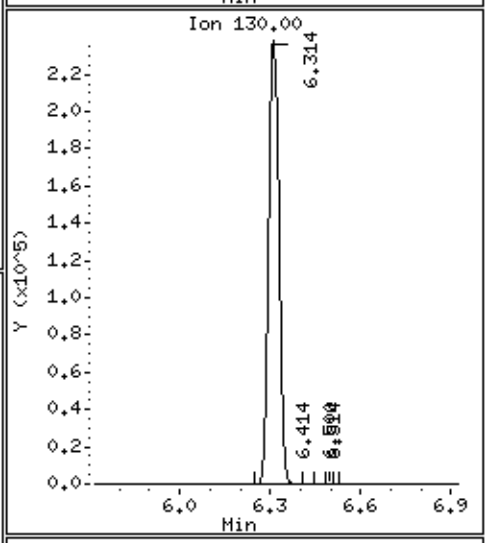


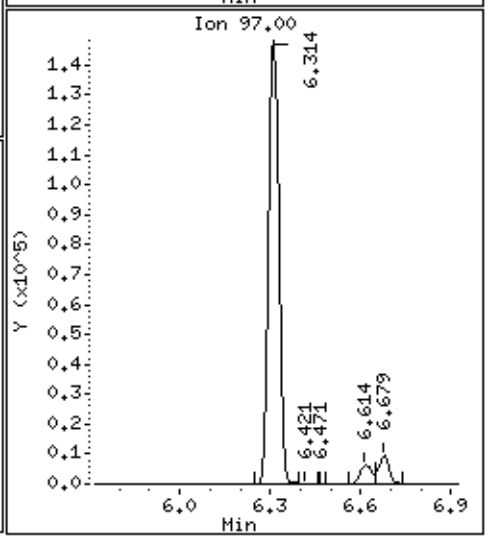












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

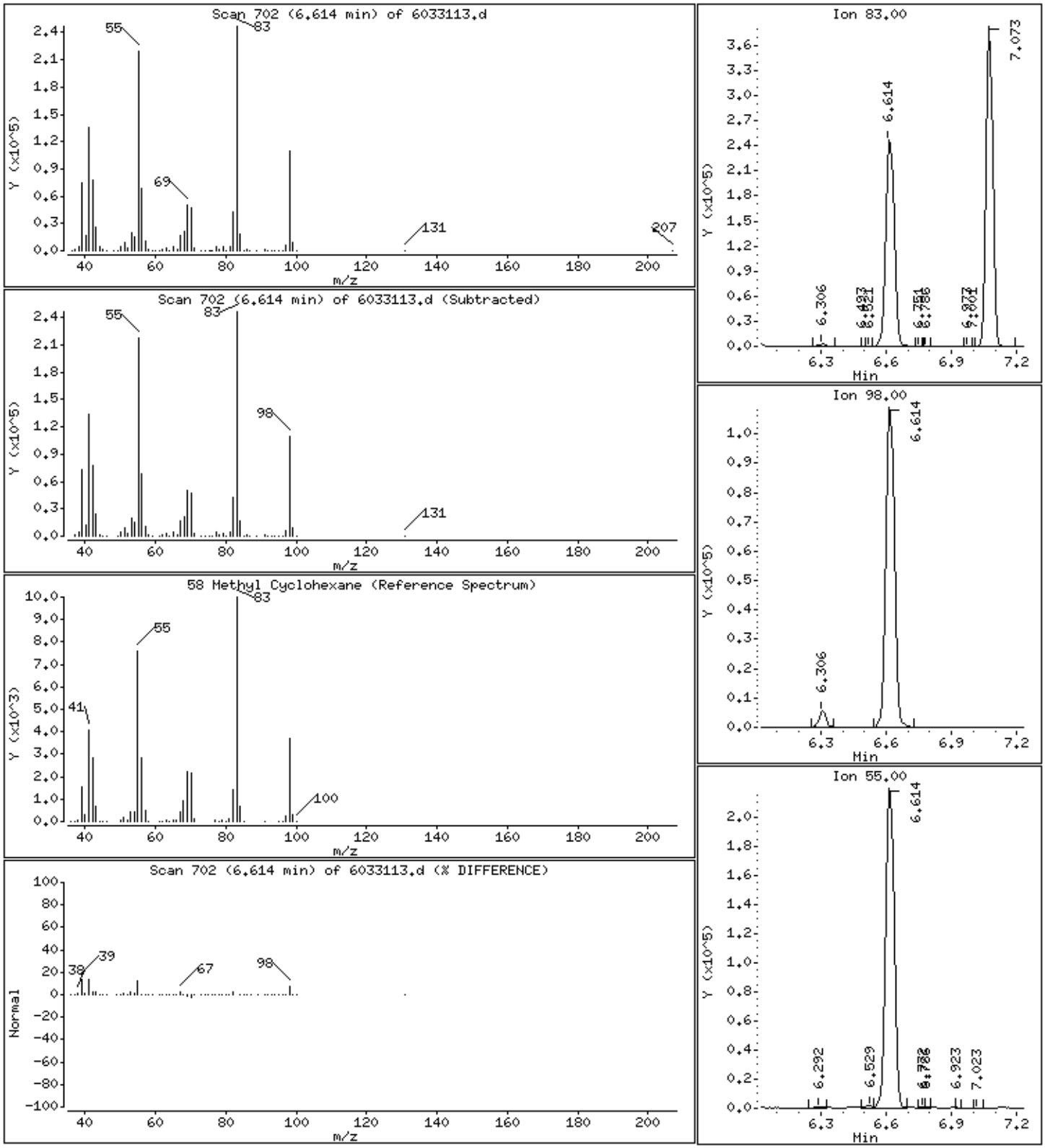
Operator: LA

Column phase: RTx-624

Column diameter: 0.53

58 Methyl Cyclohexane

Concentration: 81.471 NG



Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

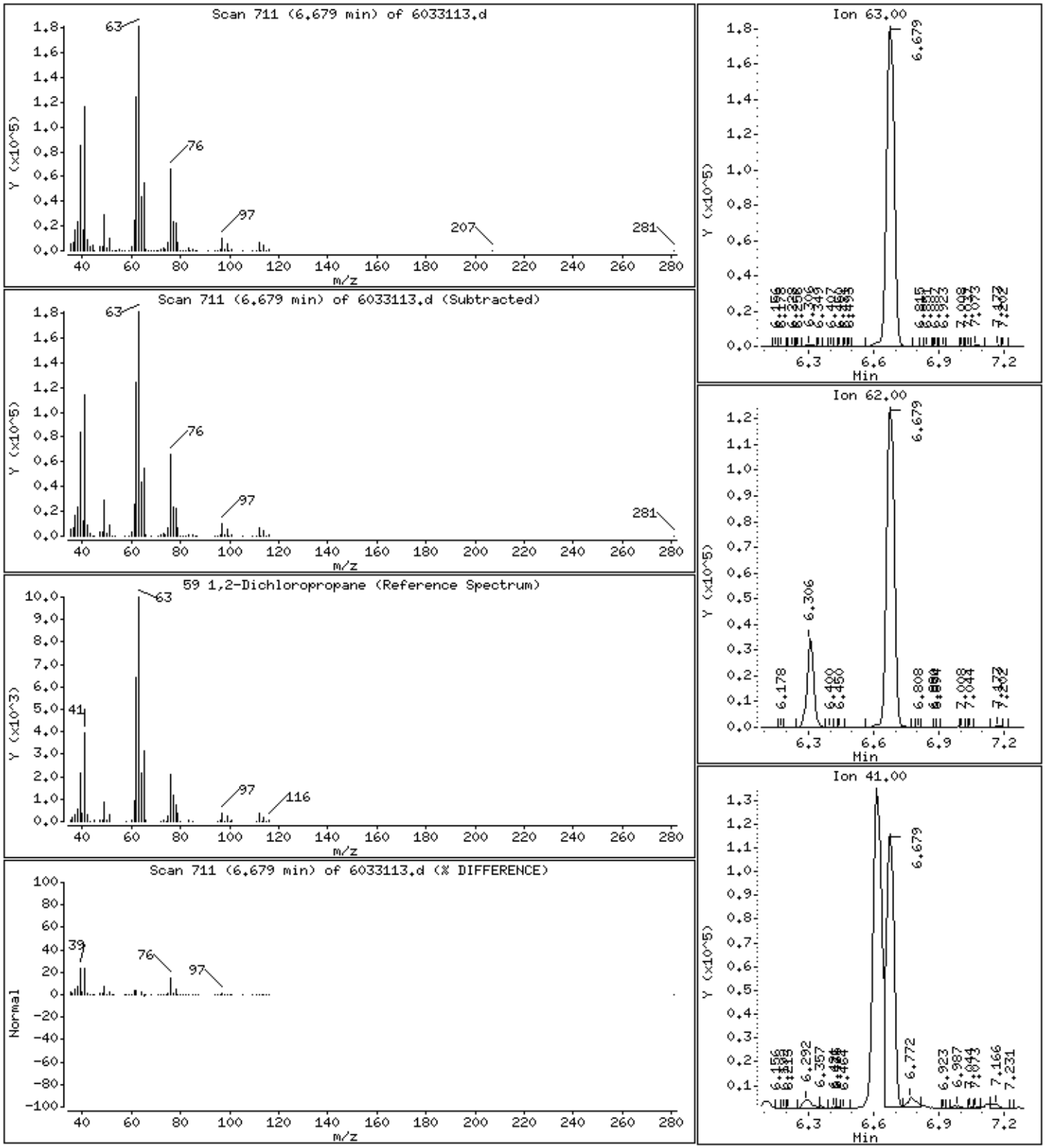
Operator: LA

Column phase: RTx-624

Column diameter: 0.53

59 1,2-Dichloropropane

Concentration: 98.334 NG



Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

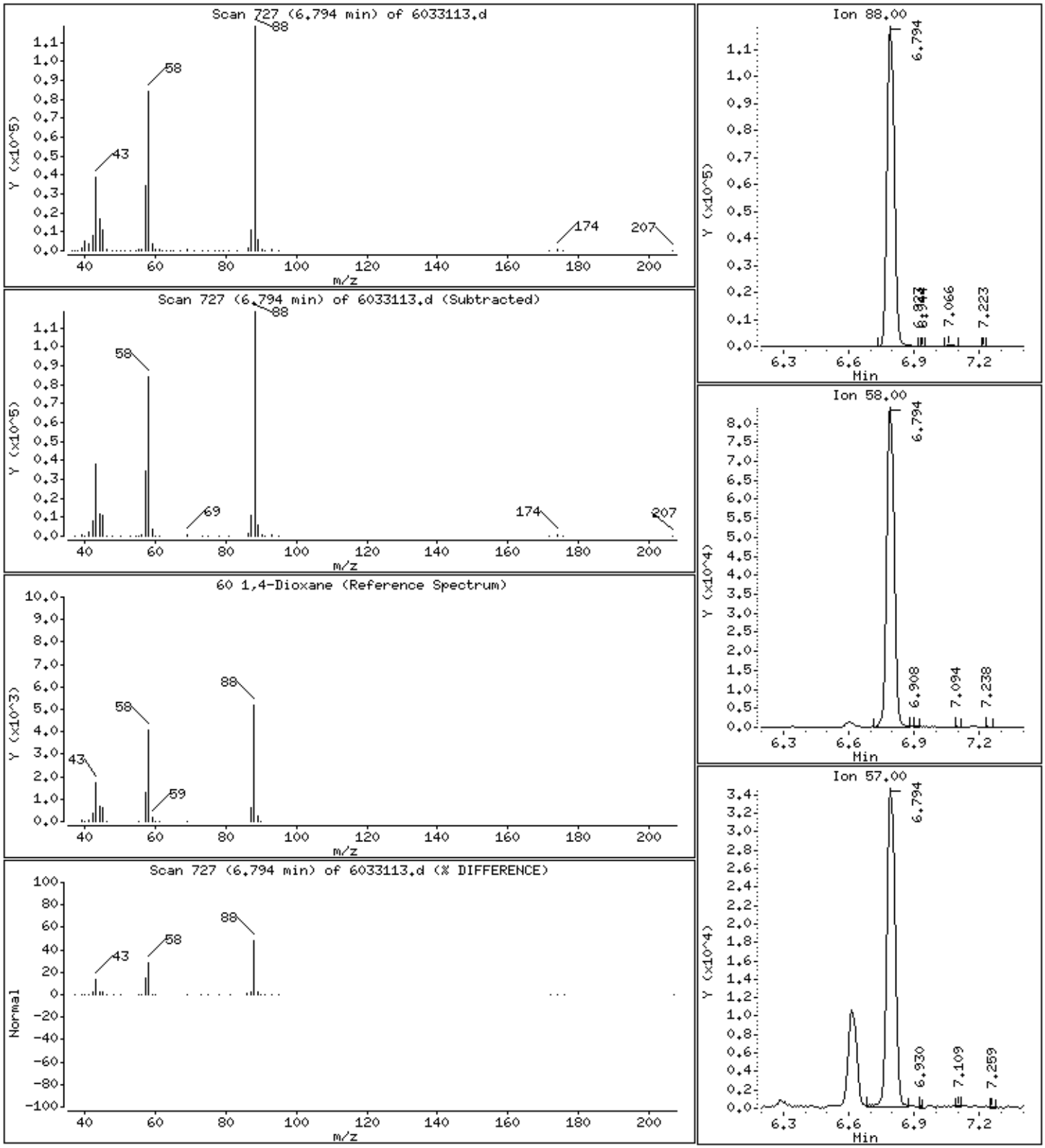
Operator: LA

Column phase: RTx-624

Column diameter: 0.53

60 1,4-Dioxane

Concentration: 70.679 NG



Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

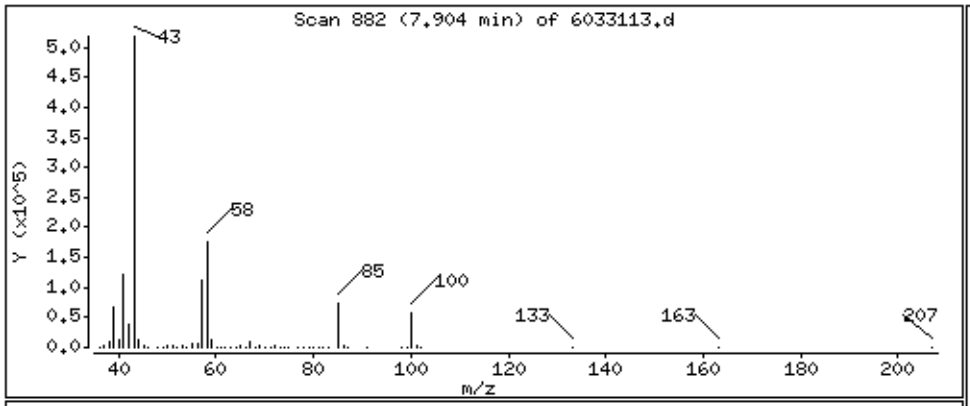
Operator: LA

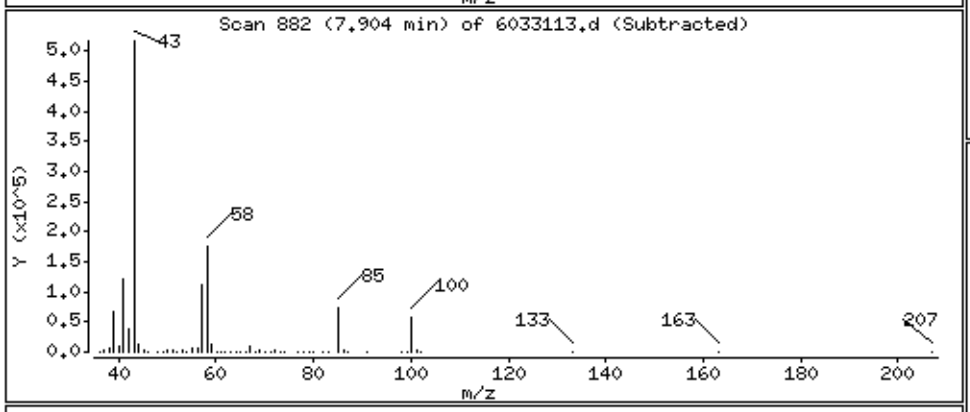
Column phase: RTx-624

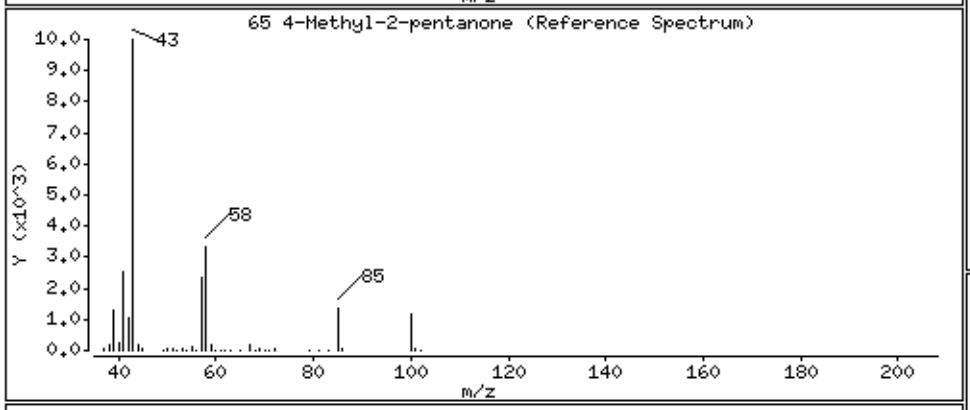
Column diameter: 0.53

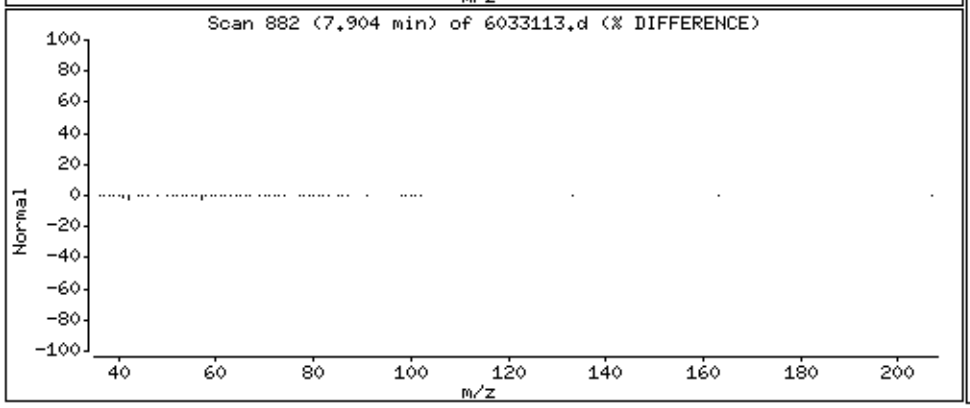
65 4-Methyl-2-pentanone

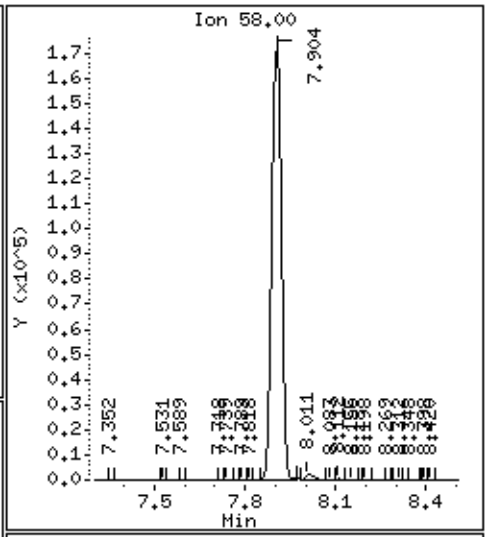
Concentration: 84.482 NG

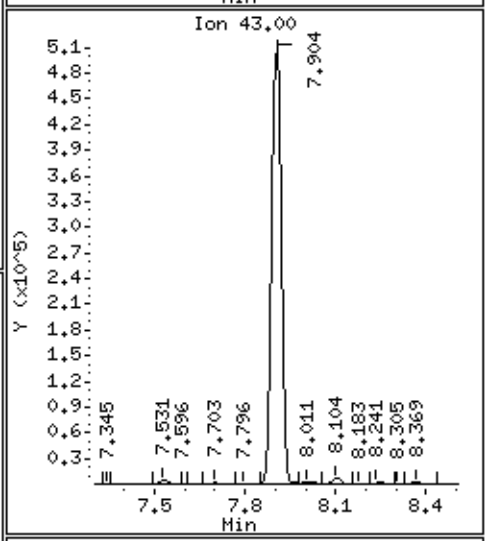


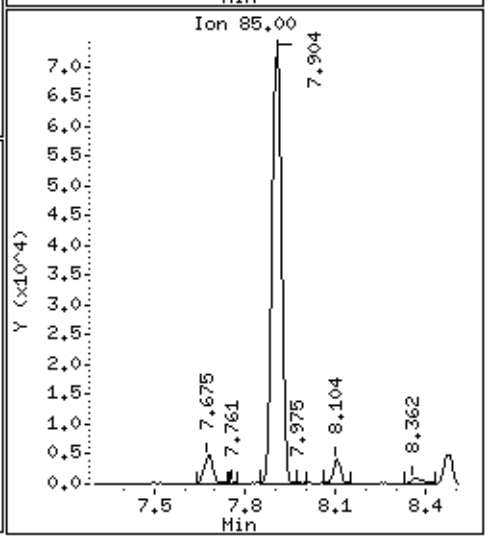












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

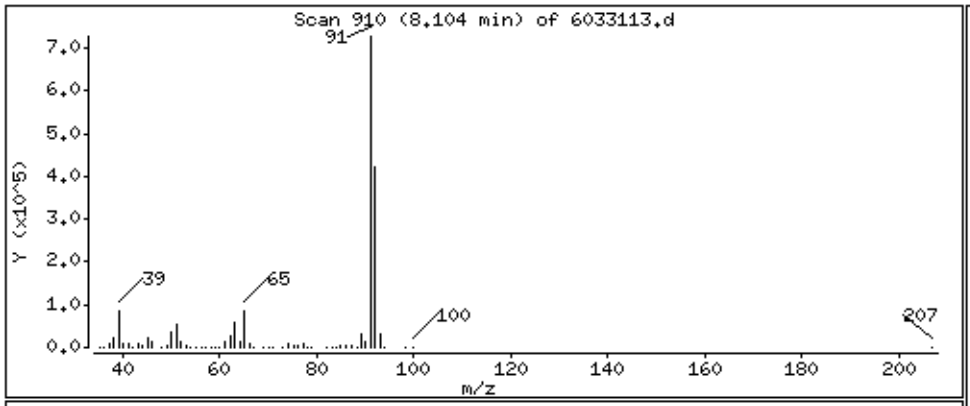
Operator: LA

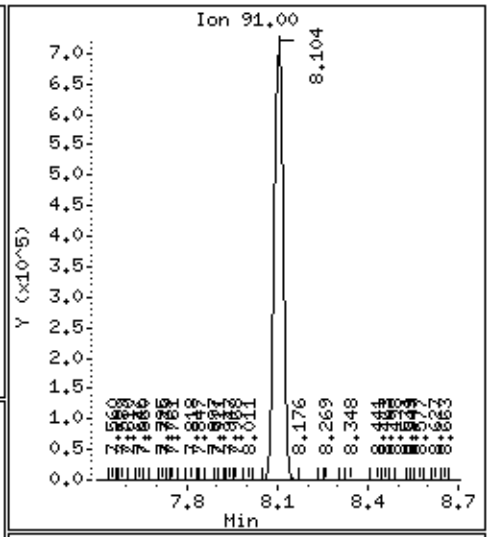
Column phase: RTx-624

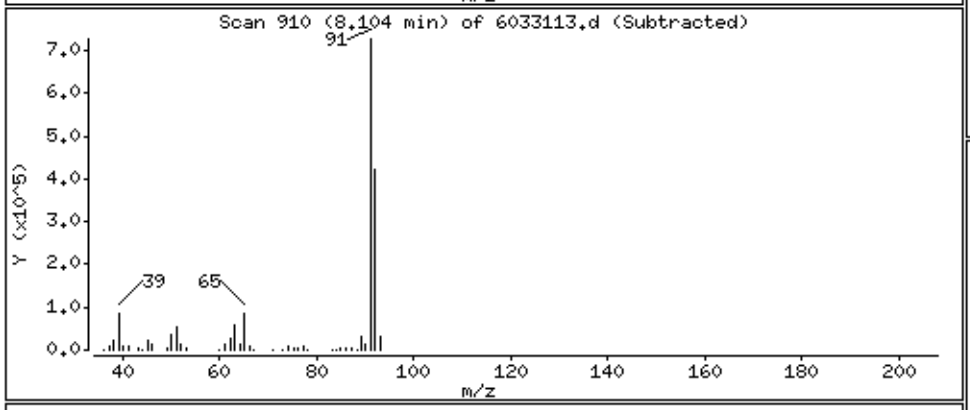
Column diameter: 0.53

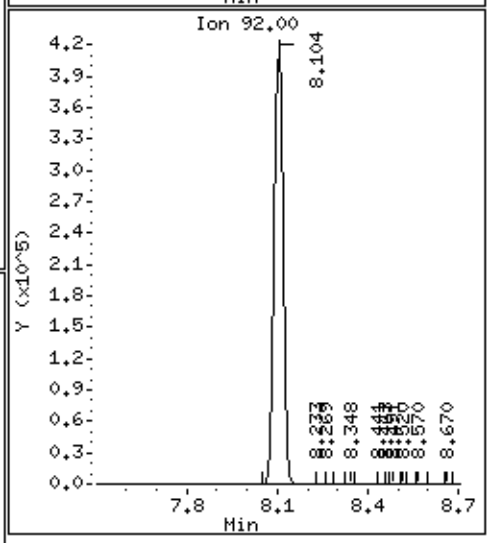
67 Toluene

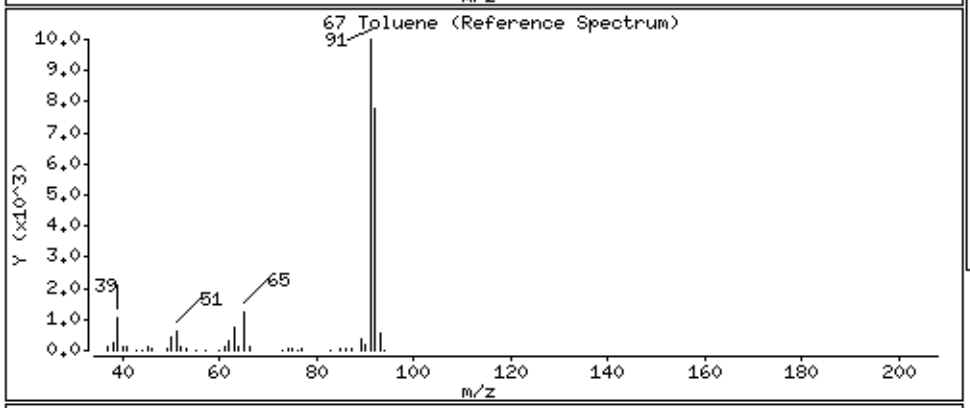
Concentration: 72.551 NG

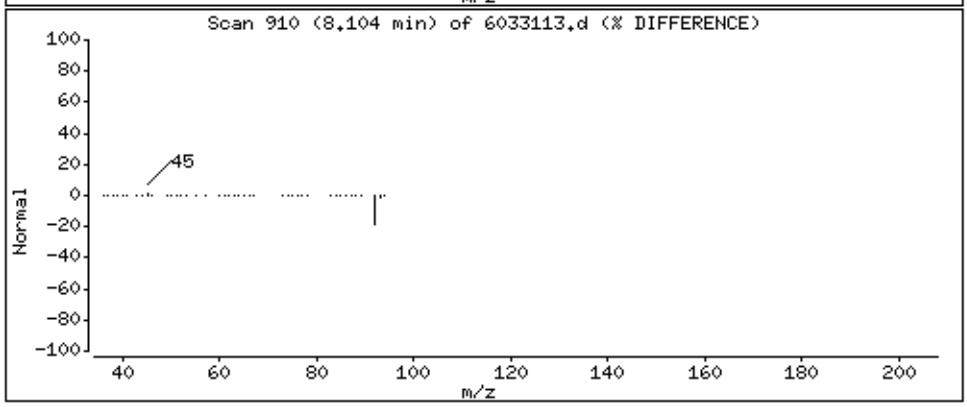












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

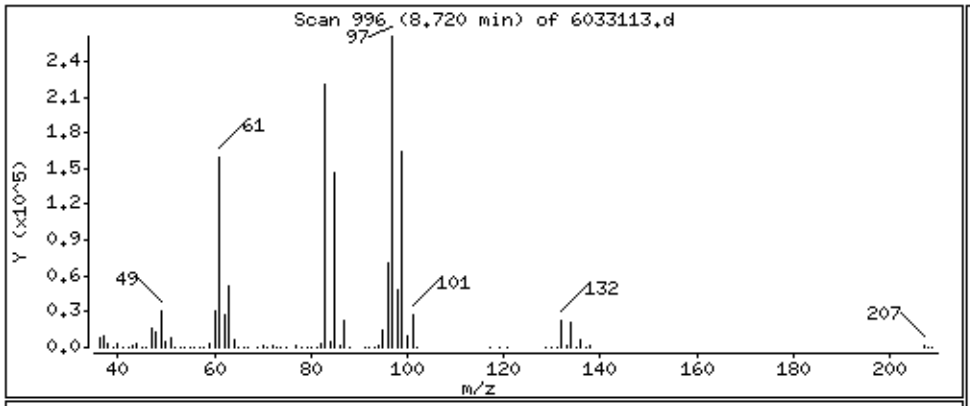
Operator: LA

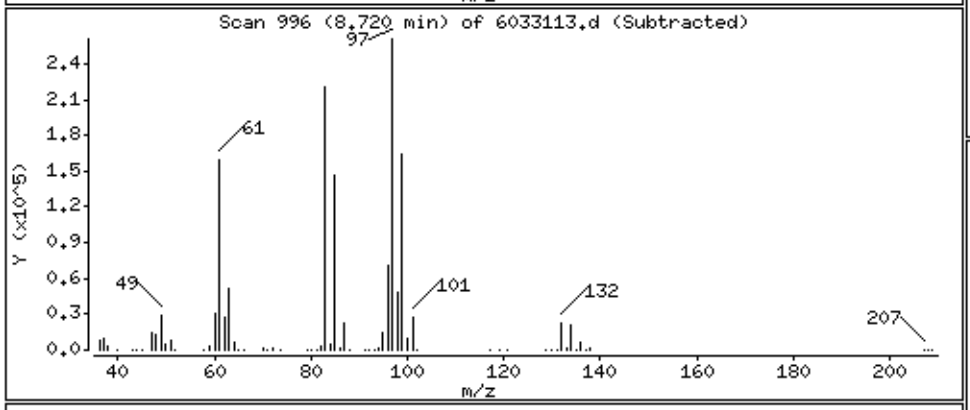
Column phase: RTx-624

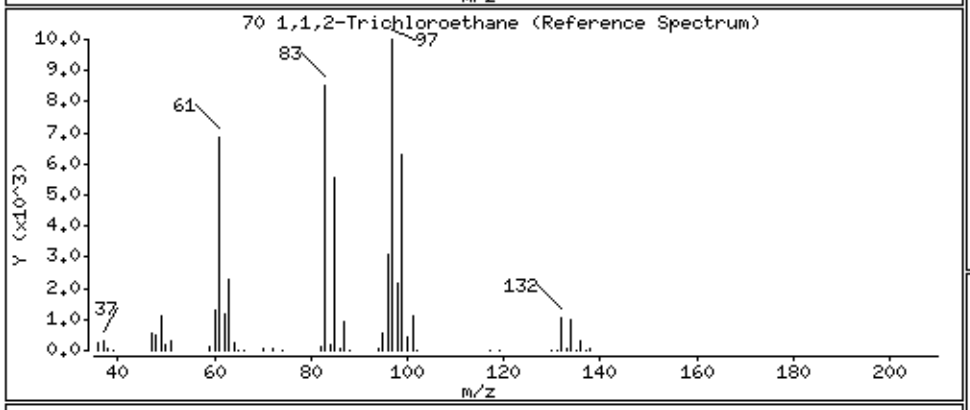
Column diameter: 0.53

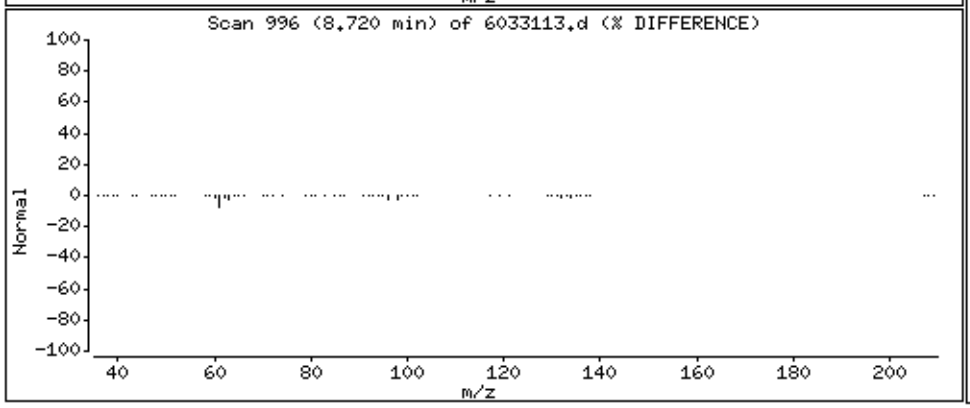
70 1,1,2-Trichloroethane

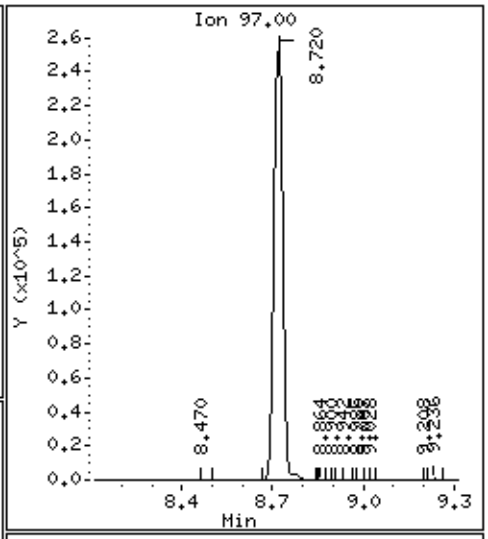
Concentration: 110.86 NG

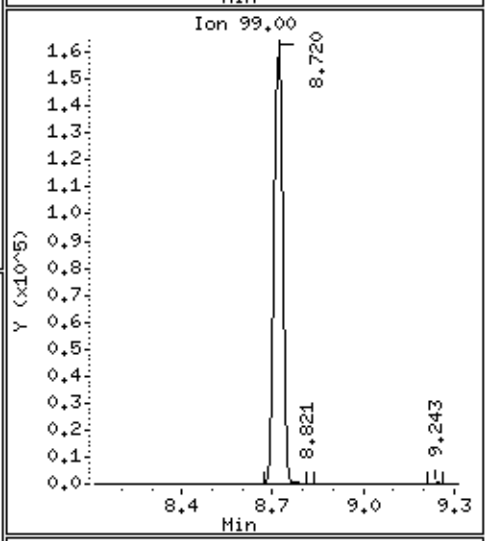


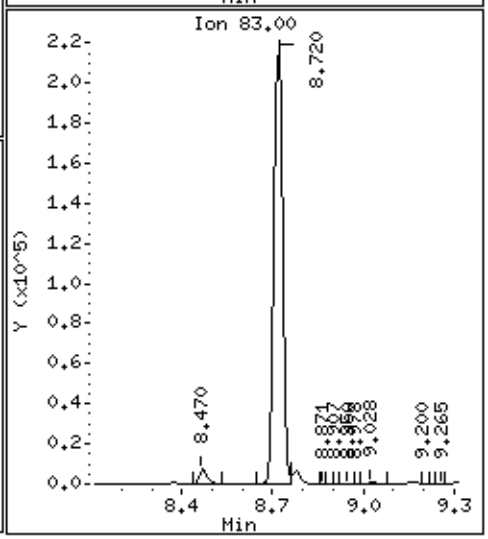












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

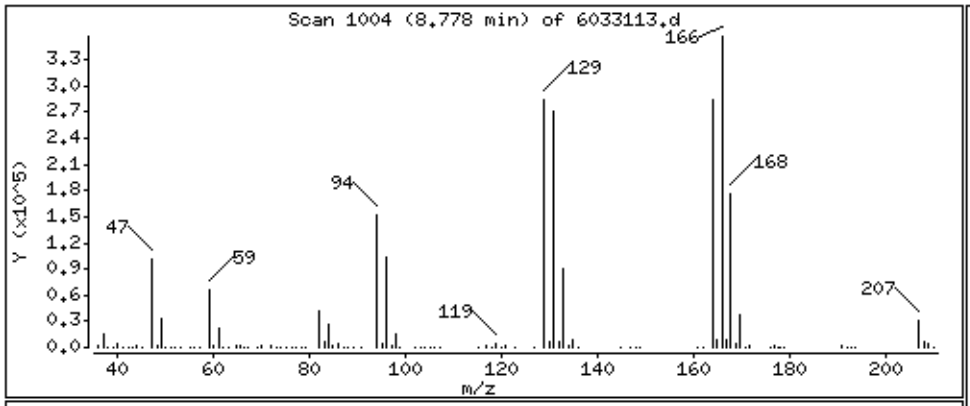
Operator: LA

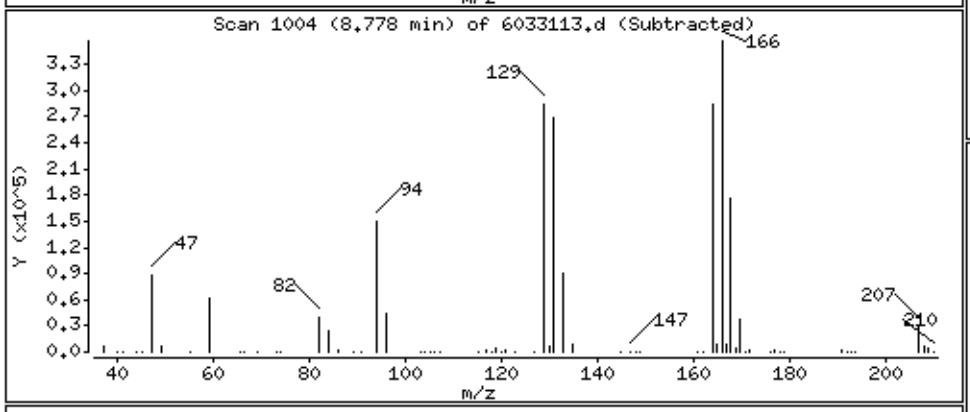
Column phase: RTx-624

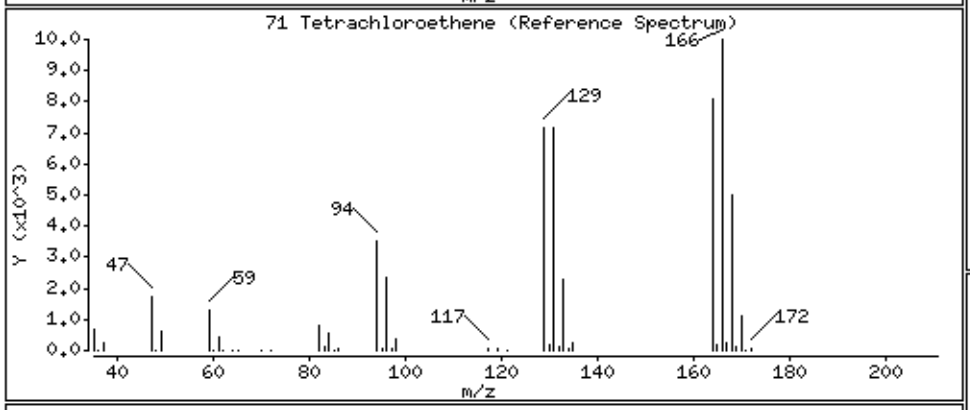
Column diameter: 0.53

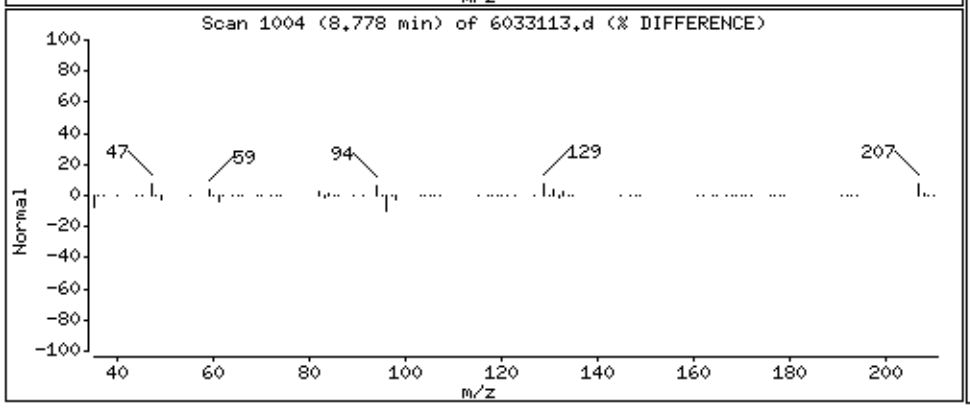
71 Tetrachloroethene

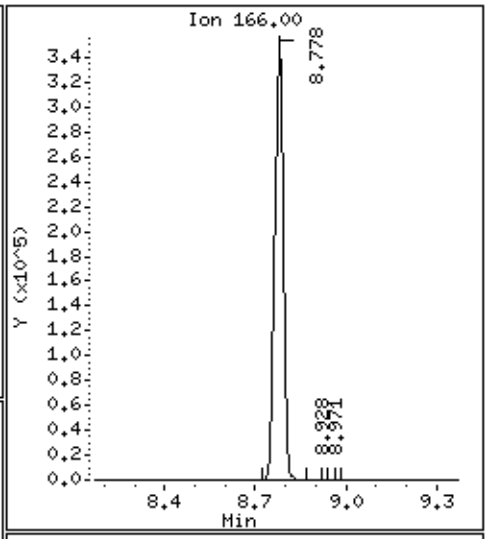
Concentration: 133.54 NG

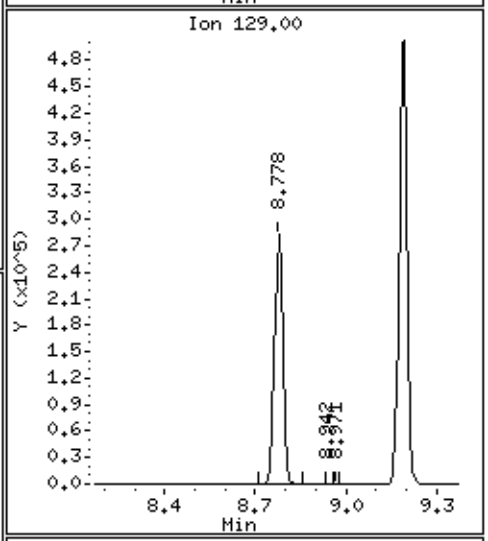


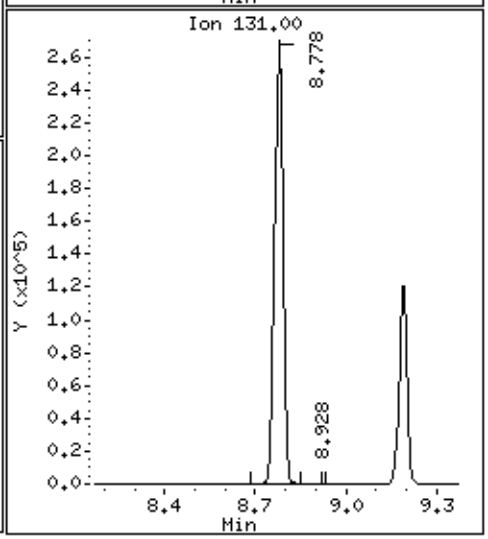












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

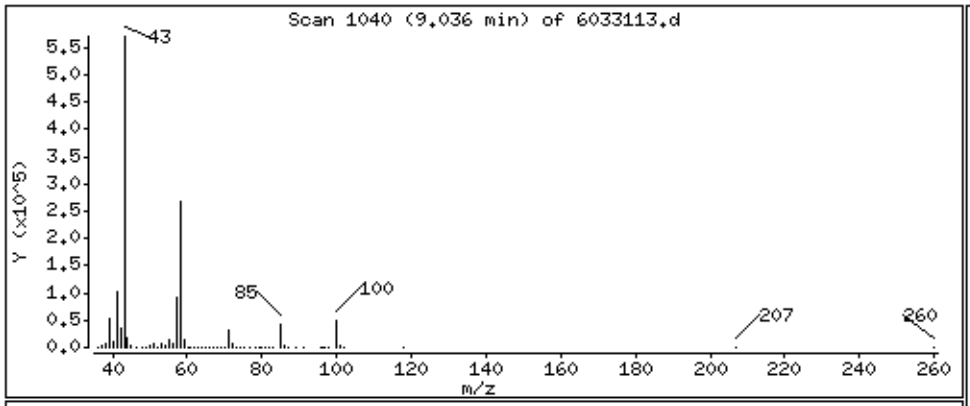
Operator: LA

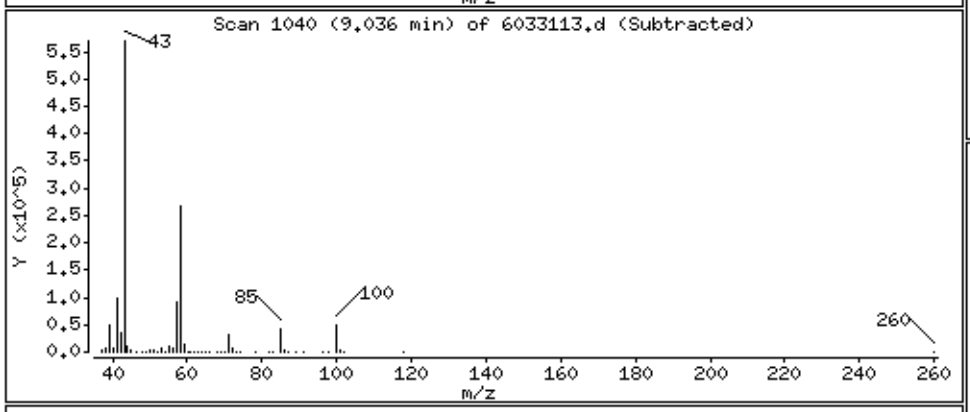
Column phase: RTx-624

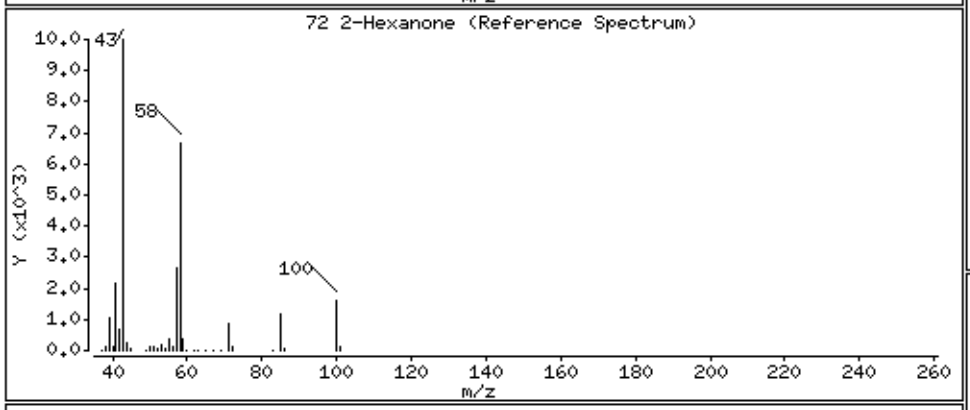
Column diameter: 0.53

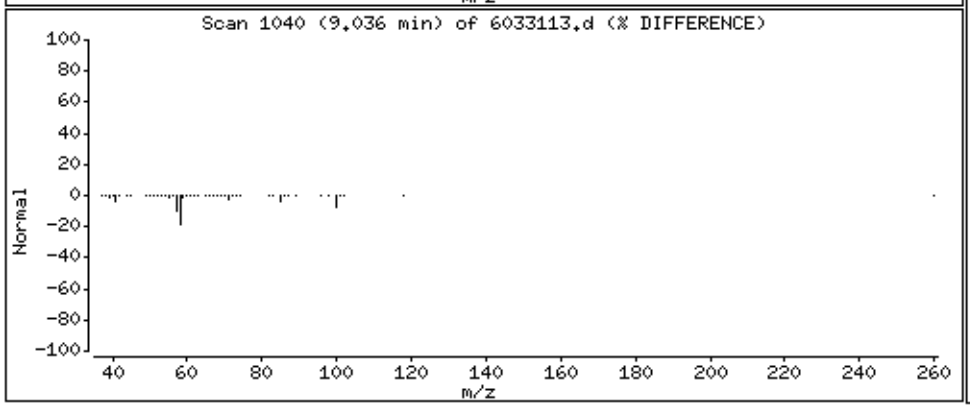
72 2-Hexanone

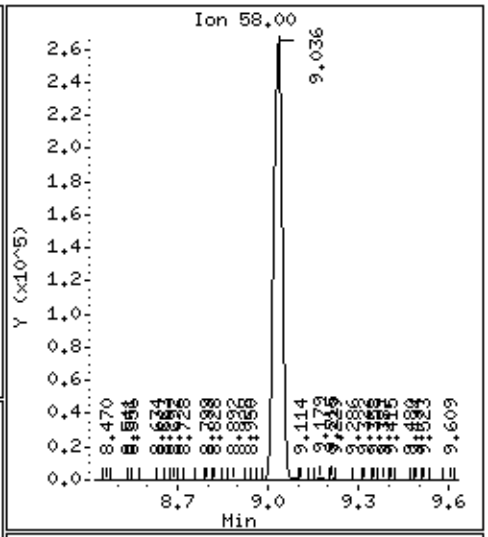
Concentration: 84.887 NG

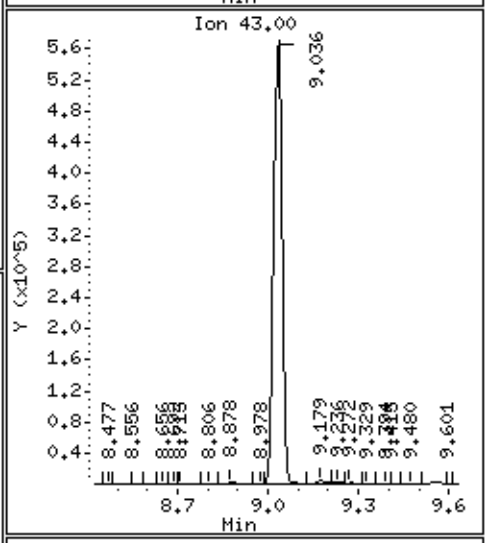


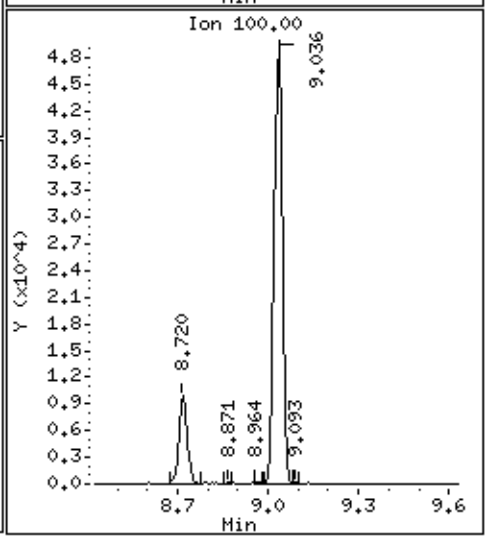












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

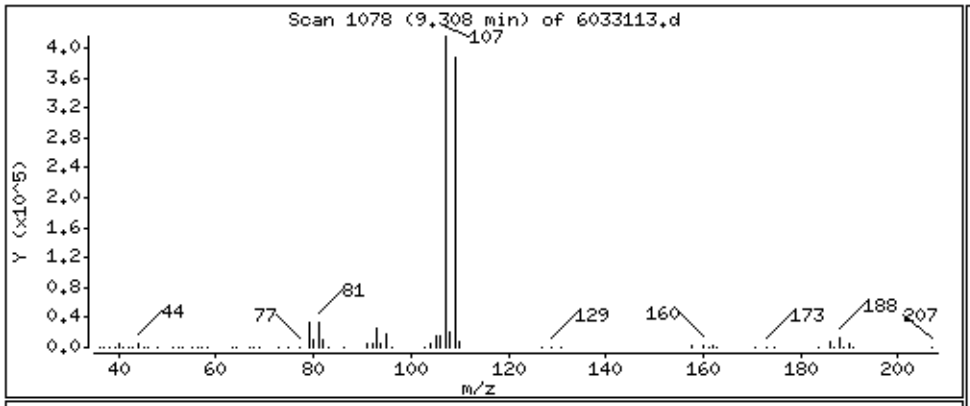
Operator: LA

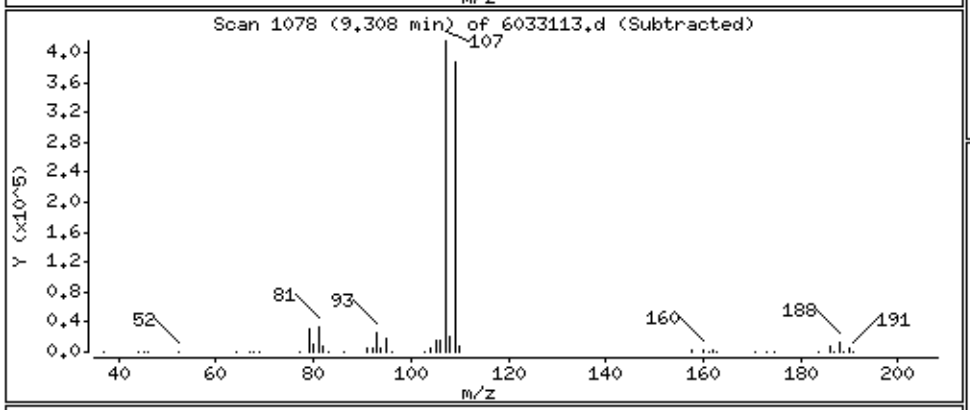
Column phase: RTx-624

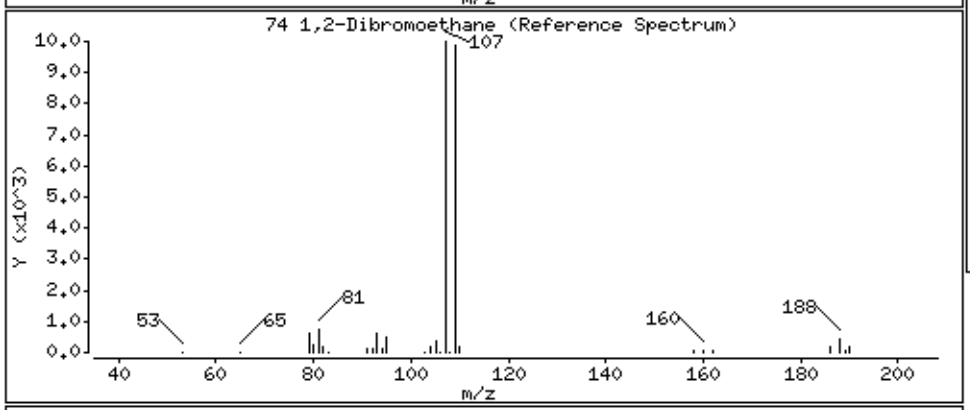
Column diameter: 0.53

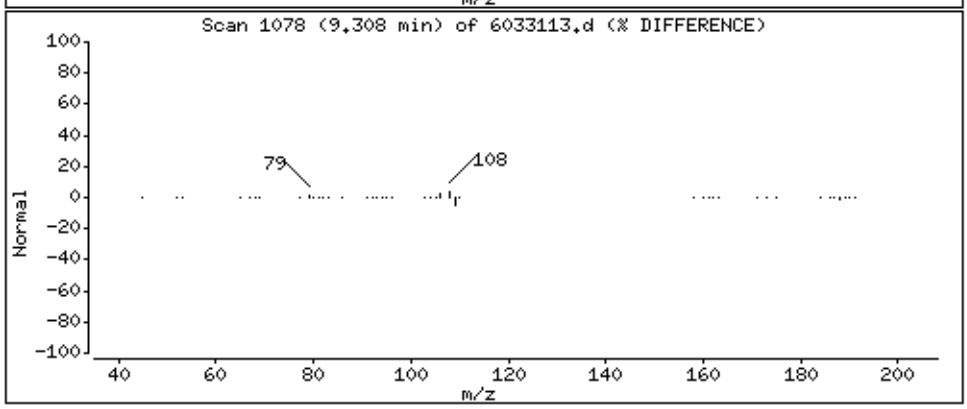
74 1,2-Dibromoethane

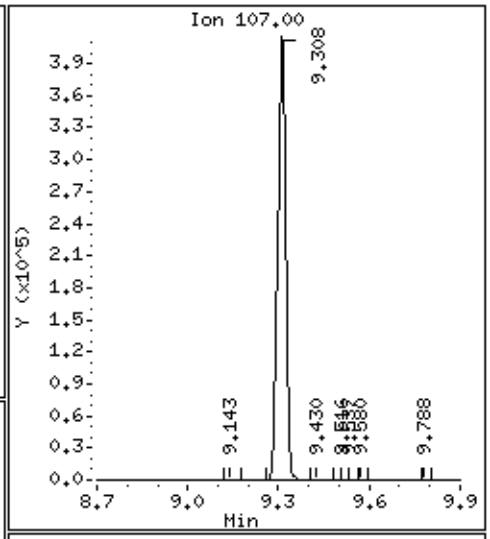
Concentration: 159.50 NG

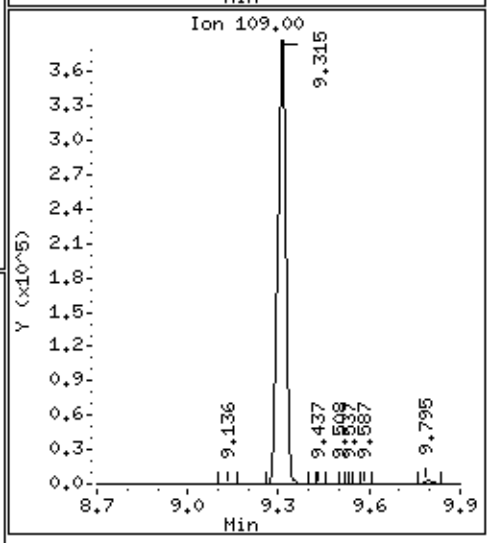












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

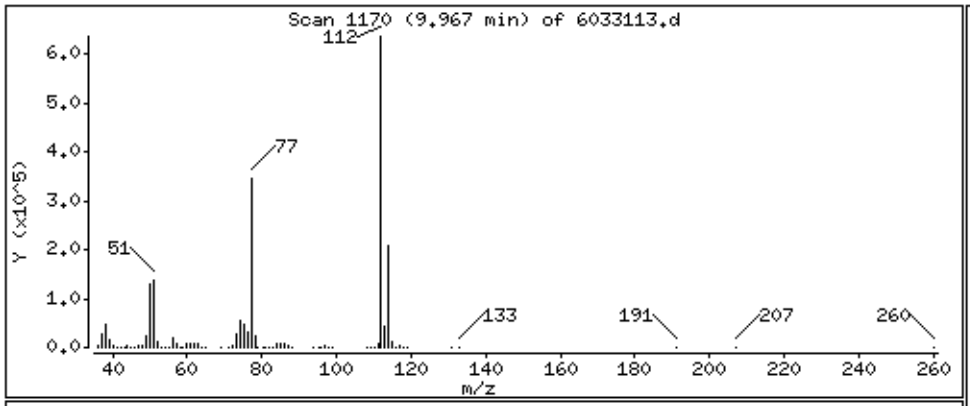
Operator: LA

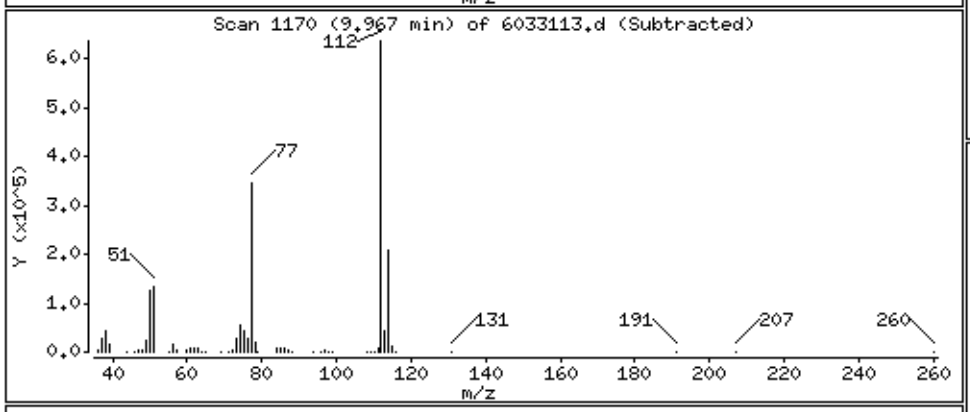
Column phase: RTx-624

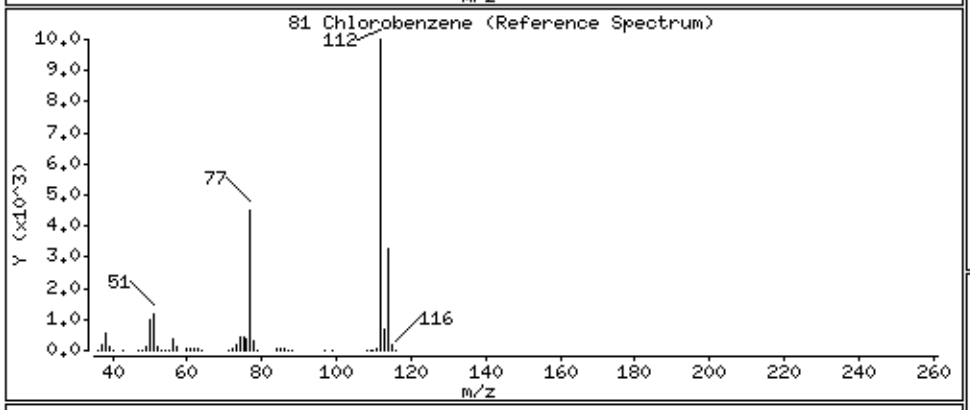
Column diameter: 0.53

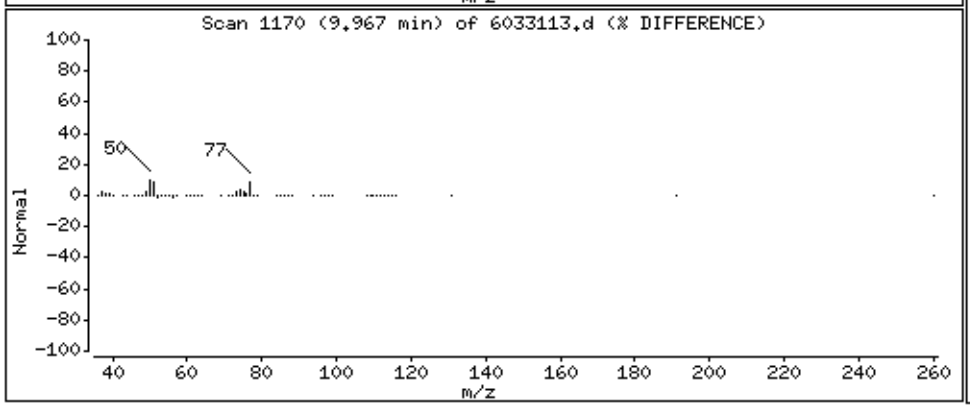
81 Chlorobenzene

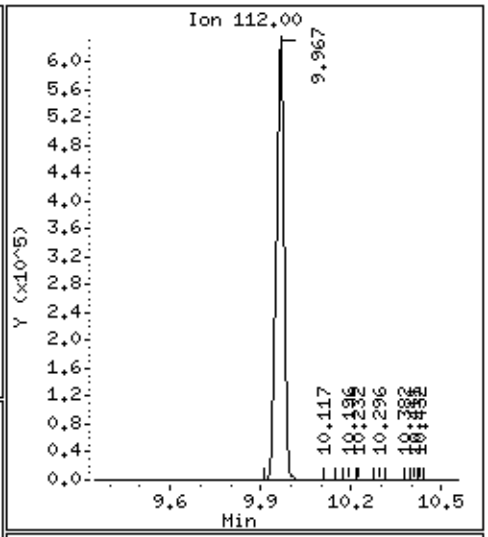
Concentration: 92.098 NG

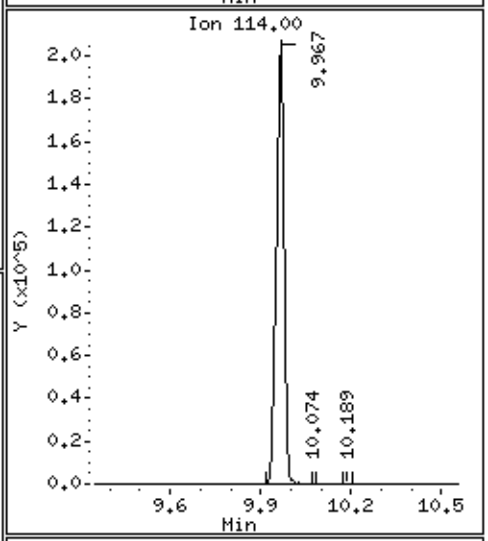


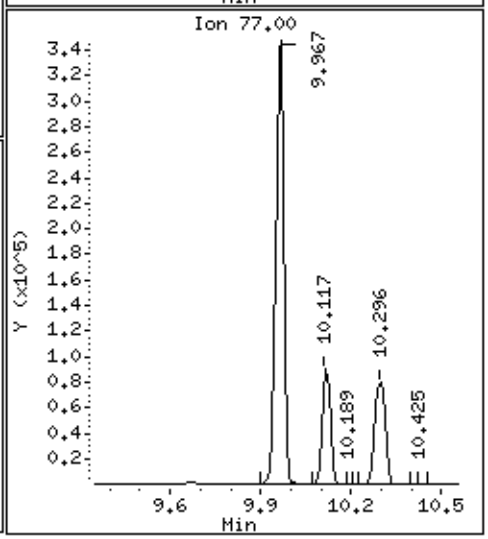












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

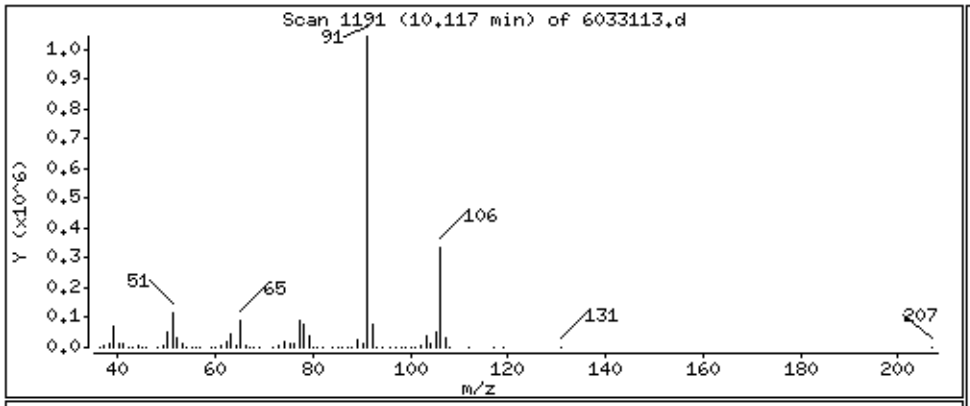
Operator: LA

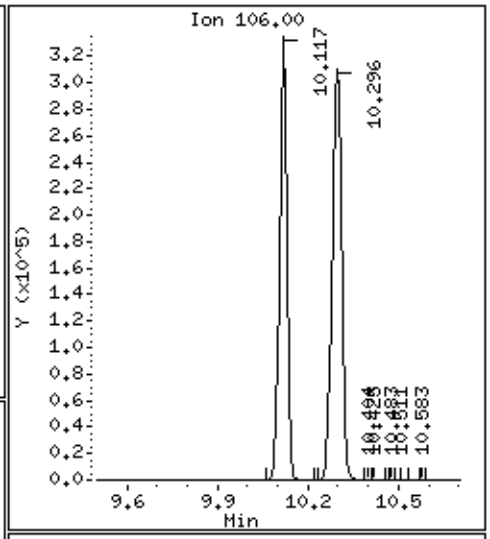
Column phase: RTx-624

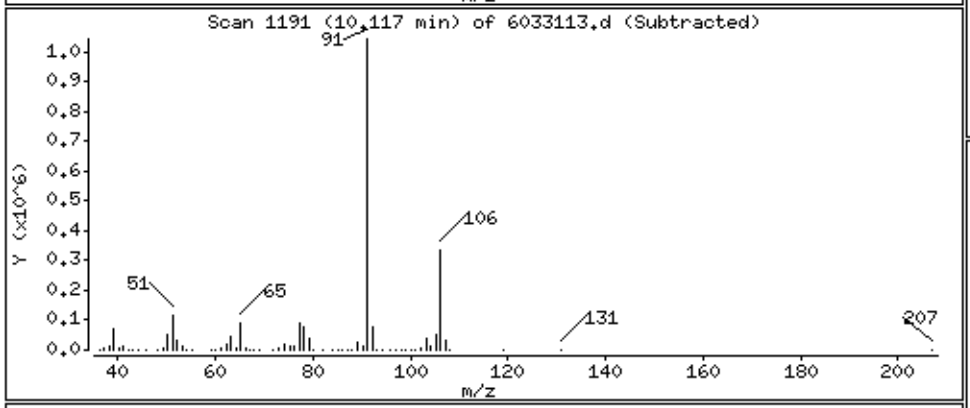
Column diameter: 0.53

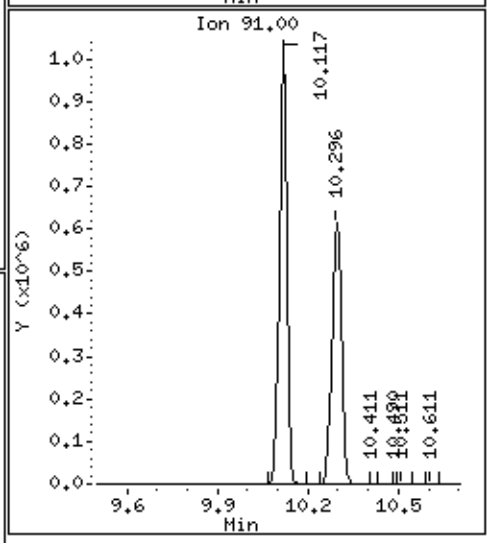
82 Ethyl Benzene

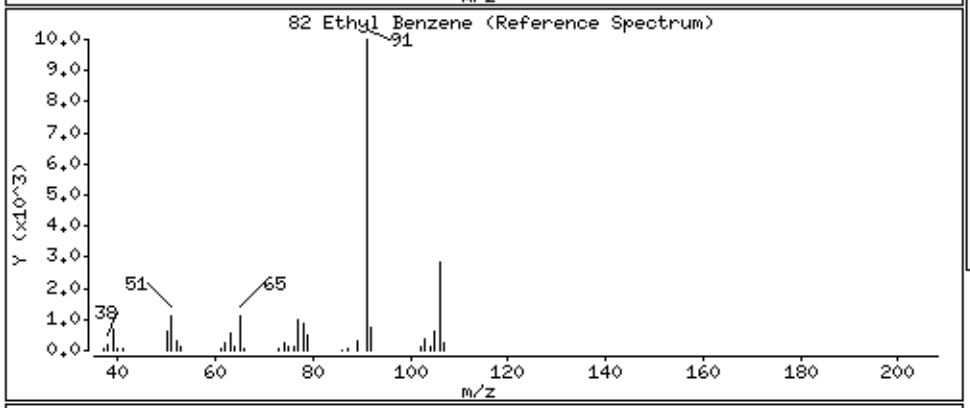
Concentration: 86.697 NG

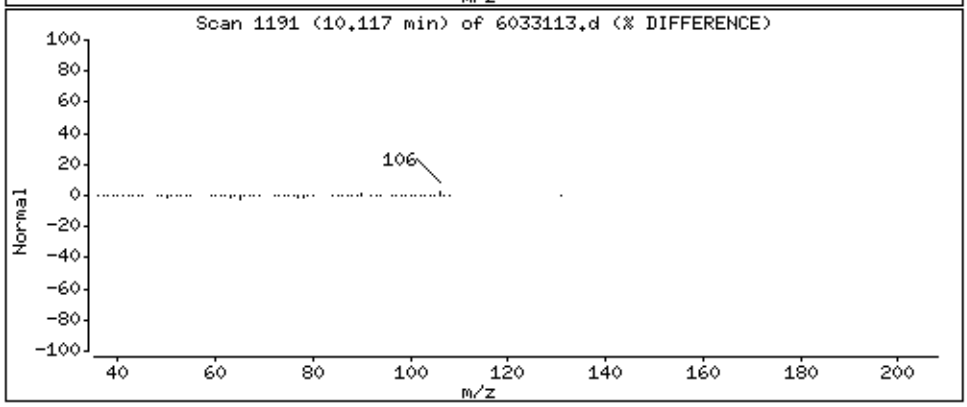












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

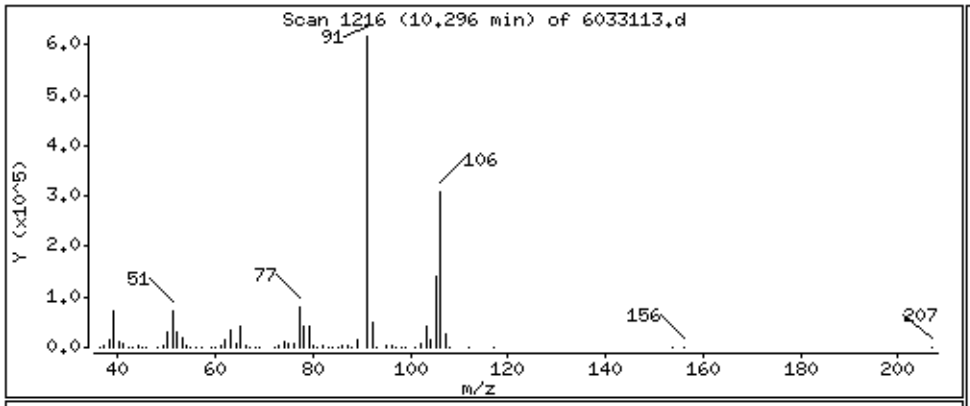
Operator: LA

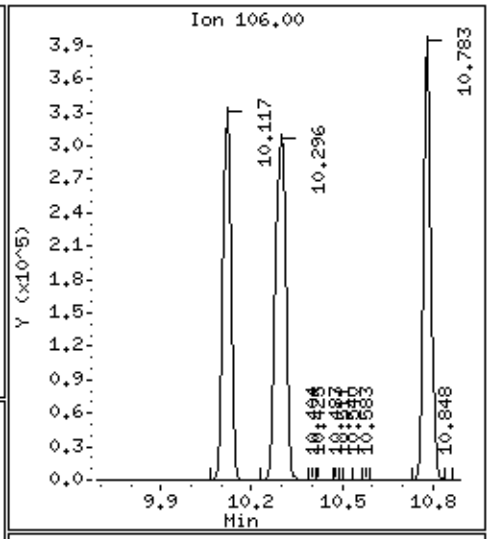
Column phase: RTx-624

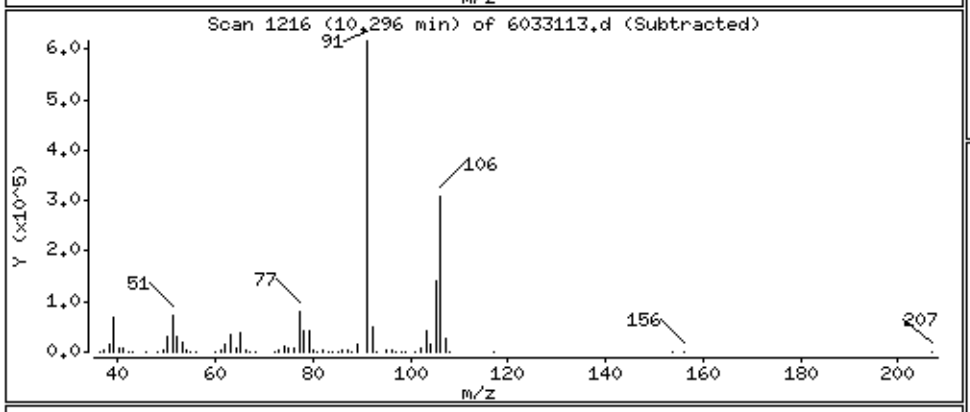
Column diameter: 0.53

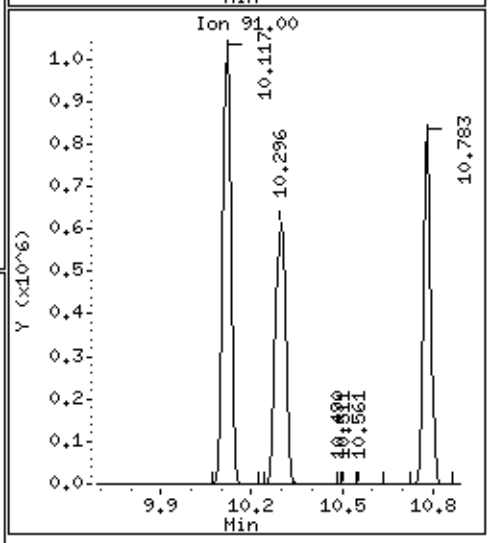
84 m,p-Xylene

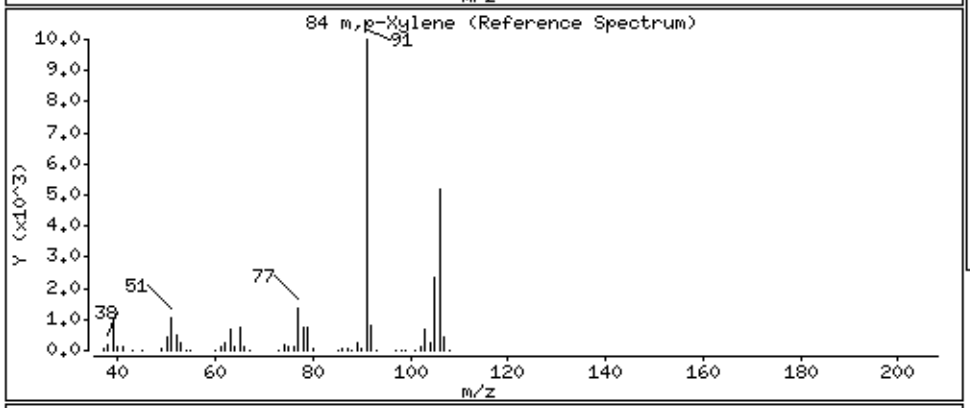
Concentration: 84.047 NG

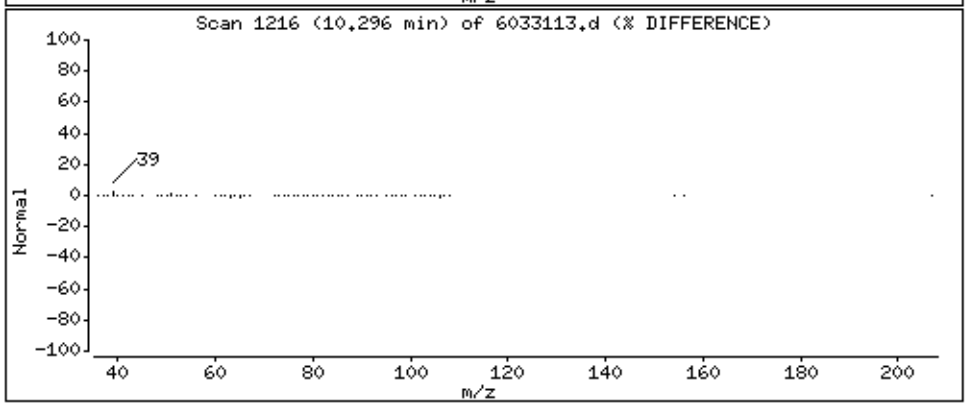












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

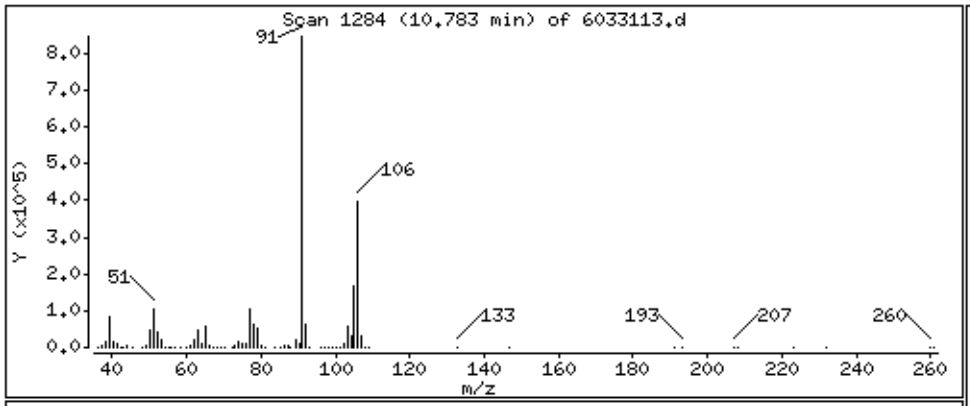
Operator: LA

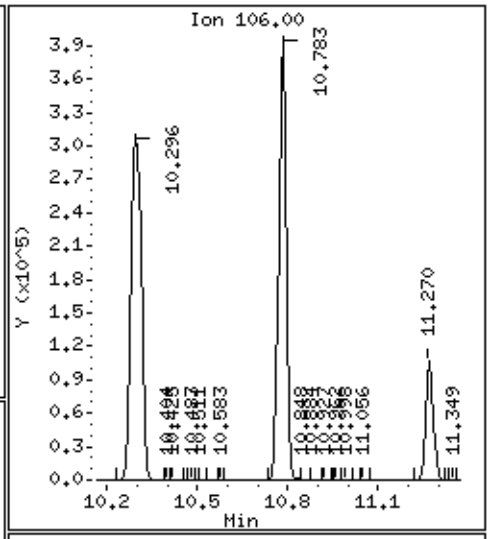
Column phase: RTx-624

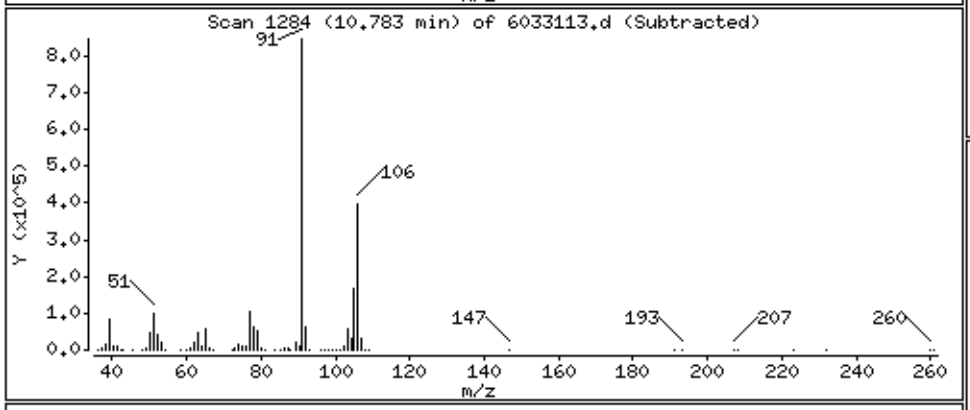
Column diameter: 0.53

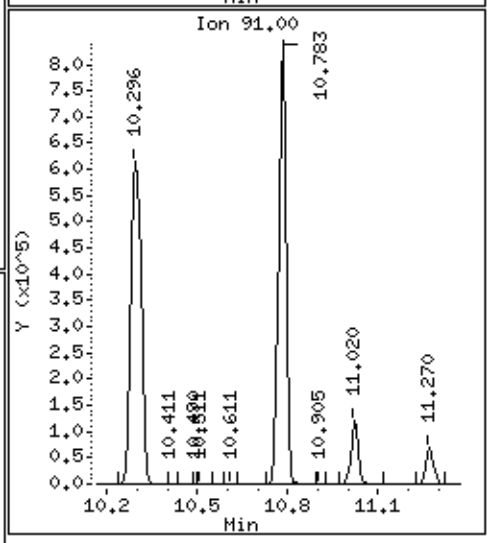
88 o-Xylene

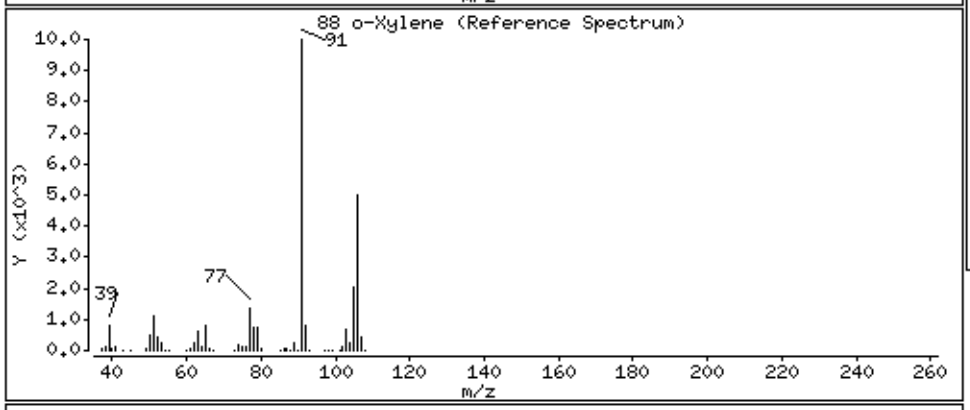
Concentration: 91.124 NG

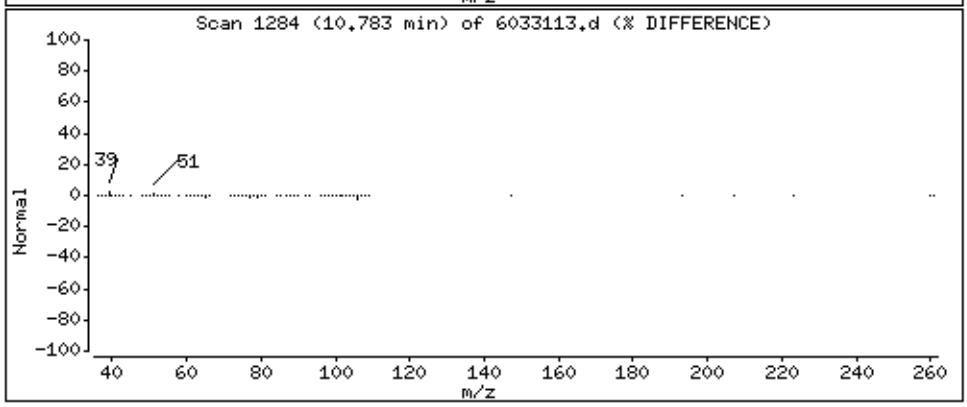












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

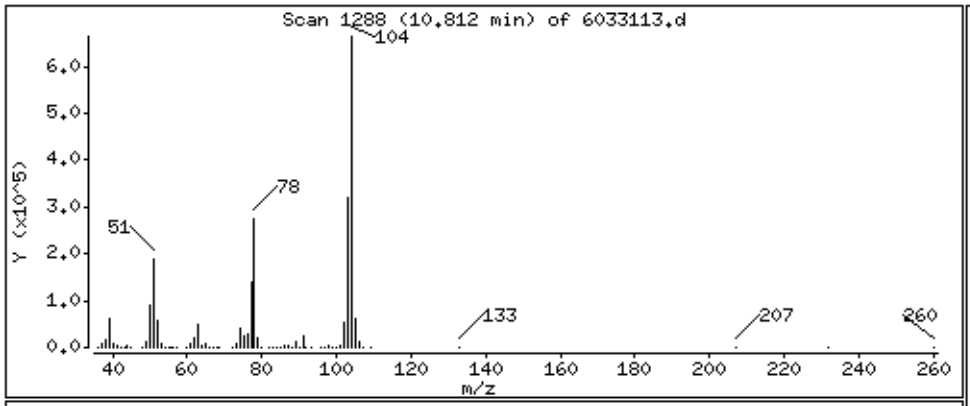
Operator: LA

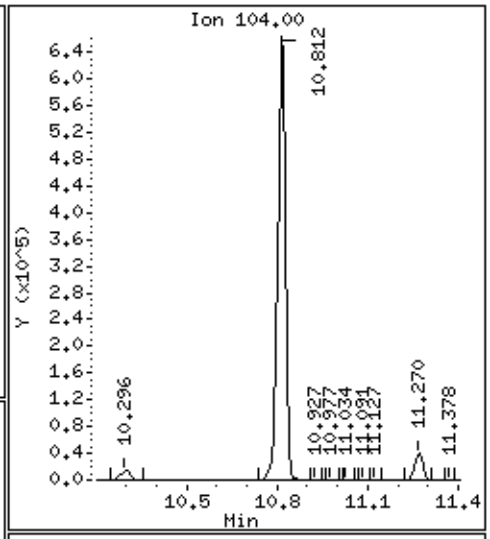
Column phase: RTx-624

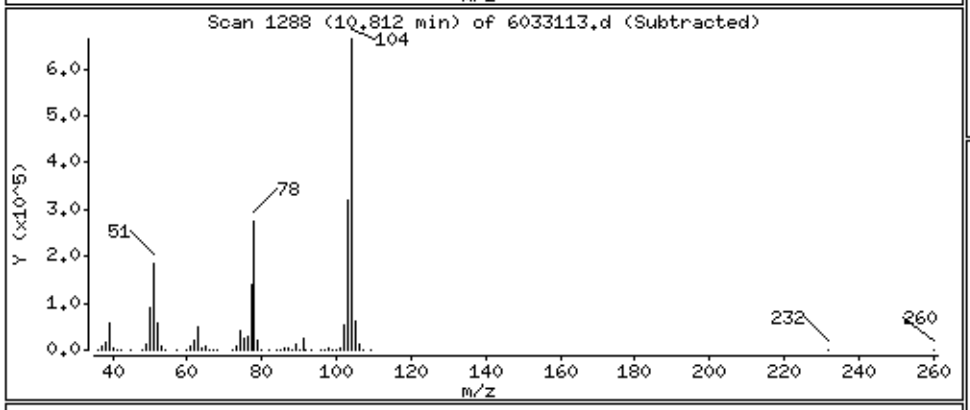
Column diameter: 0.53

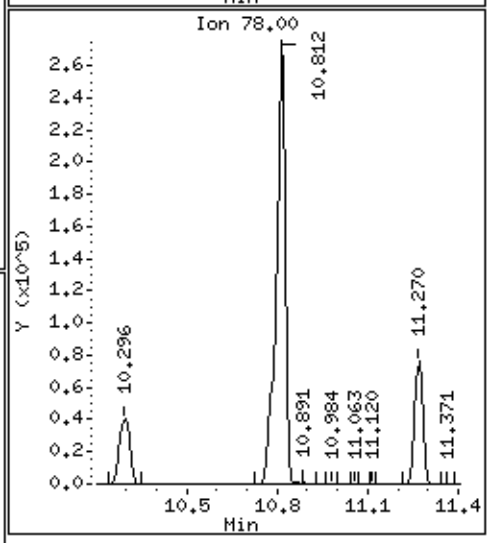
89 Styrene

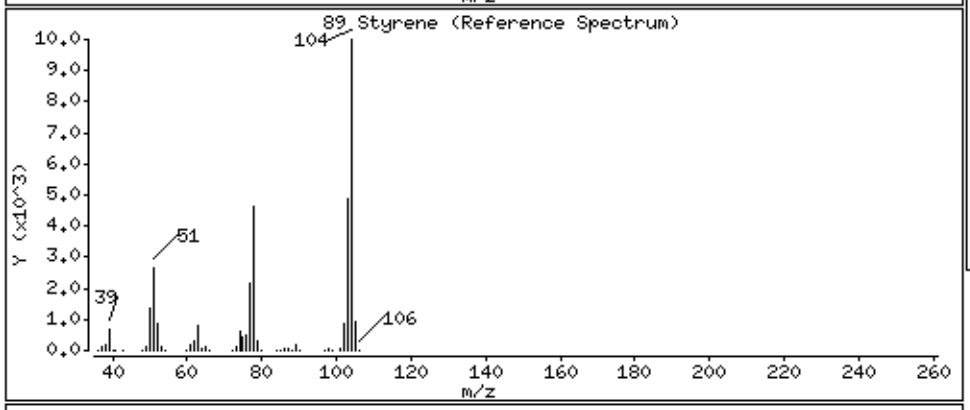
Concentration: 89.052 NG

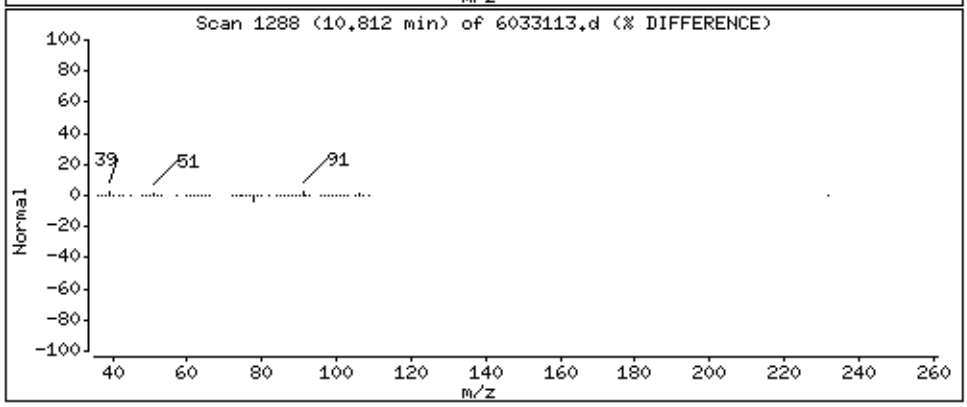












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

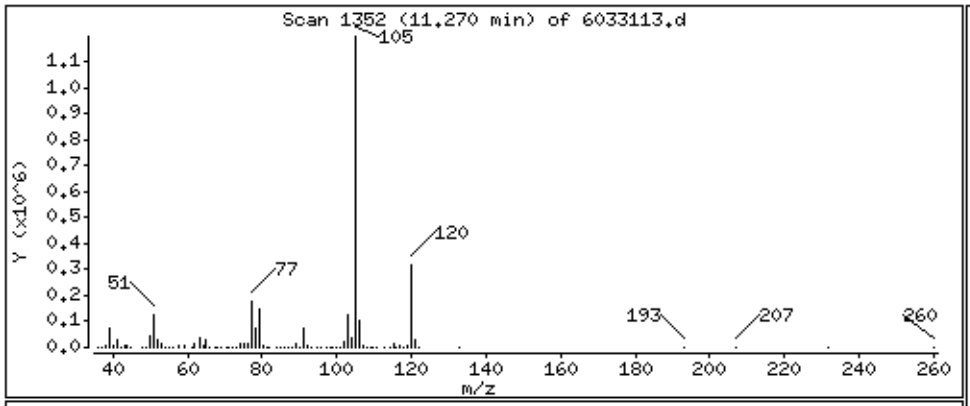
Operator: LA

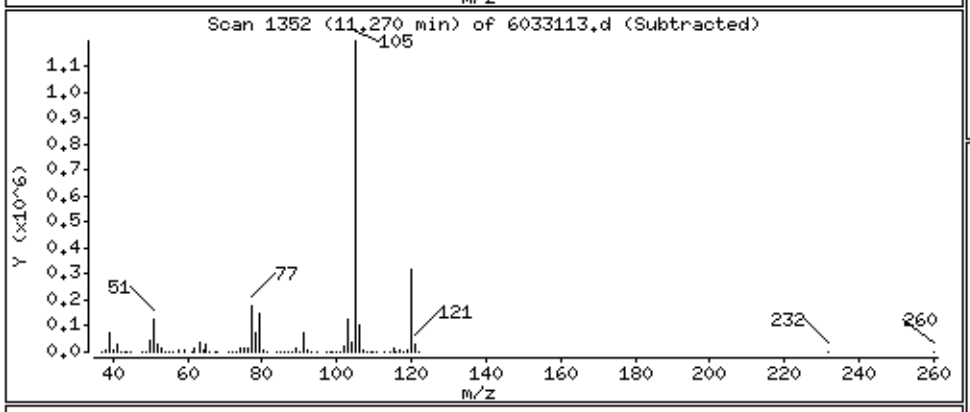
Column phase: RTx-624

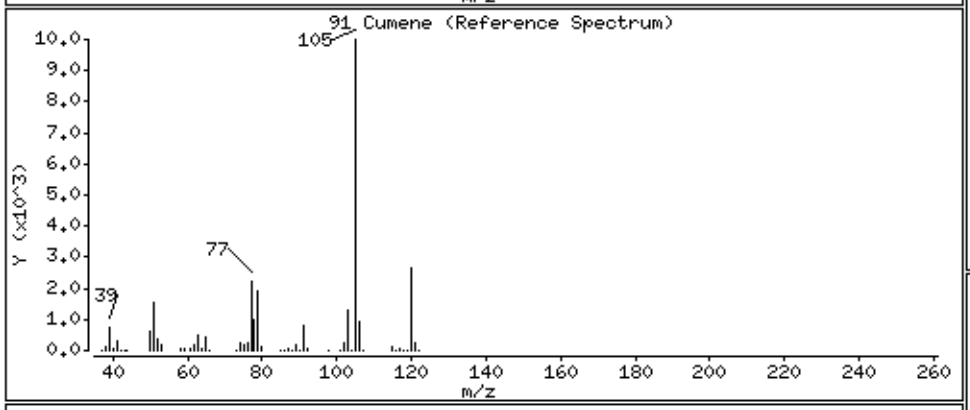
Column diameter: 0.53

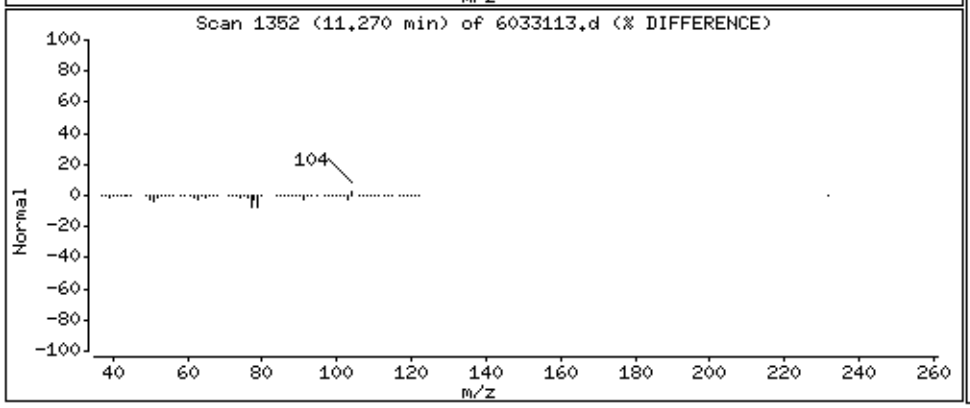
91 Cumene

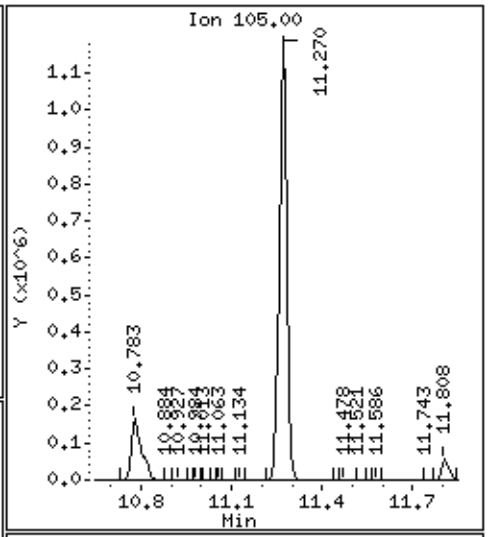
Concentration: 104.85 NG

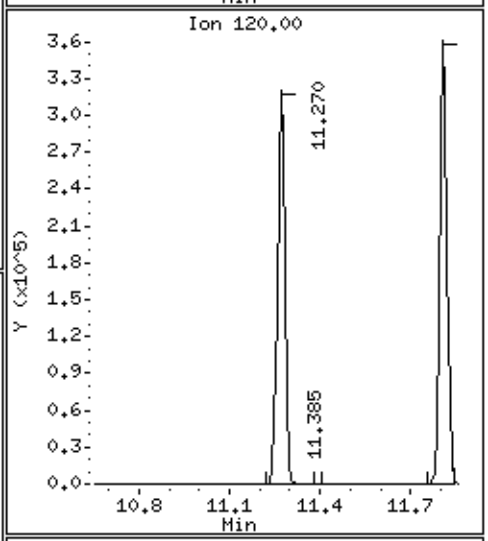


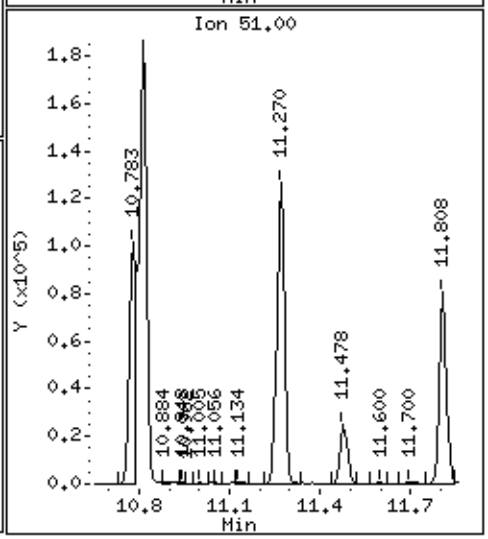












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

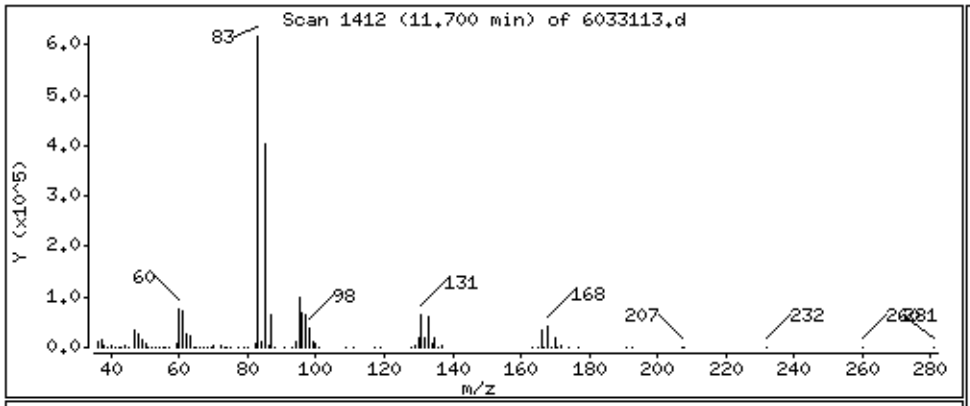
Operator: LA

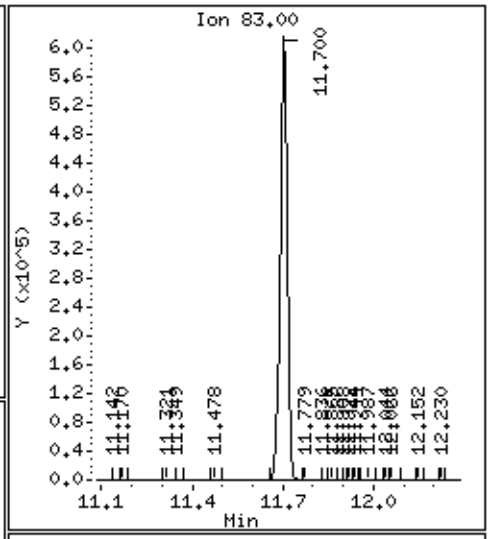
Column phase: RTx-624

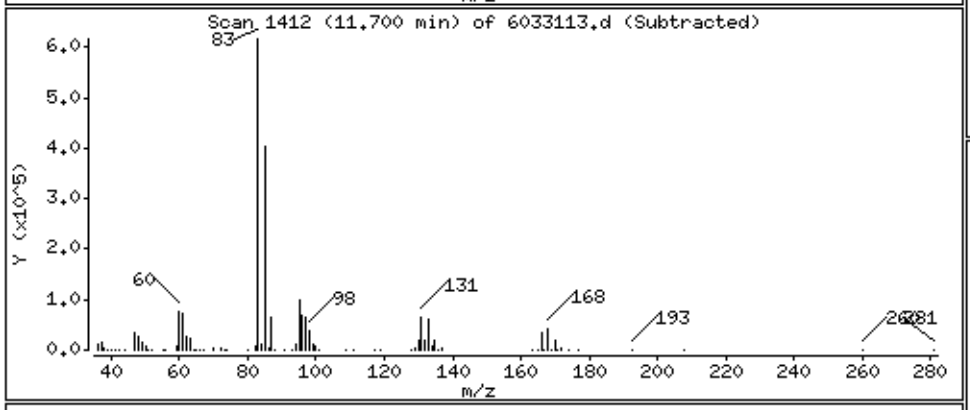
Column diameter: 0.53

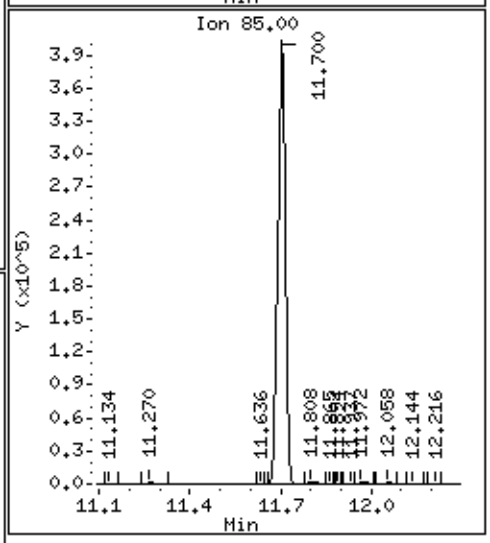
94 1,1,2,2-Tetrachloroethane

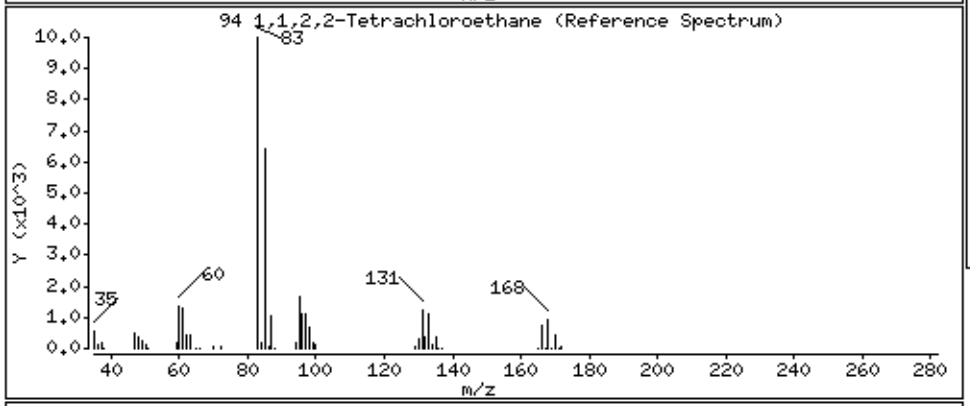
Concentration: 158.95 NG

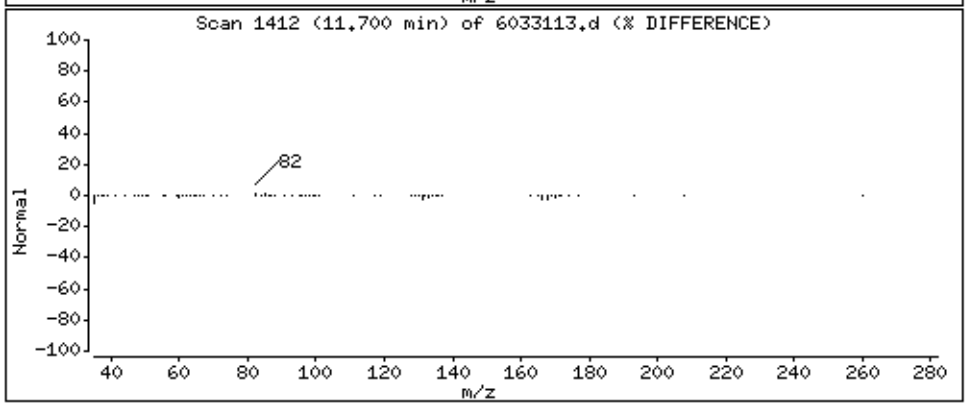












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

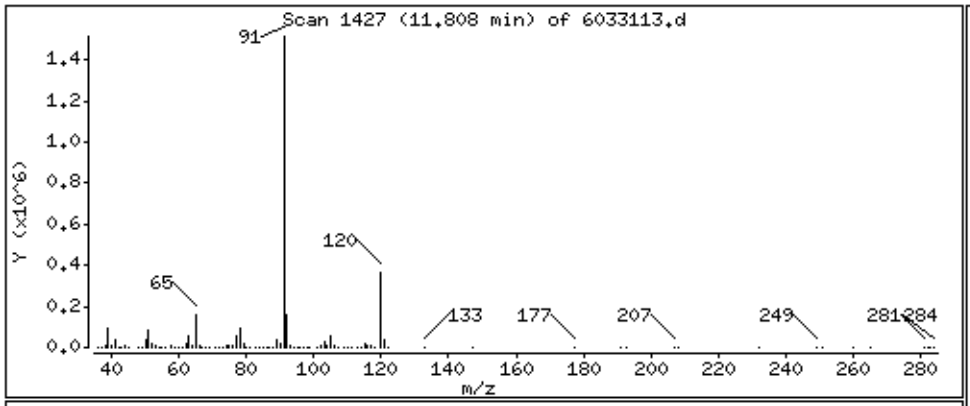
Operator: LA

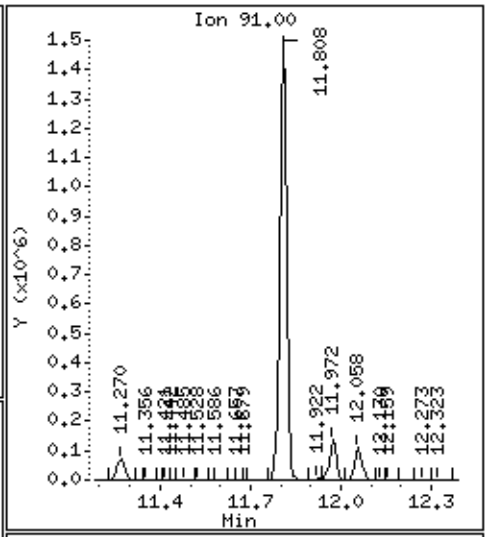
Column phase: RTx-624

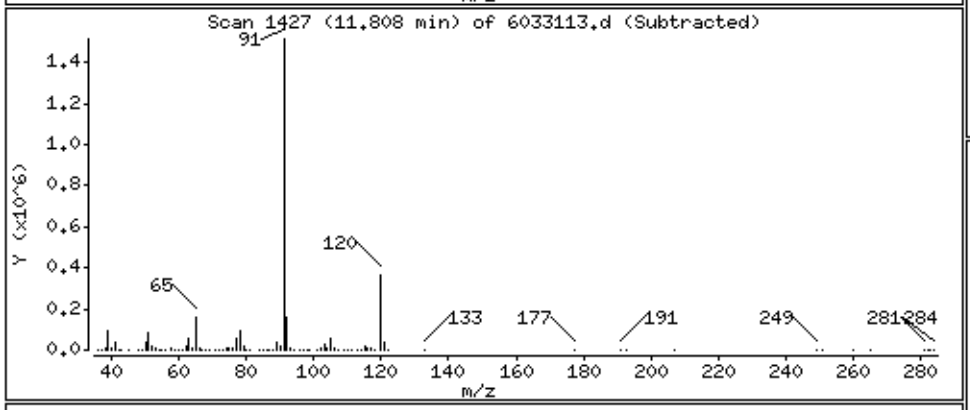
Column diameter: 0.53

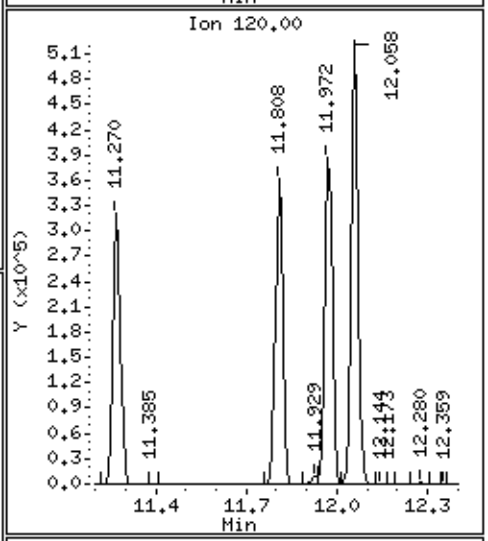
96 Propylbenzene

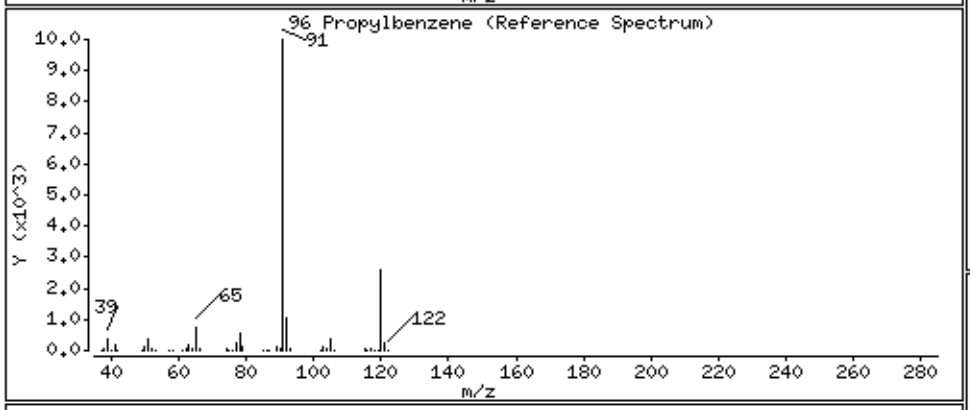
Concentration: 107.23 NG

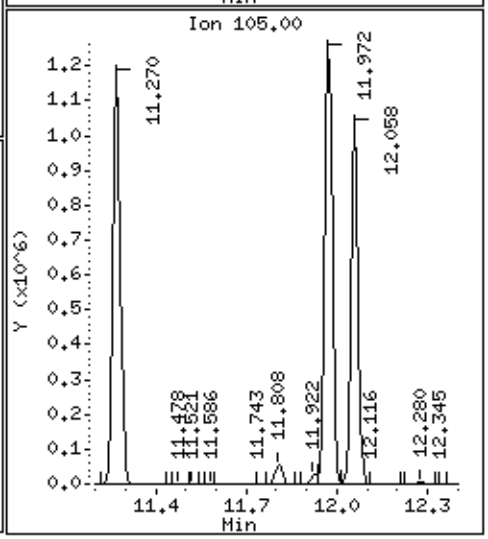


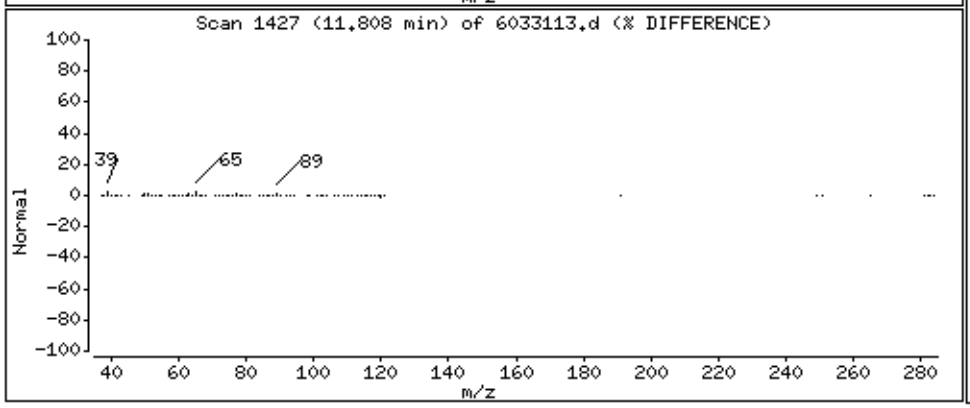












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

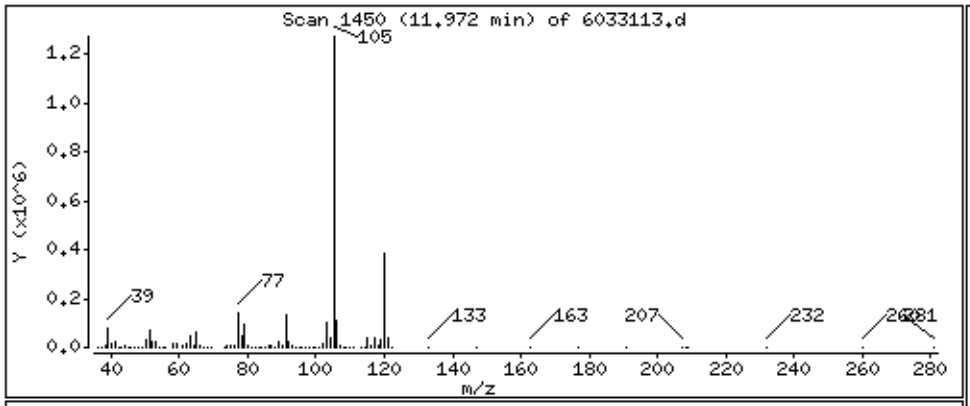
Operator: LA

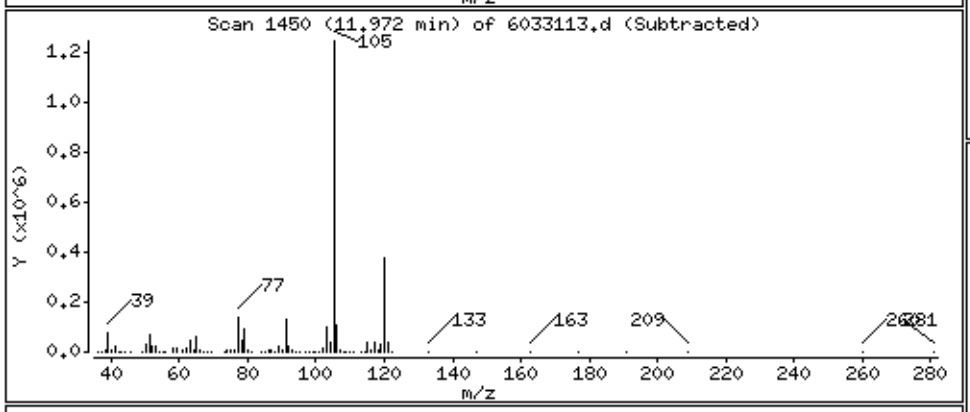
Column phase: RTx-624

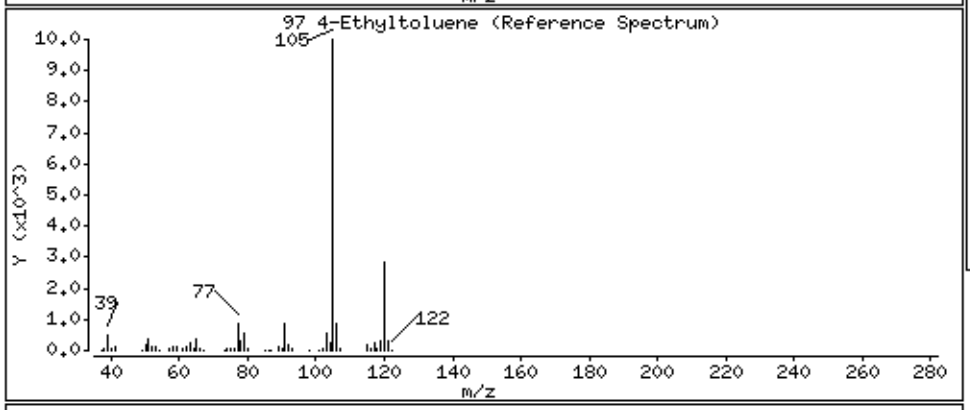
Column diameter: 0.53

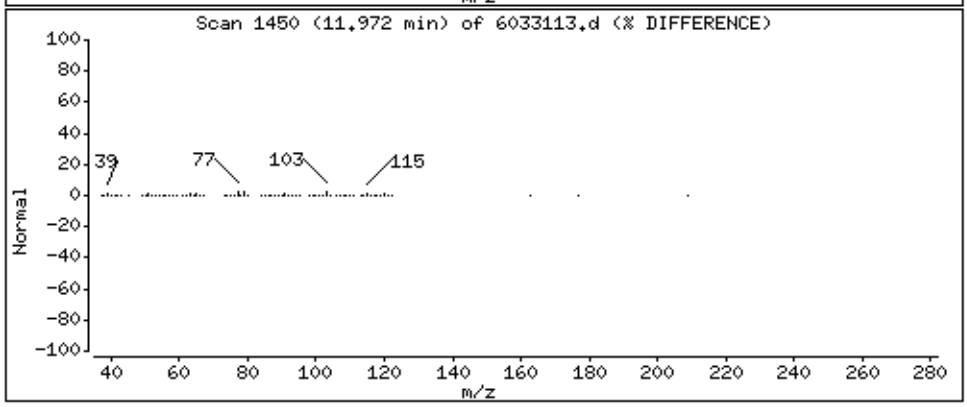
97 4-Ethyltoluene

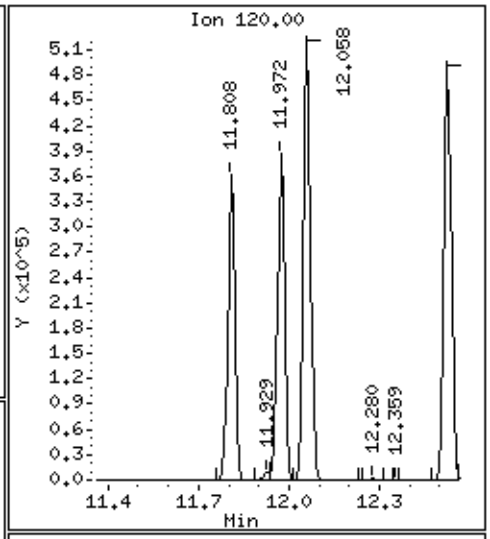
Concentration: 103.28 NG

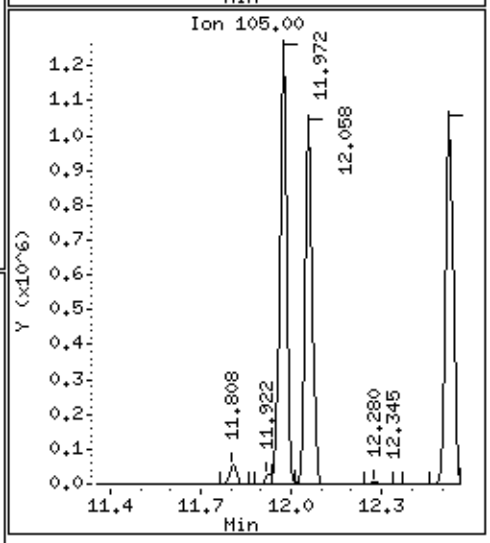












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

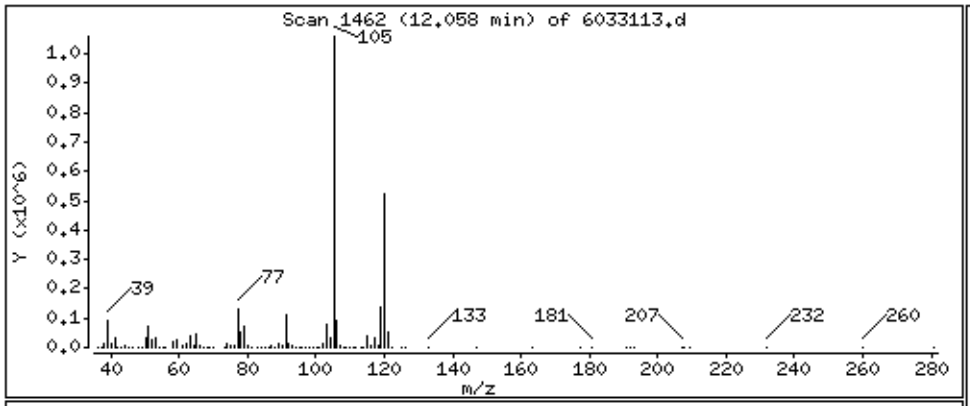
Operator: LA

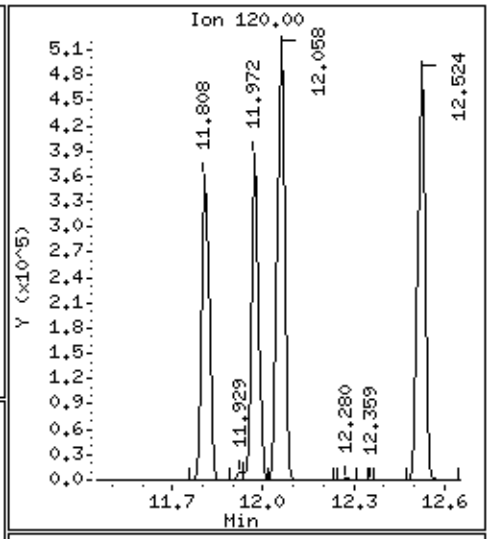
Column phase: RTx-624

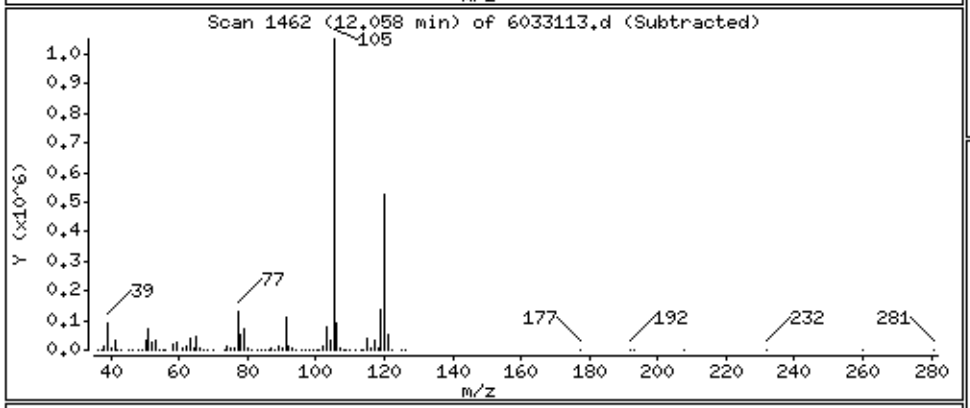
Column diameter: 0.53

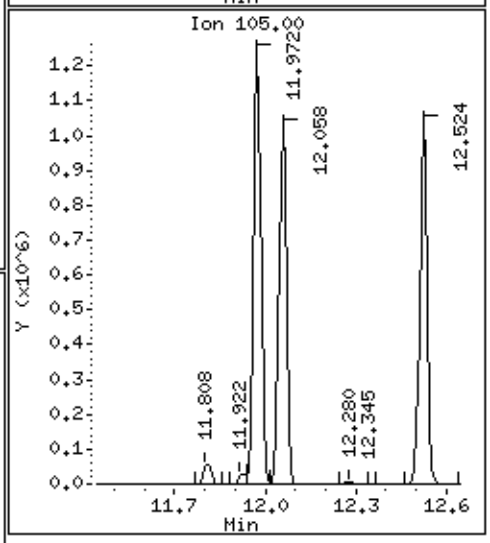
98 1,3,5-Trimethylbenzene

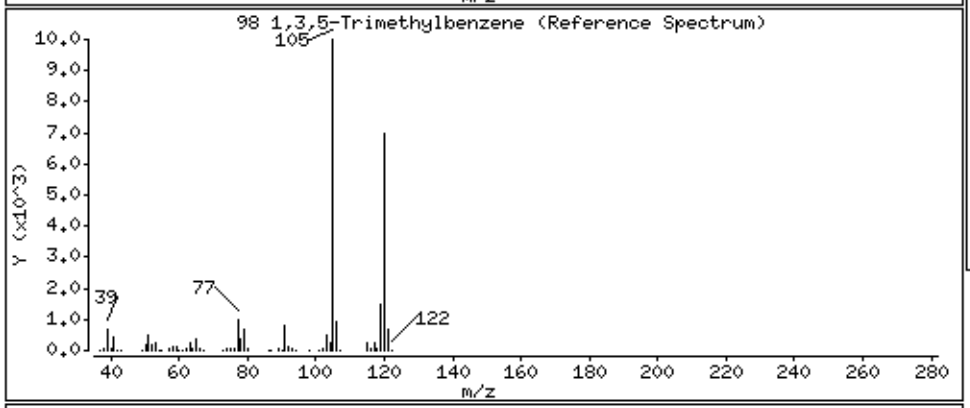
Concentration: 102.89 NG

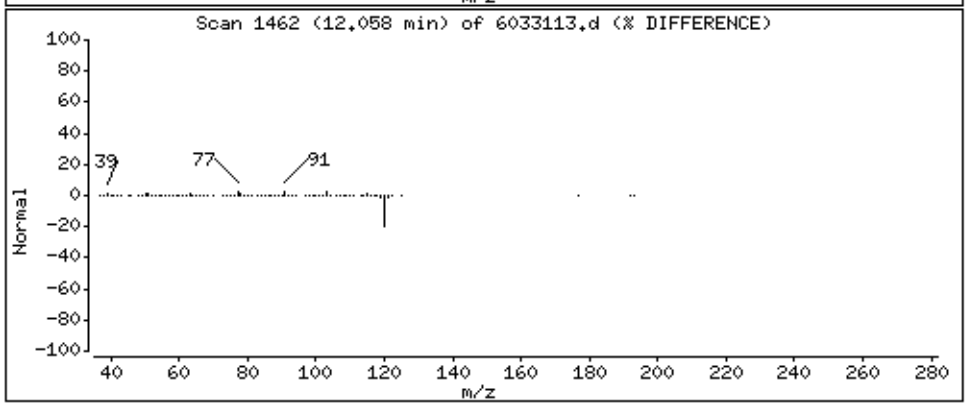












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

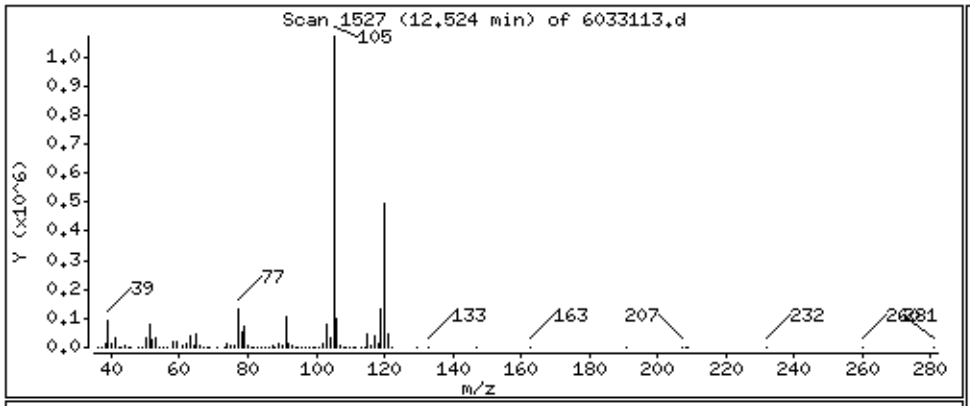
Operator: LA

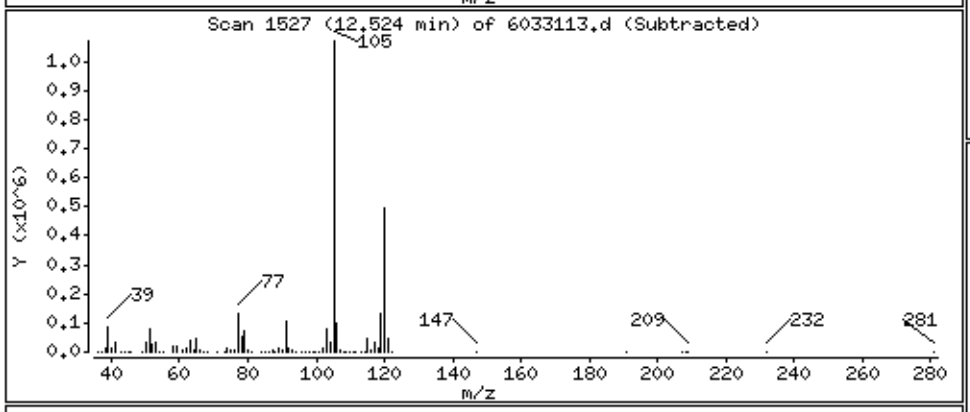
Column phase: RTx-624

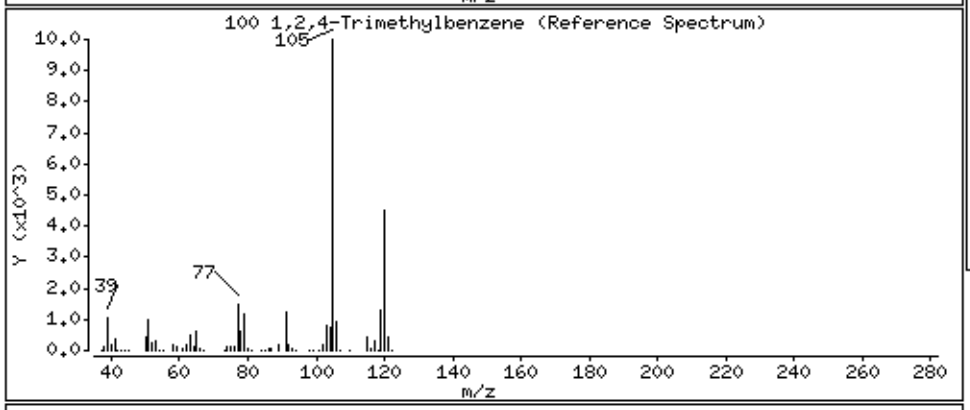
Column diameter: 0.53

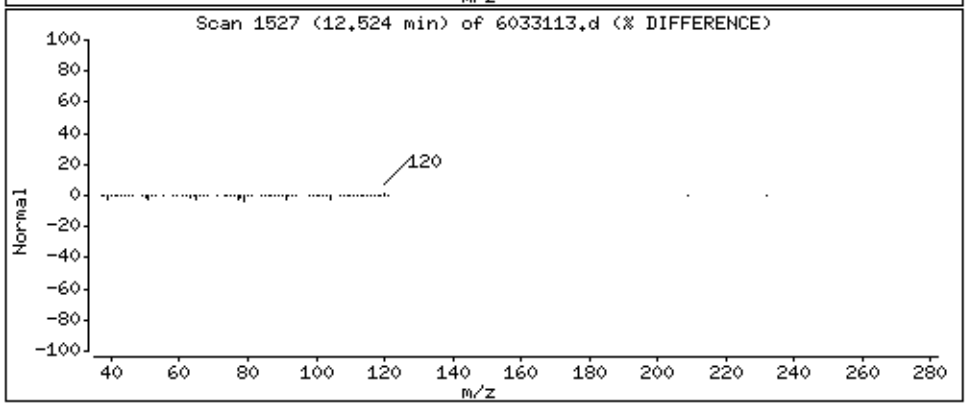
100 1,2,4-Trimethylbenzene

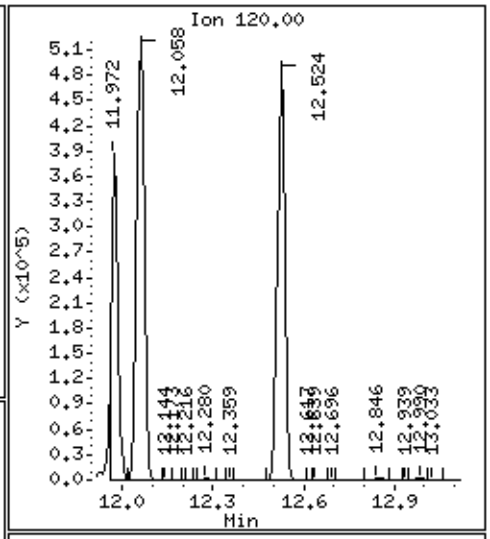
Concentration: 102.39 NG

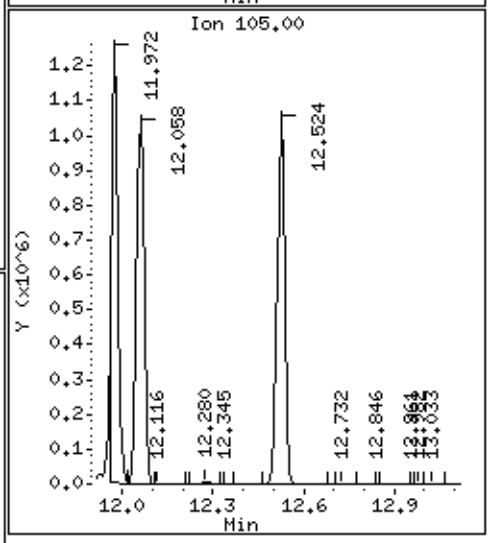












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

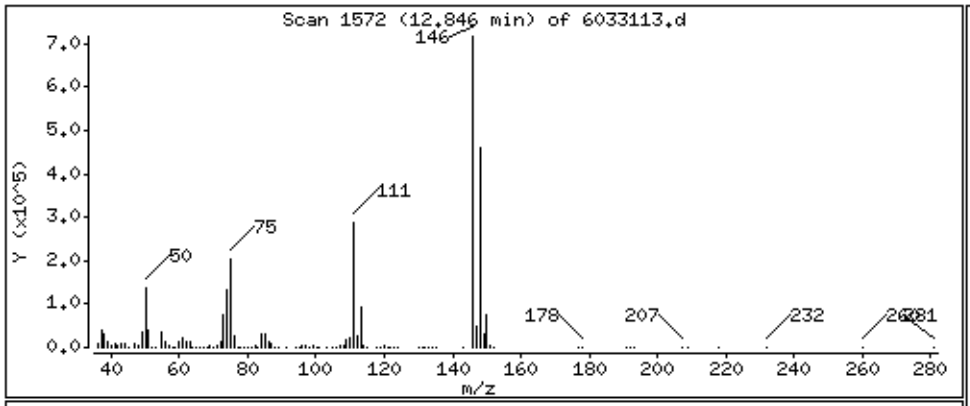
Operator: LA

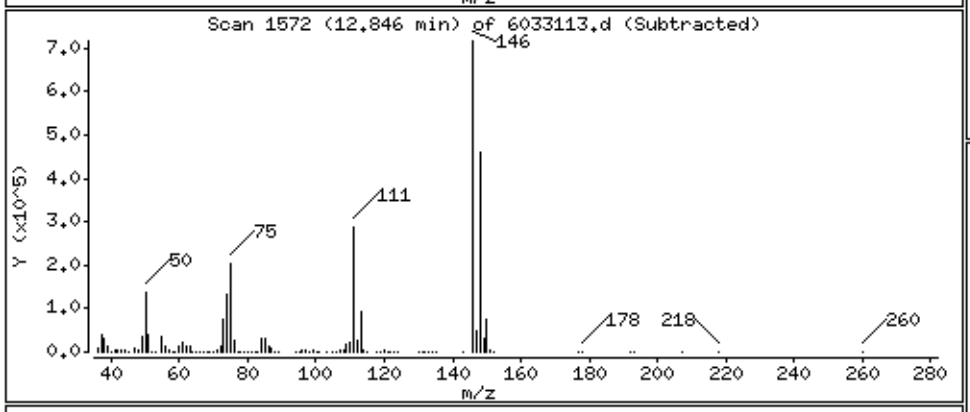
Column phase: RTx-624

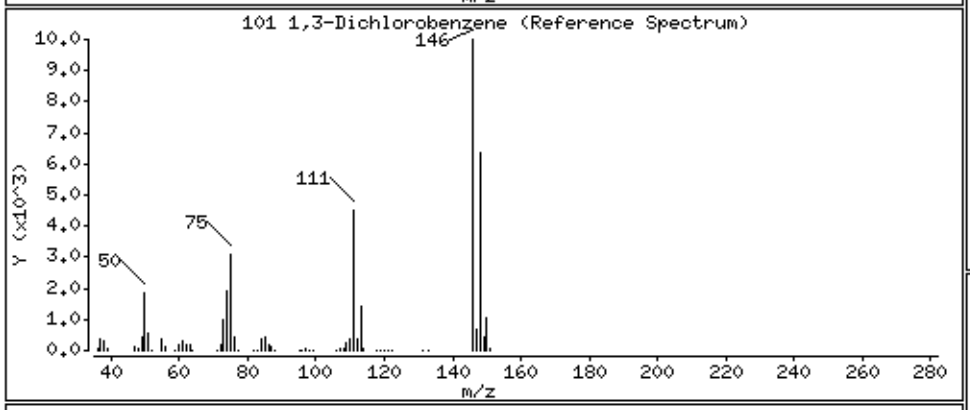
Column diameter: 0.53

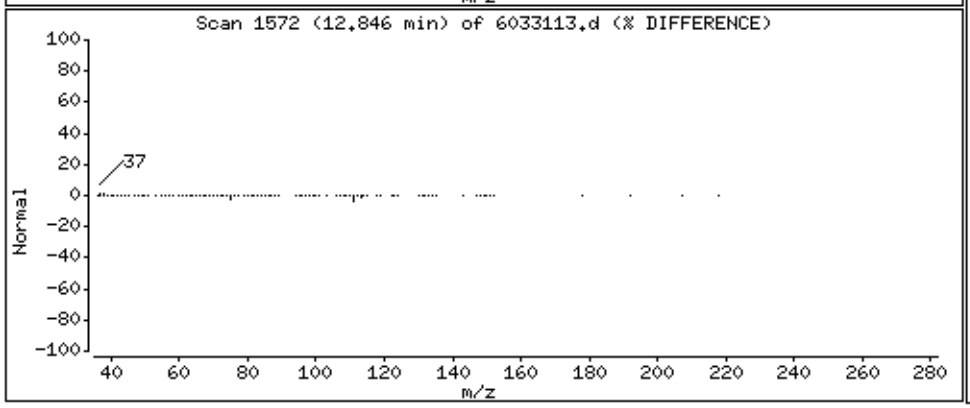
101 1,3-Dichlorobenzene

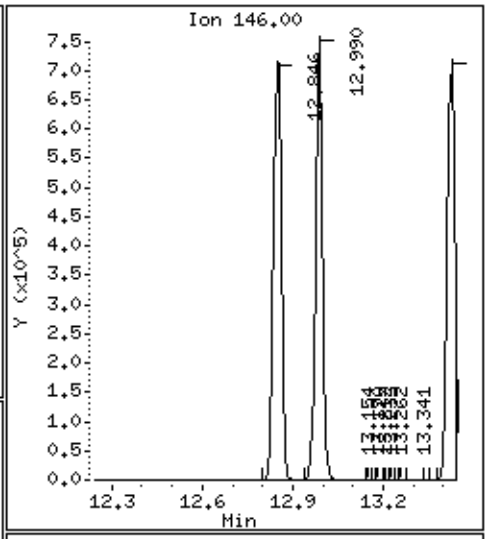
Concentration: 126.14 NG

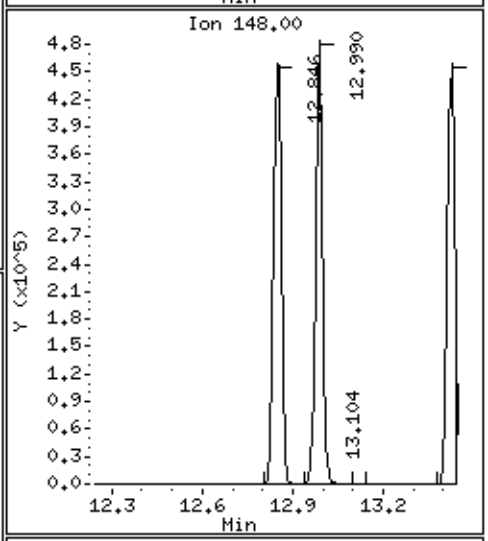


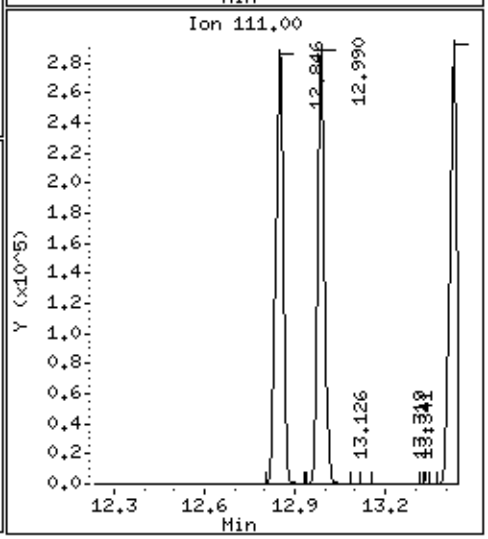












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

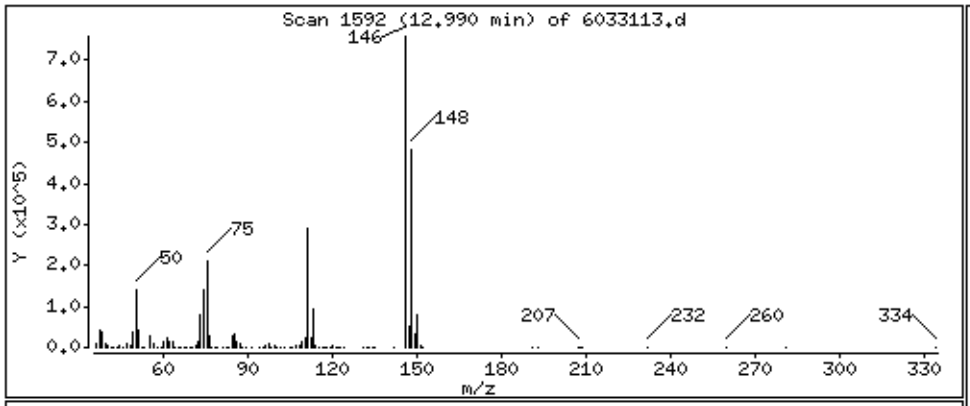
Operator: LA

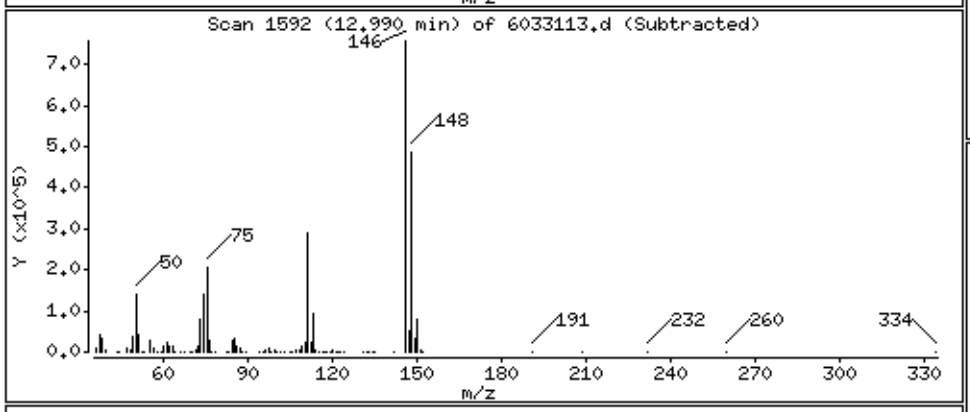
Column phase: RTx-624

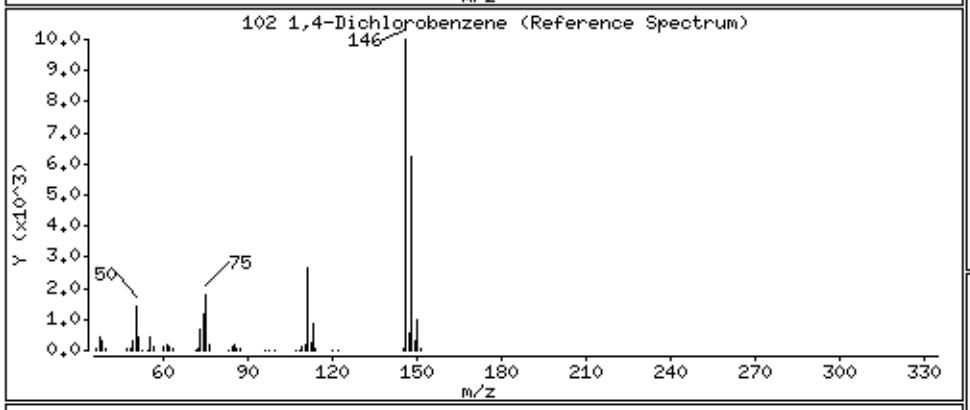
Column diameter: 0.53

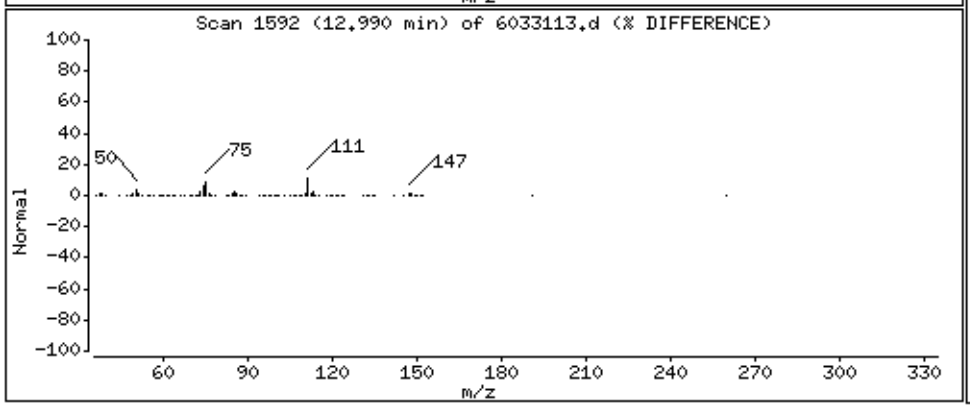
102 1,4-Dichlorobenzene

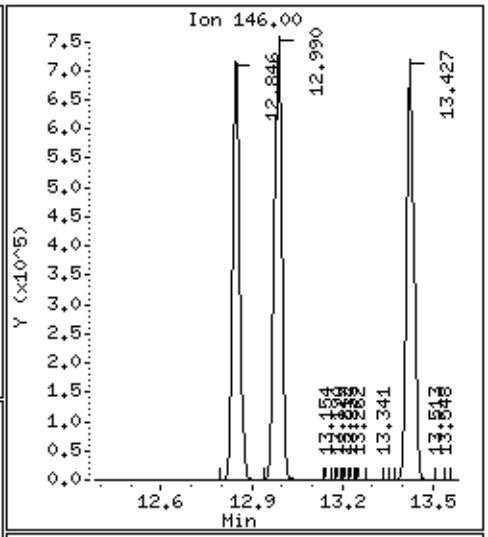
Concentration: 126.30 NG

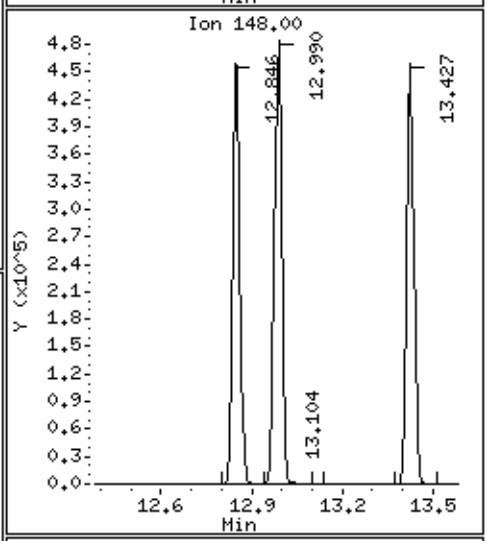


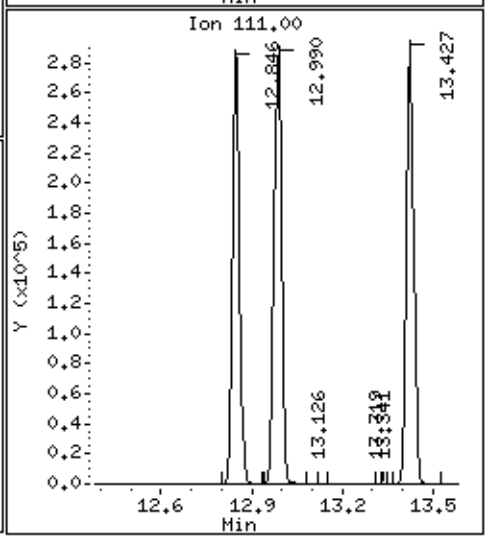












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

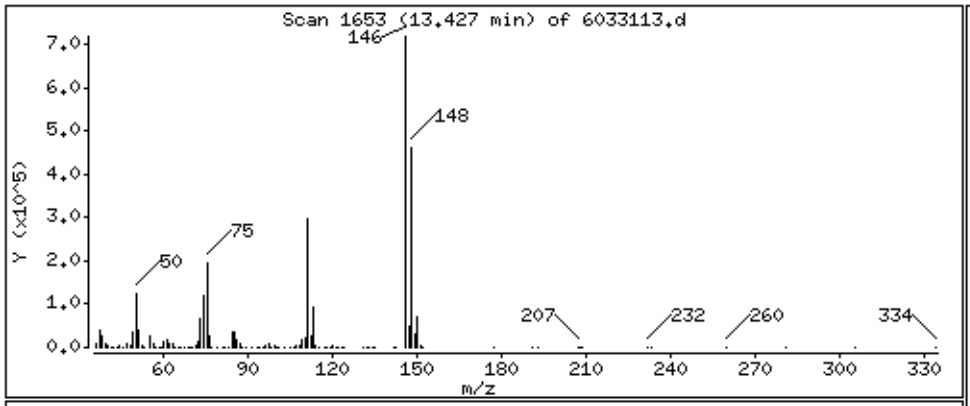
Operator: LA

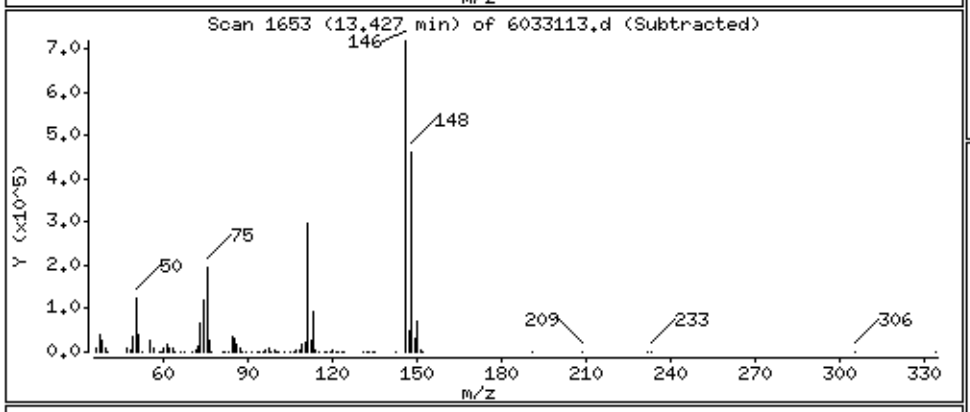
Column phase: RTx-624

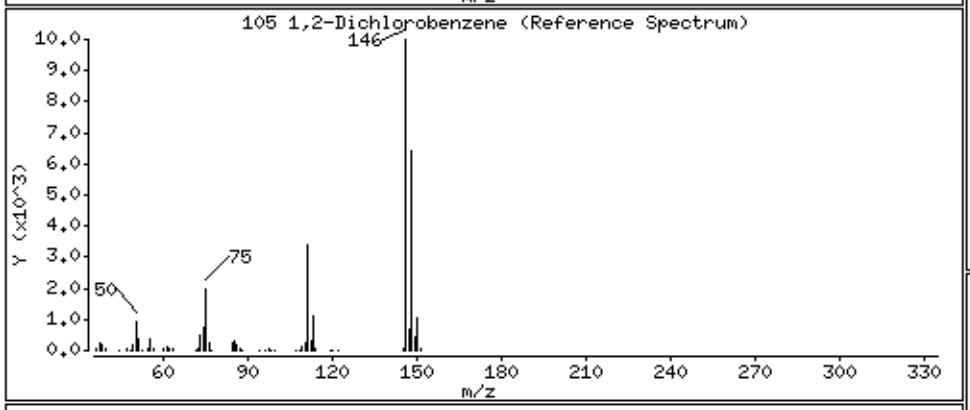
Column diameter: 0.53

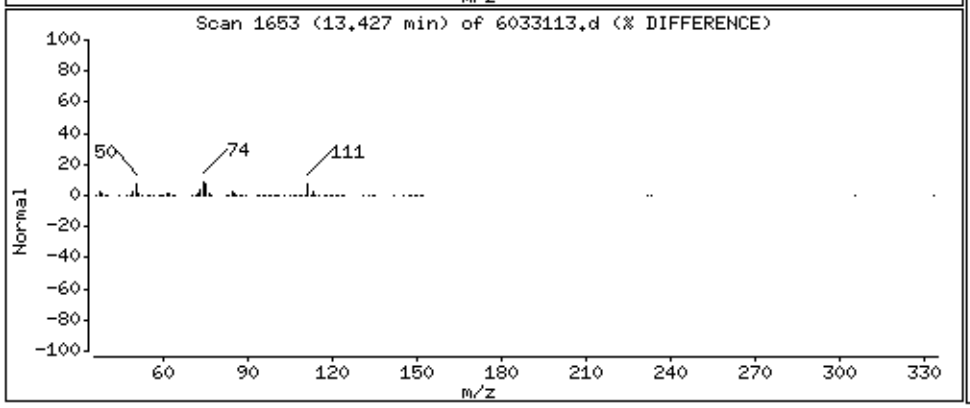
105 1,2-Dichlorobenzene

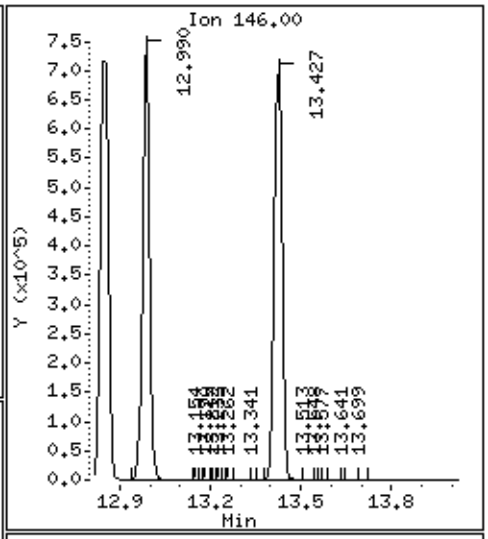
Concentration: 126.78 NG

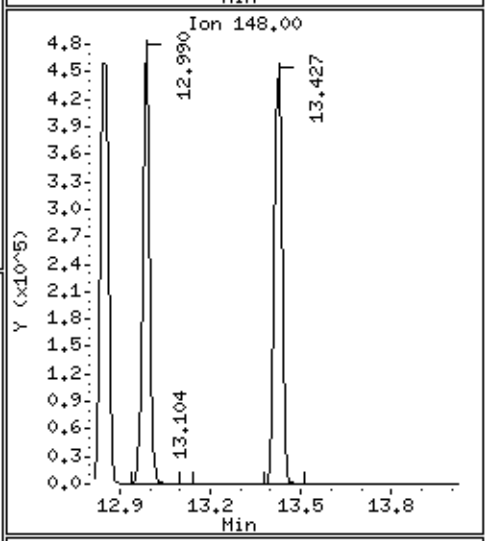


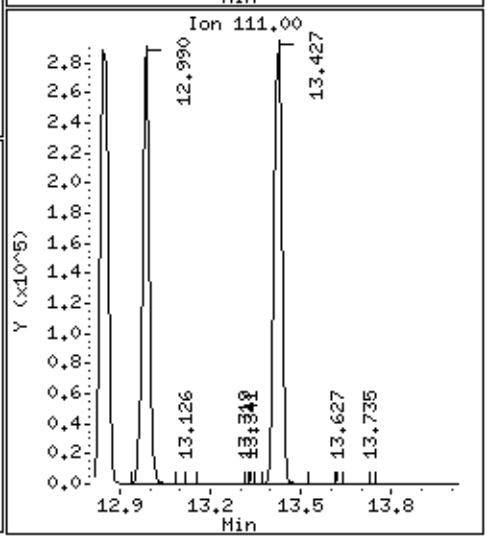












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

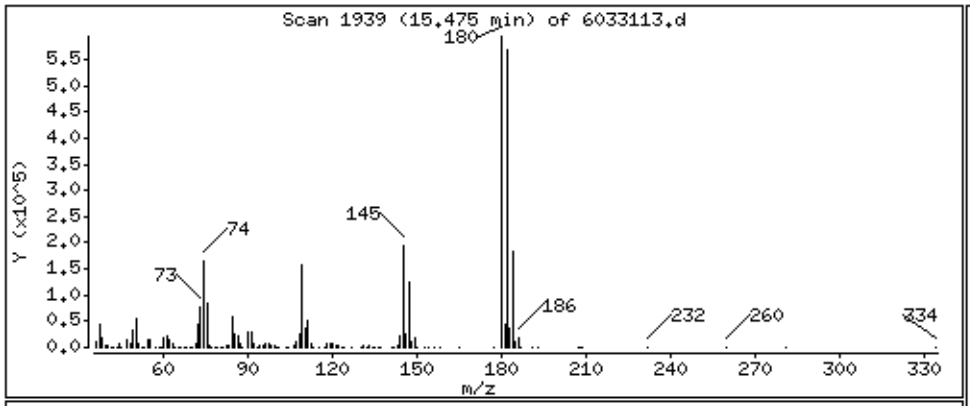
Operator: LA

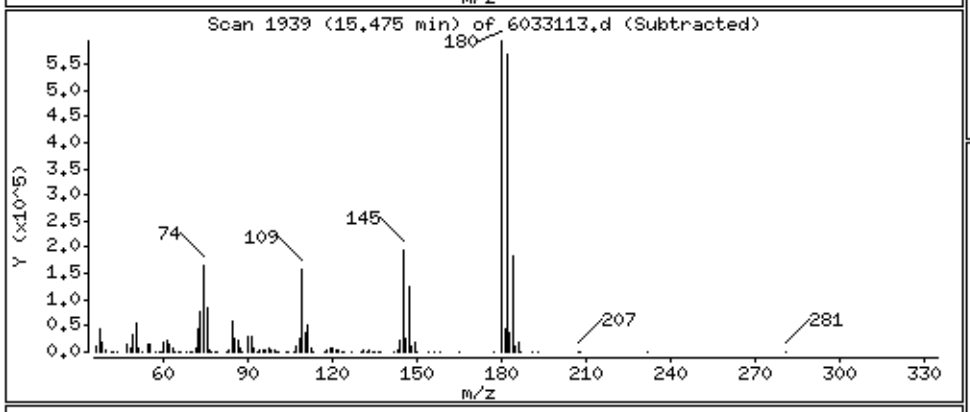
Column phase: RTx-624

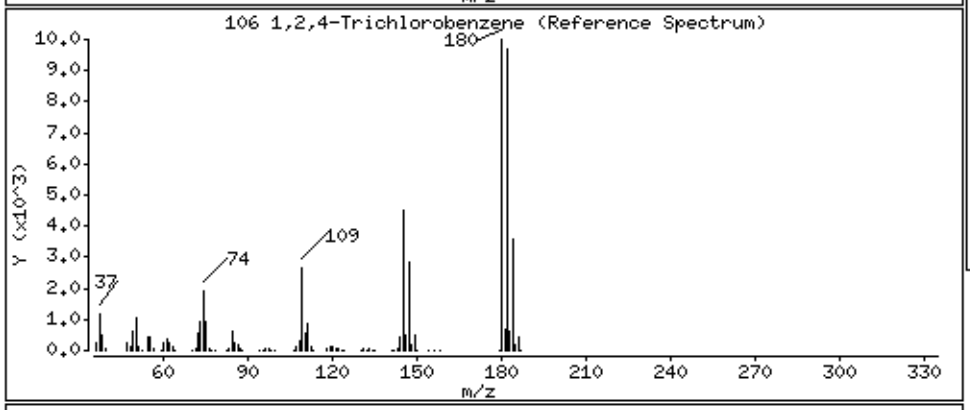
Column diameter: 0.53

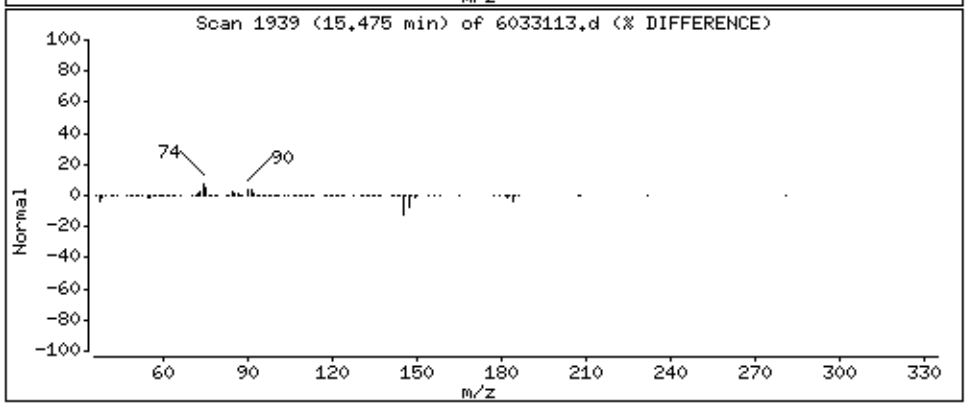
106 1,2,4-Trichlorobenzene

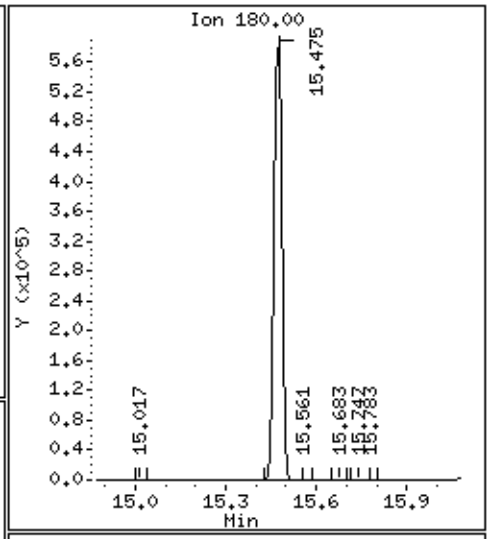
Concentration: 153.44 NG

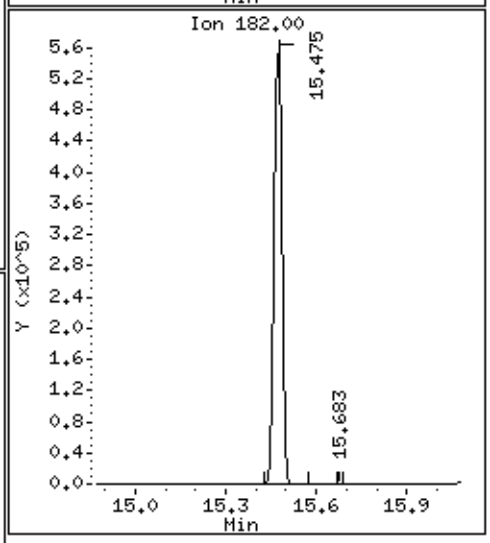












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

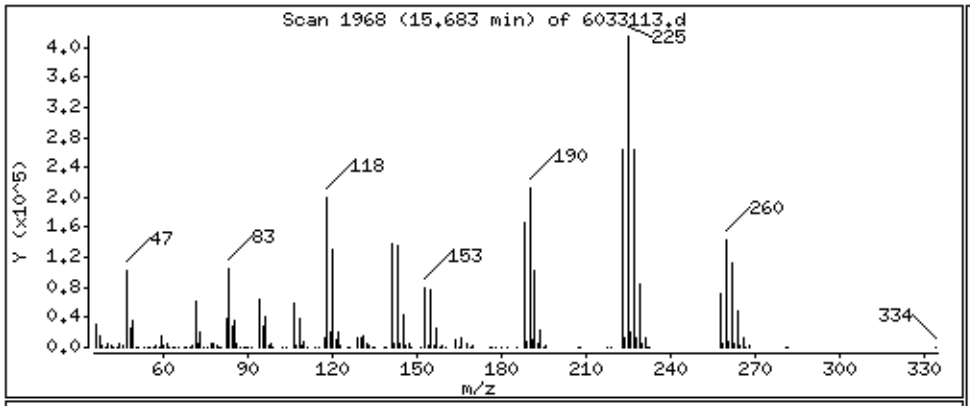
Operator: LA

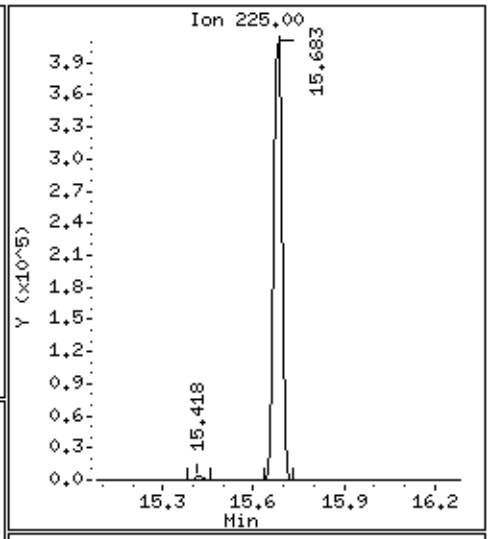
Column phase: RTx-624

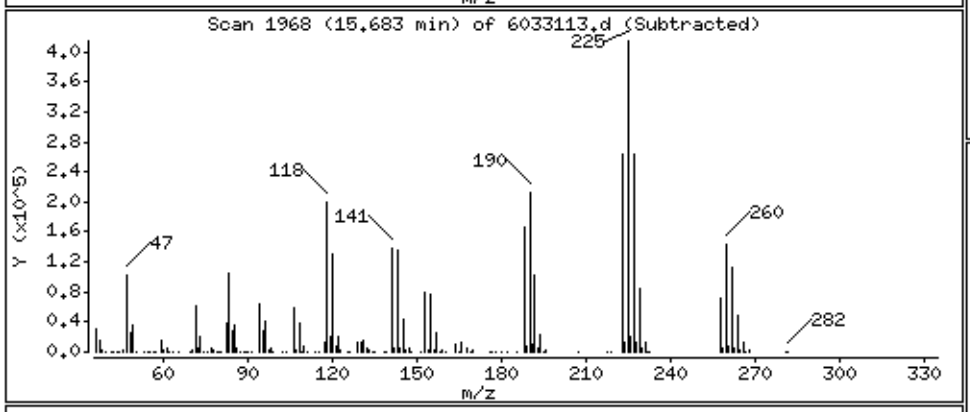
Column diameter: 0.53

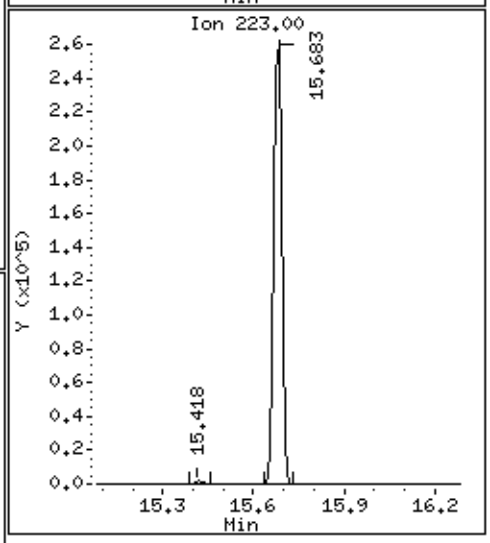
107 Hexachlorobutadiene

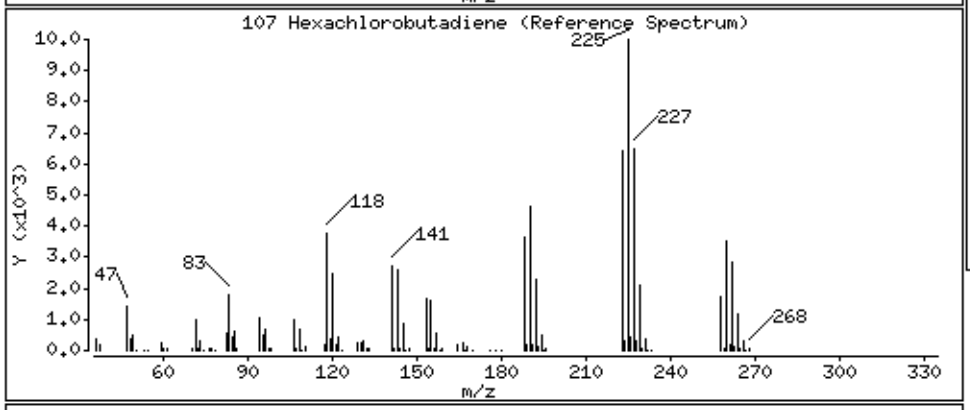
Concentration: 220.32 NG

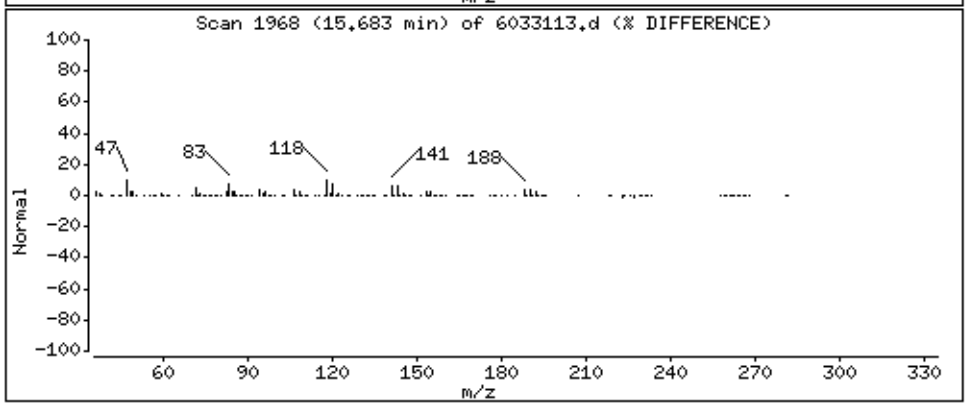












Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033102.d
Lab Smp Id: VI VOC+PAH ICAL1,1.
Inj Date : 30-MAR-2016 18:14
Operator : LA Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL1,1.0ngSurr
Misc Info : 2516-232-1ml(6/11/16),2744-31-1(7/5/16)
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 30-MAR-2016 18:14 Cal File: 6033102.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+naphsnoSS.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 40 Bromochloromethane					CAS #: 74-97-5		
4.380	4.380 (1.000)	130	224414	26.0000		80.00- 120.00	100.00
4.380	4.380 (1.000)	128	172521			48.25- 108.25	76.88
4.380	4.380 (1.000)	49	305391			107.14- 167.14	136.08
* 54 1,4-Difluorobenzene					CAS #: 540-36-3		
6.013	6.013 (1.000)	114	873345	23.0000		80.00- 120.00	100.00
6.013	6.013 (1.000)	88	136571			0.00- 45.65	15.64
* 79 Chlorobenzene-d5					CAS #: 3114-55-4		
9.909	9.909 (1.000)	117	793716	24.0000		80.00- 120.00	100.00
9.909	9.909 (1.000)	82	423276			23.14- 83.14	53.33
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.464	11.464 (1.000)	174	511896	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	630581			92.70- 152.70	123.19
11.464	11.464 (1.000)	176	501101			68.24- 128.24	97.89
3 Freon 114					CAS #: 76-14-2		
1.269	1.269 (0.290)	135	26205	6.99000	6.501	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
3 Freon 114 (continued)							
1.269	1.269 (0.290)	137	8964			2.17- 62.17	34.21
6 Vinyl Chloride					CAS #: 75-01-4		
1.395	1.395 (0.318)	62	15514	2.56000	2.452	80.00- 120.00	100.00
1.311	1.311 (0.299)	64	155550			12.66- 72.66	1002.64
7 1,3-Butadiene					CAS #: 106-99-0		
1.409	1.409 (0.322)	54	13046	2.21000	2.158	80.00- 120.00	100.00
1.395	1.395 (0.318)	39	25838			133.58- 193.58	198.05
9 Chloroethane					CAS #: 75-00-3		
1.660	1.660 (0.379)	64	16058	2.64000	4.423	80.00- 120.00	100.00
1.660	1.660 (0.379)	66	2669			0.00- 58.31	16.62
1.660	1.660 (0.379)	49	3311			0.00- 59.65	20.62
10 Isopentane					CAS #: 78-78-4		
1.702	1.702 (0.389)	57	13242	2.95000	2.856	80.00- 120.00	100.00
1.702	1.702 (0.389)	43	22656			134.33- 194.33	171.09
11 Trichlorofluoromethane/Fr11					CAS #: 75-69-4		
1.828	1.828 (0.417)	101	38160	5.62000	5.333	80.00- 120.00	100.00
1.828	1.828 (0.417)	103	24717			35.98- 95.98	64.77
15 Freon 113					CAS #: 76-13-1		
2.195	2.195 (0.501)	151	29969	7.66000	7.256	80.00- 120.00	100.00
2.195	2.195 (0.501)	153	19342			34.66- 94.66	64.54
2.195	2.195 (0.501)	101	34921			88.64- 148.64	116.52
14 1,1-Dichloroethene					CAS #: 75-35-4		
2.202	2.202 (0.503)	98	11365	3.97000	3.944	80.00- 120.00	100.00
2.202	2.202 (0.503)	96	18698			127.15- 187.15	164.52
2.202	2.202 (0.503)	61	29656			230.60- 290.60	260.94
18 Carbon Disulfide					CAS #: 75-15-0		
2.381	2.381 (0.544)	76	61485	3.11000	3.648	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.309	2.309 (0.527)	45	101169	2.46000	6.451	80.00- 120.00	100.00
2.309	2.309 (0.527)	43	19936			0.00- 49.91	19.71
2.302	2.302 (0.526)	59	4008			0.00- 33.48	3.96
22 Methylene Chloride					CAS #: 75-09-2		
2.603	2.603 (0.594)	49	88429	3.47000	12.283	80.00- 120.00	100.00
2.610	2.610 (0.596)	84	61847			38.62- 98.62	69.94
2.610	2.610 (0.596)	51	26695			0.43- 60.43	30.19

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
26 MTBE					CAS #: 1634-04-4		
2.832	2.832 (0.647)	73	41887	3.61000	3.490	80.00- 120.00	100.00
2.832	2.832 (0.647)	57	9964			0.00- 54.76	23.79
2.832	2.832 (0.647)	41	9943			0.00- 56.57	23.74
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.854	2.854 (0.652)	98	10652	3.96000	3.699	80.00- 120.00	100.00
2.854	2.854 (0.652)	61	24883			200.79- 260.79	233.60
2.854	2.854 (0.652)	96	17364			126.39- 186.39	163.01
28 Hexane					CAS #: 110-54-3		
3.133	3.133 (0.715)	57	29946	3.52000	3.566	80.00- 120.00	100.00
3.133	3.133 (0.715)	43	21783			41.77- 101.77	72.74
3.126	3.126 (0.714)	86	4474			0.00- 43.88	14.94
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.319	3.319 (0.758)	63	29111	4.05000	3.804	80.00- 120.00	100.00
3.312	3.312 (0.756)	65	10303			1.71- 61.71	35.39
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.036	4.036 (0.921)	98	12204	3.96000	3.952	80.00- 120.00	100.00
4.029	4.029 (0.920)	96	17479			126.11- 186.11	143.22
4.029	4.029 (0.920)	61	27795			179.91- 239.91	227.75
38 2-Butanone					CAS #: 78-93-3		
4.014	4.014 (0.917)	72	46462	2.95000	14.742	80.00- 120.00	100.00
4.014	4.014 (0.917)	43	233281			469.10- 529.10	502.09
4.014	4.014 (0.917)	57	19431			6.15- 66.15	41.82
44 Chloroform					CAS #: 67-66-3		
4.551	4.551 (1.039)	83	36480	4.88000	4.964	80.00- 120.00	100.00
4.551	4.551 (1.039)	85	24164			35.99- 95.99	66.24
46 Cyclohexane					CAS #: 110-82-7		
4.874	4.874 (0.811)	84	22023	3.44000	3.337	80.00- 120.00	100.00
4.867	4.867 (0.809)	56	28581			102.79- 162.79	129.78
4.874	4.874 (0.811)	41	18924			54.37- 114.37	85.93
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.774	4.774 (0.794)	97	31695	5.46000	4.898	80.00- 120.00	100.00
4.774	4.774 (0.794)	99	21255			34.68- 94.68	67.06
47 Carbon Tetrachloride					CAS #: 56-23-5		
5.003	5.003 (0.832)	119	29304	6.29000	5.182	80.00- 120.00	100.00
5.010	5.010 (0.833)	117	30884			73.19- 133.19	105.39

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.533	5.533 (0.920)	57	88616	4.67000	4.424	80.00- 120.00	100.00
5.533	5.533 (0.920)	56	31045			1.74- 61.74	35.03
5.533	5.533 (0.920)	41	36316			0.34- 60.34	40.98
48 Benzene					CAS #: 71-43-2		
5.318	5.318 (0.884)	78	100842	3.19000	5.265	80.00- 120.00	100.00
5.318	5.318 (0.884)	77	23115			0.00- 53.53	22.92
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.425	5.425 (0.902)	62	24503	4.05000	4.155	80.00- 120.00	100.00
5.425	5.425 (0.902)	64	8517			2.15- 62.15	34.76
53 Heptane					CAS #: 142-82-5		
5.834	5.834 (0.970)	71	19093	4.10000	4.244	80.00- 120.00	100.00
5.834	5.834 (0.970)	43	73100			188.80- 248.80	382.86
5.834	5.834 (0.970)	57	19214			71.78- 131.78	100.63
56 Trichloroethene					CAS #: 79-01-6		
6.314	6.314 (1.050)	95	28443	5.37000	5.405	80.00- 120.00	100.00
6.314	6.314 (1.050)	130	29352			74.74- 134.74	103.20
6.314	6.314 (1.050)	97	18768			34.87- 94.87	65.98
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.614	6.614 (1.100)	83	31207	4.02000	3.808	80.00- 120.00	100.00
6.622	6.622 (1.101)	98	14289			14.22- 74.22	45.79
6.622	6.622 (1.101)	55	27684			58.24- 118.24	88.71
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.679	6.679 (1.111)	63	19460	4.62000	4.404	80.00- 120.00	100.00
6.679	6.679 (1.111)	62	13643			39.32- 99.32	70.11
6.679	6.679 (1.111)	41	14440			37.26- 97.26	74.20
60 1,4-Dioxane					CAS #: 123-91-1		
6.801	6.801 (1.131)	88	13838	3.60000	3.672	80.00- 120.00	100.00
6.793	6.793 (1.130)	58	13898			41.28- 101.28	100.43
6.808	6.808 (1.132)	57	29308			0.62- 60.62	211.79
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.897	7.897 (1.313)	58	16603	4.10000	3.827	80.00- 120.00	100.00
7.904	7.904 (1.314)	43	48800			263.34- 323.34	293.92
7.897	7.897 (1.313)	85	7353			12.32- 72.32	44.29
67 Toluene					CAS #: 108-88-3		
8.097	8.097 (0.817)	91	82874	3.77000	4.346	80.00- 120.00	100.00
8.097	8.097 (0.817)	92	48083			28.18- 88.18	58.02

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.713	8.713 (1.449)	97	24803	5.46000	5.621	80.00- 120.00	100.00
8.713	8.713 (1.449)	99	14288			32.32- 92.32	57.61
8.706	8.706 (1.448)	83	19181			54.42- 114.42	77.33
71 Tetrachloroethene					CAS #: 127-18-4		
8.770	8.770 (0.885)	166	32236	6.78000	6.397	80.00- 120.00	100.00
8.763	8.763 (0.884)	129	25836			47.21- 107.21	80.15
8.763	8.763 (0.884)	131	25621			44.68- 104.68	79.48
72 2-Hexanone					CAS #: 591-78-6		
9.021	9.021 (0.910)	58	22427	4.10000	3.901	80.00- 120.00	100.00
9.021	9.021 (0.910)	43	48258			181.19- 241.19	215.18
9.021	9.021 (0.910)	100	4351			0.00- 48.53	19.40
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.301	9.301 (0.939)	107	33913	7.68000	7.165	80.00- 120.00	100.00
9.301	9.301 (0.939)	109	32991			64.88- 124.88	97.28
81 Chlorobenzene					CAS #: 108-90-7		
9.945	9.945 (1.004)	112	55243	4.60000	4.525	80.00- 120.00	100.00
9.945	9.945 (1.004)	114	18289			2.37- 62.37	33.11
9.945	9.945 (1.004)	77	31854			25.58- 85.58	57.66
82 Ethyl Benzene					CAS #: 100-41-4		
10.103	10.103 (1.020)	106	27986	4.34000	4.211	80.00- 120.00	100.00
10.103	10.103 (1.020)	91	90292			283.92- 343.92	322.63
84 m,p-Xylene					CAS #: 108-38-3		
10.282	10.282 (1.038)	106	39188	4.34000	4.547	80.00- 120.00	100.00
10.282	10.282 (1.038)	91	78325			168.48- 228.48	199.87
88 o-Xylene					CAS #: 95-47-6		
10.762	10.762 (0.939)	106	32404	4.34000	4.203	80.00- 120.00	100.00
10.762	10.762 (0.939)	91	66611			179.05- 239.05	205.56
89 Styrene					CAS #: 100-42-5		
10.798	10.798 (0.942)	104	57945	4.26000	4.359	80.00- 120.00	100.00
10.798	10.798 (0.942)	78	28788			17.71- 77.71	49.68
91 Cumene					CAS #: 98-82-8		
11.249	11.249 (0.981)	105	92604	4.92000	4.568	80.00- 120.00	100.00
11.249	11.249 (0.981)	120	24828			0.00- 56.88	26.81
11.249	11.249 (0.981)	51	10014			0.00- 40.57	10.81
94 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
11.686	11.686 (1.019)	83	39912	6.87000	5.955	80.00- 120.00	100.00

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

   94 1,1,2,2-Tetrachloroethane (continued)
 11.686  11.686 (1.019)    85     27449                    35.63-  95.63    68.77
-------------------------------------------------------------------------------
   96 Propylbenzene                                CAS #: 103-65-1
 11.786  11.786 (1.028)    91    109096 4.92000    4.549  80.00- 120.00   100.00
 11.786  11.786 (1.028)   120     25453                     0.00-  53.76    23.33
 11.793  11.793 (1.029)   105      4635                     0.00-  33.79     4.25
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                               CAS #: 622-96-8
 11.958  11.958 (1.043)   120     25878 4.92000    4.195  80.00- 120.00   100.00
 11.958  11.958 (1.043)   105     85338                   299.98- 359.98   329.77
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 12.044  12.044 (1.051)   120     36885 4.92000    4.241  80.00- 120.00   100.00
 12.044  12.044 (1.051)   105     72858                   169.84- 229.84   197.53
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 12.510  12.510 (1.091)   120     34245 4.92000    4.225  80.00- 120.00   100.00
 12.495  12.495 (1.090)   105    152116                   188.24- 248.24   444.20
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                          CAS #: 541-73-1
 12.839  12.839 (1.120)   146     49510 6.01000    4.936  80.00- 120.00   100.00
 12.839  12.839 (1.120)   148     31894                    33.94-  93.94    64.42
 12.839  12.839 (1.120)   111     20642                     9.99-  69.99    41.69
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                          CAS #: 106-46-7
 12.975  12.975 (1.132)   146     48616 6.01000    4.854  80.00- 120.00   100.00
 12.975  12.975 (1.132)   148     31529                    33.56-  93.56    64.85
 12.975  12.975 (1.132)   111     19339                     8.12-  68.12    39.78
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                          CAS #: 95-50-1
 13.412  13.412 (1.170)   146     45055 6.01000    4.753  80.00- 120.00   100.00
 13.412  13.412 (1.170)   148     28610                    33.25-  93.25    63.50
 13.412  13.412 (1.170)   111     18695                    11.16-  71.16    41.49
-------------------------------------------------------------------------------
  106 1,2,4-Trichlorobenzene                       CAS #: 120-82-1
 15.468  15.468 (1.349)   180     44420 7.42000    6.816  80.00- 120.00   100.00
 15.468  15.468 (1.349)   182     40998                    64.82- 124.82    92.30
-------------------------------------------------------------------------------
  107 Hexachlorobutadiene                          CAS #: 87-68-3
 15.676  15.676 (1.367)   225     40537 10.7000   12.104  80.00- 120.00   100.00
 15.676  15.676 (1.367)   223     25677                    32.09-  92.09    63.34
-------------------------------------------------------------------------------
  109 Naphthalene                                  CAS #: 91-20-3
 15.783  15.783 (1.377)   128     51545 1.00000    1.501  80.00- 120.00   100.00
 15.783  15.783 (1.377)   127      6922                     0.00-  43.01    13.43
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
110 2-Methylnaphthalene					CAS #: 91-57-6		
17.237	17.237 (1.504)	142	21705	1.00000	1.093	80.00- 120.00	100.00
17.237	17.237 (1.504)	141	18871			57.55- 117.55	86.94
17.237	17.237 (1.504)	115	7872			2.88- 62.88	36.27
111 1-Methylnaphthalene					CAS #: 90-12-0		
17.459	17.459 (1.523)	142	18771	1.00000	1.052	80.00- 120.00	100.00
17.459	17.459 (1.523)	141	17592			60.83- 120.83	93.72
17.459	17.459 (1.523)	115	7394			4.35- 64.35	39.39

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6033102.d
Lab Smp Id: VI VOC+PAH ICAL1,1.
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-232-1ml(6/11/16),2744-31-1(7/5/16)

Calibration Date: 30-MAR-2016
Calibration Time: 20:53
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	225139	135083	315195	224414	-0.32
54 1,4-Difluorobenze	874568	524741	1224395	873345	-0.14
79 Chlorobenzene-d5	795881	477529	1114233	793716	-0.27
92 Bromofluorobenzen	515685	309411	721959	511896	-0.73

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.38	4.05	4.71	4.38	0.00
54 1,4-Difluorobenze	6.01	5.68	6.34	6.01	0.00
79 Chlorobenzene-d5	9.91	9.58	10.24	9.91	0.00
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	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/msd6.i/31mar16.b/6033102.d

Date : 30-MAR-2016 18:14

Client ID:

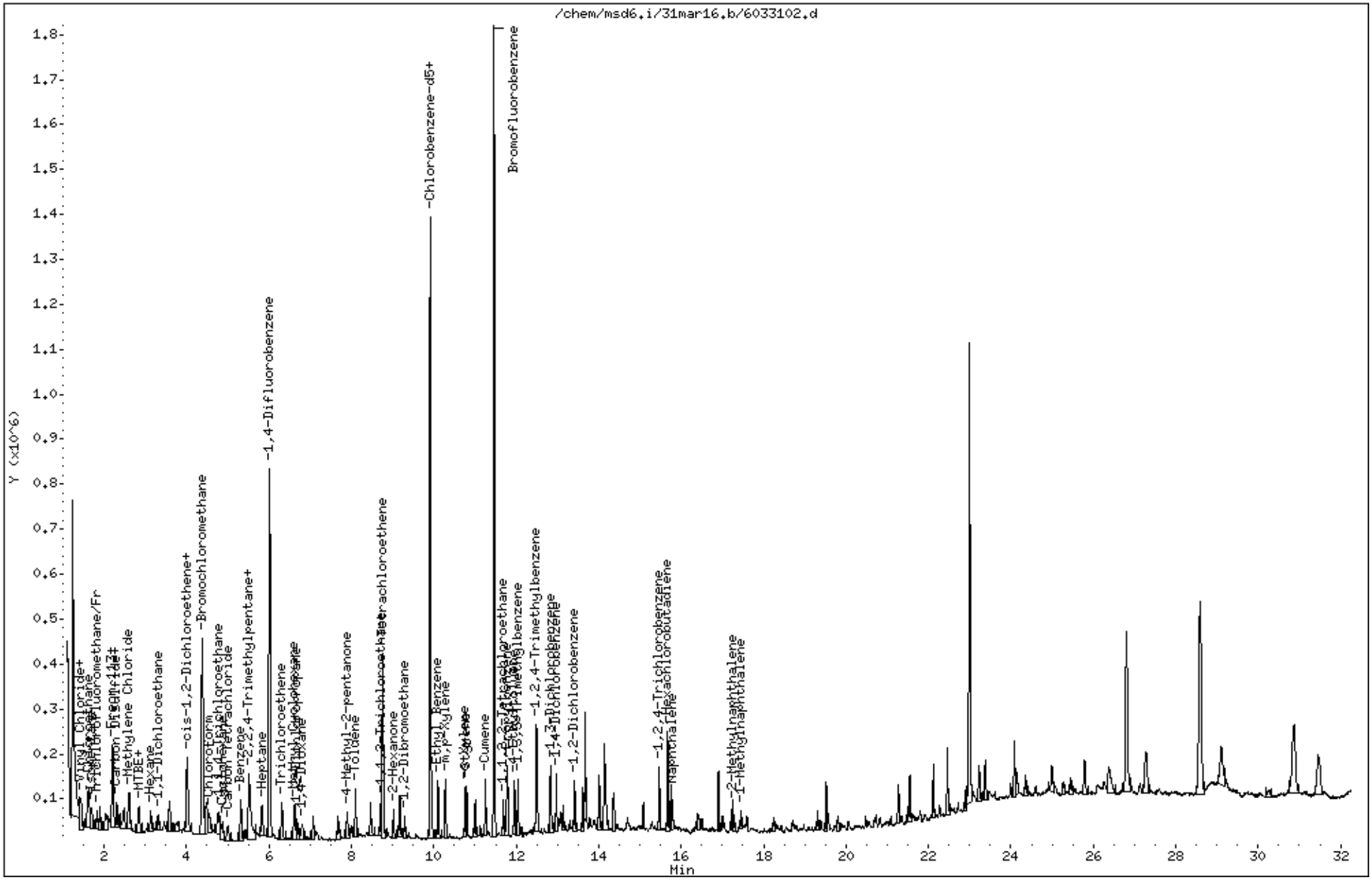
Sample Info: ;VI VOC+PAH ICAL1,1.0ngSurr

Column phase: RTx-624

Instrument: msd6.i

Operator: LA

Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033103.d
Lab Smp Id: VI VOC+PAH ICAL2,2.
Inj Date : 30-MAR-2016 18:54
Operator : LA Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL2,2.0ngSurr
Misc Info : 2516-232-2ml(6/11/16),2744-31-5(7/5/16)
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 30-MAR-2016 18:54 Cal File: 6033103.d
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+PAH_ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 40 Bromochloromethane					CAS #: 74-97-5		
4.387	4.387 (1.000)	130	211375	26.0000		80.00- 120.00	100.00
4.380	4.380 (1.000)	128	163682			48.25- 108.25	77.44
4.387	4.387 (1.000)	49	289677			107.14- 167.14	137.04
* 54 1,4-Difluorobenzene					CAS #: 540-36-3		
6.013	6.013 (1.000)	114	876146	23.0000		80.00- 120.00	100.00
6.013	6.013 (1.000)	88	134731			0.00- 45.65	15.38
* 79 Chlorobenzene-d5					CAS #: 3114-55-4		
9.910	9.910 (1.000)	117	795755	24.0000		80.00- 120.00	100.00
9.910	9.910 (1.000)	82	421406			23.14- 83.14	52.96
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.464	11.464 (1.000)	174	512046	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	630450			92.70- 152.70	123.12
11.464	11.464 (1.000)	176	497981			68.24- 128.24	97.25
$ 49 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.311	5.311 (0.883)	65	9580	2.00000	2.064	80.00- 120.00	100.00

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

$  49 1,2-Dichloroethane-d4 (continued)
  5.311   5.311 (0.883)    67      5470                    22.28-  82.28    57.10
-------------------------------------------------------------------------------
$  66 Toluene-d8                                   CAS #: 2037-26-5
  8.011   8.011 (0.808)    98     30052 2.00000    1.935  80.00- 120.00   100.00
  8.011   8.011 (0.808)    70      3772                     0.00-  40.54    12.55
  8.004   8.004 (0.808)   100     19720                    35.01-  95.01    65.62
-------------------------------------------------------------------------------
$ 108 Naphthalene-d8                               CAS #: 1146-65-2
 15.747  15.747 (1.374)   136     75259 2.00000    2.610  80.00- 120.00   100.00
 15.747  15.747 (1.374)   108      7874                     0.00-  39.41    10.46
-------------------------------------------------------------------------------
    3 Freon 114                                    CAS #: 76-14-2
  1.297   1.297 (0.296)   135     57407 14.0000   15.121  80.00- 120.00   100.00
  1.297   1.297 (0.296)   137     19148                     2.17-  62.17    33.35
-------------------------------------------------------------------------------
    6 Vinyl Chloride                               CAS #: 75-01-4
  1.409   1.409 (0.321)    62     32537 5.11000    5.460  80.00- 120.00   100.00
  1.409   1.409 (0.321)    64     19156                    12.66-  72.66    58.87
-------------------------------------------------------------------------------
    7 1,3-Butadiene                                CAS #: 106-99-0
  1.409   1.409 (0.321)    54     27029 4.42000    4.747  80.00- 120.00   100.00
  1.395   1.395 (0.318)    39     48956                   133.58- 193.58   181.12
-------------------------------------------------------------------------------
    9 Chloroethane                                 CAS #: 75-00-3
  1.675   1.675 (0.382)    64     24651 5.28000    7.208  80.00- 120.00   100.00(a)
  1.675   1.675 (0.382)    66      5290                     0.00-  58.31    21.46
  1.661   1.661 (0.379)    49      3859                     0.00-  59.65    15.65
-------------------------------------------------------------------------------
   10 Isopentane                                   CAS #: 78-78-4
  1.703   1.703 (0.388)    57     27857 5.90000    6.378  80.00- 120.00   100.00
  1.703   1.703 (0.388)    43     47022                   134.33- 194.33   168.80
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                  CAS #: 75-69-4
  1.828   1.828 (0.417)   101     75041 11.2000   11.134  80.00- 120.00   100.00
  1.828   1.828 (0.417)   103     49311                    35.98-  95.98    65.71
-------------------------------------------------------------------------------
   15 Freon 113                                    CAS #: 76-13-1
  2.195   2.195 (0.500)   151     62057 15.3000   15.951  80.00- 120.00   100.00
  2.195   2.195 (0.500)   153     40151                    34.66-  94.66    64.70
  2.195   2.195 (0.500)   101     73703                    88.64- 148.64   118.77
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                           CAS #: 75-35-4
  2.202   2.202 (0.502)    98     23623 7.93000    8.703  80.00- 120.00   100.00
  2.202   2.202 (0.502)    96     37451                   127.15- 187.15   158.54
  2.202   2.202 (0.502)    61     61312                   230.60- 290.60   259.54
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.381	2.381 (0.543)	76	114535	6.23000	7.214	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.310	2.310 (0.526)	45	161290	4.92000	10.919	80.00- 120.00	100.00(a)
2.310	2.310 (0.526)	43	30056			0.00- 49.91	18.63
2.302	2.302 (0.525)	59	6195			0.00- 33.48	3.84
22 Methylene Chloride					CAS #: 75-09-2		
2.610	2.610 (0.595)	49	107661	6.95000	15.877	80.00- 120.00	100.00(a)
2.610	2.610 (0.595)	84	74017			38.62- 98.62	68.75
2.610	2.610 (0.595)	51	31898			0.43- 60.43	29.63
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.854	2.854 (0.651)	98	23431	7.93000	8.638	80.00- 120.00	100.00
2.854	2.854 (0.651)	61	53719			200.79- 260.79	229.26
2.854	2.854 (0.651)	96	37142			126.39- 186.39	158.52
26 MTBE					CAS #: 1634-04-4		
2.832	2.832 (0.646)	73	87326	7.21000	7.725	80.00- 120.00	100.00(a)
2.832	2.832 (0.646)	57	23811			0.00- 54.76	27.27
2.832	2.832 (0.646)	41	24113			0.00- 56.57	27.61
28 Hexane					CAS #: 110-54-3		
3.133	3.133 (0.714)	57	60970	7.05000	7.708	80.00- 120.00	100.00(a)
3.133	3.133 (0.714)	43	43483			41.77- 101.77	71.32
3.133	3.133 (0.714)	86	8938			0.00- 43.88	14.66
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.320	3.320 (0.757)	63	63623	8.10000	8.827	80.00- 120.00	100.00
3.320	3.320 (0.757)	65	20478			1.71- 61.71	32.19
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.029	4.029 (0.918)	98	25025	7.93000	8.605	80.00- 120.00	100.00
4.029	4.029 (0.918)	96	38318			126.11- 186.11	153.12
4.029	4.029 (0.918)	61	54234			179.91- 239.91	216.72
38 2-Butanone					CAS #: 78-93-3		
4.014	4.014 (0.915)	72	56344	5.90000	18.980	80.00- 120.00	100.00(a)
4.014	4.014 (0.915)	43	284882			469.10- 529.10	505.61
4.014	4.014 (0.915)	57	23082			6.15- 66.15	40.97
44 Chloroform					CAS #: 67-66-3		
4.559	4.559 (1.039)	83	73290	9.77000	10.587	80.00- 120.00	100.00
4.559	4.559 (1.039)	85	48429			35.99- 95.99	66.08

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.874	4.874 (0.811)	84	46563	6.88000	7.032	80.00- 120.00	100.00
4.874	4.874 (0.811)	56	63795			102.79- 162.79	137.01
4.874	4.874 (0.811)	41	39971			54.37- 114.37	85.84
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.774	4.774 (0.794)	97	70557	10.9000	10.868	80.00- 120.00	100.00
4.774	4.774 (0.794)	99	45871			34.68- 94.68	65.01
47 Carbon Tetrachloride					CAS #: 56-23-5		
5.010	5.010 (0.833)	119	73886	12.6000	13.024	80.00- 120.00	100.00
5.010	5.010 (0.833)	117	75925			73.19- 133.19	102.76
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.540	5.540 (0.921)	57	194233	9.34000	9.665	80.00- 120.00	100.00
5.533	5.533 (0.920)	56	61118			1.74- 61.74	31.47
5.533	5.533 (0.920)	41	63239			0.34- 60.34	32.56
48 Benzene					CAS #: 71-43-2		
5.318	5.318 (0.884)	78	161627	6.39000	8.412	80.00- 120.00	100.00
5.318	5.318 (0.884)	77	38904			0.00- 53.53	24.07
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.425	5.425 (0.902)	62	48356	8.09000	8.174	80.00- 120.00	100.00
5.425	5.425 (0.902)	64	16696			2.15- 62.15	34.53
53 Heptane					CAS #: 142-82-5		
5.834	5.834 (0.970)	71	38367	8.20000	8.501	80.00- 120.00	100.00
5.834	5.834 (0.970)	43	106083			188.80- 248.80	276.50
5.834	5.834 (0.970)	57	37849			71.78- 131.78	98.65
56 Trichloroethene					CAS #: 79-01-6		
6.321	6.321 (1.051)	95	61748	10.8000	11.696	80.00- 120.00	100.00
6.321	6.321 (1.051)	130	63773			74.74- 134.74	103.28
6.314	6.314 (1.050)	97	40783			34.87- 94.87	66.05
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.622	6.622 (1.101)	83	67954	8.03000	8.266	80.00- 120.00	100.00
6.622	6.622 (1.101)	98	30533			14.22- 74.22	44.93
6.622	6.622 (1.101)	55	59038			58.24- 118.24	86.88
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.679	6.679 (1.111)	63	41422	9.24000	9.343	80.00- 120.00	100.00
6.679	6.679 (1.111)	62	28160			39.32- 99.32	67.98
6.679	6.679 (1.111)	41	29635			37.26- 97.26	71.54

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.801	6.801 (1.131)	88	28198	7.21000	7.458	80.00- 120.00	100.00(a)
6.801	6.801 (1.131)	58	24993			41.28- 101.28	88.63
6.808	6.808 (1.132)	57	37392			0.62- 60.62	132.61
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.897	7.897 (1.313)	58	37096	8.19000	8.524	80.00- 120.00	100.00
7.897	7.897 (1.313)	43	106595			263.34- 323.34	287.35
7.897	7.897 (1.313)	85	15398			12.32- 72.32	41.51
67 Toluene					CAS #: 108-88-3		
8.097	8.097 (0.817)	91	152680	7.54000	7.986	80.00- 120.00	100.00
8.097	8.097 (0.817)	92	90200			28.18- 88.18	59.08
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.706	8.706 (1.448)	97	48980	10.9000	11.064	80.00- 120.00	100.00
8.713	8.713 (1.449)	99	30311			32.32- 92.32	61.88
8.706	8.706 (1.448)	83	41228			54.42- 114.42	84.17
71 Tetrachloroethene					CAS #: 127-18-4		
8.771	8.771 (0.885)	166	70073	13.6000	13.870	80.00- 120.00	100.00
8.771	8.771 (0.885)	129	54705			47.21- 107.21	78.07
8.771	8.771 (0.885)	131	52478			44.68- 104.68	74.89
72 2-Hexanone					CAS #: 591-78-6		
9.021	9.021 (0.910)	58	49131	8.19000	8.524	80.00- 120.00	100.00
9.021	9.021 (0.910)	43	104297			181.19- 241.19	212.28
9.021	9.021 (0.910)	100	9236			0.00- 48.53	18.80
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.301	9.301 (0.939)	107	74179	15.4000	15.633	80.00- 120.00	100.00
9.301	9.301 (0.939)	109	68980			64.88- 124.88	92.99
81 Chlorobenzene					CAS #: 108-90-7		
9.945	9.945 (1.004)	112	118348	9.21000	9.670	80.00- 120.00	100.00
9.945	9.945 (1.004)	114	38882			2.37- 62.37	32.85
9.945	9.945 (1.004)	77	72601			25.58- 85.58	61.35
82 Ethyl Benzene					CAS #: 100-41-4		
10.103	10.103 (1.020)	106	60109	8.68000	9.022	80.00- 120.00	100.00
10.103	10.103 (1.020)	91	193366			283.92- 343.92	321.69
84 m,p-Xylene					CAS #: 108-38-3		
10.275	10.275 (1.037)	106	84748	8.68000	9.808	80.00- 120.00	100.00
10.282	10.282 (1.038)	91	166925			168.48- 228.48	196.97

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
88 o-Xylene					CAS #: 95-47-6		
10.762	10.762 (0.939)	106	71838	8.68000	9.316	80.00- 120.00	100.00
10.762	10.762 (0.939)	91	151280			179.05- 239.05	210.58
89 Styrene					CAS #: 100-42-5		
10.798	10.798 (0.942)	104	125979	8.52000	9.474	80.00- 120.00	100.00
10.798	10.798 (0.942)	78	61352			17.71- 77.71	48.70
91 Cumene					CAS #: 98-82-8		
11.249	11.249 (0.981)	105	219179	9.83000	10.808	80.00- 120.00	100.00
11.256	11.256 (0.982)	120	57996			0.00- 56.88	26.46
11.249	11.249 (0.981)	51	24875			0.00- 40.57	11.35
94 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
11.686	11.686 (1.019)	83	90364	13.7000	13.479	80.00- 120.00	100.00
11.686	11.686 (1.019)	85	58972			35.63- 95.63	65.26
96 Propylbenzene					CAS #: 103-65-1		
11.793	11.793 (1.029)	91	268950	9.83000	11.212	80.00- 120.00	100.00
11.793	11.793 (1.029)	120	63374			0.00- 53.76	23.56
11.793	11.793 (1.029)	105	10833			0.00- 33.79	4.03
97 4-Ethyltoluene					CAS #: 622-96-8		
11.958	11.958 (1.043)	120	66396	9.83000	10.760	80.00- 120.00	100.00
11.958	11.958 (1.043)	105	219980			299.98- 359.98	331.32
98 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
12.044	12.044 (1.051)	120	94526	9.83000	10.865	80.00- 120.00	100.00
12.044	12.044 (1.051)	105	190321			169.84- 229.84	201.34
100 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
12.510	12.510 (1.091)	120	93054	9.83000	11.477	80.00- 120.00	100.00(a)
12.510	12.510 (1.091)	105	249719			188.24- 248.24	268.36
101 1,3-Dichlorobenzene					CAS #: 541-73-1		
12.839	12.839 (1.120)	146	139480	12.0000	13.900	80.00- 120.00	100.00
12.839	12.839 (1.120)	148	88544			33.94- 93.94	63.48
12.839	12.839 (1.120)	111	55636			9.99- 69.99	39.89
102 1,4-Dichlorobenzene					CAS #: 106-46-7		
12.975	12.975 (1.132)	146	139783	12.0000	13.952	80.00- 120.00	100.00
12.975	12.975 (1.132)	148	90683			33.56- 93.56	64.87
12.975	12.975 (1.132)	111	55850			8.12- 68.12	39.95
105 1,2-Dichlorobenzene					CAS #: 95-50-1		
13.419	13.419 (1.171)	146	127211	12.0000	13.416	80.00- 120.00	100.00

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

  105 1,2-Dichlorobenzene (continued)
 13.419  13.419 (1.171)   148     82257                    33.25-  93.25    64.66
 13.419  13.419 (1.171)   111     53286                    11.16-  71.16    41.89
-------------------------------------------------------------------------------
  106 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 15.468  15.468 (1.349)   180    108471 14.8000   16.640  80.00- 120.00   100.00
 15.468  15.468 (1.349)   182    102992                    64.82- 124.82    94.95
-------------------------------------------------------------------------------
  107 Hexachlorobutadiene                           CAS #: 87-68-3
 15.676  15.676 (1.367)   225     61267 21.3000   18.289  80.00- 120.00   100.00(a)
 15.676  15.676 (1.367)   223     38570                    32.09-  92.09    62.95
-------------------------------------------------------------------------------
  109 Naphthalene                                   CAS #: 91-20-3
 15.790  15.790 (1.377)   128    226979 5.00000    6.607  80.00- 120.00   100.00
 15.790  15.790 (1.377)   127     29272                     0.00-  43.01    12.90
-------------------------------------------------------------------------------
  110 2-Methylnaphthalene                           CAS #: 91-57-6
 17.237  17.237 (1.504)   142    134121 5.00000    6.754  80.00- 120.00   100.00
 17.237  17.237 (1.504)   141    117927                    57.55- 117.55    87.93
 17.237  17.237 (1.504)   115     45724                     2.88-  62.88    34.09
-------------------------------------------------------------------------------
  111 1-Methylnaphthalene                           CAS #: 90-12-0
 17.459  17.459 (1.523)   142    118088 5.00000    6.614  80.00- 120.00   100.00
 17.459  17.459 (1.523)   141    108135                    60.83- 120.83    91.57
 17.459  17.459 (1.523)   115     41929                     4.35-  64.35    35.51
-------------------------------------------------------------------------------
  112 Acenaphthylene                                CAS #: 208-96-8
 19.315  19.315 (1.685)   152    187774 5.00000    6.439  80.00- 120.00   100.00
 19.315  19.315 (1.685)   151     38927                     0.00-  50.47    20.73
 19.315  19.315 (1.685)   153     24715                     0.00-  42.99    13.16
-------------------------------------------------------------------------------
  113 Acenaphthene                                  CAS #: 83-32-9
 19.572  19.572 (1.707)   154     94312 5.00000    5.982  80.00- 120.00   100.00
 19.572  19.572 (1.707)   152     52325                    23.49-  83.49    55.48
 19.572  19.572 (1.707)   153    105029                    81.41- 141.41   111.36
-------------------------------------------------------------------------------
  114 Fluorene                                      CAS #: 86-73-7
 20.733  20.733 (1.809)   166     97939 5.00000    6.262  80.00- 120.00   100.00
 20.733  20.733 (1.809)   165     94346                    66.52- 126.52    96.33
-------------------------------------------------------------------------------
  115 Phenanthrene                                  CAS #: 85-01-8
 22.918  22.918 (1.999)   178    167671 5.00000    6.351  80.00- 120.00   100.00
 22.918  22.918 (1.999)   176     34930                     0.00-  49.64    20.83
 22.910  22.910 (1.998)   179     25544                     0.00-  45.22    15.23
-------------------------------------------------------------------------------
  116 Anthracene                                    CAS #: 120-12-7
 23.018  23.018 (2.008)   178    146727 5.00000    5.868  80.00- 120.00   100.00
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
116 Anthracene (continued)								
23.018	23.018	(2.008)	176	27581			0.00- 49.04	18.80
23.025	23.025	(2.008)	179	22007			0.00- 45.28	15.00
117 Fluoranthene						CAS #: 206-44-0		
26.263	26.263	(2.291)	202	134845	5.00000	7.343	80.00- 120.00	100.00
26.263	26.263	(2.291)	101	25619			0.00- 48.21	19.00
118 Pyrene						CAS #: 129-00-0		
27.137	27.137	(2.367)	202	143184	5.00000	7.506	80.00- 120.00	100.00
27.122	27.122	(2.366)	101	30362			0.00- 51.09	21.20
27.129	27.129	(2.366)	100	24934			0.00- 47.66	17.41

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6033103.d
Lab Smp Id: VI VOC+PAH ICAL2,2.
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-232-2ml(6/11/16),2744-31-5(7/5/16)

Calibration Date: 30-MAR-2016
Calibration Time: 20:53
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	225139	135083	315195	211375	-6.11
54 1,4-Difluorobenze	874568	524741	1224395	876146	0.18
79 Chlorobenzene-d5	795881	477529	1114233	795755	-0.02
92 Bromofluorobenzen	515685	309411	721959	512046	-0.71

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.38	4.05	4.71	4.39	0.16
54 1,4-Difluorobenze	6.01	5.68	6.34	6.01	0.00
79 Chlorobenzene-d5	9.91	9.58	10.24	9.91	0.00
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	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/msd6.i/31mar16.b/6033103.d

Page 1

Date : 30-MAR-2016 18:54

Client ID:

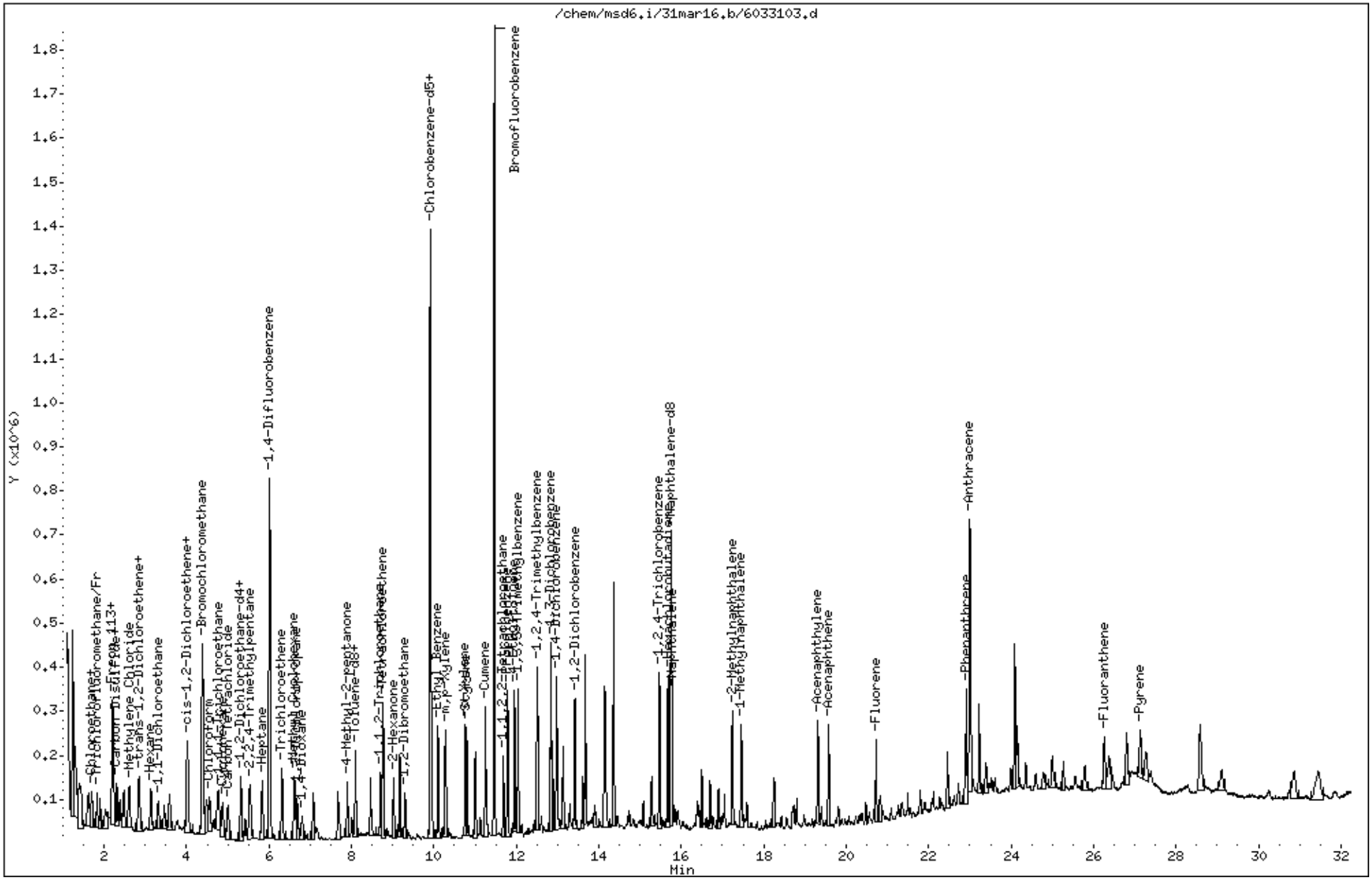
Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICAL2,2.0ngSurr

Operator: LA

Column phase: RTx-624

Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033124.d
Lab Smp Id: VI PAH ICAL 3
Inj Date : 31-MAR-2016 10:19
Operator : LA Inst ID: msd6.i
Smp Info : ;VI PAH ICAL 3
Misc Info : 2744-31-10(7/5/16)
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAHical.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.464	11.464 (1.000)	174	506879	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	629957			92.70- 152.70	124.28
11.464	11.464 (1.000)	176	496497			68.24- 128.24	97.95
109 Naphthalene					CAS #: 91-20-3		
15.783	15.783 (1.377)	128	291515	10.0000	8.572	80.00- 120.00	100.00
15.790	15.790 (1.377)	127	37817			0.00- 43.01	12.97
110 2-Methylnaphthalene					CAS #: 91-57-6		
17.237	17.237 (1.504)	142	177050	10.0000	9.007	80.00- 120.00	100.00
17.237	17.237 (1.504)	141	156553			57.55- 117.55	88.42
17.237	17.237 (1.504)	115	59963			2.88- 62.88	33.87
111 1-Methylnaphthalene					CAS #: 90-12-0		
17.459	17.459 (1.523)	142	161229	10.0000	9.122	80.00- 120.00	100.00
17.459	17.459 (1.523)	141	145981			60.83- 120.83	90.54
17.452	17.452 (1.522)	115	56571			4.35- 64.35	35.09
112 Acenaphthylene					CAS #: 208-96-8		
19.315	19.315 (1.685)	152	263183	10.0000	9.116	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
112 Acenaphthylene (continued)							
19.307	19.307 (1.684)	151	54187			0.00- 50.47	20.59
19.307	19.307 (1.684)	153	34470			0.00- 42.99	13.10
113 Acenaphthene					CAS #: 83-32-9		
19.572	19.572 (1.707)	154	142243	10.0000	9.115	80.00- 120.00	100.00
19.572	19.572 (1.707)	152	78680			23.49- 83.49	55.31
19.572	19.572 (1.707)	153	159082			81.41- 141.41	111.84
114 Fluorene					CAS #: 86-73-7		
20.726	20.726 (1.808)	166	139921	10.0000	9.038	80.00- 120.00	100.00
20.726	20.726 (1.808)	165	137035			66.52- 126.52	97.94
115 Phenanthrene					CAS #: 85-01-8		
22.910	22.910 (1.998)	178	243971	10.0000	9.335	80.00- 120.00	100.00
22.910	22.910 (1.998)	176	47090			0.00- 49.64	19.30
22.910	22.910 (1.998)	179	38503			0.00- 45.22	15.78
116 Anthracene					CAS #: 120-12-7		
23.018	23.018 (2.008)	178	232047	10.0000	9.374	80.00- 120.00	100.00
23.018	23.018 (2.008)	176	44329			0.00- 49.04	19.10
23.018	23.018 (2.008)	179	35474			0.00- 45.28	15.29
117 Fluoranthene					CAS #: 206-44-0		
26.256	26.256 (2.290)	202	190294	10.0000	10.468	80.00- 120.00	100.00
26.256	26.256 (2.290)	101	35703			0.00- 48.21	18.76
118 Pyrene					CAS #: 129-00-0		
27.129	27.129 (2.366)	202	195934	10.0000	10.375	80.00- 120.00	100.00
27.122	27.122 (2.366)	101	43967			0.00- 51.09	22.44
27.129	27.129 (2.366)	100	37146			0.00- 47.66	18.96

Report Date: 04-Apr-2016 12:09

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6033124.d
Lab Smp Id: VI PAH ICAL 3
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2744-31-10(7/5/16)

Calibration Date: 30-MAR-2016
Calibration Time: 20:53

Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	515685	309411	721959	506879	-1.71

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	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/msd6.i/31mar16.b/6033124.d

Date : 31-MAR-2016 10:19

Client ID:

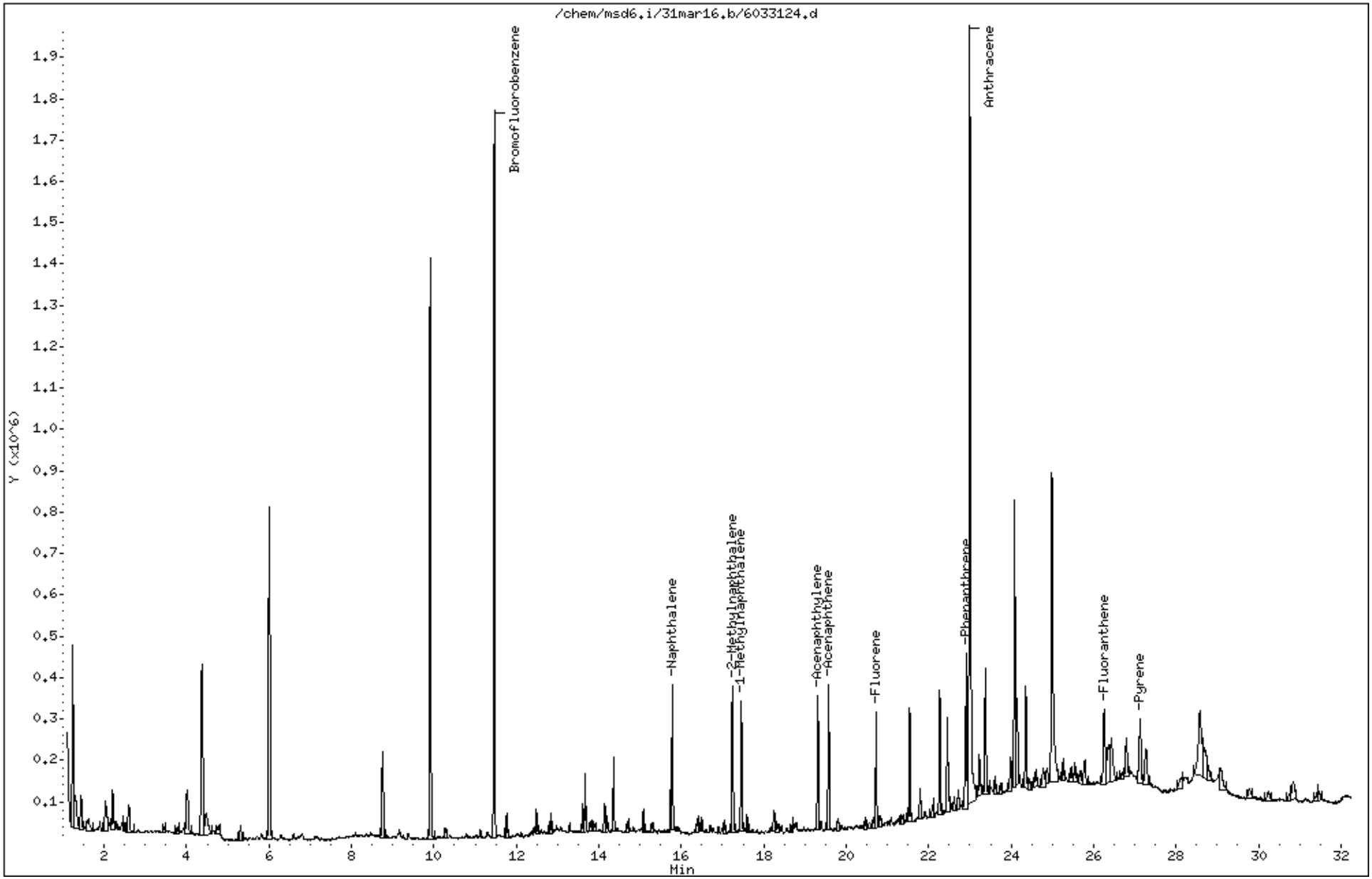
Sample Info: ;VI PAH ICAL 3

Column phase: RTx-624

Instrument: msd6.i

Operator: LA

Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033104.d
Lab Smp Id: VI VOC+PAH ICAL3,5.
Inj Date : 30-MAR-2016 19:34
Operator : LA Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL3,5.0ngSurr
Misc Info : 2516-232-3ml(6/11/16),2744-31-10(7/5/16)
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC_L1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 40 Bromochloromethane					CAS #: 74-97-5		
4.380	4.380 (1.000)	130	220397	26.0000		80.00- 120.00	100.00
4.387	4.387 (1.000)	128	172729			48.25- 108.25	78.37
4.380	4.380 (1.000)	49	302077			107.14- 167.14	137.06
* 54 1,4-Difluorobenzene					CAS #: 540-36-3		
6.013	6.013 (1.000)	114	871806	23.0000		80.00- 120.00	100.00
6.013	6.013 (1.000)	88	134742			0.00- 45.65	15.46
* 79 Chlorobenzene-d5					CAS #: 3114-55-4		
9.909	9.909 (1.000)	117	791020	24.0000		80.00- 120.00	100.00
9.909	9.909 (1.000)	82	418816			23.14- 83.14	52.95
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.464	11.464 (1.000)	174	509127	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	627113			92.70- 152.70	123.17
11.464	11.464 (1.000)	176	497291			68.24- 128.24	97.68
$ 49 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.311	5.311 (0.883)	65	23356	5.00000	5.057	80.00- 120.00	100.00

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

$  49 1,2-Dichloroethane-d4 (continued)
  5.311   5.311 (0.883)    67     11636                    22.28-  82.28    49.82
-------------------------------------------------------------------------------
$  66 Toluene-d8                                   CAS #: 2037-26-5
  8.011   8.011 (0.808)    98     76792 5.00000    4.975  80.00- 120.00   100.00
  8.011   8.011 (0.808)    70      9108                     0.00-  40.54    11.86
  8.011   8.011 (0.808)   100     50209                    35.01-  95.01    65.38
-------------------------------------------------------------------------------
$ 108 Naphthalene-d8                               CAS #: 1146-65-2
 15.747  15.747 (1.374)   136    133649 5.00000    4.661  80.00- 120.00   100.00
 15.747  15.747 (1.374)   108     13113                     0.00-  39.41     9.81
-------------------------------------------------------------------------------
    3 Freon 114                                    CAS #: 76-14-2
  1.269   1.269 (0.290)   135     83144 21.0000   21.003  80.00- 120.00   100.00
  1.269   1.269 (0.290)   137     26907                     2.17-  62.17    32.36
-------------------------------------------------------------------------------
    6 Vinyl Chloride                               CAS #: 75-01-4
  1.395   1.395 (0.318)    62     48346 7.67000    7.780  80.00- 120.00   100.00
  1.395   1.395 (0.318)    64     52705                    12.66-  72.66   109.02
-------------------------------------------------------------------------------
    7 1,3-Butadiene                                CAS #: 106-99-0
  1.395   1.395 (0.318)    54     43278 6.64000    7.290  80.00- 120.00   100.00
  1.395   1.395 (0.318)    39     75142                   133.58- 193.58   173.63
-------------------------------------------------------------------------------
    9 Chloroethane                                 CAS #: 75-00-3
  1.661   1.661 (0.379)    64     34516 7.92000    9.680  80.00- 120.00   100.00(a)
  1.661   1.661 (0.379)    66      6567                     0.00-  58.31    19.03
  1.661   1.661 (0.379)    49      6544                     0.00-  59.65    18.96
-------------------------------------------------------------------------------
   10 Isopentane                                   CAS #: 78-78-4
  1.703   1.703 (0.389)    57     39974 8.85000    8.778  80.00- 120.00   100.00
  1.703   1.703 (0.389)    43     65558                   134.33- 194.33   164.00
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                  CAS #: 75-69-4
  1.828   1.828 (0.417)   101    116130 16.9000   16.526  80.00- 120.00   100.00
  1.828   1.828 (0.417)   103     74285                    35.98-  95.98    63.97
-------------------------------------------------------------------------------
   15 Freon 113                                    CAS #: 76-13-1
  2.195   2.195 (0.501)   151     92763 23.0000   22.867  80.00- 120.00   100.00
  2.195   2.195 (0.501)   153     59674                    34.66-  94.66    64.33
  2.195   2.195 (0.501)   101    109937                    88.64- 148.64   118.51
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                           CAS #: 75-35-4
  2.202   2.202 (0.503)    98     35942 11.9000   12.700  80.00- 120.00   100.00
  2.202   2.202 (0.503)    96     58299                   127.15- 187.15   162.20
  2.202   2.202 (0.503)    61     93076                   230.60- 290.60   258.96
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.381	2.381 (0.544)	76	155779	9.34000	9.410	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.310	2.310 (0.527)	45	152325	7.37000	9.890	80.00- 120.00	100.00(a)
2.310	2.310 (0.527)	43	29599			0.00- 49.91	19.43
2.302	2.302 (0.526)	59	5883			0.00- 33.48	3.86
22 Methylene Chloride					CAS #: 75-09-2		
2.610	2.610 (0.596)	49	130115	10.4000	18.403	80.00- 120.00	100.00(a)
2.610	2.610 (0.596)	84	88534			38.62- 98.62	68.04
2.610	2.610 (0.596)	51	38119			0.43- 60.43	29.30
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.854	2.854 (0.652)	98	33652	11.9000	11.898	80.00- 120.00	100.00
2.854	2.854 (0.652)	61	77673			200.79- 260.79	230.81
2.854	2.854 (0.652)	96	52427			126.39- 186.39	155.79
26 MTBE					CAS #: 1634-04-4		
2.832	2.832 (0.647)	73	110370	10.8000	9.364	80.00- 120.00	100.00(a)
2.832	2.832 (0.647)	57	28440			0.00- 54.76	25.77
2.832	2.832 (0.647)	41	30935			0.00- 56.57	28.03
28 Hexane					CAS #: 110-54-3		
3.133	3.133 (0.715)	57	86152	10.6000	10.446	80.00- 120.00	100.00(a)
3.133	3.133 (0.715)	43	61882			41.77- 101.77	71.83
3.140	3.140 (0.717)	86	12078			0.00- 43.88	14.02
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.320	3.320 (0.758)	63	87922	12.1000	11.699	80.00- 120.00	100.00
3.312	3.312 (0.756)	65	29033			1.71- 61.71	33.02
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.029	4.029 (0.920)	98	35570	11.9000	11.730	80.00- 120.00	100.00
4.029	4.029 (0.920)	96	55293			126.11- 186.11	155.45
4.029	4.029 (0.920)	61	76778			179.91- 239.91	215.85
38 2-Butanone					CAS #: 78-93-3		
4.014	4.014 (0.917)	72	62738	8.85000	20.269	80.00- 120.00	100.00(a)
4.014	4.014 (0.917)	43	312598			469.10- 529.10	498.26
4.014	4.014 (0.917)	57	23110			6.15- 66.15	36.84
44 Chloroform					CAS #: 67-66-3		
4.559	4.559 (1.041)	83	104995	14.6000	14.546	80.00- 120.00	100.00
4.559	4.559 (1.041)	85	68937			35.99- 95.99	65.66

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.874	4.874 (0.811)	84	66356	10.3000	10.072	80.00- 120.00	100.00
4.874	4.874 (0.811)	56	90138			102.79- 162.79	135.84
4.874	4.874 (0.811)	41	56336			54.37- 114.37	84.90
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.774	4.774 (0.794)	97	93548	16.4000	14.481	80.00- 120.00	100.00
4.774	4.774 (0.794)	99	61505			34.68- 94.68	65.75
47 Carbon Tetrachloride					CAS #: 56-23-5		
5.010	5.010 (0.833)	119	88986	18.9000	15.764	80.00- 120.00	100.00
5.010	5.010 (0.833)	117	93108			73.19- 133.19	104.63
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.540	5.540 (0.921)	57	280525	14.0000	14.028	80.00- 120.00	100.00
5.533	5.533 (0.920)	56	89915			1.74- 61.74	32.05
5.540	5.540 (0.921)	41	86440			0.34- 60.34	30.81
48 Benzene					CAS #: 71-43-2		
5.325	5.325 (0.886)	78	180322	9.58000	9.432	80.00- 120.00	100.00
5.318	5.318 (0.884)	77	43287			0.00- 53.53	24.01
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.425	5.425 (0.902)	62	69529	12.1000	11.812	80.00- 120.00	100.00
5.425	5.425 (0.902)	64	22095			2.15- 62.15	31.78
53 Heptane					CAS #: 142-82-5		
5.841	5.841 (0.971)	71	53981	12.3000	12.020	80.00- 120.00	100.00
5.834	5.834 (0.970)	43	134648			188.80- 248.80	249.44
5.834	5.834 (0.970)	57	53671			71.78- 131.78	99.43
56 Trichloroethene					CAS #: 79-01-6		
6.314	6.314 (1.050)	95	94949	16.1000	18.074	80.00- 120.00	100.00
6.321	6.321 (1.051)	130	98264			74.74- 134.74	103.49
6.314	6.314 (1.050)	97	61507			34.87- 94.87	64.78
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.622	6.622 (1.101)	83	96648	12.0000	11.815	80.00- 120.00	100.00
6.622	6.622 (1.101)	98	42678			14.22- 74.22	44.16
6.622	6.622 (1.101)	55	85107			58.24- 118.24	88.06
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.679	6.679 (1.111)	63	55091	13.9000	12.488	80.00- 120.00	100.00
6.679	6.679 (1.111)	62	37959			39.32- 99.32	68.90
6.679	6.679 (1.111)	41	35195			37.26- 97.26	63.89

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.801	6.801 (1.131)	88	39382	10.8000	10.468	80.00- 120.00	100.00(a)
6.801	6.801 (1.131)	58	31319			41.28- 101.28	79.53
6.808	6.808 (1.132)	57	35111			0.62- 60.62	89.15
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.904	7.904 (1.314)	58	52061	12.3000	12.022	80.00- 120.00	100.00
7.897	7.897 (1.313)	43	147470			263.34- 323.34	283.26
7.904	7.904 (1.314)	85	21107			12.32- 72.32	40.54
67 Toluene					CAS #: 108-88-3		
8.097	8.097 (0.817)	91	215519	11.3000	11.341	80.00- 120.00	100.00
8.097	8.097 (0.817)	92	124006			28.18- 88.18	57.54
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.706	8.706 (1.448)	97	70644	16.4000	16.037	80.00- 120.00	100.00
8.713	8.713 (1.449)	99	43484			32.32- 92.32	61.55
8.713	8.713 (1.449)	83	58948			54.42- 114.42	83.44
71 Tetrachloroethene					CAS #: 127-18-4		
8.771	8.771 (0.885)	166	99743	20.4000	19.862	80.00- 120.00	100.00
8.771	8.771 (0.885)	129	77530			47.21- 107.21	77.73
8.771	8.771 (0.885)	131	75549			44.68- 104.68	75.74
72 2-Hexanone					CAS #: 591-78-6		
9.021	9.021 (0.910)	58	64285	12.3000	11.220	80.00- 120.00	100.00
9.021	9.021 (0.910)	43	136329			181.19- 241.19	212.07
9.021	9.021 (0.910)	100	12077			0.00- 48.53	18.79
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.301	9.301 (0.939)	107	104129	23.0000	22.076	80.00- 120.00	100.00
9.301	9.301 (0.939)	109	98567			64.88- 124.88	94.66
81 Chlorobenzene					CAS #: 108-90-7		
9.952	9.952 (1.004)	112	165895	13.8000	13.636	80.00- 120.00	100.00
9.945	9.945 (1.004)	114	54422			2.37- 62.37	32.81
9.945	9.945 (1.004)	77	99765			25.58- 85.58	60.14
82 Ethyl Benzene					CAS #: 100-41-4		
10.103	10.103 (1.020)	106	85565	13.0000	12.920	80.00- 120.00	100.00
10.103	10.103 (1.020)	91	266374			283.92- 343.92	311.31
84 m,p-Xylene					CAS #: 108-38-3		
10.282	10.282 (1.038)	106	109347	13.0000	12.730	80.00- 120.00	100.00
10.282	10.282 (1.038)	91	220775			168.48- 228.48	201.90

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

   88 o-Xylene                                      CAS #: 95-47-6
 10.762  10.762 (0.939)   106    101123 13.0000   13.189  80.00- 120.00   100.00
 10.762  10.762 (0.939)    91    211811                  179.05- 239.05   209.46
-------------------------------------------------------------------------------
   89 Styrene                                       CAS #: 100-42-5
 10.798  10.798 (0.942)   104    162599 12.8000   12.298  80.00- 120.00   100.00
 10.798  10.798 (0.942)    78     80789                   17.71-  77.71    49.69
-------------------------------------------------------------------------------
   91 Cumene                                        CAS #: 98-82-8
 11.249  11.249 (0.981)   105    309489 14.8000   15.348  80.00- 120.00   100.00
 11.256  11.256 (0.982)   120     83213                    0.00-  56.88    26.89
 11.249  11.249 (0.981)    51     33683                    0.00-  40.57    10.88
-------------------------------------------------------------------------------
   94 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 11.686  11.686 (1.019)    83    116651 20.6000   17.500  80.00- 120.00   100.00
 11.686  11.686 (1.019)    85     74889                   35.63-  95.63    64.20
-------------------------------------------------------------------------------
   96 Propylbenzene                                 CAS #: 103-65-1
 11.793  11.793 (1.029)    91    372880 14.8000   15.633  80.00- 120.00   100.00
 11.793  11.793 (1.029)   120     88988                    0.00-  53.76    23.87
 11.793  11.793 (1.029)   105     14966                    0.00-  33.79     4.01
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                                CAS #: 622-96-8
 11.958  11.958 (1.043)   120     93767 14.8000   15.282  80.00- 120.00   100.00
 11.958  11.958 (1.043)   105    311370                  299.98- 359.98   332.07
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 12.044  12.044 (1.051)   120    133213 14.8000   15.399  80.00- 120.00   100.00
 12.044  12.044 (1.051)   105    269557                  169.84- 229.84   202.35
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 12.510  12.510 (1.091)   120    123896 14.8000   15.369  80.00- 120.00   100.00(a)
 12.510  12.510 (1.091)   105    293348                  188.24- 248.24   236.77
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                           CAS #: 541-73-1
 12.839  12.839 (1.120)   146    189326 18.0000   18.976  80.00- 120.00   100.00
 12.839  12.839 (1.120)   148    121253                   33.94-  93.94    64.04
 12.839  12.839 (1.120)   111     77352                    9.99-  69.99    40.86
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                           CAS #: 106-46-7
 12.975  12.975 (1.132)   146    189457 18.0000   19.018  80.00- 120.00   100.00
 12.975  12.975 (1.132)   148    122039                   33.56-  93.56    64.42
 12.975  12.975 (1.132)   111     74613                    8.12-  68.12    39.38
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                           CAS #: 95-50-1
 13.419  13.419 (1.171)   146    179843 18.0000   19.076  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
105 1,2-Dichlorobenzene (continued)							
13.419	13.419 (1.171)	148	115565			33.25- 93.25	64.26
13.412	13.412 (1.170)	111	73828			11.16- 71.16	41.05
106 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
15.468	15.468 (1.349)	180	134670	22.3000	20.777	80.00- 120.00	100.00
15.468	15.468 (1.349)	182	126142			64.82- 124.82	93.67
107 Hexachlorobutadiene					CAS #: 87-68-3		
15.676	15.676 (1.367)	225	92247	32.0000	27.694	80.00- 120.00	100.00
15.676	15.676 (1.367)	223	57787			32.09- 92.09	62.64

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Report Date: 04-Apr-2016 12:09

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6033104.d
Lab Smp Id: VI VOC+PAH ICAL3,5.
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-232-3ml(6/11/16),2744-31-10(7/5/16)

Calibration Date: 30-MAR-2016
Calibration Time: 20:53
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	225139	135083	315195	220397	-2.11
54 1,4-Difluorobenze	874568	524741	1224395	871806	-0.32
79 Chlorobenzene-d5	795881	477529	1114233	791020	-0.61
92 Bromofluorobenzen	515685	309411	721959	509127	-1.27

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.38	4.05	4.71	4.38	0.00
54 1,4-Difluorobenze	6.01	5.68	6.34	6.01	0.00
79 Chlorobenzene-d5	9.91	9.58	10.24	9.91	0.00
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	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/msd6.i/31mar16.b/6033104.d

Date : 30-MAR-2016 19:34

Client ID:

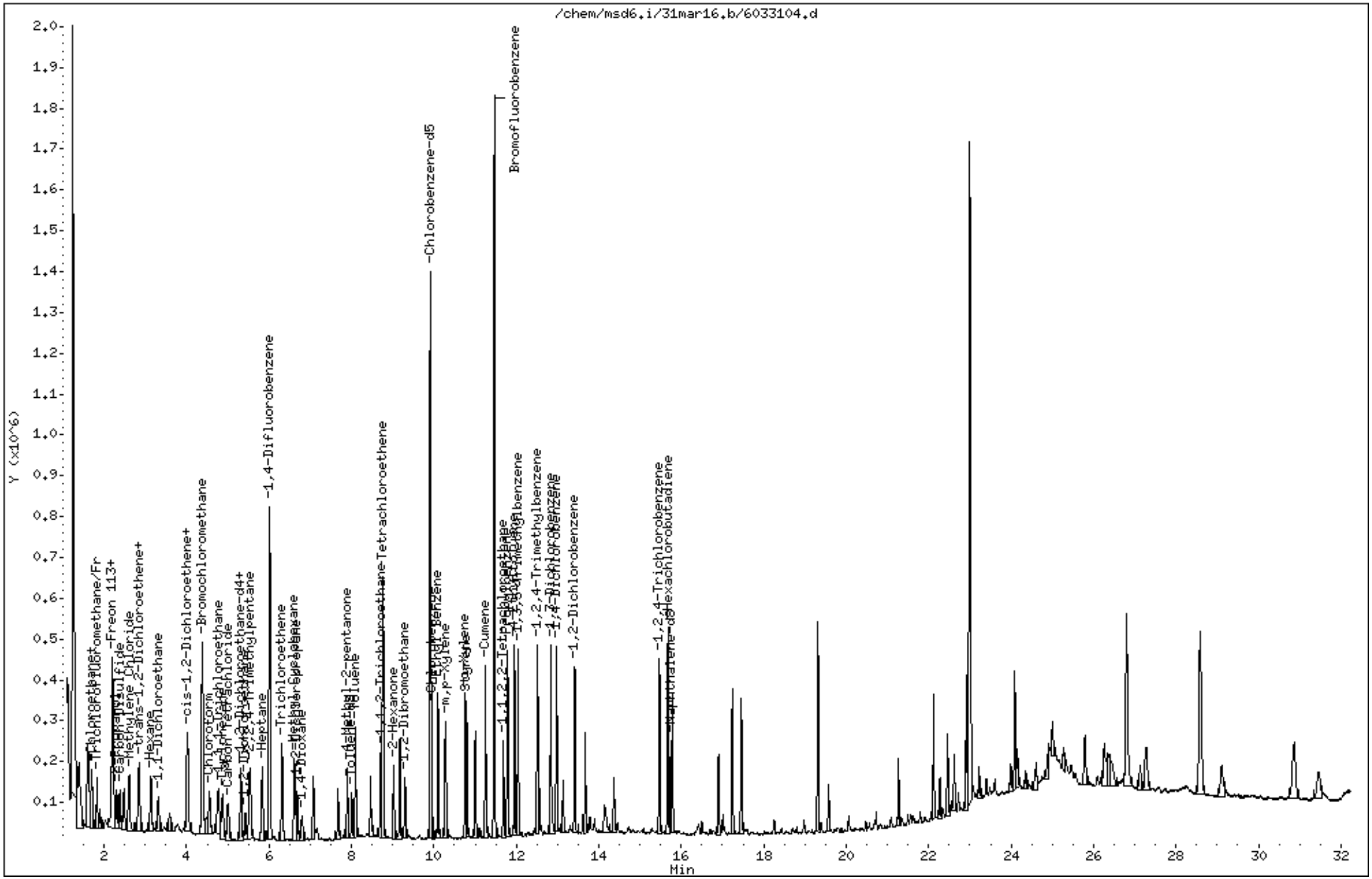
Sample Info: ;VI VOC+PAH ICAL3,5.0ngSurr

Column phase: RTx-624

Instrument: msd6.i

Operator: LA

Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033105.d
Lab Smp Id: VI VOC+PAH ICAL4,10
Inj Date : 30-MAR-2016 20:13
Operator : LA Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL4,10ngSurr
Misc Info : 2516-232-6ml(6/11/16),2744-31-25(7/5/16)
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 30-MAR-2016 20:13 Cal File: 6033105.d
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+PAH_ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 40 Bromochloromethane					CAS #: 74-97-5		
4.380	4.380 (1.000)	130	220965	26.0000		80.00- 120.00	100.00
4.380	4.380 (1.000)	128	171865			48.25- 108.25	77.78
4.380	4.380 (1.000)	49	300841			107.14- 167.14	136.15
* 54 1,4-Difluorobenzene					CAS #: 540-36-3		
6.013	6.013 (1.000)	114	881221	23.0000		80.00- 120.00	100.00
6.013	6.013 (1.000)	88	136113			0.00- 45.65	15.45
* 79 Chlorobenzene-d5					CAS #: 3114-55-4		
9.909	9.909 (1.000)	117	804740	24.0000		80.00- 120.00	100.00
9.909	9.909 (1.000)	82	425977			23.14- 83.14	52.93
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.464	11.464 (1.000)	174	513427	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	623095			92.70- 152.70	121.36
11.464	11.464 (1.000)	176	499016			68.24- 128.24	97.19
$ 49 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.311	5.311 (0.883)	65	46532	10.0000	9.967	80.00- 120.00	100.00

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

$  49 1,2-Dichloroethane-d4 (continued)
  5.311   5.311 (0.883)    67     23077                    22.28-  82.28    49.59
-------------------------------------------------------------------------------
$  66 Toluene-d8                                   CAS #: 2037-26-5
  8.011   8.011 (0.808)    98    153500 10.0000    9.774  80.00- 120.00   100.00
  8.011   8.011 (0.808)    70     17092                     0.00-  40.54    11.13
  8.011   8.011 (0.808)   100    102418                    35.01-  95.01    66.72
-------------------------------------------------------------------------------
$ 108 Naphthalene-d8                               CAS #: 1146-65-2
 15.747  15.747 (1.374)   136    262174 10.0000    9.066  80.00- 120.00   100.00
 15.747  15.747 (1.374)   108     25763                     0.00-  39.41     9.83
-------------------------------------------------------------------------------
    3 Freon 114                                    CAS #: 76-14-2
  1.269   1.269 (0.290)   135    173231 41.9000   43.648  80.00- 120.00   100.00
  1.269   1.269 (0.290)   137     55839                     2.17-  62.17    32.23
-------------------------------------------------------------------------------
    6 Vinyl Chloride                               CAS #: 75-01-4
  1.395   1.395 (0.318)    62     96896 15.3000   15.554  80.00- 120.00   100.00
  1.395   1.395 (0.318)    64     68550                    12.66-  72.66    70.75
-------------------------------------------------------------------------------
    7 1,3-Butadiene                                CAS #: 106-99-0
  1.409   1.409 (0.322)    54     78263 13.3000   13.150  80.00- 120.00   100.00
  1.395   1.395 (0.318)    39    135826                   133.58- 193.58   173.55
-------------------------------------------------------------------------------
    9 Chloroethane                                 CAS #: 75-00-3
  1.661   1.661 (0.379)    64     65836 15.8000   18.416  80.00- 120.00   100.00
  1.674   1.674 (0.382)    66     13559                     0.00-  58.31    20.60
  1.674   1.674 (0.382)    49     15192                     0.00-  59.65    23.08
-------------------------------------------------------------------------------
   10 Isopentane                                   CAS #: 78-78-4
  1.702   1.702 (0.389)    57     83137 17.7000   18.210  80.00- 120.00   100.00
  1.702   1.702 (0.389)    43    136414                   134.33- 194.33   164.08
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                  CAS #: 75-69-4
  1.828   1.828 (0.417)   101    235259 33.7000   33.392  80.00- 120.00   100.00
  1.828   1.828 (0.417)   103    154985                    35.98-  95.98    65.88
-------------------------------------------------------------------------------
   15 Freon 113                                    CAS #: 76-13-1
  2.195   2.195 (0.501)   151    192907 46.0000   47.432  80.00- 120.00   100.00
  2.195   2.195 (0.501)   153    124368                    34.66-  94.66    64.47
  2.195   2.195 (0.501)   101    227867                    88.64- 148.64   118.12
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                           CAS #: 75-35-4
  2.202   2.202 (0.503)    98     68827 23.8000   24.257  80.00- 120.00   100.00
  2.202   2.202 (0.503)    96    109666                   127.15- 187.15   159.34
  2.202   2.202 (0.503)    61    179052                   230.60- 290.60   260.15
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.381	2.381 (0.544)	76	305859	18.7000	18.429	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.309	2.309 (0.527)	45	248261	14.7000	16.078	80.00- 120.00	100.00(a)
2.309	2.309 (0.527)	43	47430			0.00- 49.91	19.10
2.309	2.309 (0.527)	59	9936			0.00- 33.48	4.00
22 Methylene Chloride					CAS #: 75-09-2		
2.610	2.610 (0.596)	49	199578	20.8000	28.155	80.00- 120.00	100.00
2.610	2.610 (0.596)	84	137416			38.62- 98.62	68.85
2.610	2.610 (0.596)	51	59467			0.43- 60.43	29.80
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.854	2.854 (0.652)	98	68097	23.8000	24.015	80.00- 120.00	100.00
2.854	2.854 (0.652)	61	162128			200.79- 260.79	238.08
2.854	2.854 (0.652)	96	107983			126.39- 186.39	158.57
26 MTBE					CAS #: 1634-04-4		
2.832	2.832 (0.647)	73	254989	21.6000	21.579	80.00- 120.00	100.00(a)
2.832	2.832 (0.647)	57	63596			0.00- 54.76	24.94
2.832	2.832 (0.647)	41	68553			0.00- 56.57	26.88
28 Hexane					CAS #: 110-54-3		
3.133	3.133 (0.715)	57	177550	21.1000	21.472	80.00- 120.00	100.00(a)
3.133	3.133 (0.715)	43	125165			41.77- 101.77	70.50
3.133	3.133 (0.715)	86	24458			0.00- 43.88	13.78
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.319	3.319 (0.758)	63	187070	24.3000	24.828	80.00- 120.00	100.00
3.312	3.312 (0.756)	65	59669			1.71- 61.71	31.90
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.036	4.036 (0.921)	98	73205	23.8000	24.078	80.00- 120.00	100.00
4.036	4.036 (0.921)	96	113978			126.11- 186.11	155.70
4.029	4.029 (0.920)	61	157657			179.91- 239.91	215.36
38 2-Butanone					CAS #: 78-93-3		
4.007	4.007 (0.915)	72	75310	17.7000	24.268	80.00- 120.00	100.00(a)
4.007	4.007 (0.915)	43	376090			469.10- 529.10	499.39
4.014	4.014 (0.917)	57	29744			6.15- 66.15	39.50
44 Chloroform					CAS #: 67-66-3		
4.559	4.559 (1.041)	83	215483	29.3000	29.777	80.00- 120.00	100.00
4.559	4.559 (1.041)	85	142304			35.99- 95.99	66.04

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.874	4.874 (0.811)	84	137084	20.7000	20.584	80.00- 120.00	100.00
4.874	4.874 (0.811)	56	182931			102.79- 162.79	133.44
4.867	4.867 (0.809)	41	115670			54.37- 114.37	84.38
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.774	4.774 (0.794)	97	216919	32.7000	33.220	80.00- 120.00	100.00
4.774	4.774 (0.794)	99	140506			34.68- 94.68	64.77
47 Carbon Tetrachloride					CAS #: 56-23-5		
5.010	5.010 (0.833)	119	217243	37.8000	38.074	80.00- 120.00	100.00
5.010	5.010 (0.833)	117	223356			73.19- 133.19	102.81
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.533	5.533 (0.920)	57	572290	28.0000	28.312	80.00- 120.00	100.00
5.533	5.533 (0.920)	56	182685			1.74- 61.74	31.92
5.533	5.533 (0.920)	41	178492			0.34- 60.34	31.19
48 Benzene					CAS #: 71-43-2		
5.325	5.325 (0.886)	78	392775	19.2000	20.324	80.00- 120.00	100.00
5.318	5.318 (0.884)	77	92402			0.00- 53.53	23.53
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.425	5.425 (0.902)	62	144884	24.3000	24.350	80.00- 120.00	100.00
5.425	5.425 (0.902)	64	46613			2.15- 62.15	32.17
53 Heptane					CAS #: 142-82-5		
5.834	5.834 (0.970)	71	110224	24.6000	24.282	80.00- 120.00	100.00
5.834	5.834 (0.970)	43	250925			188.80- 248.80	227.65
5.834	5.834 (0.970)	57	111924			71.78- 131.78	101.54
56 Trichloroethene					CAS #: 79-01-6		
6.314	6.314 (1.050)	95	185182	32.2000	34.874	80.00- 120.00	100.00
6.321	6.321 (1.051)	130	192807			74.74- 134.74	104.12
6.321	6.321 (1.051)	97	119648			34.87- 94.87	64.61
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.622	6.622 (1.101)	83	197007	24.1000	23.827	80.00- 120.00	100.00
6.622	6.622 (1.101)	98	87240			14.22- 74.22	44.28
6.622	6.622 (1.101)	55	175153			58.24- 118.24	88.91
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.679	6.679 (1.111)	63	120840	27.7000	27.100	80.00- 120.00	100.00
6.679	6.679 (1.111)	62	84973			39.32- 99.32	70.32
6.679	6.679 (1.111)	41	78422			37.26- 97.26	64.90

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.801	6.801 (1.131)	88	80880	21.6000	21.269	80.00- 120.00	100.00
6.801	6.801 (1.131)	58	61585			41.28- 101.28	76.14
6.801	6.801 (1.131)	57	41317			0.62- 60.62	51.08
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.897	7.897 (1.313)	58	103967	24.6000	23.752	80.00- 120.00	100.00
7.904	7.904 (1.314)	43	302993			263.34- 323.34	291.43
7.904	7.904 (1.314)	85	44362			12.32- 72.32	42.67
67 Toluene					CAS #: 108-88-3		
8.097	8.097 (0.817)	91	423889	22.6000	21.926	80.00- 120.00	100.00
8.097	8.097 (0.817)	92	247097			28.18- 88.18	58.29
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.713	8.713 (1.449)	97	141843	32.7000	31.856	80.00- 120.00	100.00
8.713	8.713 (1.449)	99	86722			32.32- 92.32	61.14
8.713	8.713 (1.449)	83	120639			54.42- 114.42	85.05
71 Tetrachloroethene					CAS #: 127-18-4		
8.771	8.771 (0.885)	166	203568	40.7000	39.845	80.00- 120.00	100.00
8.763	8.763 (0.884)	129	157237			47.21- 107.21	77.24
8.771	8.771 (0.885)	131	152567			44.68- 104.68	74.95
72 2-Hexanone					CAS #: 591-78-6		
9.021	9.021 (0.910)	58	131994	24.6000	22.646	80.00- 120.00	100.00
9.021	9.021 (0.910)	43	280644			181.19- 241.19	212.62
9.021	9.021 (0.910)	100	24844			0.00- 48.53	18.82
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.301	9.301 (0.939)	107	206734	46.1000	43.082	80.00- 120.00	100.00
9.301	9.301 (0.939)	109	194816			64.88- 124.88	94.24
81 Chlorobenzene					CAS #: 108-90-7		
9.952	9.952 (1.004)	112	335573	27.6000	27.112	80.00- 120.00	100.00
9.952	9.952 (1.004)	114	109018			2.37- 62.37	32.49
9.945	9.945 (1.004)	77	192995			25.58- 85.58	57.51
82 Ethyl Benzene					CAS #: 100-41-4		
10.103	10.103 (1.020)	106	169904	26.1000	25.217	80.00- 120.00	100.00
10.103	10.103 (1.020)	91	532766			283.92- 343.92	313.57
84 m,p-Xylene					CAS #: 108-38-3		
10.282	10.282 (1.038)	106	213934	26.1000	24.482	80.00- 120.00	100.00
10.282	10.282 (1.038)	91	422726			168.48- 228.48	197.60

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
88 o-Xylene					CAS #: 95-47-6		
10.762	10.762 (0.939)	106	198486	26.1000	25.670	80.00- 120.00	100.00
10.762	10.762 (0.939)	91	413355			179.05- 239.05	208.25
89 Styrene					CAS #: 100-42-5		
10.798	10.798 (0.942)	104	322991	25.6000	24.223	80.00- 120.00	100.00
10.798	10.798 (0.942)	78	141420			17.71- 77.71	43.78
91 Cumene					CAS #: 98-82-8		
11.256	11.256 (0.982)	105	602904	29.5000	29.649	80.00- 120.00	100.00
11.256	11.256 (0.982)	120	160327			0.00- 56.88	26.59
11.256	11.256 (0.982)	51	65227			0.00- 40.57	10.82
94 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
11.686	11.686 (1.019)	83	252097	41.2000	37.503	80.00- 120.00	100.00
11.686	11.686 (1.019)	85	163342			35.63- 95.63	64.79
96 Propylbenzene					CAS #: 103-65-1		
11.793	11.793 (1.029)	91	714596	29.5000	29.709	80.00- 120.00	100.00
11.793	11.793 (1.029)	120	168353			0.00- 53.76	23.56
11.793	11.793 (1.029)	105	27497			0.00- 33.79	3.85
97 4-Ethyltoluene					CAS #: 622-96-8		
11.958	11.958 (1.043)	120	176464	29.5000	28.519	80.00- 120.00	100.00
11.958	11.958 (1.043)	105	589185			299.98- 359.98	333.88
98 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
12.044	12.044 (1.051)	120	250861	29.5000	28.756	80.00- 120.00	100.00
12.044	12.044 (1.051)	105	505437			169.84- 229.84	201.48
100 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
12.510	12.510 (1.091)	120	229268	29.5000	28.202	80.00- 120.00	100.00(a)
12.510	12.510 (1.091)	105	521757			188.24- 248.24	227.58
101 1,3-Dichlorobenzene					CAS #: 541-73-1		
12.839	12.839 (1.120)	146	357434	36.1000	35.526	80.00- 120.00	100.00
12.839	12.839 (1.120)	148	227255			33.94- 93.94	63.58
12.839	12.839 (1.120)	111	143520			9.99- 69.99	40.15
102 1,4-Dichlorobenzene					CAS #: 106-46-7		
12.975	12.975 (1.132)	146	352979	36.1000	35.136	80.00- 120.00	100.00
12.975	12.975 (1.132)	148	229328			33.56- 93.56	64.97
12.975	12.975 (1.132)	111	136341			8.12- 68.12	38.63
105 1,2-Dichlorobenzene					CAS #: 95-50-1		
13.419	13.419 (1.171)	146	340789	36.1000	35.845	80.00- 120.00	100.00

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

  105 1,2-Dichlorobenzene (continued)
 13.419  13.419 (1.171)   148    216982                    33.25-  93.25    63.67
 13.412  13.412 (1.170)   111    138803                    11.16-  71.16    40.73
-------------------------------------------------------------------------------
  106 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 15.468  15.468 (1.349)   180    250482 44.5000   38.322  80.00- 120.00   100.00
 15.468  15.468 (1.349)   182    237451                    64.82- 124.82    94.80
-------------------------------------------------------------------------------
  107 Hexachlorobutadiene                           CAS #: 87-68-3
 15.676  15.676 (1.367)   225    174133 64.0000   51.840  80.00- 120.00   100.00
 15.676  15.676 (1.367)   223    108124                    32.09-  92.09    62.09
-------------------------------------------------------------------------------
  109 Naphthalene                                   CAS #: 91-20-3
 15.790  15.790 (1.377)   128    692276 25.0000   20.098  80.00- 120.00   100.00
 15.790  15.790 (1.377)   127     90851                     0.00-  43.01    13.12
-------------------------------------------------------------------------------
  110 2-Methylnaphthalene                           CAS #: 91-57-6
 17.237  17.237 (1.504)   142    430742 25.0000   21.634  80.00- 120.00   100.00
 17.237  17.237 (1.504)   141    374367                    57.55- 117.55    86.91
 17.237  17.237 (1.504)   115    141815                     2.88-  62.88    32.92
-------------------------------------------------------------------------------
  111 1-Methylnaphthalene                           CAS #: 90-12-0
 17.459  17.459 (1.523)   142    392548 25.0000   21.926  80.00- 120.00   100.00
 17.459  17.459 (1.523)   141    357827                    60.83- 120.83    91.15
 17.452  17.452 (1.522)   115    138039                     4.35-  64.35    35.16
-------------------------------------------------------------------------------
  112 Acenaphthylene                                CAS #: 208-96-8
 19.315  19.315 (1.685)   152    637136 25.0000   21.789  80.00- 120.00   100.00
 19.315  19.315 (1.685)   151    130268                     0.00-  50.47    20.45
 19.315  19.315 (1.685)   153     81939                     0.00-  42.99    12.86
-------------------------------------------------------------------------------
  113 Acenaphthene                                  CAS #: 83-32-9
 19.572  19.572 (1.707)   154    351933 25.0000   22.264  80.00- 120.00   100.00
 19.572  19.572 (1.707)   152    189655                    23.49-  83.49    53.89
 19.572  19.572 (1.707)   153    393311                    81.41- 141.41   111.76
-------------------------------------------------------------------------------
  114 Fluorene                                      CAS #: 86-73-7
 20.733  20.733 (1.809)   166    329142 25.0000   20.990  80.00- 120.00   100.00
 20.733  20.733 (1.809)   165    318461                    66.52- 126.52    96.75
-------------------------------------------------------------------------------
  115 Phenanthrene                                  CAS #: 85-01-8
 22.910  22.910 (1.998)   178    548861 25.0000   20.733  80.00- 120.00   100.00
 22.910  22.910 (1.998)   176    109031                     0.00-  49.64    19.86
 22.910  22.910 (1.998)   179     83169                     0.00-  45.22    15.15
-------------------------------------------------------------------------------
  116 Anthracene                                    CAS #: 120-12-7
 23.025  23.025 (2.008)   178    509431 25.0000   20.317  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
116 Anthracene (continued)							
23.018	23.018 (2.008)	176	96017			0.00- 49.04	18.85
23.025	23.025 (2.008)	179	76597			0.00- 45.28	15.04
117 Fluoranthene						CAS #: 206-44-0	
26.263	26.263 (2.291)	202	364577	25.0000	19.799	80.00- 120.00	100.00
26.256	26.256 (2.290)	101	65773			0.00- 48.21	18.04
118 Pyrene						CAS #: 129-00-0	
27.137	27.137 (2.367)	202	378106	25.0000	19.767	80.00- 120.00	100.00
27.129	27.129 (2.367)	101	81907			0.00- 51.09	21.66
27.129	27.129 (2.367)	100	67318			0.00- 47.66	17.80

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6033105.d
Lab Smp Id: VI VOC+PAH ICAL4,10
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-232-6ml(6/11/16),2744-31-25(7/5/16)

Calibration Date: 30-MAR-2016
Calibration Time: 20:53
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	225139	135083	315195	220965	-1.85
54 1,4-Difluorobenze	874568	524741	1224395	881221	0.76
79 Chlorobenzene-d5	795881	477529	1114233	804740	1.11
92 Bromofluorobenzen	515685	309411	721959	513427	-0.44

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.38	4.05	4.71	4.38	0.00
54 1,4-Difluorobenze	6.01	5.68	6.34	6.01	0.00
79 Chlorobenzene-d5	9.91	9.58	10.24	9.91	0.00
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	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/msd6.i/31mar16.b/6033105.d

Date : 30-MAR-2016 20:13

Client ID:

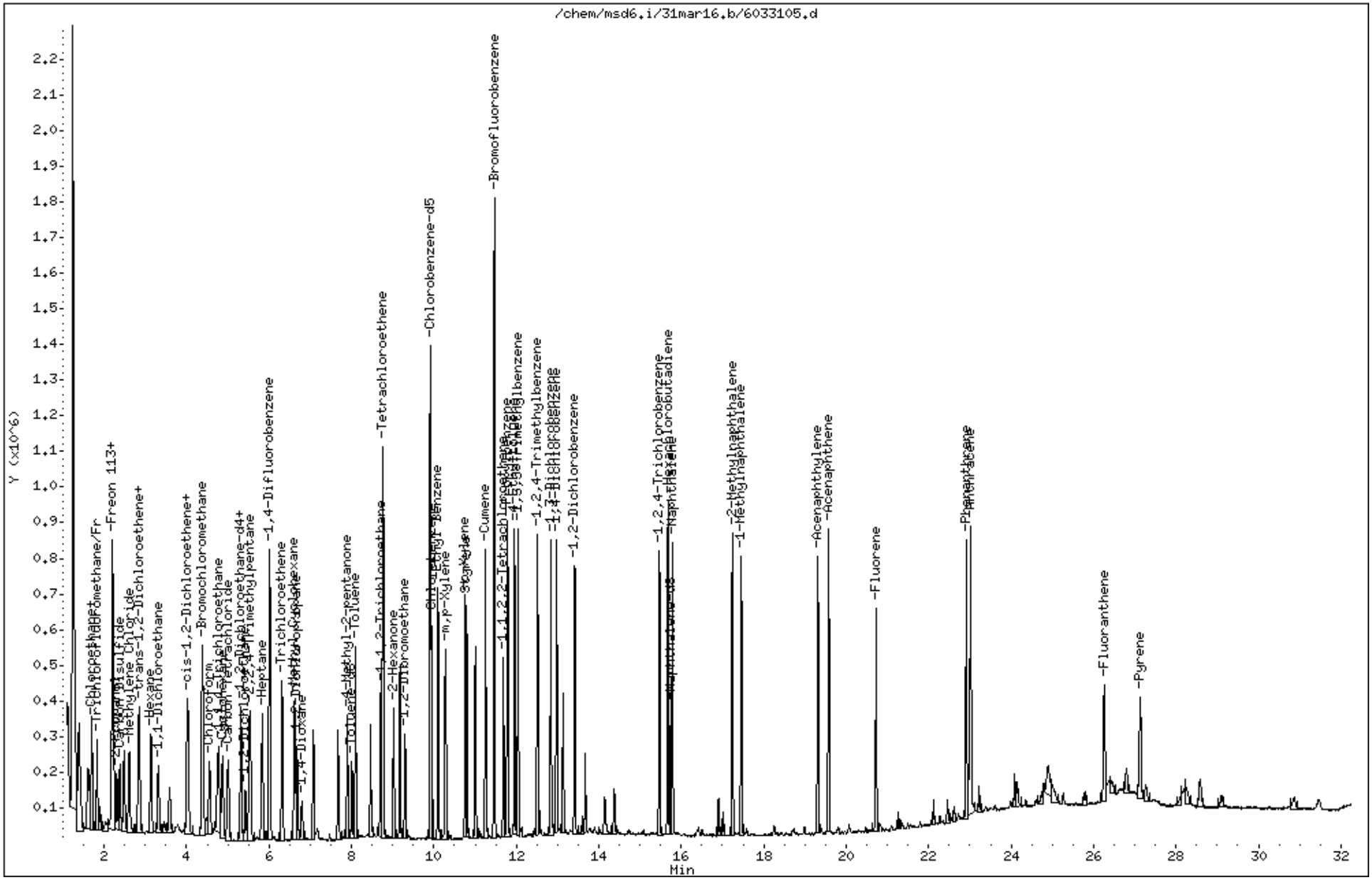
Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICAL4,10ngSurr

Operator: LA

Column phase: RTx-624

Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033106.d
Lab Smp Id: VI VOC+PAH ICAL5,25
Inj Date : 30-MAR-2016 20:53
Operator : LA Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL5,25ngSurr
Misc Info : 2516-232-20ml(6/11/16),2744-31-50(7/5/16)
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 30-MAR-2016 20:53 Cal File: 6033106.d
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+PAH_ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 40 Bromochloromethane						CAS #: 74-97-5	
4.380	4.380 (1.000)	130	225139	26.0000		80.00- 120.00	100.00
4.380	4.380 (1.000)	128	176165			48.25- 108.25	78.25
4.380	4.380 (1.000)	49	308749			107.14- 167.14	137.14
* 54 1,4-Difluorobenzene						CAS #: 540-36-3	
6.013	6.013 (1.000)	114	874568	23.0000		80.00- 120.00	100.00
6.013	6.013 (1.000)	88	136878			0.00- 45.65	15.65
* 79 Chlorobenzene-d5						CAS #: 3114-55-4	
9.909	9.909 (1.000)	117	795881	24.0000		80.00- 120.00	100.00
9.909	9.909 (1.000)	82	422898			23.14- 83.14	53.14
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.464	11.464 (1.000)	174	515685	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	632764			92.70- 152.70	122.70
11.464	11.464 (1.000)	176	506634			68.24- 128.24	98.24
$ 49 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.311	5.311 (0.883)	65	116986	25.0000	25.248	80.00- 120.00	100.00

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

$  49 1,2-Dichloroethane-d4 (continued)
  5.311   5.311 (0.883)    67     61158                    22.28-  82.28    52.28
-------------------------------------------------------------------------------
$  66 Toluene-d8                                   CAS #: 2037-26-5
  8.011   8.011 (0.808)    98    403393 25.0000   25.972  80.00- 120.00   100.00
  8.011   8.011 (0.808)    70     42525                     0.00-  40.54    10.54
  8.011   8.011 (0.808)   100    262231                    35.01-  95.01    65.01
-------------------------------------------------------------------------------
$ 108 Naphthalene-d8                               CAS #: 1146-65-2
 15.747  15.747 (1.374)   136    672922 25.0000   23.168  80.00- 120.00   100.00
 15.747  15.747 (1.374)   108     63339                     0.00-  39.41     9.41
-------------------------------------------------------------------------------
    3 Freon 114                                    CAS #: 76-14-2
  1.269   1.269 (0.290)   135    569243 140.000   140.77  80.00- 120.00   100.00
  1.269   1.269 (0.290)   137    183129                     2.17-  62.17    32.17
-------------------------------------------------------------------------------
    6 Vinyl Chloride                               CAS #: 75-01-4
  1.395   1.395 (0.318)    62    321747 51.1000   50.690  80.00- 120.00   100.00
  1.395   1.395 (0.318)    64    137246                    12.66-  72.66    42.66
-------------------------------------------------------------------------------
    7 1,3-Butadiene                                CAS #: 106-99-0
  1.409   1.409 (0.322)    54    265286 44.2000   43.747  80.00- 120.00   100.00
  1.395   1.395 (0.318)    39    433964                   133.58- 193.58   163.58
-------------------------------------------------------------------------------
    9 Chloroethane                                 CAS #: 75-00-3
  1.661   1.661 (0.379)    64    161101 52.8000   44.228  80.00- 120.00   100.00
  1.661   1.661 (0.379)    66     45612                     0.00-  58.31    28.31
  1.661   1.661 (0.379)    49     47767                     0.00-  59.65    29.65
-------------------------------------------------------------------------------
   10 Isopentane                                   CAS #: 78-78-4
  1.702   1.702 (0.389)    57    272126 59.0000   58.499  80.00- 120.00   100.00
  1.702   1.702 (0.389)    43    447172                   134.33- 194.33   164.33
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                  CAS #: 75-69-4
  1.828   1.828 (0.417)   101    793819 112.000   110.58  80.00- 120.00   100.00
  1.828   1.828 (0.417)   103    523763                    35.98-  95.98    65.98
-------------------------------------------------------------------------------
   15 Freon 113                                    CAS #: 76-13-1
  2.195   2.195 (0.501)   151    636867 153.000   153.69  80.00- 120.00   100.00
  2.195   2.195 (0.501)   153    411786                    34.66-  94.66    64.66
  2.195   2.195 (0.501)   101    755592                    88.64- 148.64   118.64
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                           CAS #: 75-35-4
  2.202   2.202 (0.503)    98    224411 79.3000   77.623  80.00- 120.00   100.00
  2.202   2.202 (0.503)    96    352658                   127.15- 187.15   157.15
  2.202   2.202 (0.503)    61    584807                   230.60- 290.60   260.60
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.381	2.381 (0.544)	76	987902	62.3000	58.421	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.309	2.309 (0.527)	45	701075	49.2000	44.561	80.00- 120.00	100.00(a)
2.302	2.302 (0.526)	43	139570			0.00- 49.91	19.91
2.302	2.302 (0.526)	59	24400			0.00- 33.48	3.48
22 Methylene Chloride					CAS #: 75-09-2		
2.610	2.610 (0.596)	49	497791	69.5000	68.923	80.00- 120.00	100.00
2.610	2.610 (0.596)	84	341572			38.62- 98.62	68.62
2.610	2.610 (0.596)	51	151491			0.43- 60.43	30.43
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.854	2.854 (0.652)	98	229826	79.3000	79.547	80.00- 120.00	100.00
2.854	2.854 (0.652)	61	530411			200.79- 260.79	230.79
2.854	2.854 (0.652)	96	359420			126.39- 186.39	156.39
26 MTBE					CAS #: 1634-04-4		
2.832	2.832 (0.647)	73	886467	72.1000	73.628	80.00- 120.00	100.00
2.832	2.832 (0.647)	57	219527			0.00- 54.76	24.76
2.832	2.832 (0.647)	41	235565			0.00- 56.57	26.57
28 Hexane					CAS #: 110-54-3		
3.133	3.133 (0.715)	57	589484	70.5000	69.968	80.00- 120.00	100.00
3.133	3.133 (0.715)	43	423087			41.77- 101.77	71.77
3.140	3.140 (0.717)	86	81802			0.00- 43.88	13.88
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.319	3.319 (0.758)	63	623812	81.0000	81.256	80.00- 120.00	100.00
3.319	3.319 (0.758)	65	197782			1.71- 61.71	31.71
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.036	4.036 (0.921)	98	242276	79.3000	78.212	80.00- 120.00	100.00
4.036	4.036 (0.921)	96	378220			126.11- 186.11	156.11
4.036	4.036 (0.921)	61	508565			179.91- 239.91	209.91
38 2-Butanone					CAS #: 78-93-3		
4.014	4.014 (0.917)	72	181776	59.0000	57.490	80.00- 120.00	100.00(a)
4.007	4.007 (0.915)	43	907241			469.10- 529.10	499.10
4.007	4.007 (0.915)	57	65706			6.15- 66.15	36.15
44 Chloroform					CAS #: 67-66-3		
4.559	4.559 (1.041)	83	714741	97.7000	96.936	80.00- 120.00	100.00
4.559	4.559 (1.041)	85	471653			35.99- 95.99	65.99

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.874	4.874 (0.811)	84	455105	68.8000	68.858	80.00- 120.00	100.00
4.874	4.874 (0.811)	56	604324			102.79- 162.79	132.79
4.874	4.874 (0.811)	41	383960			54.37- 114.37	84.37
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.774	4.774 (0.794)	97	739867	109.000	114.17	80.00- 120.00	100.00
4.774	4.774 (0.794)	99	478554			34.68- 94.68	64.68
47 Carbon Tetrachloride					CAS #: 56-23-5		
5.010	5.010 (0.833)	119	760302	126.000	134.27	80.00- 120.00	100.00
5.010	5.010 (0.833)	117	784587			73.19- 133.19	103.19
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.533	5.533 (0.920)	57	1919665	93.4000	95.691	80.00- 120.00	100.00
5.533	5.533 (0.920)	56	609396			1.74- 61.74	31.74
5.533	5.533 (0.920)	41	582379			0.34- 60.34	30.34
48 Benzene					CAS #: 71-43-2		
5.318	5.318 (0.884)	78	1242632	63.9000	64.789	80.00- 120.00	100.00
5.318	5.318 (0.884)	77	292361			0.00- 53.53	23.53
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.425	5.425 (0.902)	62	481355	80.9000	81.515	80.00- 120.00	100.00
5.425	5.425 (0.902)	64	154734			2.15- 62.15	32.15
53 Heptane					CAS #: 142-82-5		
5.834	5.834 (0.970)	71	366242	82.0000	81.296	80.00- 120.00	100.00
5.834	5.834 (0.970)	43	801341			188.80- 248.80	218.80
5.834	5.834 (0.970)	57	372757			71.78- 131.78	101.78
56 Trichloroethene					CAS #: 79-01-6		
6.314	6.314 (1.050)	95	549897	108.000	104.35	80.00- 120.00	100.00
6.314	6.314 (1.050)	130	575976			74.74- 134.74	104.74
6.314	6.314 (1.050)	97	356725			34.87- 94.87	64.87
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.622	6.622 (1.101)	83	671131	80.3000	81.787	80.00- 120.00	100.00
6.622	6.622 (1.101)	98	296741			14.22- 74.22	44.22
6.622	6.622 (1.101)	55	592177			58.24- 118.24	88.24
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.679	6.679 (1.111)	63	424497	92.4000	95.923	80.00- 120.00	100.00
6.679	6.679 (1.111)	62	294275			39.32- 99.32	69.32
6.679	6.679 (1.111)	41	285506			37.26- 97.26	67.26

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.794	6.794 (1.130)	88	269176	72.1000	71.325	80.00- 120.00	100.00
6.794	6.794 (1.130)	58	191864			41.28- 101.28	71.28
6.801	6.801 (1.131)	57	82432			0.62- 60.62	30.62
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.897	7.897 (1.313)	58	365587	81.9000	84.158	80.00- 120.00	100.00
7.897	7.897 (1.313)	43	1072420			263.34- 323.34	293.34
7.897	7.897 (1.313)	85	154731			12.32- 72.32	42.32
67 Toluene					CAS #: 108-88-3		
8.097	8.097 (0.817)	91	1407739	75.4000	73.625	80.00- 120.00	100.00
8.097	8.097 (0.817)	92	819042			28.18- 88.18	58.18
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.713	8.713 (1.449)	97	487586	109.000	110.34	80.00- 120.00	100.00
8.713	8.713 (1.449)	99	303841			32.32- 92.32	62.32
8.713	8.713 (1.449)	83	411628			54.42- 114.42	84.42
71 Tetrachloroethene					CAS #: 127-18-4		
8.771	8.771 (0.885)	166	693979	136.000	137.35	80.00- 120.00	100.00
8.771	8.771 (0.885)	129	535794			47.21- 107.21	77.21
8.771	8.771 (0.885)	131	518293			44.68- 104.68	74.68
72 2-Hexanone					CAS #: 591-78-6		
9.021	9.021 (0.910)	58	491086	81.9000	85.193	80.00- 120.00	100.00
9.021	9.021 (0.910)	43	1037135			181.19- 241.19	211.19
9.021	9.021 (0.910)	100	90985			0.00- 48.53	18.53
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.301	9.301 (0.939)	107	763537	154.000	160.89	80.00- 120.00	100.00
9.301	9.301 (0.939)	109	724426			64.88- 124.88	94.88
81 Chlorobenzene					CAS #: 108-90-7		
9.952	9.952 (1.004)	112	1151638	92.1000	94.080	80.00- 120.00	100.00
9.952	9.952 (1.004)	114	372825			2.37- 62.37	32.37
9.945	9.945 (1.004)	77	640113			25.58- 85.58	55.58
82 Ethyl Benzene					CAS #: 100-41-4		
10.103	10.103 (1.020)	106	583767	86.8000	87.608	80.00- 120.00	100.00
10.103	10.103 (1.020)	91	1832569			283.92- 343.92	313.92
84 m,p-Xylene					CAS #: 108-38-3		
10.282	10.282 (1.038)	106	731942	86.8000	84.693	80.00- 120.00	100.00
10.282	10.282 (1.038)	91	1452778			168.48- 228.48	198.48

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

   88 o-Xylene                                        CAS #: 95-47-6
 10.762  10.762 (0.939)   106    688434 86.8000   88.646  80.00- 120.00   100.00
 10.762  10.762 (0.939)    91   1439172                  179.05- 239.05   209.05
-------------------------------------------------------------------------------
   89 Styrene                                         CAS #: 100-42-5
 10.798  10.798 (0.942)   104   1161688 85.2000   86.742  80.00- 120.00   100.00
 10.798  10.798 (0.942)    78    554259                   17.71-  77.71    47.71
-------------------------------------------------------------------------------
   91 Cumene                                          CAS #: 98-82-8
 11.256  11.256 (0.982)   105   2107402 98.3000   103.18  80.00- 120.00   100.00
 11.256  11.256 (0.982)   120    566500                    0.00-  56.88    26.88
 11.249  11.249 (0.981)    51    222788                    0.00-  40.57    10.57
-------------------------------------------------------------------------------
   94 1,1,2,2-Tetrachloroethane                       CAS #: 79-34-5
 11.686  11.686 (1.019)    83   1003352 137.000   148.61  80.00- 120.00   100.00
 11.686  11.686 (1.019)    85    658478                   35.63-  95.63    65.63
-------------------------------------------------------------------------------
   96 Propylbenzene                                   CAS #: 103-65-1
 11.793  11.793 (1.029)    91   2508294 98.3000   103.82  80.00- 120.00   100.00
 11.793  11.793 (1.029)   120    595965                    0.00-  53.76    23.76
 11.793  11.793 (1.029)   105     94954                    0.00-  33.79     3.79
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                                  CAS #: 622-96-8
 11.958  11.958 (1.043)   120    639747 98.3000   102.94  80.00- 120.00   100.00
 11.958  11.958 (1.043)   105   2111038                  299.98- 359.98   329.98
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                          CAS #: 108-67-8
 12.044  12.044 (1.051)   120    904931 98.3000   103.28  80.00- 120.00   100.00
 12.044  12.044 (1.051)   105   1808373                  169.84- 229.84   199.84
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                          CAS #: 95-63-6
 12.510  12.510 (1.091)   120    835350 98.3000   102.31  80.00- 120.00   100.00
 12.510  12.510 (1.091)   105   1823087                  188.24- 248.24   218.24
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                             CAS #: 541-73-1
 12.839  12.839 (1.120)   146   1263653 120.000   125.05  80.00- 120.00   100.00
 12.839  12.839 (1.120)   148    808040                   33.94-  93.94    63.94
 12.839  12.839 (1.120)   111    505381                    9.99-  69.99    39.99
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                             CAS #: 106-46-7
 12.975  12.975 (1.132)   146   1274792 120.000   126.34  80.00- 120.00   100.00
 12.975  12.975 (1.132)   148    810217                   33.56-  93.56    63.56
 12.975  12.975 (1.132)   111    485989                    8.12-  68.12    38.12
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                             CAS #: 95-50-1
 13.419  13.419 (1.171)   146   1213165 120.000   127.05  80.00- 120.00   100.00
```

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

  105 1,2-Dichlorobenzene (continued)
 13.419  13.419 (1.171)   148    767336                    33.25-  93.25    63.25
 13.412  13.412 (1.170)   111    499336                    11.16-  71.16    41.16
-------------------------------------------------------------------------------
  106 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 15.468  15.468 (1.349)   180   1060885 148.000   161.60  80.00- 120.00   100.00
 15.468  15.468 (1.349)   182   1005928                    64.82- 124.82    94.82
-------------------------------------------------------------------------------
  107 Hexachlorobutadiene                           CAS #: 87-68-3
 15.676  15.676 (1.367)   225    797607 213.000   236.41  80.00- 120.00   100.00
 15.676  15.676 (1.367)   223    495219                    32.09-  92.09    62.09
-------------------------------------------------------------------------------
  109 Naphthalene                                   CAS #: 91-20-3
 15.790  15.790 (1.377)   128   1498358 50.0000   43.309  80.00- 120.00   100.00
 15.790  15.790 (1.377)   127    194961                     0.00-  43.01    13.01
-------------------------------------------------------------------------------
  110 2-Methylnaphthalene                           CAS #: 91-57-6
 17.237  17.237 (1.504)   142    939876 50.0000   47.000  80.00- 120.00   100.00
 17.237  17.237 (1.504)   141    822894                    57.55- 117.55    87.55
 17.237  17.237 (1.504)   115    308992                     2.88-  62.88    32.88
-------------------------------------------------------------------------------
  111 1-Methylnaphthalene                           CAS #: 90-12-0
 17.459  17.459 (1.523)   142    861839 50.0000   47.927  80.00- 120.00   100.00
 17.459  17.459 (1.523)   141    782785                    60.83- 120.83    90.83
 17.452  17.452 (1.522)   115    296032                     4.35-  64.35    34.35
-------------------------------------------------------------------------------
  112 Acenaphthylene                                CAS #: 208-96-8
 19.315  19.315 (1.685)   152   1472727 50.0000   50.144  80.00- 120.00   100.00
 19.315  19.315 (1.685)   151    301428                     0.00-  50.47    20.47
 19.315  19.315 (1.685)   153    191366                     0.00-  42.99    12.99
-------------------------------------------------------------------------------
  113 Acenaphthene                                  CAS #: 83-32-9
 19.572  19.572 (1.707)   154    776656 50.0000   48.918  80.00- 120.00   100.00
 19.572  19.572 (1.707)   152    415415                    23.49-  83.49    53.49
 19.572  19.572 (1.707)   153    865304                    81.41- 141.41   111.41
-------------------------------------------------------------------------------
  114 Fluorene                                      CAS #: 86-73-7
 20.733  20.733 (1.809)   166    672072 50.0000   42.671  80.00- 120.00   100.00
 20.733  20.733 (1.809)   165    648665                    66.52- 126.52    96.52
-------------------------------------------------------------------------------
  115 Phenanthrene                                  CAS #: 85-01-8
 22.910  22.910 (1.998)   178   1352471 50.0000   50.865  80.00- 120.00   100.00
 22.918  22.918 (1.999)   176    265669                     0.00-  49.64    19.64
 22.918  22.918 (1.999)   179    205897                     0.00-  45.22    15.22
-------------------------------------------------------------------------------
  116 Anthracene                                    CAS #: 120-12-7
 23.025  23.025 (2.008)   178   1309928 50.0000   52.014  80.00- 120.00   100.00
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
116 Anthracene (continued)								
23.025	23.025	(2.008)	176	249422			0.00- 49.04	19.04
23.025	23.025	(2.008)	179	200142			0.00- 45.28	15.28
117 Fluoranthene						CAS #: 206-44-0		
26.263	26.263	(2.291)	202	917974	50.0000	49.634	80.00- 120.00	100.00
26.263	26.263	(2.291)	101	167132			0.00- 48.21	18.21
118 Pyrene						CAS #: 129-00-0		
27.129	27.129	(2.367)	202	946348	50.0000	49.256	80.00- 120.00	100.00
27.129	27.129	(2.367)	101	199560			0.00- 51.09	21.09
27.137	27.137	(2.367)	100	167143			0.00- 47.66	17.66

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6033106.d
Lab Smp Id: VI VOC+PAH ICAL5,25
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-232-20ml(6/11/16),2744-31-50(7/5/16)

Calibration Date: 30-MAR-2016
Calibration Time: 20:53
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	225139	135083	315195	225139	0.00
54 1,4-Difluorobenze	874568	524741	1224395	874568	0.00
79 Chlorobenzene-d5	795881	477529	1114233	795881	0.00
92 Bromofluorobenzen	515685	309411	721959	515685	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.38	4.05	4.71	4.38	0.00
54 1,4-Difluorobenze	6.01	5.68	6.34	6.01	0.00
79 Chlorobenzene-d5	9.91	9.58	10.24	9.91	0.00
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	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/msd6.i/31mar16.b/6033106.d

Date : 30-MAR-2016 20:53

Client ID:

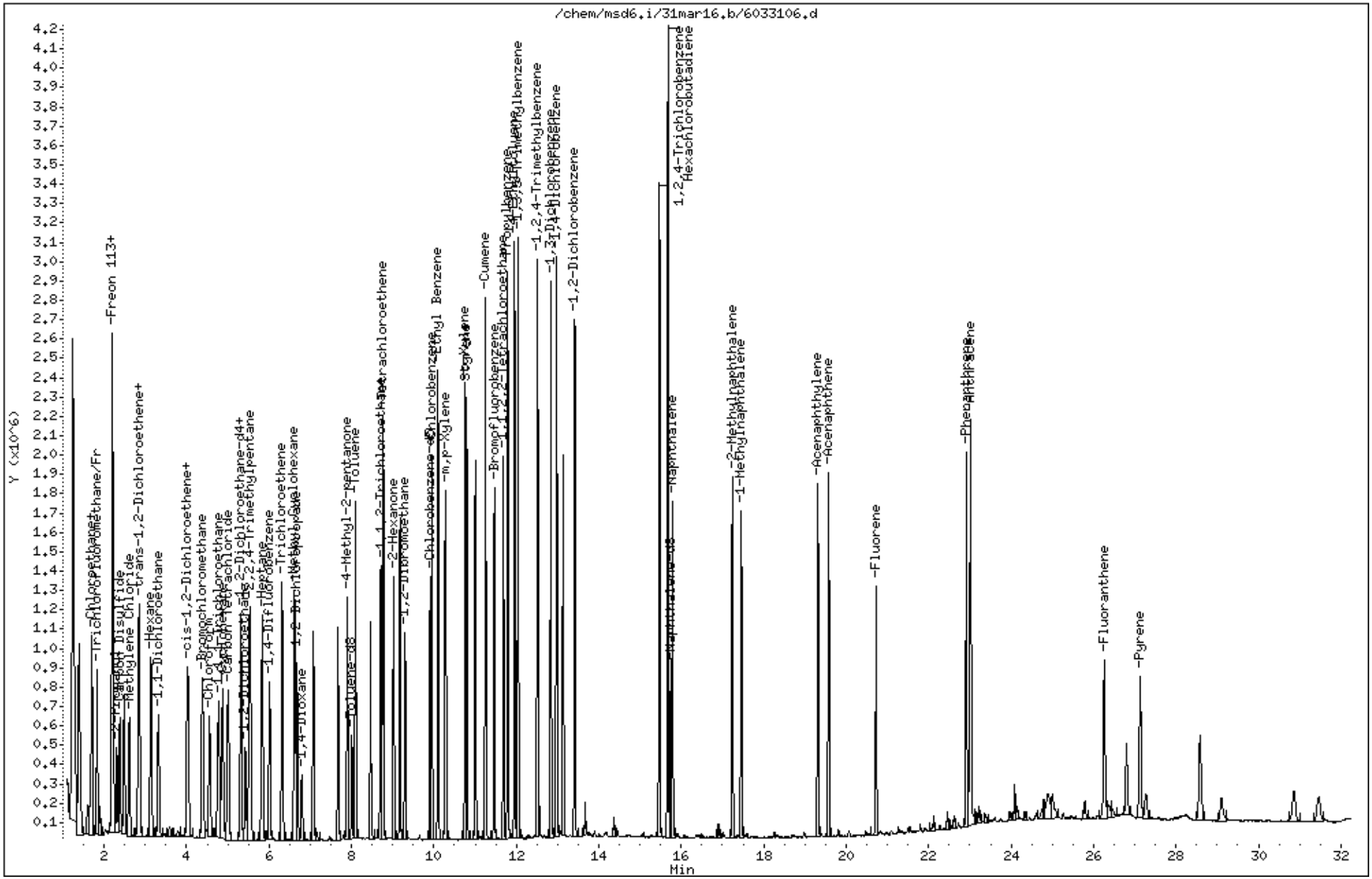
Sample Info: ;VI VOC+PAH ICAL5,25ngSurr

Column phase: RTx-624

Instrument: msd6.i

Operator: LA

Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033107.d
Lab Smp Id: VI VOC+PAH ICAL6,50
Inj Date : 30-MAR-2016 21:33
Operator : LA Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL6,50ngSurr
Misc Info : 2516-232-50ml(6/11/16),2744-31-100(7/5/1650
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 30-MAR-2016 21:33 Cal File: 6033107.d
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+PAH_ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 40 Bromochloromethane						CAS #: 74-97-5	
4.380	4.380 (1.000)	130	228360	26.0000		80.00- 120.00	100.00
4.380	4.380 (1.000)	128	175917			48.25- 108.25	77.03
4.380	4.380 (1.000)	49	305978			107.14- 167.14	133.99
* 54 1,4-Difluorobenzene						CAS #: 540-36-3	
6.013	6.013 (1.000)	114	884460	23.0000		80.00- 120.00	100.00
6.013	6.013 (1.000)	88	136857			0.00- 45.65	15.47
* 79 Chlorobenzene-d5						CAS #: 3114-55-4	
9.909	9.909 (1.000)	117	807203	24.0000		80.00- 120.00	100.00
9.909	9.909 (1.000)	82	423919			23.14- 83.14	52.52
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.464	11.464 (1.000)	174	529386	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	640436			92.70- 152.70	120.98
11.464	11.464 (1.000)	176	517413			68.24- 128.24	97.74
$ 49 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.311	5.311 (0.883)	65	236976	50.0000	50.573	80.00- 120.00	100.00

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

$  49 1,2-Dichloroethane-d4 (continued)
  5.311   5.311 (0.883)    67    120998                    22.28-  82.28    51.06
-------------------------------------------------------------------------------
$  66 Toluene-d8                                   CAS #: 2037-26-5
  8.011   8.011 (0.808)    98    808189 50.0000   51.305  80.00- 120.00   100.00
  8.004   8.004 (0.808)    70     86521                     0.00-  40.54    10.71
  8.011   8.011 (0.808)   100    528189                    35.01-  95.01    65.35
-------------------------------------------------------------------------------
$ 108 Naphthalene-d8                               CAS #: 1146-65-2
 15.747  15.747 (1.374)   136   1422855 50.0000   47.720  80.00- 120.00   100.00
 15.747  15.747 (1.374)   108    133784                     0.00-  39.41     9.40
-------------------------------------------------------------------------------
    3 Freon 114                                    CAS #: 76-14-2
  1.283   1.283 (0.293)   135   1475906 350.000   359.83  80.00- 120.00   100.00
  1.283   1.283 (0.293)   137    478514                     2.17-  62.17    32.42
-------------------------------------------------------------------------------
    6 Vinyl Chloride                               CAS #: 75-01-4
  1.395   1.395 (0.318)    62    821016 128.000   127.52  80.00- 120.00   100.00
  1.395   1.395 (0.318)    64    312137                    12.66-  72.66    38.02
-------------------------------------------------------------------------------
    7 1,3-Butadiene                                CAS #: 106-99-0
  1.409   1.409 (0.322)    54    666322 111.000   108.33  80.00- 120.00   100.00
  1.409   1.409 (0.322)    39   1050420                   133.58- 193.58   157.64
-------------------------------------------------------------------------------
    9 Chloroethane                                 CAS #: 75-00-3
  1.660   1.660 (0.379)    64    400121 132.000   108.30  80.00- 120.00   100.00
  1.674   1.674 (0.382)    66    119104                     0.00-  58.31    29.77
  1.660   1.660 (0.379)    49    118759                     0.00-  59.65    29.68
-------------------------------------------------------------------------------
   10 Isopentane                                   CAS #: 78-78-4
  1.702   1.702 (0.389)    57    702602 148.000   148.91  80.00- 120.00   100.00
  1.702   1.702 (0.389)    43   1129354                   134.33- 194.33   160.74
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                  CAS #: 75-69-4
  1.828   1.828 (0.417)   101   2030008 281.000   278.81  80.00- 120.00   100.00
  1.828   1.828 (0.417)   103   1395909                    35.98-  95.98    68.76
-------------------------------------------------------------------------------
   15 Freon 113                                    CAS #: 76-13-1
  2.202   2.202 (0.503)   151   1648861 383.000   392.29  80.00- 120.00   100.00
  2.202   2.202 (0.503)   153   1061256                    34.66-  94.66    64.36
  2.202   2.202 (0.503)   101   1927258                    88.64- 148.64   116.88
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                           CAS #: 75-35-4
  2.202   2.202 (0.503)    98    568874 198.000   194.00  80.00- 120.00   100.00
  2.202   2.202 (0.503)    96    901622                   127.15- 187.15   158.49
  2.202   2.202 (0.503)    61   1463712                   230.60- 290.60   257.30
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.381	2.381 (0.544)	76	2491565	156.000	145.26	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.309	2.309 (0.527)	45	1778866	123.000	111.47	80.00- 120.00	100.00
2.309	2.309 (0.527)	43	334440			0.00- 49.91	18.80
2.309	2.309 (0.527)	59	63261			0.00- 33.48	3.56
22 Methylene Chloride					CAS #: 75-09-2		
2.610	2.610 (0.596)	49	1190125	174.000	162.46	80.00- 120.00	100.00
2.610	2.610 (0.596)	84	820078			38.62- 98.62	68.91
2.610	2.610 (0.596)	51	358345			0.43- 60.43	30.11
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.861	2.861 (0.653)	98	584977	198.000	199.62	80.00- 120.00	100.00
2.861	2.861 (0.653)	61	1348175			200.79- 260.79	230.47
2.861	2.861 (0.653)	96	919359			126.39- 186.39	157.16
26 MTBE					CAS #: 1634-04-4		
2.839	2.839 (0.648)	73	2320467	180.000	190.01	80.00- 120.00	100.00
2.832	2.832 (0.647)	57	568229			0.00- 54.76	24.49
2.839	2.839 (0.648)	41	602243			0.00- 56.57	25.95
28 Hexane					CAS #: 110-54-3		
3.133	3.133 (0.715)	57	1490708	176.000	174.44	80.00- 120.00	100.00
3.133	3.133 (0.715)	43	1063775			41.77- 101.77	71.36
3.133	3.133 (0.715)	86	204597			0.00- 43.88	13.72
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.327	3.327 (0.760)	63	1593030	202.000	204.58	80.00- 120.00	100.00
3.327	3.327 (0.760)	65	502654			1.71- 61.71	31.55
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.043	4.043 (0.923)	98	617590	198.000	196.56	80.00- 120.00	100.00
4.043	4.043 (0.923)	96	968263			126.11- 186.11	156.78
4.043	4.043 (0.923)	61	1290047			179.91- 239.91	208.88
38 2-Butanone					CAS #: 78-93-3		
4.014	4.014 (0.917)	72	438678	147.000	136.78	80.00- 120.00	100.00
4.014	4.014 (0.917)	43	2176754			469.10- 529.10	496.21
4.014	4.014 (0.917)	57	156574			6.15- 66.15	35.69
44 Chloroform					CAS #: 67-66-3		
4.566	4.566 (1.043)	83	1803526	244.000	241.15	80.00- 120.00	100.00
4.566	4.566 (1.043)	85	1189106			35.99- 95.99	65.93

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.874	4.874 (0.811)	84	1177020	172.000	176.09	80.00- 120.00	100.00
4.874	4.874 (0.811)	56	1547156			102.79- 162.79	131.45
4.874	4.874 (0.811)	41	971791			54.37- 114.37	82.56
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.781	4.781 (0.795)	97	1918873	273.000	292.79	80.00- 120.00	100.00
4.781	4.781 (0.795)	99	1245902			34.68- 94.68	64.93
47 Carbon Tetrachloride					CAS #: 56-23-5		
5.010	5.010 (0.833)	119	1985716	315.000	346.75	80.00- 120.00	100.00
5.010	5.010 (0.833)	117	2051890			73.19- 133.19	103.33
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.533	5.533 (0.920)	57	4862711	234.000	239.68	80.00- 120.00	100.00
5.533	5.533 (0.920)	56	1551907			1.74- 61.74	31.91
5.533	5.533 (0.920)	41	1472322			0.34- 60.34	30.28
48 Benzene					CAS #: 71-43-2		
5.318	5.318 (0.884)	78	2780965	160.000	143.37	80.00- 120.00	100.00
5.318	5.318 (0.884)	77	653087			0.00- 53.53	23.48
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.425	5.425 (0.902)	62	1233281	202.000	206.51	80.00- 120.00	100.00
5.432	5.432 (0.904)	64	398764			2.15- 62.15	32.33
53 Heptane					CAS #: 142-82-5		
5.834	5.834 (0.970)	71	933749	205.000	204.95	80.00- 120.00	100.00
5.834	5.834 (0.970)	43	1999981			188.80- 248.80	214.19
5.834	5.834 (0.970)	57	946201			71.78- 131.78	101.33
56 Trichloroethene					CAS #: 79-01-6		
6.321	6.321 (1.051)	95	1335318	269.000	250.55	80.00- 120.00	100.00
6.321	6.321 (1.051)	130	1386382			74.74- 134.74	103.82
6.321	6.321 (1.051)	97	863960			34.87- 94.87	64.70
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.622	6.622 (1.101)	83	1704124	201.000	205.35	80.00- 120.00	100.00
6.622	6.622 (1.101)	98	762704			14.22- 74.22	44.76
6.622	6.622 (1.101)	55	1501838			58.24- 118.24	88.13
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.679	6.679 (1.111)	63	1092199	231.000	244.04	80.00- 120.00	100.00
6.686	6.686 (1.112)	62	761192			39.32- 99.32	69.69
6.679	6.679 (1.111)	41	675002			37.26- 97.26	61.80

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.793	6.793 (1.130)	88	694697	180.000	182.02	80.00- 120.00	100.00
6.793	6.793 (1.130)	58	491088			41.28- 101.28	70.69
6.793	6.793 (1.130)	57	178058			0.62- 60.62	25.63
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.897	7.897 (1.313)	58	939629	205.000	213.88	80.00- 120.00	100.00
7.897	7.897 (1.313)	43	2724787			263.34- 323.34	289.99
7.897	7.897 (1.313)	85	396041			12.32- 72.32	42.15
67 Toluene					CAS #: 108-88-3		
8.097	8.097 (0.817)	91	3554553	188.000	183.30	80.00- 120.00	100.00
8.097	8.097 (0.817)	92	2078794			28.18- 88.18	58.48
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.713	8.713 (1.449)	97	1248120	273.000	279.28	80.00- 120.00	100.00
8.713	8.713 (1.449)	99	781927			32.32- 92.32	62.65
8.713	8.713 (1.449)	83	1055626			54.42- 114.42	84.58
71 Tetrachloroethene					CAS #: 127-18-4		
8.770	8.770 (0.885)	166	1786276	339.000	348.57	80.00- 120.00	100.00
8.770	8.770 (0.885)	129	1356257			47.21- 107.21	75.93
8.770	8.770 (0.885)	131	1306445			44.68- 104.68	73.14
72 2-Hexanone					CAS #: 591-78-6		
9.021	9.021 (0.910)	58	1278382	205.000	218.66	80.00- 120.00	100.00
9.021	9.021 (0.910)	43	2666737			181.19- 241.19	208.60
9.021	9.021 (0.910)	100	239066			0.00- 48.53	18.70
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.300	9.300 (0.939)	107	1995936	384.000	414.67	80.00- 120.00	100.00
9.300	9.300 (0.939)	109	1890705			64.88- 124.88	94.73
81 Chlorobenzene					CAS #: 108-90-7		
9.952	9.952 (1.004)	112	2916431	230.000	234.91	80.00- 120.00	100.00
9.952	9.952 (1.004)	114	945005			2.37- 62.37	32.40
9.945	9.945 (1.004)	77	1614820			25.58- 85.58	55.37
82 Ethyl Benzene					CAS #: 100-41-4		
10.103	10.103 (1.020)	106	1511318	217.000	223.63	80.00- 120.00	100.00
10.103	10.103 (1.020)	91	4675249			283.92- 343.92	309.35
84 m,p-Xylene					CAS #: 108-38-3		
10.282	10.282 (1.038)	106	1891978	217.000	215.85	80.00- 120.00	100.00
10.282	10.282 (1.038)	91	3737749			168.48- 228.48	197.56

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

   88 o-Xylene                                        CAS #: 95-47-6
 10.762  10.762 (0.939)   106   1764207 217.000   221.29  80.00- 120.00   100.00
 10.762  10.762 (0.939)    91   3654542                  179.05- 239.05   207.15
-------------------------------------------------------------------------------
   89 Styrene                                         CAS #: 100-42-5
 10.798  10.798 (0.942)   104   2999984 213.000   218.21  80.00- 120.00   100.00
 10.798  10.798 (0.942)    78   1427330                   17.71-  77.71    47.58
-------------------------------------------------------------------------------
   91 Cumene                                          CAS #: 98-82-8
 11.256  11.256 (0.982)   105   5364256 246.000   255.84  80.00- 120.00   100.00
 11.256  11.256 (0.982)   120   1453424                    0.00-  56.88    27.09
 11.249  11.249 (0.981)    51    559593                    0.00-  40.57    10.43
-------------------------------------------------------------------------------
   94 1,1,2,2-Tetrachloroethane                       CAS #: 79-34-5
 11.686  11.686 (1.019)    83   2742543 343.000   395.69  80.00- 120.00   100.00
 11.686  11.686 (1.019)    85   1785697                   35.63-  95.63    65.11
-------------------------------------------------------------------------------
   96 Propylbenzene                                   CAS #: 103-65-1
 11.793  11.793 (1.029)    91   6388806 246.000   257.61  80.00- 120.00   100.00
 11.793  11.793 (1.029)   120   1540527                    0.00-  53.76    24.11
 11.793  11.793 (1.029)   105    240904                    0.00-  33.79     3.77
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                                  CAS #: 622-96-8
 11.958  11.958 (1.043)   120   1645363 246.000   257.90  80.00- 120.00   100.00
 11.958  11.958 (1.043)   105   5309588                  299.98- 359.98   322.70
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                          CAS #: 108-67-8
 12.044  12.044 (1.051)   120   2306666 246.000   256.44  80.00- 120.00   100.00
 12.044  12.044 (1.051)   105   4590069                  169.84- 229.84   198.99
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                          CAS #: 95-63-6
 12.517  12.517 (1.092)   120   2120318 246.000   252.96  80.00- 120.00   100.00
 12.510  12.510 (1.091)   105   4565185                  188.24- 248.24   215.31
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                             CAS #: 541-73-1
 12.839  12.839 (1.120)   146   3199862 301.000   308.45  80.00- 120.00   100.00
 12.839  12.839 (1.120)   148   2046773                   33.94-  93.94    63.96
 12.839  12.839 (1.120)   111   1267753                    9.99-  69.99    39.62
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                             CAS #: 106-46-7
 12.975  12.975 (1.132)   146   3202256 301.000   309.15  80.00- 120.00   100.00
 12.975  12.975 (1.132)   148   2055563                   33.56-  93.56    64.19
 12.975  12.975 (1.132)   111   1225552                    8.12-  68.12    38.27
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                             CAS #: 95-50-1
 13.419  13.419 (1.171)   146   3058444 301.000   312.00  80.00- 120.00   100.00
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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE (   ng)  (   ng)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  105 1,2-Dichlorobenzene (continued)
 13.419  13.419 (1.171)   148   1957057                    33.25-  93.25    63.99
 13.419  13.419 (1.171)   111   1250596                    11.16-  71.16    40.89
-------------------------------------------------------------------------------
  106 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 15.468  15.468 (1.349)   180   2576917 371.000   382.36  80.00- 120.00   100.00
 15.468  15.468 (1.349)   182   2454788                    64.82- 124.82    95.26
-------------------------------------------------------------------------------
  107 Hexachlorobutadiene                           CAS #: 87-68-3
 15.676  15.676 (1.367)   225   1976457 533.000   570.66  80.00- 120.00   100.00
 15.676  15.676 (1.367)   223   1241933                    32.09-  92.09    62.84
-------------------------------------------------------------------------------
  109 Naphthalene                                   CAS #: 91-20-3
 15.790  15.790 (1.377)   128   2984721 100.000   84.039  80.00- 120.00   100.00
 15.790  15.790 (1.377)   127    391516                     0.00-  43.01    13.12
-------------------------------------------------------------------------------
  110 2-Methylnaphthalene                           CAS #: 91-57-6
 17.237  17.237 (1.504)   142   1916783 100.000   93.370  80.00- 120.00   100.00
 17.237  17.237 (1.504)   141   1680246                    57.55- 117.55    87.66
 17.237  17.237 (1.504)   115    631100                     2.88-  62.88    32.92
-------------------------------------------------------------------------------
  111 1-Methylnaphthalene                           CAS #: 90-12-0
 17.459  17.459 (1.523)   142   1745880 100.000   94.576  80.00- 120.00   100.00
 17.459  17.459 (1.523)   141   1584853                    60.83- 120.83    90.78
 17.459  17.459 (1.523)   115    599489                     4.35-  64.35    34.34
-------------------------------------------------------------------------------
  112 Acenaphthylene                                CAS #: 208-96-8
 19.314  19.314 (1.685)   152   2916922 100.000   96.745  80.00- 120.00   100.00
 19.314  19.314 (1.685)   151    592478                     0.00-  50.47    20.31
 19.314  19.314 (1.685)   153    380479                     0.00-  42.99    13.04
-------------------------------------------------------------------------------
  113 Acenaphthene                                  CAS #: 83-32-9
 19.572  19.572 (1.707)   154   1627182 100.000   99.837  80.00- 120.00   100.00
 19.572  19.572 (1.707)   152    861774                    23.49-  83.49    52.96
 19.572  19.572 (1.707)   153   1802834                    81.41- 141.41   110.79
-------------------------------------------------------------------------------
  114 Fluorene                                      CAS #: 86-73-7
 20.733  20.733 (1.809)   166   1691568 100.000   104.62  80.00- 120.00   100.00
 20.733  20.733 (1.809)   165   1625151                    66.52- 126.52    96.07
-------------------------------------------------------------------------------
  115 Phenanthrene                                  CAS #: 85-01-8
 22.917  22.917 (1.999)   178   2618454 100.000   95.929  80.00- 120.00   100.00
 22.917  22.917 (1.999)   176    509961                     0.00-  49.64    19.48
 22.917  22.917 (1.999)   179    401077                     0.00-  45.22    15.32
-------------------------------------------------------------------------------
  116 Anthracene                                    CAS #: 120-12-7
 23.025  23.025 (2.008)   178   2572594 100.000   99.508  80.00- 120.00   100.00
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
116 Anthracene (continued)								
23.018	23.018	(2.008)	176	486795			0.00- 49.04	18.92
23.018	23.018	(2.008)	179	397244			0.00- 45.28	15.44
117 Fluoranthene						CAS #: 206-44-0		
26.263	26.263	(2.291)	202	1500889	100.000	79.051	80.00- 120.00	100.00
26.255	26.255	(2.290)	101	270383			0.00- 48.21	18.01
118 Pyrene						CAS #: 129-00-0		
27.129	27.129	(2.367)	202	1533709	100.000	77.762	80.00- 120.00	100.00
27.129	27.129	(2.367)	101	319770			0.00- 51.09	20.85
27.129	27.129	(2.367)	100	263763			0.00- 47.66	17.20

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6033107.d
Lab Smp Id: VI VOC+PAH ICAL6,50
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-232-50ml(6/11/16),2744-31-100(7/5/1650

Calibration Date: 30-MAR-2016
Calibration Time: 20:53
Level: LOW
Sample Type: AIR

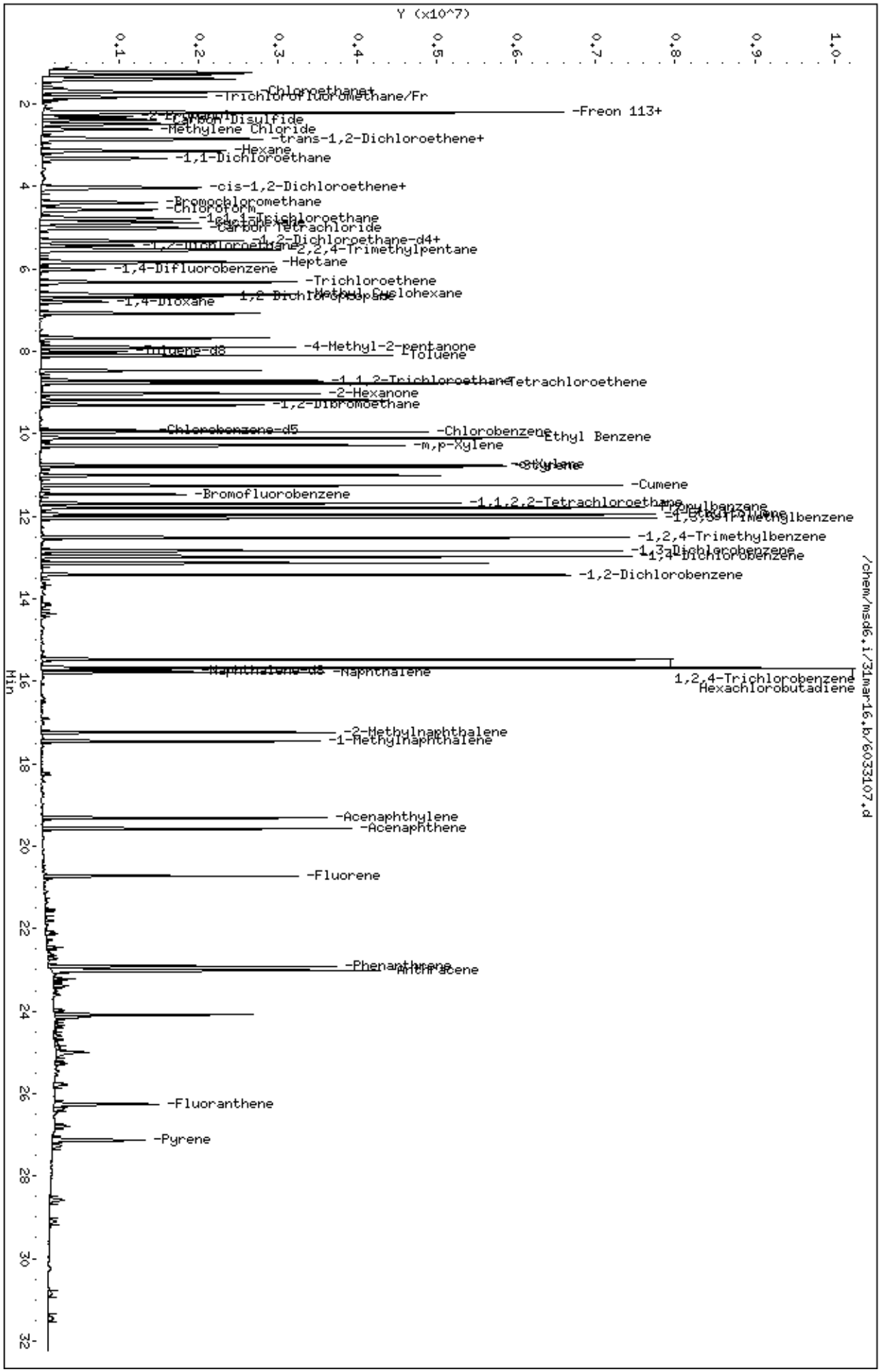
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	225139	135083	315195	228360	1.43
54 1,4-Difluorobenze	874568	524741	1224395	884460	1.13
79 Chlorobenzene-d5	795881	477529	1114233	807203	1.42
92 Bromofluorobenzen	515685	309411	721959	529386	2.66

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.38	4.05	4.71	4.38	0.00
54 1,4-Difluorobenze	6.01	5.68	6.34	6.01	0.00
79 Chlorobenzene-d5	9.91	9.58	10.24	9.91	0.00
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	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/msd6.i/31mar16.b/6033107.d
Date : 30-MAR-2016 21:33
Client ID:
Sample Info: ;VI VOC+PAH ICAL6,50ngSurr
Column phase: RTx-624

Instrument: msd6.i
Operator: LA
Column diameter: 0.53



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Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033108.d
Lab Smp Id: VI VOC+PAH ICAL7,10
Inj Date : 30-MAR-2016 22:12
Operator : LA Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL7,100ngSurr
Misc Info : 2516-232-100ml(6/11/16),2744-31-250(7/5/16)
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 30-MAR-2016 22:12 Cal File: 6033108.d
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+PAH_ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 40 Bromochloromethane						CAS #: 74-97-5	
4.387	4.387 (1.000)	130	232294	26.0000		80.00- 120.00	100.00
4.387	4.387 (1.000)	128	179778			48.25- 108.25	77.39
4.380	4.380 (1.000)	49	313274			107.14- 167.14	134.86
* 54 1,4-Difluorobenzene						CAS #: 540-36-3	
6.013	6.013 (1.000)	114	893234	23.0000		80.00- 120.00	100.00
6.013	6.013 (1.000)	88	138358			0.00- 45.65	15.49
* 79 Chlorobenzene-d5						CAS #: 3114-55-4	
9.910	9.910 (1.000)	117	812545	24.0000		80.00- 120.00	100.00
9.910	9.910 (1.000)	82	428150			23.14- 83.14	52.69
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.464	11.464 (1.000)	174	542882	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	648745			92.70- 152.70	119.50
11.464	11.464 (1.000)	176	529741			68.24- 128.24	97.58
$ 49 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.318	5.318 (0.884)	65	444172	100.000	93.860	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
$ 49 1,2-Dichloroethane-d4 (continued)							
5.318	5.318 (0.884)	67	232581			22.28- 82.28	52.36
$ 66 Toluene-d8						CAS #: 2037-26-5	
8.011	8.011 (0.808)	98	1577790	100.000	99.503	80.00- 120.00	100.00
8.011	8.011 (0.808)	70	168500			0.00- 40.54	10.68
8.011	8.011 (0.808)	100	1028292			35.01- 95.01	65.17
$ 108 Naphthalene-d8						CAS #: 1146-65-2	
15.747	15.747 (1.374)	136	2982415	100.000	97.538	80.00- 120.00	100.00
15.747	15.747 (1.374)	108	281364			0.00- 39.41	9.43
3 Freon 114						CAS #: 76-14-2	
1.269	1.269 (0.289)	135	2877516	699.000	689.67	80.00- 120.00	100.00
1.283	1.283 (0.292)	137	933284			2.17- 62.17	32.43
6 Vinyl Chloride						CAS #: 75-01-4	
1.395	1.395 (0.318)	62	1632542	256.000	249.28	80.00- 120.00	100.00
1.395	1.395 (0.318)	64	553123			12.66- 72.66	33.88
7 1,3-Butadiene						CAS #: 106-99-0	
1.409	1.409 (0.321)	54	1335056	221.000	213.38	80.00- 120.00	100.00
1.395	1.395 (0.318)	39	2091217			133.58- 193.58	156.64
9 Chloroethane						CAS #: 75-00-3	
1.661	1.661 (0.379)	64	779926	264.000	207.52	80.00- 120.00	100.00
1.661	1.661 (0.379)	66	240321			0.00- 58.31	30.81
1.661	1.661 (0.379)	49	241720			0.00- 59.65	30.99
10 Isopentane						CAS #: 78-78-4	
1.703	1.703 (0.388)	57	1395941	295.000	290.84	80.00- 120.00	100.00
1.703	1.703 (0.388)	43	2219519			134.33- 194.33	159.00
11 Trichlorofluoromethane/Fr11						CAS #: 75-69-4	
1.828	1.828 (0.417)	101	4425144	562.000	597.47	80.00- 120.00	100.00
1.828	1.828 (0.417)	103	2846583			35.98- 95.98	64.33
15 Freon 113						CAS #: 76-13-1	
2.202	2.202 (0.502)	151	3288628	766.000	769.17	80.00- 120.00	100.00
2.202	2.202 (0.502)	153	2133080			34.66- 94.66	64.86
2.202	2.202 (0.502)	101	3803044			88.64- 148.64	115.64
14 1,1-Dichloroethene						CAS #: 75-35-4	
2.202	2.202 (0.502)	98	1134439	397.000	380.31	80.00- 120.00	100.00
2.202	2.202 (0.502)	96	1790252			127.15- 187.15	157.81
2.202	2.202 (0.502)	61	2889571			230.60- 290.60	254.71

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.381	2.381 (0.543)	76	4983311	311.000	285.62	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.310	2.310 (0.526)	45	3602853	246.000	221.95	80.00- 120.00	100.00
2.310	2.310 (0.526)	43	679806			0.00- 49.91	18.87
2.302	2.302 (0.525)	59	129263			0.00- 33.48	3.59
22 Methylene Chloride					CAS #: 75-09-2		
2.610	2.610 (0.595)	49	2279983	347.000	305.96	80.00- 120.00	100.00
2.610	2.610 (0.595)	84	1604864			38.62- 98.62	70.39
2.610	2.610 (0.595)	51	688968			0.43- 60.43	30.22
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.861	2.861 (0.652)	98	1169778	396.000	392.41	80.00- 120.00	100.00
2.861	2.861 (0.652)	61	2675868			200.79- 260.79	228.75
2.861	2.861 (0.652)	96	1840855			126.39- 186.39	157.37
26 MTBE					CAS #: 1634-04-4		
2.840	2.840 (0.647)	73	4568636	361.000	367.77	80.00- 120.00	100.00
2.840	2.840 (0.647)	57	1111431			0.00- 54.76	24.33
2.840	2.840 (0.647)	41	1164835			0.00- 56.57	25.50
28 Hexane					CAS #: 110-54-3		
3.133	3.133 (0.714)	57	2974733	352.000	342.20	80.00- 120.00	100.00
3.133	3.133 (0.714)	43	2098249			41.77- 101.77	70.54
3.133	3.133 (0.714)	86	413992			0.00- 43.88	13.92
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.327	3.327 (0.758)	63	3202683	405.000	404.32	80.00- 120.00	100.00
3.327	3.327 (0.758)	65	1016430			1.71- 61.71	31.74
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.043	4.043 (0.922)	98	1242528	396.000	388.76	80.00- 120.00	100.00
4.043	4.043 (0.922)	96	1942927			126.11- 186.11	156.37
4.043	4.043 (0.922)	61	2580008			179.91- 239.91	207.64
38 2-Butanone					CAS #: 78-93-3		
4.014	4.014 (0.915)	72	840448	295.000	257.62	80.00- 120.00	100.00
4.014	4.014 (0.915)	43	4121841			469.10- 529.10	490.43
4.014	4.014 (0.915)	57	295452			6.15- 66.15	35.15
44 Chloroform					CAS #: 67-66-3		
4.566	4.566 (1.041)	83	3573836	488.000	469.77	80.00- 120.00	100.00
4.566	4.566 (1.041)	85	2335052			35.99- 95.99	65.34

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.881	4.881 (0.812)	84	2361850	344.000	349.88	80.00- 120.00	100.00
4.881	4.881 (0.812)	56	3094677			102.79- 162.79	131.03
4.881	4.881 (0.812)	41	1921305			54.37- 114.37	81.35
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.781	4.781 (0.795)	97	3819343	546.000	577.05	80.00- 120.00	100.00
4.781	4.781 (0.795)	99	2478057			34.68- 94.68	64.88
47 Carbon Tetrachloride					CAS #: 56-23-5		
5.010	5.010 (0.833)	119	3931024	629.000	679.70	80.00- 120.00	100.00
5.010	5.010 (0.833)	117	4090691			73.19- 133.19	104.06
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.533	5.533 (0.920)	57	9644119	467.000	470.69	80.00- 120.00	100.00
5.533	5.533 (0.920)	56	3080222			1.74- 61.74	31.94
5.533	5.533 (0.920)	41	2876277			0.34- 60.34	29.82
48 Benzene					CAS #: 71-43-2		
5.325	5.325 (0.886)	78	5509497	319.000	281.26	80.00- 120.00	100.00
5.318	5.318 (0.884)	77	1296072			0.00- 53.53	23.52
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.433	5.433 (0.904)	62	2426716	405.000	402.36	80.00- 120.00	100.00
5.433	5.433 (0.904)	64	786450			2.15- 62.15	32.41
53 Heptane					CAS #: 142-82-5		
5.834	5.834 (0.970)	71	1881117	410.000	408.83	80.00- 120.00	100.00
5.834	5.834 (0.970)	43	3907316			188.80- 248.80	207.71
5.834	5.834 (0.970)	57	1879048			71.78- 131.78	99.89
56 Trichloroethene					CAS #: 79-01-6		
6.321	6.321 (1.051)	95	2680083	537.000	497.94	80.00- 120.00	100.00
6.321	6.321 (1.051)	130	2788660			74.74- 134.74	104.05
6.321	6.321 (1.051)	97	1734417			34.87- 94.87	64.72
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.622	6.622 (1.101)	83	3428664	402.000	409.10	80.00- 120.00	100.00
6.622	6.622 (1.101)	98	1522484			14.22- 74.22	44.40
6.622	6.622 (1.101)	55	2978194			58.24- 118.24	86.86
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.686	6.686 (1.112)	63	2185401	462.000	483.51	80.00- 120.00	100.00
6.686	6.686 (1.112)	62	1520843			39.32- 99.32	69.59
6.679	6.679 (1.111)	41	1334484			37.26- 97.26	61.06

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.801	6.801 (1.131)	88	1397606	360.000	362.59	80.00- 120.00	100.00
6.794	6.794 (1.130)	58	982607			41.28- 101.28	70.31
6.794	6.794 (1.130)	57	341766			0.62- 60.62	24.45
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.904	7.904 (1.314)	58	1868348	410.000	421.11	80.00- 120.00	100.00
7.904	7.904 (1.314)	43	5296841			263.34- 323.34	283.50
7.904	7.904 (1.314)	85	795789			12.32- 72.32	42.59
67 Toluene					CAS #: 108-88-3		
8.097	8.097 (0.817)	91	7014231	377.000	359.32	80.00- 120.00	100.00
8.097	8.097 (0.817)	92	4125981			28.18- 88.18	58.82
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.713	8.713 (1.449)	97	2474168	546.000	548.19	80.00- 120.00	100.00
8.713	8.713 (1.449)	99	1554453			32.32- 92.32	62.83
8.713	8.713 (1.449)	83	2101754			54.42- 114.42	84.95
71 Tetrachloroethene					CAS #: 127-18-4		
8.771	8.771 (0.885)	166	3628925	678.000	703.48	80.00- 120.00	100.00
8.771	8.771 (0.885)	129	2686690			47.21- 107.21	74.04
8.771	8.771 (0.885)	131	2586894			44.68- 104.68	71.29
72 2-Hexanone					CAS #: 591-78-6		
9.021	9.021 (0.910)	58	2530246	410.000	429.94	80.00- 120.00	100.00
9.021	9.021 (0.910)	43	5199789			181.19- 241.19	205.51
9.021	9.021 (0.910)	100	483384			0.00- 48.53	19.10
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.301	9.301 (0.939)	107	3842383	768.000	793.03	80.00- 120.00	100.00
9.301	9.301 (0.939)	109	3645694			64.88- 124.88	94.88
81 Chlorobenzene					CAS #: 108-90-7		
9.953	9.953 (1.004)	112	5749047	460.000	460.02	80.00- 120.00	100.00
9.953	9.953 (1.004)	114	1878359			2.37- 62.37	32.67
9.953	9.953 (1.004)	77	3188533			25.58- 85.58	55.46
82 Ethyl Benzene					CAS #: 100-41-4		
10.103	10.103 (1.020)	106	2990371	434.000	439.57	80.00- 120.00	100.00
10.103	10.103 (1.020)	91	9118346			283.92- 343.92	304.92
84 m,p-Xylene					CAS #: 108-38-3		
10.282	10.282 (1.038)	106	3740692	434.000	423.96	80.00- 120.00	100.00
10.282	10.282 (1.038)	91	7362794			168.48- 228.48	196.83

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
88 o-Xylene					CAS #: 95-47-6		
10.769	10.769 (0.939)	106	3498428	434.000	427.91	80.00- 120.00	100.00
10.769	10.769 (0.939)	91	7194006			179.05- 239.05	205.64
89 Styrene					CAS #: 100-42-5		
10.798	10.798 (0.942)	104	5934001	426.000	420.89	80.00- 120.00	100.00
10.798	10.798 (0.942)	78	2826373			17.71- 77.71	47.63
91 Cumene					CAS #: 98-82-8		
11.256	11.256 (0.982)	105	10449534	492.000	485.99	80.00- 120.00	100.00
11.256	11.256 (0.982)	120	2879054			0.00- 56.88	27.55
11.256	11.256 (0.982)	51	1083708			0.00- 40.57	10.37
94 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
11.686	11.686 (1.019)	83	5377257	687.000	756.54	80.00- 120.00	100.00
11.686	11.686 (1.019)	85	3512637			35.63- 95.63	65.32
96 Propylbenzene					CAS #: 103-65-1		
11.793	11.793 (1.029)	91	12371723	492.000	486.44	80.00- 120.00	100.00
11.793	11.793 (1.029)	120	3055644			0.00- 53.76	24.70
11.793	11.793 (1.029)	105	482541			0.00- 33.79	3.90
97 4-Ethyltoluene					CAS #: 622-96-8		
11.958	11.958 (1.043)	120	3241634	492.000	495.47	80.00- 120.00	100.00
11.958	11.958 (1.043)	105	10329042			299.98- 359.98	318.64
98 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
12.044	12.044 (1.051)	120	4510575	492.000	489.00	80.00- 120.00	100.00
12.044	12.044 (1.051)	105	8917193			169.84- 229.84	197.70
100 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
12.517	12.517 (1.092)	120	4167667	492.000	484.85	80.00- 120.00	100.00
12.517	12.517 (1.092)	105	8886072			188.24- 248.24	213.21
101 1,3-Dichlorobenzene					CAS #: 541-73-1		
12.839	12.839 (1.120)	146	6317726	601.000	593.86	80.00- 120.00	100.00
12.839	12.839 (1.120)	148	4075133			33.94- 93.94	64.50
12.839	12.839 (1.120)	111	2510234			9.99- 69.99	39.73
102 1,4-Dichlorobenzene					CAS #: 106-46-7		
12.975	12.975 (1.132)	146	6309616	601.000	593.99	80.00- 120.00	100.00
12.975	12.975 (1.132)	148	4086628			33.56- 93.56	64.77
12.975	12.975 (1.132)	111	2434577			8.12- 68.12	38.59
105 1,2-Dichlorobenzene					CAS #: 95-50-1		
13.419	13.419 (1.171)	146	6026214	601.000	599.47	80.00- 120.00	100.00

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

  105 1,2-Dichlorobenzene (continued)
 13.419  13.419 (1.171)   148   3867232                    33.25-  93.25    64.17
 13.419  13.419 (1.171)   111   2478390                    11.16-  71.16    41.13
-------------------------------------------------------------------------------
  106 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 15.475  15.475 (1.350)   180   5248238 742.000   759.38  80.00- 120.00   100.00
 15.475  15.475 (1.350)   182   5030495                    64.82- 124.82    95.85
-------------------------------------------------------------------------------
  107 Hexachlorobutadiene                           CAS #: 87-68-3
 15.683  15.683 (1.368)   225   4080623 1070.00   1148.9  80.00- 120.00   100.00
 15.683  15.683 (1.368)   223   2567028                    32.09-  92.09    62.91
-------------------------------------------------------------------------------
  109 Naphthalene                                   CAS #: 91-20-3
 15.790  15.790 (1.377)   128   7374385 250.000   202.47  80.00- 120.00   100.00
 15.790  15.790 (1.377)   127    976593                     0.00-  43.01    13.24
-------------------------------------------------------------------------------
  110 2-Methylnaphthalene                           CAS #: 91-57-6
 17.237  17.237 (1.504)   142   4820181 250.000   228.96  80.00- 120.00   100.00
 17.237  17.237 (1.504)   141   4216195                    57.55- 117.55    87.47
 17.237  17.237 (1.504)   115   1567130                     2.88-  62.88    32.51
-------------------------------------------------------------------------------
  111 1-Methylnaphthalene                           CAS #: 90-12-0
 17.459  17.459 (1.523)   142   4411874 250.000   233.05  80.00- 120.00   100.00
 17.459  17.459 (1.523)   141   3985845                    60.83- 120.83    90.34
 17.459  17.459 (1.523)   115   1497364                     4.35-  64.35    33.94
-------------------------------------------------------------------------------
  112 Acenaphthylene                                CAS #: 208-96-8
 19.315  19.315 (1.685)   152   7410641 250.000   239.68  80.00- 120.00   100.00
 19.315  19.315 (1.685)   151   1511397                     0.00-  50.47    20.39
 19.315  19.315 (1.685)   153    978392                     0.00-  42.99    13.20
-------------------------------------------------------------------------------
  113 Acenaphthene                                  CAS #: 83-32-9
 19.572  19.572 (1.707)   154   4281594 250.000   256.17  80.00- 120.00   100.00(A)
 19.572  19.572 (1.707)   152   2229153                    23.49-  83.49    52.06
 19.572  19.572 (1.707)   153   4691990                    81.41- 141.41   109.59
-------------------------------------------------------------------------------
  114 Fluorene                                      CAS #: 86-73-7
 20.733  20.733 (1.809)   166   4577963 250.000   276.10  80.00- 120.00   100.00(A)
 20.733  20.733 (1.809)   165   4366226                    66.52- 126.52    95.37
-------------------------------------------------------------------------------
  115 Phenanthrene                                  CAS #: 85-01-8
 22.918  22.918 (1.999)   178   6930804 250.000   247.60  80.00- 120.00   100.00
 22.918  22.918 (1.999)   176   1350596                     0.00-  49.64    19.49
 22.918  22.918 (1.999)   179   1079164                     0.00-  45.22    15.57
-------------------------------------------------------------------------------
  116 Anthracene                                    CAS #: 120-12-7
 23.025  23.025 (2.008)   178   6899964 250.000   260.26  80.00- 120.00   100.00(A)
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RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
116 Anthracene (continued)								
23.025	23.025	(2.008)	176	1299391			0.00- 49.04	18.83
23.025	23.025	(2.008)	179	1070162			0.00- 45.28	15.51
117 Fluoranthene						CAS #: 206-44-0		
26.263	26.263	(2.291)	202	4427311	250.000	227.39	80.00- 120.00	100.00
26.263	26.263	(2.291)	101	766786			0.00- 48.21	17.32
118 Pyrene						CAS #: 129-00-0		
27.137	27.137	(2.367)	202	4590920	250.000	226.98	80.00- 120.00	100.00
27.129	27.129	(2.366)	101	936251			0.00- 51.09	20.39
27.129	27.129	(2.366)	100	773271			0.00- 47.66	16.84

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6033108.d
Lab Smp Id: VI VOC+PAH ICAL7,10
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-232-100ml(6/11/16),2744-31-250(7/5/16)

Calibration Date: 30-MAR-2016
Calibration Time: 20:53
Level: LOW
Sample Type: AIR

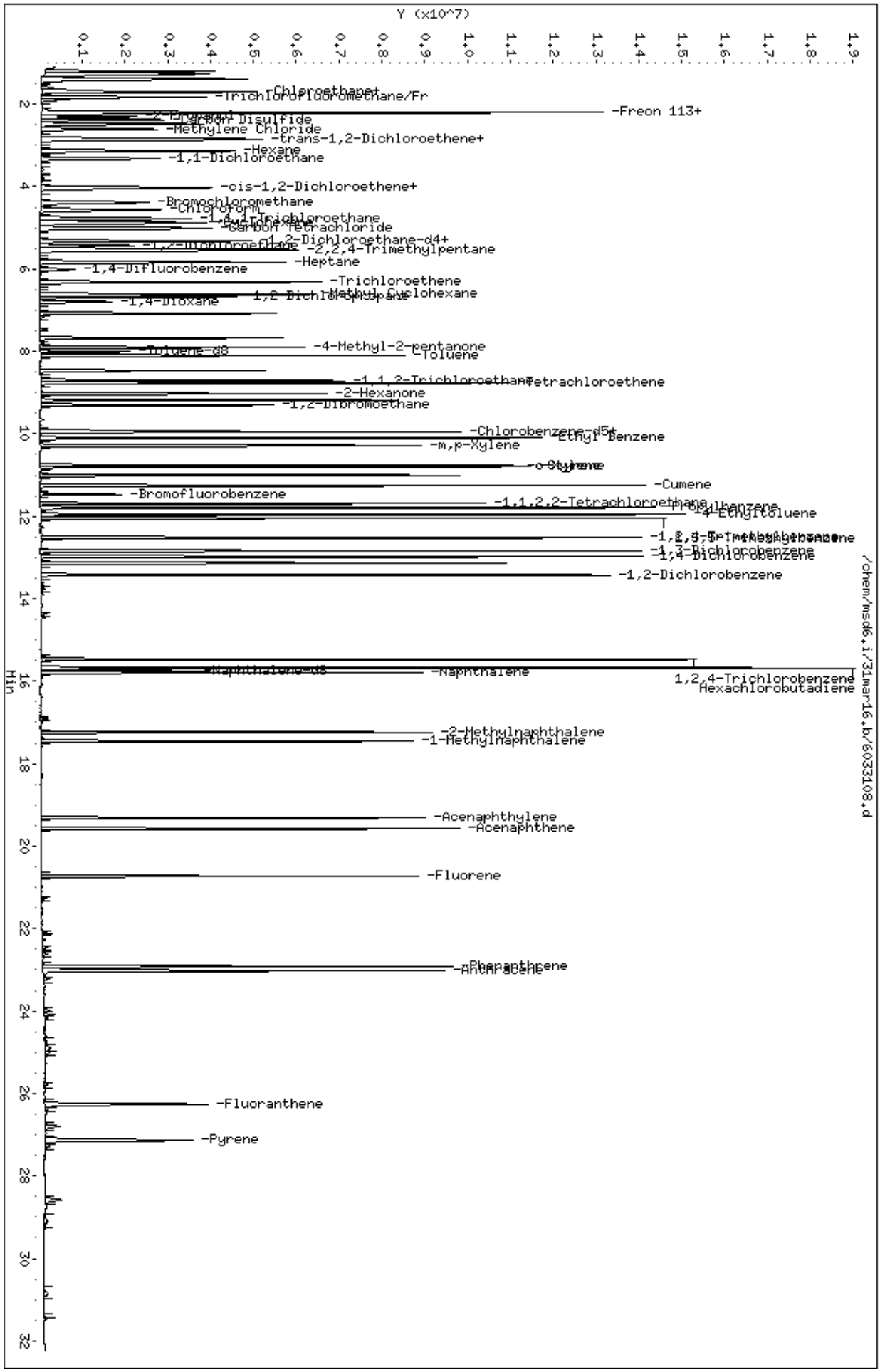
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	225139	135083	315195	232294	3.18
54 1,4-Difluorobenze	874568	524741	1224395	893234	2.13
79 Chlorobenzene-d5	795881	477529	1114233	812545	2.09
92 Bromofluorobenzen	515685	309411	721959	542882	5.27

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.38	4.05	4.71	4.39	0.16
54 1,4-Difluorobenze	6.01	5.68	6.34	6.01	0.00
79 Chlorobenzene-d5	9.91	9.58	10.24	9.91	0.00
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	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/msd6.i/31mar16.b/6033108.d
Date : 30-MAR-2016 22:12
Client ID:
Sample Info: ;VI VOC+PAH ICAL7,100ngSurr
Column phase: RTx-624

Instrument: msd6.i
Operator: LA
Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033109.d
Lab Smp Id: VI VOC+PAH ICAL8,no
Inj Date : 30-MAR-2016 22:52
Operator : LA Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL8,noSurr
Misc Info : 2516-232-200ml(6/11/16),noPAH
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 30-MAR-2016 22:52 Cal File: 6033109.d
Als bottle: 8 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC_ICALnoSS.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 40 Bromochloromethane						CAS #: 74-97-5	
4.387	4.387 (1.000)	130	232999	26.0000		80.00- 120.00	100.00
4.387	4.387 (1.000)	128	183426			48.25- 108.25	78.72
4.387	4.387 (1.000)	49	315857			107.14- 167.14	135.56
* 54 1,4-Difluorobenzene						CAS #: 540-36-3	
6.020	6.020 (1.000)	114	894276	23.0000		80.00- 120.00	100.00
6.013	6.013 (1.000)	88	137265			0.00- 45.65	15.35
* 79 Chlorobenzene-d5						CAS #: 3114-55-4	
9.917	9.917 (1.000)	117	806186	24.0000		80.00- 120.00	100.00
9.910	9.910 (1.000)	82	425576			23.14- 83.14	52.79
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.464	11.464 (1.000)	174	546262	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	646364			92.70- 152.70	118.32
11.464	11.464 (1.000)	176	532470			68.24- 128.24	97.48
3 Freon 114						CAS #: 76-14-2	
1.269	1.269 (0.289)	135	5435624	1400.00	1298.8	80.00- 120.00	100.00(A)

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

    3 Freon 114 (continued)
  1.269   1.269 (0.289)   137   1772977                     2.17-  62.17    32.62
-------------------------------------------------------------------------------
    6 Vinyl Chloride                                CAS #: 75-01-4
  1.395   1.395 (0.318)    62   3150461 511.000   479.60  80.00- 120.00   100.00(A)
  1.395   1.395 (0.318)    64   1055986                    12.66-  72.66    33.52
-------------------------------------------------------------------------------
    7 1,3-Butadiene                                 CAS #: 106-99-0
  1.409   1.409 (0.321)    54   2583724 442.000   411.70  80.00- 120.00   100.00(A)
  1.409   1.409 (0.321)    39   3989413                   133.58- 193.58   154.41
-------------------------------------------------------------------------------
    9 Chloroethane                                  CAS #: 75-00-3
  1.661   1.661 (0.379)    64   1597990 528.000   423.91  80.00- 120.00   100.00
  1.661   1.661 (0.379)    66    502785                     0.00-  58.31    31.46
  1.661   1.661 (0.379)    49    496246                     0.00-  59.65    31.05
-------------------------------------------------------------------------------
   10 Isopentane                                    CAS #: 78-78-4
  1.717   1.717 (0.391)    57   2688602 590.000   558.48  80.00- 120.00   100.00(A)
  1.717   1.717 (0.391)    43   4264770                   134.33- 194.33   158.62
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                   CAS #: 75-69-4
  1.828   1.828 (0.417)   101   8698910 1120.00   1170.9  80.00- 120.00   100.00(A)
  1.828   1.828 (0.417)   103   5581527                    35.98-  95.98    64.16
-------------------------------------------------------------------------------
   15 Freon 113                                     CAS #: 76-13-1
  2.209   2.209 (0.504)   151   6246216 1530.00   1456.5  80.00- 120.00   100.00(A)
  2.209   2.209 (0.504)   153   4015563                    34.66-  94.66    64.29
  2.209   2.209 (0.504)   101   7132360                    88.64- 148.64   114.19
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                            CAS #: 75-35-4
  2.202   2.202 (0.502)    98   2149925 793.000   718.56  80.00- 120.00   100.00(A)
  2.202   2.202 (0.502)    96   3383540                   127.15- 187.15   157.38
  2.202   2.202 (0.502)    61   5401433                   230.60- 290.60   251.24
-------------------------------------------------------------------------------
   18 Carbon Disulfide                              CAS #: 75-15-0
  2.388   2.388 (0.544)    76   9690147 623.000   553.71  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   19 2-Propanol                                    CAS #: 67-63-0
  2.310   2.310 (0.526)    45   6809745 492.000   418.24  80.00- 120.00   100.00(A)
  2.310   2.310 (0.526)    43   1291096                     0.00-  49.91    18.96
  2.310   2.310 (0.526)    59    250035                     0.00-  33.48     3.67
-------------------------------------------------------------------------------
   22 Methylene Chloride                            CAS #: 75-09-2
  2.610   2.610 (0.595)    49   4360024 695.000   583.31  80.00- 120.00   100.00(A)
  2.610   2.610 (0.595)    84   3116346                    38.62-  98.62    71.48
  2.610   2.610 (0.595)    51   1323437                     0.43-  60.43    30.35
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
26 MTBE					CAS #: 1634-04-4		
2.840	2.840 (0.647)	73	8770721	721.000	703.90	80.00- 120.00	100.00(A)
2.840	2.840 (0.647)	57	2114029			0.00- 54.76	24.10
2.840	2.840 (0.647)	41	2186185			0.00- 56.57	24.93
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.868	2.868 (0.654)	98	2289526	793.000	765.72	80.00- 120.00	100.00(A)
2.868	2.868 (0.654)	61	5160377			200.79- 260.79	225.39
2.868	2.868 (0.654)	96	3599408			126.39- 186.39	157.21
28 Hexane					CAS #: 110-54-3		
3.140	3.140 (0.716)	57	5746260	705.000	659.03	80.00- 120.00	100.00(A)
3.140	3.140 (0.716)	43	4003925			41.77- 101.77	69.68
3.140	3.140 (0.716)	86	817790			0.00- 43.88	14.23
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.327	3.327 (0.758)	63	6230495	810.000	784.19	80.00- 120.00	100.00(A)
3.327	3.327 (0.758)	65	1986660			1.71- 61.71	31.89
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.043	4.043 (0.922)	98	2437226	793.000	760.25	80.00- 120.00	100.00(A)
4.043	4.043 (0.922)	96	3814016			126.11- 186.11	156.49
4.043	4.043 (0.922)	61	4982761			179.91- 239.91	204.44
38 2-Butanone					CAS #: 78-93-3		
4.021	4.021 (0.917)	72	1642419	590.000	501.92	80.00- 120.00	100.00(A)
4.021	4.021 (0.917)	43	7883858			469.10- 529.10	480.02
4.021	4.021 (0.917)	57	565055			6.15- 66.15	34.40
44 Chloroform					CAS #: 67-66-3		
4.573	4.573 (1.042)	83	7034200	977.000	921.82	80.00- 120.00	100.00(A)
4.573	4.573 (1.042)	85	4609480			35.99- 95.99	65.53
46 Cyclohexane					CAS #: 110-82-7		
4.881	4.881 (0.811)	84	4621253	688.000	683.79	80.00- 120.00	100.00(A)
4.881	4.881 (0.811)	56	5986558			102.79- 162.79	129.54
4.881	4.881 (0.811)	41	3679451			54.37- 114.37	79.62
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.788	4.788 (0.795)	97	7447647	1091.00	1123.9	80.00- 120.00	100.00(A)
4.788	4.788 (0.795)	99	4845601			34.68- 94.68	65.06
47 Carbon Tetrachloride					CAS #: 56-23-5		
5.017	5.017 (0.833)	119	7690331	1260.00	1328.2	80.00- 120.00	100.00(A)
5.017	5.017 (0.833)	117	7966019			73.19- 133.19	103.58

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.540	5.540 (0.920)	57	18165880	934.000	885.57	80.00- 120.00	100.00(A)
5.540	5.540 (0.920)	56	5827637			1.74- 61.74	32.08
5.540	5.540 (0.920)	41	5408171			0.34- 60.34	29.77
48 Benzene					CAS #: 71-43-2		
5.325	5.325 (0.885)	78	10637597	639.000	542.41	80.00- 120.00	100.00(A)
5.325	5.325 (0.885)	77	2519213			0.00- 53.53	23.68
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.440	5.440 (0.904)	62	4698868	809.000	778.19	80.00- 120.00	100.00(A)
5.440	5.440 (0.904)	64	1527911			2.15- 62.15	32.52
53 Heptane					CAS #: 142-82-5		
5.841	5.841 (0.970)	71	3684918	820.000	799.92	80.00- 120.00	100.00(A)
5.841	5.841 (0.970)	43	7454600			188.80- 248.80	202.30
5.841	5.841 (0.970)	57	3638902			71.78- 131.78	98.75
56 Trichloroethene					CAS #: 79-01-6		
6.321	6.321 (1.050)	95	5121314	1080.00	950.39	80.00- 120.00	100.00(A)
6.321	6.321 (1.050)	130	5301308			74.74- 134.74	103.51
6.321	6.321 (1.050)	97	3324480			34.87- 94.87	64.91
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.629	6.629 (1.101)	83	6684596	803.000	796.66	80.00- 120.00	100.00(A)
6.629	6.629 (1.101)	98	2980322			14.22- 74.22	44.58
6.629	6.629 (1.101)	55	5690420			58.24- 118.24	85.13
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.686	6.686 (1.111)	63	4255374	924.000	940.39	80.00- 120.00	100.00(A)
6.686	6.686 (1.111)	62	2963736			39.32- 99.32	69.65
6.686	6.686 (1.111)	41	2610700			37.26- 97.26	61.35
60 1,4-Dioxane					CAS #: 123-91-1		
6.801	6.801 (1.130)	88	2737747	721.000	709.44	80.00- 120.00	100.00(A)
6.801	6.801 (1.130)	58	1902350			41.28- 101.28	69.49
6.801	6.801 (1.130)	57	646585			0.62- 60.62	23.62
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.904	7.904 (1.313)	58	3582347	819.000	806.48	80.00- 120.00	100.00(A)
7.904	7.904 (1.313)	43	9924975			263.34- 323.34	277.05
7.904	7.904 (1.313)	85	1568181			12.32- 72.32	43.78
67 Toluene					CAS #: 108-88-3		
8.104	8.104 (0.817)	91	13283352	754.000	685.84	80.00- 120.00	100.00(A)
8.104	8.104 (0.817)	92	7869407			28.18- 88.18	59.24

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

   70 1,1,2-Trichloroethane                          CAS #: 79-00-5
  8.713   8.713 (1.447)    97   4749032 1090.00   1051.0  80.00- 120.00   100.00(A)
  8.713   8.713 (1.447)    99   3006492                   32.32-  92.32    63.31
  8.713   8.713 (1.447)    83   4071559                   54.42- 114.42    85.73
-------------------------------------------------------------------------------
   71 Tetrachloroethene                              CAS #: 127-18-4
  8.771   8.771 (0.884)   166   7018254 1360.00   1371.2  80.00- 120.00   100.00(A)
  8.771   8.771 (0.884)   129   5067116                   47.21- 107.21    72.20
  8.771   8.771 (0.884)   131   4902941                   44.68- 104.68    69.86
-------------------------------------------------------------------------------
   72 2-Hexanone                                     CAS #: 591-78-6
  9.028   9.028 (0.910)    58   4874741 819.000   834.85  80.00- 120.00   100.00(A)
  9.028   9.028 (0.910)    43   9711459                  181.19- 241.19   199.22
  9.028   9.028 (0.910)   100    945303                    0.00-  48.53    19.39
-------------------------------------------------------------------------------
   74 1,2-Dibromoethane                              CAS #: 106-93-4
  9.301   9.301 (0.938)   107   7405707 1540.00   1540.5  80.00- 120.00   100.00(A)
  9.301   9.301 (0.938)   109   7041436                   64.88- 124.88    95.08
-------------------------------------------------------------------------------
   81 Chlorobenzene                                  CAS #: 108-90-7
  9.953   9.953 (1.004)   112  10884146 921.000   877.78  80.00- 120.00   100.00(A)
  9.953   9.953 (1.004)   114   3594144                    2.37-  62.37    33.02
  9.953   9.953 (1.004)    77   6111638                   25.58-  85.58    56.15
-------------------------------------------------------------------------------
   82 Ethyl Benzene                                  CAS #: 100-41-4
 10.103  10.103 (1.019)   106   5726757 868.000   848.45  80.00- 120.00   100.00(A)
 10.103  10.103 (1.019)    91  16645352                  283.92- 343.92   290.66
-------------------------------------------------------------------------------
   84 m,p-Xylene                                     CAS #: 108-38-3
 10.289  10.289 (1.038)   106   7278522 868.000   831.43  80.00- 120.00   100.00(A)
 10.289  10.289 (1.038)    91  14190154                  168.48- 228.48   194.96
-------------------------------------------------------------------------------
   88 o-Xylene                                       CAS #: 95-47-6
 10.769  10.769 (0.939)   106   6663121 868.000   809.95  80.00- 120.00   100.00(A)
 10.769  10.769 (0.939)    91  13569338                  179.05- 239.05   203.65
-------------------------------------------------------------------------------
   89 Styrene                                        CAS #: 100-42-5
 10.805  10.805 (0.942)   104  11209093 852.000   790.12  80.00- 120.00   100.00(A)
 10.805  10.805 (0.942)    78   5419420                   17.71-  77.71    48.35
-------------------------------------------------------------------------------
   91 Cumene                                         CAS #: 98-82-8
 11.249  11.249 (0.981)   105  18132642 983.000   838.11  80.00- 120.00   100.00(A)
 11.256  11.256 (0.982)   120   5460825                    0.00-  56.88    30.12
 11.256  11.256 (0.982)    51   2024162                    0.00-  40.57    11.16
-------------------------------------------------------------------------------
   94 1,1,2,2-Tetrachloroethane                      CAS #: 79-34-5
 11.686  11.686 (1.019)    83  10287029 1370.00   1438.4  80.00- 120.00   100.00(A)
```

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

   94 1,1,2,2-Tetrachloroethane (continued)
 11.693  11.693 (1.020)    85   6743767                    35.63-  95.63    65.56
-------------------------------------------------------------------------------
   96 Propylbenzene                                CAS #: 103-65-1
 11.786  11.786 (1.028)    91  19604259 983.000   766.05  80.00- 120.00   100.00(A)
 11.801  11.801 (1.029)   120   5859963                     0.00-  53.76    29.89
 11.801  11.801 (1.029)   105    938490                     0.00-  33.79     4.79
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                               CAS #: 622-96-8
 11.965  11.965 (1.044)   120   6153265 983.000   934.69  80.00- 120.00   100.00(A)
 11.958  11.958 (1.043)   105  17479395                   299.98- 359.98   284.07
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 12.051  12.051 (1.051)   120   8489855 983.000   914.70  80.00- 120.00   100.00(A)
 12.044  12.044 (1.051)   105  16296098                   169.84- 229.84   191.95
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 12.517  12.517 (1.092)   120   7861977 983.000   908.97  80.00- 120.00   100.00(A)
 12.517  12.517 (1.092)   105  16205224                   188.24- 248.24   206.12
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                          CAS #: 541-73-1
 12.846  12.846 (1.121)   146  11909864 1200.00   1112.6  80.00- 120.00   100.00(A)
 12.846  12.846 (1.121)   148   7770189                    33.94-  93.94    65.24
 12.839  12.839 (1.120)   111   4856296                     9.99-  69.99    40.78
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                          CAS #: 106-46-7
 12.982  12.982 (1.132)   146  11949166 1200.00   1117.9  80.00- 120.00   100.00(A)
 12.982  12.982 (1.132)   148   7815359                    33.56-  93.56    65.41
 12.982  12.982 (1.132)   111   4702350                     8.12-  68.12    39.35
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                          CAS #: 95-50-1
 13.419  13.419 (1.171)   146  11478084 1200.00   1134.7  80.00- 120.00   100.00(A)
 13.419  13.419 (1.171)   148   7480109                    33.25-  93.25    65.17
 13.419  13.419 (1.171)   111   4776017                    11.16-  71.16    41.61
-------------------------------------------------------------------------------
  106 1,2,4-Trichlorobenzene                       CAS #: 120-82-1
 15.475  15.475 (1.350)   180  10480063 1480.00   1507.0  80.00- 120.00   100.00(A)
 15.475  15.475 (1.350)   182  10043844                    64.82- 124.82    95.84
-------------------------------------------------------------------------------
  107 Hexachlorobutadiene                          CAS #: 87-68-3
 15.683  15.683 (1.368)   225   8223932 2130.00   2301.1  80.00- 120.00   100.00(A)
 15.683  15.683 (1.368)   223   5219788                    32.09-  92.09    63.47
-------------------------------------------------------------------------------
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QC Flag Legend

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

Report Date: 04-Apr-2016 12:09

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6033109.d
Lab Smp Id: VI VOC+PAH ICAL8,no
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-232-200ml(6/11/16),noPAH

Calibration Date: 30-MAR-2016
Calibration Time: 20:53

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	225139	135083	315195	232999	3.49
54 1,4-Difluorobenze	874568	524741	1224395	894276	2.25
79 Chlorobenzene-d5	795881	477529	1114233	806186	1.29
92 Bromofluorobenzen	515685	309411	721959	546262	5.93

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.38	4.05	4.71	4.39	0.16
54 1,4-Difluorobenze	6.01	5.68	6.34	6.02	0.12
79 Chlorobenzene-d5	9.91	9.58	10.24	9.92	0.07
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	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/msd6.i/31mar16.b/6033109.d

Date : 30-MAR-2016 22:52

Client ID:

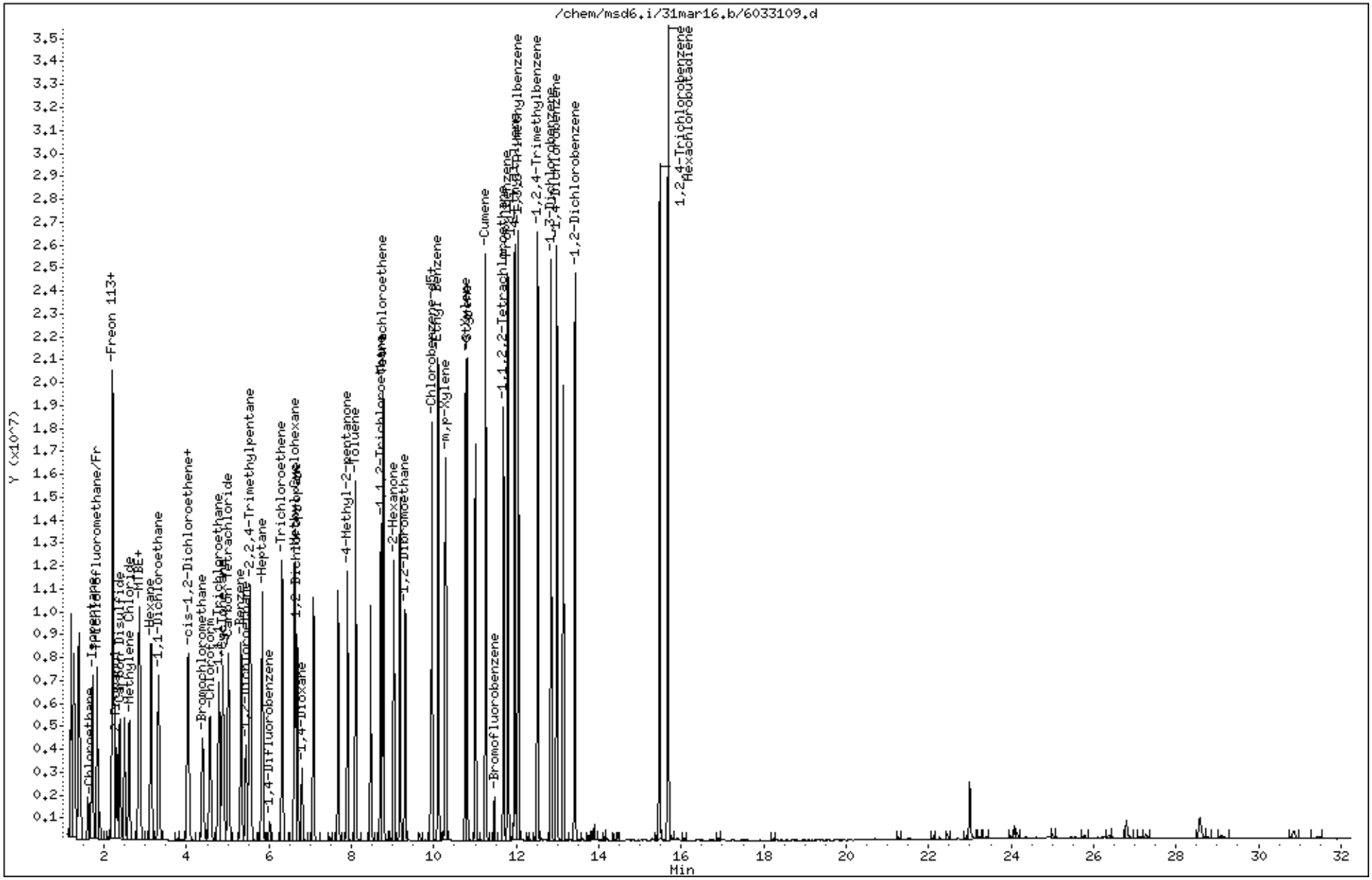
Sample Info: ;VI VOC+PAH ICAL8,noSurr

Column phase: RTx-624

Instrument: msd6.i

Operator: LA

Column diameter: 0.53



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Client Sample ID: CCV
Lab ID#: 1606008-09A
EPA METHOD TO-17

File Name:	**6060103**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 6/1/16 10:25 AM**

Compound	**%Recovery**
Naphthalene	80

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Naphthalene-d8	86	50-150

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd6.i Injection Date: 01-JUN-2016 10:25
Lab File ID: 6060103.d Init. Cal. Date(s): 30-MAR-2016 31-MAR-2016
Analysis Type: AIR Init. Cal. Times: 18:14 10:19
Lab Sample ID: VI VOC+PAH CCV Quant Type: ISTD
Method: /chem/msd6.i/01jun16.b/616z0331vi.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 49 1,2-Dichloroethane-d4	0.12185	0.09506	0.010	21.98496	30.00000	Averaged	
$ 66 Toluene-d8	0.46836	0.41678	0.010	11.01243	30.00000	Averaged	
$ 108 Naphthalene-d8	2.02765	1.74736	0.010	13.82305	30.00000	Averaged	
3 Freon 114	0.46699	0.48534	0.010	-3.92914	30.00000	Averaged	
6 Vinyl Chloride	0.73302	0.68492	0.010	6.56276	30.00000	Averaged	
7 1,3-Butadiene	0.70031	0.58730	0.010	16.13633	30.00000	Averaged	
9 Chloroethane	0.42065	0.28813	0.010	31.50379	30.00000	Averaged	<-
10 Isopentane	0.53721	0.46703	0.010	13.06237	30.00000	Averaged	
11 Trichlorofluoromethane/Fr11	0.82899	0.86101	0.010	-3.86308	30.00000	Averaged	
15 Freon 113	0.47855	0.57089	0.010	-19.29643	30.00000	Averaged	
14 1,1-Dichloroethene	0.33387	0.34089	0.010	-2.10192	30.00000	Averaged	
18 Carbon Disulfide	1.95285	1.76848	0.010	9.44107	30.00000	Averaged	
19 2-Propanol	1.81689	1.30468	0.010	28.19190	30.00000	Averaged	
22 Methylene Chloride	0.83408	0.63891	0.010	23.39891	30.00000	Averaged	
25 trans-1,2-Dichloroethene	0.33365	0.33924	0.010	-1.67386	30.00000	Averaged	
26 MTBE	1.39041	1.52654	0.010	-9.79065	30.00000	Averaged	
28 Hexane	0.97296	0.82932	0.010	14.76329	30.00000	Averaged	
29 1,1-Dichloroethane	0.88659	0.82116	0.010	7.37898	30.00000	Averaged	
37 cis-1,2-Dichloroethene	0.35773	0.35709	0.010	0.17988	30.00000	Averaged	
38 2-Butanone	0.36515	0.32714	0.010	10.40735	30.00000	Averaged	
44 Chloroform	0.85150	0.63252	0.010	25.71746	30.00000	Averaged	
46 Cyclohexane	0.17382	0.16262	0.010	6.44196	30.00000	Averaged	
45 1,1,1-Trichloroethane	0.17043	0.17006	0.010	0.21323	30.00000	Averaged	
47 Carbon Tetrachloride	0.14892	0.13896	0.010	6.68706	30.00000	Averaged	
51 2,2,4-Trimethylpentane	0.52758	0.42897	0.010	18.68997	30.00000	Averaged	
48 Benzene	0.50440	0.43162	0.010	14.42781	30.00000	Averaged	
50 1,2-Dichloroethane	0.15530	0.13273	0.010	14.52943	30.00000	Averaged	
53 Heptane	0.11848	0.10663	0.010	9.99991	30.00000	Averaged	
56 Trichloroethene	0.13859	0.19390	0.010	-39.90978	30.00000	Averaged	<-
58 Methyl Cyclohexane	0.21580	0.20513	0.010	4.94362	30.00000	Averaged	
59 1,2-Dichloropropane	0.11638	0.10574	0.010	9.14055	30.00000	Averaged	
60 1,4-Dioxane	0.09925	0.11599	0.010	-16.87023	30.00000	Averaged	
65 4-Methyl-2-pentanone	0.11424	0.08081	0.010	29.26040	30.00000	Averaged	
67 Toluene	0.57658	0.51785	0.010	10.18586	30.00000	Averaged	
70 1,1,2-Trichloroethane	0.11622	0.10713	0.010	7.81787	30.00000	Averaged	

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd6.i Injection Date: 01-JUN-2016 10:25
Lab File ID: 6060103.d Init. Cal. Date(s): 30-MAR-2016 31-MAR-2016
Analysis Type: AIR Init. Cal. Times: 18:14 10:19
Lab Sample ID: VI VOC+PAH CCV Quant Type: ISTD
Method: /chem/msd6.i/01jun16.b/616z0331vi.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
71 Tetrachloroethene	0.15237	0.17372	0.010	-14.01553	30.00000	Averaged	
72 2-Hexanone	0.17383	0.10854	0.010	37.55770	30.00000	Averaged	<-
74 1,2-Dibromoethane	0.14311	0.13687	0.010	4.35898	30.00000	Averaged	
81 Chlorobenzene	0.36913	0.36675	0.010	0.64496	30.00000	Averaged	
82 Ethyl Benzene	0.20094	0.19281	0.010	4.04253	30.00000	Averaged	
84 m,p-Xylene	0.26061	0.24376	0.010	6.46545	30.00000	Averaged	
88 o-Xylene	0.54215	0.44880	0.010	17.21859	30.00000	Averaged	
89 Styrene	0.93493	0.75606	0.010	19.13126	30.00000	Averaged	
91 Cumene	1.42581	1.20897	0.010	15.20861	30.00000	Averaged	
94 1,1,2,2-Tetrachloroethane	0.47133	0.15665	0.010	66.76421	30.00000	Averaged	<-
96 Propylbenzene	1.68653	1.40888	0.010	16.46281	30.00000	Averaged	
97 4-Ethyltoluene	0.43385	0.37322	0.010	13.97556	30.00000	Averaged	
98 1,3,5-Trimethylbenzene	0.61168	0.53375	0.010	12.73991	30.00000	Averaged	
100 1,2,4-Trimethylbenzene	0.57001	0.49925	0.010	12.41461	30.00000	Averaged	
101 1,3-Dichlorobenzene	0.70547	0.67014	0.010	5.00699	30.00000	Averaged	
102 1,4-Dichlorobenzene	0.70440	0.67456	0.010	4.23589	30.00000	Averaged	
105 1,2-Dichlorobenzene	0.66662	0.64265	0.010	3.59463	30.00000	Averaged	
106 1,2,4-Trichlorobenzene	0.45830	0.54105	0.010	-18.05494	30.00000	Averaged	
107 Hexachlorobutadiene	0.23552	0.27640	0.010	-17.35679	30.00000	Averaged	
109 Naphthalene	2.41520	1.94649	0.010	19.40690	30.00000	Averaged	
110 2-Methylnaphthalene	1.39603	1.34527	0.010	3.63613	30.00000	Averaged	
111 1-Methylnaphthalene	1.25535	1.23321	0.010	1.76391	30.00000	Averaged	
112 Acenaphthylene	2.05033	2.07183	0.010	-1.04851	30.00000	Averaged	
113 Acenaphthene	1.10834	1.24187	0.010	-12.04781	30.00000	Averaged	
114 Fluorene	1.09950	0.59487	0.010	45.89652	30.00000	Averaged	<-
115 Phenanthrene	1.85619	2.20811	0.010	-18.95891	30.00000	Averaged	
116 Anthracene	1.75810	2.07168	0.010	-17.83631	30.00000	Averaged	
117 Fluoranthene	1.29114	1.74501	0.010	-35.15287	30.00000	Averaged	<-
118 Pyrene	1.34123	1.83849	0.010	-37.07466	30.00000	Averaged	<-

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01jun16.b/6060103.d
Lab Smp Id: VI VOC+PAH CCV Client Smp ID: CCV
Inj Date : 01-JUN-2016 10:25
Operator : CT Inst ID: msd6.i
Smp Info : ;VI VOC+PAH CCV;CCV
Misc Info : 2516-241(7/20/16),2744-31-50(7/5/16)
Comment :
Method : /chem/msd6.i/01jun16.b/616z0331vi.m
Meth Date : 01-Jun-2016 11:21 U5BT Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+PAH_ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 40 Bromochloromethane						CAS #: 74-97-5	
4.322	4.322 (1.000)	130	196221	26.0000		80.00- 120.00	100.00
4.315	4.315 (1.000)	128	150877			48.25- 108.25	76.89
4.315	4.315 (1.000)	49	198502			107.14- 167.14	101.16
* 54 1,4-Difluorobenzene						CAS #: 540-36-3	
5.955	5.955 (1.000)	114	816668	23.0000		80.00- 120.00	100.00
5.955	5.955 (1.000)	88	124753			0.00- 45.65	15.28
* 79 Chlorobenzene-d5						CAS #: 3114-55-4	
9.866	9.866 (1.000)	117	756740	24.0000		80.00- 120.00	100.00
9.866	9.866 (1.000)	82	385132			23.14- 83.14	50.89
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.421	11.421 (1.000)	174	580931	36.0000		80.00- 120.00	100.00
11.421	11.421 (1.000)	95	579333			92.70- 152.70	99.73
11.421	11.421 (1.000)	176	568574			68.24- 128.24	97.87
$ 49 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.246	5.246 (0.881)	65	84385	25.0000	19.504	80.00- 120.00	100.00

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

$  49 1,2-Dichloroethane-d4 (continued)
  5.239   5.239 (0.880)    67     44436                    22.28-  82.28    52.66
-------------------------------------------------------------------------------
$  66 Toluene-d8                                   CAS #: 2037-26-5
  7.961   7.961 (0.807)    98    328535 25.0000   22.247  80.00- 120.00   100.00
  7.961   7.961 (0.807)    70     33294                     0.00-  40.54    10.13
  7.961   7.961 (0.807)   100    214602                    35.01-  95.01    65.32
-------------------------------------------------------------------------------
$ 108 Naphthalene-d8                               CAS #: 1146-65-2
 15.697  15.697 (1.374)   136    704929 25.0000   21.544  80.00- 120.00   100.00
 15.697  15.697 (1.374)   108     63542                     0.00-  39.41     9.01
-------------------------------------------------------------------------------
    3 Freon 114                                    CAS #: 76-14-2
  1.283   1.283 (0.297)   135    512802 140.000   145.50  80.00- 120.00   100.00
  1.283   1.283 (0.297)   137    163962                     2.17-  62.17    31.97
-------------------------------------------------------------------------------
    6 Vinyl Chloride                               CAS #: 75-01-4
  1.395   1.395 (0.323)    62    264138 51.1000   47.746  80.00- 120.00   100.00
  1.395   1.395 (0.323)    64    105662                    12.66-  72.66    40.00
-------------------------------------------------------------------------------
    7 1,3-Butadiene                                CAS #: 106-99-0
  1.395   1.395 (0.323)    54    195910 44.2000   37.068  80.00- 120.00   100.00
  1.395   1.395 (0.323)    39    280968                   133.58- 193.58   143.42
-------------------------------------------------------------------------------
    9 Chloroethane                                 CAS #: 75-00-3
  1.660   1.660 (0.384)    64    114814 52.8000   36.166  80.00- 120.00   100.00
  1.660   1.660 (0.384)    66     34704                     0.00-  58.31    30.23
  1.660   1.660 (0.384)    49     30189                     0.00-  59.65    26.29
-------------------------------------------------------------------------------
   10 Isopentane                                   CAS #: 78-78-4
  1.688   1.688 (0.391)    57    207957 59.0000   51.293  80.00- 120.00   100.00
  1.688   1.688 (0.391)    43    289644                   134.33- 194.33   139.28
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                  CAS #: 75-69-4
  1.814   1.814 (0.420)   101    727781 112.000   116.33  80.00- 120.00   100.00
  1.814   1.814 (0.420)   103    474419                    35.98-  95.98    65.19
-------------------------------------------------------------------------------
   15 Freon 113                                    CAS #: 76-13-1
  2.180   2.180 (0.504)   151    659200 153.000   182.52  80.00- 120.00   100.00
  2.180   2.180 (0.504)   153    419702                    34.66-  94.66    63.67
  2.180   2.180 (0.504)   101    685444                    88.64- 148.64   103.98
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                           CAS #: 75-35-4
  2.180   2.180 (0.504)    98    204013 79.3000   80.967  80.00- 120.00   100.00
  2.180   2.180 (0.504)    96    318781                   127.15- 187.15   156.25
  2.180   2.180 (0.504)    61    470681                   230.60- 290.60   230.71
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.367	2.367 (0.548)	76	831500	62.3000	56.418	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.281	2.281 (0.528)	45	484442	49.2000	35.330	80.00- 120.00	100.00(a)
2.281	2.281 (0.528)	43	101677			0.00- 49.91	20.99
2.281	2.281 (0.528)	59	20218			0.00- 33.48	4.17
22 Methylene Chloride					CAS #: 75-09-2		
2.582	2.582 (0.597)	49	335118	69.5000	53.238	80.00- 120.00	100.00
2.582	2.582 (0.597)	84	287889			38.62- 98.62	85.91
2.574	2.574 (0.596)	51	104064			0.43- 60.43	31.05
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.825	2.825 (0.654)	98	203026	79.3000	80.627	80.00- 120.00	100.00
2.825	2.825 (0.654)	61	421976			200.79- 260.79	207.84
2.825	2.825 (0.654)	96	320050			126.39- 186.39	157.64
26 MTBE					CAS #: 1634-04-4		
2.804	2.804 (0.649)	73	830647	72.1000	79.159	80.00- 120.00	100.00
2.804	2.804 (0.649)	57	180482			0.00- 54.76	21.73
2.804	2.804 (0.649)	41	170030			0.00- 56.57	20.47
28 Hexane					CAS #: 110-54-3		
3.104	3.104 (0.718)	57	441251	70.5000	60.092	80.00- 120.00	100.00
3.104	3.104 (0.718)	43	271231			41.77- 101.77	61.47
3.104	3.104 (0.718)	86	70047			0.00- 43.88	15.87
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.276	3.276 (0.758)	63	501982	81.0000	75.023	80.00- 120.00	100.00
3.276	3.276 (0.758)	65	161576			1.71- 61.71	32.19
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
3.978	3.978 (0.920)	98	213709	79.3000	79.157	80.00- 120.00	100.00
3.978	3.978 (0.920)	96	331078			126.11- 186.11	154.92
3.978	3.978 (0.920)	61	402414			179.91- 239.91	188.30
38 2-Butanone					CAS #: 78-93-3		
3.943	3.943 (0.912)	72	145667	59.0000	52.860	80.00- 120.00	100.00(a)
3.943	3.943 (0.912)	43	558896			469.10- 529.10	383.68
3.943	3.943 (0.912)	57	51371			6.15- 66.15	35.27
44 Chloroform					CAS #: 67-66-3		
4.494	4.494 (1.040)	83	466382	97.7000	72.574	80.00- 120.00	100.00
4.494	4.494 (1.040)	85	303766			35.99- 95.99	65.13

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.831	4.831 (0.811)	84	397264	68.8000	64.368	80.00- 120.00	100.00
4.831	4.831 (0.811)	56	458741			102.79- 162.79	115.48
4.831	4.831 (0.811)	41	248542			54.37- 114.37	62.56
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.723	4.723 (0.793)	97	658194	109.000	108.77	80.00- 120.00	100.00
4.723	4.723 (0.793)	99	425228			34.68- 94.68	64.61
47 Carbon Tetrachloride					CAS #: 56-23-5		
4.967	4.967 (0.834)	119	621705	126.000	117.57	80.00- 120.00	100.00
4.967	4.967 (0.834)	117	640470			73.19- 133.19	103.02
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.490	5.490 (0.922)	57	1422645	93.4000	75.944	80.00- 120.00	100.00
5.490	5.490 (0.922)	56	445777			1.74- 61.74	31.33
5.490	5.490 (0.922)	41	387760			0.34- 60.34	27.26
48 Benzene					CAS #: 71-43-2		
5.261	5.261 (0.883)	78	979320	63.9000	54.681	80.00- 120.00	100.00
5.261	5.261 (0.883)	77	230546			0.00- 53.53	23.54
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.361	5.361 (0.900)	62	381280	80.9000	69.146	80.00- 120.00	100.00
5.361	5.361 (0.900)	64	126008			2.15- 62.15	33.05
53 Heptane					CAS #: 142-82-5		
5.798	5.798 (0.974)	71	310463	82.0000	73.800	80.00- 120.00	100.00
5.791	5.791 (0.972)	43	531469			188.80- 248.80	171.19
5.798	5.798 (0.974)	57	279914			71.78- 131.78	90.16
56 Trichloroethene					CAS #: 79-01-6		
6.271	6.271 (1.053)	95	743575	108.000	151.10	80.00- 120.00	100.00
6.271	6.271 (1.053)	130	819291			74.74- 134.74	110.18
6.271	6.271 (1.053)	97	484501			34.87- 94.87	65.16
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.586	6.586 (1.106)	83	584885	80.3000	76.330	80.00- 120.00	100.00
6.586	6.586 (1.106)	98	259199			14.22- 74.22	44.32
6.586	6.586 (1.106)	55	439165			58.24- 118.24	75.09
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.622	6.622 (1.112)	63	346932	92.4000	83.954	80.00- 120.00	100.00
6.622	6.622 (1.112)	62	239039			39.32- 99.32	68.90
6.622	6.622 (1.112)	41	205375			37.26- 97.26	59.20

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.743	6.743 (1.132)	88	296953	72.1000	84.263	80.00- 120.00	100.00
6.743	6.743 (1.132)	58	186923			41.28- 101.28	62.95
6.743	6.743 (1.132)	57	77461			0.62- 60.62	26.09
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.839	7.839 (1.316)	58	235013	81.9000	57.936	80.00- 120.00	100.00
7.839	7.839 (1.316)	43	584880			263.34- 323.34	248.87
7.839	7.839 (1.316)	85	117795			12.32- 72.32	50.12
67 Toluene					CAS #: 108-88-3		
8.054	8.054 (0.816)	91	1231145	75.4000	67.720	80.00- 120.00	100.00
8.054	8.054 (0.816)	92	725295			28.18- 88.18	58.91
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.656	8.656 (1.453)	97	414623	109.000	100.48	80.00- 120.00	100.00
8.656	8.656 (1.453)	99	259348			32.32- 92.32	62.55
8.656	8.656 (1.453)	83	340081			54.42- 114.42	82.02
71 Tetrachloroethene					CAS #: 127-18-4		
8.735	8.735 (0.885)	166	744955	136.000	155.06	80.00- 120.00	100.00
8.735	8.735 (0.885)	129	508178			47.21- 107.21	68.22
8.735	8.735 (0.885)	131	490491			44.68- 104.68	65.84
72 2-Hexanone					CAS #: 591-78-6		
8.964	8.964 (0.909)	58	280295	81.9000	51.140	80.00- 120.00	100.00
8.964	8.964 (0.909)	43	507661			181.19- 241.19	181.12
8.971	8.971 (0.909)	100	60540			0.00- 48.53	21.60
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.250	9.250 (0.938)	107	664620	154.000	147.29	80.00- 120.00	100.00
9.250	9.250 (0.938)	109	636510			64.88- 124.88	95.77
81 Chlorobenzene					CAS #: 108-90-7		
9.902	9.902 (1.004)	112	1065045	92.1000	91.506	80.00- 120.00	100.00
9.902	9.902 (1.004)	114	343346			2.37- 62.37	32.24
9.902	9.902 (1.004)	77	555437			25.58- 85.58	52.15
82 Ethyl Benzene					CAS #: 100-41-4		
10.060	10.060 (1.020)	106	527706	86.8000	83.291	80.00- 120.00	100.00
10.060	10.060 (1.020)	91	1605100			283.92- 343.92	304.17
84 m,p-Xylene					CAS #: 108-38-3		
10.239	10.239 (1.038)	106	667143	86.8000	81.188	80.00- 120.00	100.00
10.239	10.239 (1.038)	91	1297486			168.48- 228.48	194.48

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

   88 o-Xylene                                        CAS #: 95-47-6
 10.719  10.719 (0.939)   106    628627 86.8000   71.854  80.00- 120.00   100.00
 10.719  10.719 (0.939)    91   1279772                  179.05- 239.05   203.58
-------------------------------------------------------------------------------
   89 Styrene                                         CAS #: 100-42-5
 10.755  10.755 (0.942)   104   1039488 85.2000   68.900  80.00- 120.00   100.00
 10.755  10.755 (0.942)    78    487493                   17.71-  77.71    46.90
-------------------------------------------------------------------------------
   91 Cumene                                          CAS #: 98-82-8
 11.213  11.213 (0.982)   105   1917740 98.3000   83.350  80.00- 120.00   100.00
 11.213  11.213 (0.982)   120    525934                    0.00-  56.88    27.42
 11.213  11.213 (0.982)    51    162464                    0.00-  40.57     8.47
-------------------------------------------------------------------------------
   94 1,1,2,2-Tetrachloroethane                       CAS #: 79-34-5
 11.636  11.636 (1.019)    83    346316 137.000   45.533  80.00- 120.00   100.00
 11.636  11.636 (1.019)    85    224047                   35.63-  95.63    64.69
-------------------------------------------------------------------------------
   96 Propylbenzene                                   CAS #: 103-65-1
 11.750  11.750 (1.029)    91   2234850 98.3000   82.117  80.00- 120.00   100.00
 11.750  11.750 (1.029)   120    560584                    0.00-  53.76    25.08
 11.750  11.750 (1.029)   105     88391                    0.00-  33.79     3.96
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                                  CAS #: 622-96-8
 11.915  11.915 (1.043)   120    592021 98.3000   84.562  80.00- 120.00   100.00
 11.915  11.915 (1.043)   105   1941363                  299.98- 359.98   327.92
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                          CAS #: 108-67-8
 12.001  12.001 (1.051)   120    846672 98.3000   85.777  80.00- 120.00   100.00
 12.001  12.001 (1.051)   105   1669653                  169.84- 229.84   197.20
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                          CAS #: 95-63-6
 12.467  12.467 (1.092)   120    791938 98.3000   86.096  80.00- 120.00   100.00
 12.467  12.467 (1.092)   105   1758365                  188.24- 248.24   222.03
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                             CAS #: 541-73-1
 12.796  12.796 (1.120)   146   1297689 120.000   113.99  80.00- 120.00   100.00
 12.796  12.796 (1.120)   148    839236                   33.94-  93.94    64.67
 12.796  12.796 (1.120)   111    484939                    9.99-  69.99    37.37
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                             CAS #: 106-46-7
 12.932  12.932 (1.132)   146   1306244 120.000   114.92  80.00- 120.00   100.00
 12.932  12.932 (1.132)   148    842962                   33.56-  93.56    64.53
 12.932  12.932 (1.132)   111    468772                    8.12-  68.12    35.89
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                             CAS #: 95-50-1
 13.369  13.369 (1.171)   146   1244459 120.000   115.69  80.00- 120.00   100.00
```

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

  105 1,2-Dichlorobenzene (continued)
 13.369  13.369 (1.171)   148    801520                    33.25-  93.25    64.41
 13.369  13.369 (1.171)   111    479500                    11.16-  71.16    38.53
-------------------------------------------------------------------------------
  106 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 15.425  15.425 (1.351)   180   1292177 148.000   174.72  80.00- 120.00   100.00
 15.425  15.425 (1.351)   182   1227920                    64.82- 124.82    95.03
-------------------------------------------------------------------------------
  107 Hexachlorobutadiene                           CAS #: 87-68-3
 15.640  15.640 (1.369)   225    950049 213.000   249.97  80.00- 120.00   100.00
 15.640  15.640 (1.369)   223    597347                    32.09-  92.09    62.88
-------------------------------------------------------------------------------
  109 Naphthalene                                   CAS #: 91-20-3
 15.740  15.740 (1.378)   128   1570520 50.0000   40.296  80.00- 120.00   100.00
 15.740  15.740 (1.378)   127    204542                     0.00-  43.01    13.02
-------------------------------------------------------------------------------
  110 2-Methylnaphthalene                           CAS #: 91-57-6
 17.187  17.187 (1.505)   142   1085426 50.0000   48.182  80.00- 120.00   100.00
 17.187  17.187 (1.505)   141    944489                    57.55- 117.55    87.02
 17.187  17.187 (1.505)   115    322172                     2.88-  62.88    29.68
-------------------------------------------------------------------------------
  111 1-Methylnaphthalene                           CAS #: 90-12-0
 17.402  17.402 (1.524)   142    995010 50.0000   49.118  80.00- 120.00   100.00
 17.402  17.402 (1.524)   141    894003                    60.83- 120.83    89.85
 17.402  17.402 (1.524)   115    312855                     4.35-  64.35    31.44
-------------------------------------------------------------------------------
  112 Acenaphthylene                                CAS #: 208-96-8
 19.257  19.257 (1.686)   152   1671655 50.0000   50.524  80.00- 120.00   100.00
 19.257  19.257 (1.686)   151    332967                     0.00-  50.47    19.92
 19.257  19.257 (1.686)   153    219227                     0.00-  42.99    13.11
-------------------------------------------------------------------------------
  113 Acenaphthene                                  CAS #: 83-32-9
 19.515  19.515 (1.709)   154   1002004 50.0000   56.024  80.00- 120.00   100.00
 19.522  19.522 (1.709)   152    517116                    23.49-  83.49    51.61
 19.515  19.515 (1.709)   153   1089778                    81.41- 141.41   108.76
-------------------------------------------------------------------------------
  114 Fluorene                                      CAS #: 86-73-7
 20.668  20.668 (1.810)   166    479969 50.0000   27.052  80.00- 120.00   100.00
 20.668  20.668 (1.810)   165    457770                    66.52- 126.52    95.37
-------------------------------------------------------------------------------
  115 Phenanthrene                                  CAS #: 85-01-8
 22.846  22.846 (2.000)   178   1781607 50.0000   59.479  80.00- 120.00   100.00
 22.846  22.846 (2.000)   176    334244                     0.00-  49.64    18.76
 22.846  22.846 (2.000)   179    272254                     0.00-  45.22    15.28
-------------------------------------------------------------------------------
  116 Anthracene                                    CAS #: 120-12-7
 22.953  22.953 (2.010)   178   1671534 50.0000   58.918  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
116 Anthracene (continued)							
22.953	22.953 (2.010)	176	309914			0.00- 49.04	18.54
22.953	22.953 (2.010)	179	258949			0.00- 45.28	15.49
117 Fluoranthene					CAS #: 206-44-0		
26.141	26.141 (2.289)	202	1407956	50.0000	67.576	80.00- 120.00	100.00
26.141	26.141 (2.289)	101	185739			0.00- 48.21	13.19
118 Pyrene					CAS #: 129-00-0		
27.000	27.000 (2.364)	202	1483384	50.0000	68.537	80.00- 120.00	100.00
27.000	27.000 (2.364)	101	231485			0.00- 51.09	15.61
27.000	27.000 (2.364)	100	191961			0.00- 47.66	12.94

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6060103.d
Lab Smp Id: VI VOC+PAH CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: 2516-241(7/20/16),2744-31-50(7/5/16)

Calibration Date: 01-JUN-2016
Calibration Time: 10:25
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

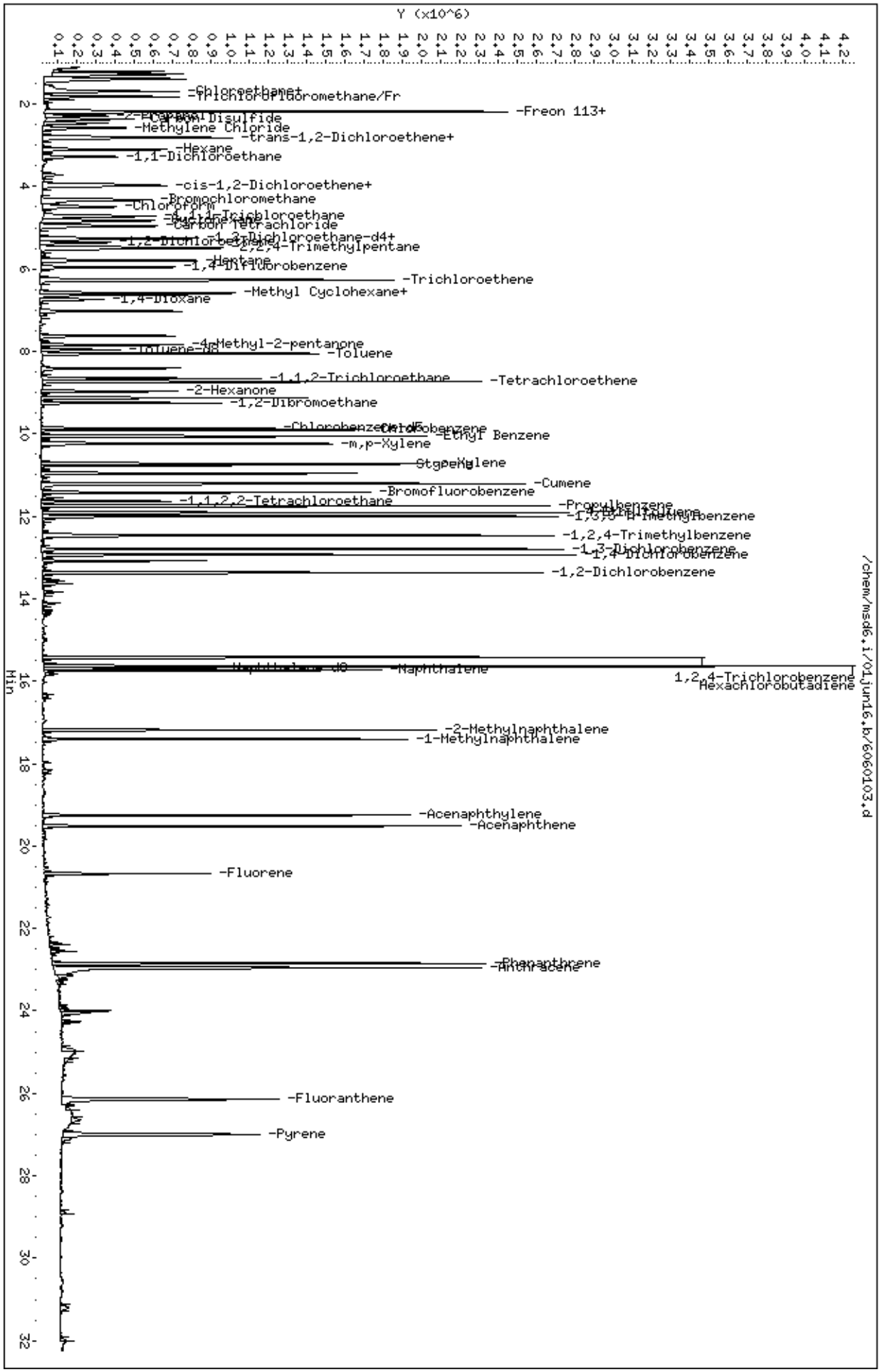
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	196221	117733	274709	196221	0.00
54 1,4-Difluorobenze	816668	490001	1143335	816668	0.00
79 Chlorobenzene-d5	756740	454044	1059436	756740	0.00
92 Bromofluorobenzen	580931	348559	813303	580931	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.32	3.99	4.65	4.32	0.00
54 1,4-Difluorobenze	5.96	5.63	6.29	5.96	0.00
79 Chlorobenzene-d5	9.87	9.54	10.20	9.87	0.00
92 Bromofluorobenzen	11.42	11.09	11.75	11.42	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/msd6.i/01jun16.b/6060103.d
Date : 01-JUN-2016 10:25
Client ID: CCV
Sample Info: ;VI VOC+PAH CCV;CCV
Column phase: RTx-624

Instrument: msd6.i
Operator: CT
Column diameter: 0.53



Page 1

eurofins | Air Toxics

Client Sample ID: LCS
Lab ID#: 1606008-10A
EPA METHOD TO-17

File Name:	**6060104**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 6/1/16 11:05 AM**

Compound	**%Recovery**	**Method Limits**
Naphthalene	94	70-130

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Naphthalene-d8	84	50-150

Report Date: 01-Jun-2016 11:57

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 01jun16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: VI VOC+PAH LCS
Client Smp ID: LCS
Level: LOW
Operator: CT
Data Type: MS DATA
SampleType: LCS
SpikeList File: VOC+PAHlcs50.spk
Quant Type: ISTD
Sublist File: VOC+PAH_ICAL.sub
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: 2516-240(7/20/16),2744-32-50(7/20/16)

SPIKE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
3 Freon 114	139.80	148.89	106.50	70-130
6 Vinyl Chloride	51.100	47.806	93.55	70-130
7 1,3-Butadiene	44.200	35.528	80.38	70-130
9 Chloroethane	52.800	37.886	71.75	70-130
10 Isopentane	59.000	50.246	85.16	70-130
11 Trichlorofluoromet	112.40	117.92	104.91	70-130
14 1,1-Dichloroethene	79.300	79.903	100.76	70-130
15 Freon 113	153.30	173.70	113.30	70-130
18 Carbon Disulfide	62.300	51.524	82.70	70-130
19 2-Propanol	49.200	36.838	74.87	70-130
22 Methylene Chloride	69.500	54.246	78.05	70-130
25 trans-1,2-Dichloro	79.300	68.965	86.97	70-130
26 MTBE	72.100	64.233	89.09	70-130
28 Hexane	70.500	58.933	83.59	70-130
29 1,1-Dichloroethane	81.000	72.684	89.73	70-130
37 cis-1,2-Dichloroet	79.300	85.534	107.86	70-130
38 2-Butanone	59.000	55.535	94.13	70-130
44 Chloroform	97.700	95.086	97.32	70-130
45 1,1,1-Trichloroeth	109.10	105.37	96.58	70-130
46 Cyclohexane	68.800	65.633	95.40	70-130
47 Carbon Tetrachlori	125.80	131.50	104.53	70-130
48 Benzene	63.900	54.542	85.36	70-130
50 1,2-Dichloroethane	80.900	72.180	89.22	70-130
51 2,2,4-Trimethylpen	93.400	77.809	83.31	70-130
53 Heptane	82.000	75.748	92.38	70-130
56 Trichloroethene	107.50	95.835	89.15	70-130
58 Methyl Cyclohexane	80.300	79.028	98.42	70-130
59 1,2-Dichloropropan	92.400	84.677	91.64	70-130
60 1,4-Dioxane	72.100	68.406	94.88	70-130
65 4-Methyl-2-pentano	81.900	70.570	86.17	70-130
67 Toluene	75.400	67.677	89.76	70-130
70 1,1,2-Trichloroeth	109.10	107.14	98.21	70-130
71 Tetrachloroethene	135.70	155.64	114.69	70-130

SPIKE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
72 2-Hexanone	81.900	68.692	83.87	70-130
74 1,2-Dibromoethane	153.70	149.06	96.98	70-130
81 Chlorobenzene	92.100	90.496	98.26	70-130
82 Ethyl Benzene	86.800	82.674	95.25	70-130
84 m,p-Xylene	86.800	80.752	93.03	70-130
88 o-Xylene	86.800	73.094	84.21	70-130
89 Styrene	85.200	70.260	82.47	70-130
91 Cumene	98.300	83.949	85.40	70-130
94 1,1,2,2-Tetrachlor	137.30	123.22	89.74	70-130
96 Propylbenzene	98.300	83.467	84.91	70-130
97 4-Ethyltoluene	98.300	84.679	86.14	70-130
98 1,3,5-Trimethylben	98.300	84.662	86.13	70-130
100 1,2,4-Trimethylben	98.300	84.678	86.14	70-130
101 1,3-Dichlorobenzen	120.30	112.57	93.57	70-130
102 1,4-Dichlorobenzen	120.30	113.60	94.43	70-130
105 1,2-Dichlorobenzen	120.30	113.94	94.71	70-130
106 1,2,4-Trichloroben	148.40	170.26	114.73	70-130
107 Hexachlorobutadien	213.30	246.66	115.64	70-130
109 Naphthalene	50.000	47.248	94.50	70-130
110 2-Methylnaphthalen	50.000	57.677	115.35	70-130
111 1-Methylnaphthalen	50.000	58.286	116.57	70-130
112 Acenaphthylene	50.000	60.354	120.71	70-130
113 Acenaphthene	50.000	62.214	124.43	70-130
114 Fluorene	50.000	64.945	129.89	60-140
115 Phenanthrene	50.000	64.716	129.43	60-140
116 Anthracene	50.000	61.685	123.37	60-140
117 Fluoranthene	50.000	66.784	133.57	60-140
118 Pyrene	50.000	65.287	130.57	60-140

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 49 1,2-Dichloroethane	25.000	19.311	77.24	50-150
$ 66 Toluene-d8	25.000	21.982	87.93	50-150
$ 108 Naphthalene-d8	25.000	20.980	83.92	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01jun16.b/6060104.d
Lab Smp Id: VI VOC+PAH LCS Client Smp ID: LCS
Inj Date : 01-JUN-2016 11:05
Operator : CT Inst ID: msd6.i
Smp Info : ;VI VOC+PAH LCS;LCS
Misc Info : 2516-240(7/20/16),2744-32-50(7/20/16)
Comment :
Method : /chem/msd6.i/01jun16.b/616z0331vi.m
Meth Date : 01-Jun-2016 11:21 U5BT Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+PAH_ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 40 Bromochloromethane					CAS #: 74-97-5		
4.322	4.322 (1.000)	130	211889	26.0000		80.00- 120.00	100.00
4.329	4.315 (1.000)	128	163648			48.25- 108.25	77.23
4.322	4.315 (1.000)	49	216786			107.14- 167.14	102.31
* 54 1,4-Difluorobenzene					CAS #: 540-36-3		
5.955	5.955 (1.000)	114	840865	23.0000		80.00- 120.00	100.00
5.955	5.955 (1.000)	88	131976			0.00- 45.65	15.70
* 79 Chlorobenzene-d5					CAS #: 3114-55-4		
9.888	9.866 (1.000)	117	798895	24.0000		80.00- 120.00	100.00
9.888	9.866 (1.000)	82	406177			23.14- 83.14	50.84
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.442	11.421 (1.000)	174	611144	36.0000		80.00- 120.00	100.00
11.442	11.421 (1.000)	95	612438			92.70- 152.70	100.21
11.442	11.421 (1.000)	176	601882			68.24- 128.24	98.48
$ 49 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.253	5.246 (0.882)	65	86026	19.3109	19.311	80.00- 120.00	100.00

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

$  49 1,2-Dichloroethane-d4 (continued)
  5.246   5.239 (0.881)    67     46481                    22.28-  82.28    54.03
-------------------------------------------------------------------------------
$  66 Toluene-d8                                   CAS #: 2037-26-5
  7.975   7.961 (0.807)    98    342711 21.9822   21.982  80.00- 120.00   100.00
  7.975   7.961 (0.807)    70     34774                     0.00-  40.54    10.15
  7.975   7.961 (0.807)   100    224754                    35.01-  95.01    65.58
-------------------------------------------------------------------------------
$ 108 Naphthalene-d8                               CAS #: 1146-65-2
 15.704  15.697 (1.372)   136    722163 20.9798   20.980  80.00- 120.00   100.00
 15.704  15.697 (1.372)   108     64844                     0.00-  39.41     8.98
-------------------------------------------------------------------------------
    3 Freon 114                                    CAS #: 76-14-2
  1.283   1.283 (0.297)   135    566660 148.894   148.89  80.00- 120.00   100.00
  1.283   1.283 (0.297)   137    182338                     2.17-  62.17    32.18
-------------------------------------------------------------------------------
    6 Vinyl Chloride                               CAS #: 75-01-4
  1.395   1.395 (0.323)    62    285583 47.8057   47.806  80.00- 120.00   100.00
  1.395   1.395 (0.323)    64    115006                    12.66-  72.66    40.27
-------------------------------------------------------------------------------
    7 1,3-Butadiene                                CAS #: 106-99-0
  1.395   1.395 (0.323)    54    202762 35.5275   35.528  80.00- 120.00   100.00
  1.395   1.395 (0.323)    39    307169                   133.58- 193.58   151.49
-------------------------------------------------------------------------------
    9 Chloroethane                                 CAS #: 75-00-3
  1.660   1.660 (0.384)    64    129878 37.8861   37.886  80.00- 120.00   100.00
  1.660   1.660 (0.384)    66     39834                     0.00-  58.31    30.67
  1.660   1.660 (0.384)    49     34299                     0.00-  59.65    26.41
-------------------------------------------------------------------------------
   10 Isopentane                                   CAS #: 78-78-4
  1.688   1.688 (0.391)    57    219980 50.2465   50.246  80.00- 120.00   100.00
  1.688   1.688 (0.391)    43    311395                   134.33- 194.33   141.56
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                  CAS #: 75-69-4
  1.814   1.814 (0.420)   101    796648 117.919   117.92  80.00- 120.00   100.00
  1.814   1.814 (0.420)   103    520523                    35.98-  95.98    65.34
-------------------------------------------------------------------------------
   15 Freon 113                                    CAS #: 76-13-1
  2.180   2.180 (0.504)   151    677406 173.695   173.70  80.00- 120.00   100.00
  2.180   2.180 (0.504)   153    439732                    34.66-  94.66    64.91
  2.180   2.180 (0.504)   101    712557                    88.64- 148.64   105.19
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                           CAS #: 75-35-4
  2.188   2.180 (0.506)    98    217409 79.9033   79.903  80.00- 120.00   100.00
  2.188   2.180 (0.506)    96    340406                   127.15- 187.15   156.57
  2.188   2.180 (0.506)    61    505450                   230.60- 290.60   232.49
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.367	2.367 (0.548)	76	820007	51.5244	51.524	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.281	2.281 (0.528)	45	545464	36.8384	36.838	80.00- 120.00	100.00(a)
2.281	2.281 (0.528)	43	108411			0.00- 49.91	19.88
2.281	2.281 (0.528)	59	23250			0.00- 33.48	4.26
22 Methylene Chloride					CAS #: 75-09-2		
2.582	2.582 (0.597)	49	368731	54.2461	54.246	80.00- 120.00	100.00
2.582	2.582 (0.597)	84	313787			38.62- 98.62	85.10
2.582	2.574 (0.597)	51	113399			0.43- 60.43	30.75
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.825	2.825 (0.654)	98	187525	68.9647	68.965	80.00- 120.00	100.00
2.825	2.825 (0.654)	61	386078			200.79- 260.79	205.88
2.825	2.825 (0.654)	96	290685			126.39- 186.39	155.01
26 MTBE					CAS #: 1634-04-4		
2.804	2.804 (0.649)	73	727839	64.2329	64.233	80.00- 120.00	100.00
2.804	2.804 (0.649)	57	160770			0.00- 54.76	22.09
2.804	2.804 (0.649)	41	147906			0.00- 56.57	20.32
28 Hexane					CAS #: 110-54-3		
3.104	3.104 (0.718)	57	467295	58.9330	58.933	80.00- 120.00	100.00
3.104	3.104 (0.718)	43	288718			41.77- 101.77	61.78
3.112	3.104 (0.720)	86	73521			0.00- 43.88	15.73
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.276	3.276 (0.758)	63	525165	72.6842	72.684	80.00- 120.00	100.00
3.276	3.276 (0.758)	65	170400			1.71- 61.71	32.45
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
3.986	3.978 (0.922)	98	249364	85.5340	85.534	80.00- 120.00	100.00
3.978	3.978 (0.920)	96	390279			126.11- 186.11	156.51
3.978	3.978 (0.920)	61	470859			179.91- 239.91	188.82
38 2-Butanone					CAS #: 78-93-3		
3.950	3.943 (0.914)	72	165260	55.5349	55.535	80.00- 120.00	100.00(a)
3.943	3.943 (0.912)	43	640328			469.10- 529.10	387.47
3.943	3.943 (0.912)	57	53719			6.15- 66.15	32.51
44 Chloroform					CAS #: 67-66-3		
4.501	4.494 (1.041)	83	659839	95.0857	95.086	80.00- 120.00	100.00
4.501	4.494 (1.041)	85	430317			35.99- 95.99	65.22

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.831	4.831 (0.811)	84	417075	65.6333	65.633	80.00- 120.00	100.00
4.838	4.831 (0.812)	56	483178			102.79- 162.79	115.85
4.831	4.831 (0.811)	41	265802			54.37- 114.37	63.73
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.723	4.723 (0.793)	97	656552	105.374	105.37	80.00- 120.00	100.00
4.723	4.723 (0.793)	99	422112			34.68- 94.68	64.29
47 Carbon Tetrachloride					CAS #: 56-23-5		
4.967	4.967 (0.834)	119	715952	131.502	131.50	80.00- 120.00	100.00
4.967	4.967 (0.834)	117	740822			73.19- 133.19	103.47
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.497	5.490 (0.923)	57	1500786	77.8095	77.809	80.00- 120.00	100.00
5.497	5.490 (0.923)	56	469808			1.74- 61.74	31.30
5.497	5.490 (0.923)	41	407932			0.34- 60.34	27.18
48 Benzene					CAS #: 71-43-2		
5.268	5.261 (0.885)	78	1005786	54.5424	54.542	80.00- 120.00	100.00
5.268	5.261 (0.885)	77	237342			0.00- 53.53	23.60
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.368	5.361 (0.901)	62	409802	72.1796	72.180	80.00- 120.00	100.00
5.368	5.361 (0.901)	64	133550			2.15- 62.15	32.59
53 Heptane					CAS #: 142-82-5		
5.798	5.798 (0.974)	71	328101	75.7485	75.748	80.00- 120.00	100.00
5.791	5.791 (0.972)	43	562950			188.80- 248.80	171.58
5.798	5.798 (0.974)	57	295616			71.78- 131.78	90.10
56 Trichloroethene					CAS #: 79-01-6		
6.263	6.271 (1.052)	95	485578	95.8353	95.835	80.00- 120.00	100.00
6.263	6.271 (1.052)	130	536897			74.74- 134.74	110.57
6.263	6.271 (1.052)	97	314739			34.87- 94.87	64.82
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.586	6.586 (1.106)	83	623496	79.0277	79.028	80.00- 120.00	100.00
6.586	6.586 (1.106)	98	279233			14.22- 74.22	44.79
6.579	6.586 (1.105)	55	473767			58.24- 118.24	75.99
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.622	6.622 (1.112)	63	360287	84.6770	84.677	80.00- 120.00	100.00
6.622	6.622 (1.112)	62	249823			39.32- 99.32	69.34
6.586	6.622 (1.106)	41	432246			37.26- 97.26	119.97

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.736	6.743 (1.131)	88	248213	68.4064	68.406	80.00- 120.00	100.00
6.736	6.743 (1.131)	58	158737			41.28- 101.28	63.95
6.743	6.743 (1.132)	57	71389			0.62- 60.62	28.76
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.854	7.839 (1.319)	58	294744	70.5698	70.570	80.00- 120.00	100.00
7.854	7.839 (1.319)	43	741325			263.34- 323.34	251.51
7.846	7.839 (1.318)	85	147174			12.32- 72.32	49.93
67 Toluene					CAS #: 108-88-3		
8.061	8.054 (0.815)	91	1298907	67.6770	67.677	80.00- 120.00	100.00
8.061	8.054 (0.815)	92	761139			28.18- 88.18	58.60
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.670	8.656 (1.456)	97	455232	107.145	107.14	80.00- 120.00	100.00
8.670	8.656 (1.456)	99	288455			32.32- 92.32	63.36
8.670	8.656 (1.456)	83	380133			54.42- 114.42	83.50
71 Tetrachloroethene					CAS #: 127-18-4		
8.749	8.735 (0.885)	166	789394	155.641	155.64	80.00- 120.00	100.00
8.749	8.735 (0.885)	129	534270			47.21- 107.21	67.68
8.749	8.735 (0.885)	131	521032			44.68- 104.68	66.00
72 2-Hexanone					CAS #: 591-78-6		
8.985	8.964 (0.909)	58	397467	68.6917	68.692	80.00- 120.00	100.00
8.985	8.964 (0.909)	43	720798			181.19- 241.19	181.35
8.985	8.971 (0.909)	100	85939			0.00- 48.53	21.62
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.265	9.250 (0.937)	107	710082	149.058	149.06	80.00- 120.00	100.00
9.265	9.250 (0.937)	109	675711			64.88- 124.88	95.16
81 Chlorobenzene					CAS #: 108-90-7		
9.924	9.902 (1.004)	112	1111969	90.4963	90.496	80.00- 120.00	100.00
9.924	9.902 (1.004)	114	359238			2.37- 62.37	32.31
9.924	9.902 (1.004)	77	584388			25.58- 85.58	52.55
82 Ethyl Benzene					CAS #: 100-41-4		
10.081	10.060 (1.020)	106	552972	82.6735	82.674	80.00- 120.00	100.00
10.074	10.060 (1.019)	91	1696025			283.92- 343.92	306.71
84 m,p-Xylene					CAS #: 108-38-3		
10.260	10.239 (1.038)	106	700530	80.7526	80.752	80.00- 120.00	100.00
10.253	10.239 (1.037)	91	1362959			168.48- 228.48	194.56

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

   88 o-Xylene                                        CAS #: 95-47-6
 10.740  10.719 (0.939)   106    672733 73.0941   73.094  80.00- 120.00   100.00
 10.740  10.719 (0.939)    91   1378204                  179.05- 239.05   204.87
-------------------------------------------------------------------------------
   89 Styrene                                         CAS #: 100-42-5
 10.769  10.755 (0.941)   104   1115143 70.2606   70.260  80.00- 120.00   100.00
 10.769  10.755 (0.941)    78    524282                   17.71-  77.71    47.01
-------------------------------------------------------------------------------
   91 Cumene                                          CAS #: 98-82-8
 11.227  11.213 (0.981)   105   2031989 83.9494   83.949  80.00- 120.00   100.00
 11.227  11.213 (0.981)   120    551250                    0.00-  56.88    27.13
 11.227  11.213 (0.981)    51    169891                    0.00-  40.57     8.36
-------------------------------------------------------------------------------
   94 1,1,2,2-Tetrachloroethane                       CAS #: 79-34-5
 11.657  11.636 (1.019)    83    985912 123.217   123.22  80.00- 120.00   100.00
 11.657  11.636 (1.019)    85    636809                   35.63-  95.63    64.59
-------------------------------------------------------------------------------
   96 Propylbenzene                                   CAS #: 103-65-1
 11.765  11.750 (1.028)    91   2389729 83.4669   83.467  80.00- 120.00   100.00
 11.765  11.750 (1.028)   120    597845                    0.00-  53.76    25.02
 11.765  11.750 (1.028)   105     93495                    0.00-  33.79     3.91
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                                  CAS #: 622-96-8
 11.929  11.915 (1.043)   120    623676 84.6793   84.679  80.00- 120.00   100.00
 11.929  11.915 (1.043)   105   1994960                  299.98- 359.98   319.87
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                          CAS #: 108-67-8
 12.015  12.001 (1.050)   120    879135 84.6623   84.662  80.00- 120.00   100.00
 12.015  12.001 (1.050)   105   1755489                  169.84- 229.84   199.68
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                          CAS #: 95-63-6
 12.481  12.467 (1.091)   120    819403 84.6784   84.678  80.00- 120.00   100.00
 12.481  12.467 (1.091)   105   1782912                  188.24- 248.24   217.59
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                             CAS #: 541-73-1
 12.810  12.796 (1.120)   146   1348114 112.566   112.57  80.00- 120.00   100.00
 12.810  12.796 (1.120)   148    872022                   33.94-  93.94    64.68
 12.810  12.796 (1.120)   111    501382                    9.99-  69.99    37.19
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                             CAS #: 106-46-7
 12.946  12.932 (1.131)   146   1358373 113.595   113.60  80.00- 120.00   100.00
 12.946  12.932 (1.131)   148    875845                   33.56-  93.56    64.48
 12.946  12.932 (1.131)   111    488566                    8.12-  68.12    35.97
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                             CAS #: 95-50-1
 13.383  13.369 (1.170)   146   1289393 113.938   113.94  80.00- 120.00   100.00
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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE (   ng)  (   NG)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  105 1,2-Dichlorobenzene (continued)
 13.383  13.369 (1.170)   148    832033                    33.25-  93.25    64.53
 13.383  13.369 (1.170)   111    498465                    11.16-  71.16    38.66
-------------------------------------------------------------------------------
  106 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 15.425  15.425 (1.348)   180   1324702 170.264   170.26  80.00- 120.00   100.00
 15.432  15.425 (1.349)   182   1254032                    64.82- 124.82    94.67
-------------------------------------------------------------------------------
  107 Hexachlorobutadiene                           CAS #: 87-68-3
 15.640  15.640 (1.367)   225    986240 246.664   246.66  80.00- 120.00   100.00
 15.640  15.640 (1.367)   223    615586                    32.09-  92.09    62.42
-------------------------------------------------------------------------------
  109 Naphthalene                                   CAS #: 91-20-3
 15.740  15.740 (1.376)   128   1937220 47.2480   47.248  80.00- 120.00   100.00
 15.740  15.740 (1.376)   127    253214                     0.00-  43.01    13.07
-------------------------------------------------------------------------------
  110 2-Methylnaphthalene                           CAS #: 91-57-6
 17.187  17.187 (1.502)   142   1366902 57.6769   57.677  80.00- 120.00   100.00
 17.187  17.187 (1.502)   141   1189629                    57.55- 117.55    87.03
 17.187  17.187 (1.502)   115    411852                     2.88-  62.88    30.13
-------------------------------------------------------------------------------
  111 1-Methylnaphthalene                           CAS #: 90-12-0
 17.402  17.402 (1.521)   142   1242134 58.2858   58.286  80.00- 120.00   100.00
 17.402  17.402 (1.521)   141   1120588                    60.83- 120.83    90.21
 17.402  17.402 (1.521)   115    394314                     4.35-  64.35    31.74
-------------------------------------------------------------------------------
  112 Acenaphthylene                                CAS #: 208-96-8
 19.257  19.257 (1.683)   152   2100732 60.3538   60.354  80.00- 120.00   100.00
 19.257  19.257 (1.683)   151    420924                     0.00-  50.47    20.04
 19.257  19.257 (1.683)   153    275972                     0.00-  42.99    13.14
-------------------------------------------------------------------------------
  113 Acenaphthene                                  CAS #: 83-32-9
 19.515  19.515 (1.706)   154   1170596 62.2145   62.214  80.00- 120.00   100.00
 19.515  19.522 (1.706)   152    606329                    23.49-  83.49    51.80
 19.522  19.515 (1.706)   153   1276673                    81.41- 141.41   109.06
-------------------------------------------------------------------------------
  114 Fluorene                                      CAS #: 86-73-7
 20.668  20.668 (1.806)   166   1212232 64.9453   64.945  80.00- 120.00   100.00
 20.668  20.668 (1.806)   165   1153364                    66.52- 126.52    95.14
-------------------------------------------------------------------------------
  115 Phenanthrene                                  CAS #: 85-01-8
 22.846  22.846 (1.997)   178   2039264 64.7156   64.716  80.00- 120.00   100.00
 22.846  22.846 (1.997)   176    384321                     0.00-  49.64    18.85
 22.846  22.846 (1.997)   179    310050                     0.00-  45.22    15.20
-------------------------------------------------------------------------------
  116 Anthracene                                    CAS #: 120-12-7
 22.953  22.953 (2.006)   178   1841047 61.6849   61.685  80.00- 120.00   100.00
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RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
116 Anthracene (continued)							
22.953	22.953 (2.006)	176	332769			0.00- 49.04	18.07
22.953	22.953 (2.006)	179	279840			0.00- 45.28	15.20
117 Fluoranthene					CAS #: 206-44-0		
26.141	26.141 (2.285)	202	1463816	66.7841	66.784	80.00- 120.00	100.00
26.141	26.141 (2.285)	101	195628			0.00- 48.21	13.36
118 Pyrene					CAS #: 129-00-0		
27.000	27.000 (2.360)	202	1486526	65.2870	65.287	80.00- 120.00	100.00
27.000	27.000 (2.360)	101	233031			0.00- 51.09	15.68
27.000	27.000 (2.360)	100	189407			0.00- 47.66	12.74

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Report Date: 01-Jun-2016 11:57

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6060104.d
Lab Smp Id: VI VOC+PAH LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: 2516-240(7/20/16),2744-32-50(7/20/16)

Calibration Date: 01-JUN-2016
Calibration Time: 10:25
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

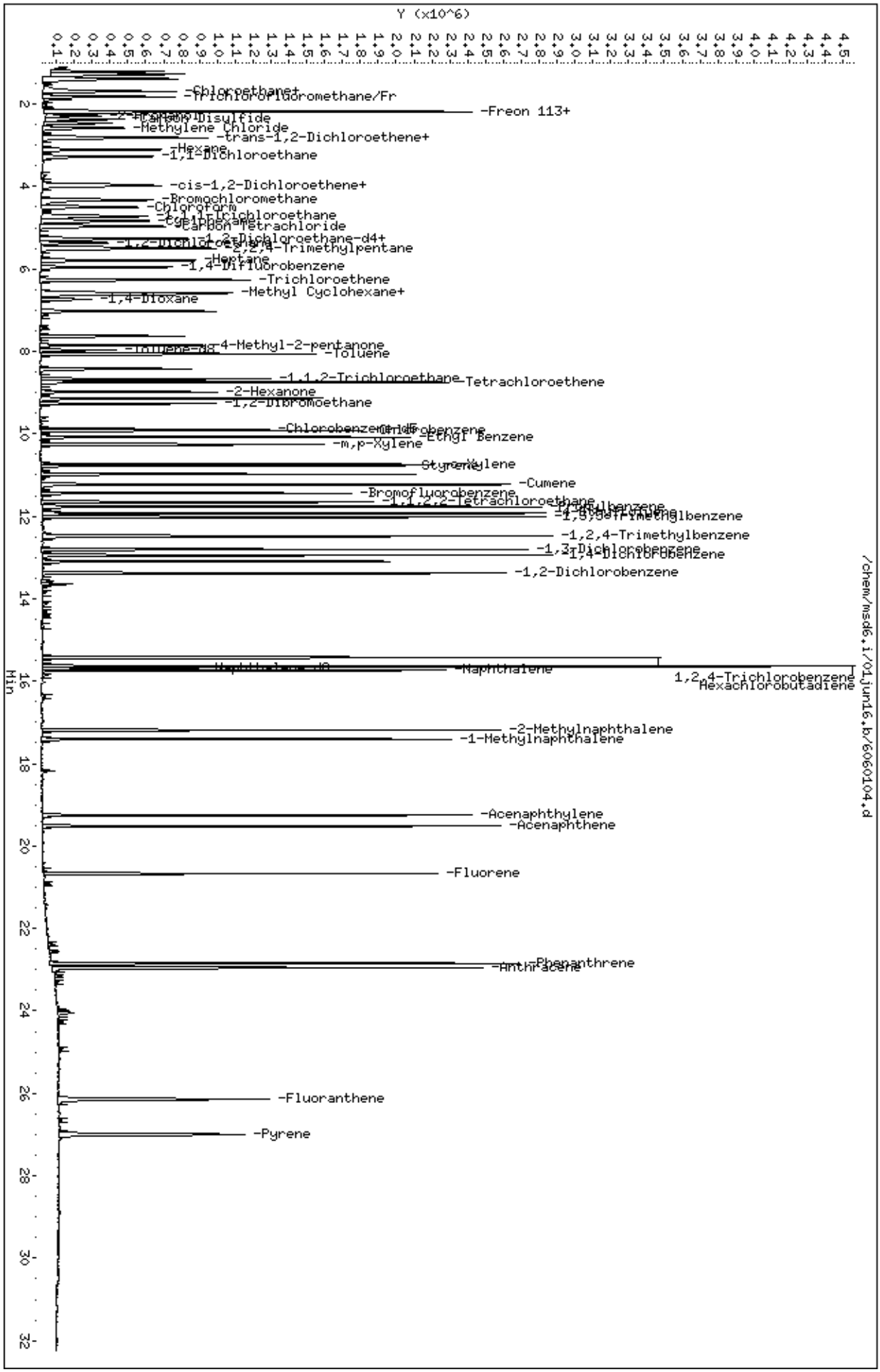
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	196221	117733	274709	211889	7.98
54 1,4-Difluorobenze	816668	490001	1143335	840865	2.96
79 Chlorobenzene-d5	756740	454044	1059436	798895	5.57
92 Bromofluorobenzen	580931	348559	813303	611144	5.20

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.32	3.99	4.65	4.32	0.00
54 1,4-Difluorobenze	5.96	5.63	6.29	5.96	0.00
79 Chlorobenzene-d5	9.87	9.54	10.20	9.89	0.22
92 Bromofluorobenzen	11.42	11.09	11.75	11.44	0.19

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/msd6.i/01jun16.b/6060104.d
Date : 01-JUN-2016 11:05
Client ID: LCS
Sample Info: ;VI VOC+PAH LCS;LCS
Column phase: RTx-624

Instrument: msd6.i
Operator: CT
Column diameter: 0.53



Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

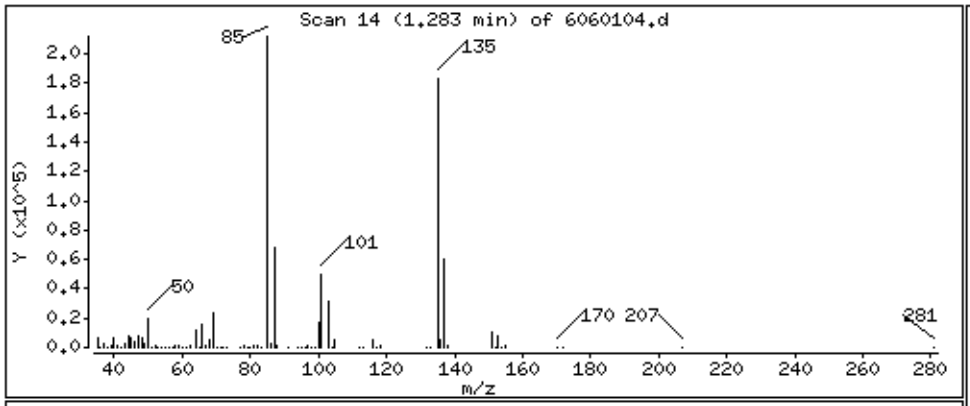
Operator: CT

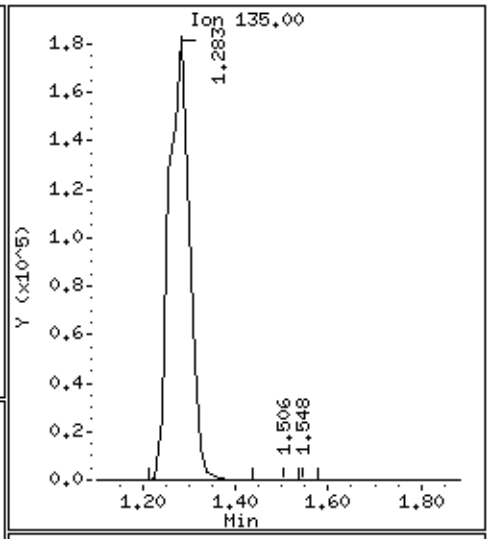
Column phase: RTx-624

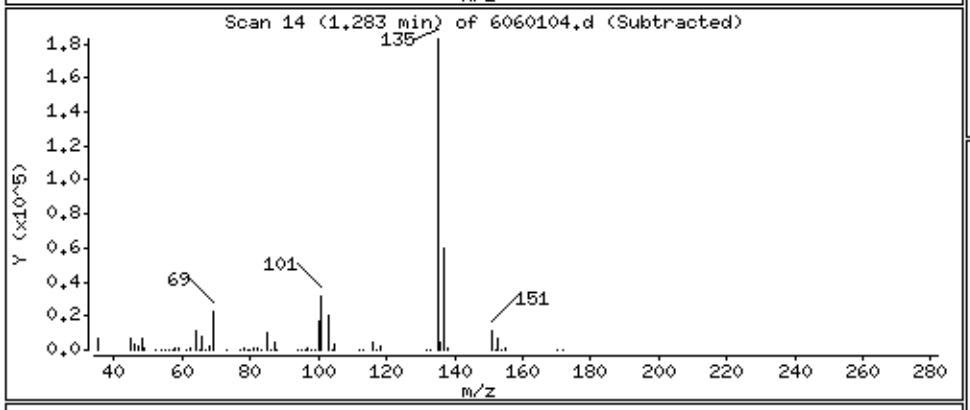
Column diameter: 0.53

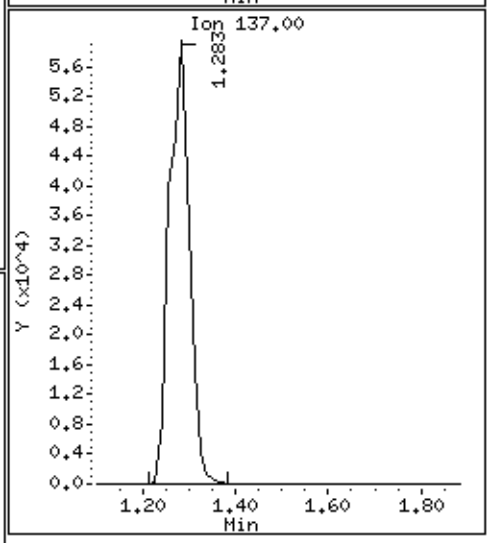
3 Freon 114

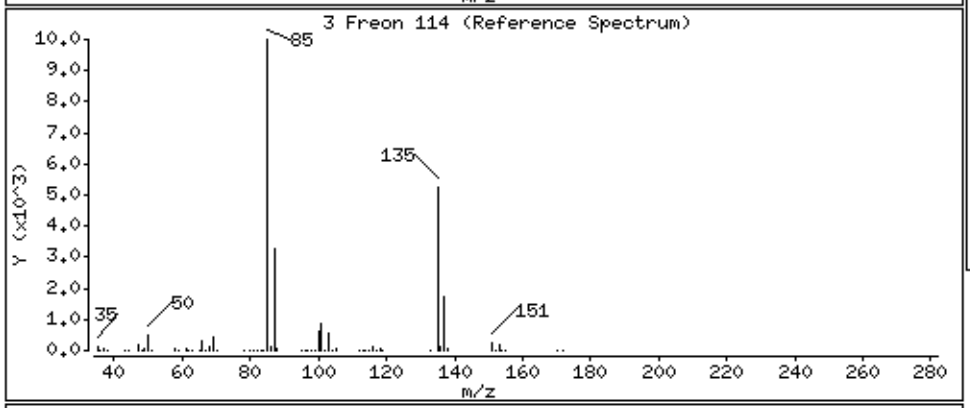
Concentration: 148.89 NG

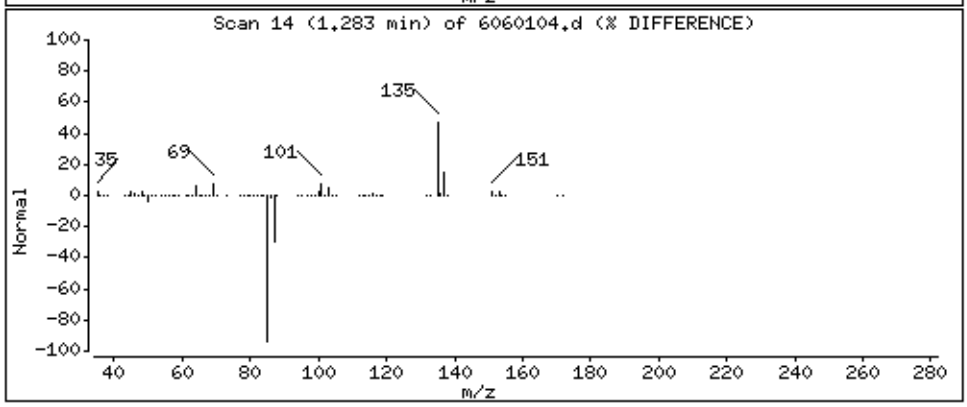












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

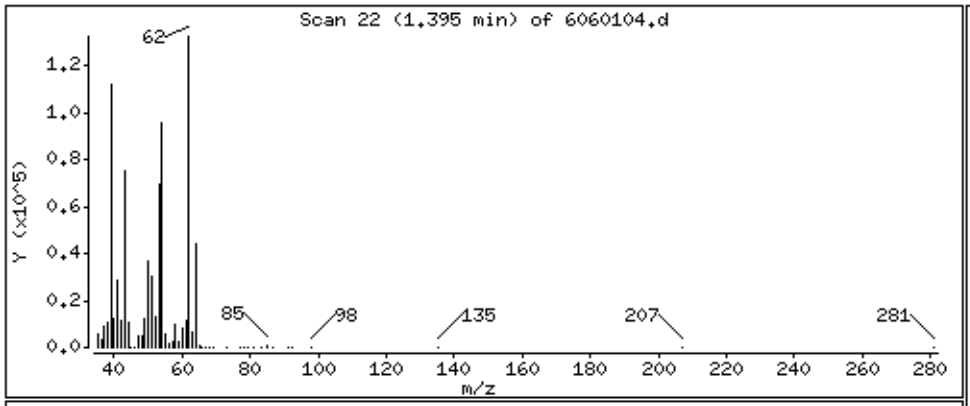
Operator: CT

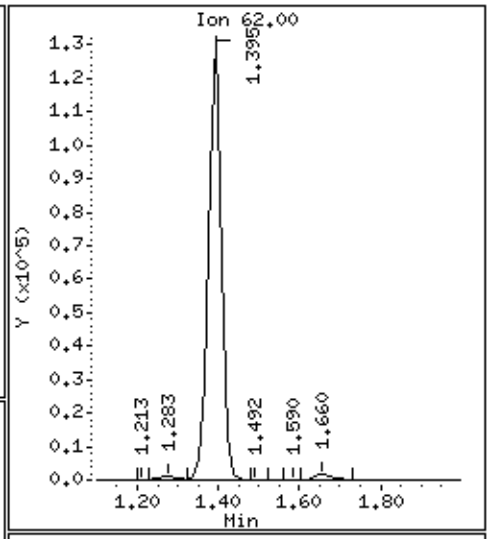
Column phase: RTx-624

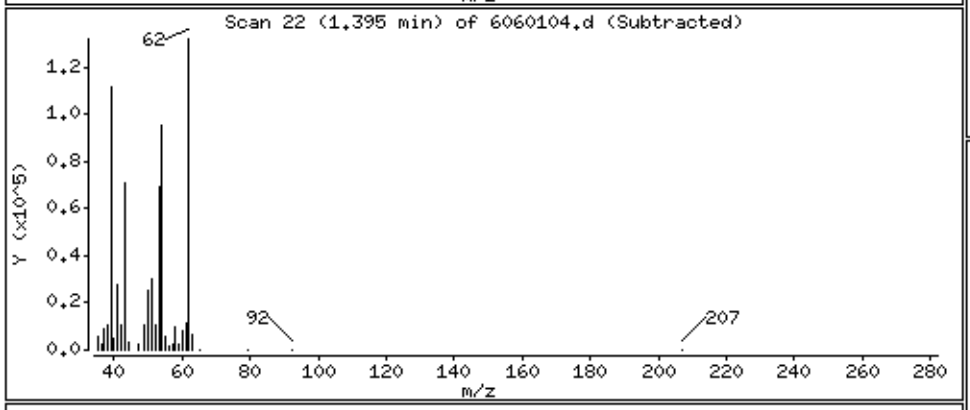
Column diameter: 0.53

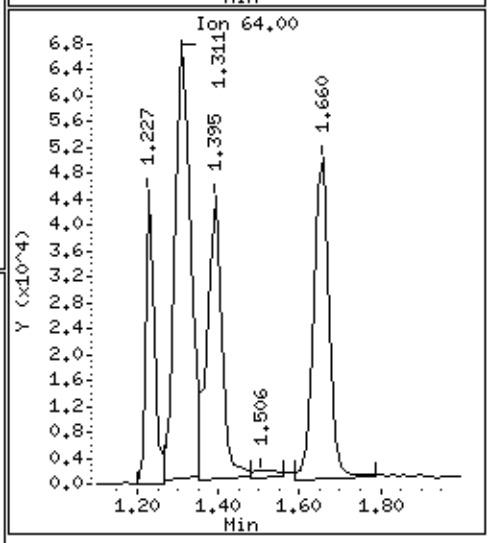
6 Vinyl Chloride

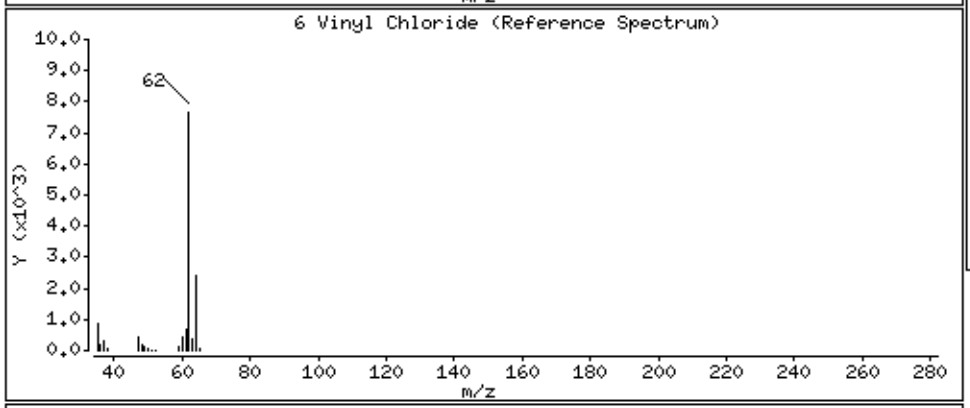
Concentration: 47.806 NG

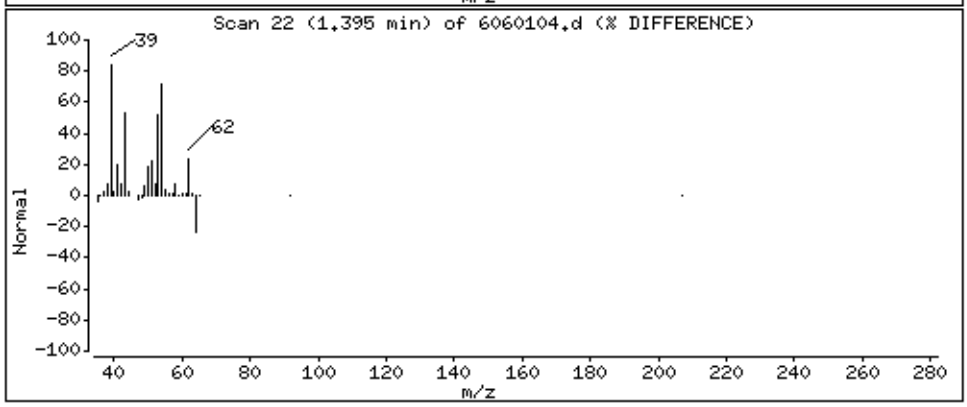












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

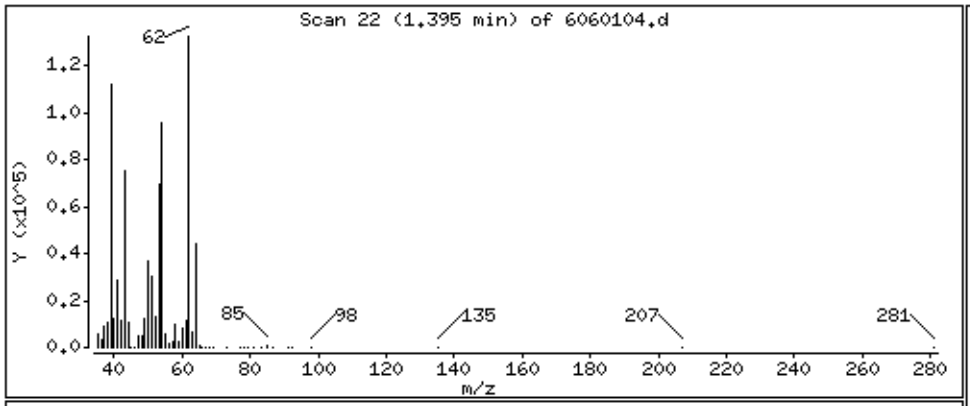
Operator: CT

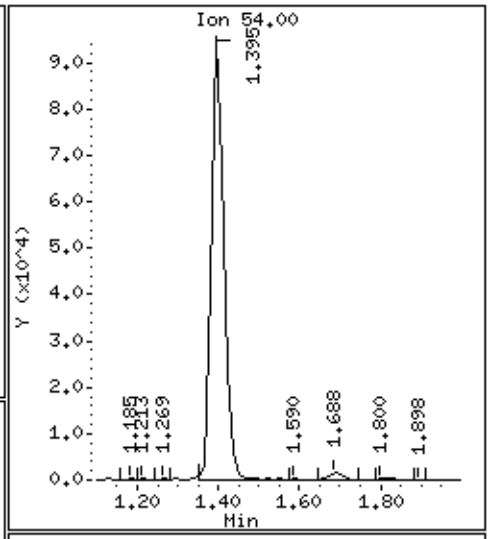
Column phase: RTx-624

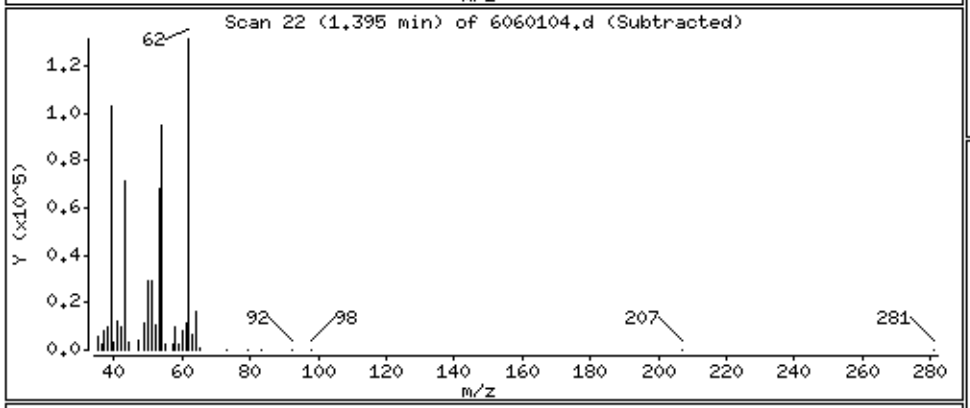
Column diameter: 0.53

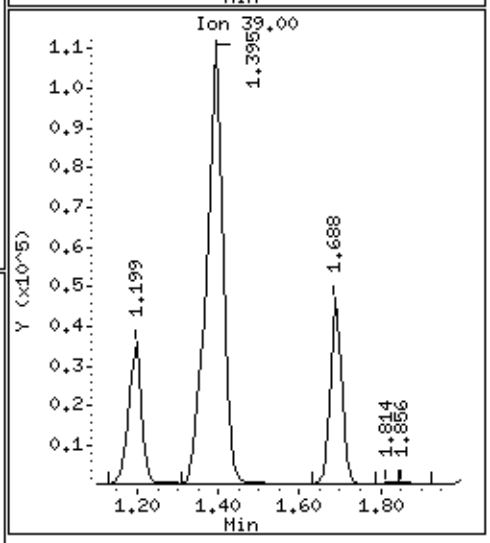
7 1,3-Butadiene

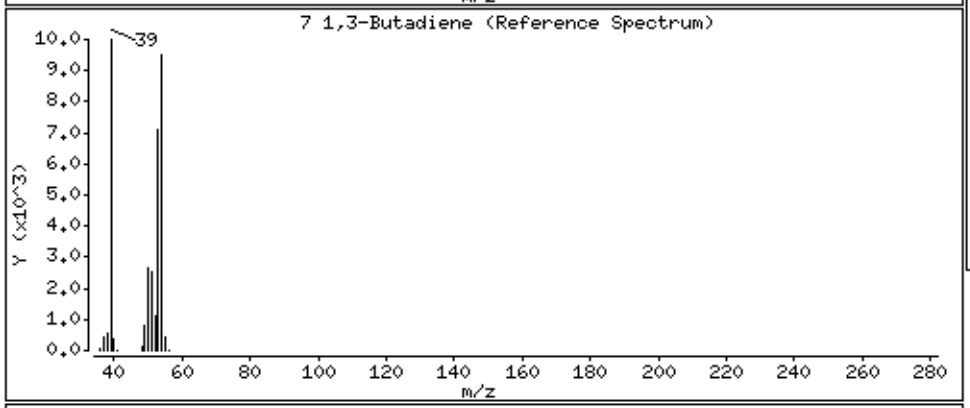
Concentration: 35.528 NG

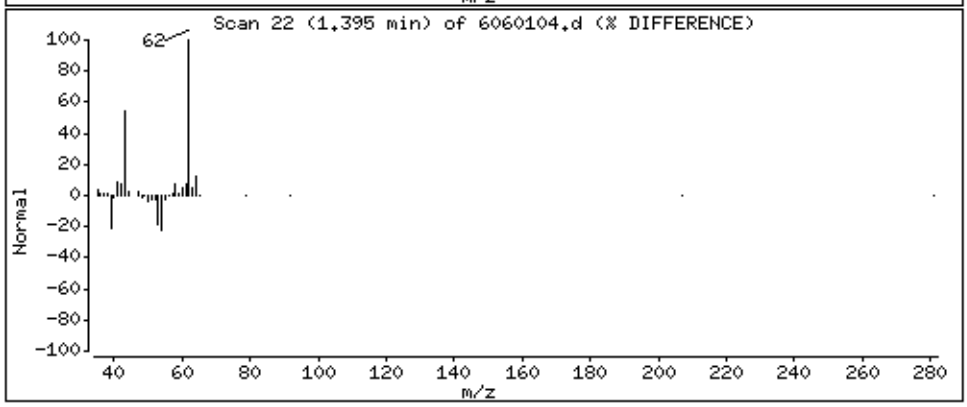












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

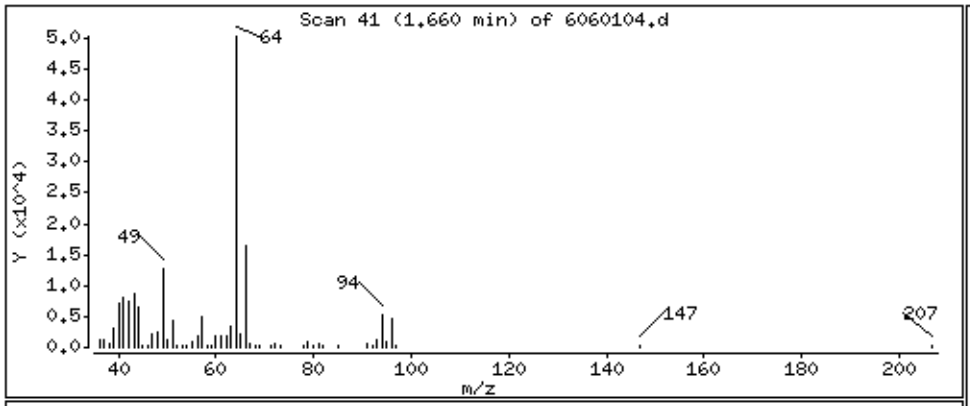
Operator: CT

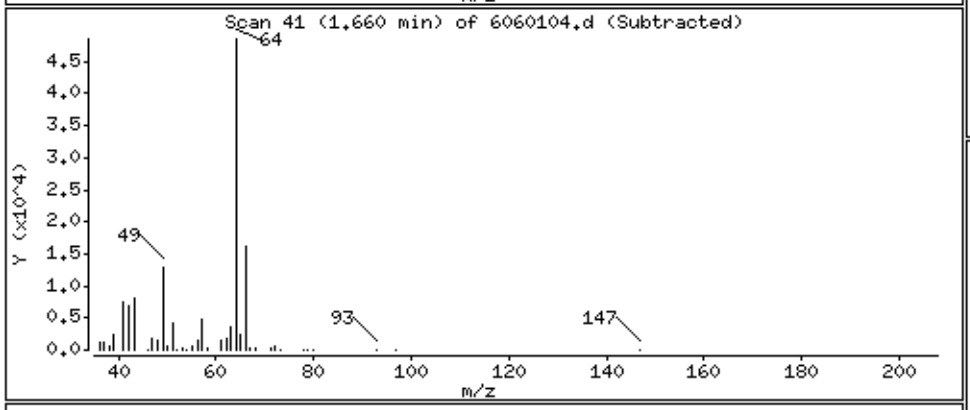
Column phase: RTx-624

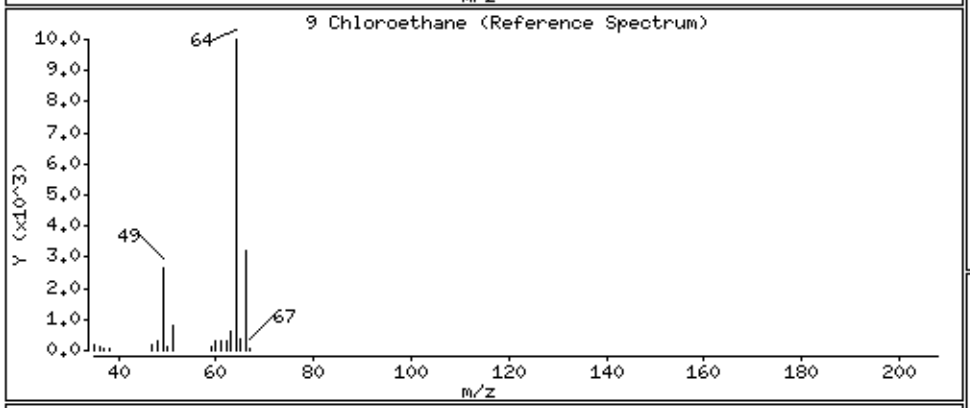
Column diameter: 0.53

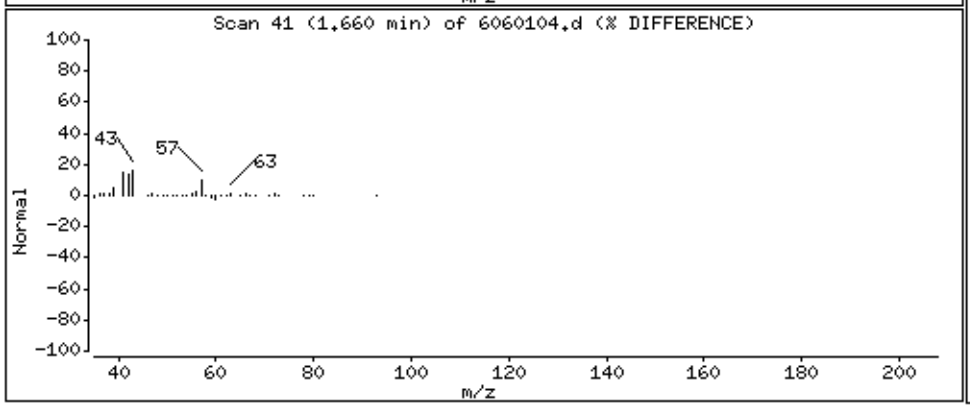
9 Chloroethane

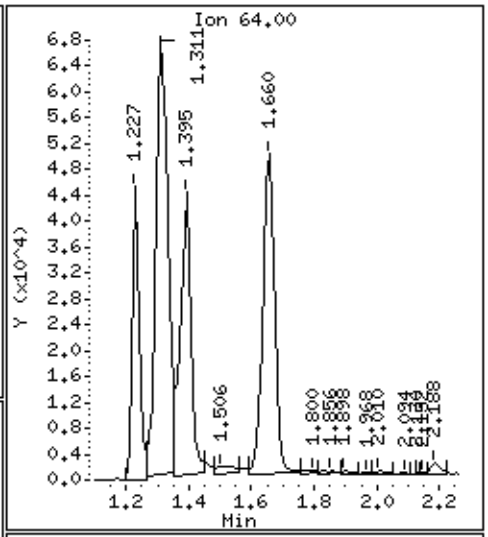
Concentration: 37.886 NG

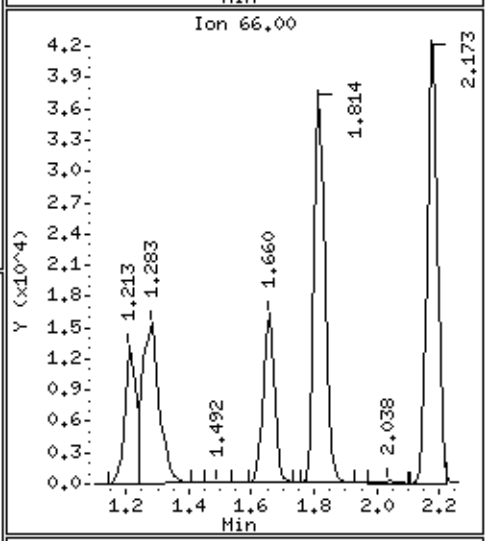


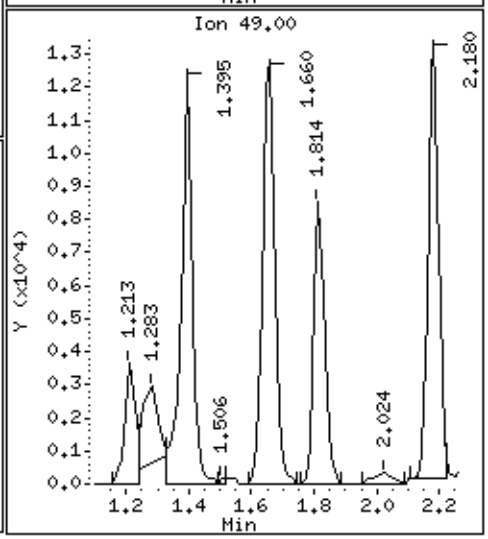












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

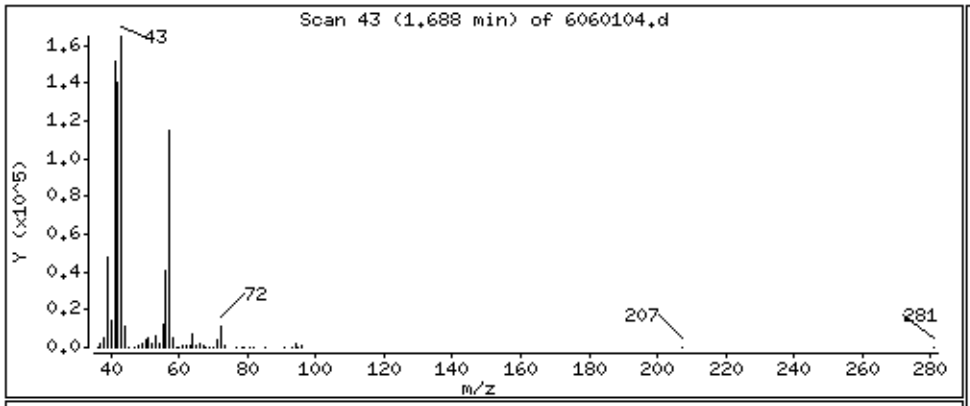
Operator: CT

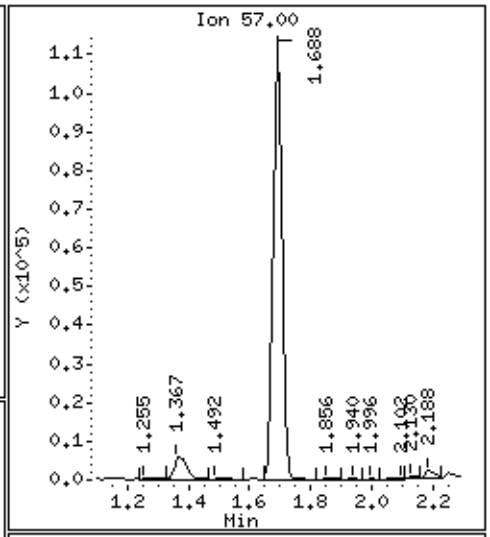
Column phase: RTx-624

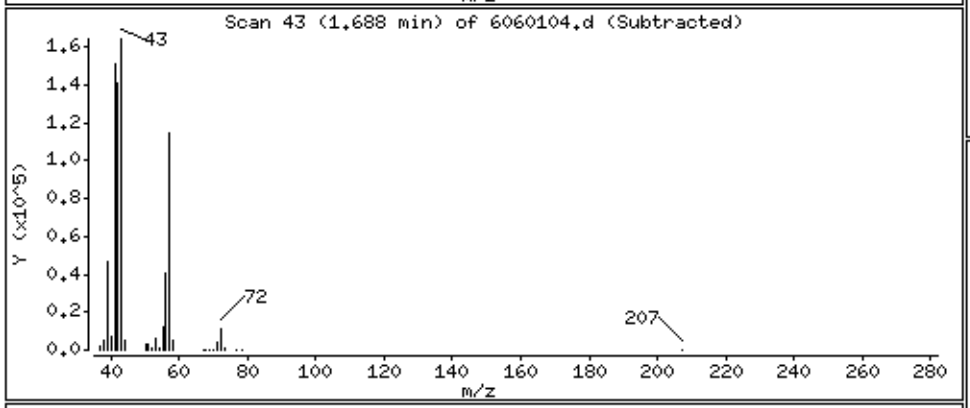
Column diameter: 0.53

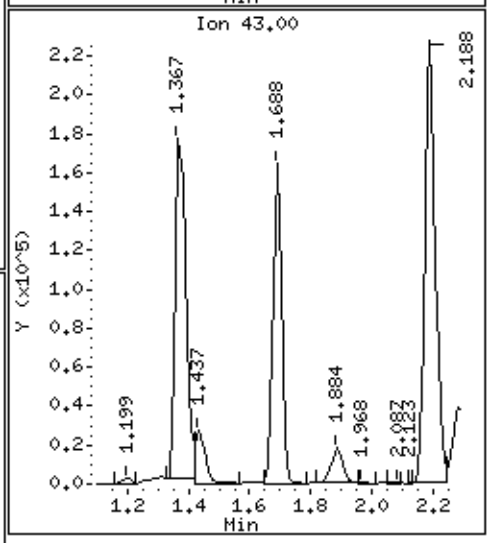
10 Isopentane

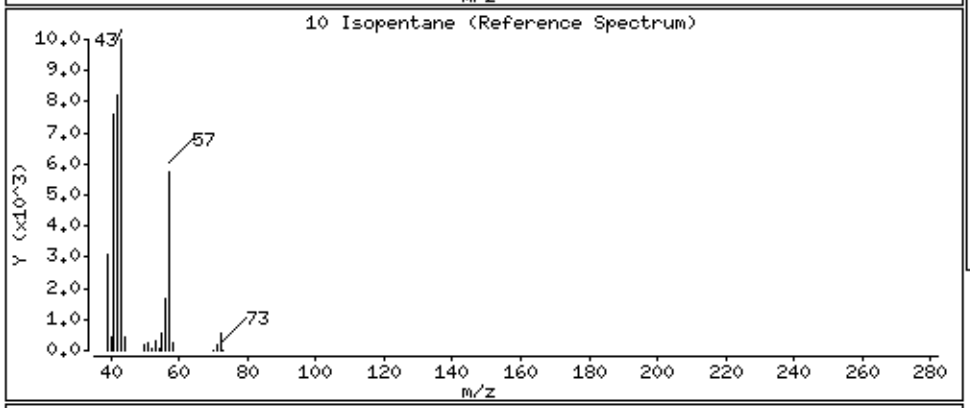
Concentration: 50.246 NG

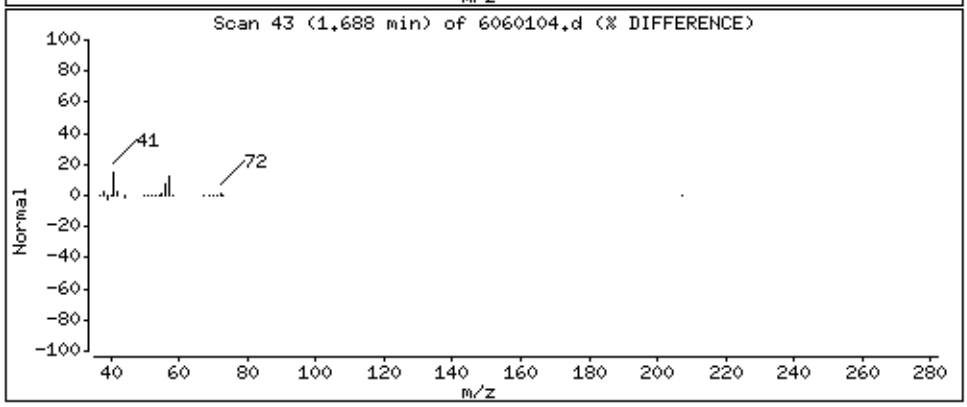












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

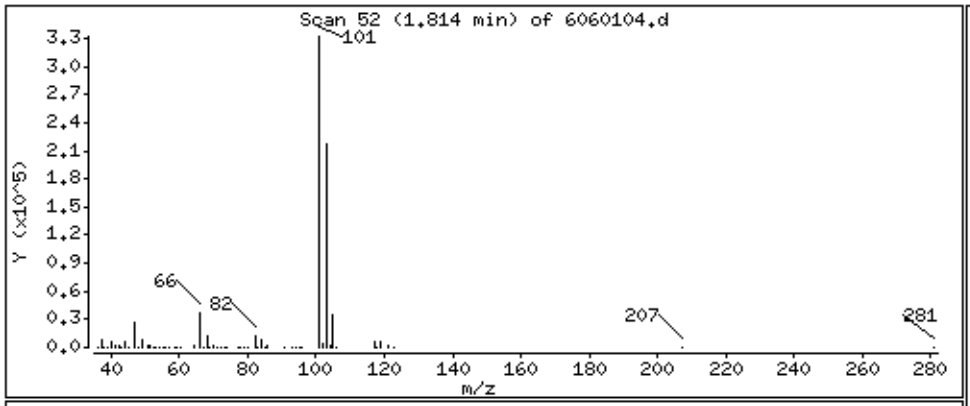
Operator: CT

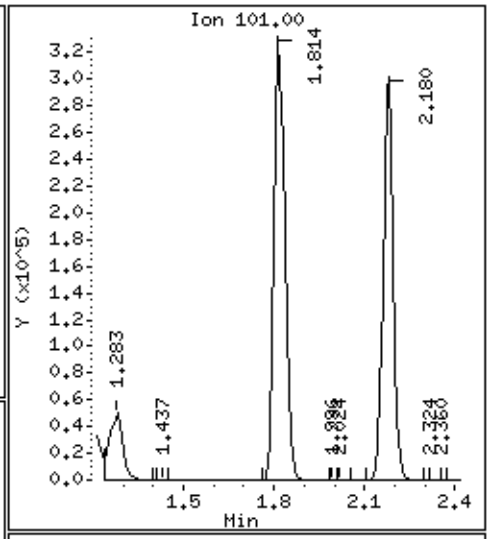
Column phase: RTx-624

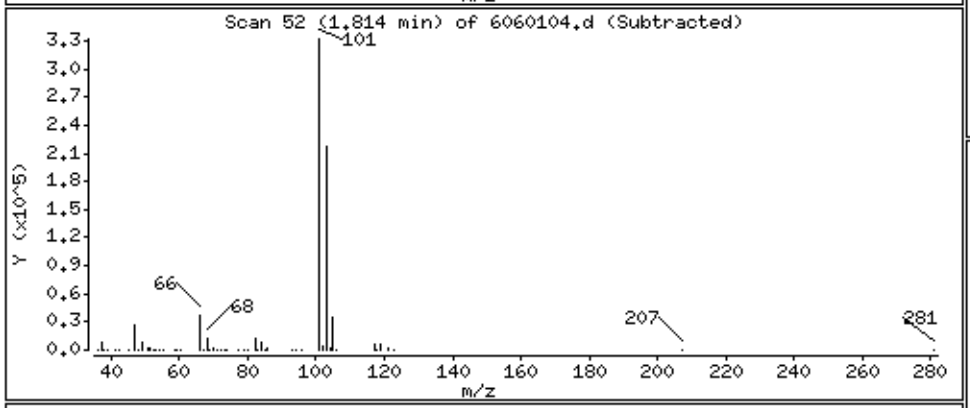
Column diameter: 0.53

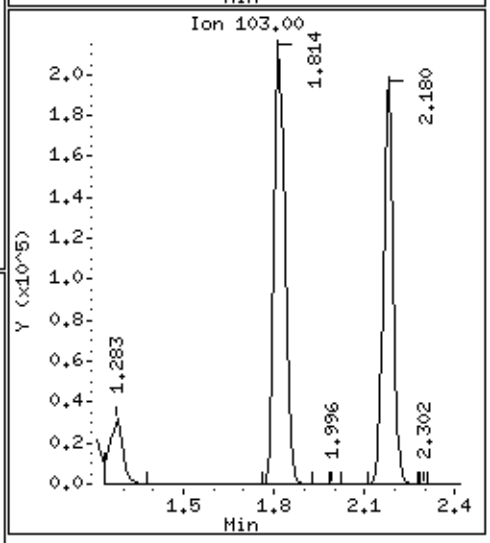
11 Trichlorofluoromethane/Fr11

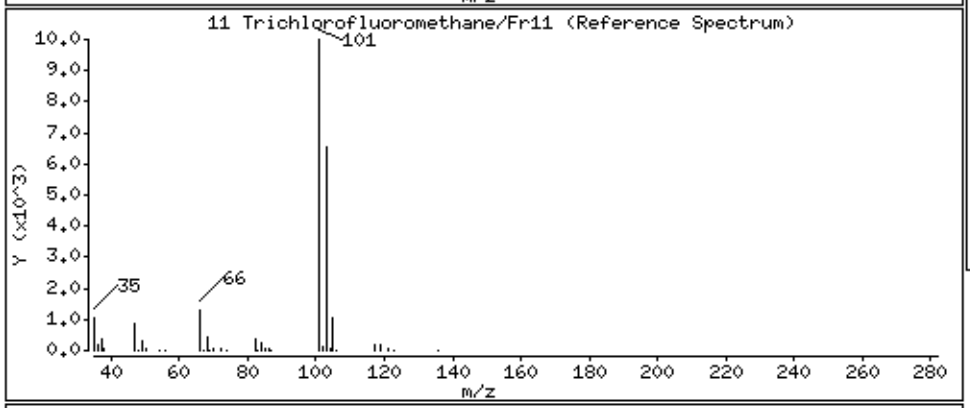
Concentration: 117.92 NG

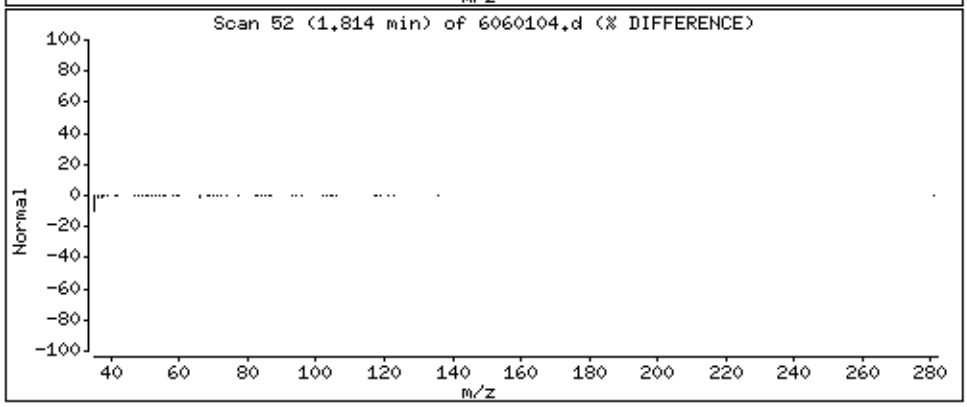












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

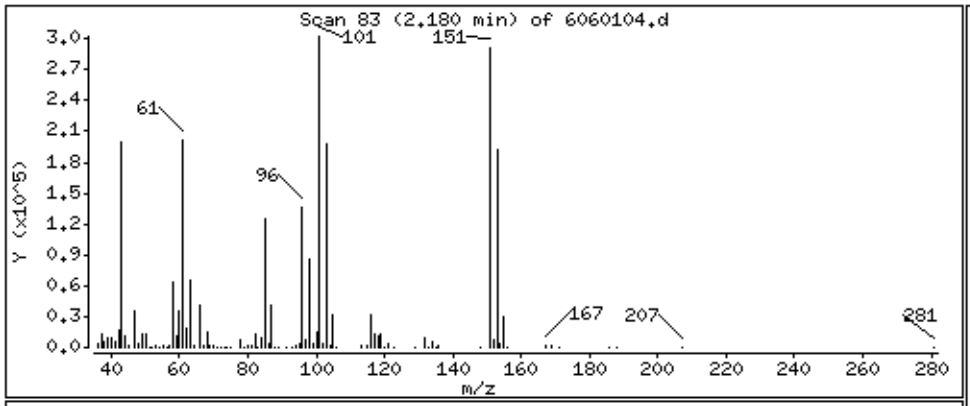
Operator: CT

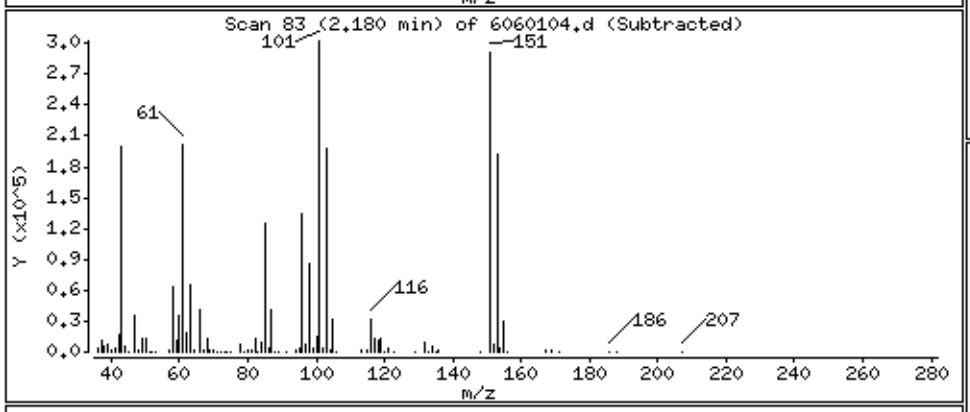
Column phase: RTx-624

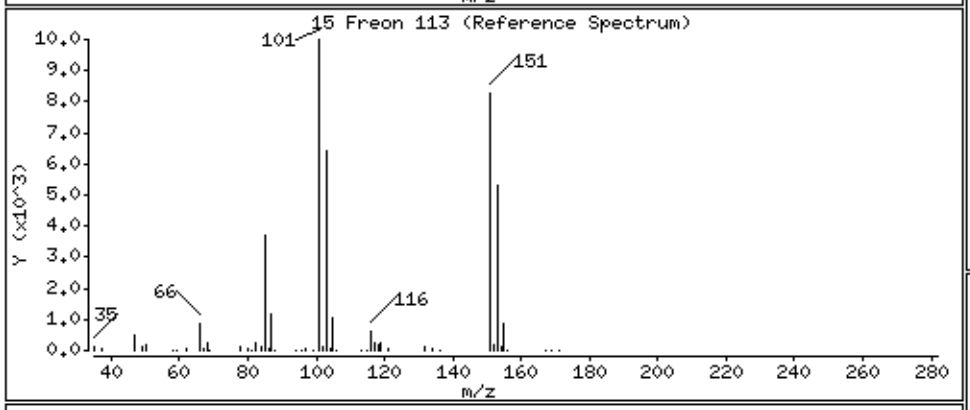
Column diameter: 0.53

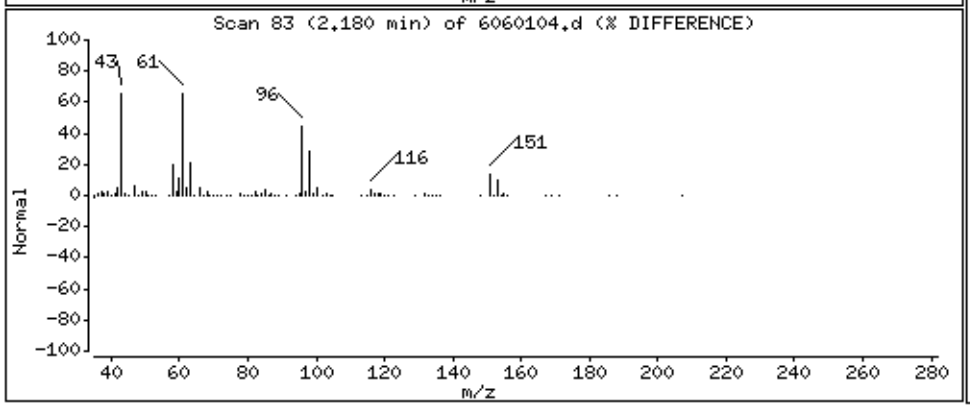
15 Freon 113

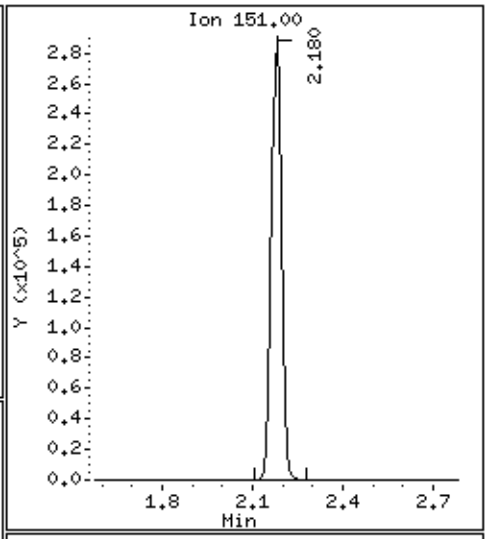
Concentration: 173.70 NG

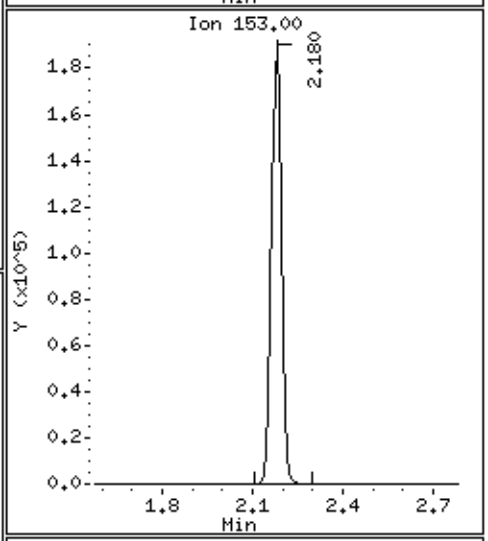


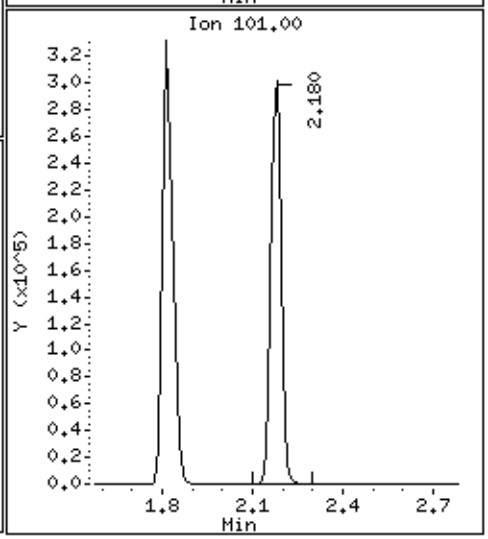












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

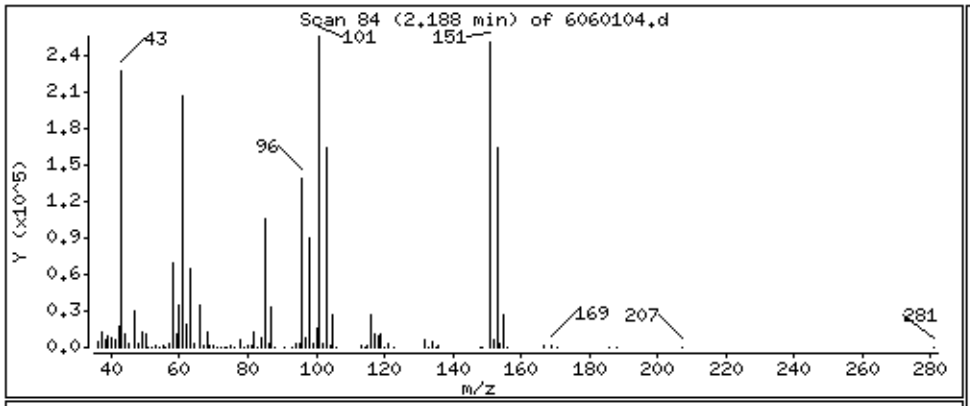
Operator: CT

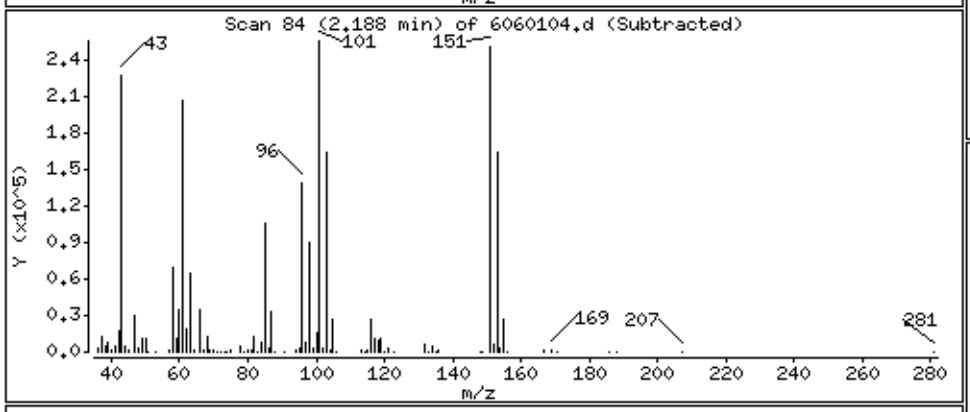
Column phase: RTx-624

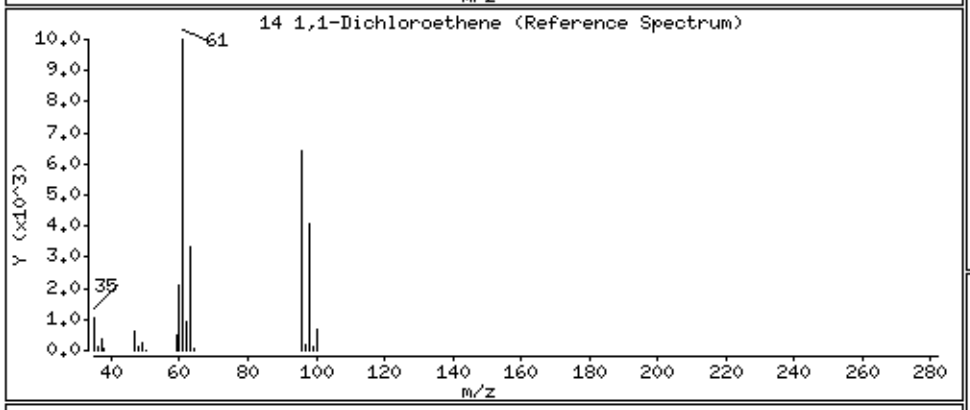
Column diameter: 0.53

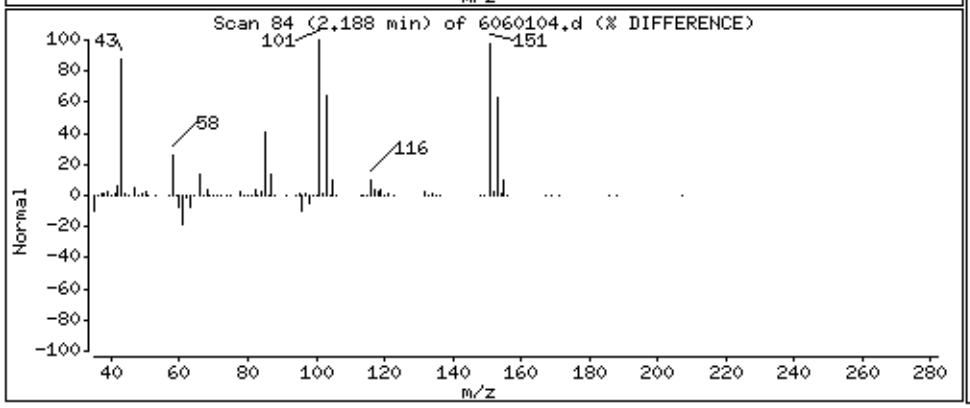
14 1,1-Dichloroethene

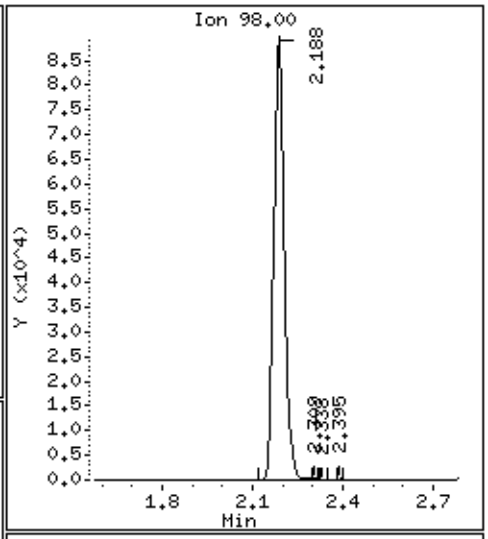
Concentration: 79.903 NG

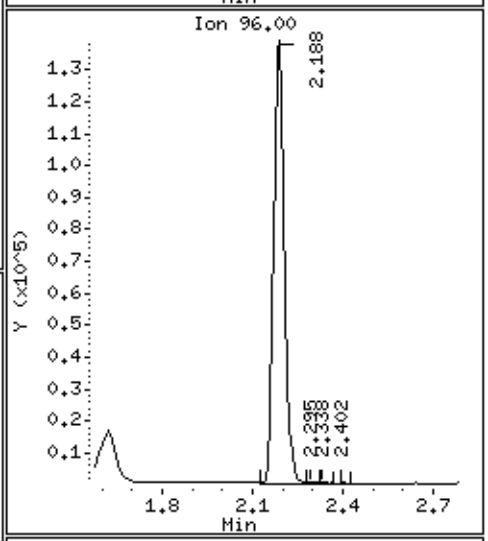


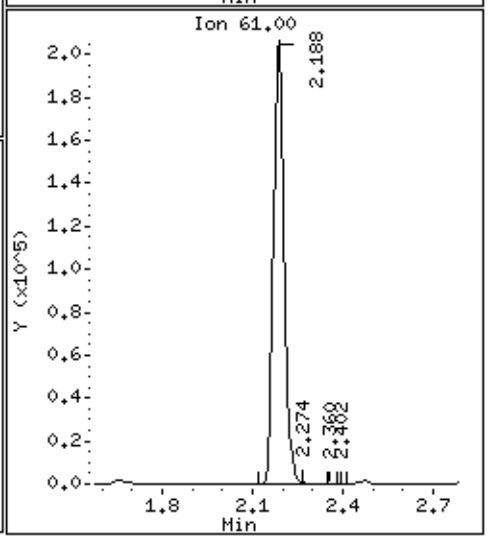












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

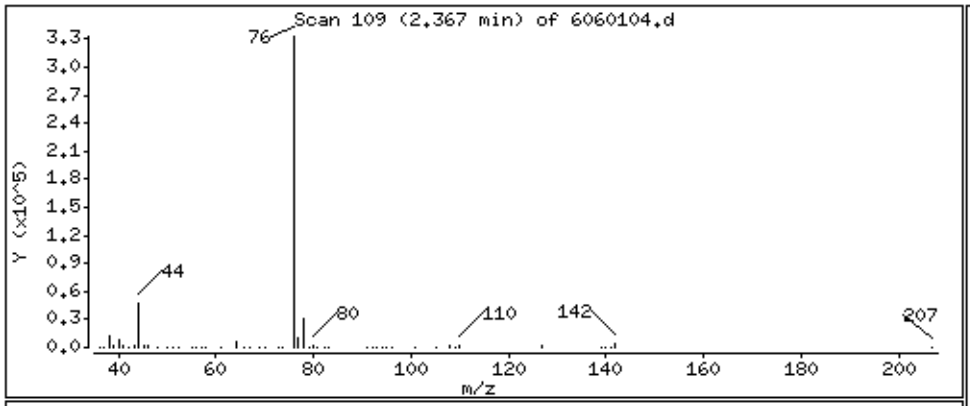
Operator: CT

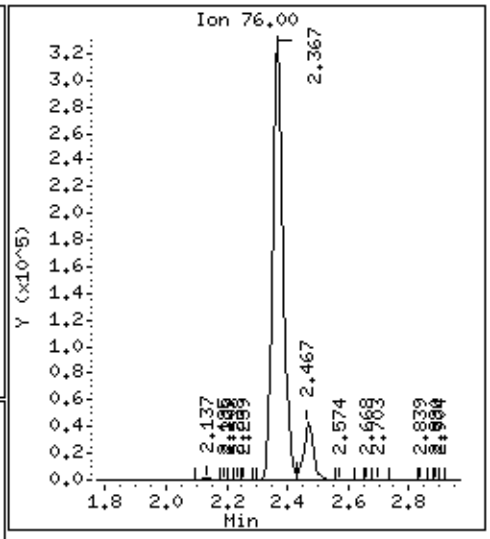
Column phase: RTx-624

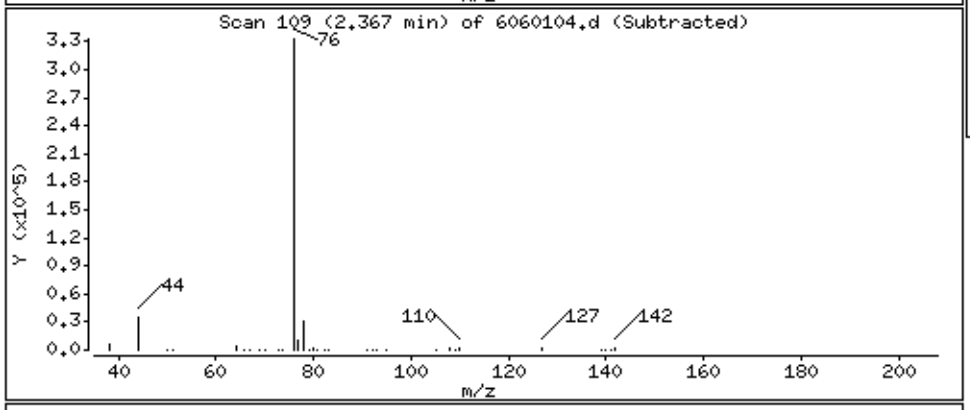
Column diameter: 0.53

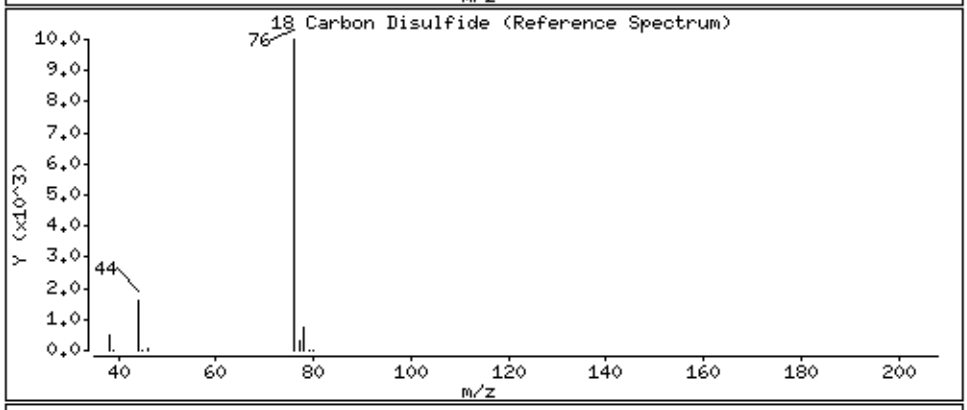
18 Carbon Disulfide

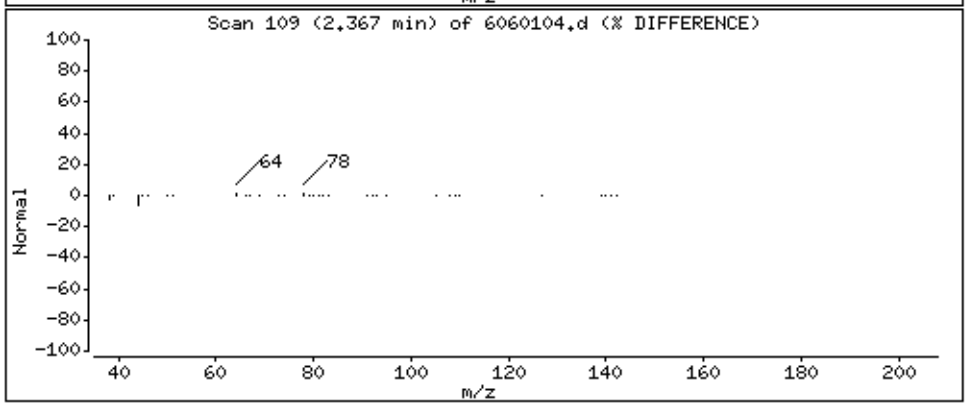
Concentration: 51.524 NG











Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

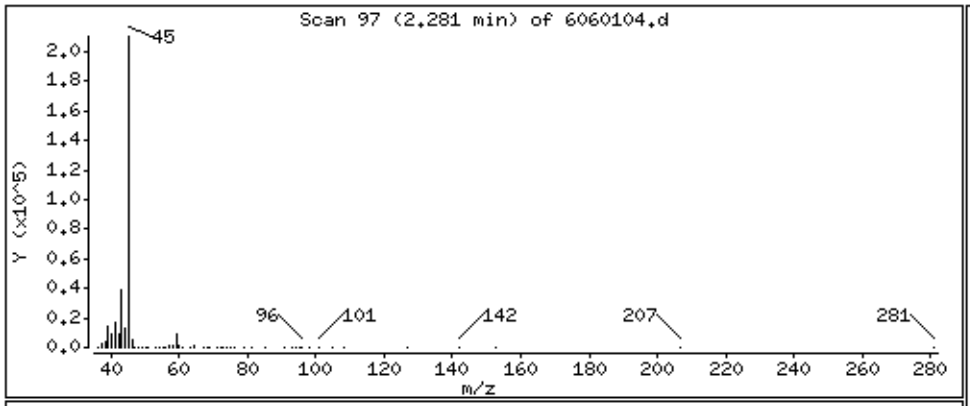
Operator: CT

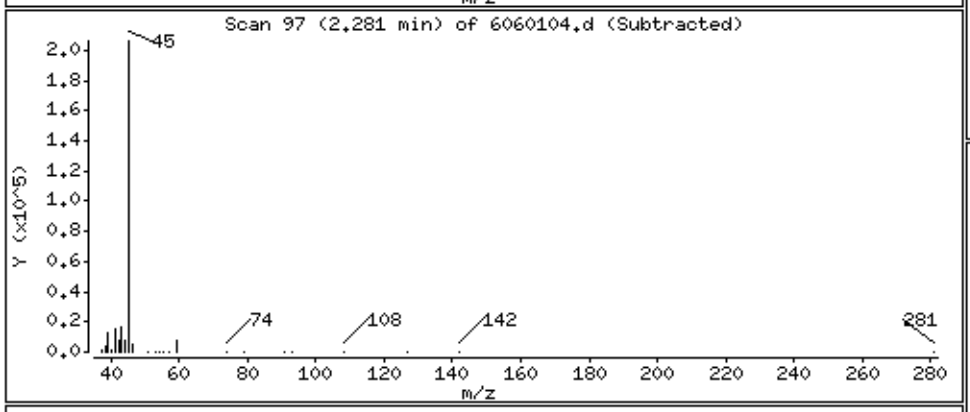
Column phase: RTx-624

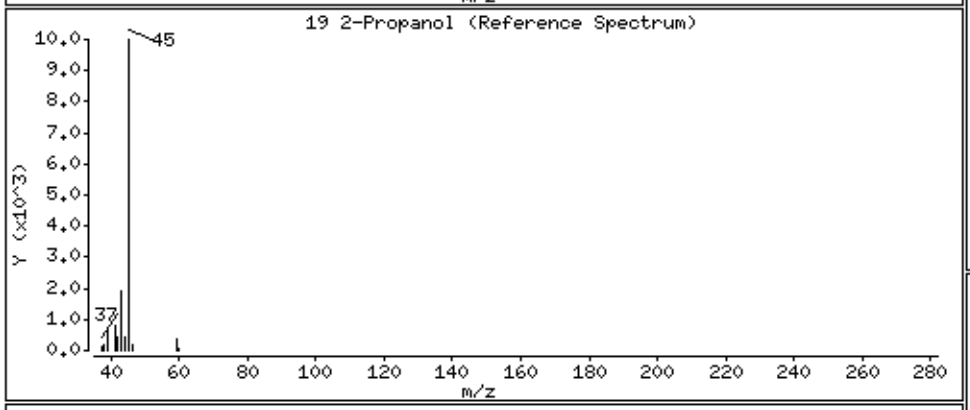
Column diameter: 0.53

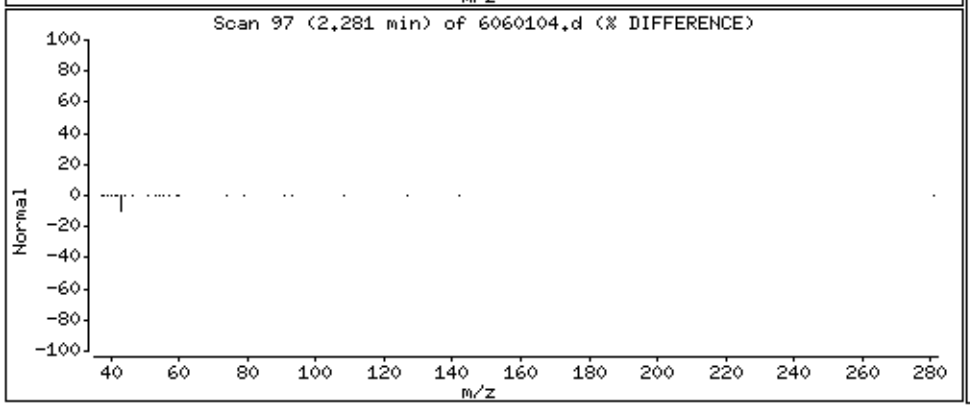
19 2-Propanol

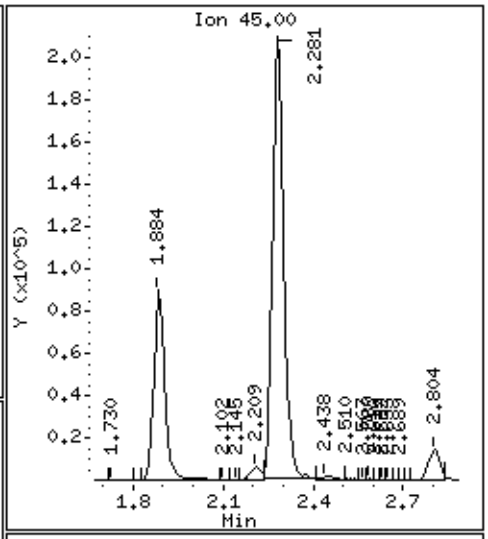
Concentration: 36.838 NG

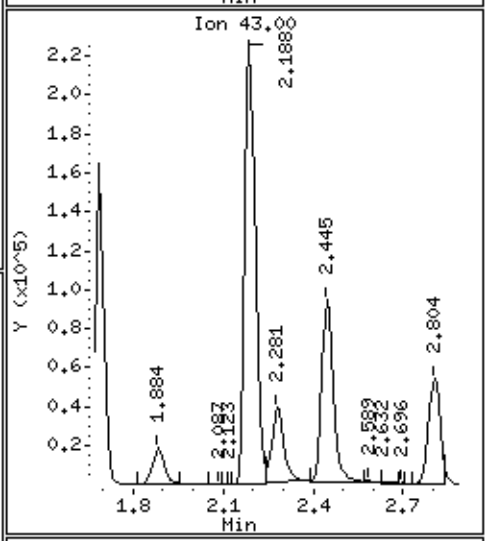


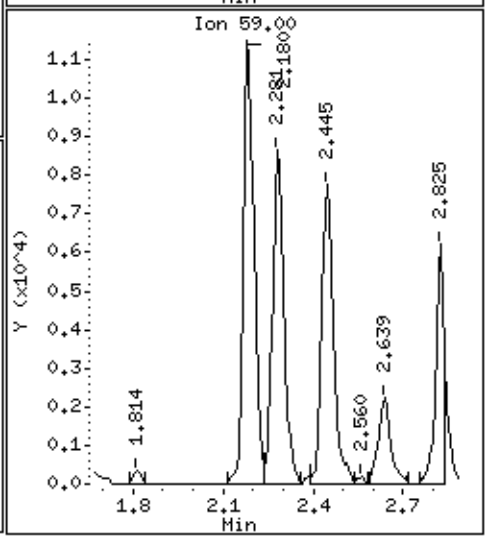












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

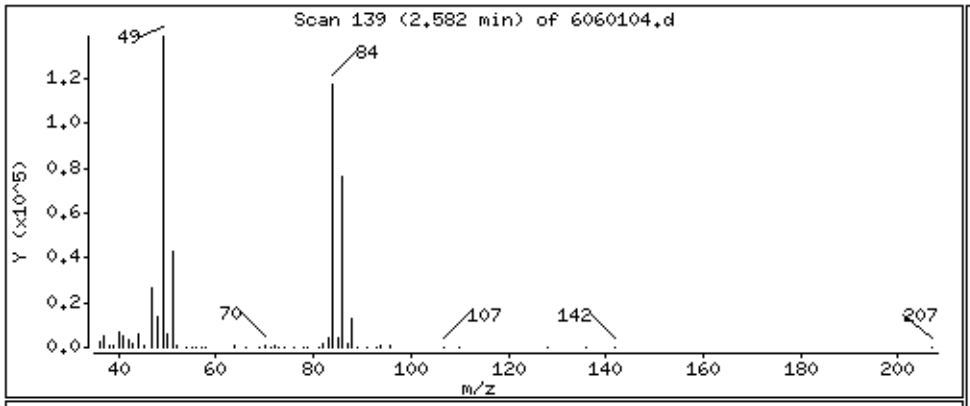
Operator: CT

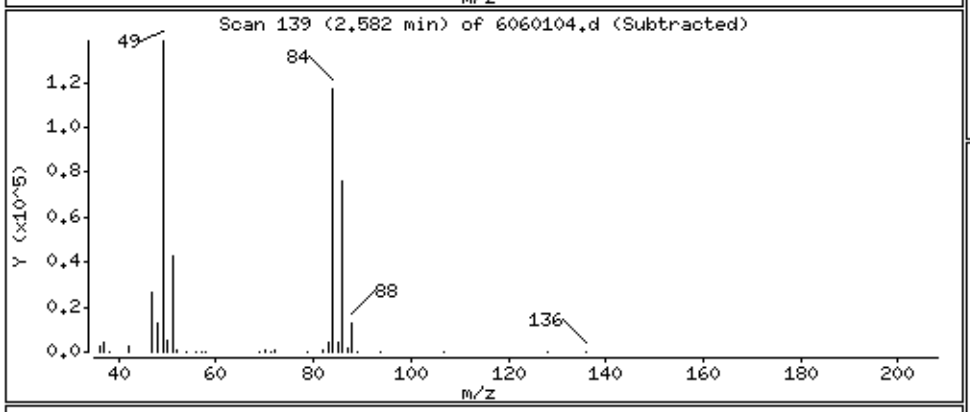
Column phase: RTx-624

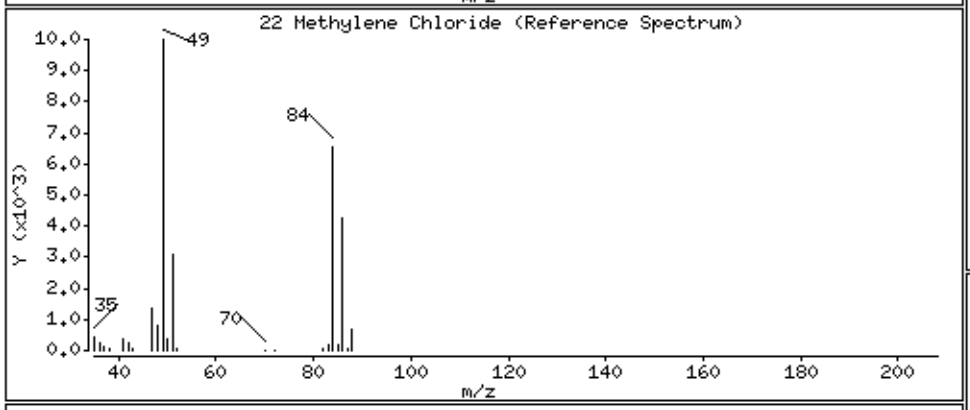
Column diameter: 0.53

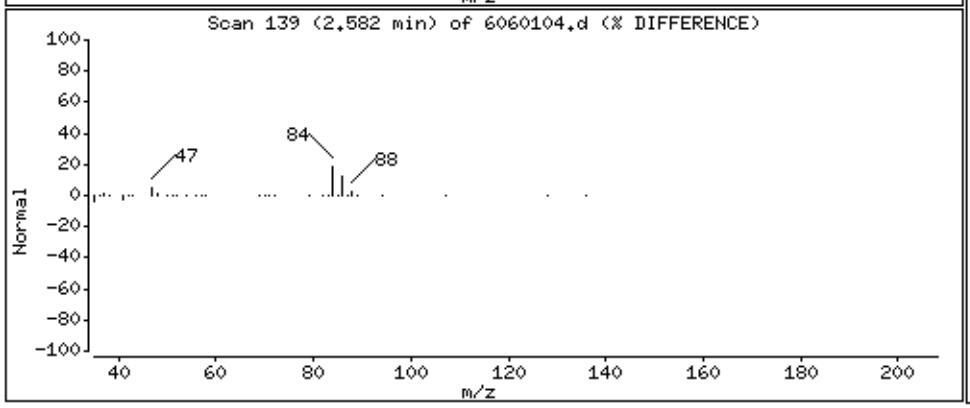
22 Methylene Chloride

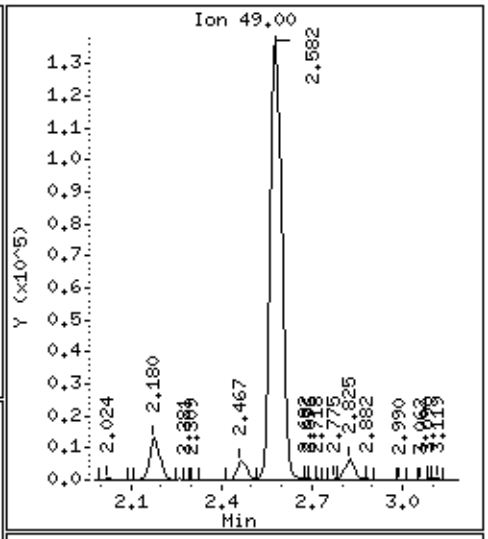
Concentration: 54.246 NG

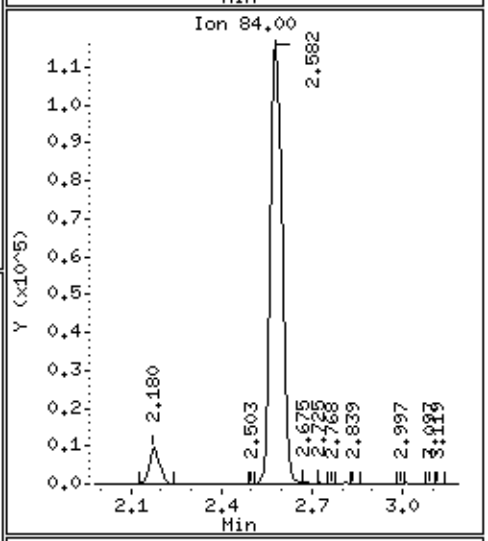


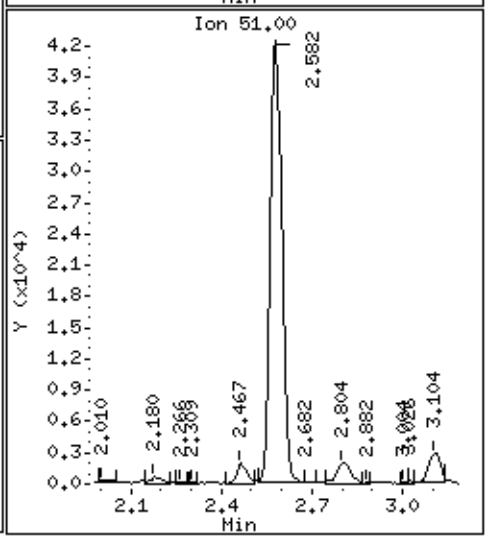












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

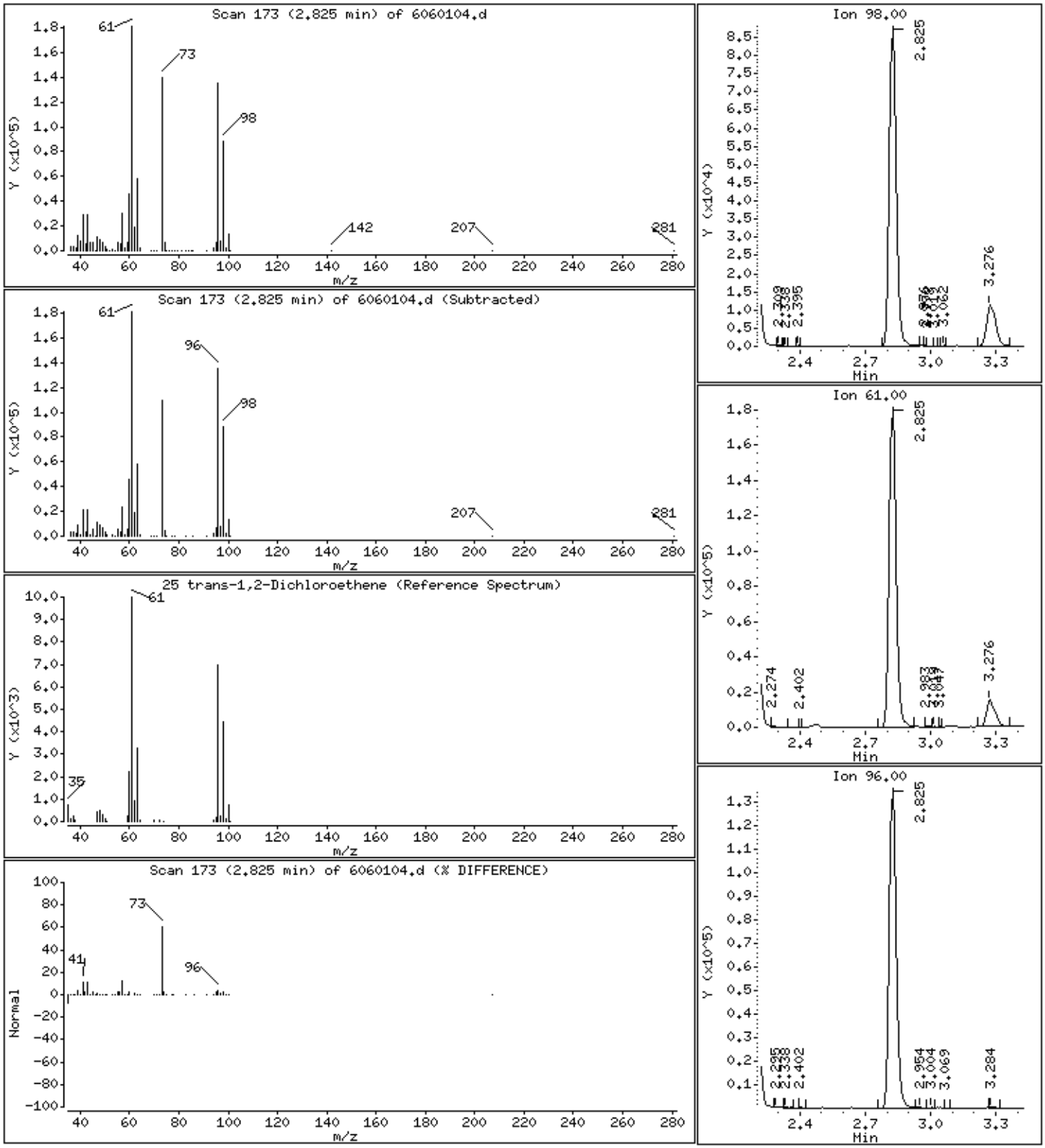
Operator: CT

Column phase: RTx-624

Column diameter: 0.53

25 trans-1,2-Dichloroethene

Concentration: 68.965 NG



Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

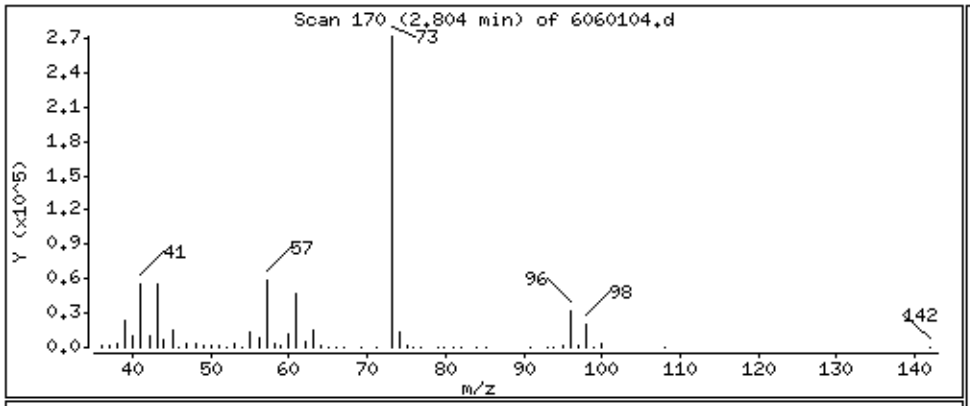
Operator: CT

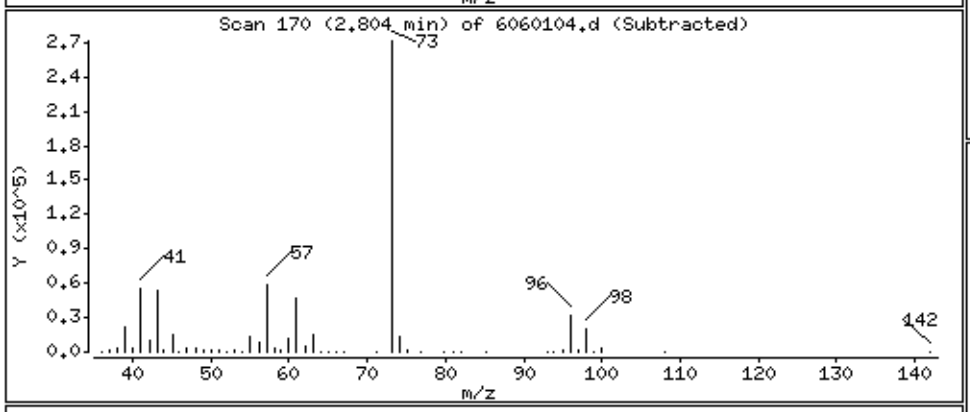
Column phase: RTx-624

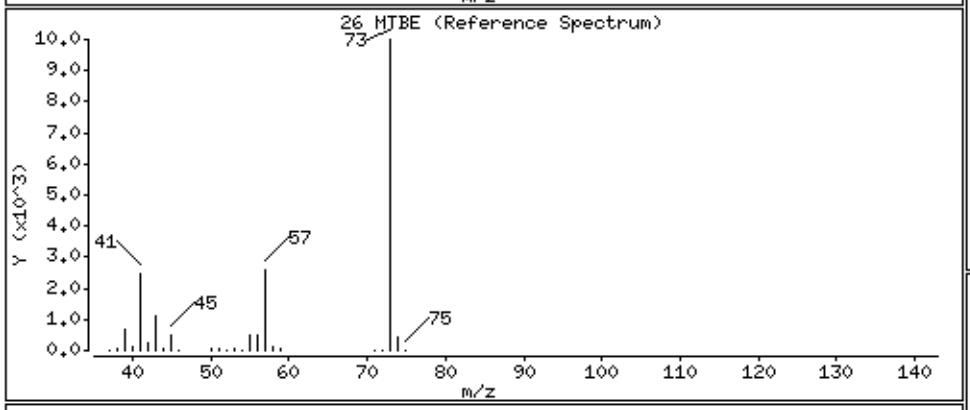
Column diameter: 0.53

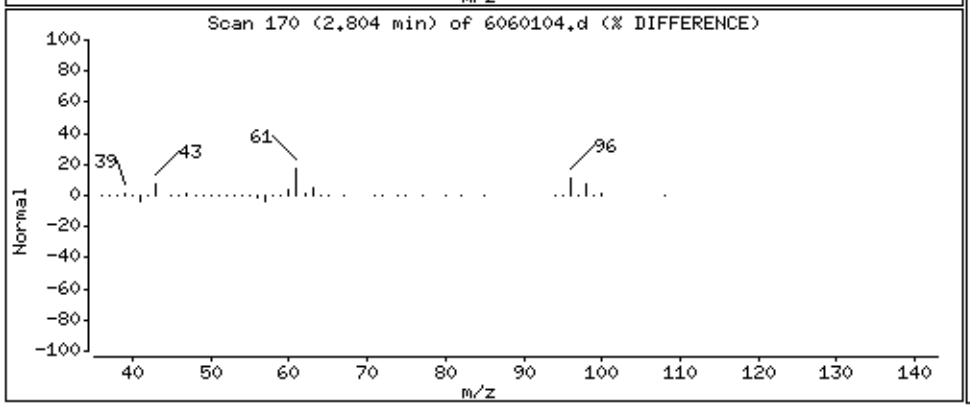
26 MTBE

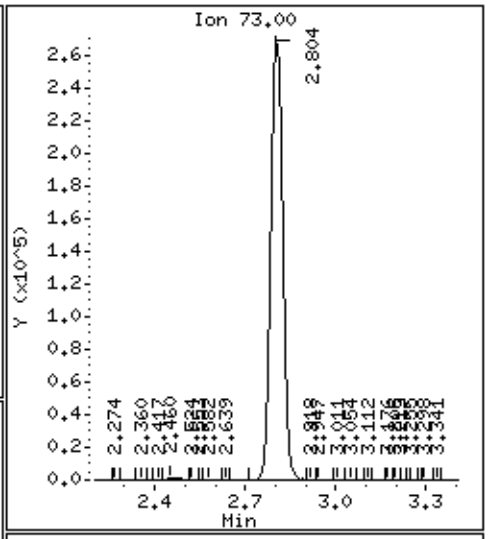
Concentration: 64.233 NG

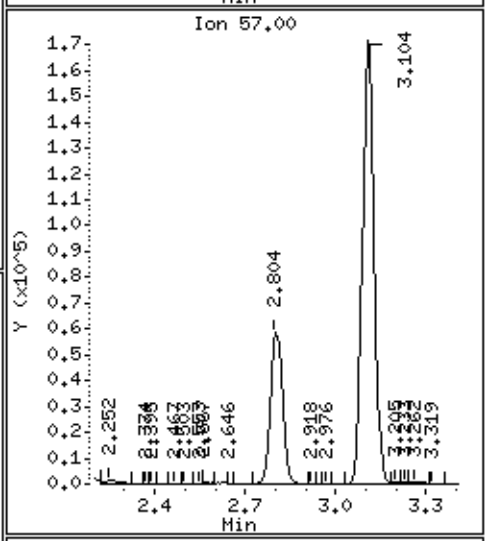


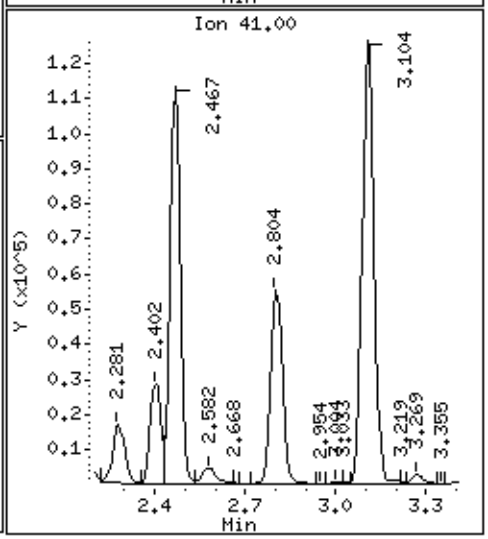












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

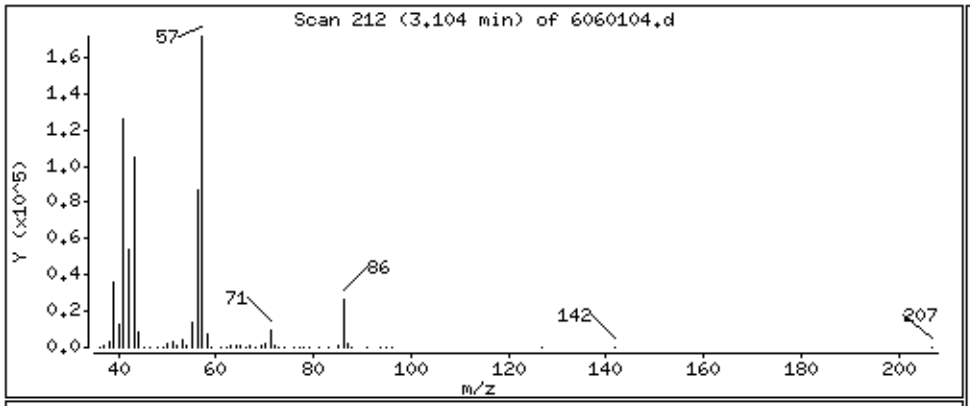
Operator: CT

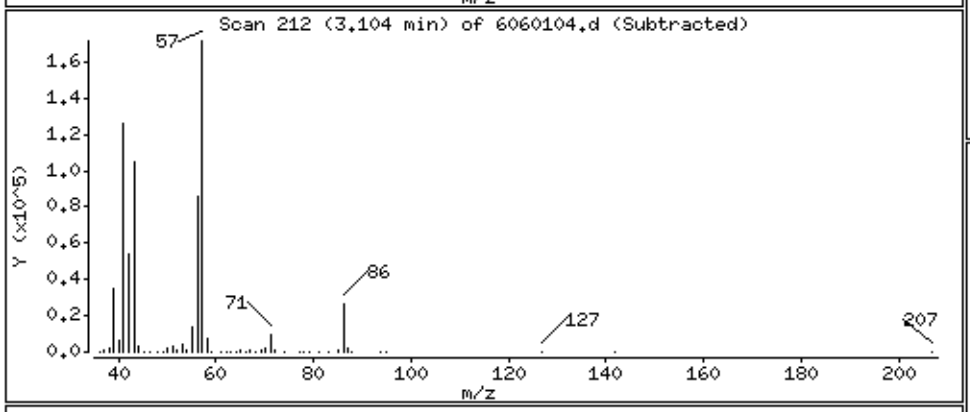
Column phase: RTx-624

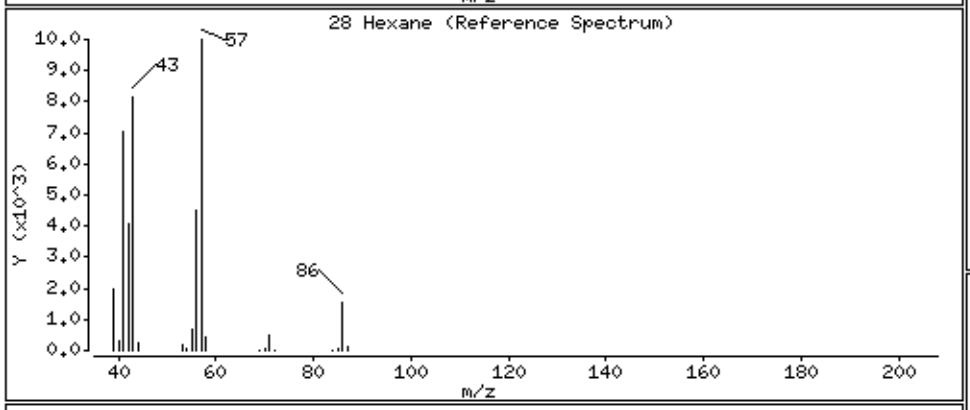
Column diameter: 0.53

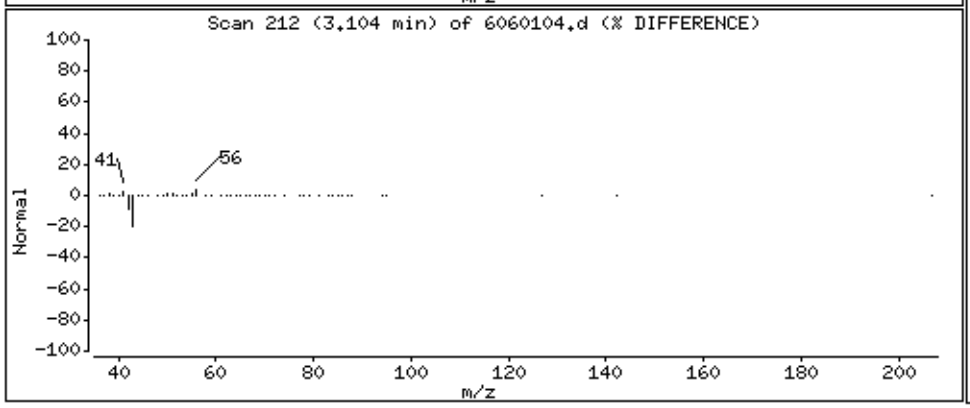
28 Hexane

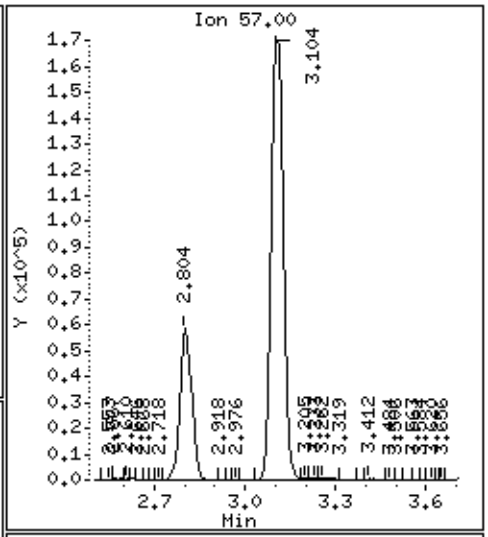
Concentration: 58.933 NG

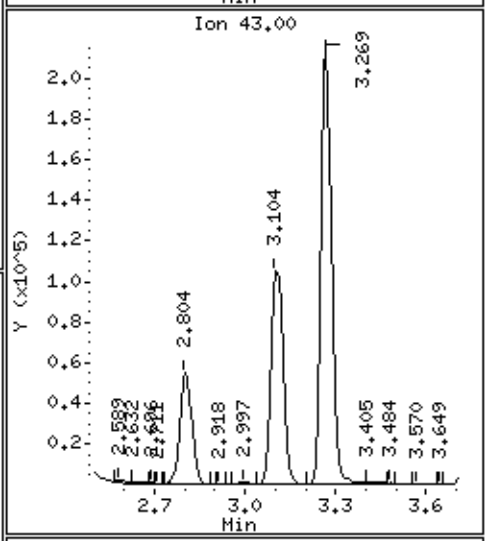


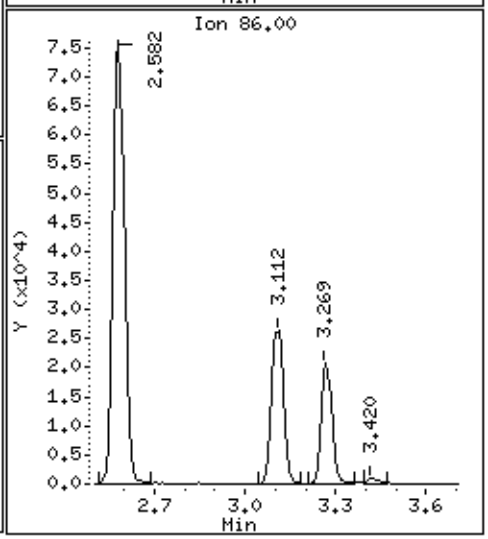












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

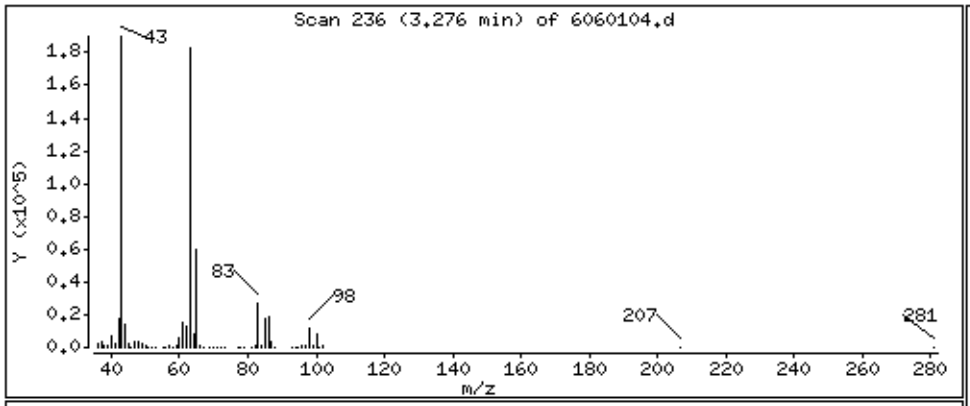
Operator: CT

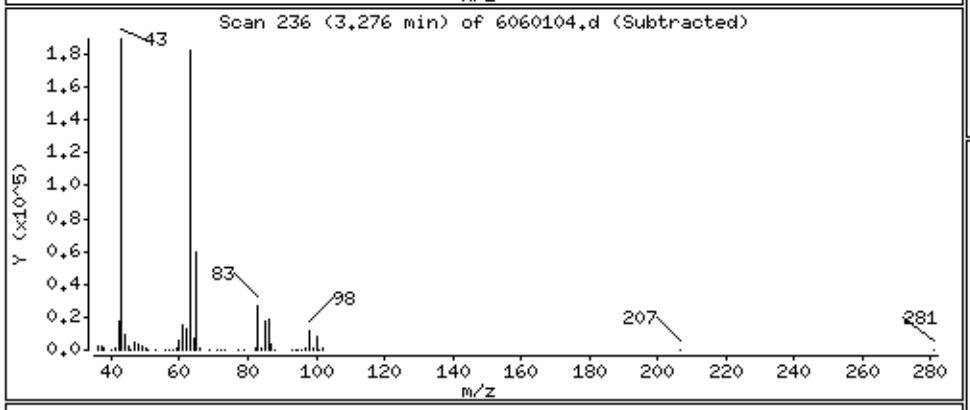
Column phase: RTx-624

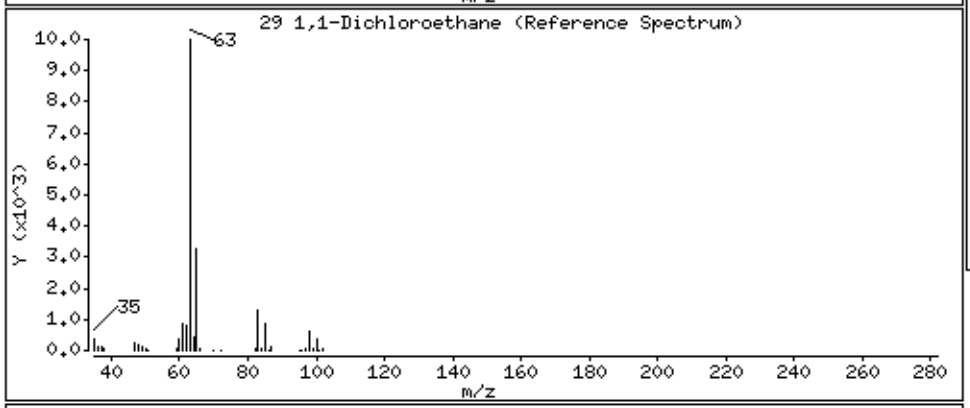
Column diameter: 0.53

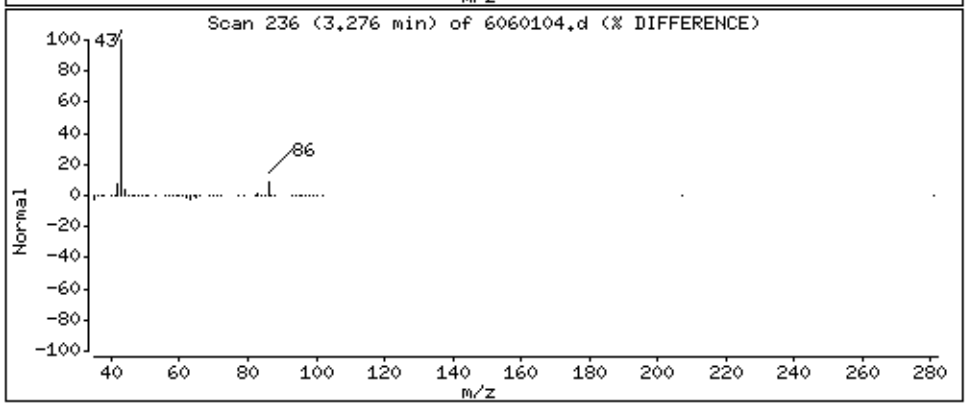
29 1,1-Dichloroethane

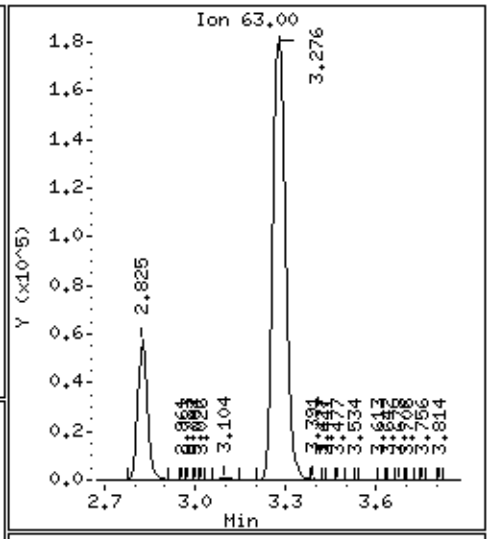
Concentration: 72.684 NG

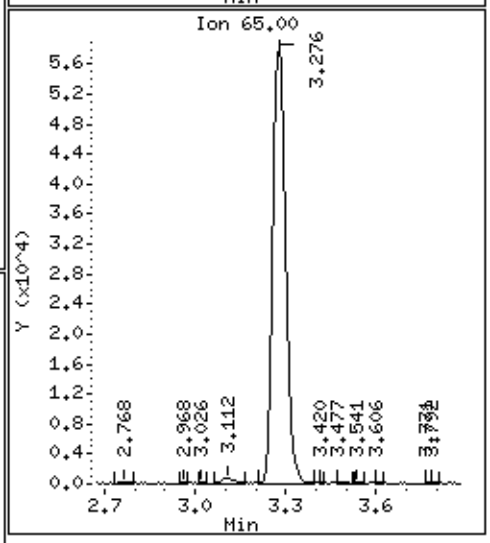












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

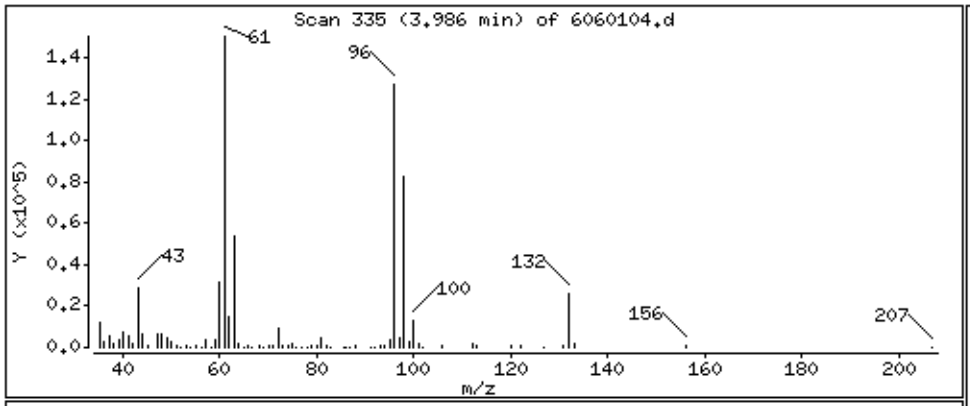
Operator: CT

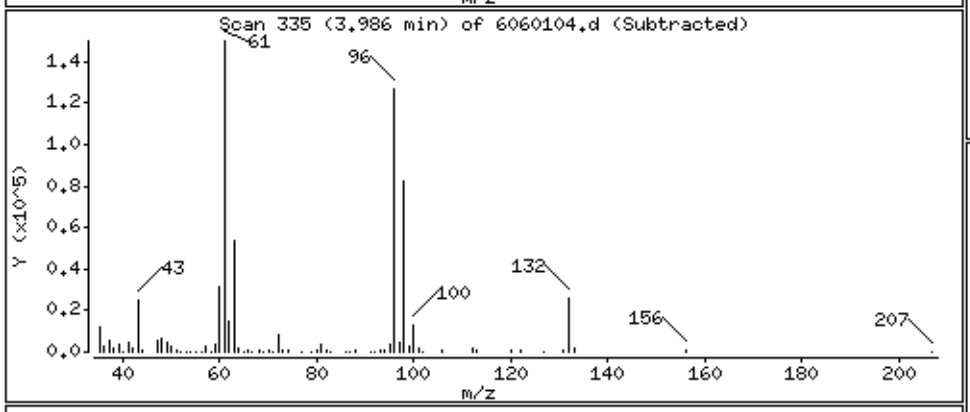
Column phase: RTx-624

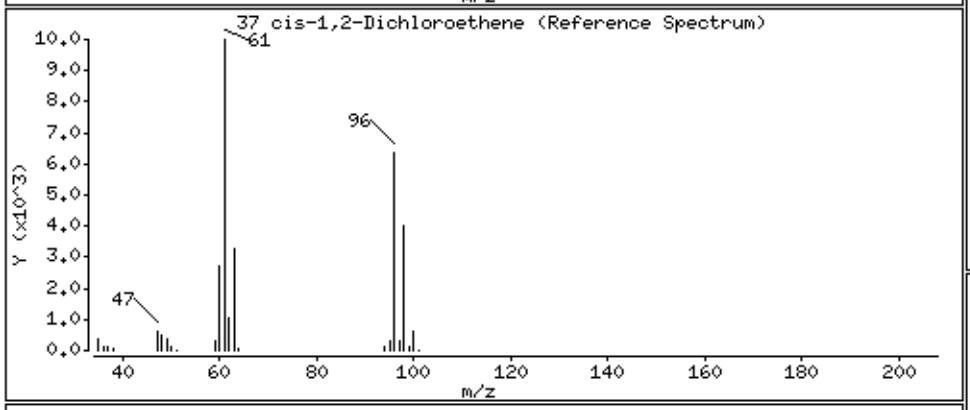
Column diameter: 0.53

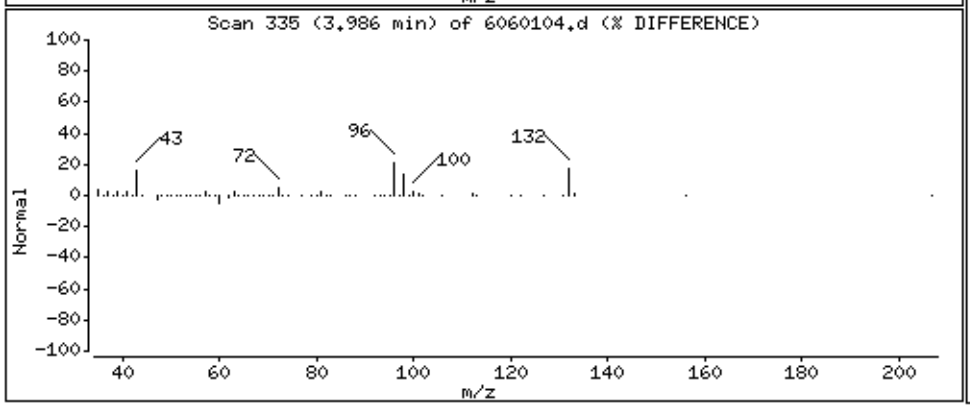
37 cis-1,2-Dichloroethene

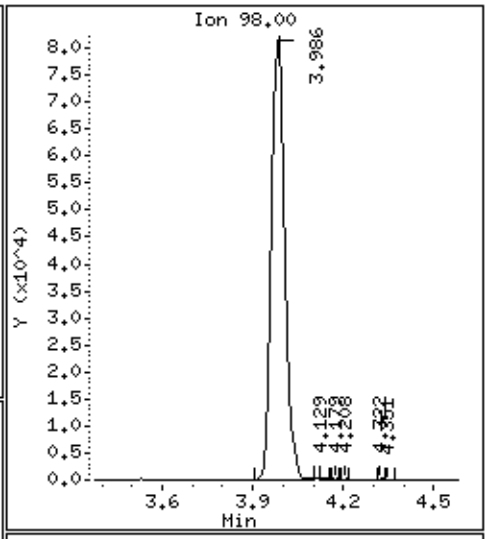
Concentration: 85.534 NG

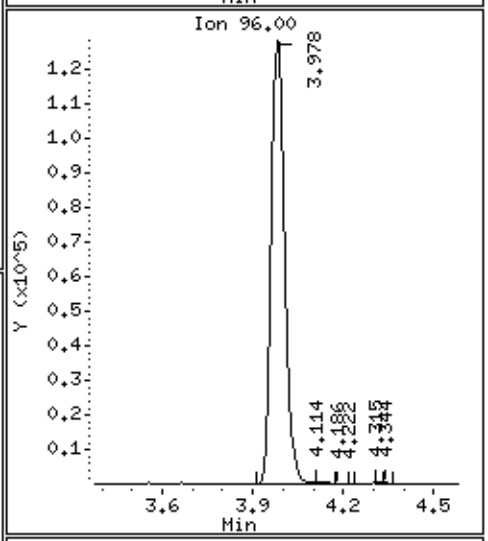


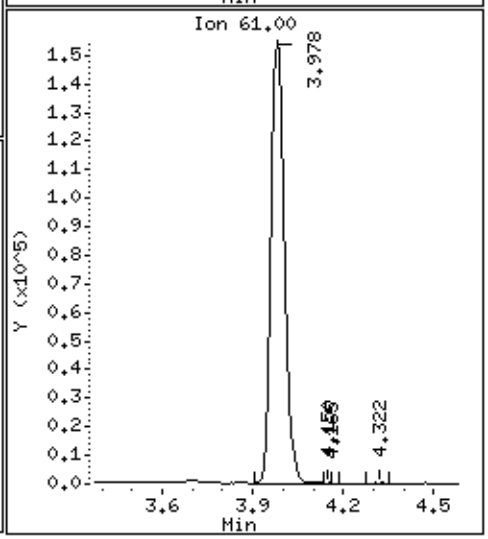












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

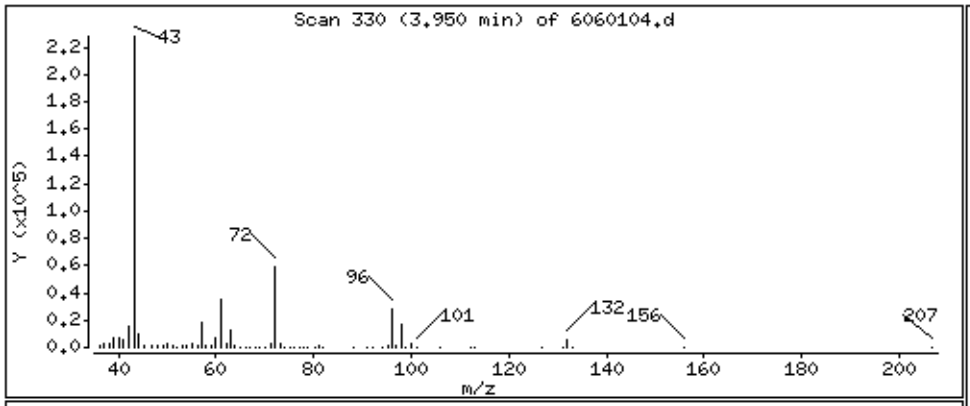
Operator: CT

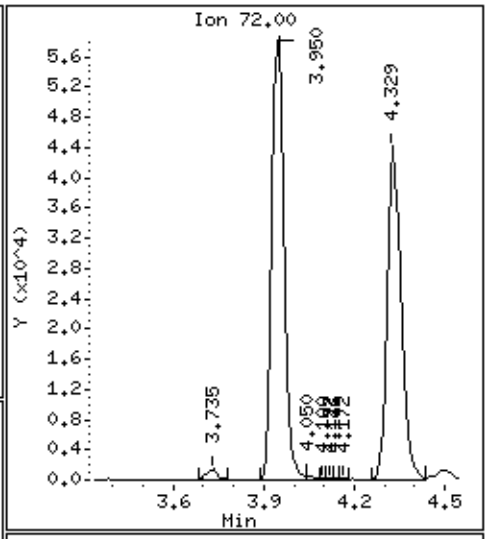
Column phase: RTx-624

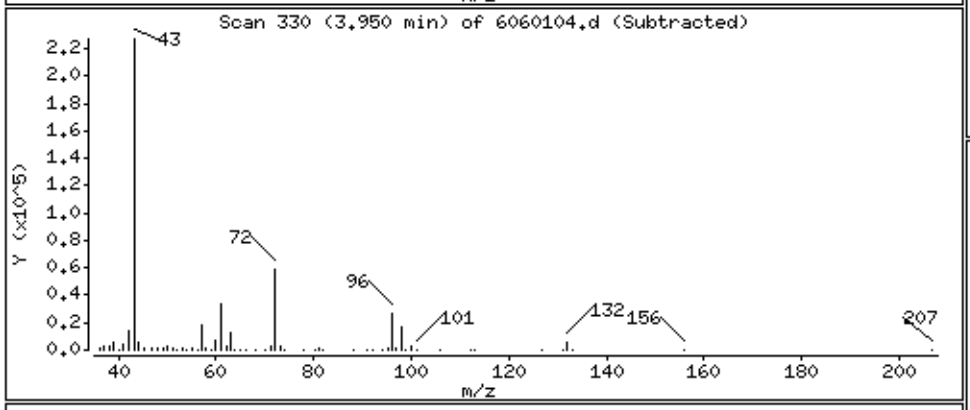
Column diameter: 0.53

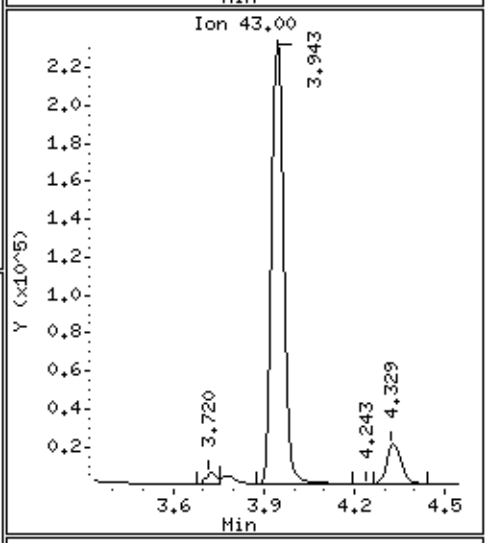
38 2-Butanone

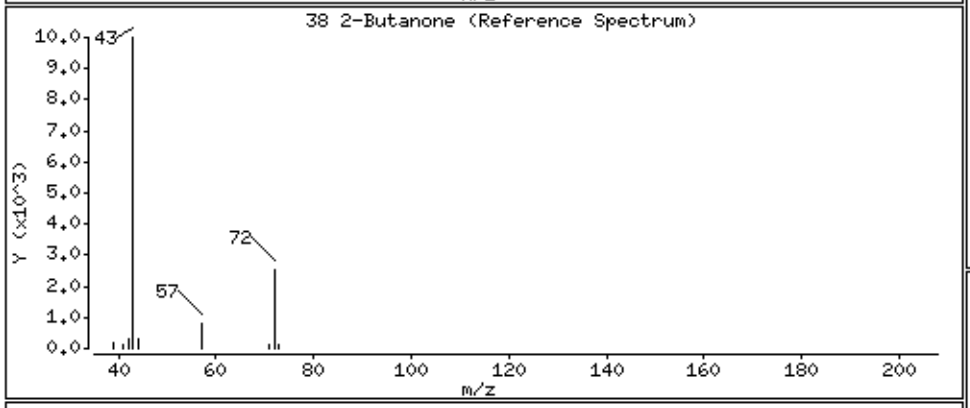
Concentration: 55.535 NG

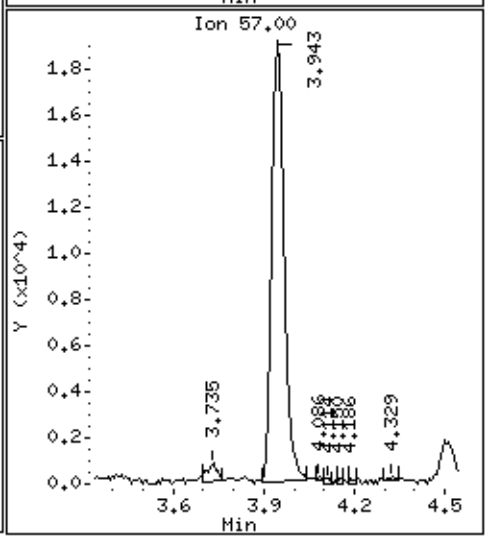


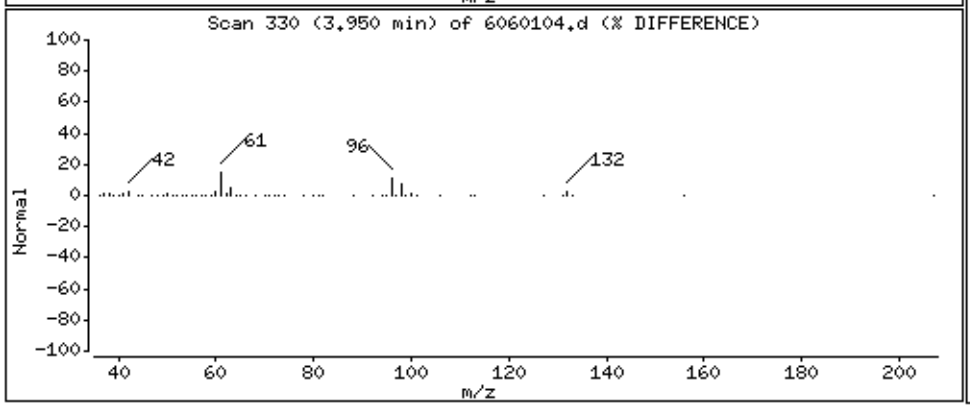












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

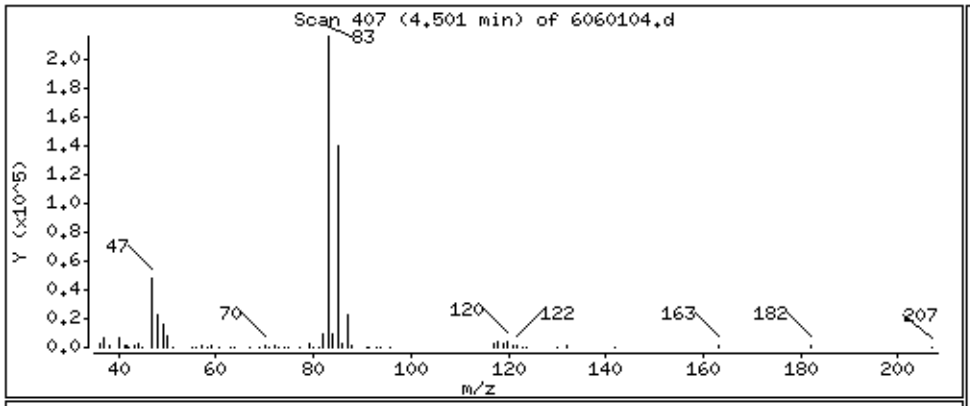
Operator: CT

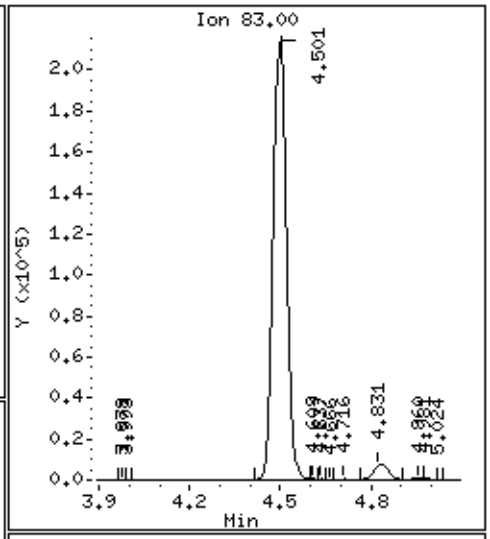
Column phase: RTx-624

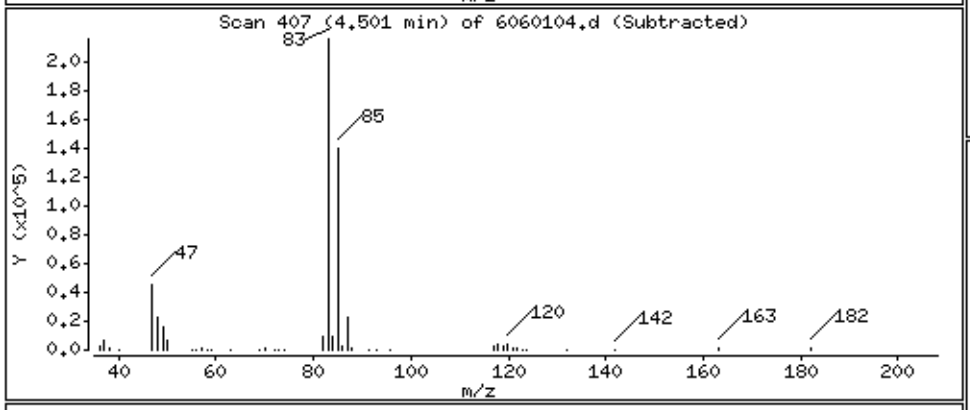
Column diameter: 0.53

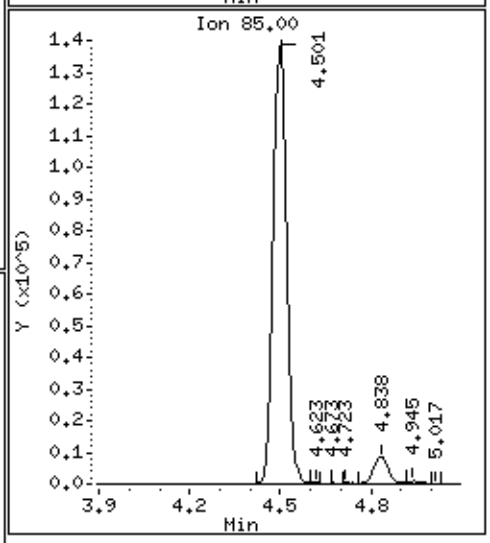
44 Chloroform

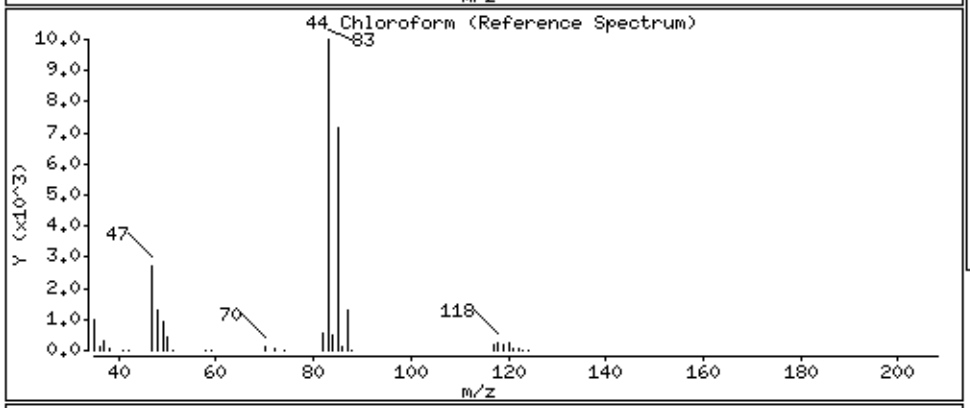
Concentration: 95.086 NG

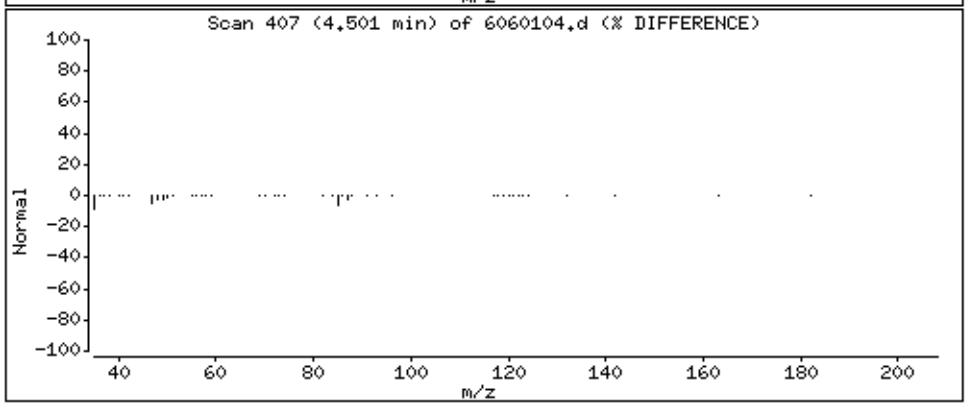












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

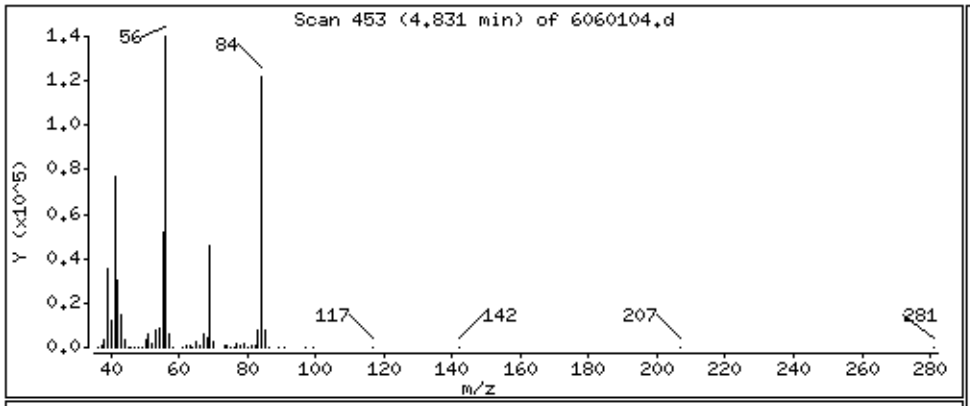
Operator: CT

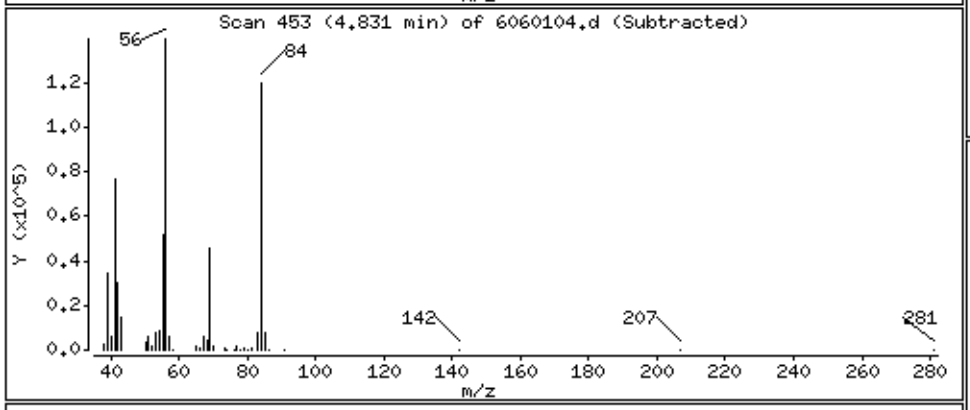
Column phase: RTx-624

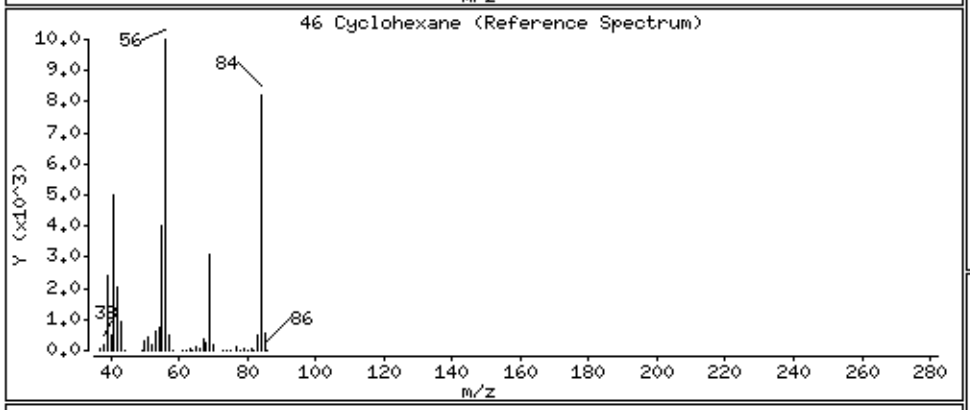
Column diameter: 0.53

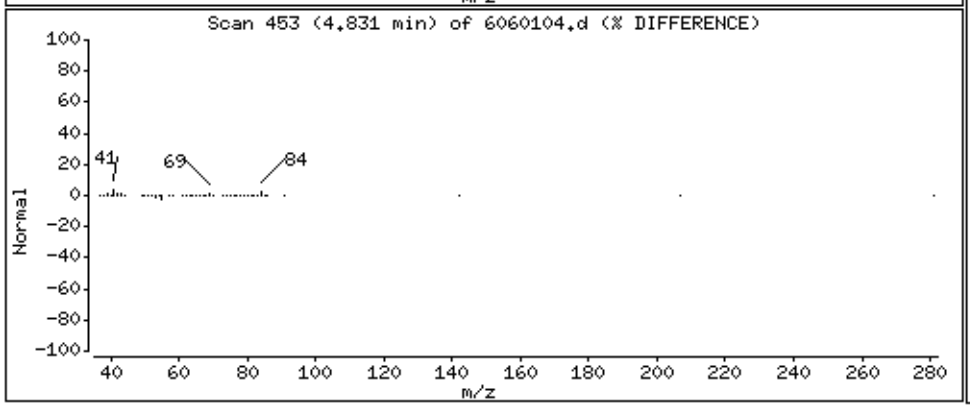
46 Cyclohexane

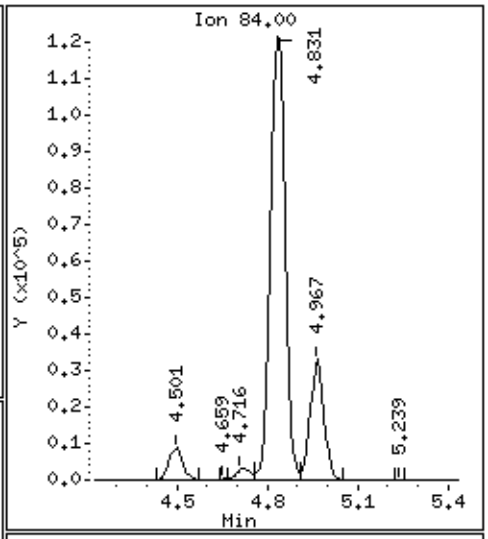
Concentration: 65.633 NG

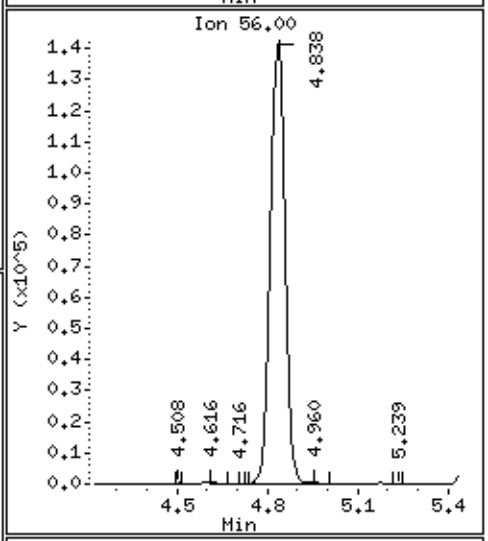


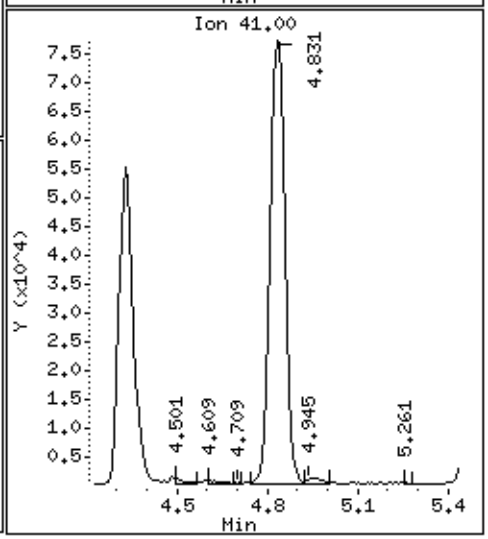












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

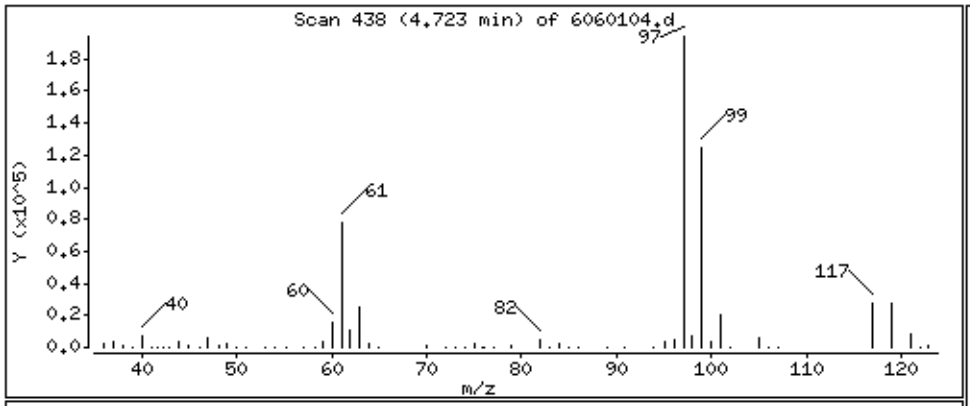
Operator: CT

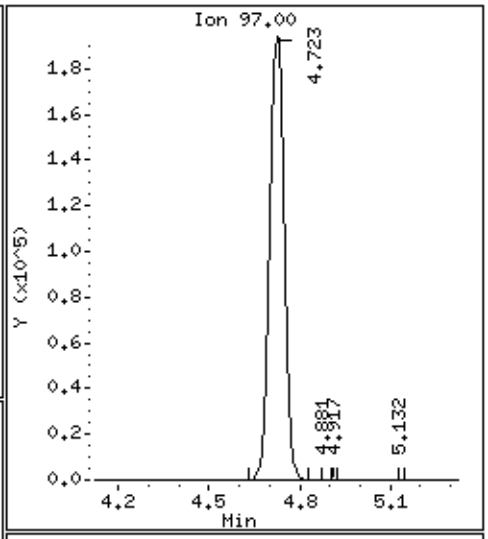
Column phase: RTx-624

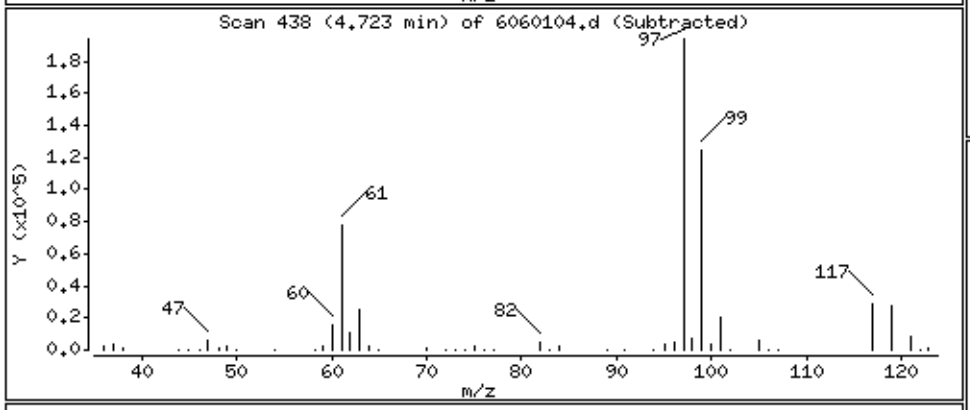
Column diameter: 0.53

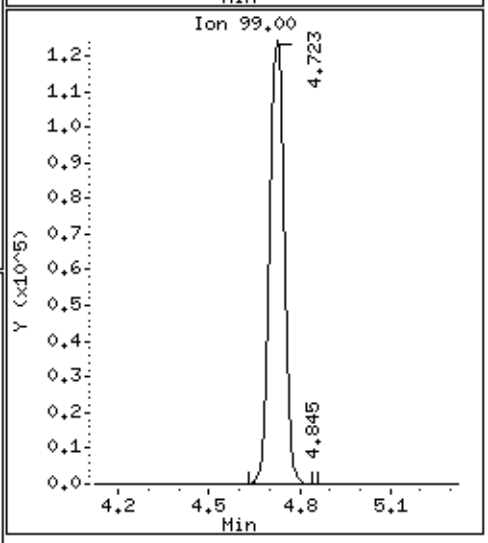
45 1,1,1-Trichloroethane

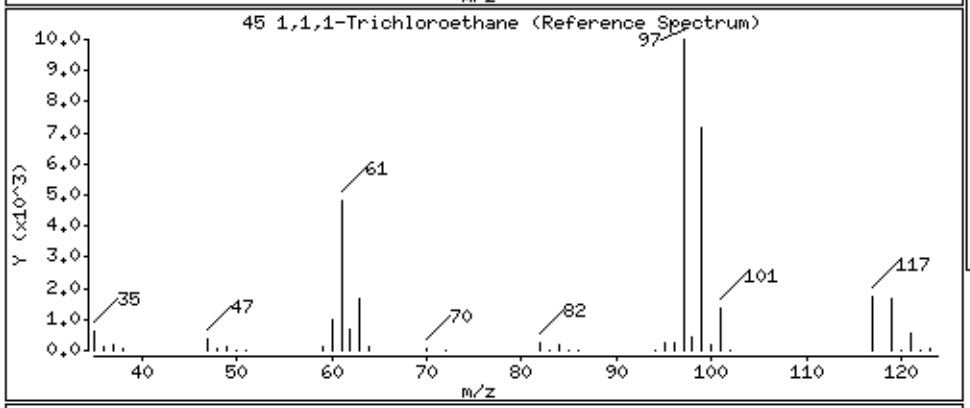
Concentration: 105.37 NG

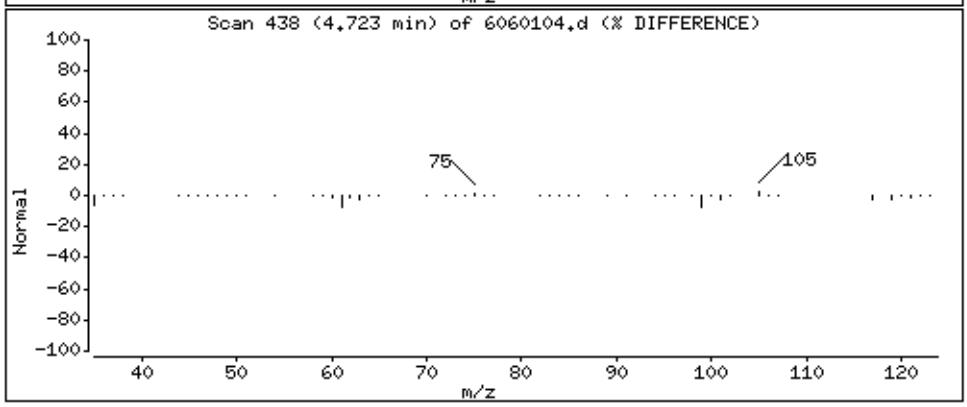












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

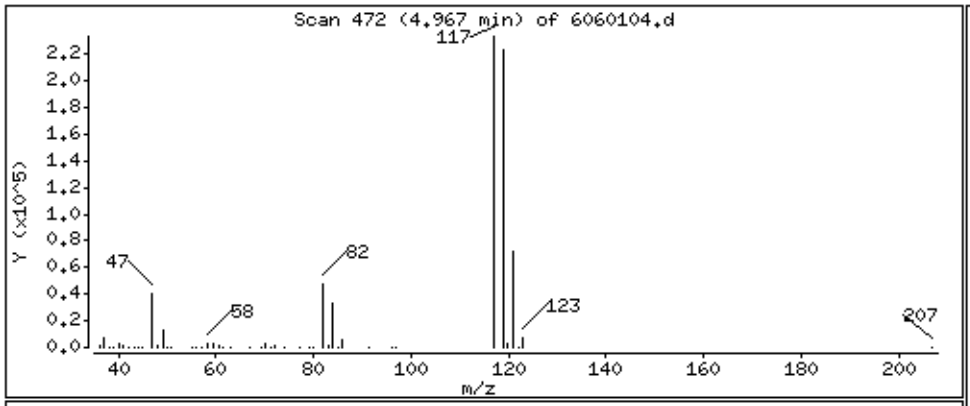
Operator: CT

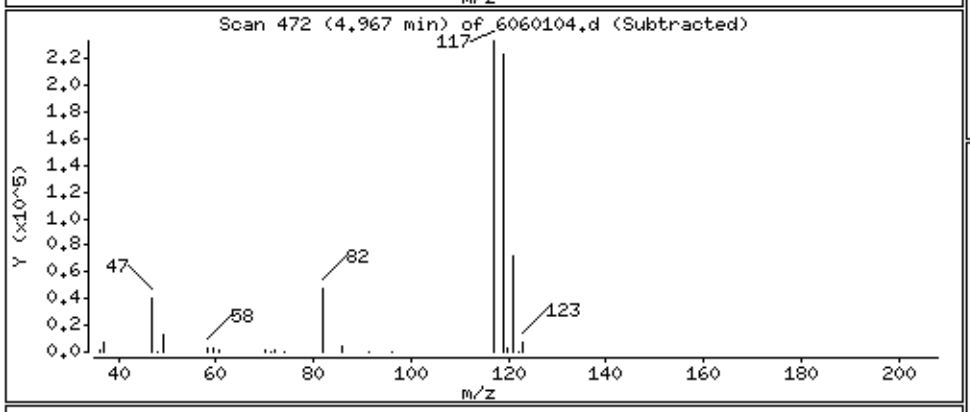
Column phase: RTx-624

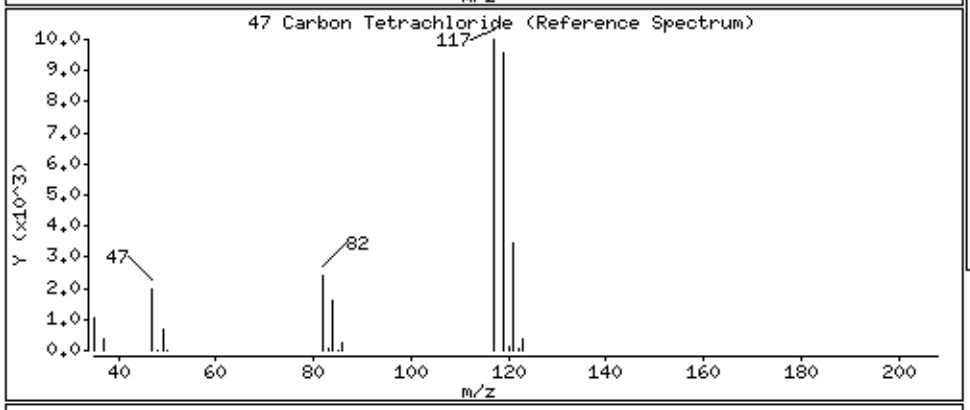
Column diameter: 0.53

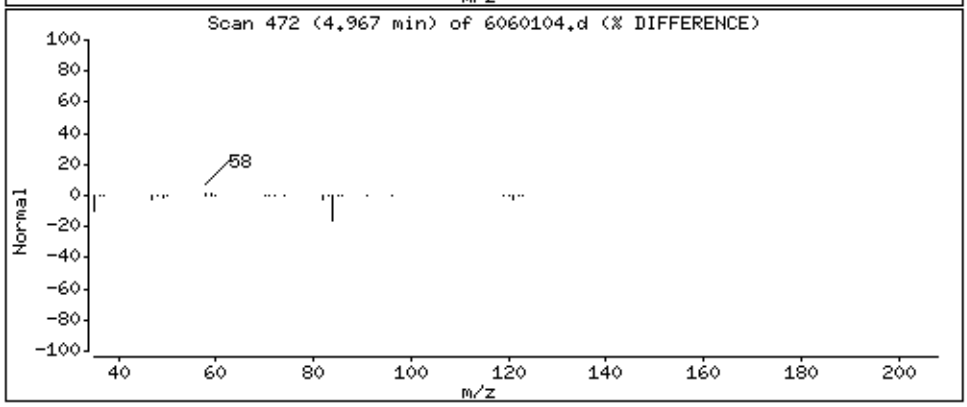
47 Carbon Tetrachloride

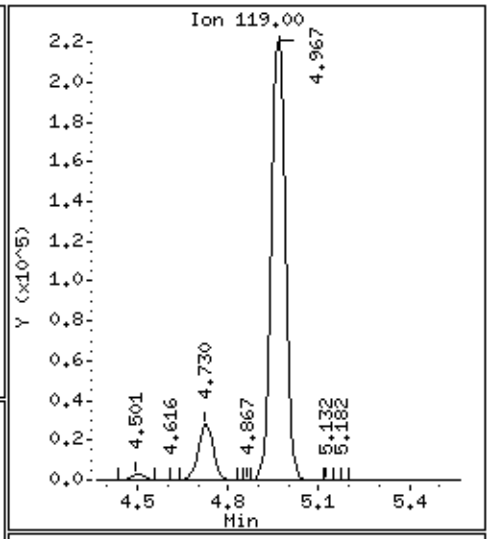
Concentration: 131.50 NG

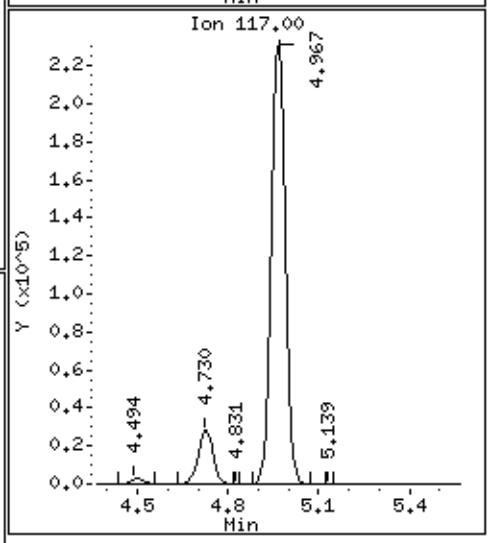












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

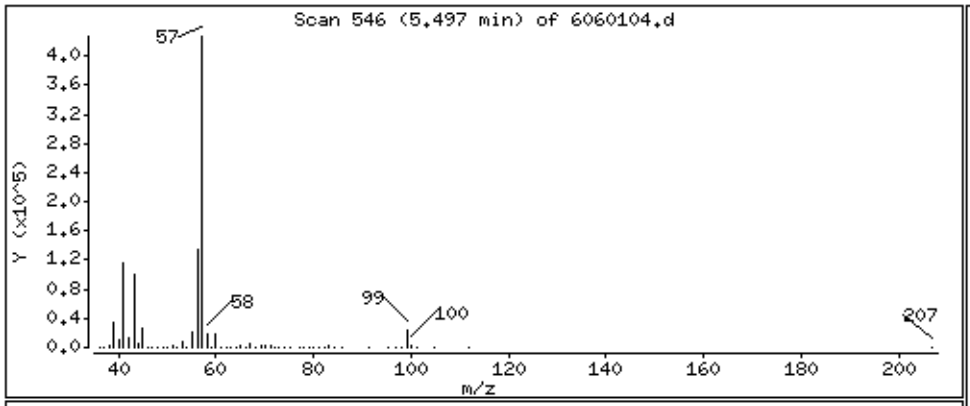
Operator: CT

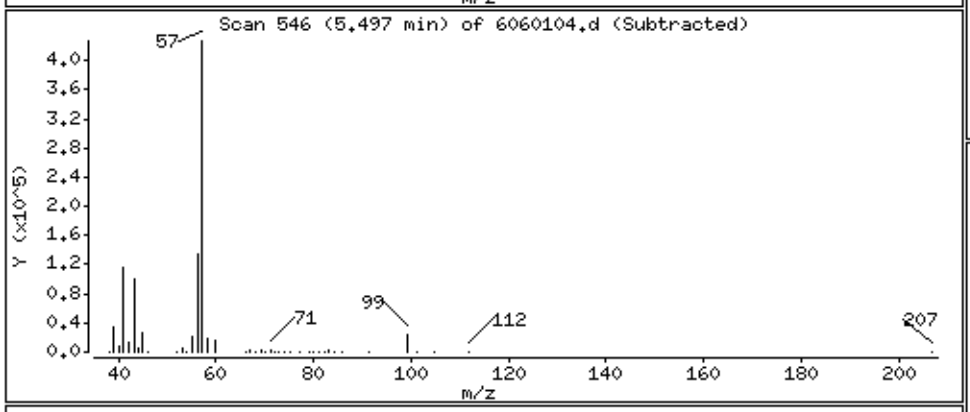
Column phase: RTx-624

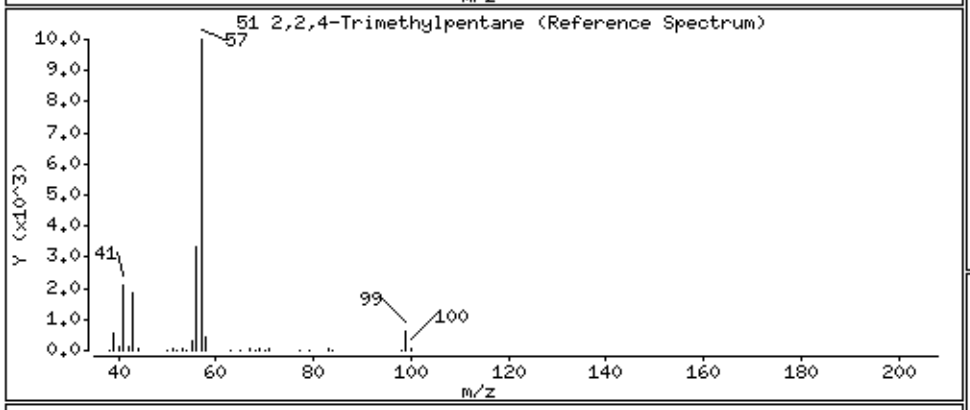
Column diameter: 0.53

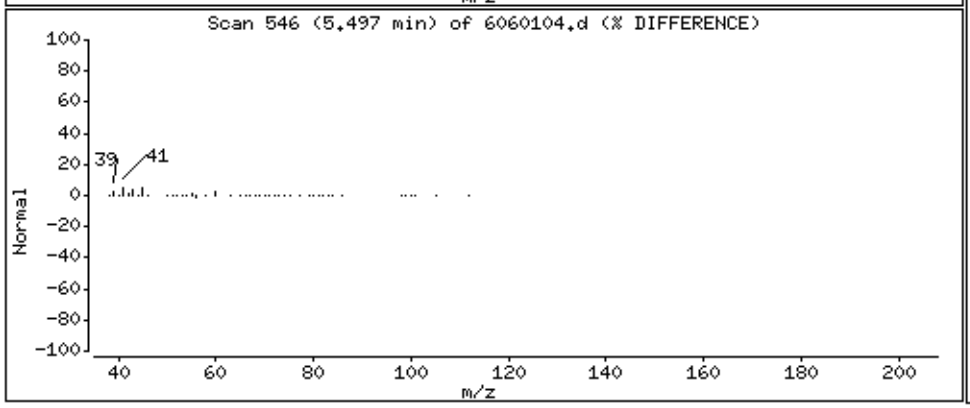
51 2,2,4-Trimethylpentane

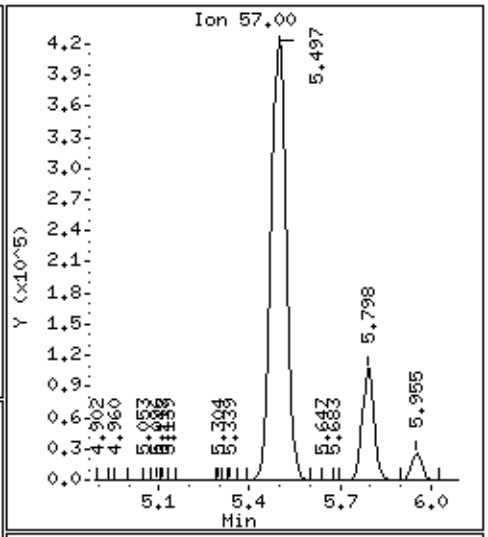
Concentration: 77.809 NG

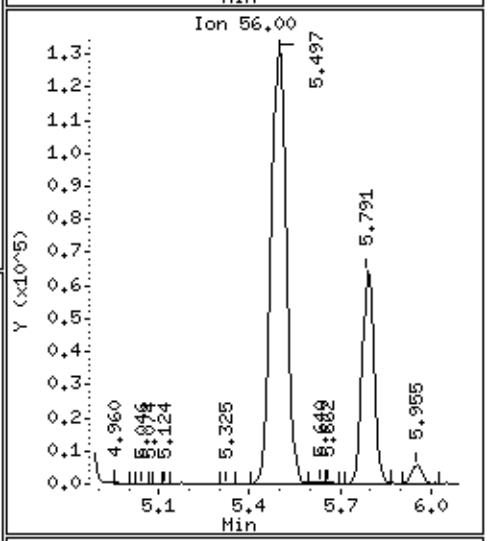


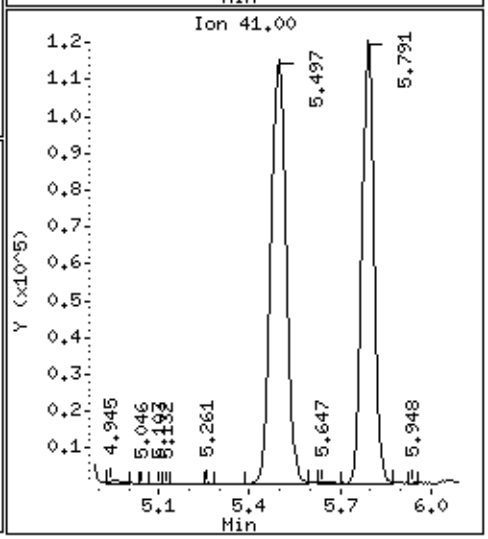












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

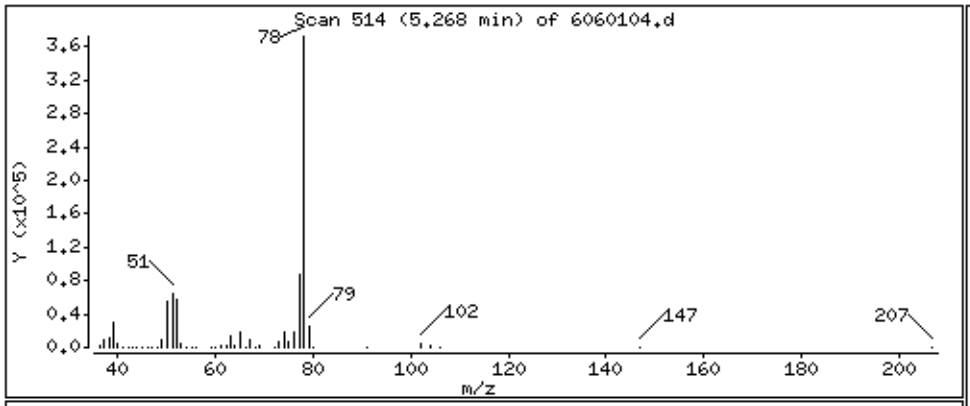
Operator: CT

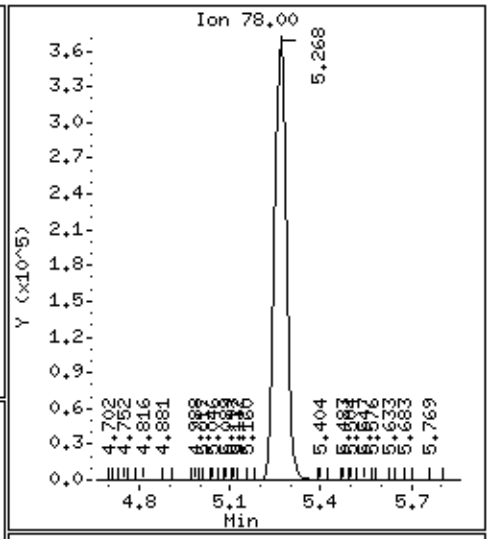
Column phase: RTx-624

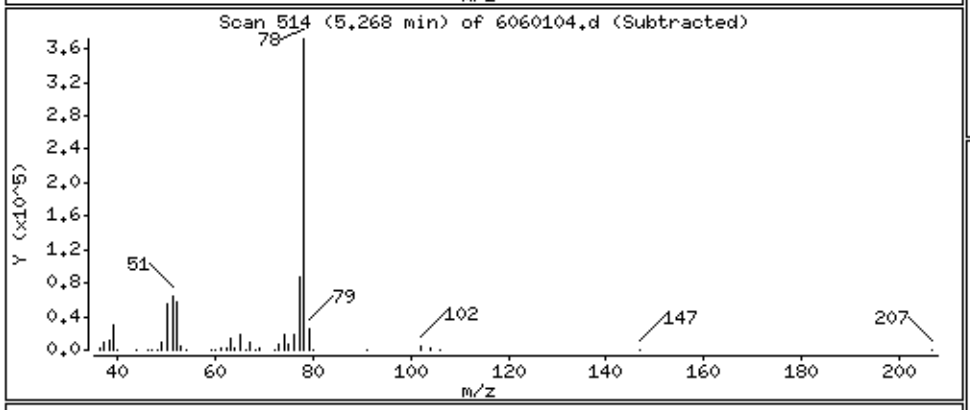
Column diameter: 0.53

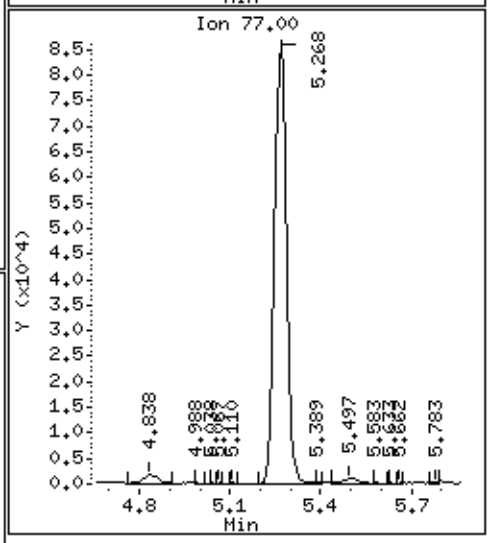
48 Benzene

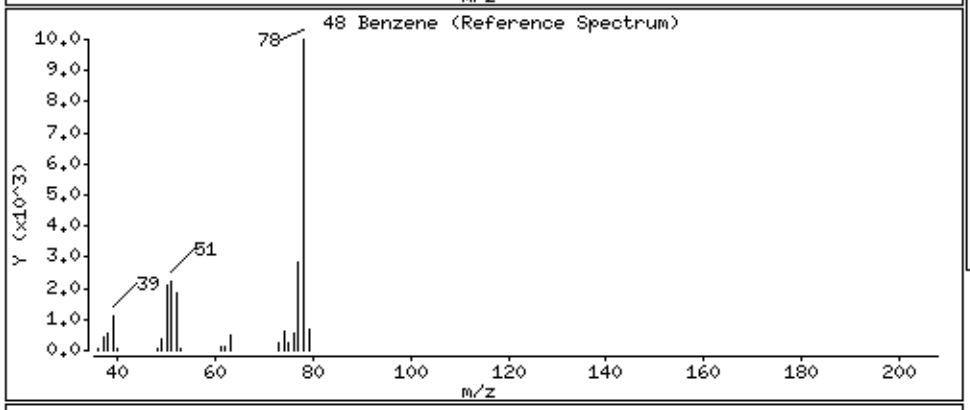
Concentration: 54.542 NG

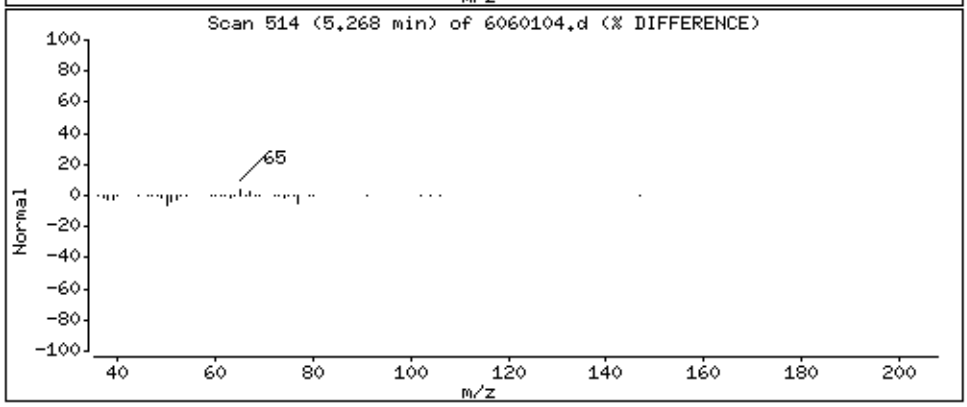












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

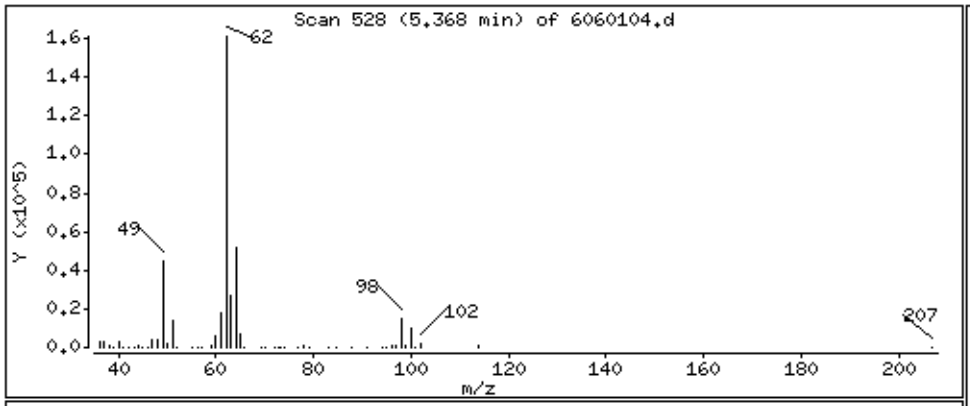
Operator: CT

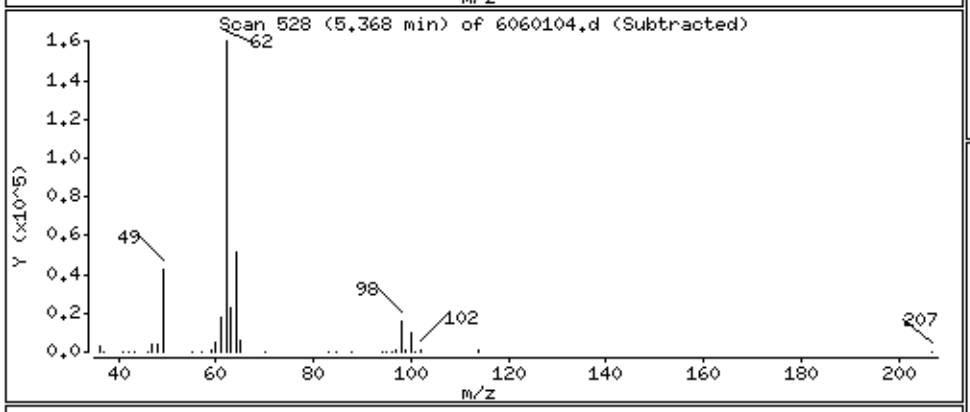
Column phase: RTx-624

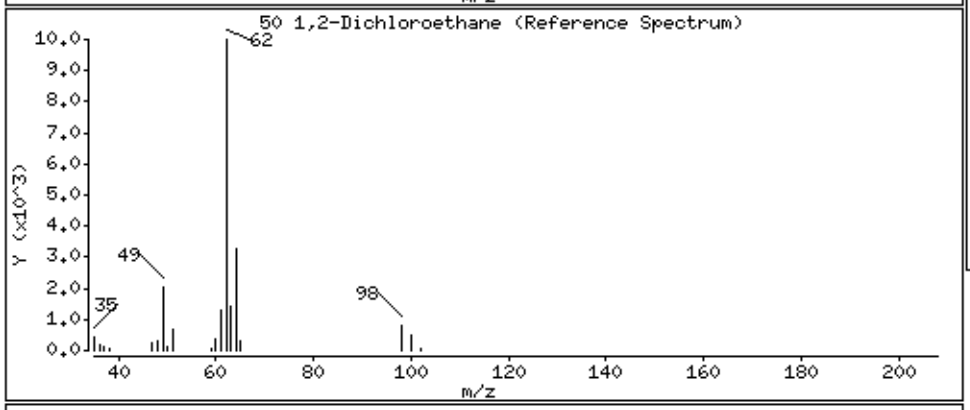
Column diameter: 0.53

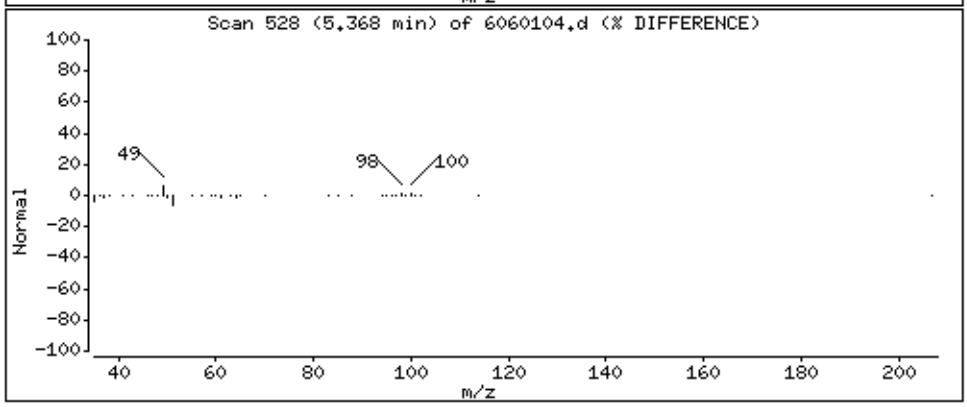
50 1,2-Dichloroethane

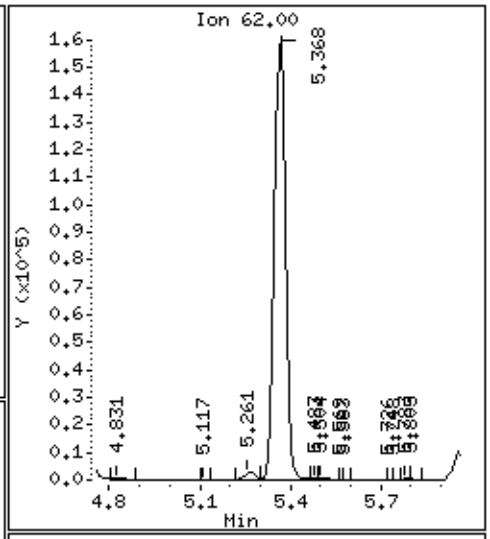
Concentration: 72.180 NG

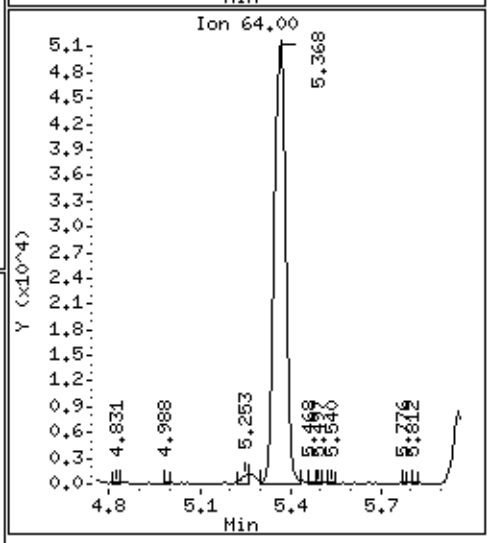












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

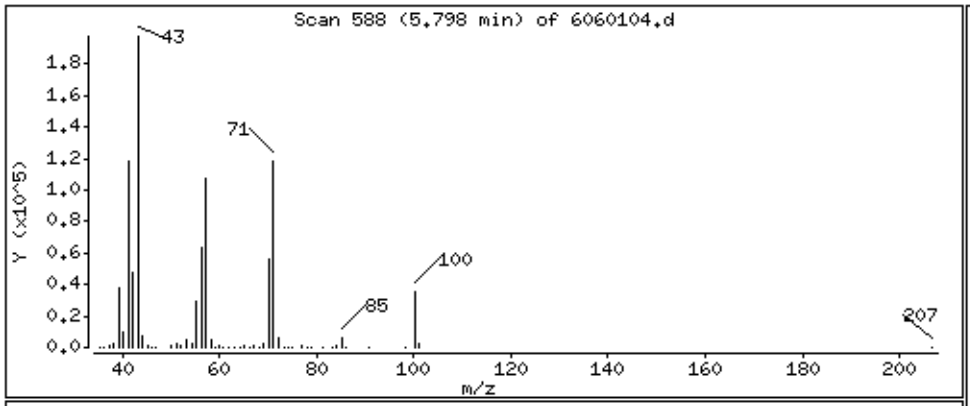
Operator: CT

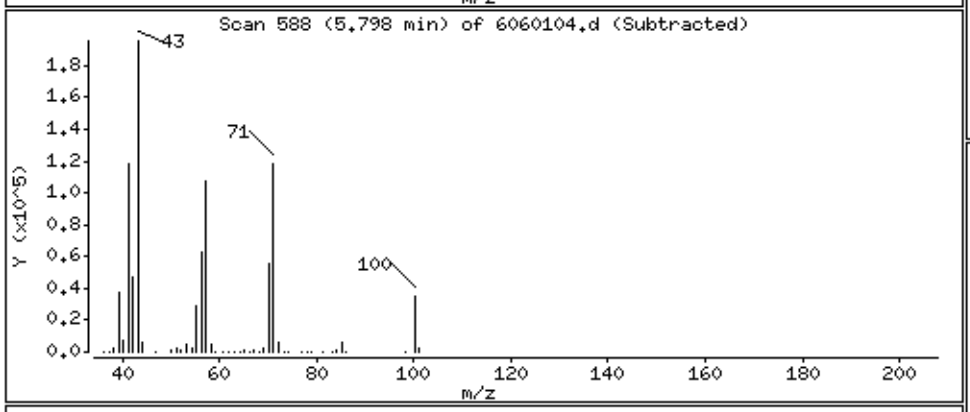
Column phase: RTx-624

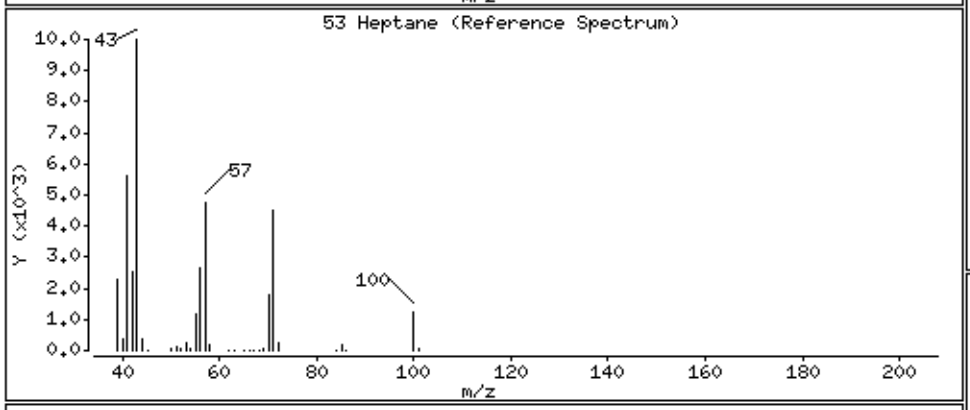
Column diameter: 0.53

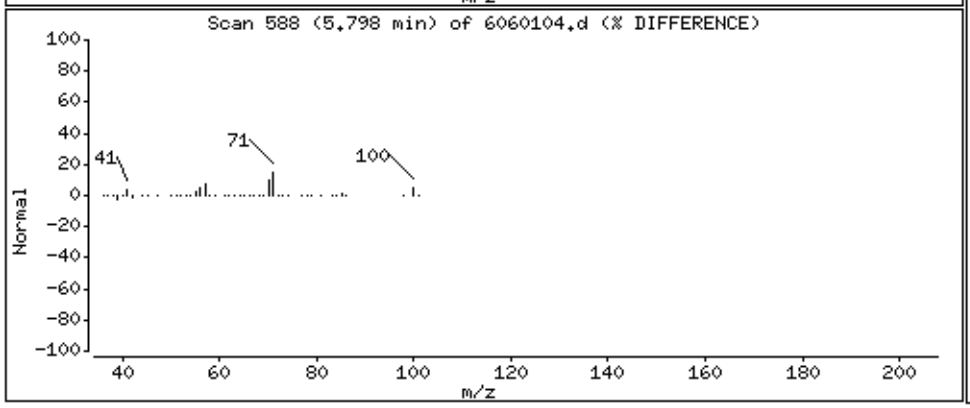
53 Heptane

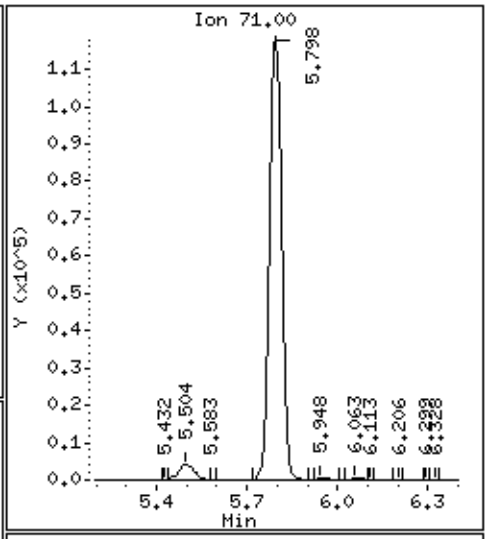
Concentration: 75.748 NG

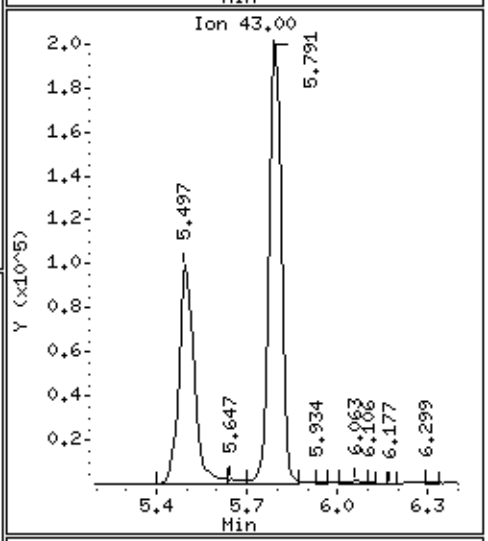


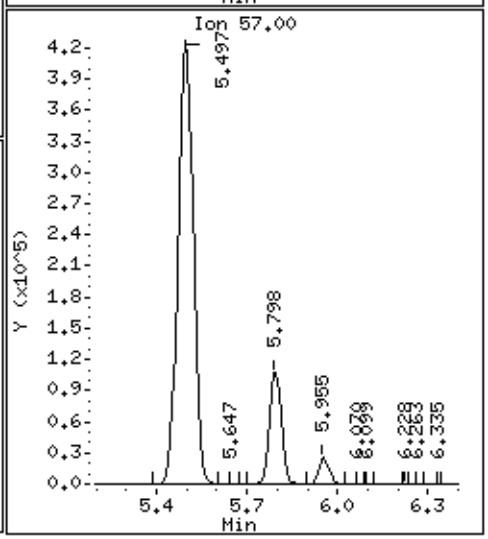












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

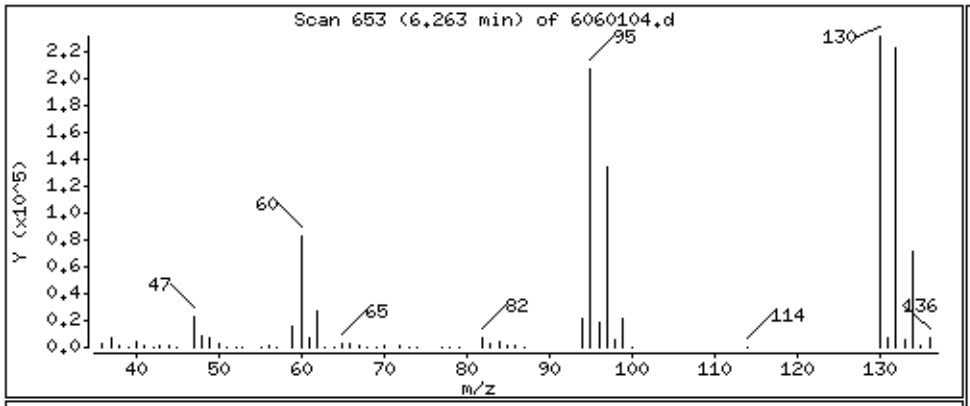
Operator: CT

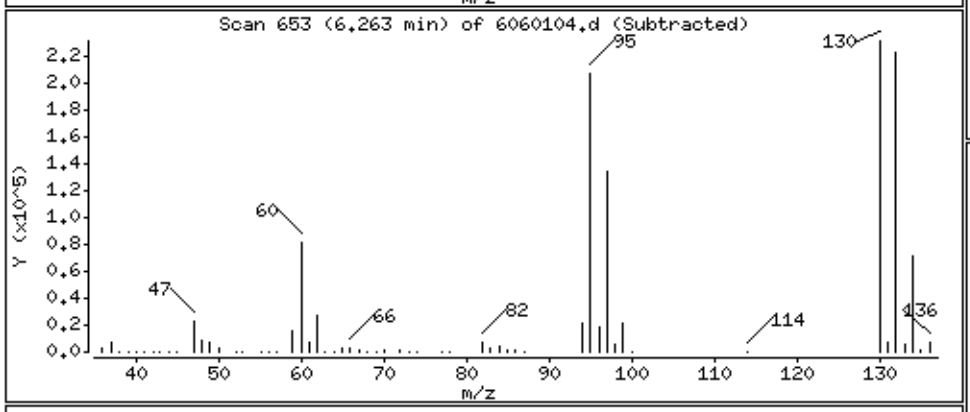
Column phase: RTx-624

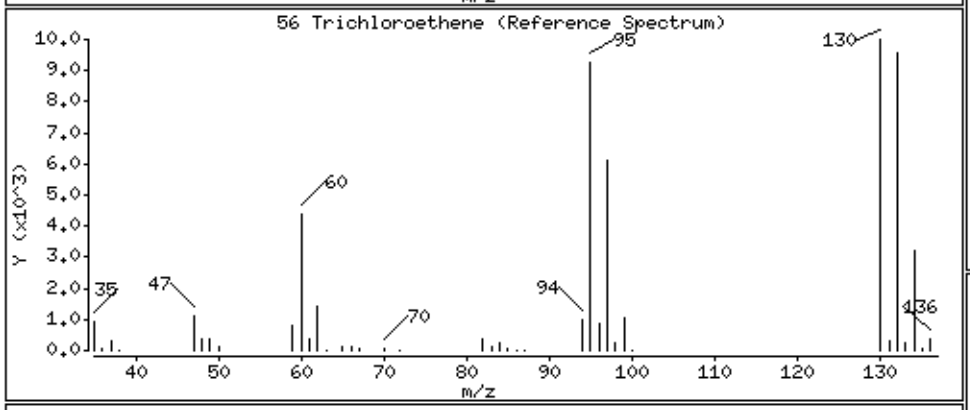
Column diameter: 0.53

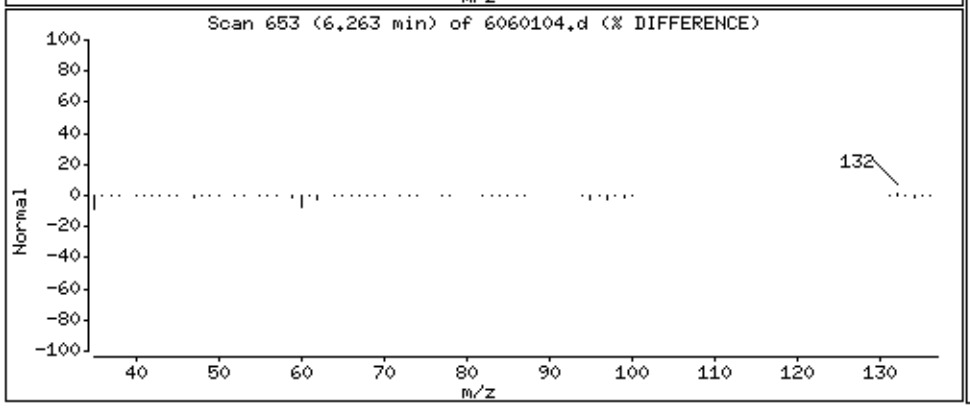
56 Trichloroethene

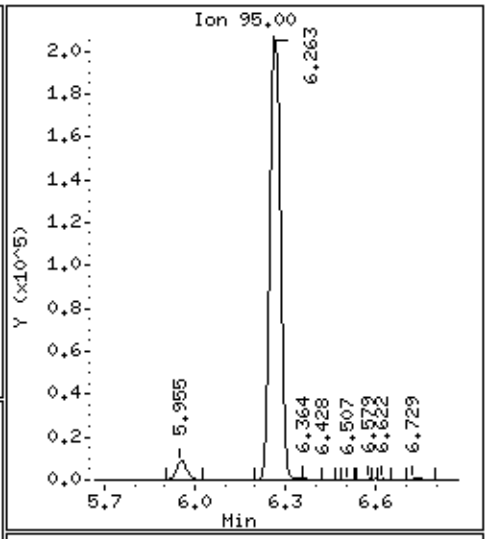
Concentration: 95.835 NG

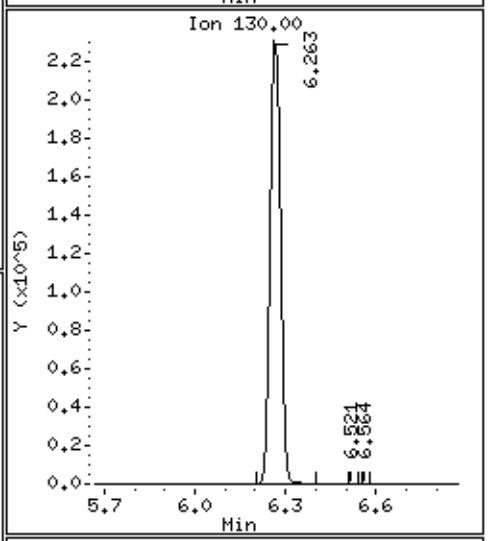


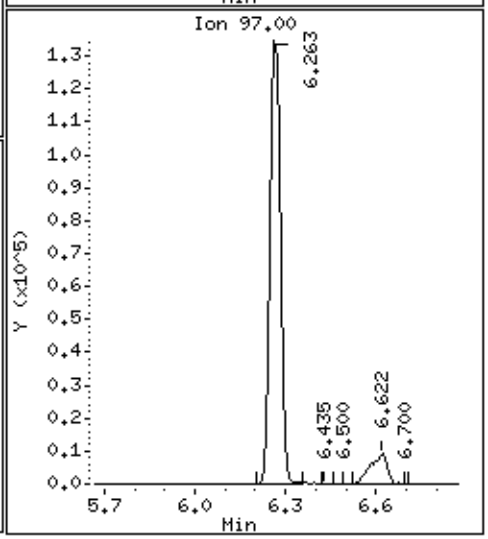












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

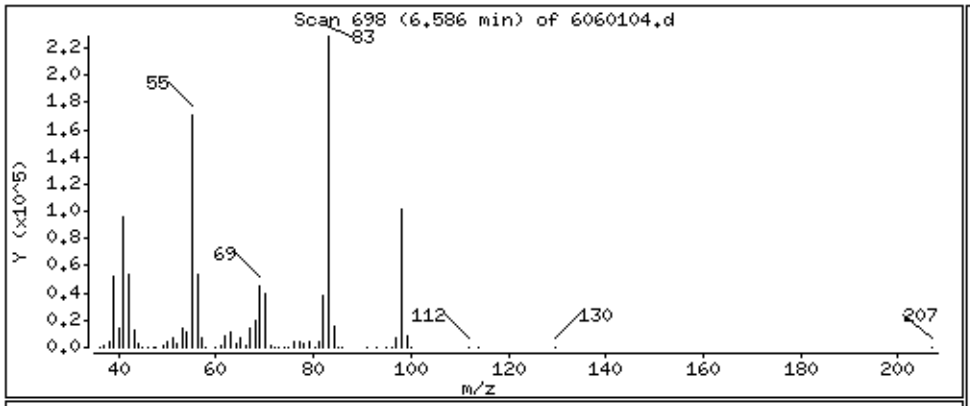
Operator: CT

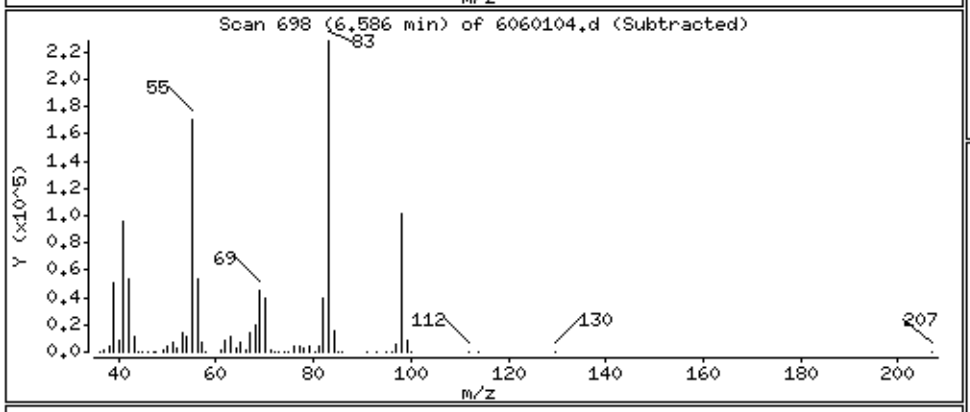
Column phase: RTx-624

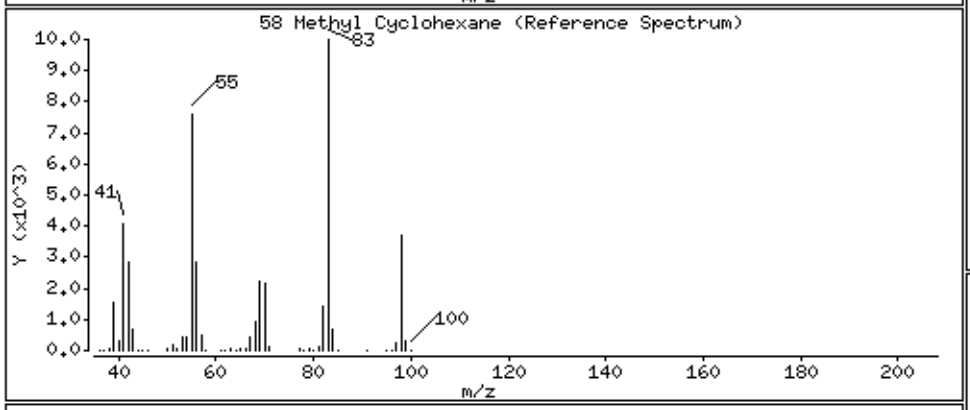
Column diameter: 0.53

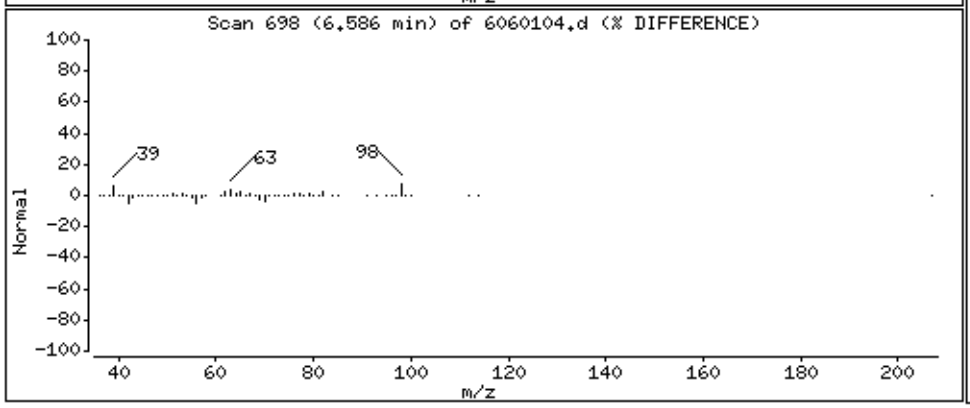
58 Methyl Cyclohexane

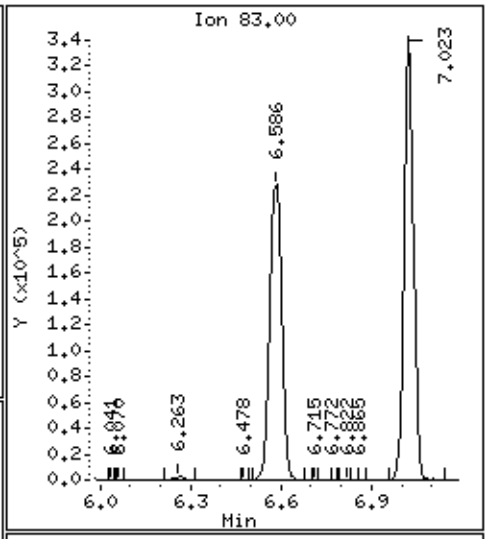
Concentration: 79.028 NG

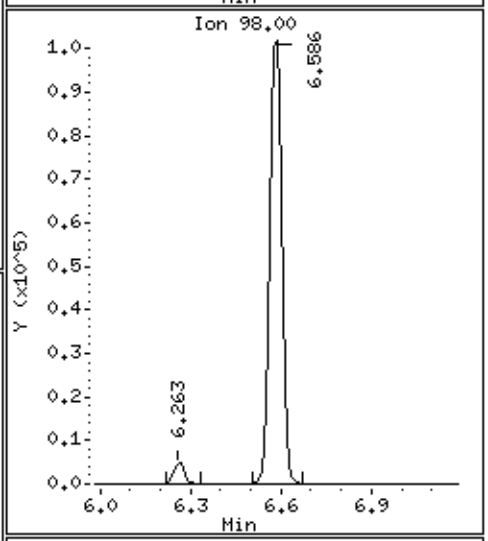


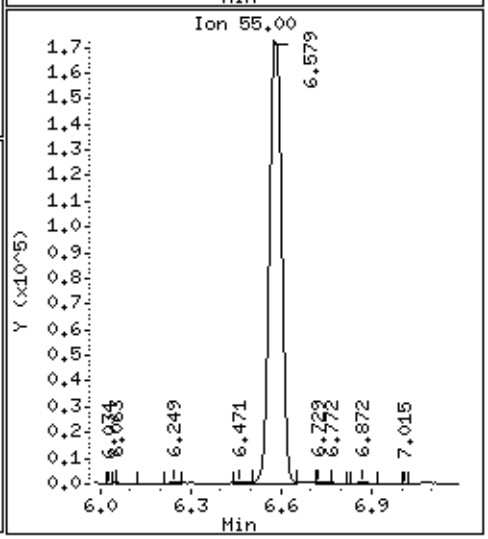












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

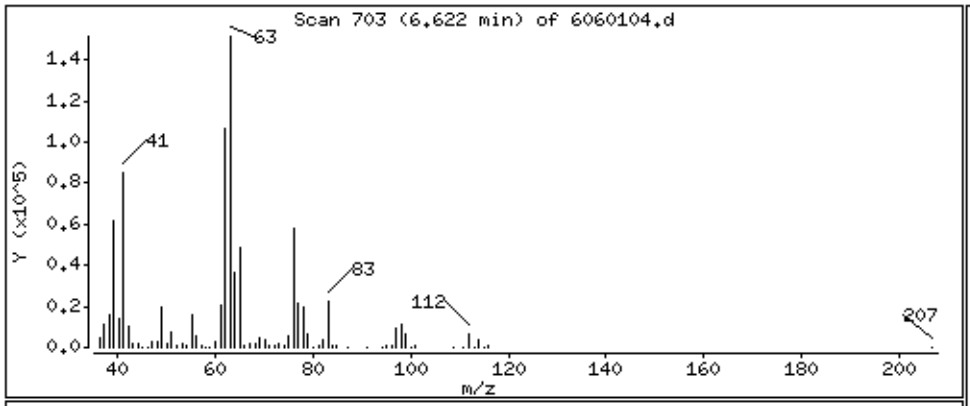
Operator: CT

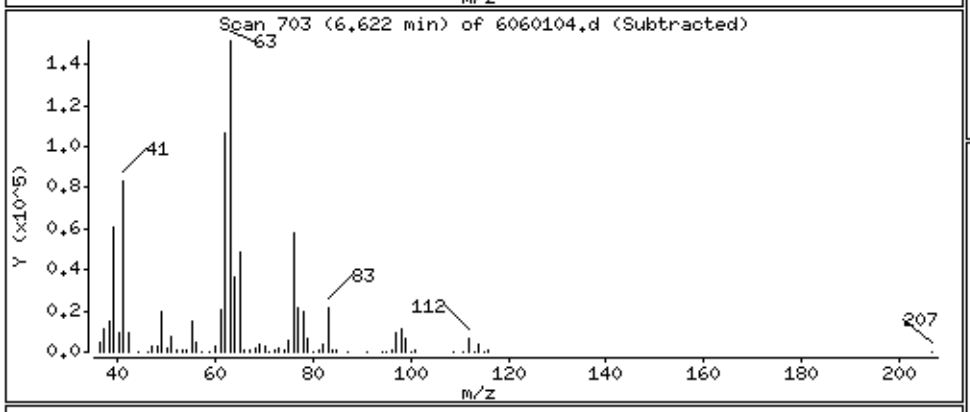
Column phase: RTx-624

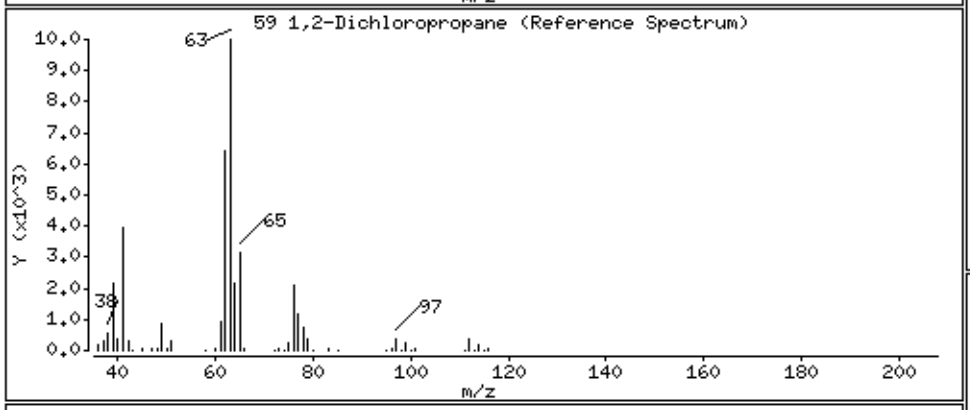
Column diameter: 0.53

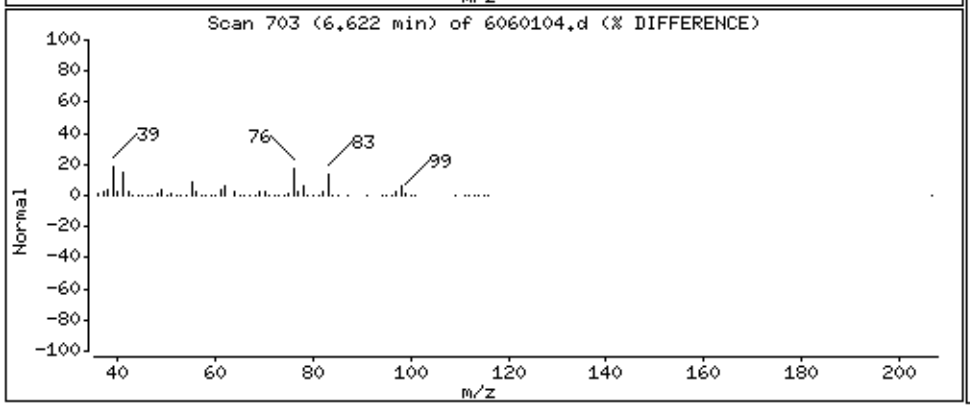
59 1,2-Dichloropropane

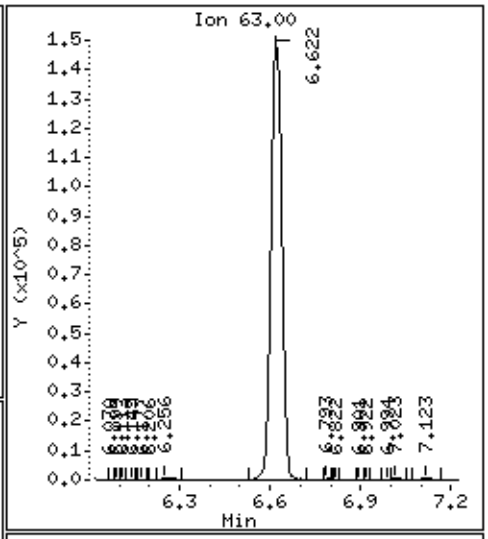
Concentration: 84.677 NG

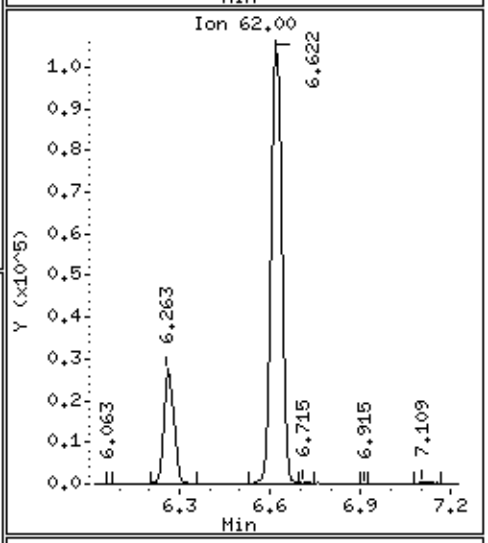


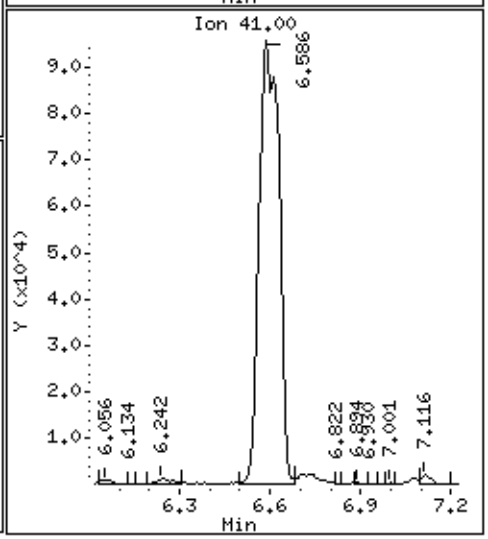












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

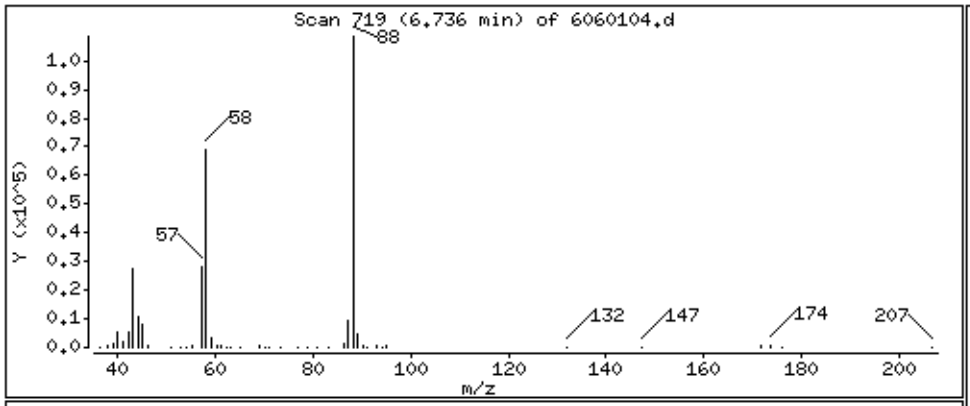
Operator: CT

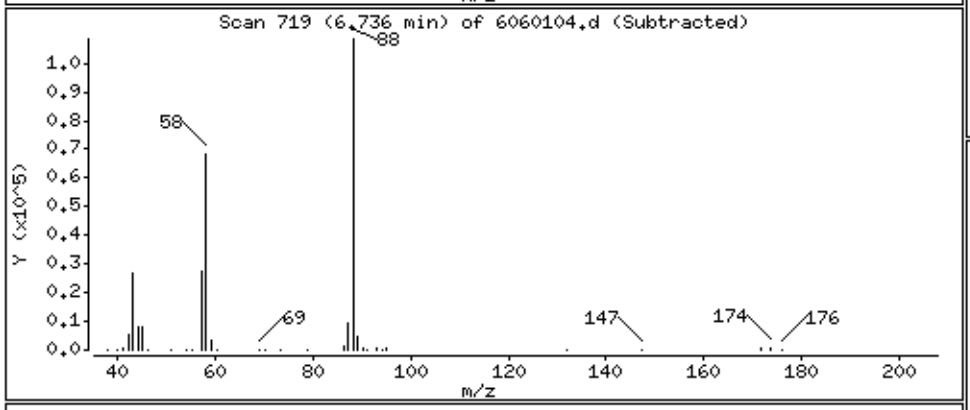
Column phase: RTx-624

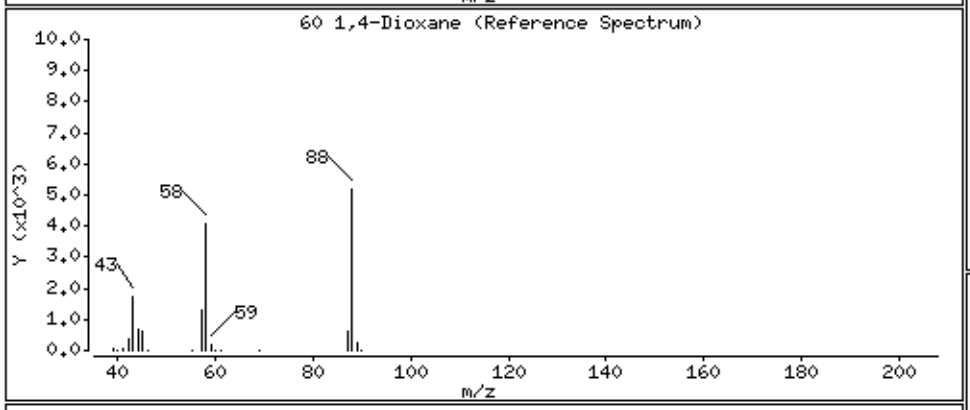
Column diameter: 0.53

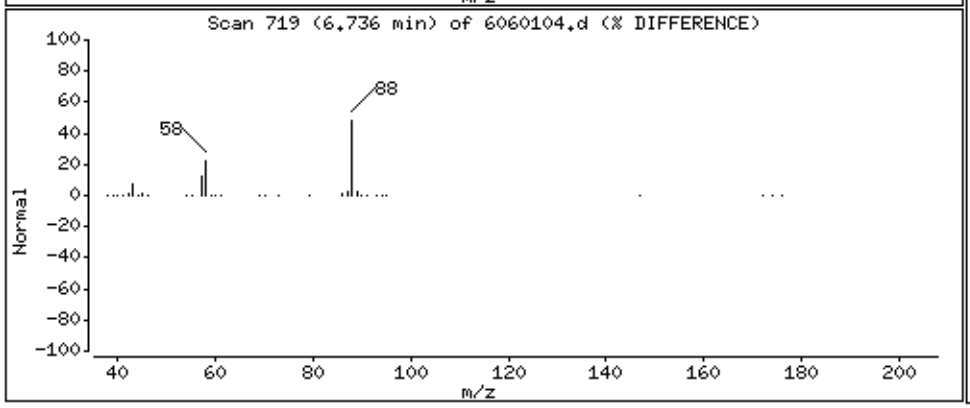
60 1,4-Dioxane

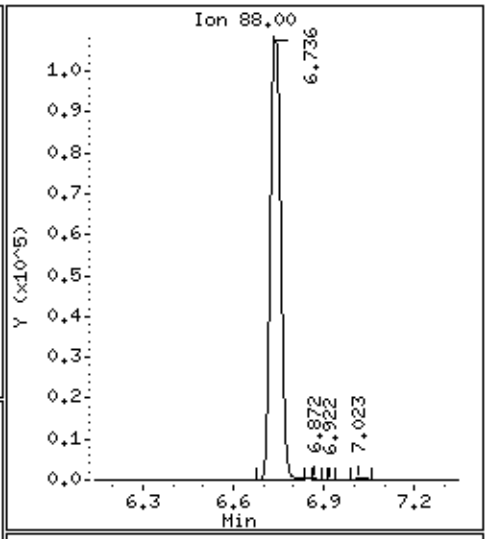
Concentration: 68.406 NG

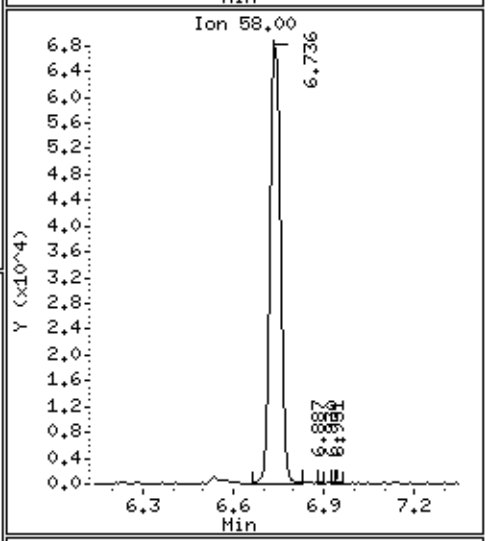


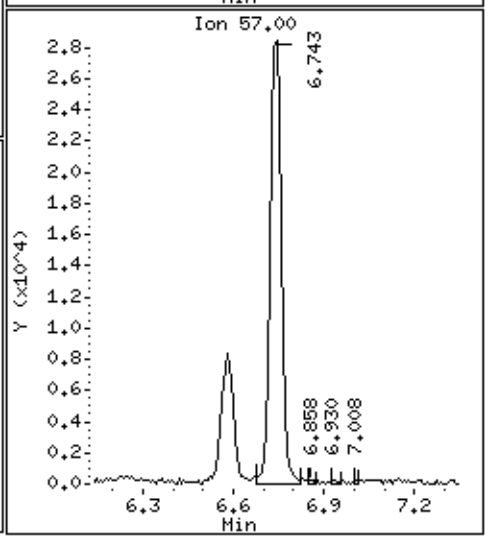












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

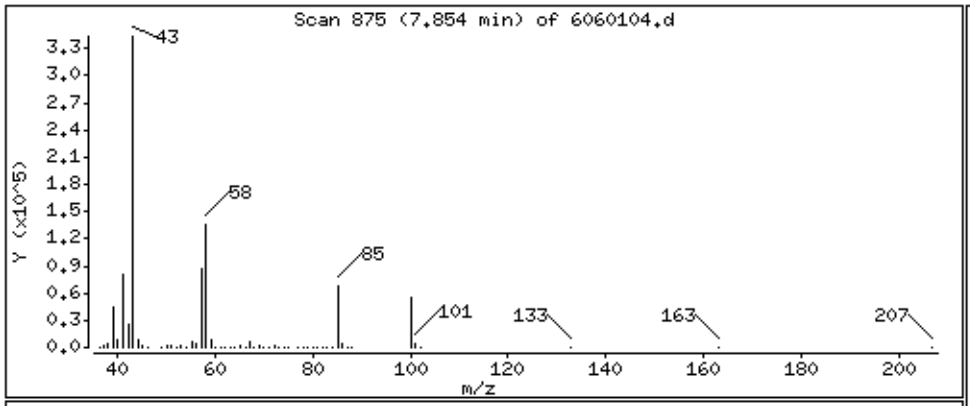
Operator: CT

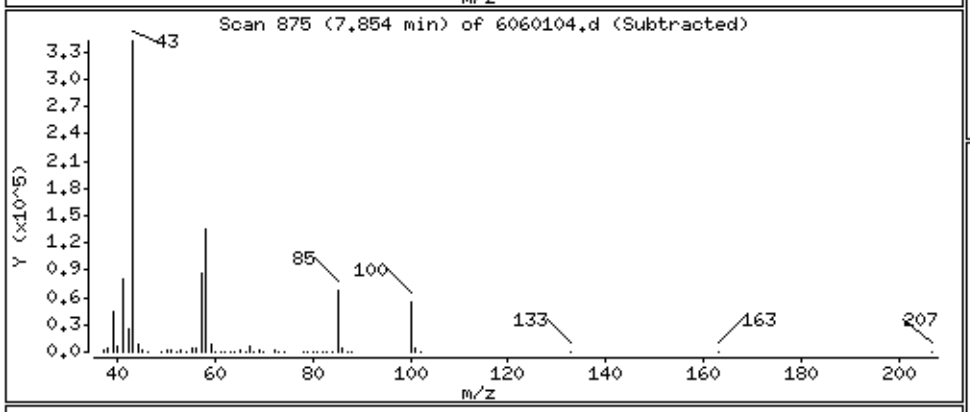
Column phase: RTx-624

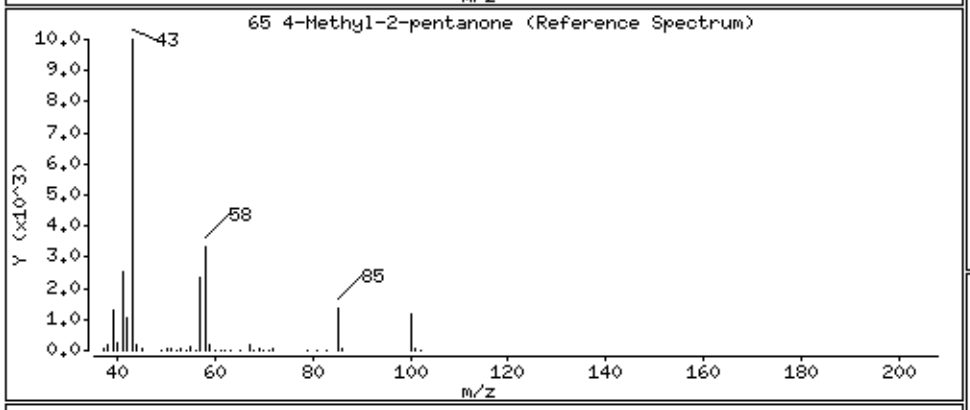
Column diameter: 0.53

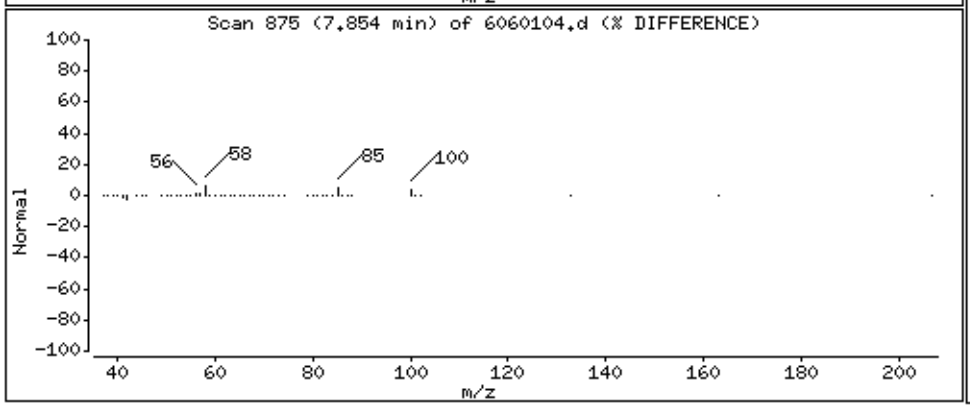
65 4-Methyl-2-pentanone

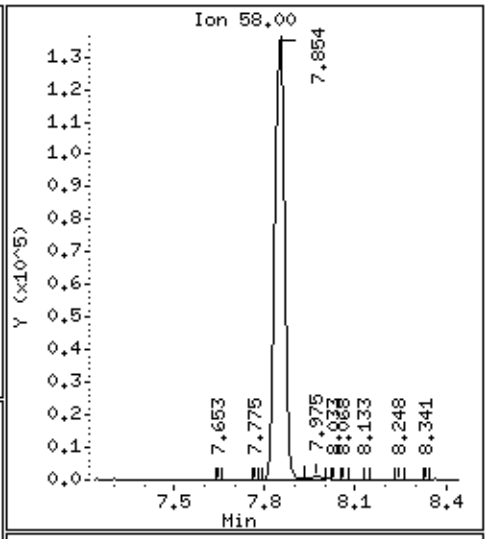
Concentration: 70.570 NG

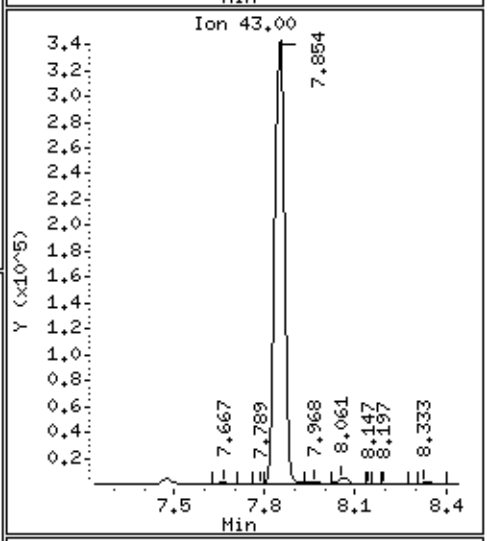


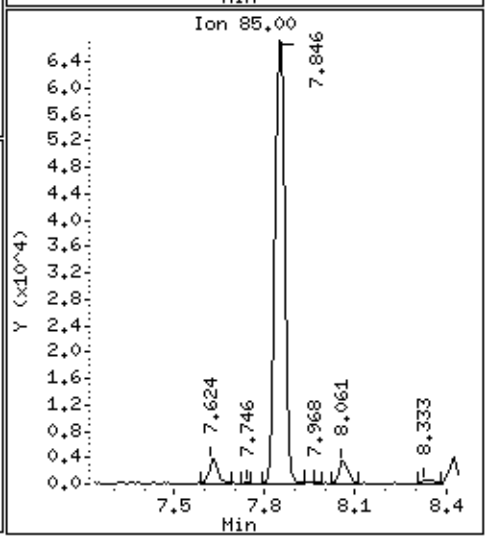












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

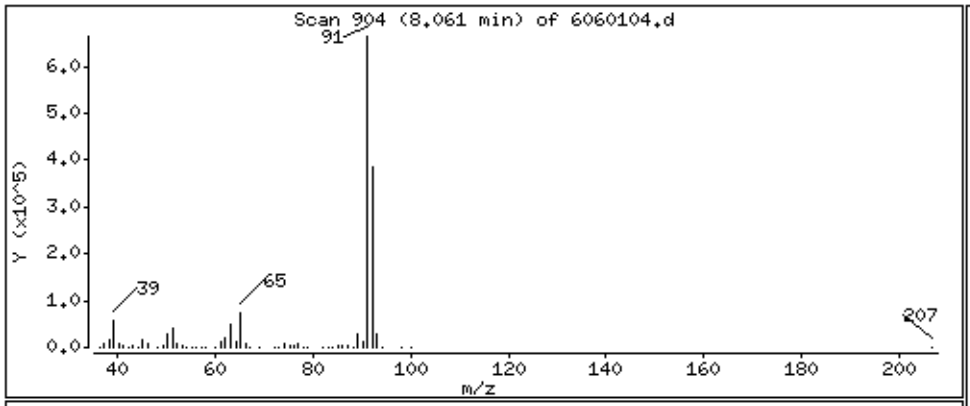
Operator: CT

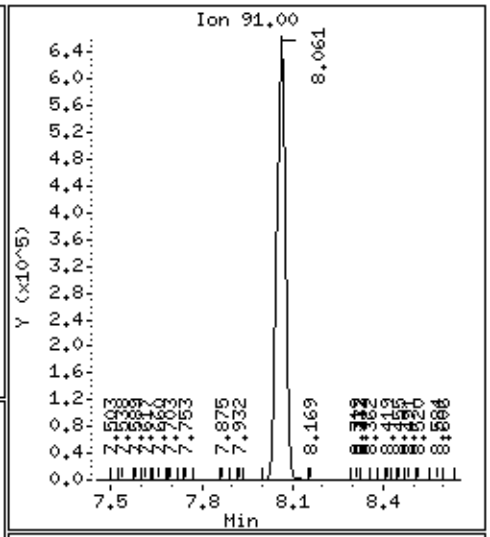
Column phase: RTx-624

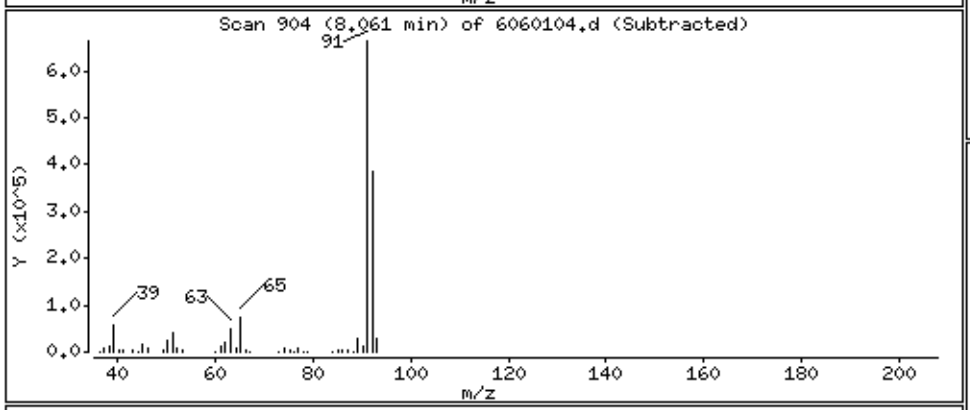
Column diameter: 0.53

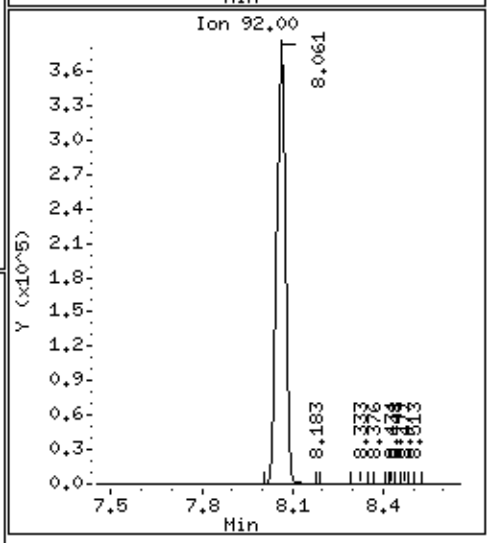
67 Toluene

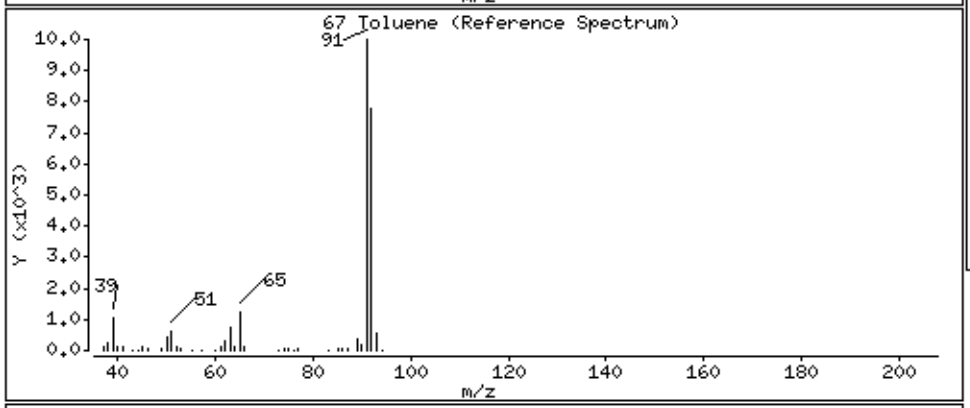
Concentration: 67.677 NG

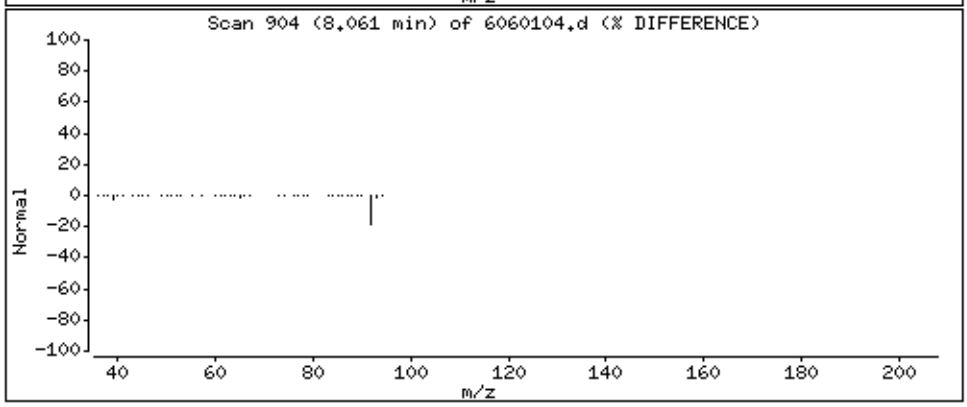












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

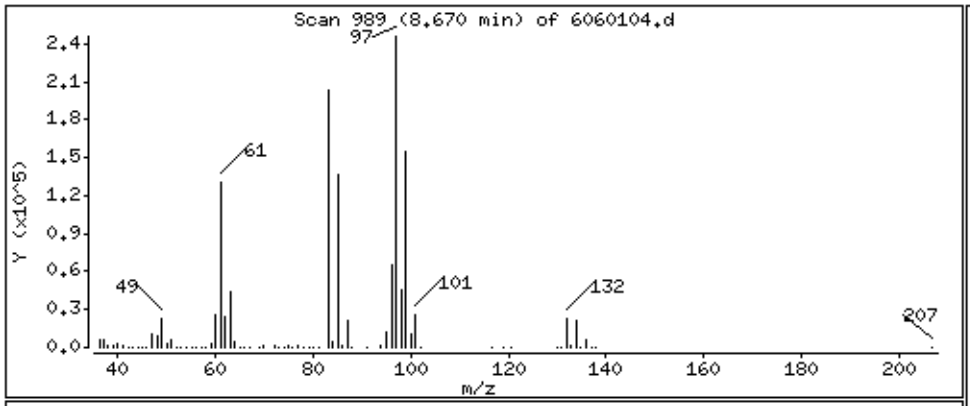
Operator: CT

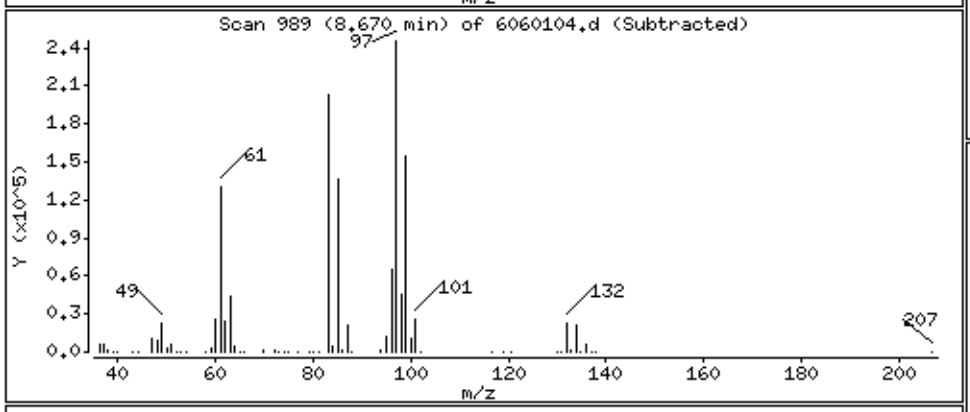
Column phase: RTx-624

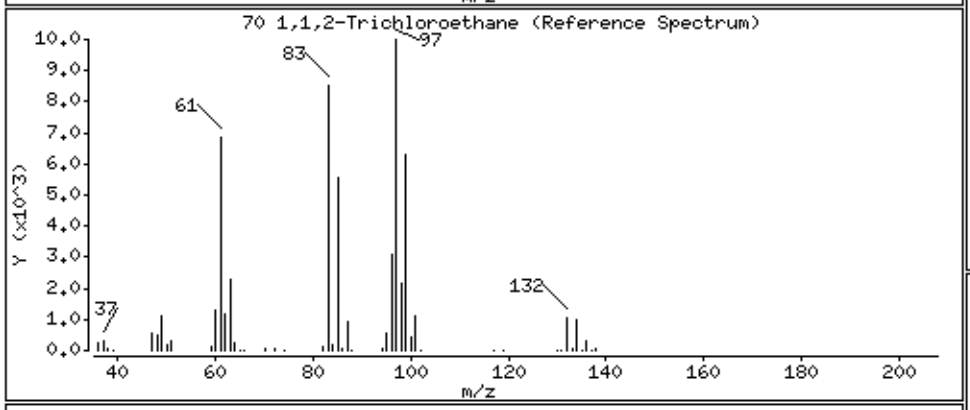
Column diameter: 0.53

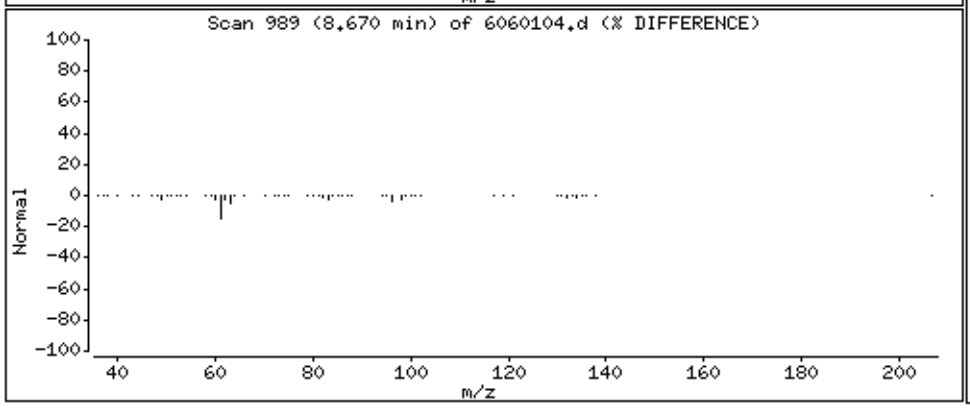
70 1,1,2-Trichloroethane

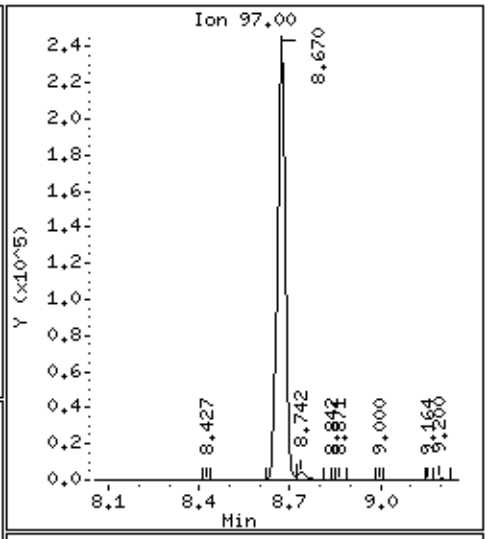
Concentration: 107.14 NG

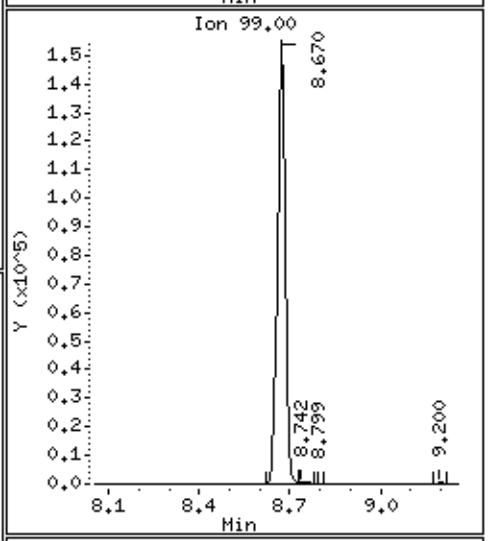


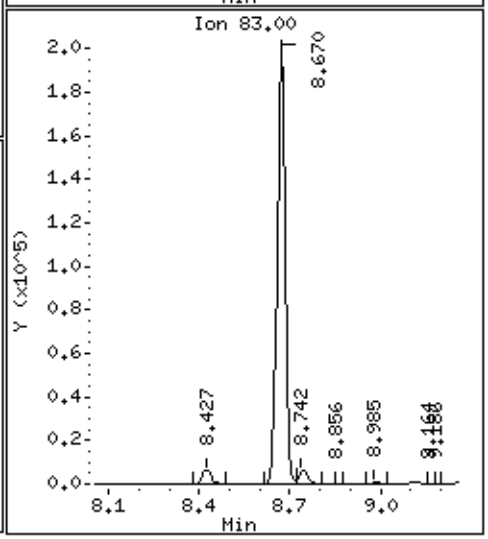












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

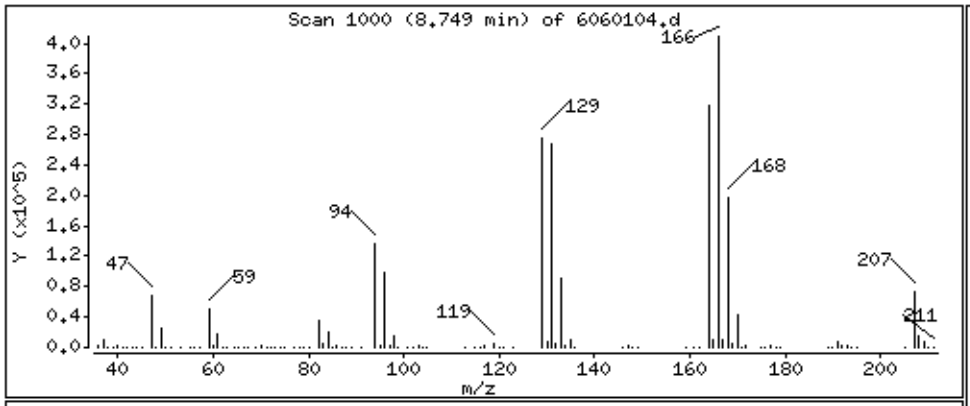
Operator: CT

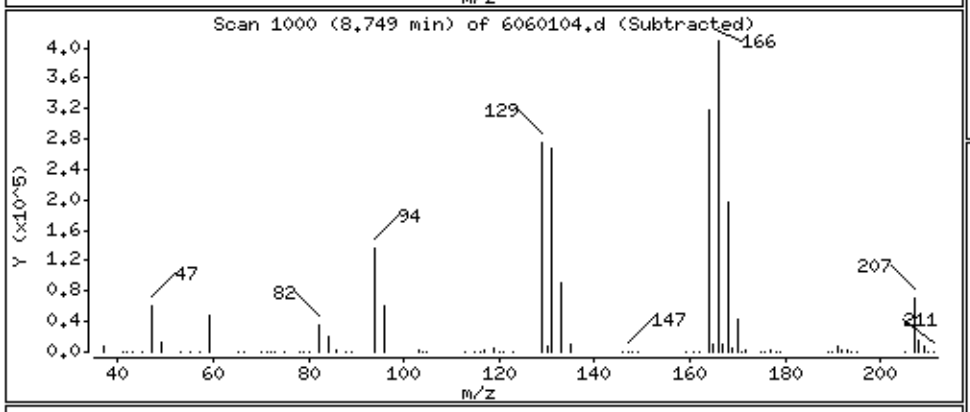
Column phase: RTx-624

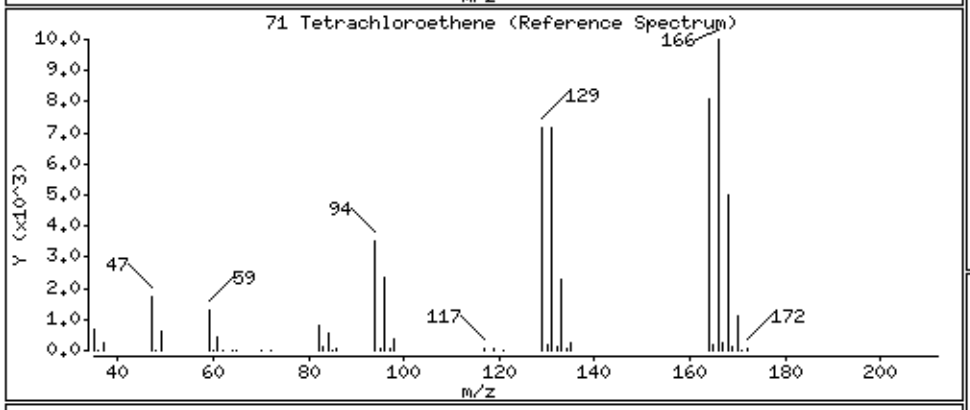
Column diameter: 0.53

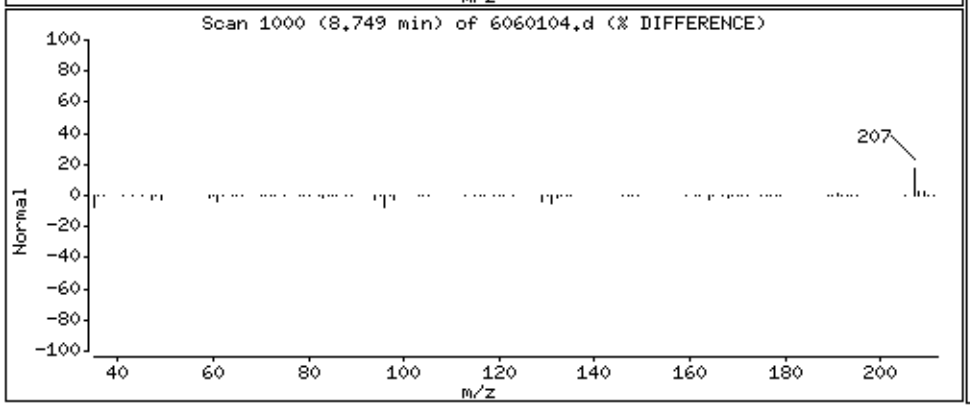
71 Tetrachloroethene

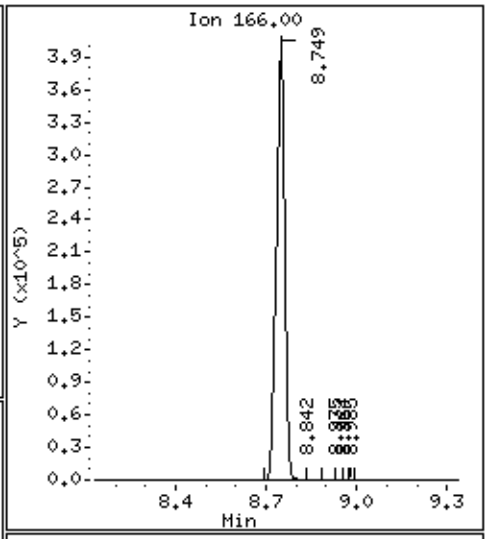
Concentration: 155.64 NG

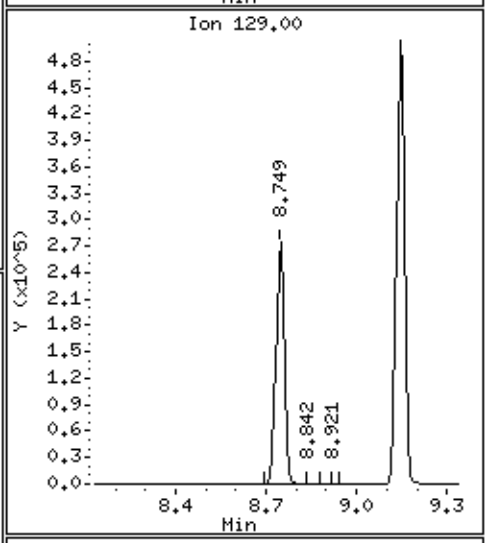


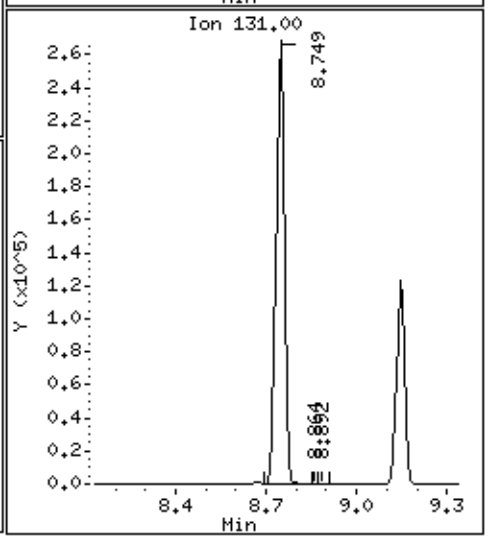












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

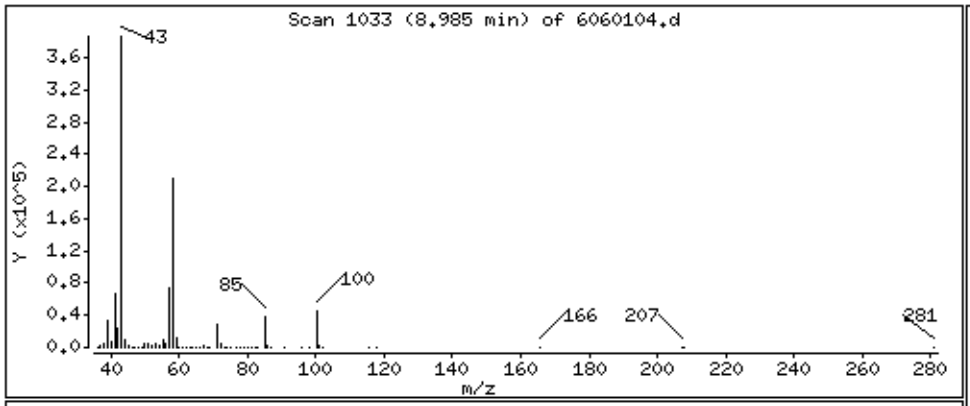
Operator: CT

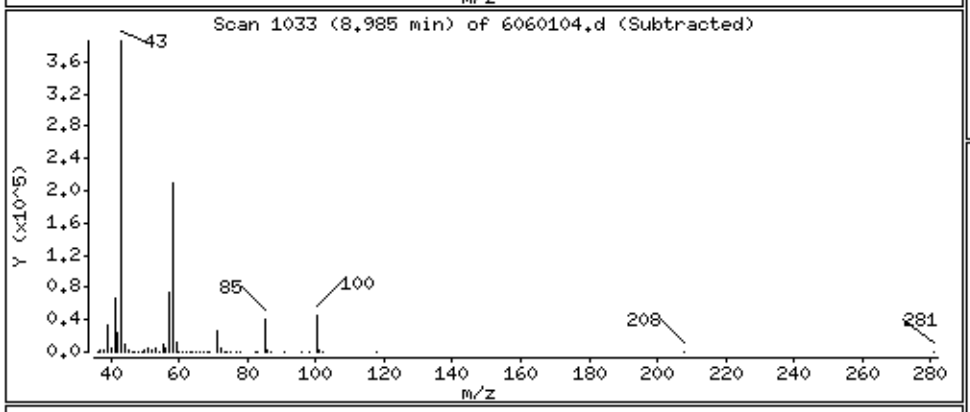
Column phase: RTx-624

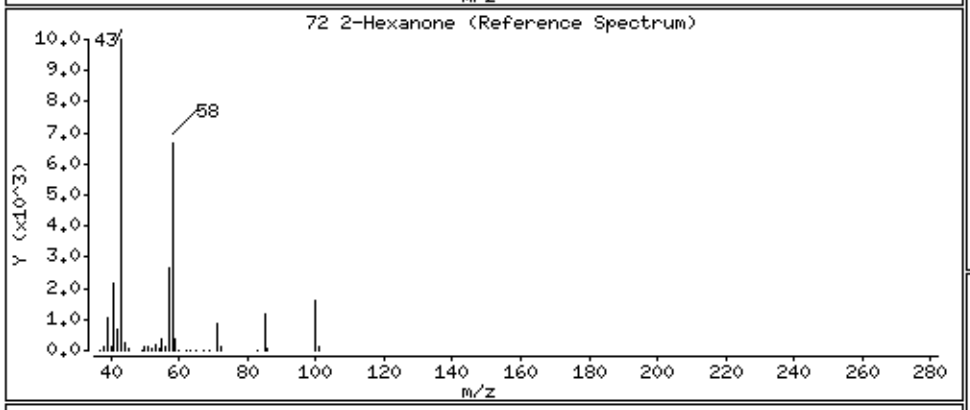
Column diameter: 0.53

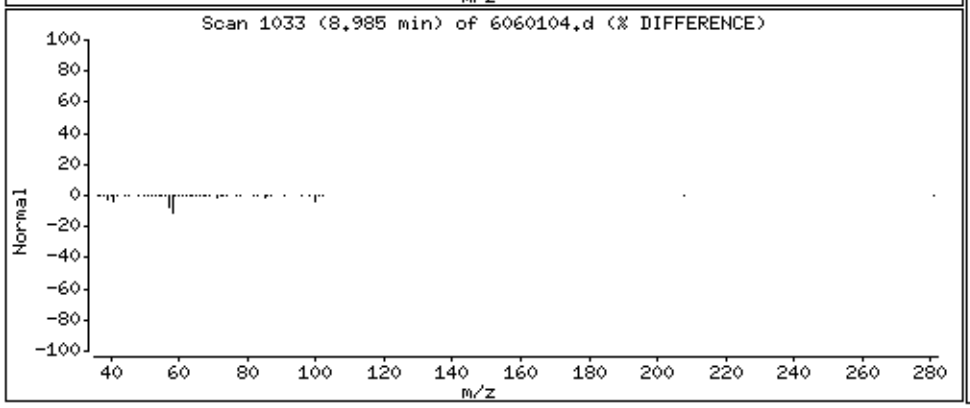
72 2-Hexanone

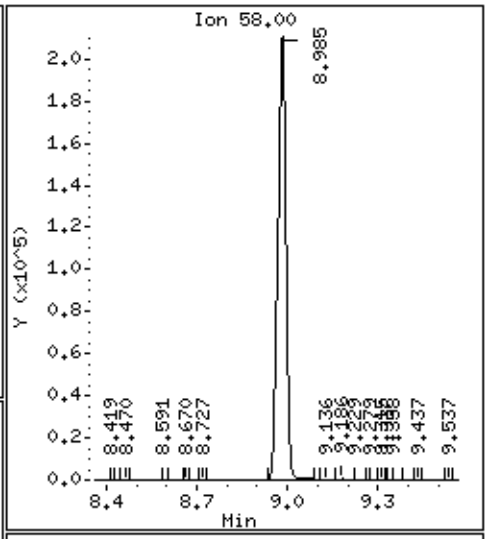
Concentration: 68.692 NG

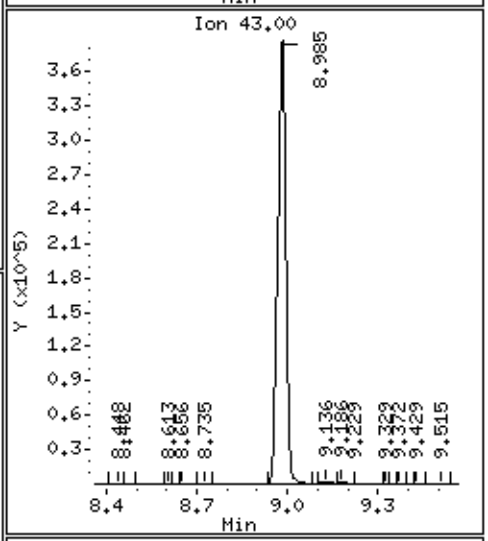


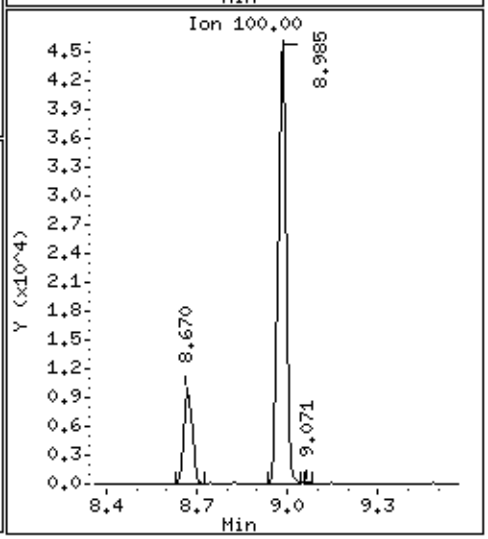












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

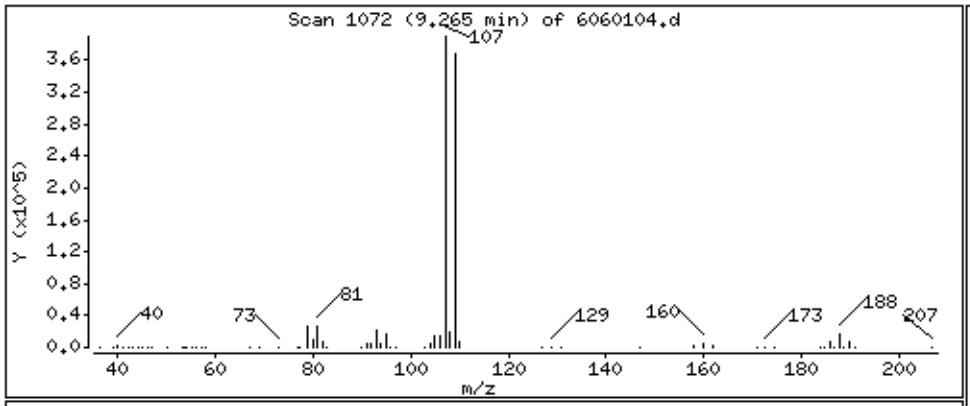
Operator: CT

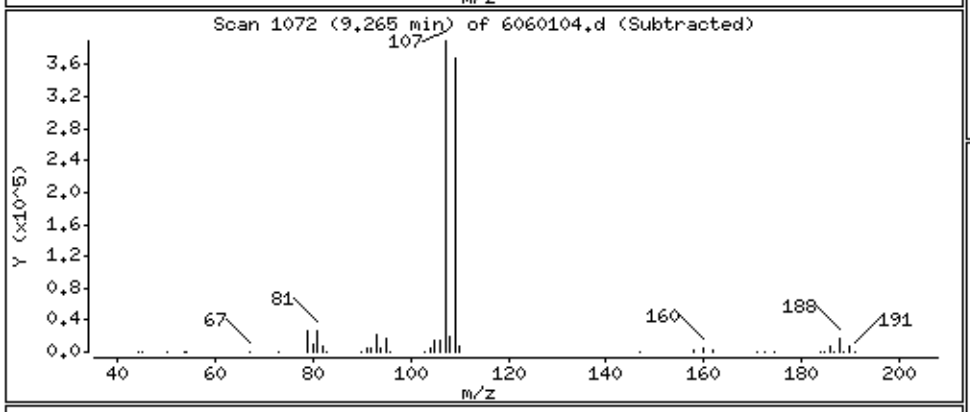
Column phase: RTx-624

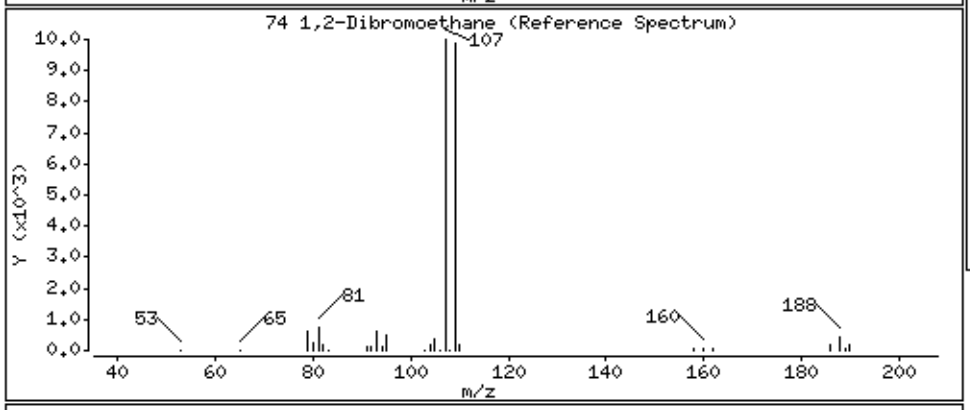
Column diameter: 0.53

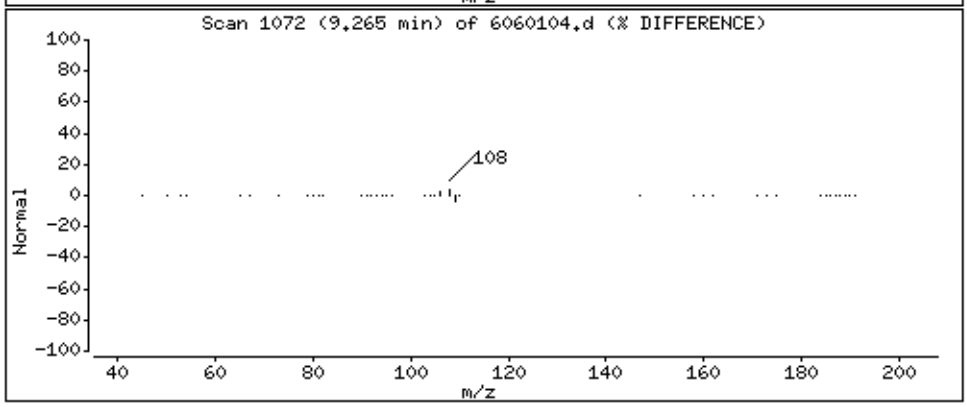
74 1,2-Dibromoethane

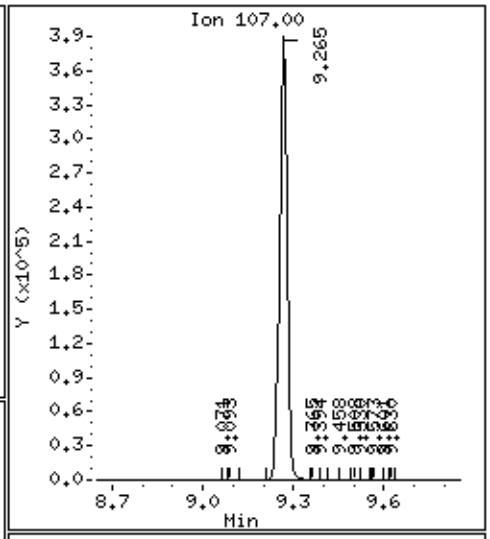
Concentration: 149.06 NG

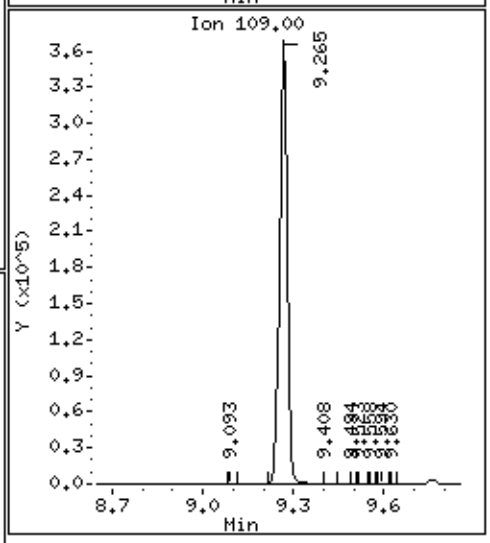












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

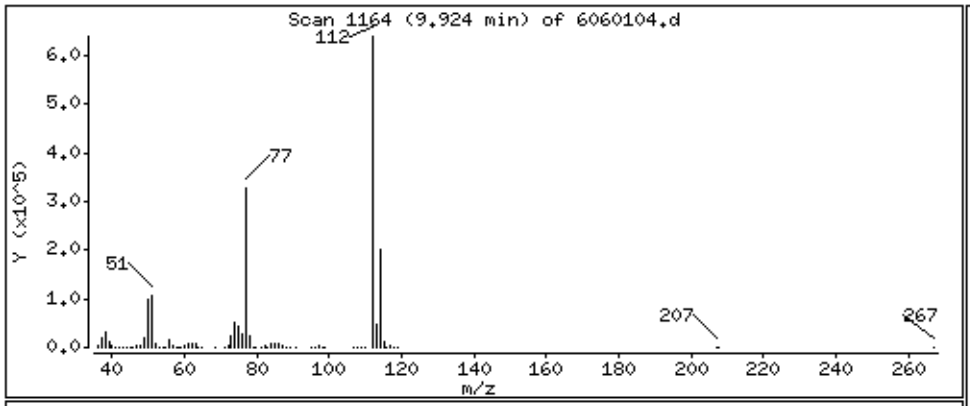
Operator: CT

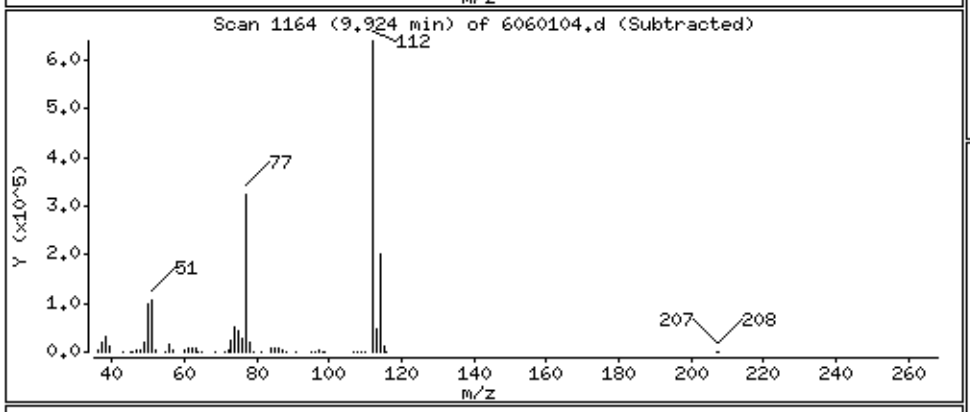
Column phase: RTx-624

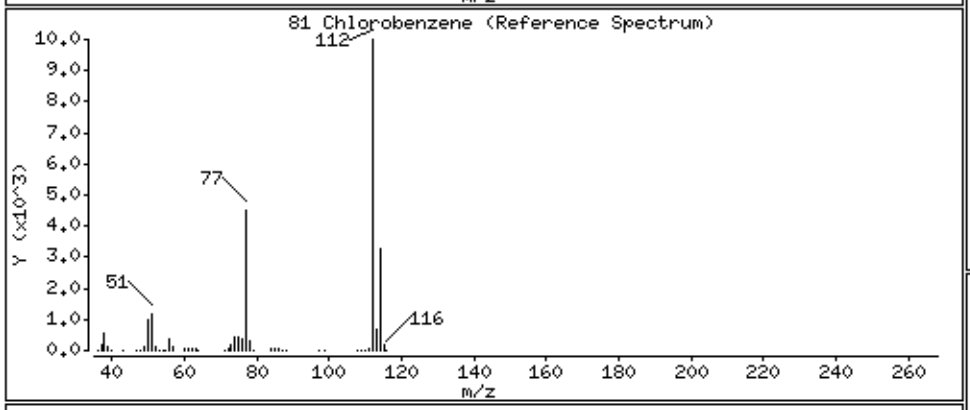
Column diameter: 0.53

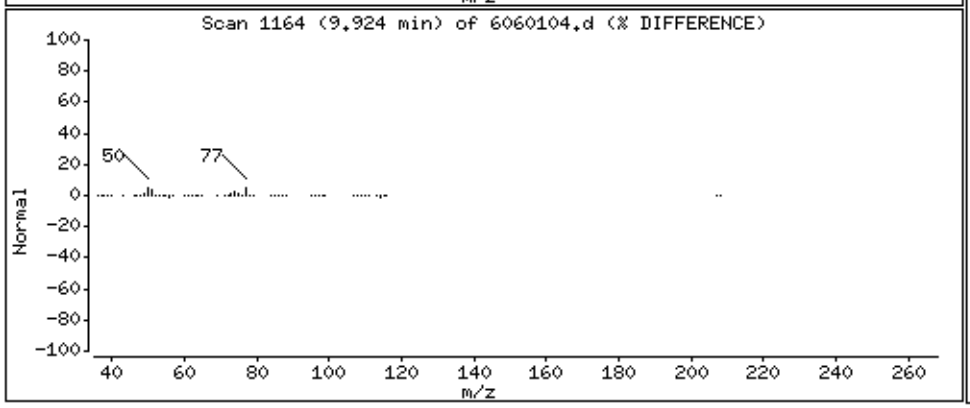
81 Chlorobenzene

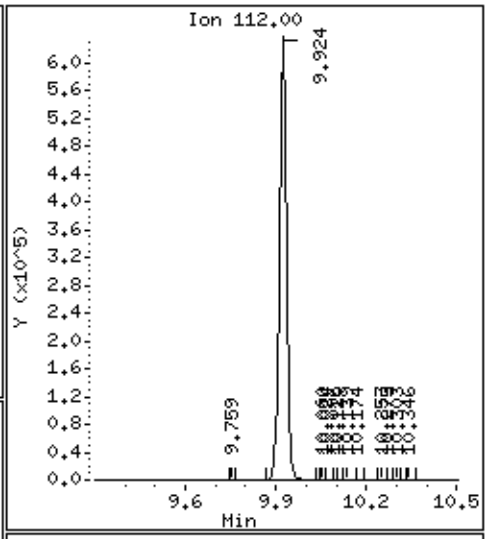
Concentration: 90.496 NG

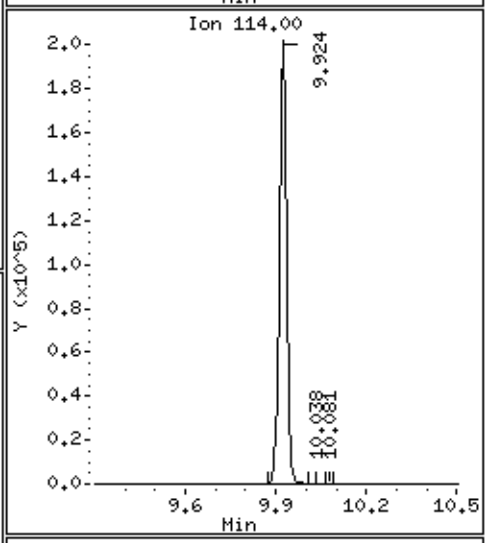


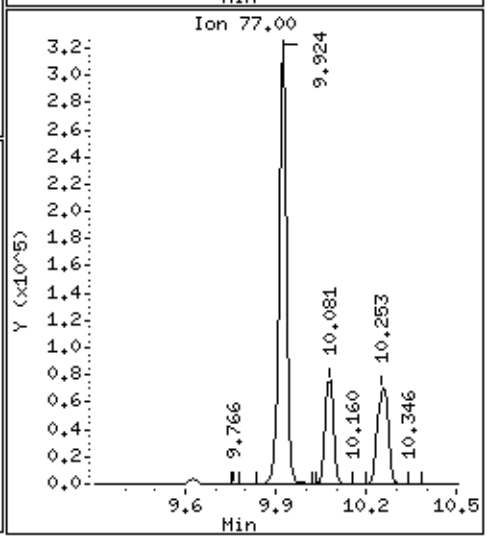












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

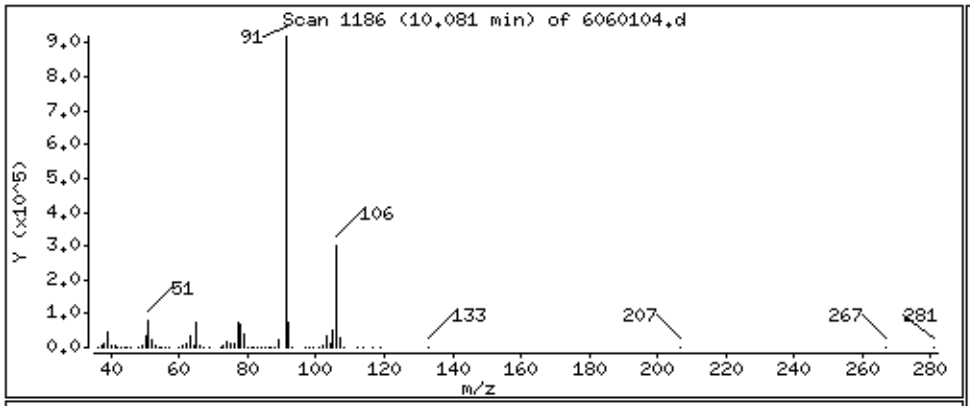
Operator: CT

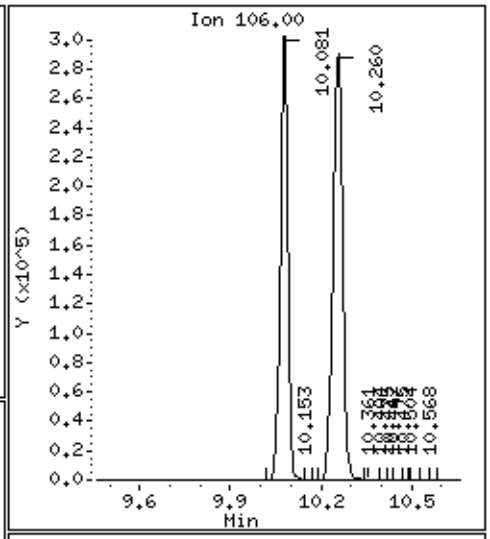
Column phase: RTx-624

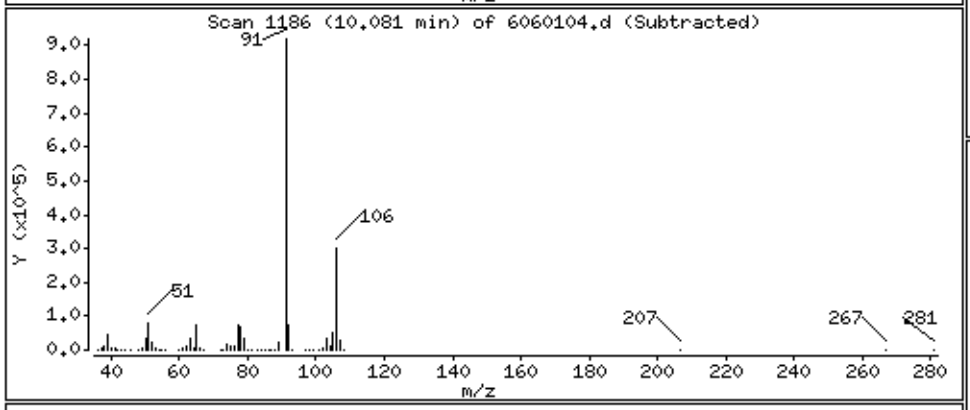
Column diameter: 0.53

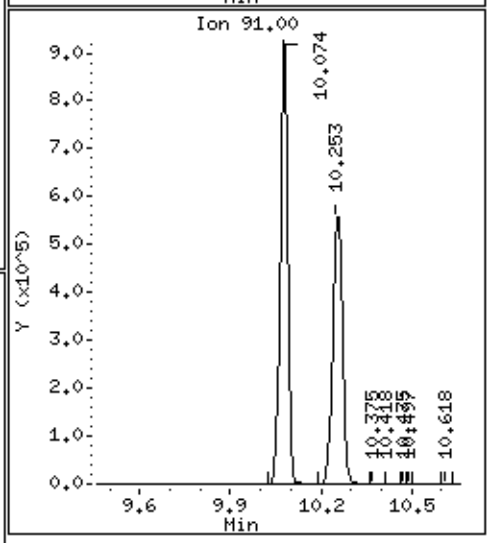
82 Ethyl Benzene

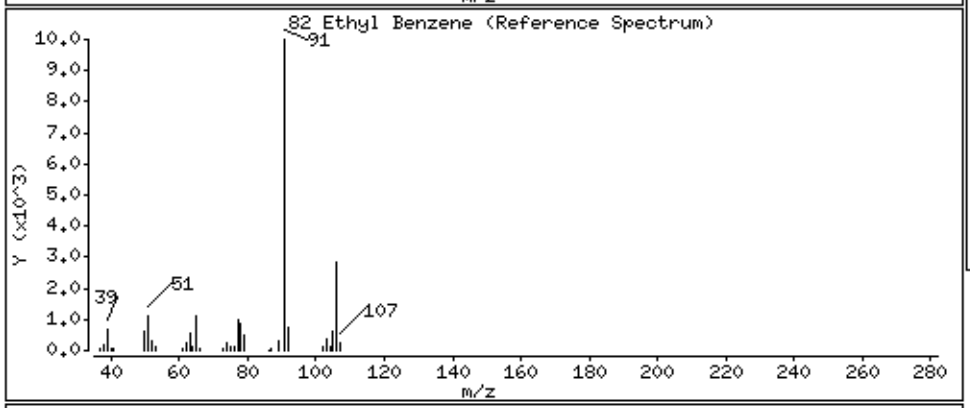
Concentration: 82.674 NG

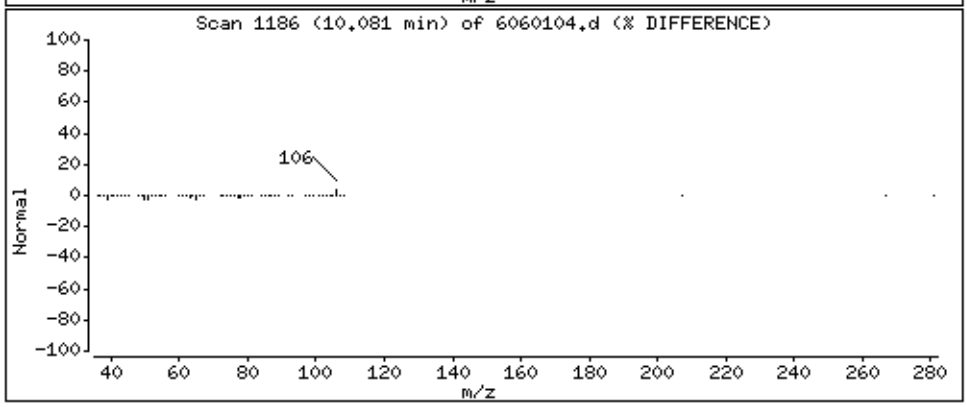












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

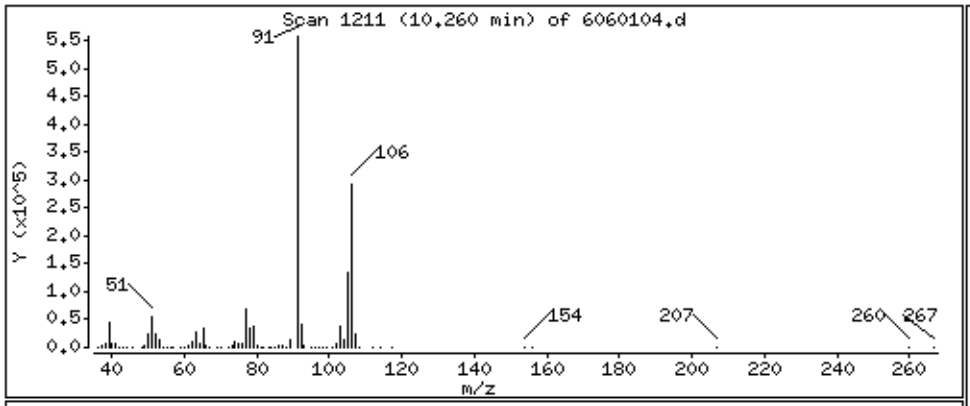
Operator: CT

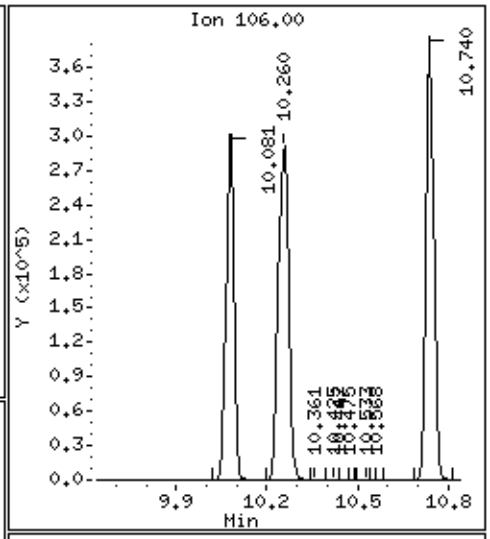
Column phase: RTx-624

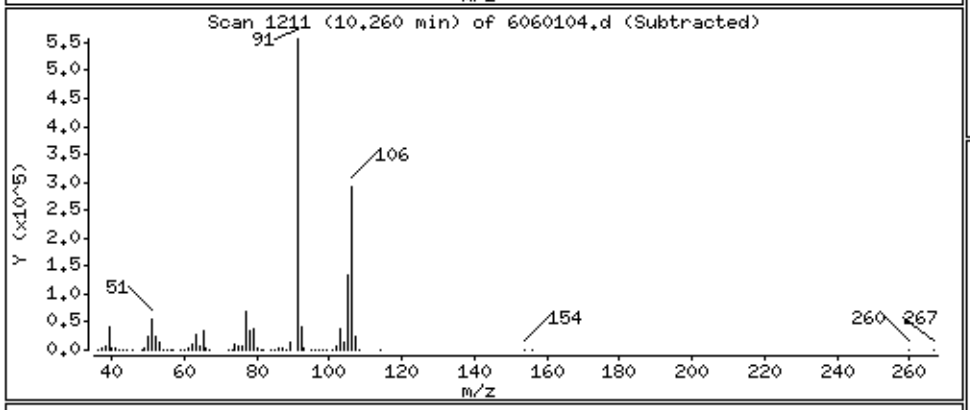
Column diameter: 0.53

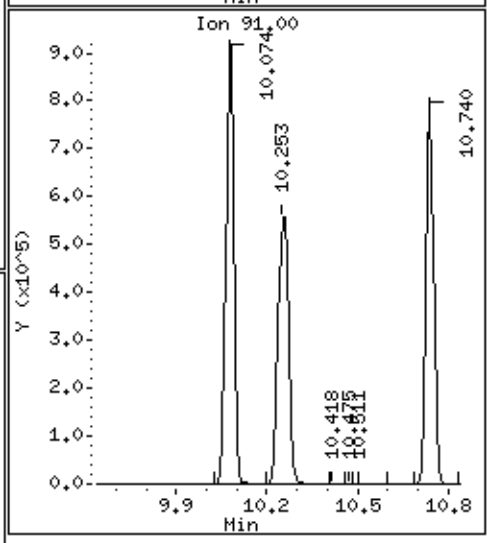
84 m,p-Xylene

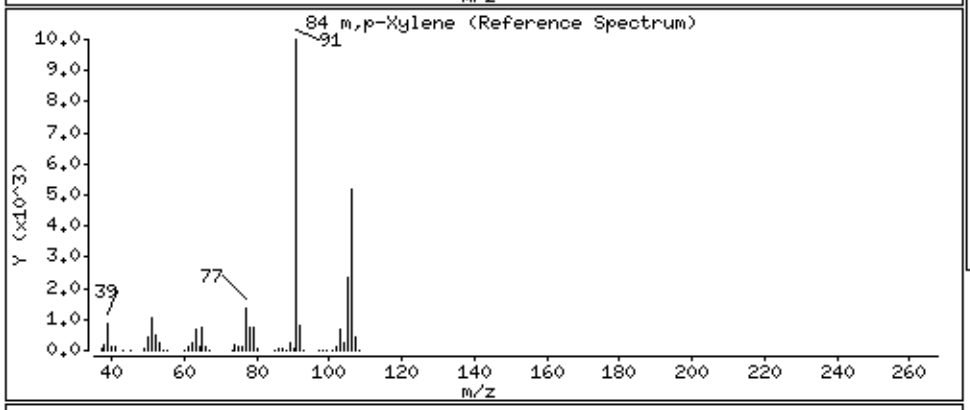
Concentration: 80.752 NG

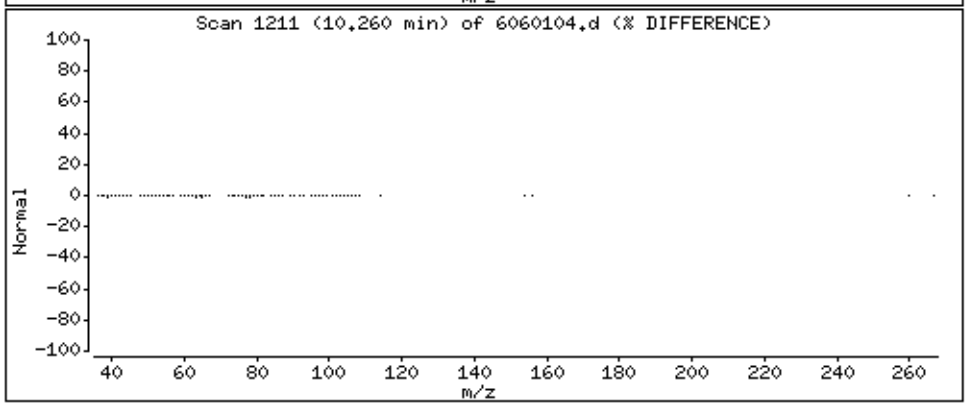












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

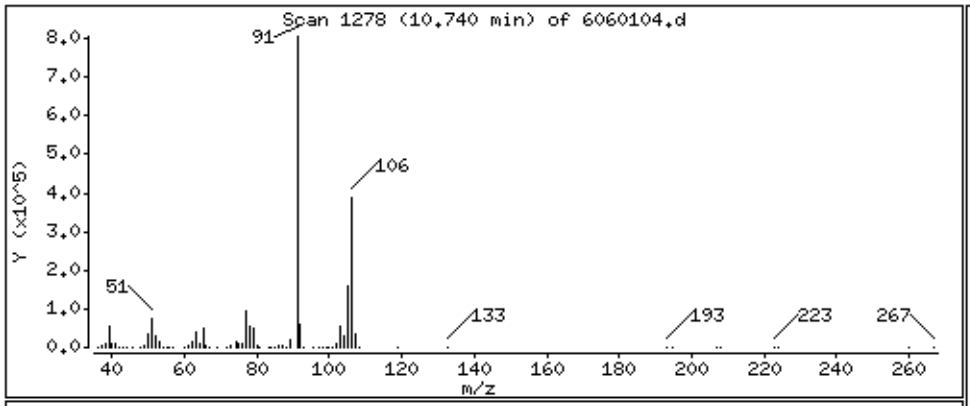
Operator: CT

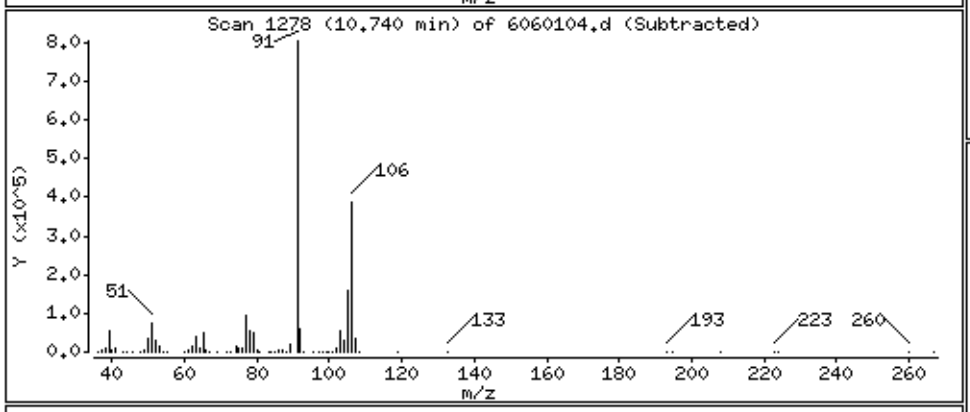
Column phase: RTx-624

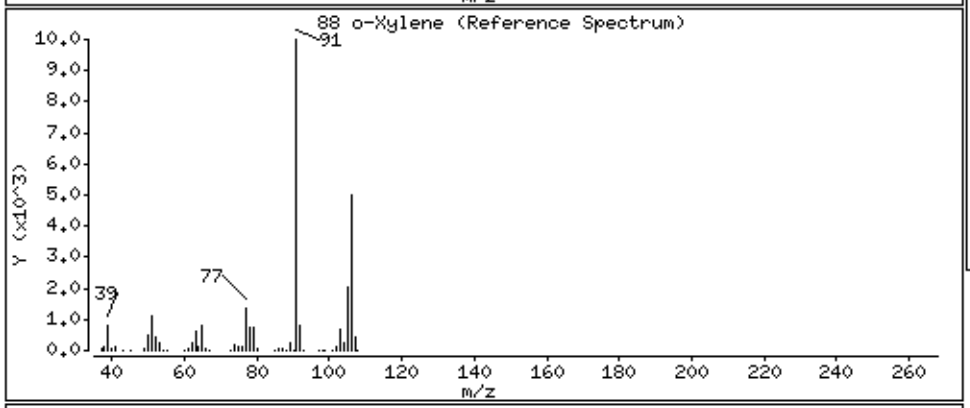
Column diameter: 0.53

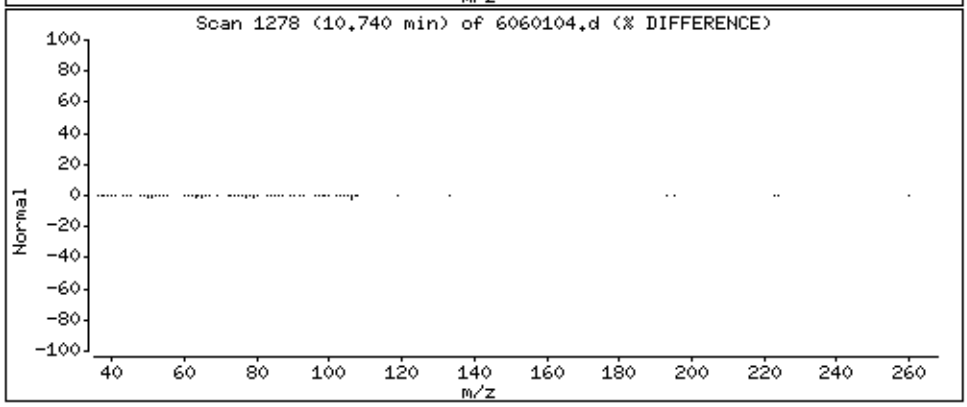
88 o-Xylene

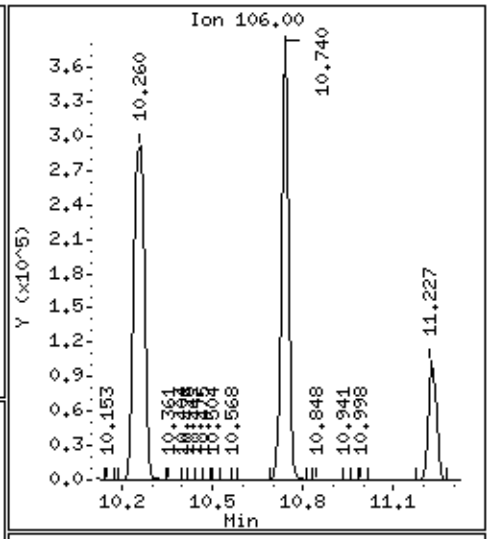
Concentration: 73.094 NG

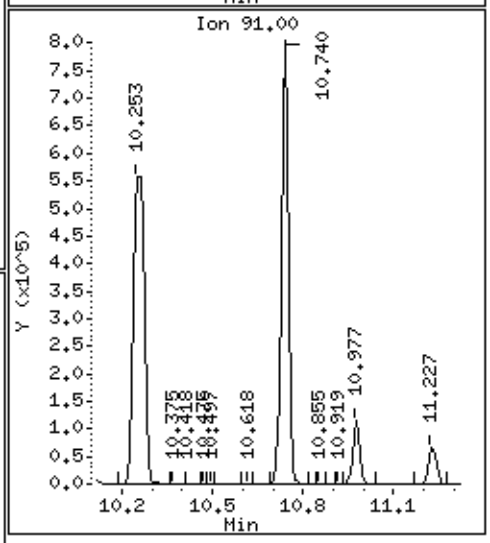












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

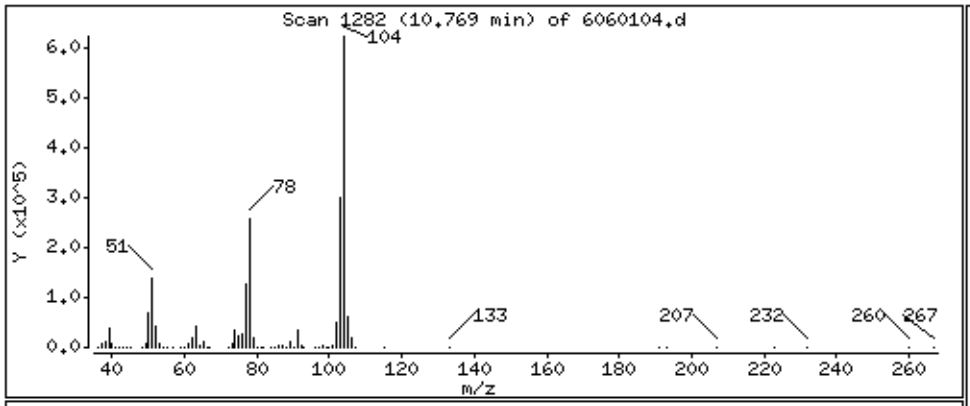
Operator: CT

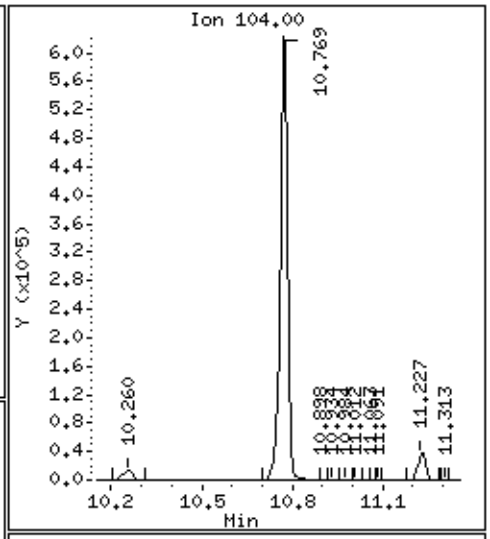
Column phase: RTx-624

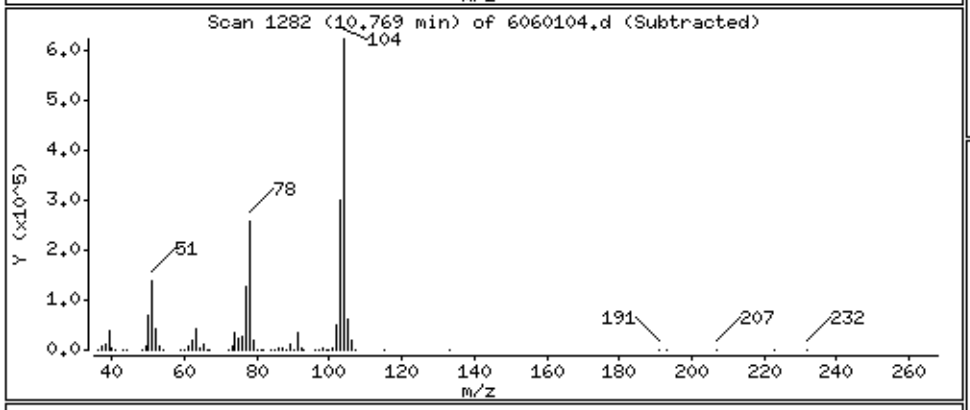
Column diameter: 0.53

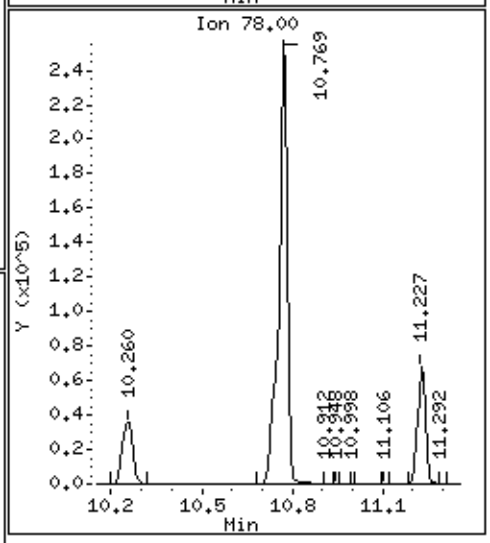
89 Styrene

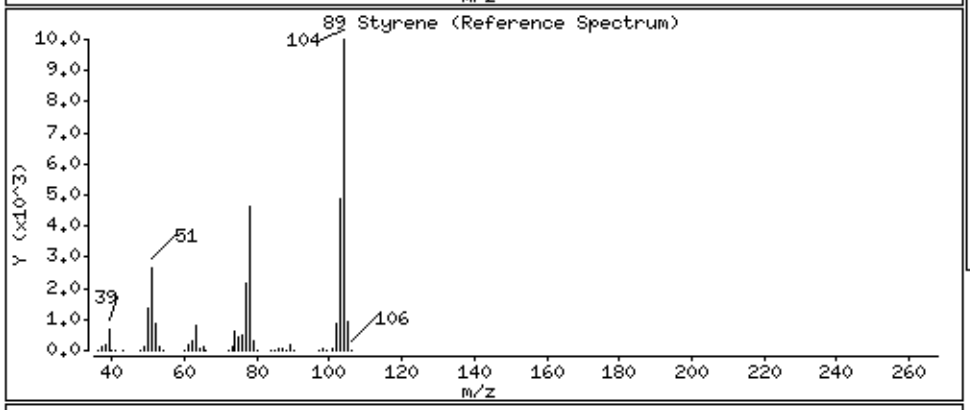
Concentration: 70.260 NG

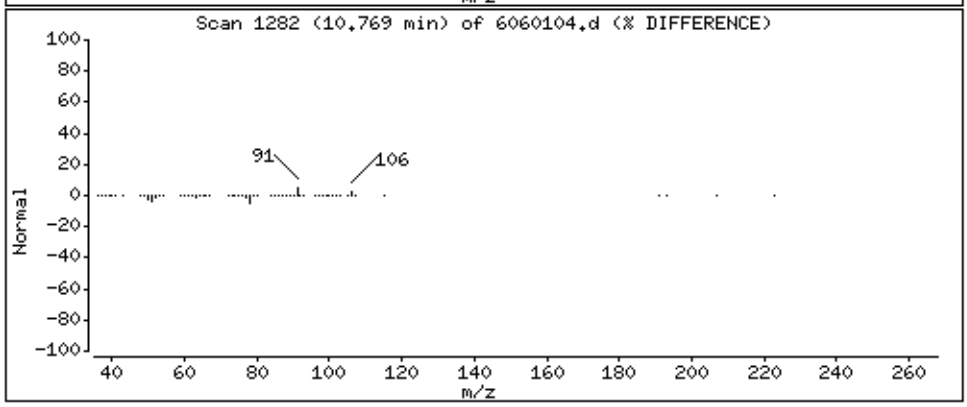












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

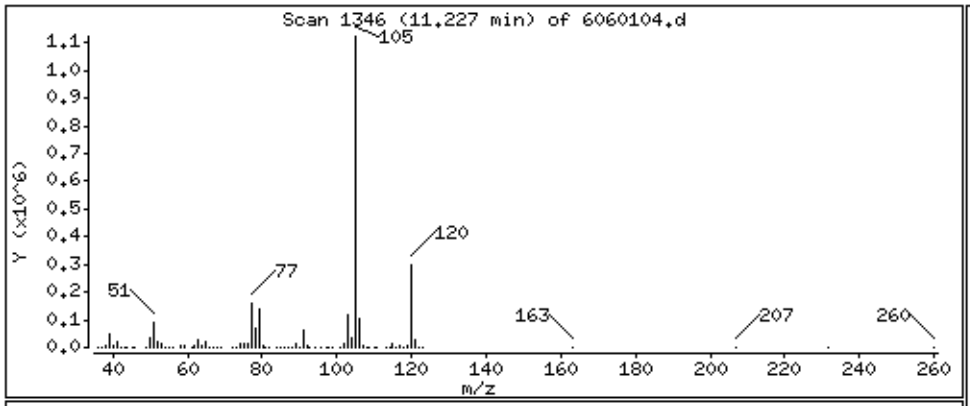
Operator: CT

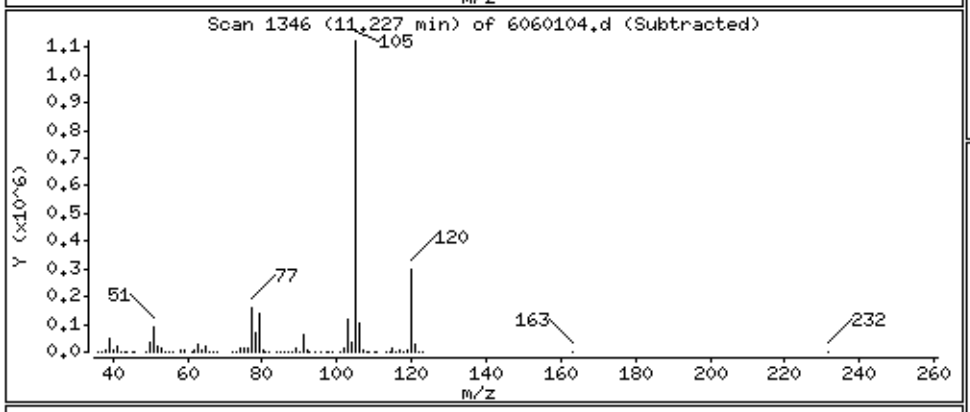
Column phase: RTx-624

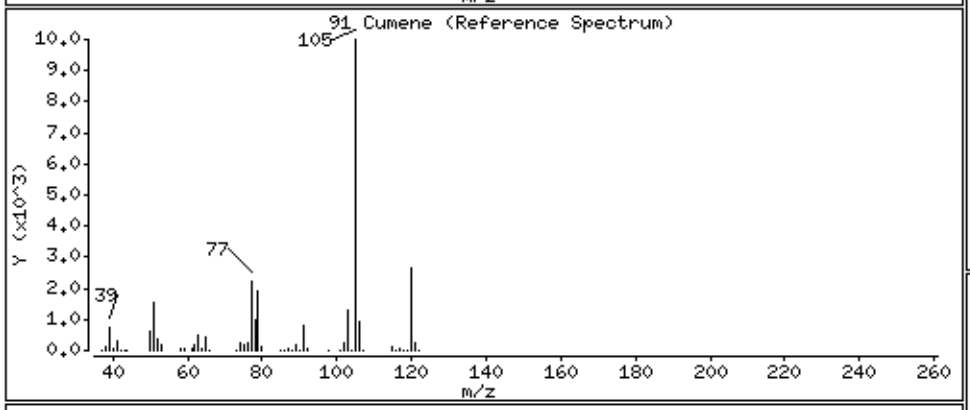
Column diameter: 0.53

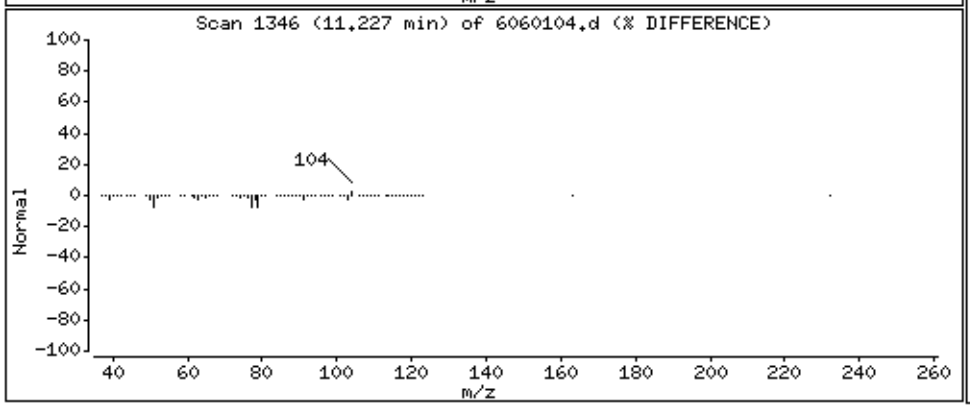
91 Cumene

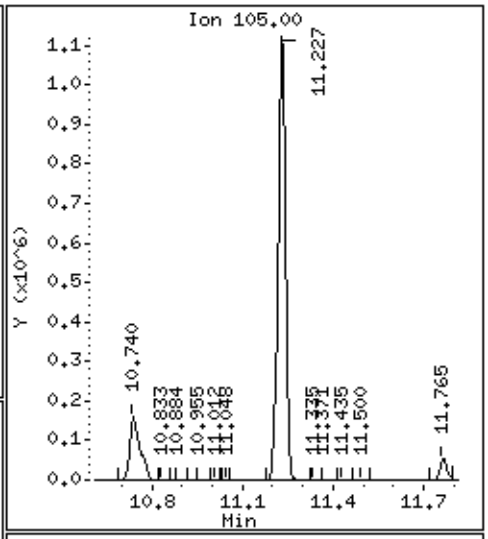
Concentration: 83.949 NG

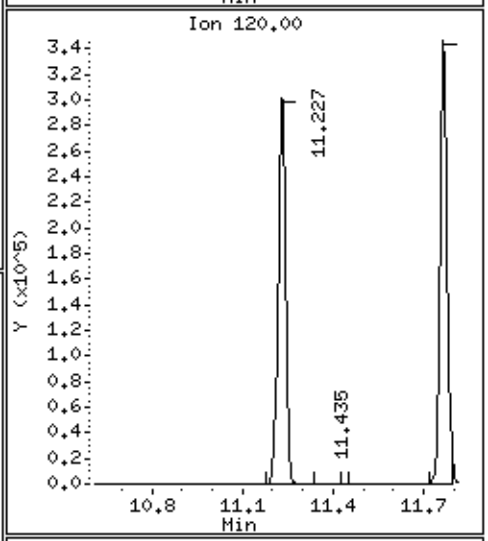


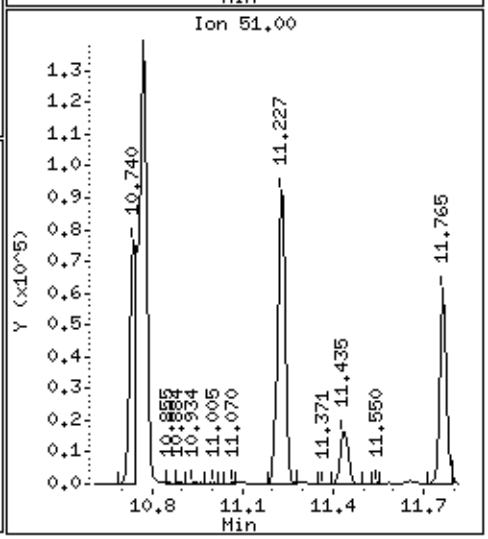












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

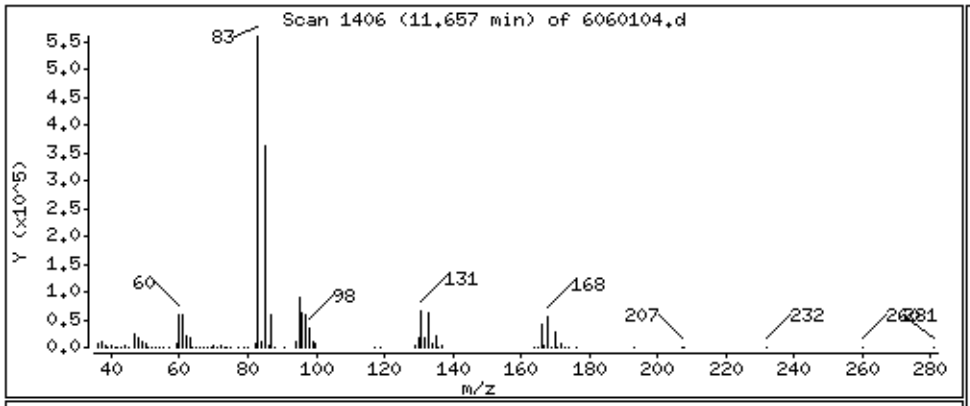
Operator: CT

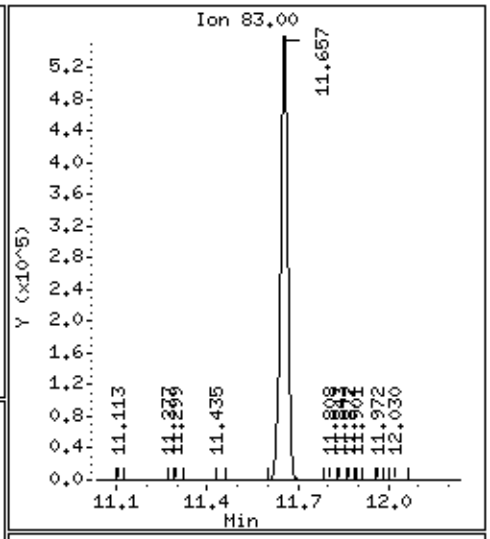
Column phase: RTx-624

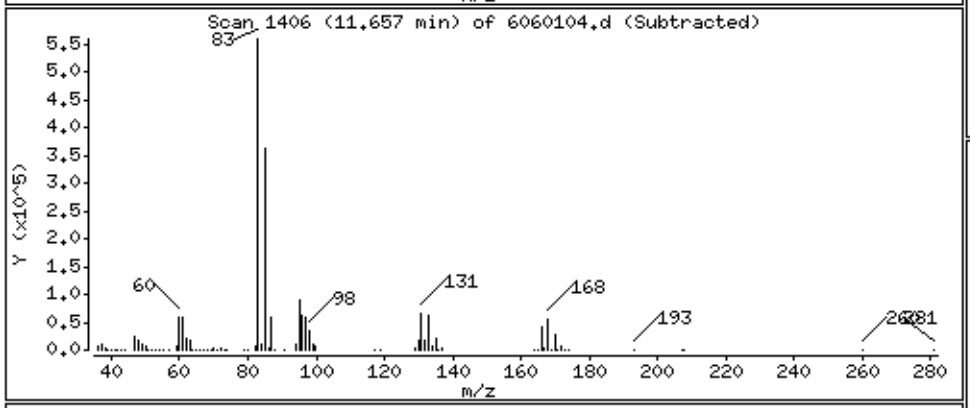
Column diameter: 0.53

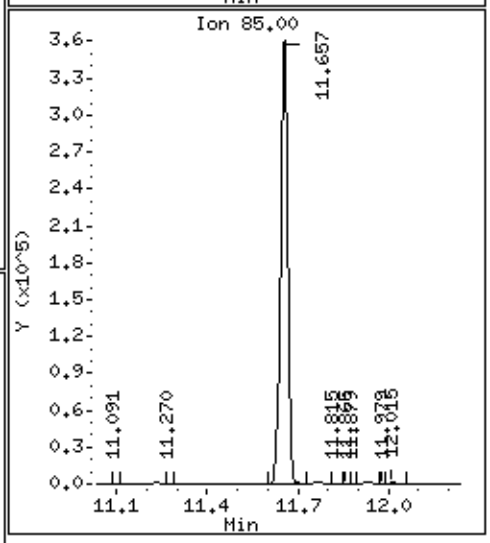
94 1,1,2,2-Tetrachloroethane

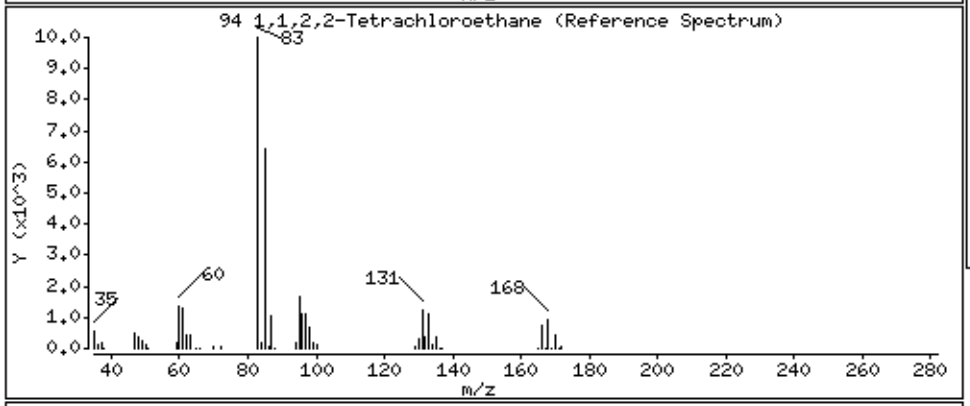
Concentration: 123.22 NG

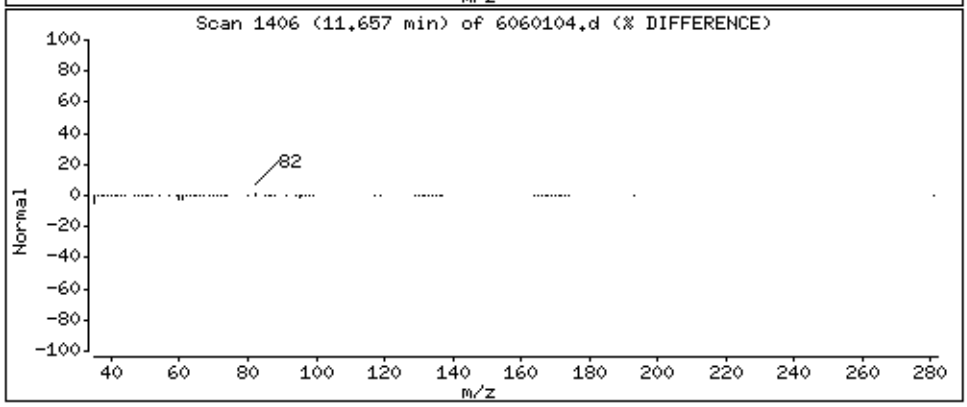












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

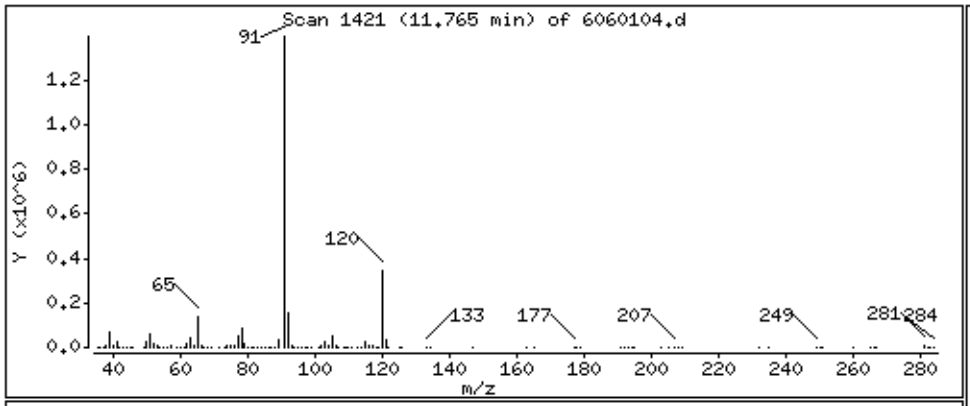
Operator: CT

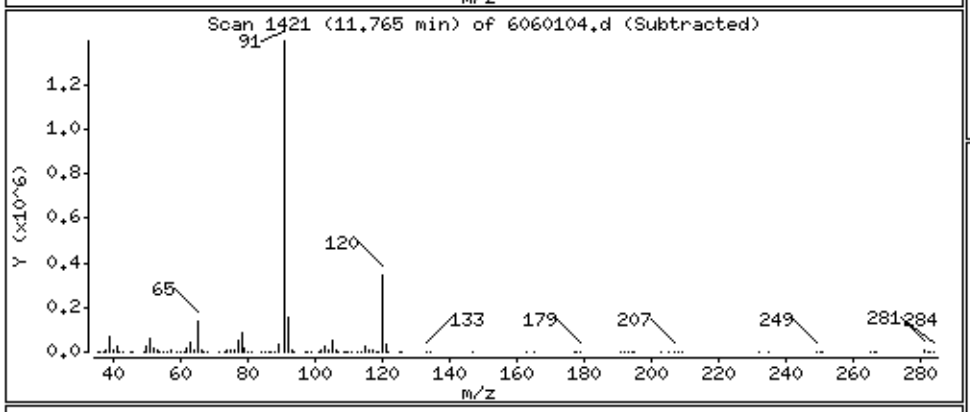
Column phase: RTx-624

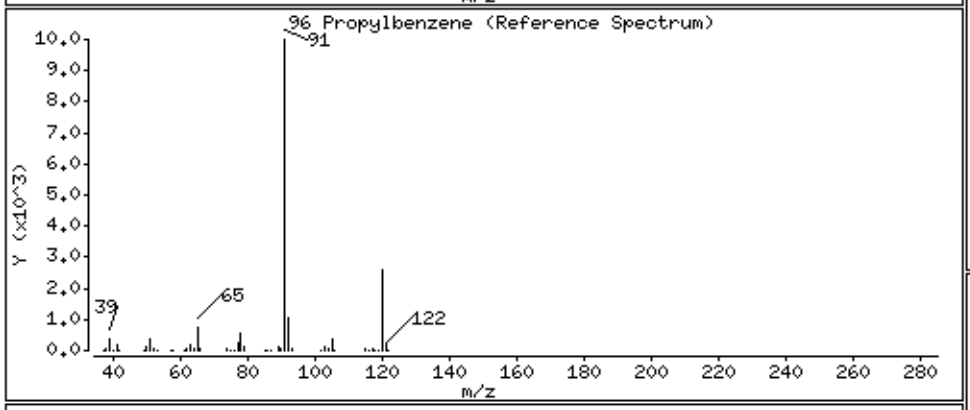
Column diameter: 0.53

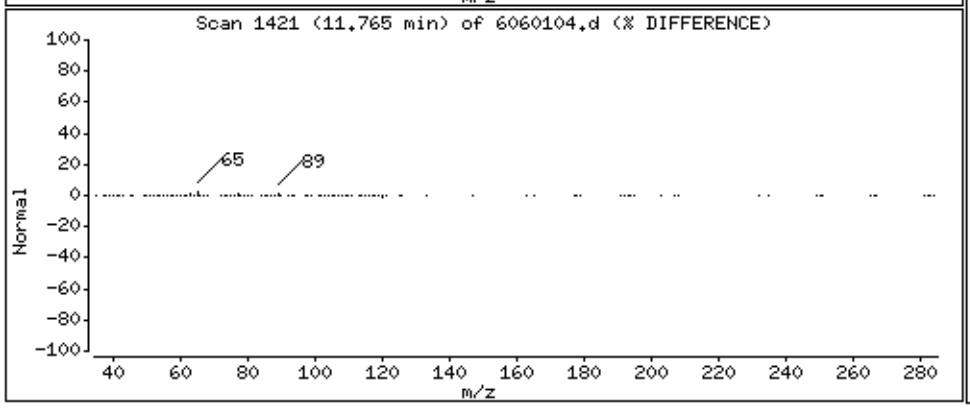
96 Propylbenzene

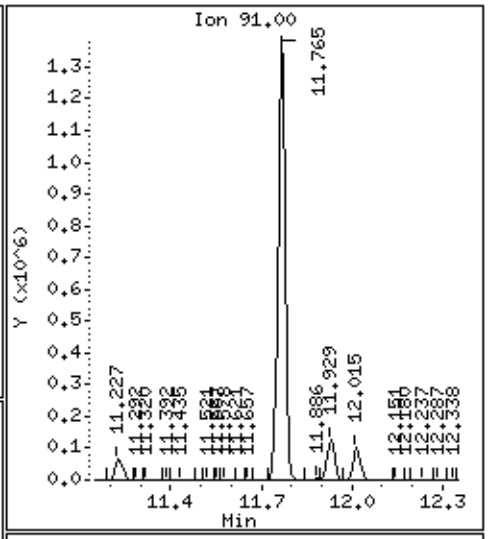
Concentration: 83.467 NG

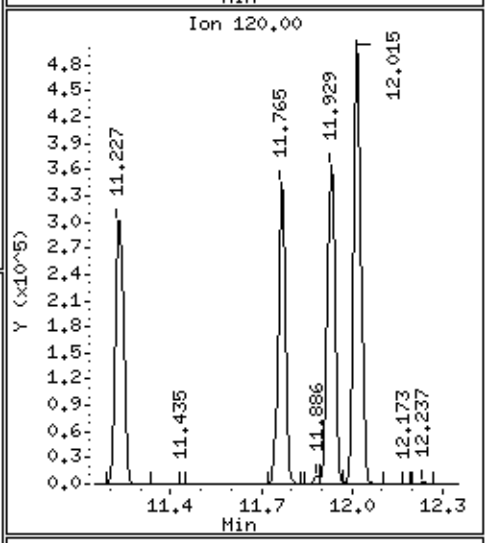


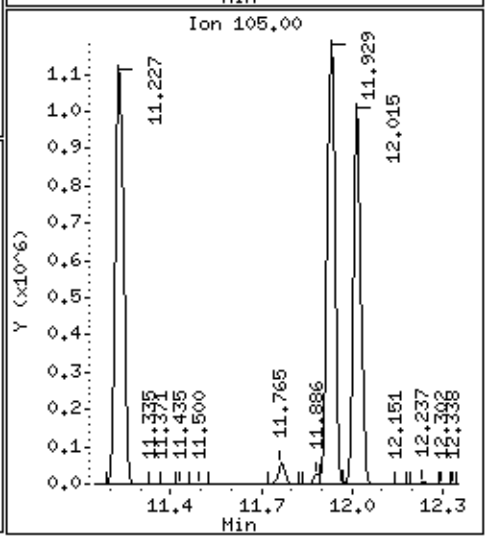












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

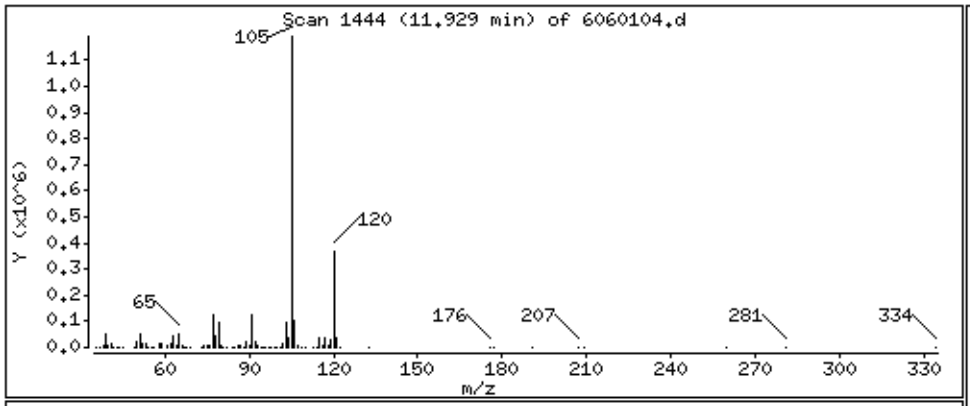
Operator: CT

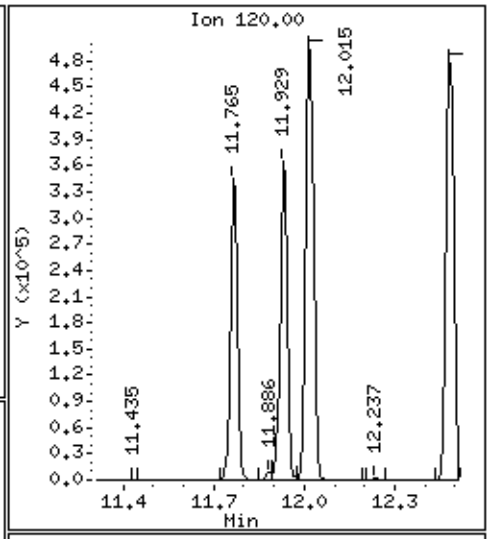
Column phase: RTx-624

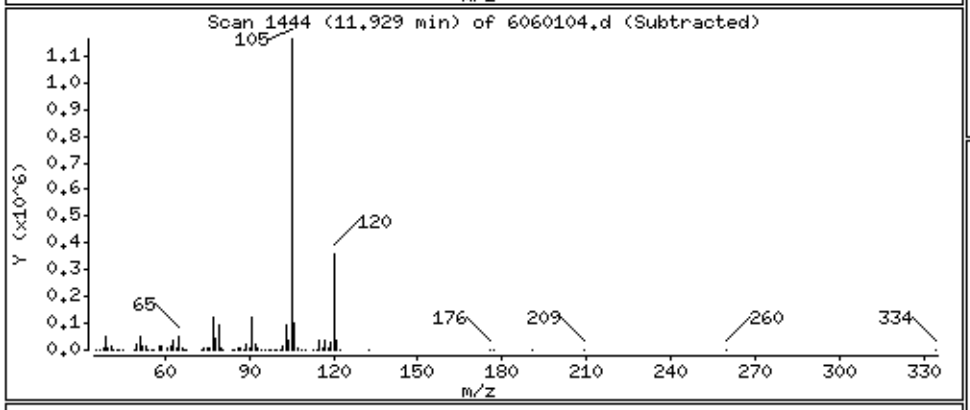
Column diameter: 0.53

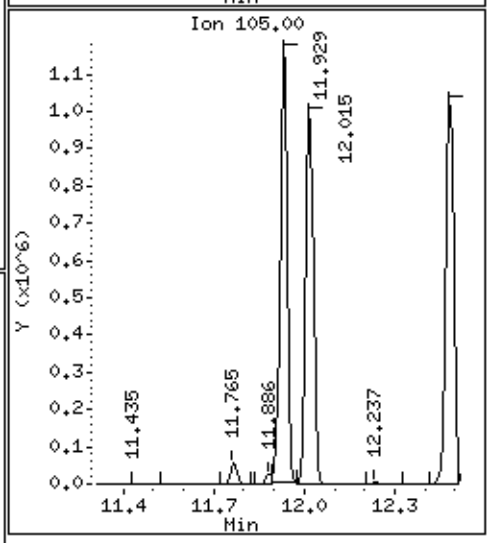
97 4-Ethyltoluene

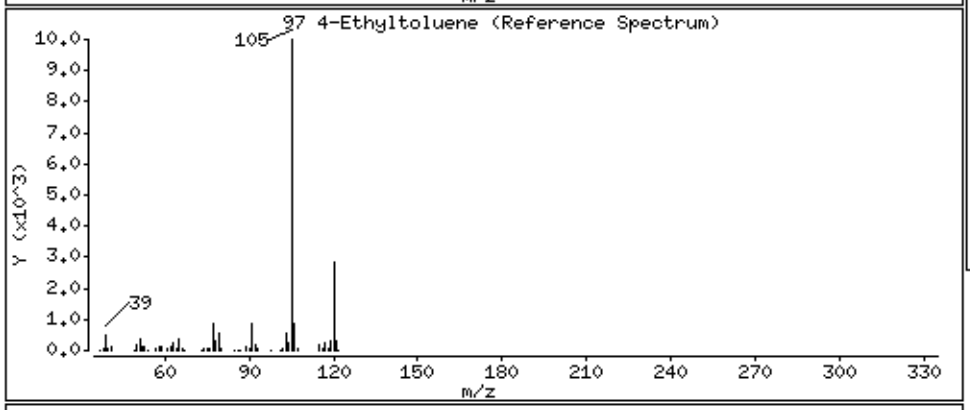
Concentration: 84.679 NG

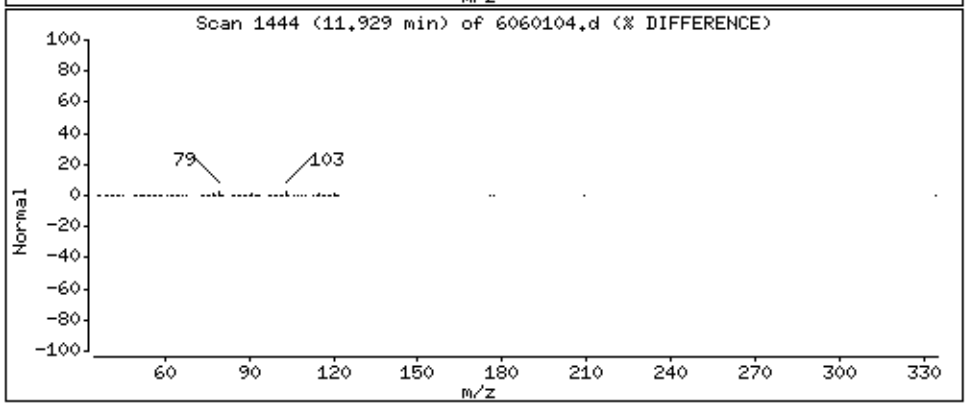












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

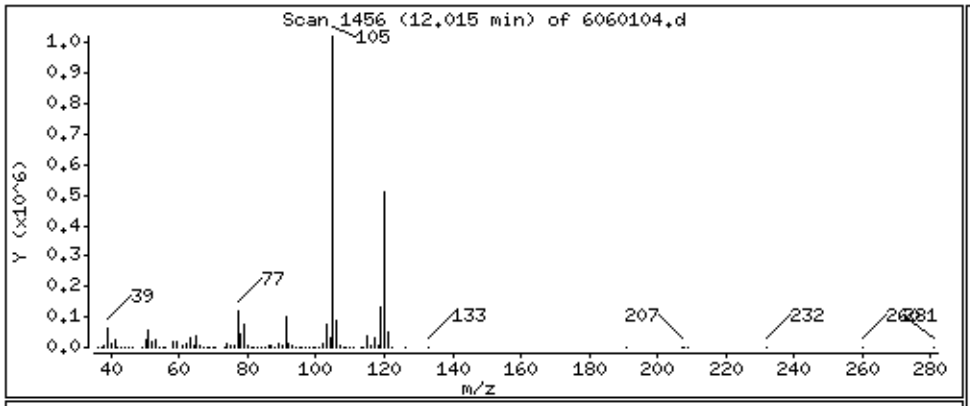
Operator: CT

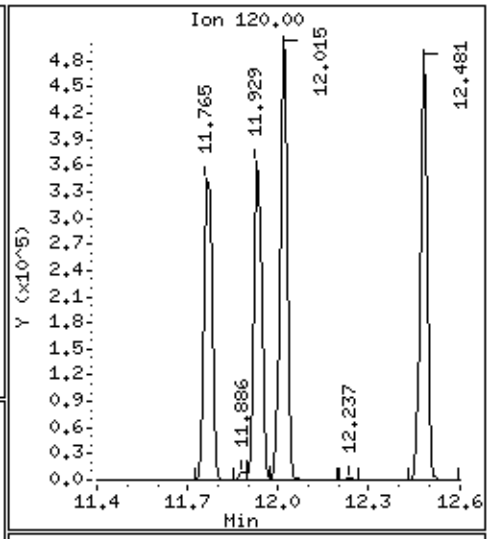
Column phase: RTx-624

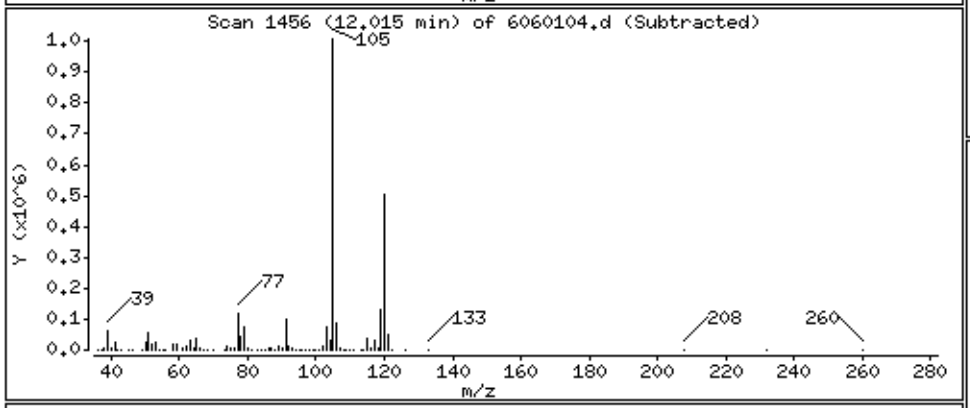
Column diameter: 0.53

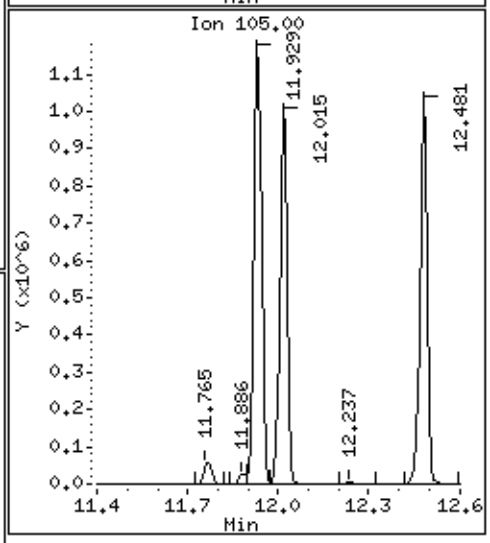
98 1,3,5-Trimethylbenzene

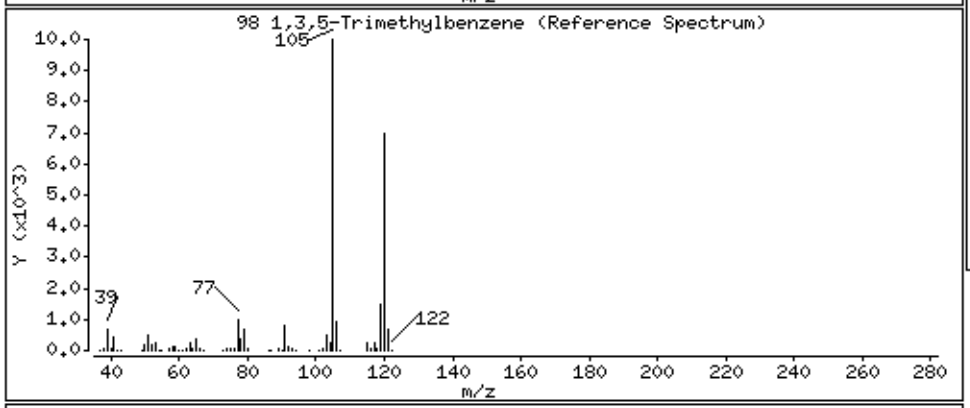
Concentration: 84.662 NG

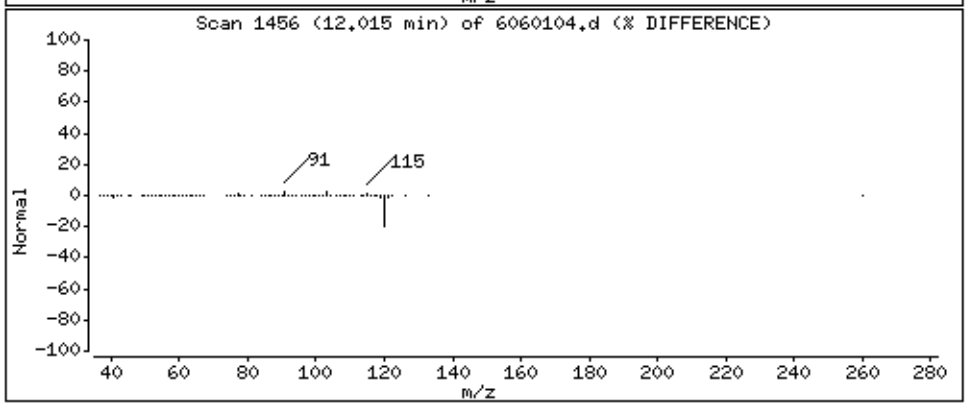












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

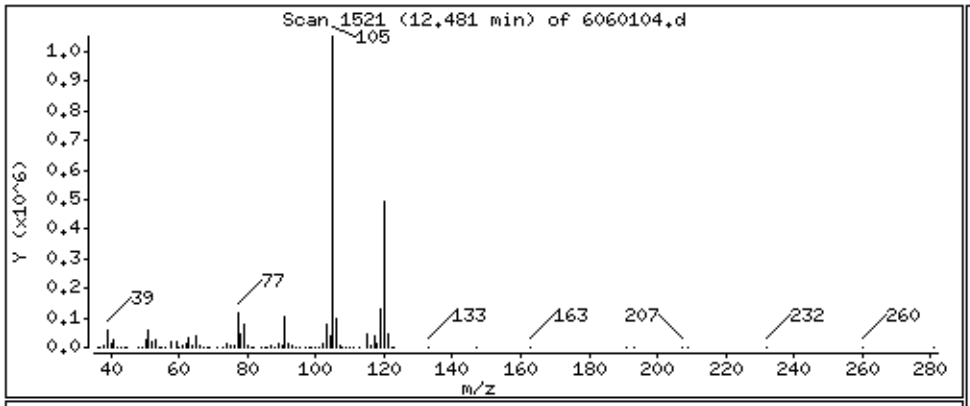
Operator: CT

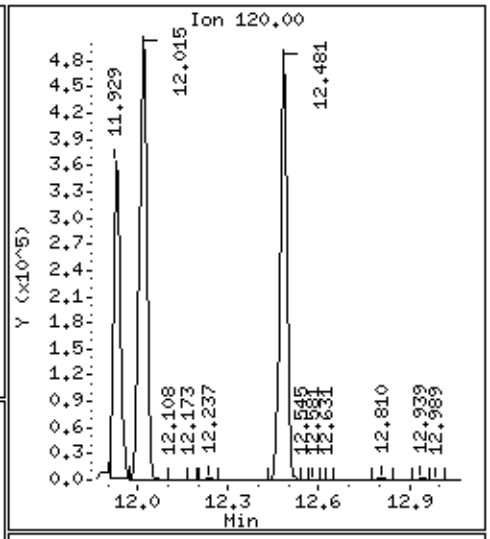
Column phase: RTx-624

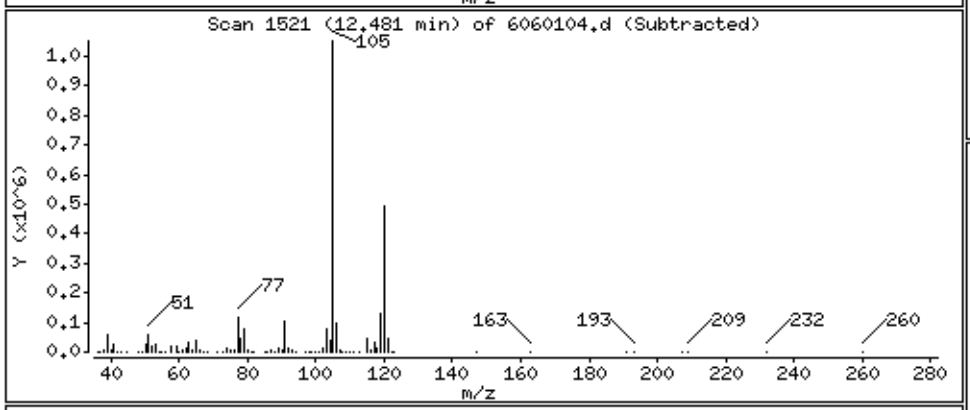
Column diameter: 0.53

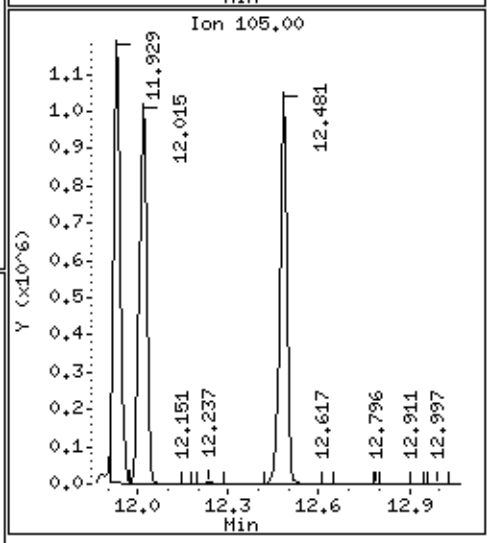
100 1,2,4-Trimethylbenzene

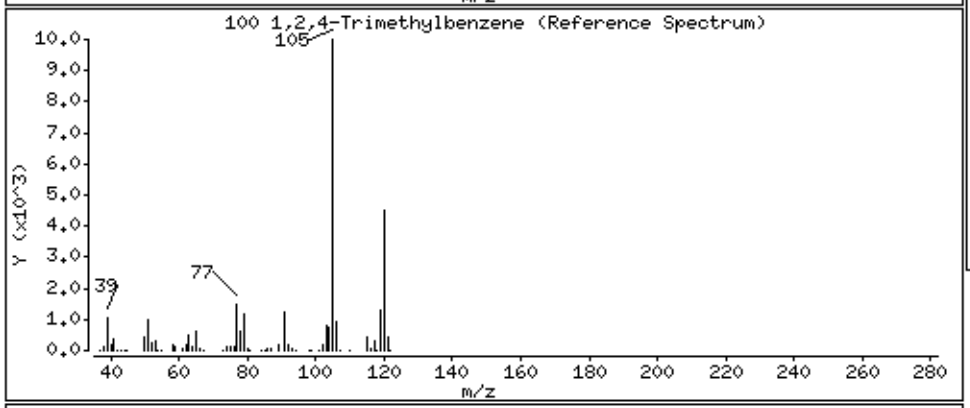
Concentration: 84.678 NG

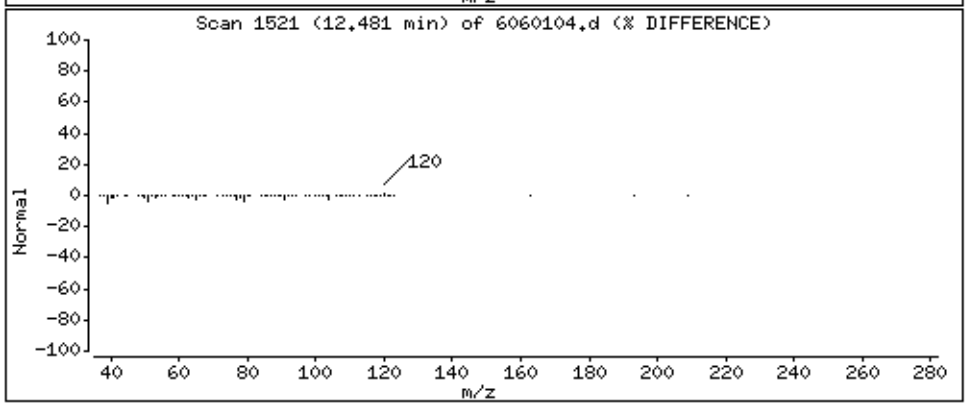












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

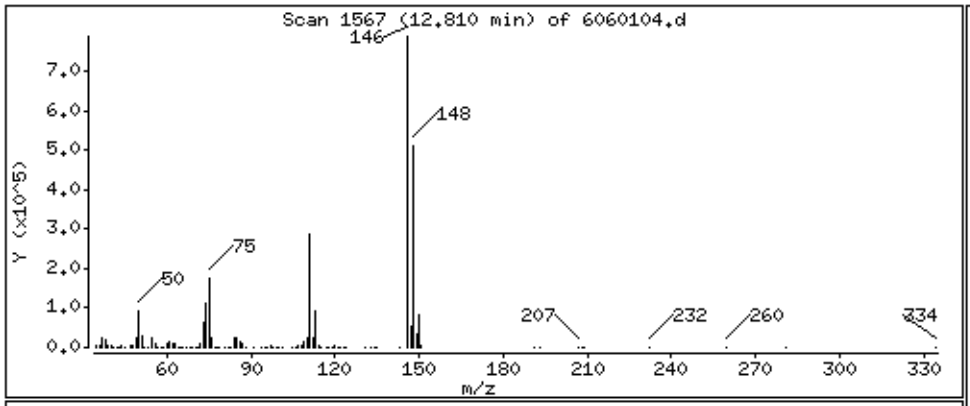
Operator: CT

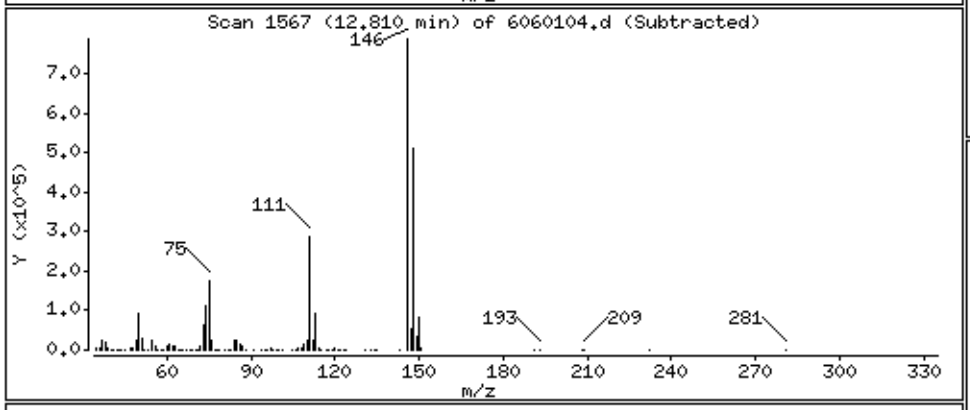
Column phase: RTx-624

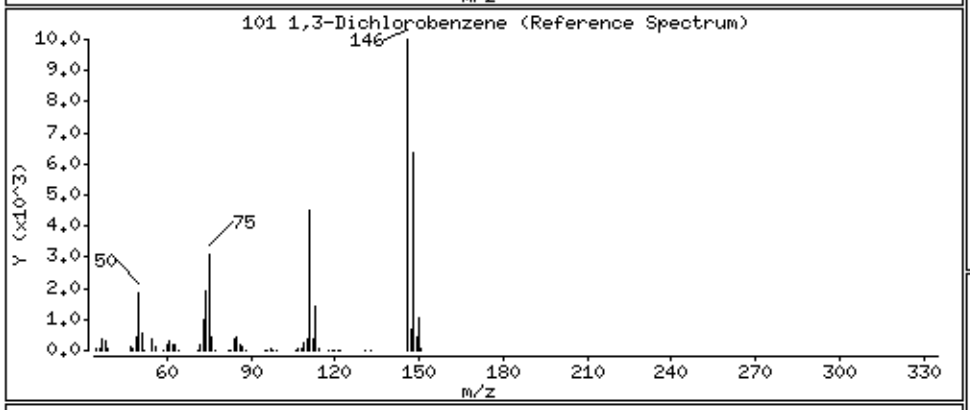
Column diameter: 0.53

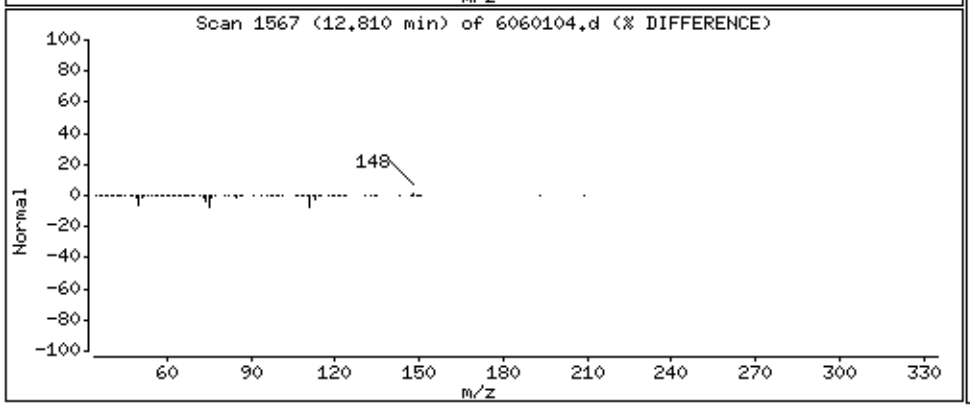
101 1,3-Dichlorobenzene

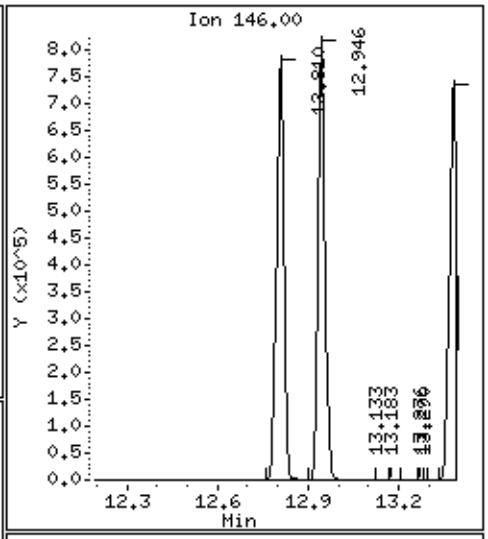
Concentration: 112.57 NG

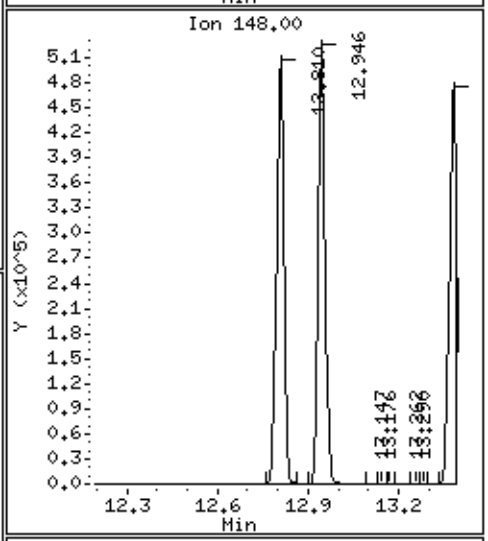


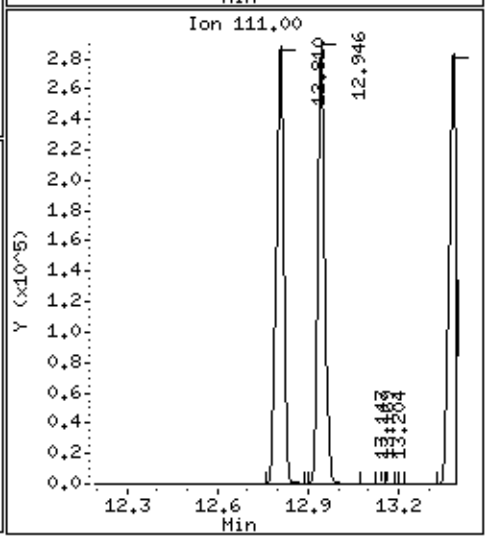












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

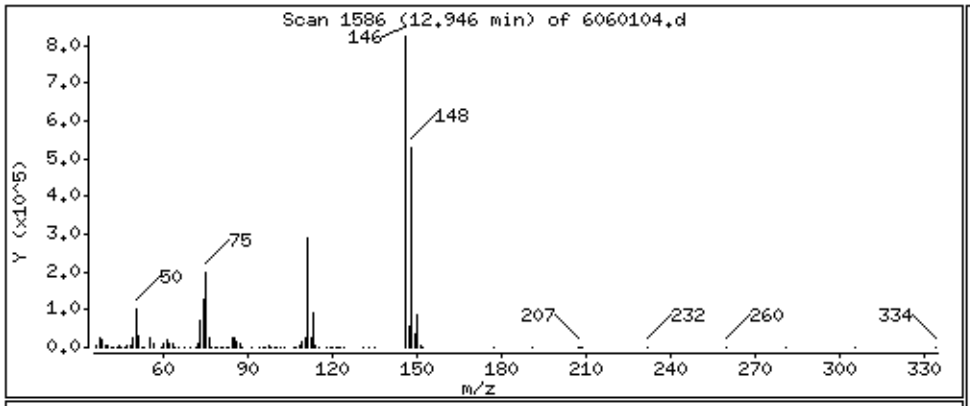
Operator: CT

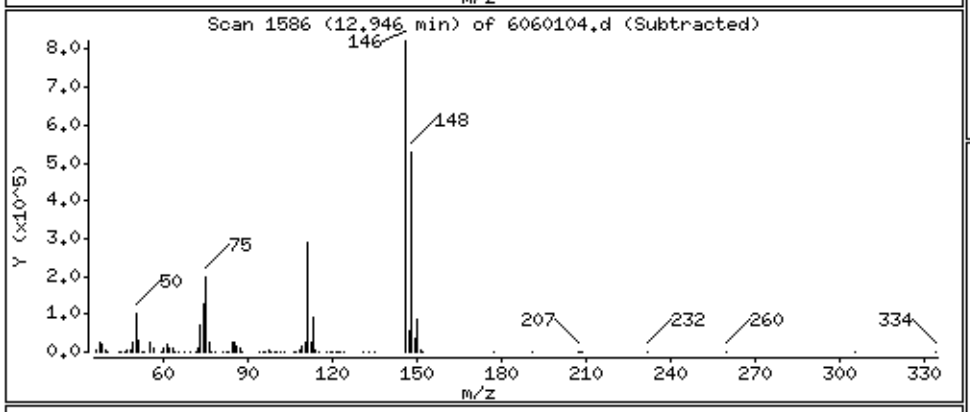
Column phase: RTx-624

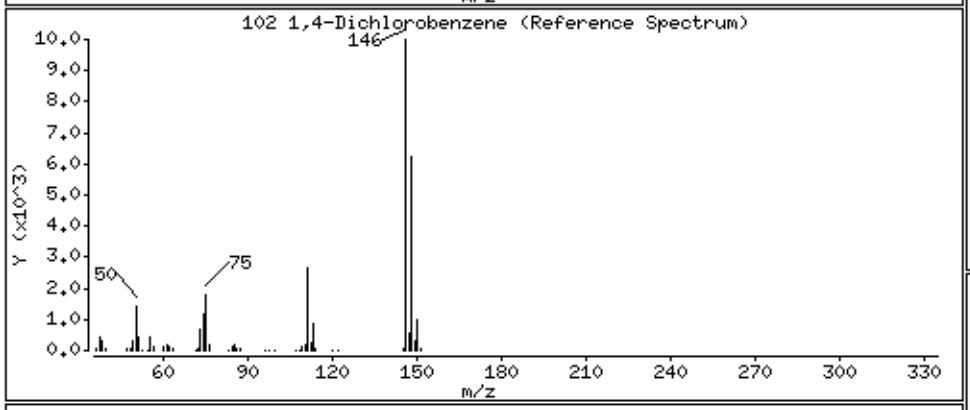
Column diameter: 0.53

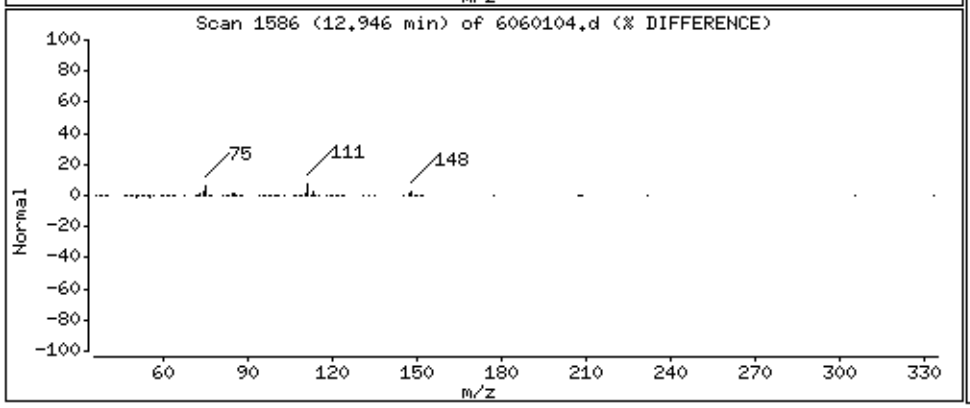
102 1,4-Dichlorobenzene

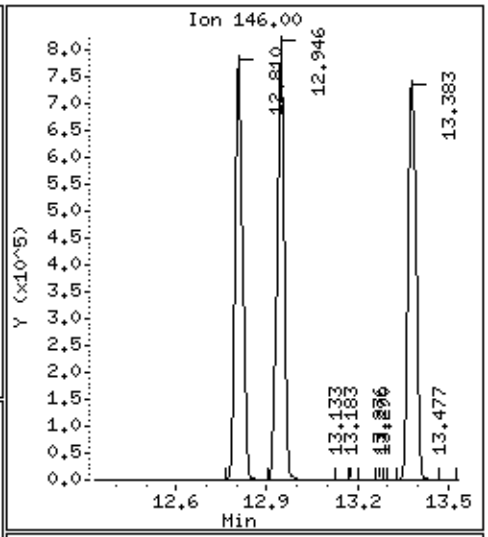
Concentration: 113.60 NG

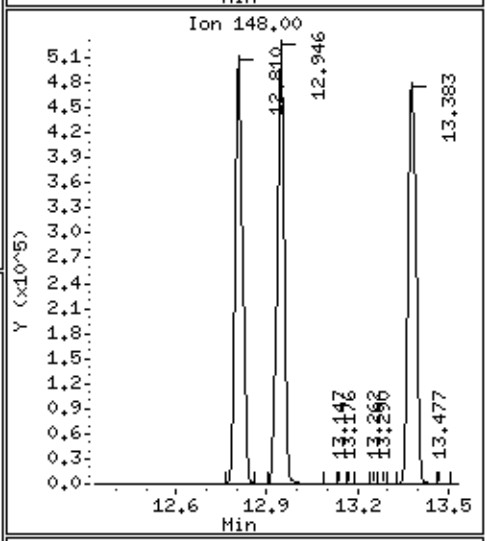


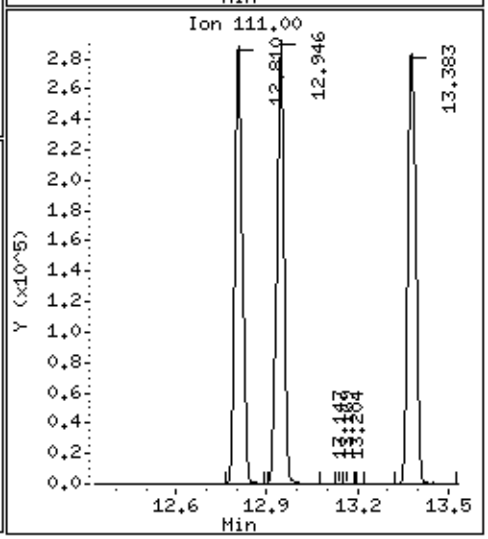












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

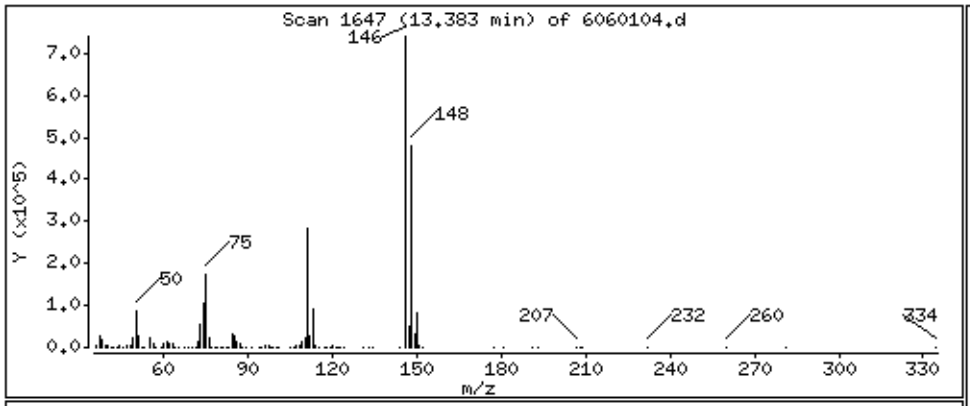
Operator: CT

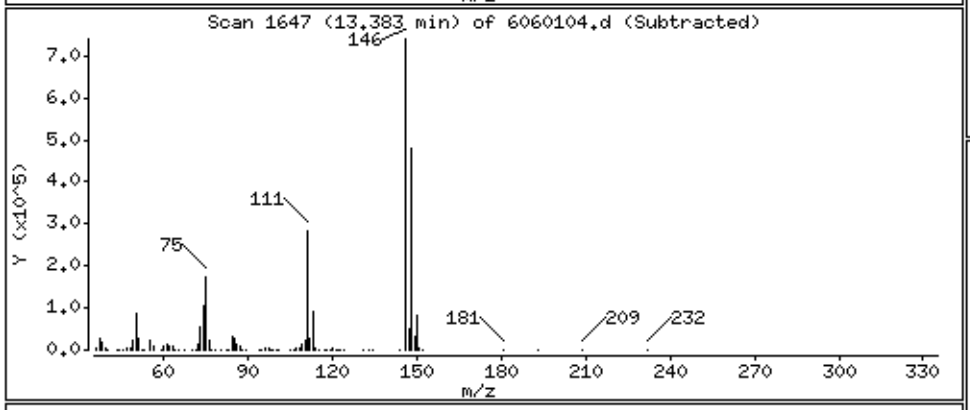
Column phase: RTx-624

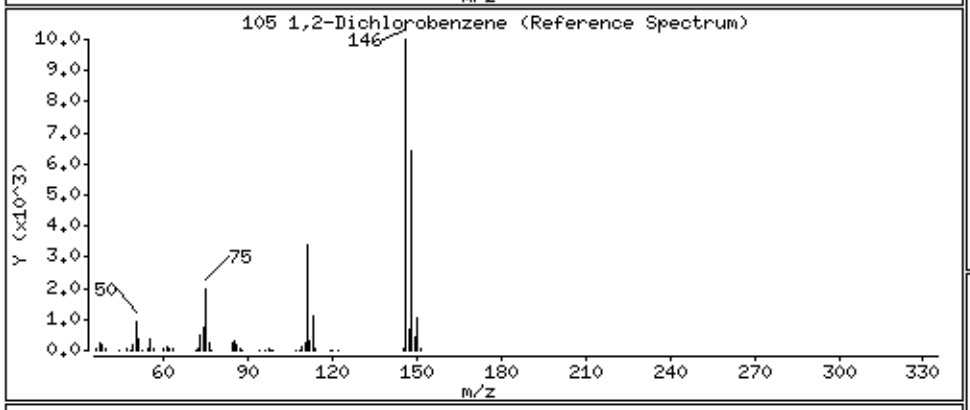
Column diameter: 0.53

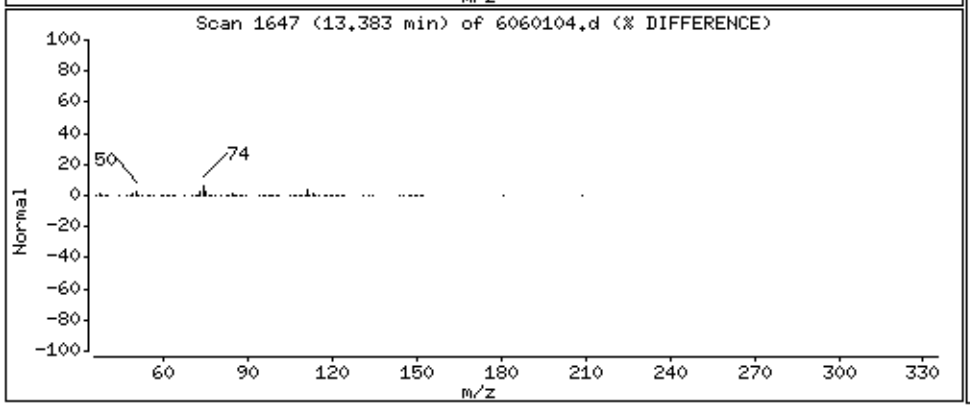
105 1,2-Dichlorobenzene

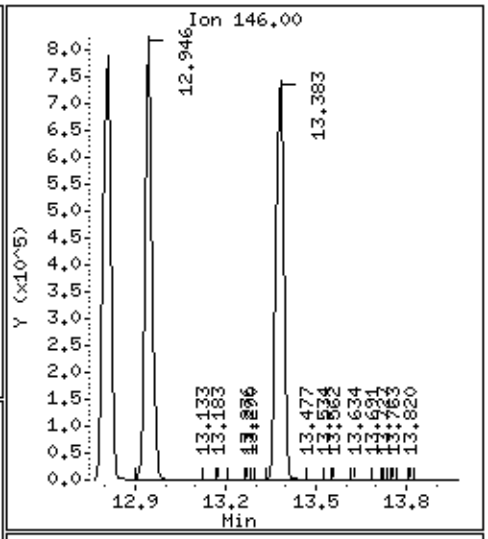
Concentration: 113.94 NG

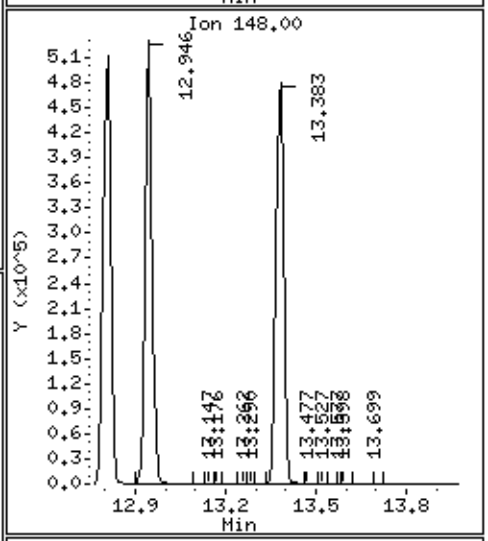


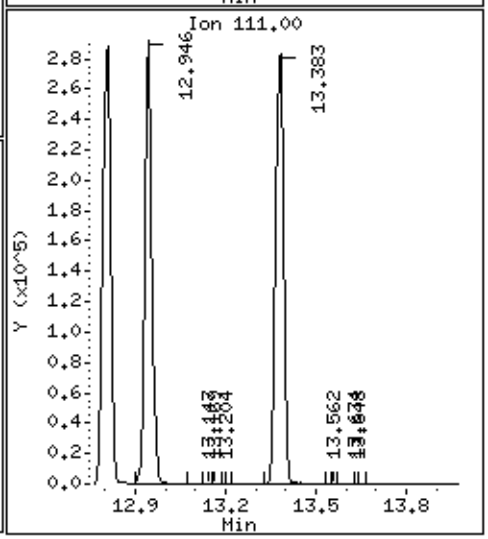












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

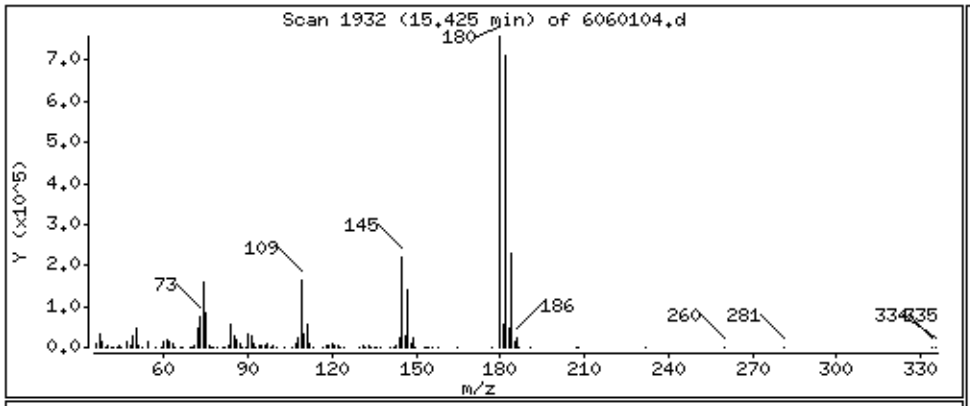
Operator: CT

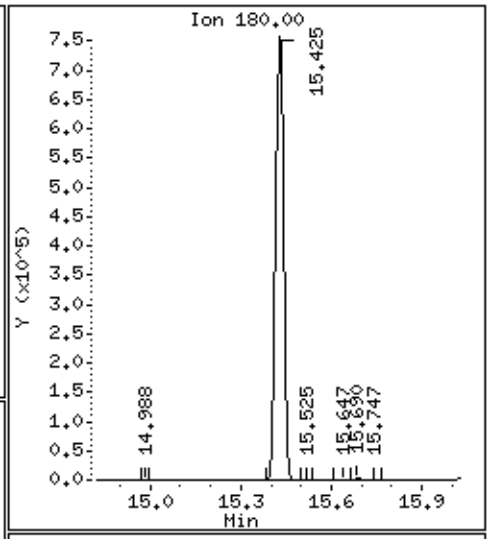
Column phase: RTx-624

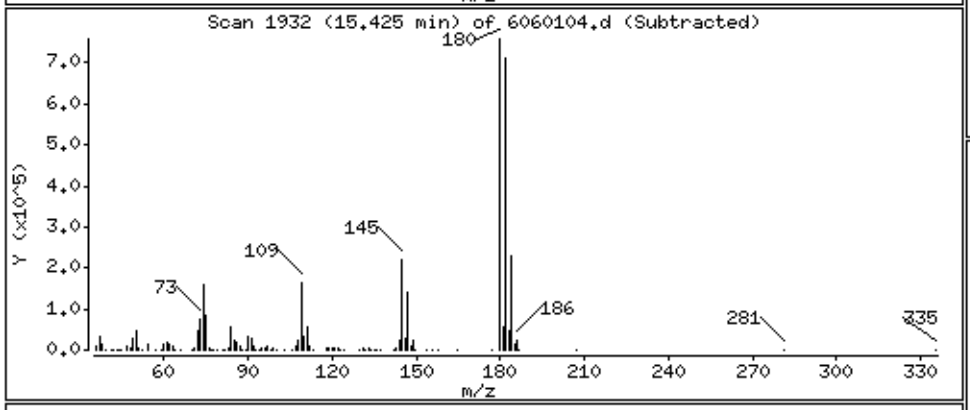
Column diameter: 0.53

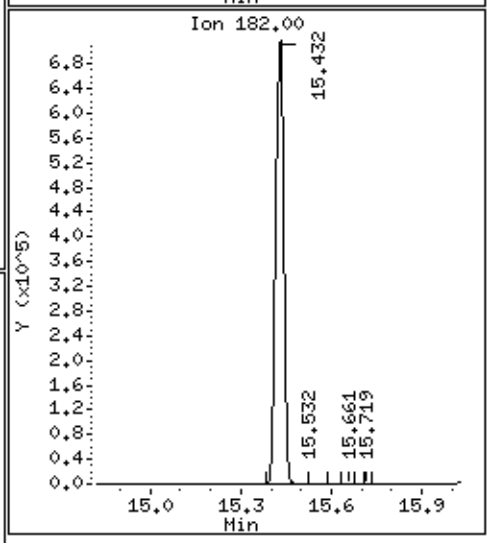
106 1,2,4-Trichlorobenzene

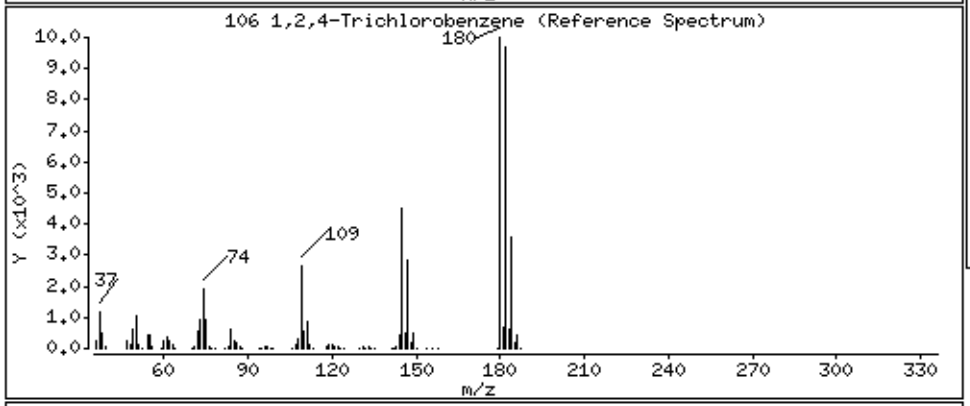
Concentration: 170.26 NG

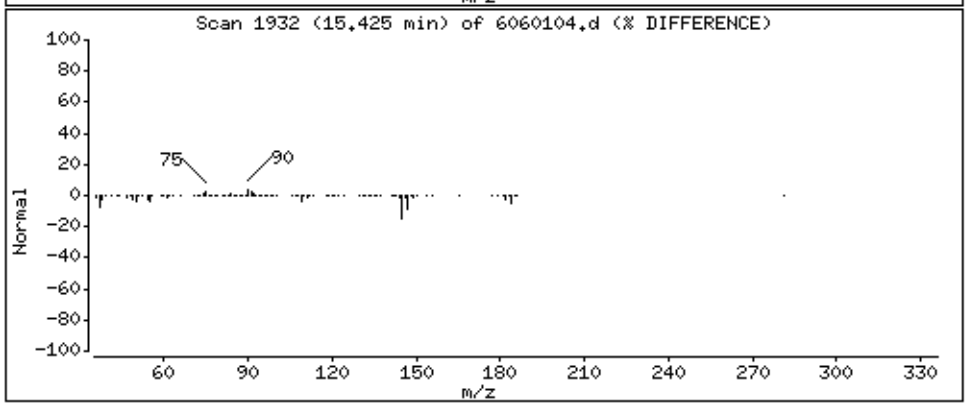












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

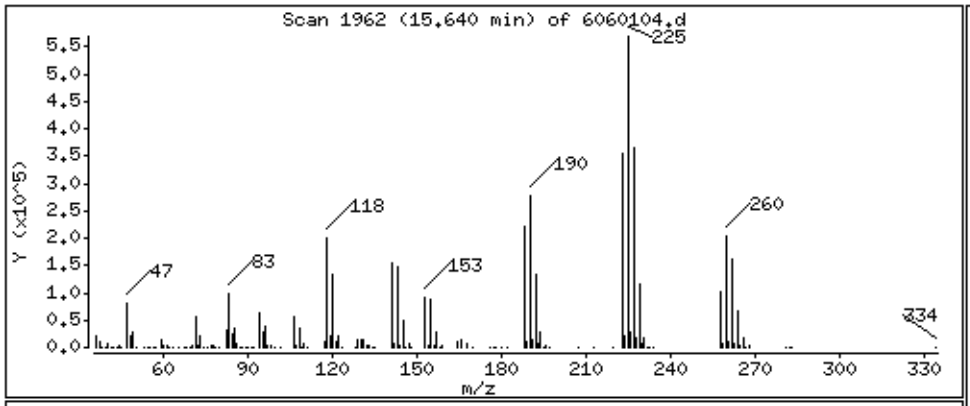
Operator: CT

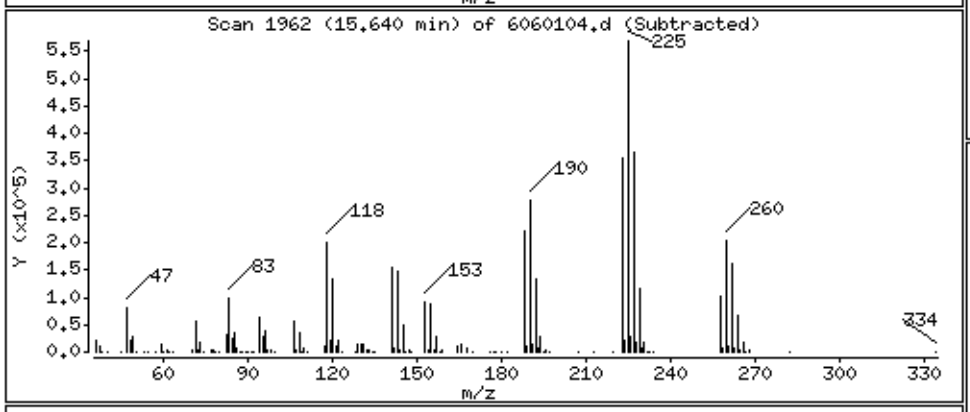
Column phase: RTx-624

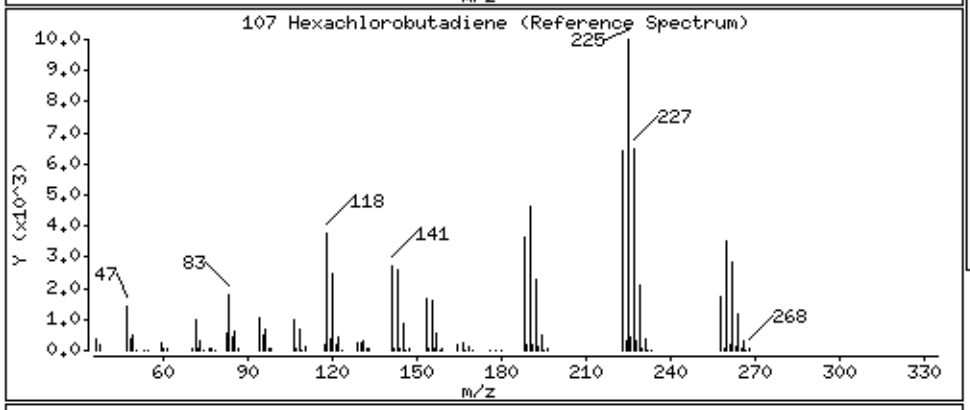
Column diameter: 0.53

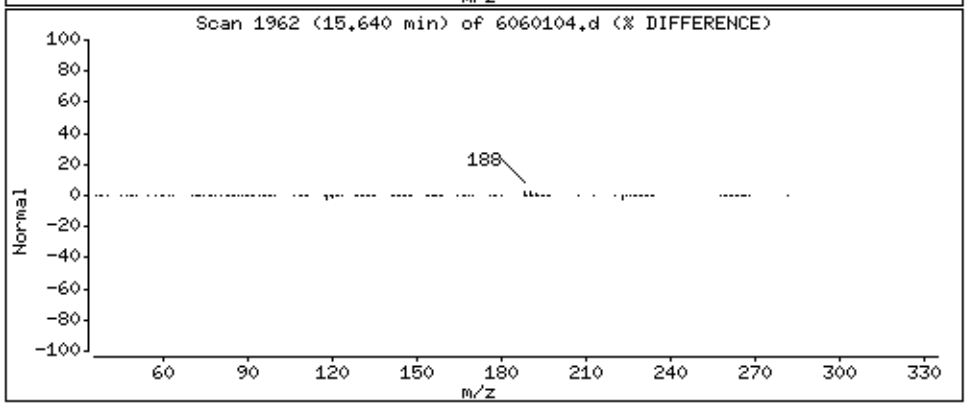
107 Hexachlorobutadiene

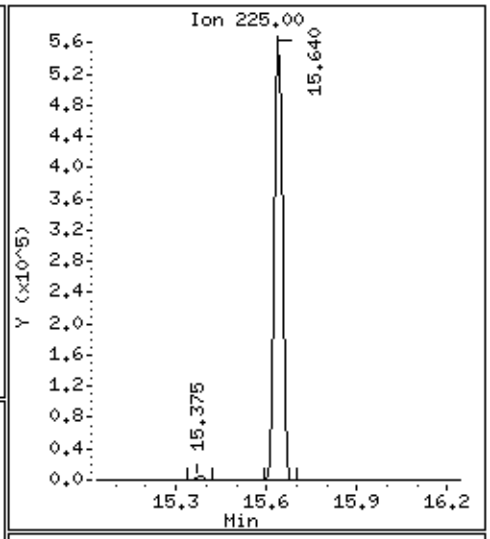
Concentration: 246.66 NG

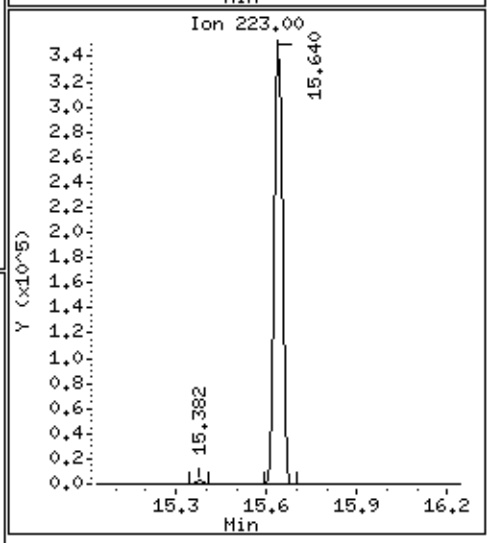












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

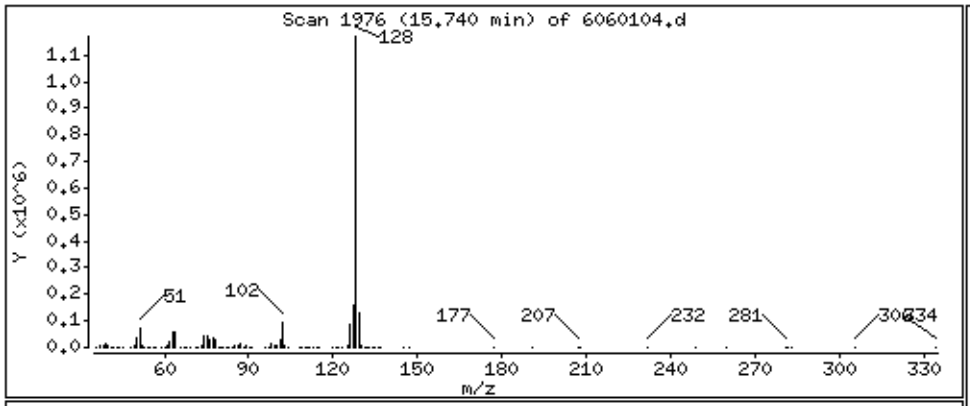
Operator: CT

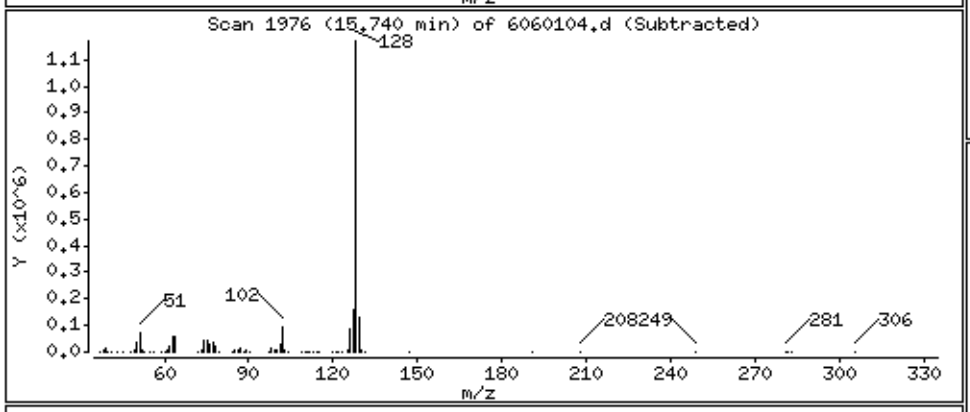
Column phase: RTx-624

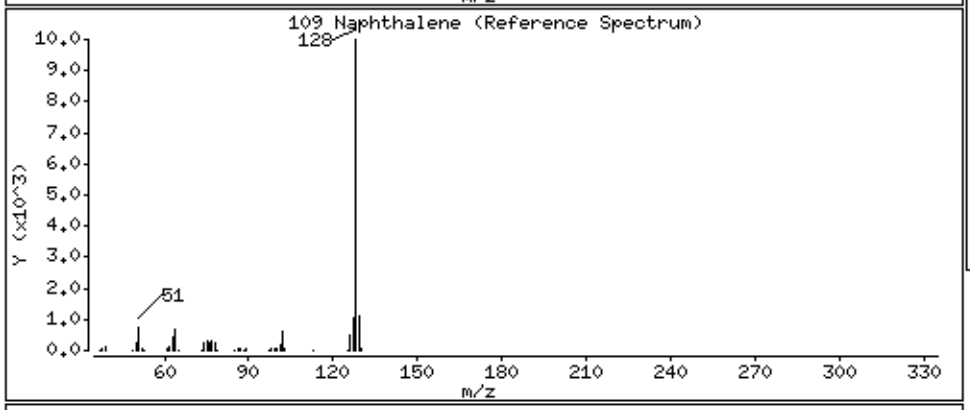
Column diameter: 0.53

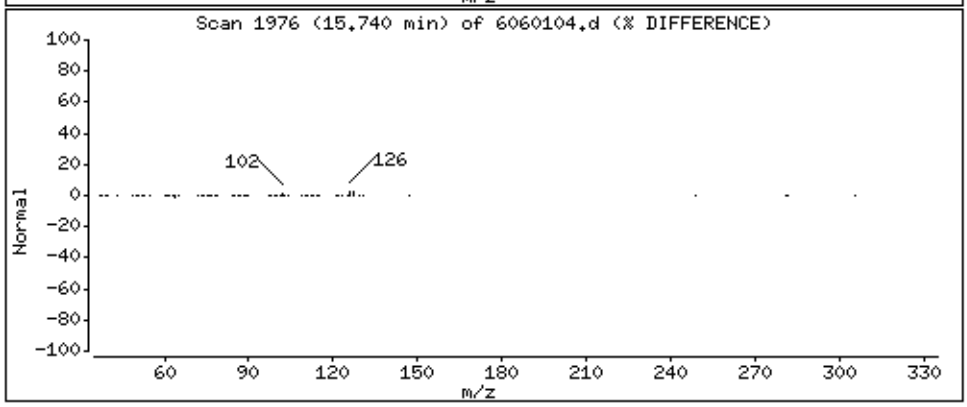
109 Naphthalene

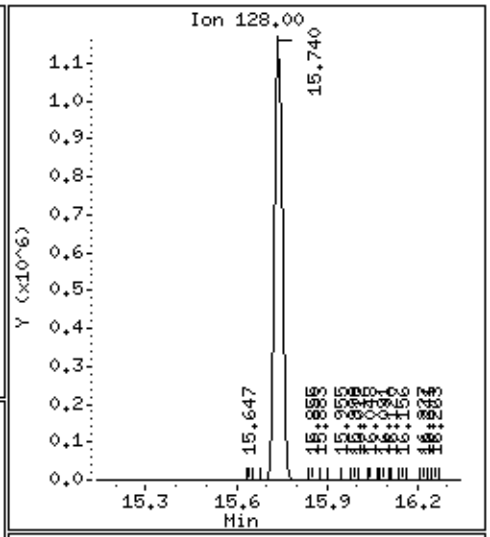
Concentration: 47.248 NG

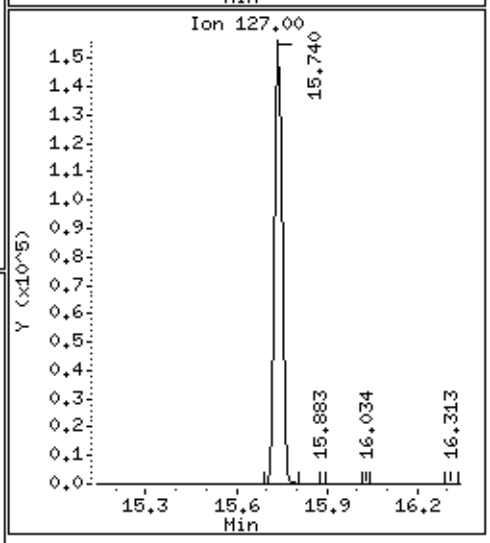












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

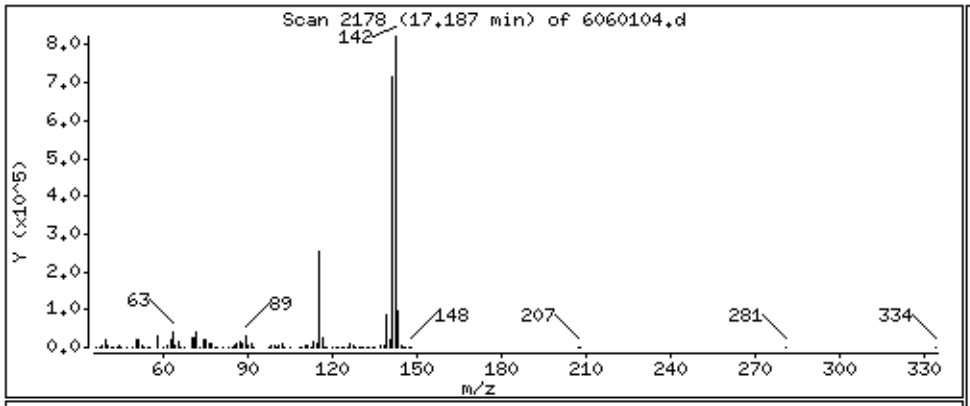
Operator: CT

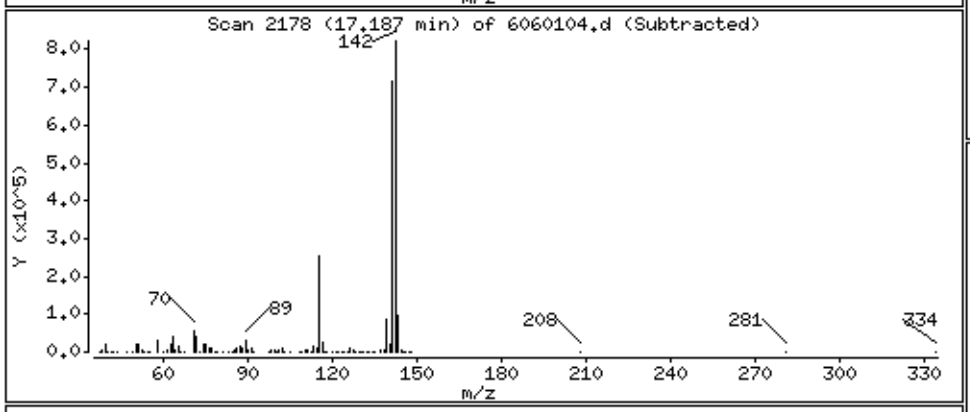
Column phase: RTx-624

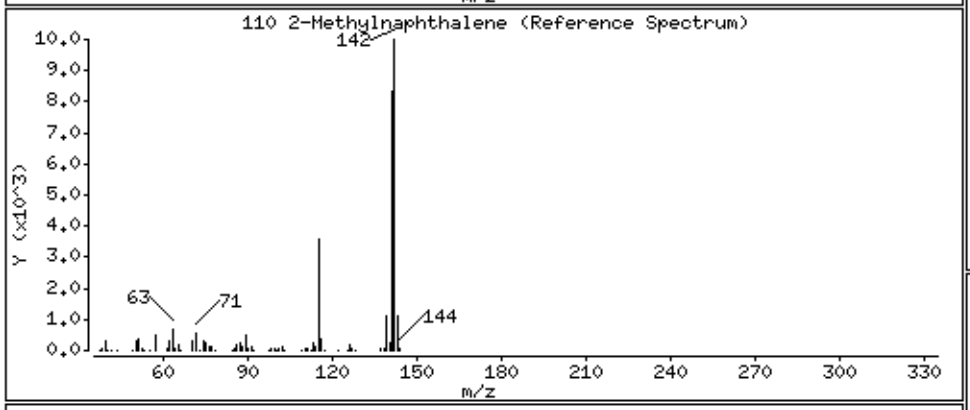
Column diameter: 0.53

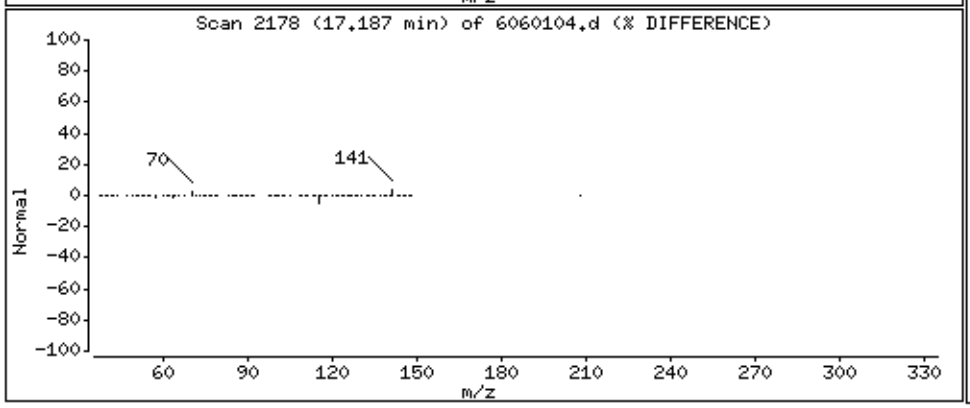
110 2-Methylnaphthalene

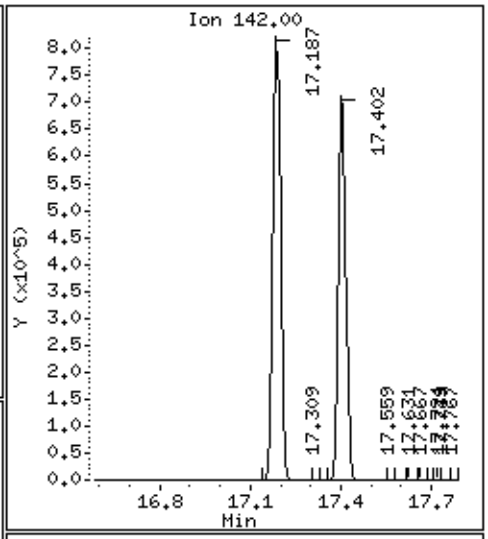
Concentration: 57.677 NG

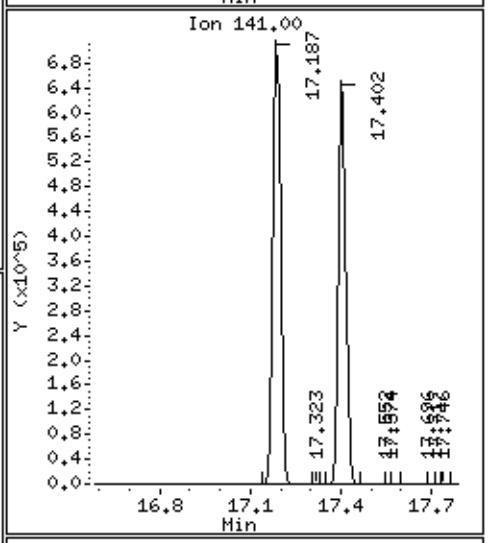


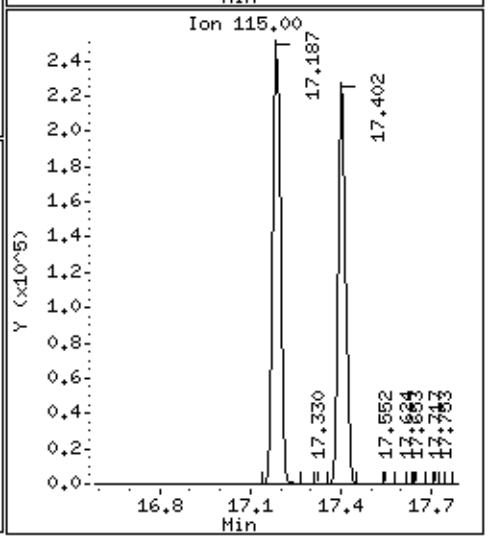












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

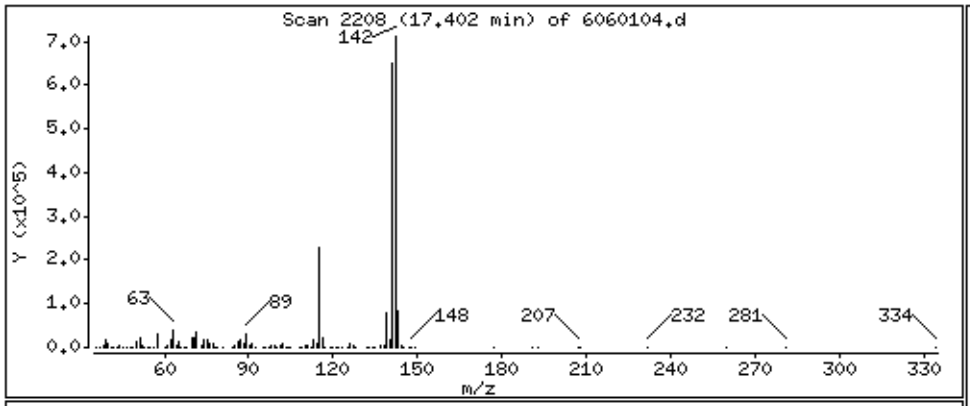
Operator: CT

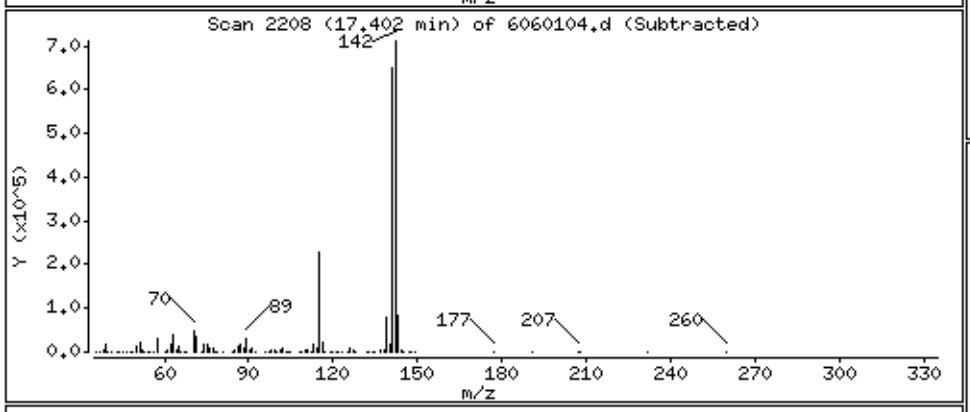
Column phase: RTx-624

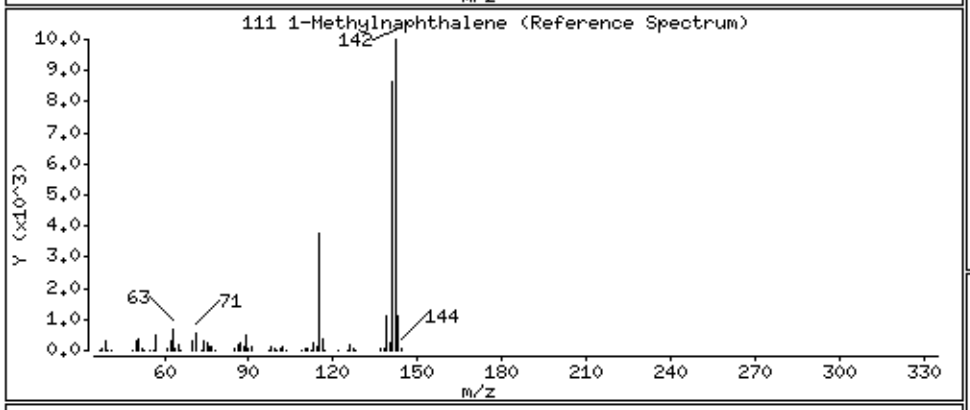
Column diameter: 0.53

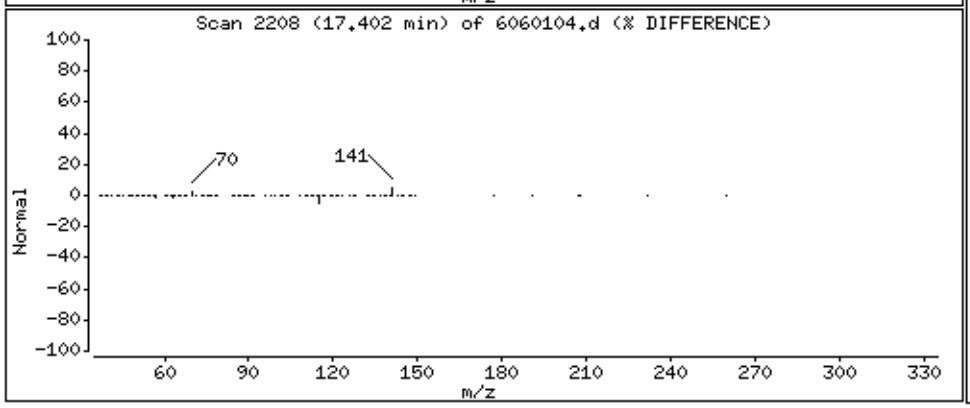
111 1-Methylnaphthalene

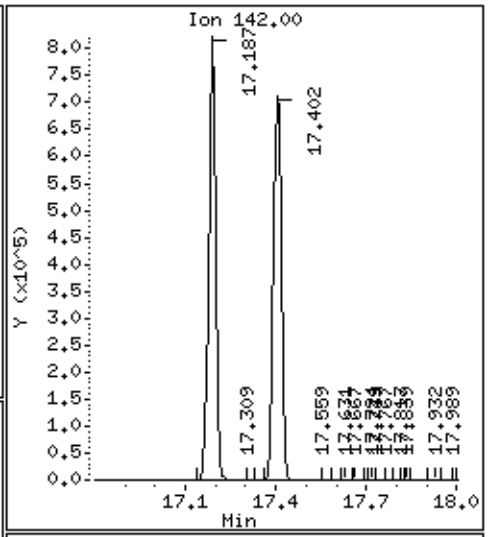
Concentration: 58.286 NG

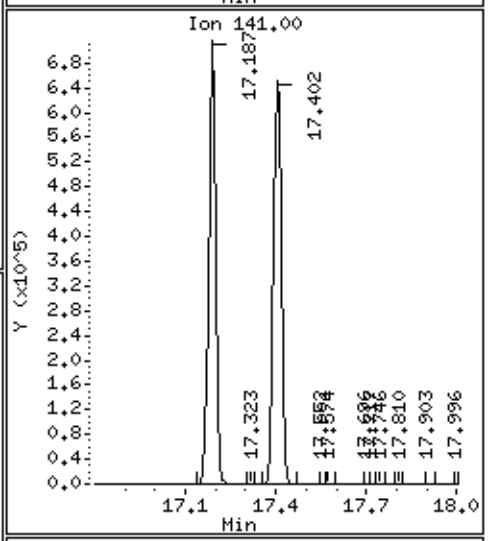


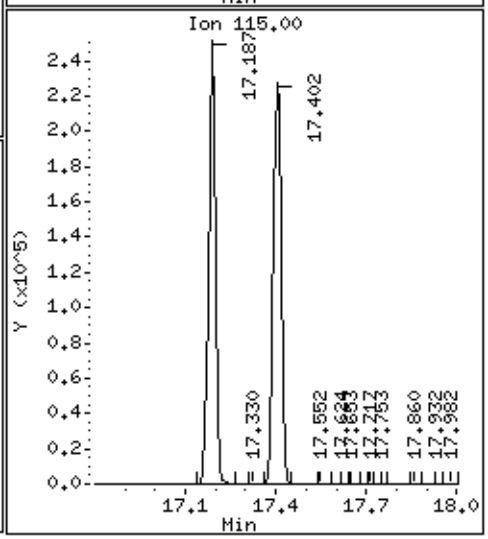












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

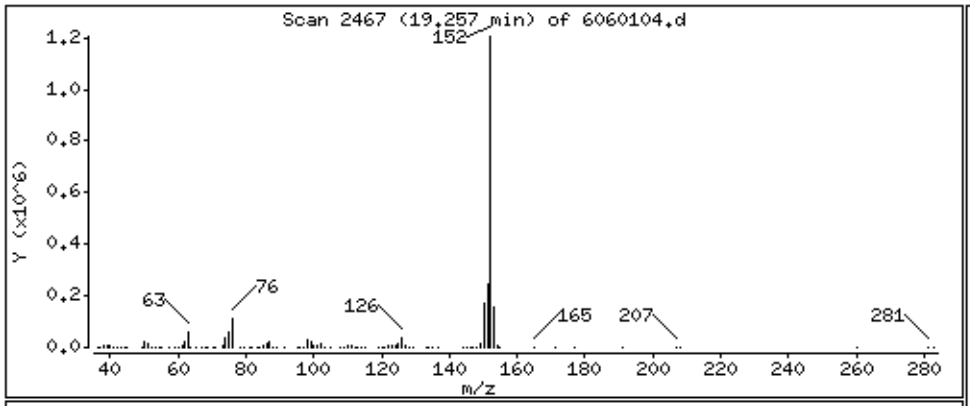
Operator: CT

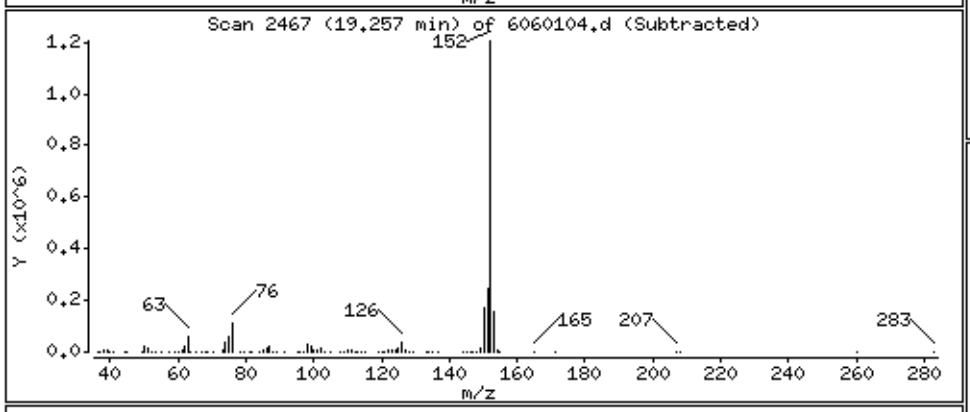
Column phase: RTx-624

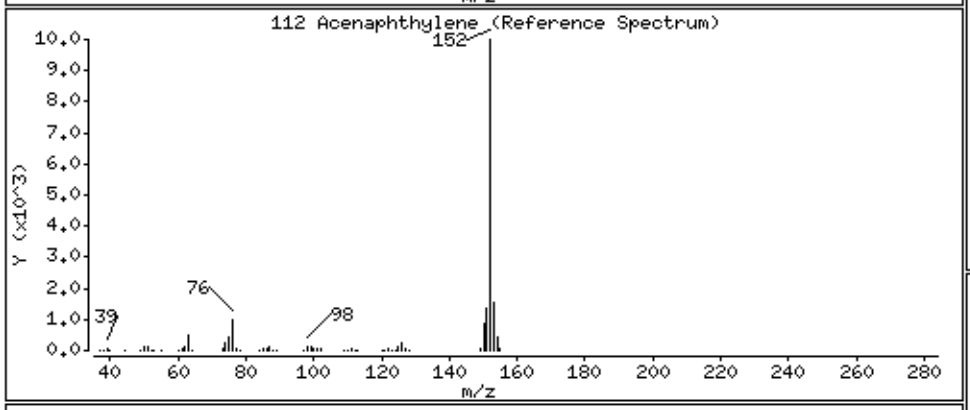
Column diameter: 0.53

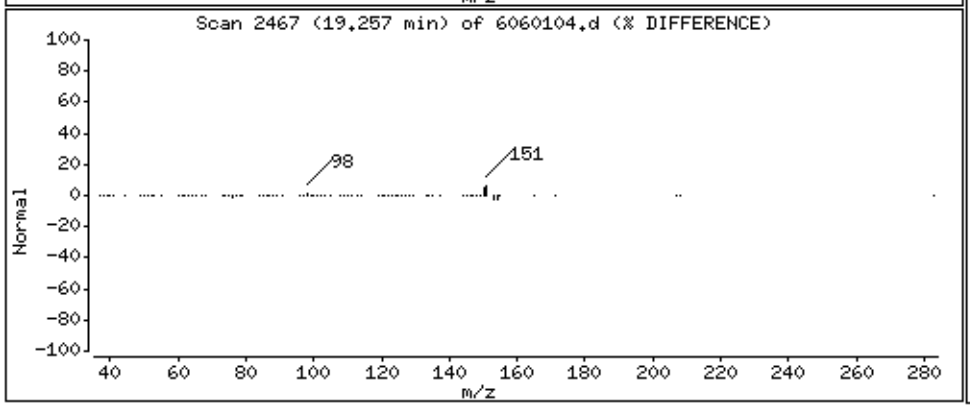
112 Acenaphthylene

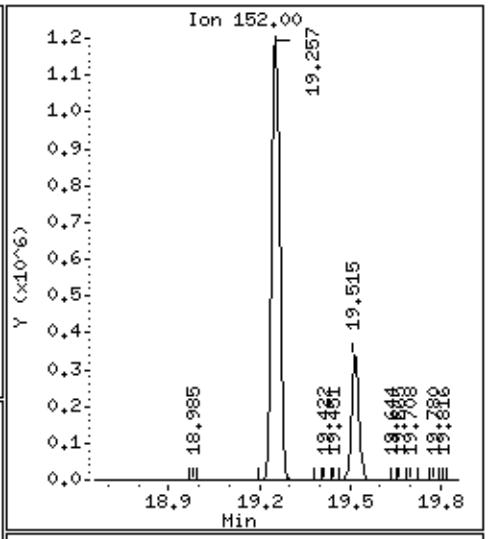
Concentration: 60.354 NG

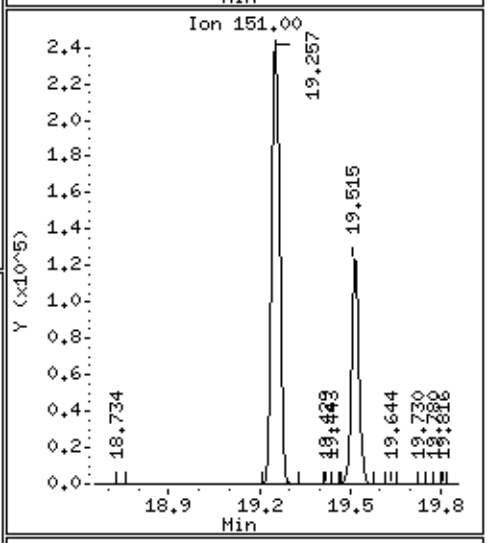


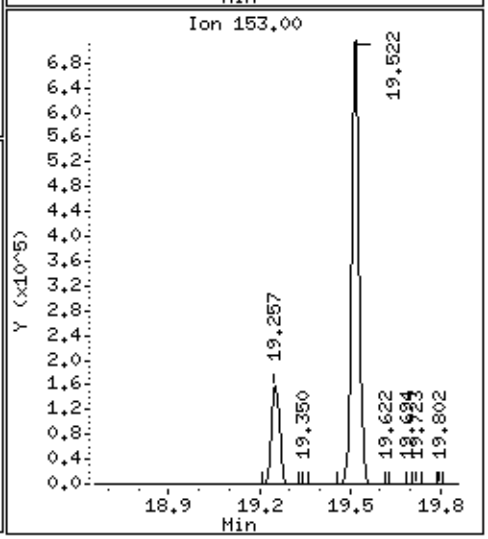












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

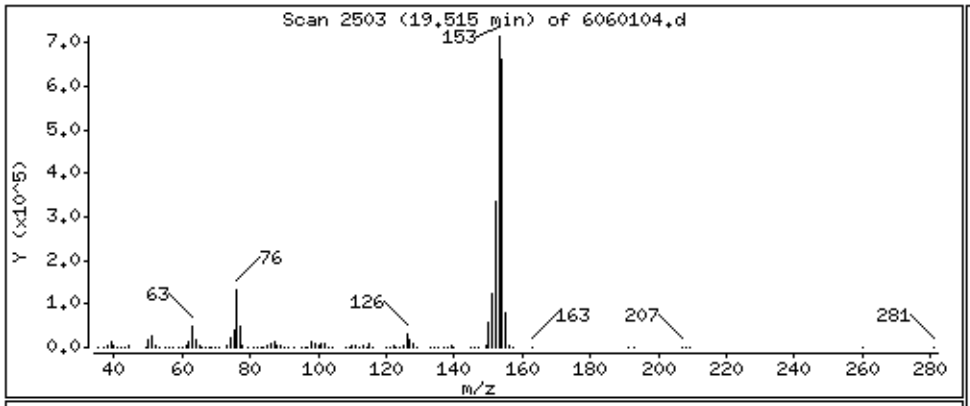
Operator: CT

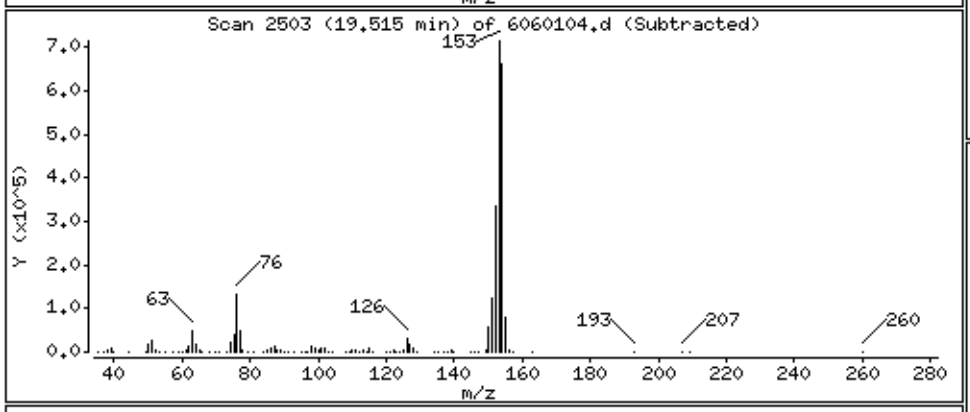
Column phase: RTx-624

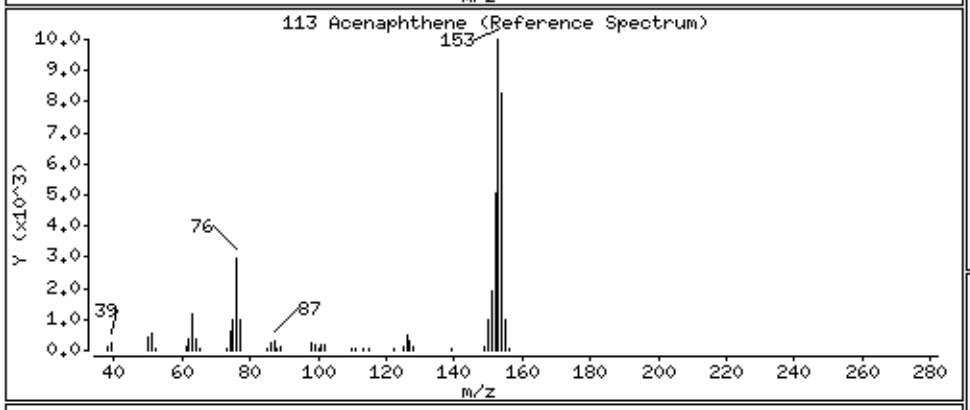
Column diameter: 0.53

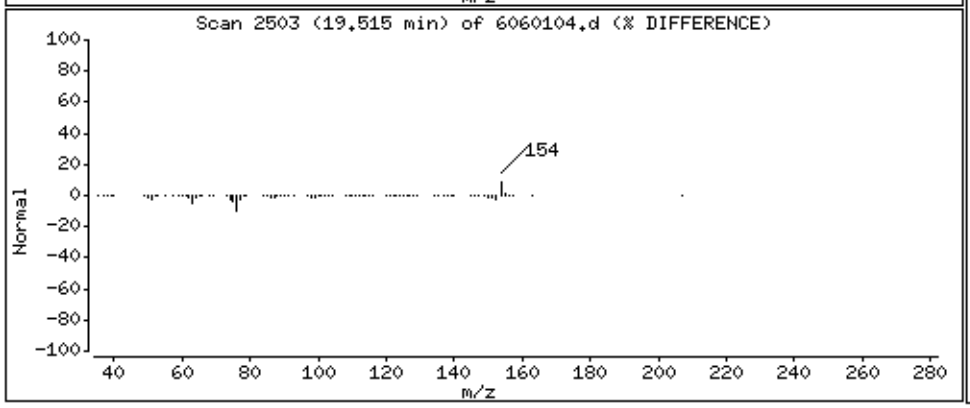
113 Acenaphthene

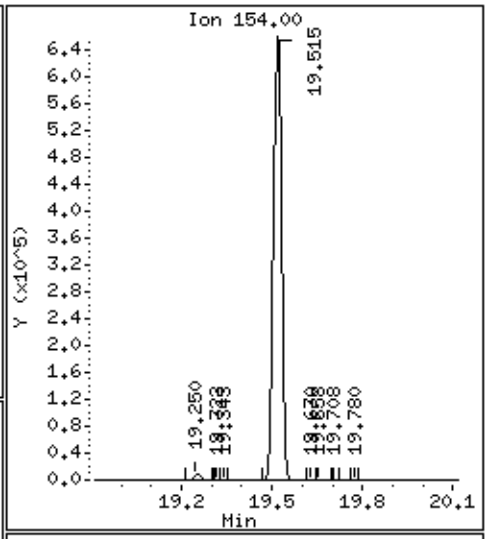
Concentration: 62.214 NG

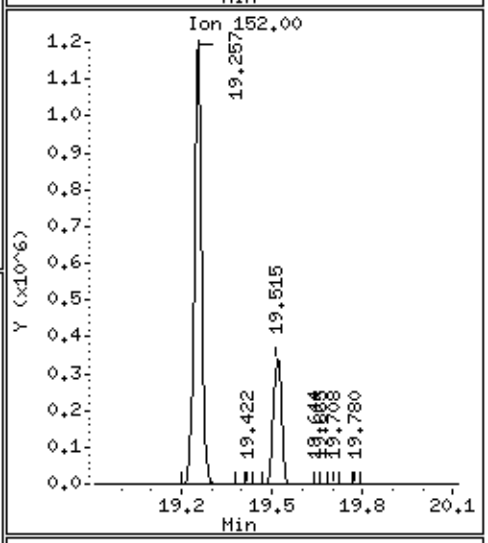


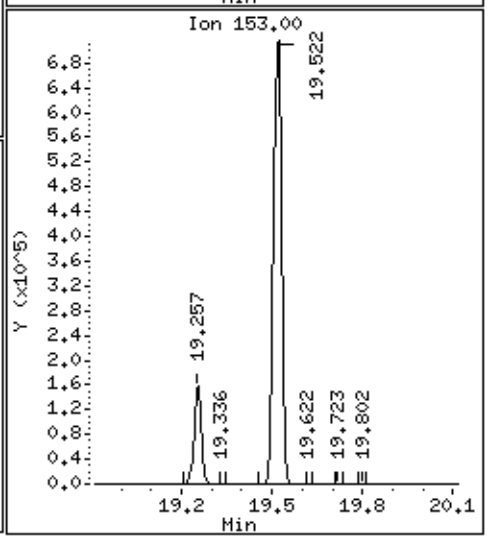












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

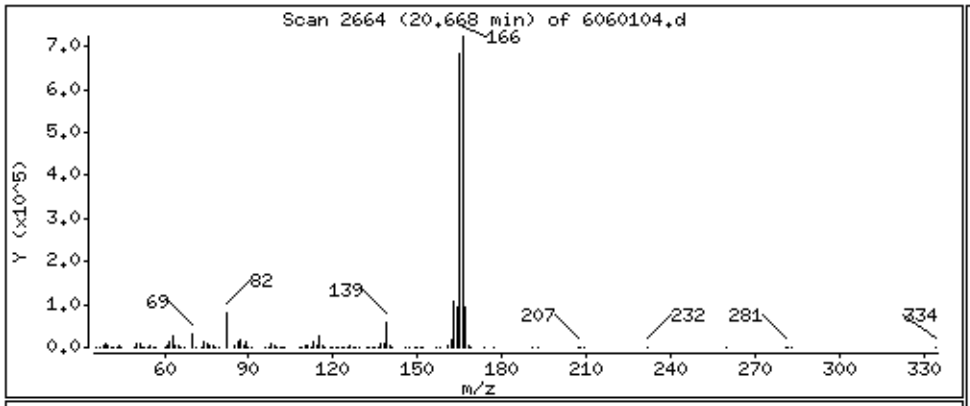
Operator: CT

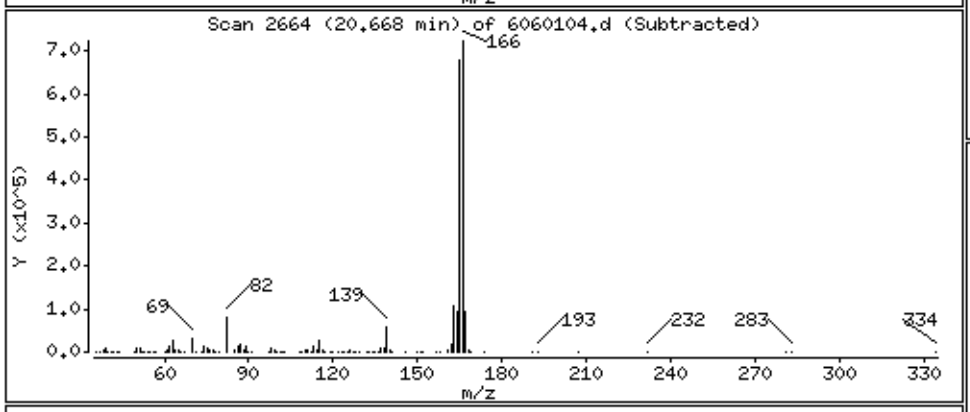
Column phase: RTx-624

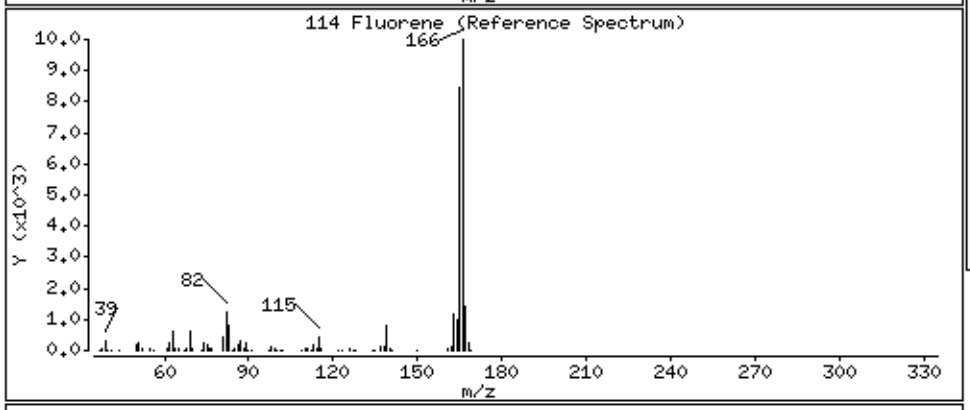
Column diameter: 0.53

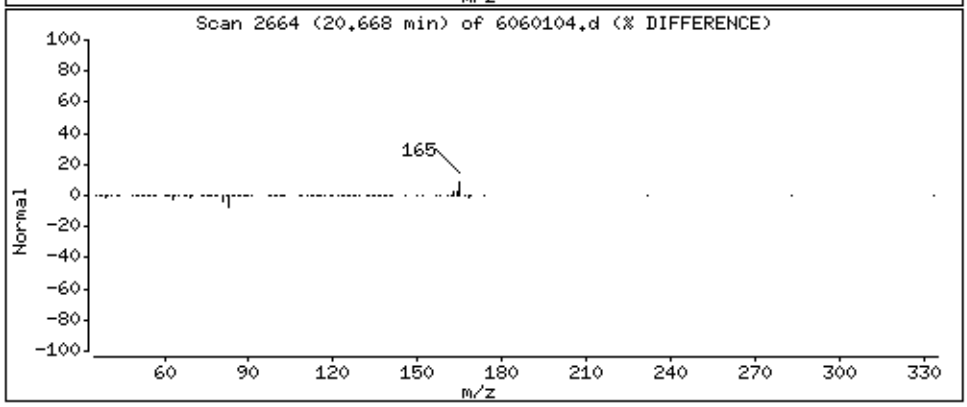
114 Fluorene

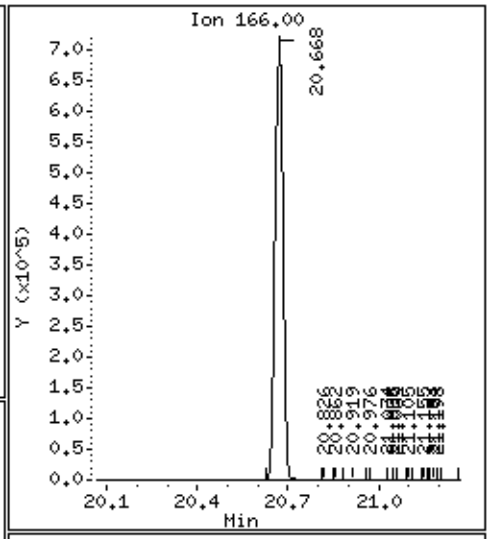
Concentration: 64.945 NG

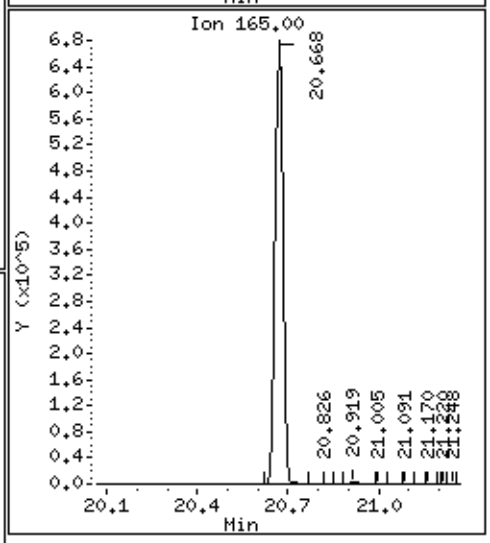












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

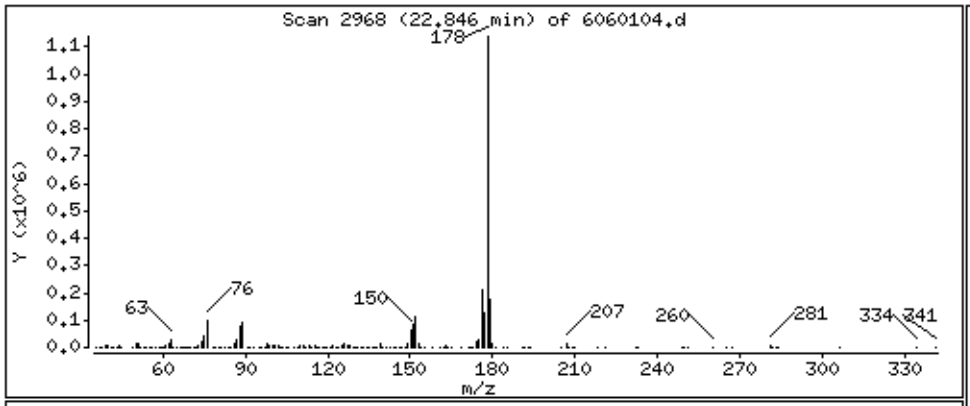
Operator: CT

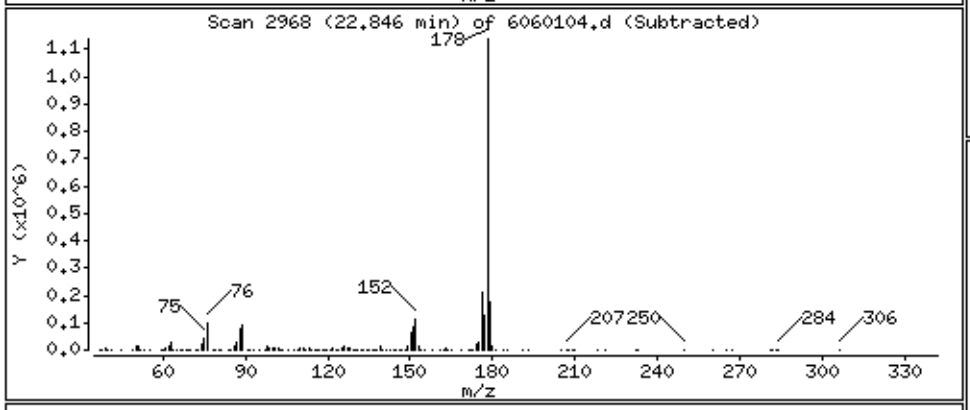
Column phase: RTx-624

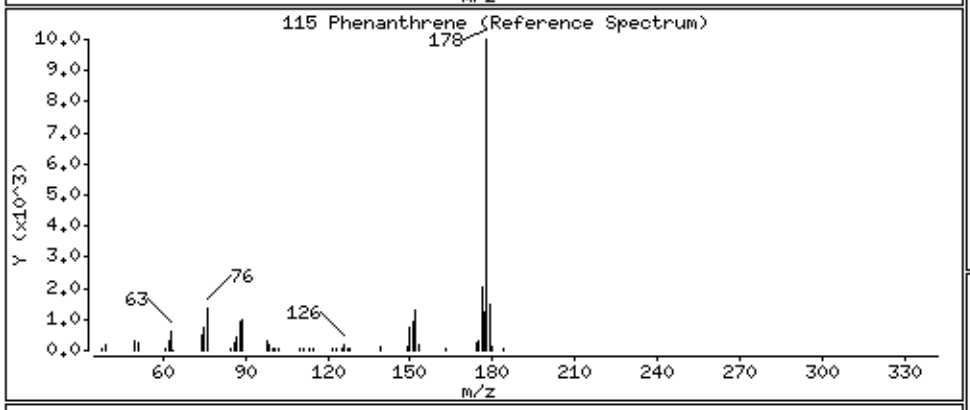
Column diameter: 0.53

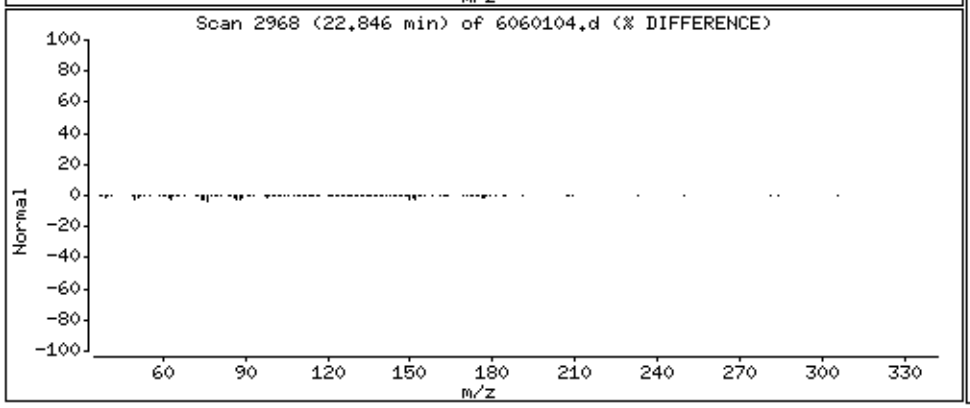
115 Phenanthrene

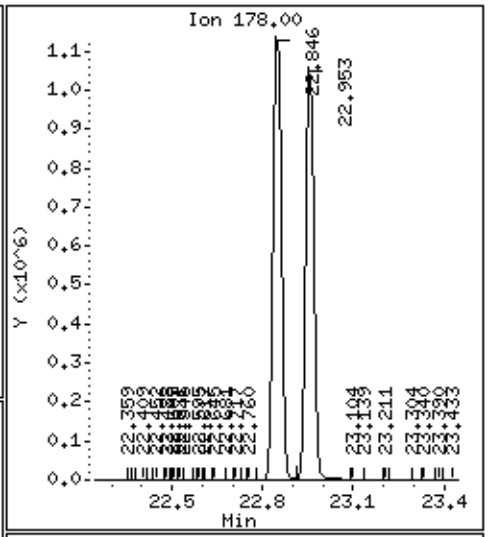
Concentration: 64.716 NG

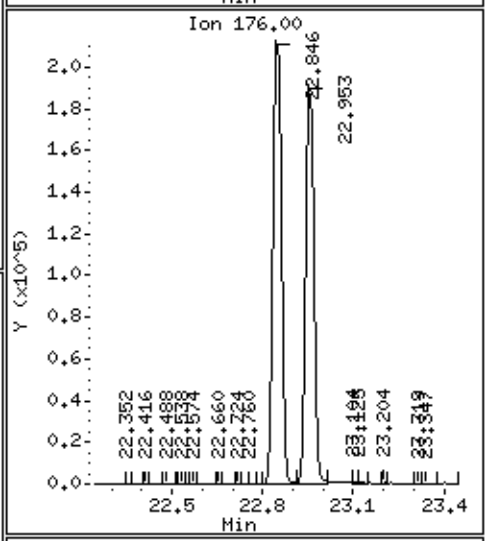


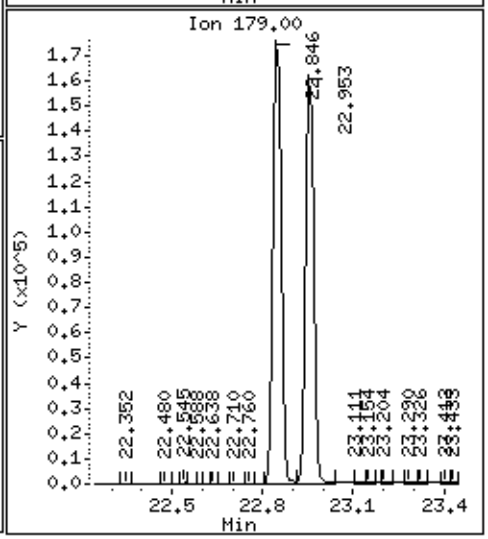












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

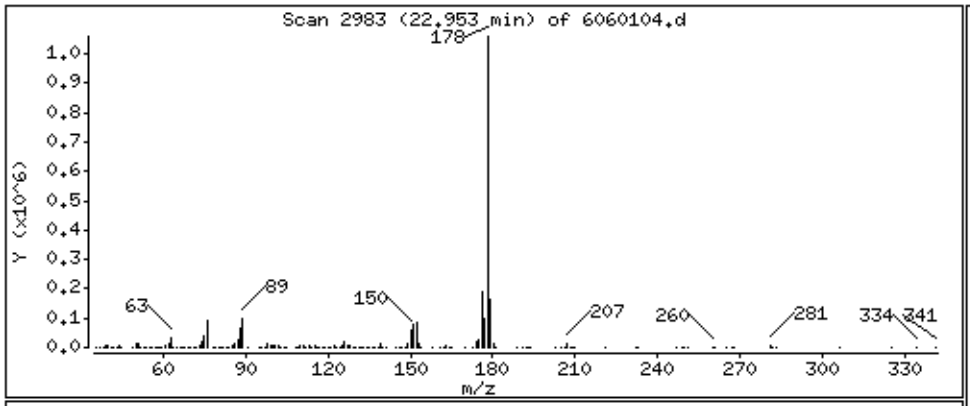
Operator: CT

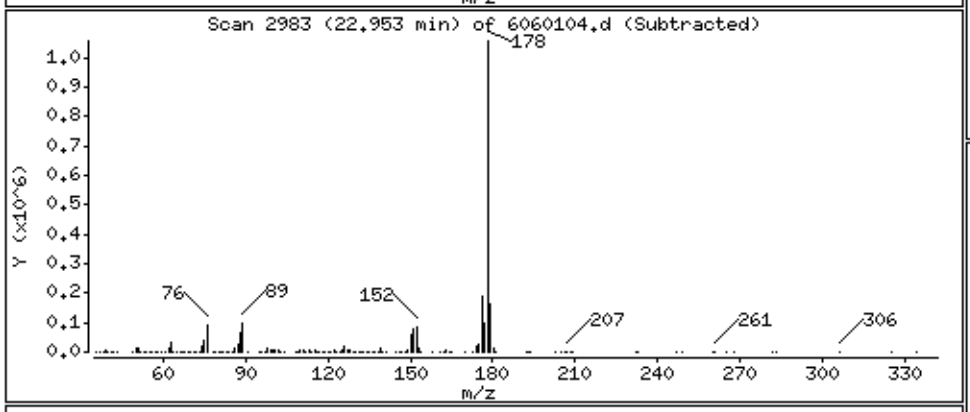
Column phase: RTx-624

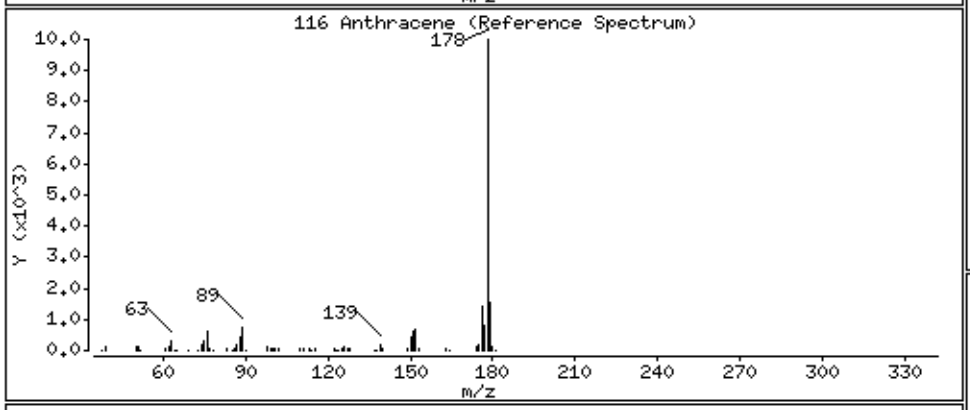
Column diameter: 0.53

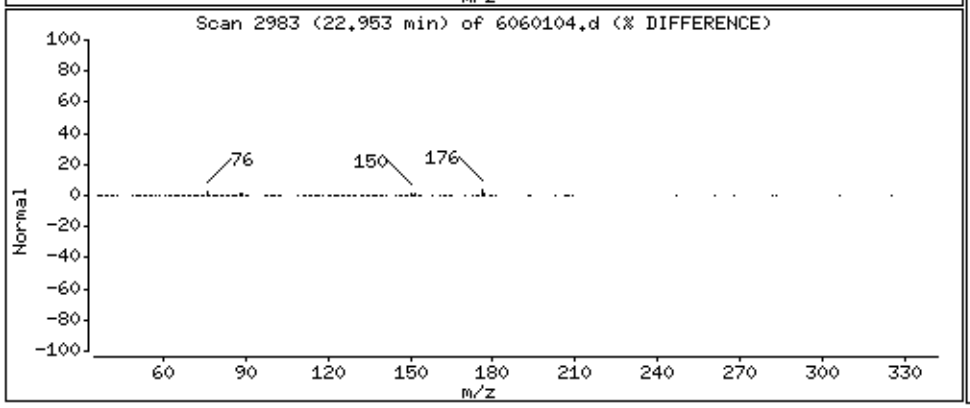
116 Anthracene

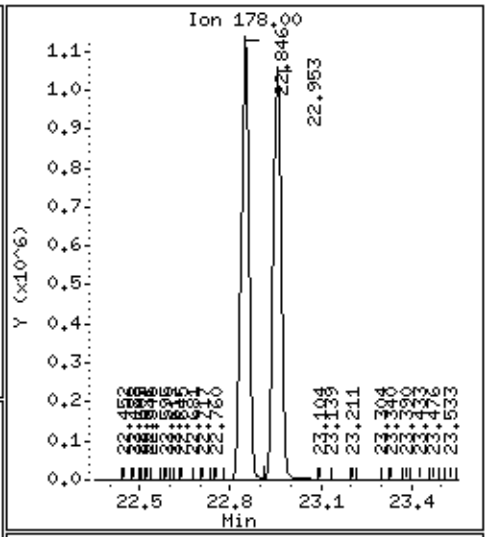
Concentration: 61.685 NG

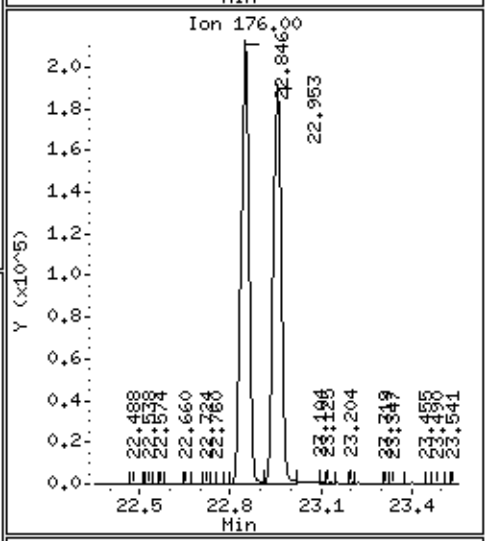


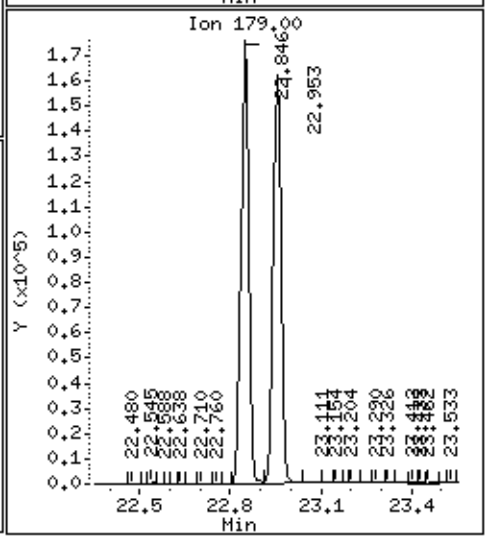












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

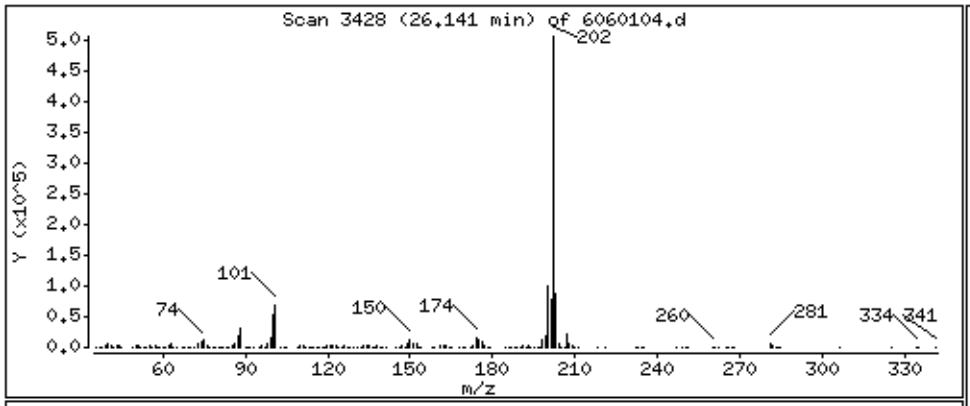
Operator: CT

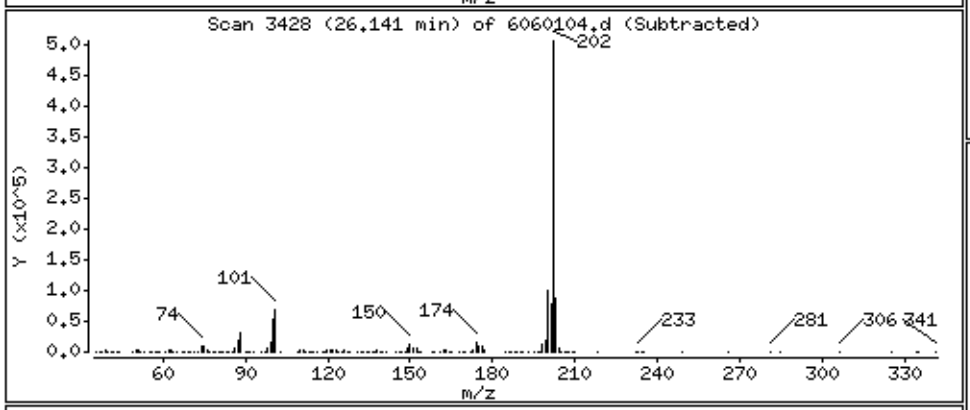
Column phase: RTx-624

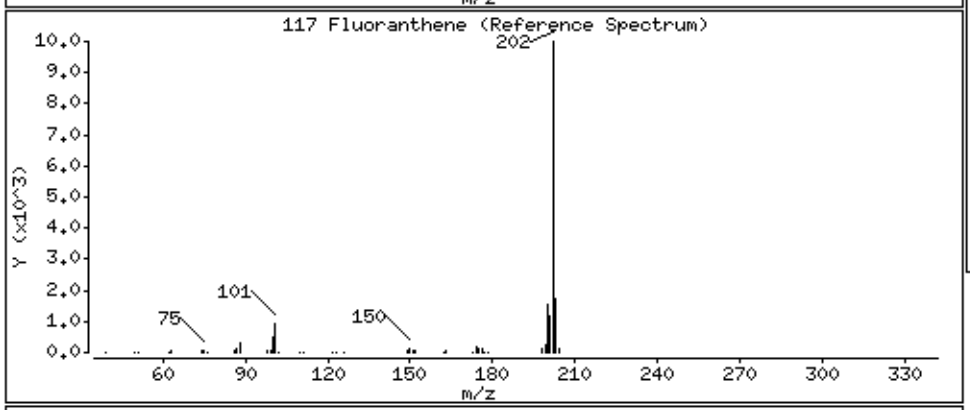
Column diameter: 0.53

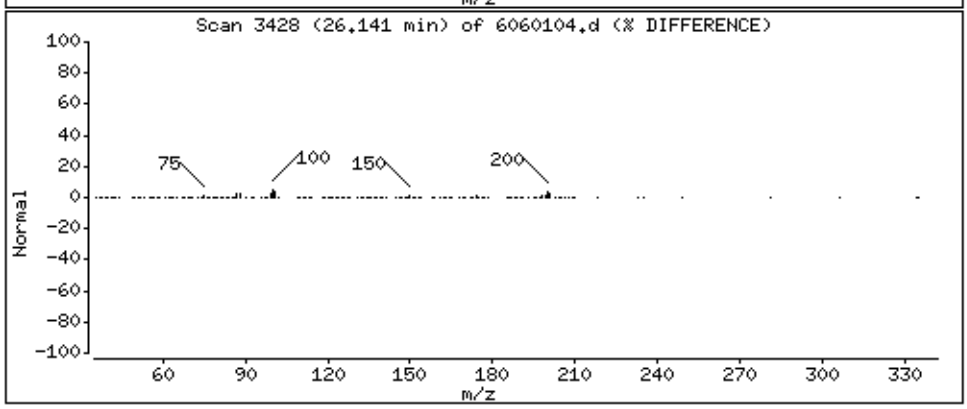
117 Fluoranthene

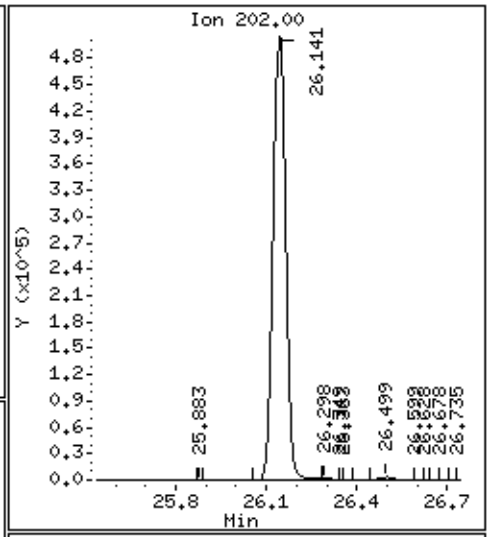
Concentration: 66.784 NG

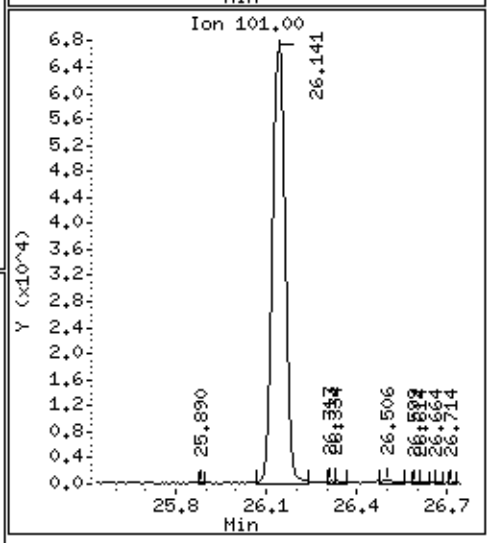












Data File: /chem/msd6.i/01jun16.b/6060104.d

Date : 01-JUN-2016 11:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

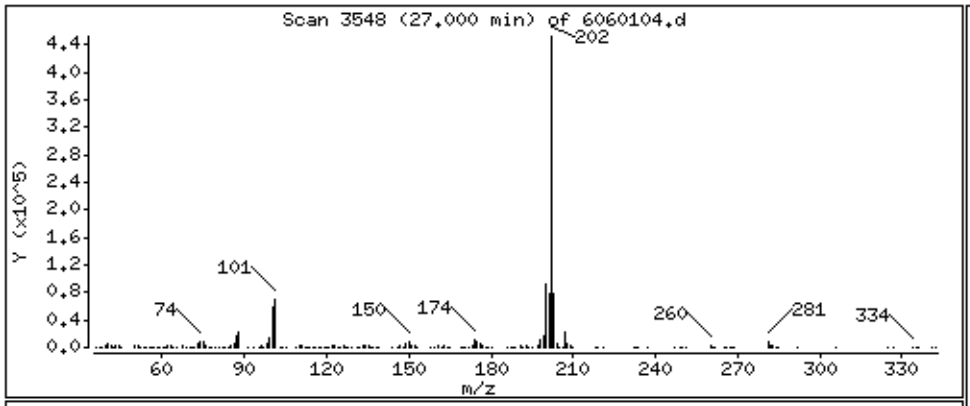
Operator: CT

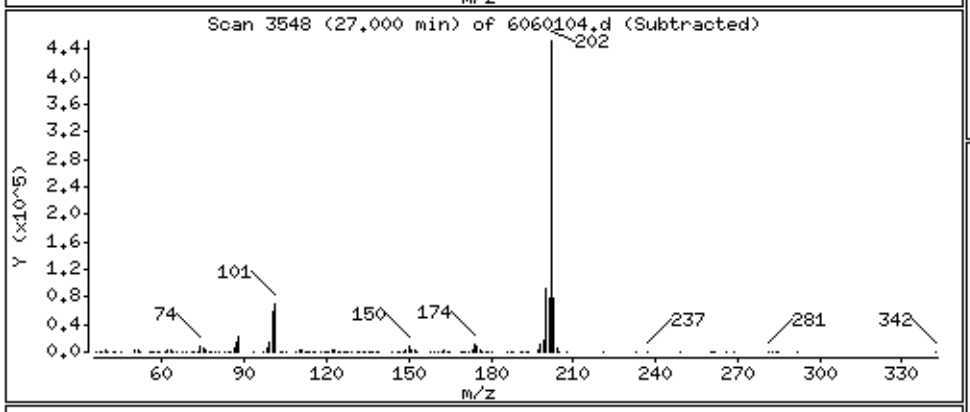
Column phase: RTx-624

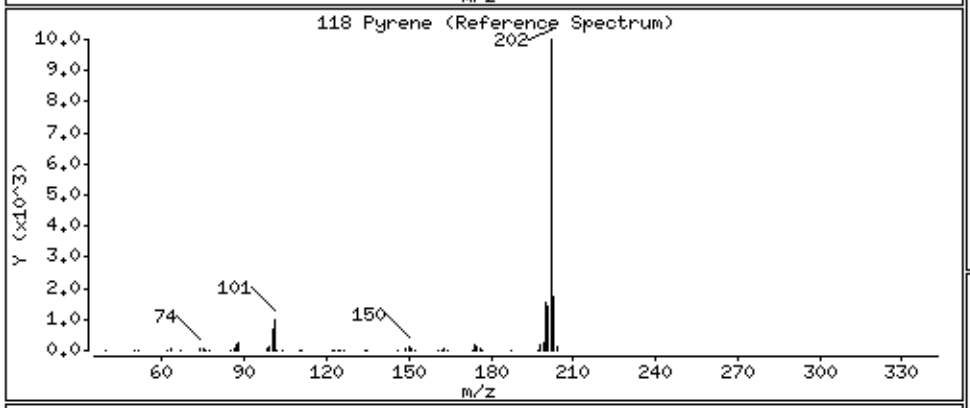
Column diameter: 0.53

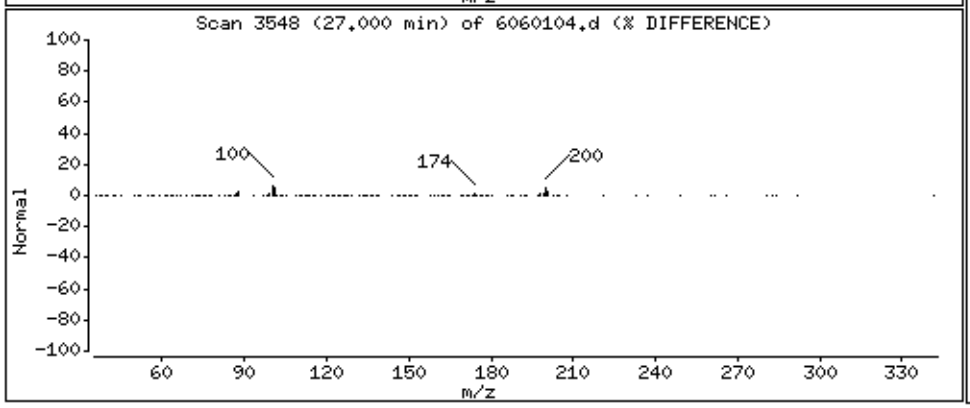
118 Pyrene

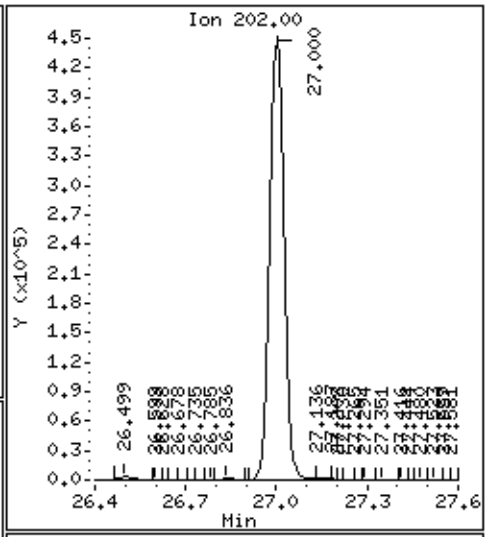
Concentration: 65.287 NG

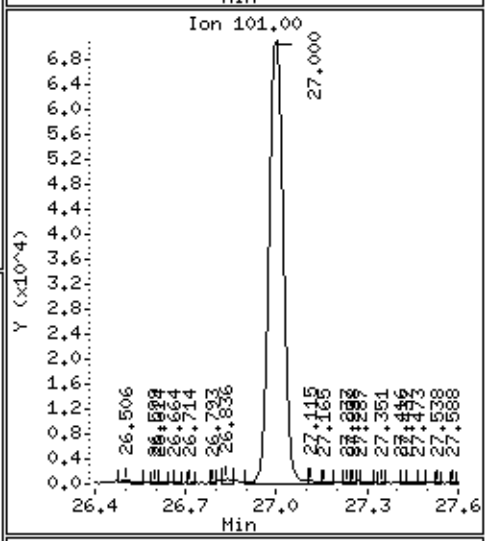


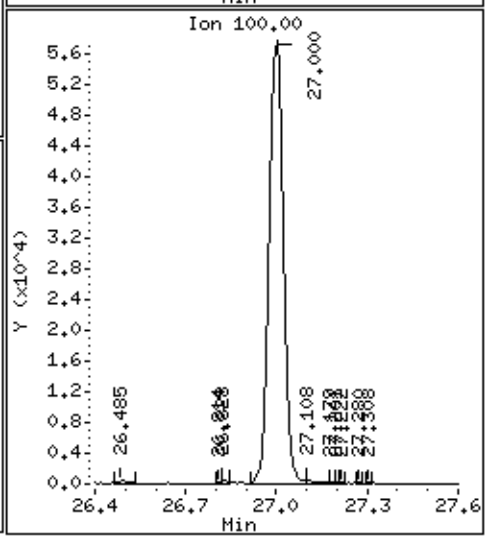












eurofins | Air Toxics

Client Sample ID: LCSD
Lab ID#: 1606008-10AA
EPA METHOD TO-17

File Name:	**6060105**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 6/1/16 11:45 AM**

Compound	**%Recovery**	**Method Limits**
Naphthalene	94	70-130

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Naphthalene-d8	83	50-150

Report Date: 01-Jun-2016 12:38

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 01jun16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: VI VOC+PAH LCS
Client Smp ID: LCS
Level: LOW
Operator: CT
Data Type: MS DATA
SampleType: LCSD
SpikeList File: VOC+PAHlcs50.spk
Quant Type: ISTD
Sublist File: VOC+PAH_ICAL.sub
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: 2516-240(7/20/16),2744-32-50(7/20/16)

SPIKE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
3 Freon 114	139.80	162.06	115.93	70-130
6 Vinyl Chloride	51.100	51.120	100.04	70-130
7 1,3-Butadiene	44.200	37.072	83.87	70-130
9 Chloroethane	52.800	37.914	71.81	70-130
10 Isopentane	59.000	53.487	90.66	70-130
11 Trichlorofluoromet	112.40	118.49	105.42	70-130
14 1,1-Dichloroethene	79.300	86.855	109.53	70-130
15 Freon 113	153.30	185.31	120.88	70-130
18 Carbon Disulfide	62.300	55.032	88.33	70-130
19 2-Propanol	49.200	35.993	73.16	70-130
22 Methylene Chloride	69.500	56.915	81.89	70-130
25 trans-1,2-Dichloro	79.300	72.196	91.04	70-130
26 MTBE	72.100	59.739	82.86	70-130
28 Hexane	70.500	63.311	89.80	70-130
29 1,1-Dichloroethane	81.000	73.794	91.10	70-130
37 cis-1,2-Dichloroet	79.300	90.172	113.71	70-130
38 2-Butanone	59.000	56.807	96.28	70-130
44 Chloroform	97.700	99.945	102.30	70-130
45 1,1,1-Trichloroeth	109.10	98.065	89.89	70-130
46 Cyclohexane	68.800	65.077	94.59	70-130
47 Carbon Tetrachlori	125.80	126.63	100.66	70-130
48 Benzene	63.900	57.339	89.73	70-130
50 1,2-Dichloroethane	80.900	70.752	87.46	70-130
51 2,2,4-Trimethylpen	93.400	78.229	83.76	70-130
53 Heptane	82.000	77.032	93.94	70-130
56 Trichloroethene	107.50	96.068	89.37	70-130
58 Methyl Cyclohexane	80.300	77.985	97.12	70-130
59 1,2-Dichloropropan	92.400	83.464	90.33	70-130
60 1,4-Dioxane	72.100	69.006	95.71	70-130
65 4-Methyl-2-pentano	81.900	68.765	83.96	70-130
67 Toluene	75.400	68.463	90.80	70-130
70 1,1,2-Trichloroeth	109.10	105.75	96.93	70-130
71 Tetrachloroethene	135.70	156.20	115.10	70-130

SPIKE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
72 2-Hexanone	81.900	68.308	83.40	70-130
74 1,2-Dibromoethane	153.70	148.06	96.33	70-130
81 Chlorobenzene	92.100	91.307	99.14	70-130
82 Ethyl Benzene	86.800	84.222	97.03	70-130
84 m,p-Xylene	86.800	81.511	93.91	70-130
88 o-Xylene	86.800	73.596	84.79	70-130
89 Styrene	85.200	69.936	82.08	70-130
91 Cumene	98.300	84.000	85.45	70-130
94 1,1,2,2-Tetrachlor	137.30	123.43	89.90	70-130
96 Propylbenzene	98.300	83.987	85.44	70-130
97 4-Ethyltoluene	98.300	84.478	85.94	70-130
98 1,3,5-Trimethylben	98.300	85.194	86.67	70-130
100 1,2,4-Trimethylben	98.300	85.367	86.84	70-130
101 1,3-Dichlorobenzen	120.30	113.19	94.09	70-130
102 1,4-Dichlorobenzen	120.30	113.14	94.04	70-130
105 1,2-Dichlorobenzen	120.30	114.36	95.06	70-130
106 1,2,4-Trichloroben	148.40	169.20	114.01	70-130
107 Hexachlorobutadien	213.30	247.14	115.87	70-130
109 Naphthalene	50.000	46.911	93.82	70-130
110 2-Methylnaphthalen	50.000	56.772	113.54	70-130
111 1-Methylnaphthalen	50.000	57.351	114.70	70-130
112 Acenaphthylene	50.000	57.277	114.55	70-130
113 Acenaphthene	50.000	58.895	117.79	70-130
114 Fluorene	50.000	56.664	113.33	60-140
115 Phenanthrene	50.000	57.339	114.68	60-140
116 Anthracene	50.000	53.688	107.38	60-140
117 Fluoranthene	50.000	67.258	134.52	60-140
118 Pyrene	50.000	64.947	129.89	60-140

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 49 1,2-Dichloroethane	25.000	19.367	77.47	50-150
$ 66 Toluene-d8	25.000	21.742	86.97	50-150
$ 108 Naphthalene-d8	25.000	20.745	82.98	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01jun16.b/6060105.d
Lab Smp Id: VI VOC+PAH LCS Client Smp ID: LCS
Inj Date : 01-JUN-2016 11:45
Operator : CT Inst ID: msd6.i
Smp Info : ;VI VOC+PAH LCSD;LCSD
Misc Info : 2516-240(7/20/16),2744-32-50(7/20/16)
Comment :
Method : /chem/msd6.i/01jun16.b/616z0331vi.m
Meth Date : 01-Jun-2016 11:21 U5BT Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 12 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+PAH_ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 40 Bromochloromethane						CAS #: 74-97-5	
4.329	4.322 (1.000)	130	173860	26.0000		80.00- 120.00	100.00
4.329	4.315 (1.000)	128	132872			48.25- 108.25	76.42
4.329	4.315 (1.000)	49	178164			107.14- 167.14	102.48
* 54 1,4-Difluorobenzene						CAS #: 540-36-3	
5.963	5.955 (1.000)	114	738248	23.0000		80.00- 120.00	100.00
5.963	5.955 (1.000)	88	114430			0.00- 45.65	15.50
* 79 Chlorobenzene-d5						CAS #: 3114-55-4	
9.866	9.866 (1.000)	117	685784	24.0000		80.00- 120.00	100.00
9.866	9.866 (1.000)	82	351748			23.14- 83.14	51.29
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.421	11.421 (1.000)	174	527022	36.0000		80.00- 120.00	100.00
11.421	11.421 (1.000)	95	527153			92.70- 152.70	100.02
11.421	11.421 (1.000)	176	517553			68.24- 128.24	98.20
$ 49 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.246	5.246 (0.880)	65	75747	19.3669	19.367	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
$ 49 1,2-Dichloroethane-d4 (continued)							
5.246	5.239 (0.880)	67	39048			22.28- 82.28	51.55
$ 66 Toluene-d8						CAS #: 2037-26-5	
7.968	7.961 (0.808)	98	290973	21.7420	21.742	80.00- 120.00	100.00
7.961	7.961 (0.807)	70	30444			0.00- 40.54	10.46
7.968	7.961 (0.808)	100	191382			35.01- 95.01	65.77
$ 108 Naphthalene-d8						CAS #: 1146-65-2	
15.697	15.697 (1.374)	136	615784	20.7448	20.745	80.00- 120.00	100.00
15.697	15.697 (1.374)	108	54875			0.00- 39.41	8.91
3 Freon 114						CAS #: 76-14-2	
1.283	1.283 (0.296)	135	506088	162.065	162.06	80.00- 120.00	100.00
1.283	1.283 (0.296)	137	163723			2.17- 62.17	32.35
6 Vinyl Chloride						CAS #: 75-01-4	
1.381	1.395 (0.319)	62	250575	51.1204	51.120	80.00- 120.00	100.00
1.381	1.395 (0.319)	64	94728			12.66- 72.66	37.80
7 1,3-Butadiene						CAS #: 106-99-0	
1.395	1.395 (0.322)	54	173602	37.0715	37.072	80.00- 120.00	100.00
1.395	1.395 (0.322)	39	282627			133.58- 193.58	162.80
9 Chloroethane						CAS #: 75-00-3	
1.646	1.660 (0.380)	64	106646	37.9140	37.914	80.00- 120.00	100.00
1.646	1.660 (0.380)	66	34159			0.00- 58.31	32.03
1.646	1.660 (0.380)	49	29354			0.00- 59.65	27.53
10 Isopentane						CAS #: 78-78-4	
1.688	1.688 (0.390)	57	192139	53.4870	53.487	80.00- 120.00	100.00
1.688	1.688 (0.390)	43	271653			134.33- 194.33	141.38
11 Trichlorofluoromethane/Fr11						CAS #: 75-69-4	
1.814	1.814 (0.419)	101	656818	118.487	118.49	80.00- 120.00	100.00
1.814	1.814 (0.419)	103	429787			35.98- 95.98	65.43
15 Freon 113						CAS #: 76-13-1	
2.180	2.180 (0.504)	151	592995	185.310	185.31	80.00- 120.00	100.00
2.180	2.180 (0.504)	153	381208			34.66- 94.66	64.29
2.180	2.180 (0.504)	101	624058			88.64- 148.64	105.24
14 1,1-Dichloroethene						CAS #: 75-35-4	
2.188	2.180 (0.505)	98	193909	86.8548	86.855	80.00- 120.00	100.00
2.188	2.180 (0.505)	96	303225			127.15- 187.15	156.37
2.188	2.180 (0.505)	61	452456			230.60- 290.60	233.33

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.367	2.367 (0.547)	76	718635	55.0316	55.032	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.281	2.281 (0.527)	45	437297	35.9932	35.993	80.00- 120.00	100.00(a)
2.281	2.281 (0.527)	43	86836			0.00- 49.91	19.86
2.288	2.281 (0.528)	59	19249			0.00- 33.48	4.40
22 Methylene Chloride					CAS #: 75-09-2		
2.582	2.582 (0.596)	49	317440	56.9153	56.915	80.00- 120.00	100.00
2.582	2.582 (0.596)	84	271594			38.62- 98.62	85.56
2.582	2.574 (0.596)	51	97373			0.43- 60.43	30.67
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.825	2.825 (0.653)	98	161079	72.1963	72.196	80.00- 120.00	100.00
2.825	2.825 (0.653)	61	339422			200.79- 260.79	210.72
2.825	2.825 (0.653)	96	249898			126.39- 186.39	155.14
26 MTBE					CAS #: 1634-04-4		
2.804	2.804 (0.648)	73	555431	59.7394	59.739	80.00- 120.00	100.00
2.804	2.804 (0.648)	57	123013			0.00- 54.76	22.15
2.804	2.804 (0.648)	41	113297			0.00- 56.57	20.40
28 Hexane					CAS #: 110-54-3		
3.104	3.104 (0.717)	57	411909	63.3108	63.311	80.00- 120.00	100.00
3.112	3.104 (0.719)	43	254068			41.77- 101.77	61.68
3.104	3.104 (0.717)	86	65336			0.00- 43.88	15.86
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.276	3.276 (0.757)	63	437491	73.7942	73.794	80.00- 120.00	100.00
3.276	3.276 (0.757)	65	139794			1.71- 61.71	31.95
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
3.986	3.978 (0.921)	98	215704	90.1720	90.172	80.00- 120.00	100.00
3.978	3.978 (0.919)	96	339059			126.11- 186.11	157.19
3.978	3.978 (0.919)	61	413312			179.91- 239.91	191.61
38 2-Butanone					CAS #: 78-93-3		
3.950	3.943 (0.912)	72	138705	56.8069	56.807	80.00- 120.00	100.00(a)
3.943	3.943 (0.911)	43	543451			469.10- 529.10	391.80
3.950	3.943 (0.912)	57	51940			6.15- 66.15	37.45
44 Chloroform					CAS #: 67-66-3		
4.501	4.494 (1.040)	83	569084	99.9455	99.945	80.00- 120.00	100.00
4.501	4.494 (1.040)	85	371338			35.99- 95.99	65.25

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.838	4.831 (0.811)	84	363072	65.0769	65.077	80.00- 120.00	100.00
4.838	4.831 (0.811)	56	419724			102.79- 162.79	115.60
4.831	4.831 (0.810)	41	229111			54.37- 114.37	63.10
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.723	4.723 (0.792)	97	536443	98.0648	98.065	80.00- 120.00	100.00
4.723	4.723 (0.792)	99	347527			34.68- 94.68	64.78
47 Carbon Tetrachloride					CAS #: 56-23-5		
4.967	4.967 (0.833)	119	605276	126.627	126.63	80.00- 120.00	100.00
4.967	4.967 (0.833)	117	624190			73.19- 133.19	103.12
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.497	5.490 (0.922)	57	1324741	78.2292	78.229	80.00- 120.00	100.00
5.497	5.490 (0.922)	56	416573			1.74- 61.74	31.45
5.497	5.490 (0.922)	41	359609			0.34- 60.34	27.15
48 Benzene					CAS #: 71-43-2		
5.268	5.261 (0.883)	78	928314	57.3387	57.339	80.00- 120.00	100.00
5.268	5.261 (0.883)	77	221013			0.00- 53.53	23.81
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.368	5.361 (0.900)	62	352673	70.7516	70.752	80.00- 120.00	100.00
5.368	5.361 (0.900)	64	116834			2.15- 62.15	33.13
53 Heptane					CAS #: 142-82-5		
5.798	5.798 (0.972)	71	292941	77.0320	77.032	80.00- 120.00	100.00
5.798	5.791 (0.972)	43	508307			188.80- 248.80	173.52
5.798	5.798 (0.972)	57	262965			71.78- 131.78	89.77
56 Trichloroethene					CAS #: 79-01-6		
6.271	6.271 (1.052)	95	427354	96.0681	96.068	80.00- 120.00	100.00
6.271	6.271 (1.052)	130	468849			74.74- 134.74	109.71
6.271	6.271 (1.052)	97	278649			34.87- 94.87	65.20
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.593	6.586 (1.106)	83	540183	77.9850	77.985	80.00- 120.00	100.00
6.593	6.586 (1.106)	98	238165			14.22- 74.22	44.09
6.586	6.586 (1.105)	55	410377			58.24- 118.24	75.97
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.629	6.622 (1.112)	63	311788	83.4642	83.464	80.00- 120.00	100.00
6.629	6.622 (1.112)	62	214061			39.32- 99.32	68.66
6.593	6.622 (1.106)	41	213176			37.26- 97.26	68.37

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.743	6.743 (1.131)	88	219832	69.0060	69.006	80.00- 120.00	100.00
6.743	6.743 (1.131)	58	140839			41.28- 101.28	64.07
6.743	6.743 (1.131)	57	64728			0.62- 60.62	29.44
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.846	7.839 (1.316)	58	252157	68.7652	68.765	80.00- 120.00	100.00
7.846	7.839 (1.316)	43	628719			263.34- 323.34	249.34
7.846	7.839 (1.316)	85	124624			12.32- 72.32	49.42
67 Toluene					CAS #: 108-88-3		
8.054	8.054 (0.816)	91	1127951	68.4631	68.463	80.00- 120.00	100.00
8.054	8.054 (0.816)	92	659626			28.18- 88.18	58.48
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.656	8.656 (1.452)	97	394475	105.751	105.75	80.00- 120.00	100.00
8.656	8.656 (1.452)	99	245996			32.32- 92.32	62.36
8.656	8.656 (1.452)	83	323688			54.42- 114.42	82.06
71 Tetrachloroethene					CAS #: 127-18-4		
8.735	8.735 (0.885)	166	680049	156.197	156.20	80.00- 120.00	100.00
8.735	8.735 (0.885)	129	458307			47.21- 107.21	67.39
8.735	8.735 (0.885)	131	448569			44.68- 104.68	65.96
72 2-Hexanone					CAS #: 591-78-6		
8.971	8.964 (0.909)	58	339285	68.3078	68.308	80.00- 120.00	100.00
8.971	8.964 (0.909)	43	617175			181.19- 241.19	181.90
8.971	8.971 (0.909)	100	73940			0.00- 48.53	21.79
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.250	9.250 (0.938)	107	605442	148.055	148.06	80.00- 120.00	100.00
9.250	9.250 (0.938)	109	579145			64.88- 124.88	95.66
81 Chlorobenzene					CAS #: 108-90-7		
9.902	9.902 (1.004)	112	963080	91.3068	91.307	80.00- 120.00	100.00
9.909	9.902 (1.004)	114	309316			2.37- 62.37	32.12
9.902	9.902 (1.004)	77	508647			25.58- 85.58	52.81
82 Ethyl Benzene					CAS #: 100-41-4		
10.060	10.060 (1.020)	106	483570	84.2219	84.222	80.00- 120.00	100.00
10.060	10.060 (1.020)	91	1470006			283.92- 343.92	303.99
84 m,p-Xylene					CAS #: 108-38-3		
10.239	10.239 (1.038)	106	606996	81.5114	81.511	80.00- 120.00	100.00
10.239	10.239 (1.038)	91	1182055			168.48- 228.48	194.74

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

   88 o-Xylene                                        CAS #: 95-47-6
 10.719  10.719 (0.939)   106    584118 73.5961   73.596  80.00- 120.00   100.00
 10.719  10.719 (0.939)    91   1187625                  179.05- 239.05   203.32
-------------------------------------------------------------------------------
   89 Styrene                                         CAS #: 100-42-5
 10.755  10.755 (0.942)   104    957206 69.9361   69.936  80.00- 120.00   100.00
 10.755  10.755 (0.942)    78    451106                   17.71-  77.71    47.13
-------------------------------------------------------------------------------
   91 Cumene                                          CAS #: 98-82-8
 11.213  11.213 (0.982)   105   1753353 84.0001   84.000  80.00- 120.00   100.00
 11.213  11.213 (0.982)   120    476989                    0.00-  56.88    27.20
 11.206  11.213 (0.981)    51    147257                    0.00-  40.57     8.40
-------------------------------------------------------------------------------
   94 1,1,2,2-Tetrachloroethane                       CAS #: 79-34-5
 11.636  11.636 (1.019)    83    851697 123.434   123.43  80.00- 120.00   100.00
 11.636  11.636 (1.019)    85    549984                   35.63-  95.63    64.58
-------------------------------------------------------------------------------
   96 Propylbenzene                                   CAS #: 103-65-1
 11.750  11.750 (1.029)    91   2073624 83.9866   83.987  80.00- 120.00   100.00
 11.750  11.750 (1.029)   120    520126                    0.00-  53.76    25.08
 11.750  11.750 (1.029)   105     80767                    0.00-  33.79     3.89
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                                  CAS #: 622-96-8
 11.915  11.915 (1.043)   120    536550 84.4779   84.478  80.00- 120.00   100.00
 11.915  11.915 (1.043)   105   1731975                  299.98- 359.98   322.80
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                          CAS #: 108-67-8
 12.001  12.001 (1.051)   120    762889 85.1943   85.194  80.00- 120.00   100.00
 12.001  12.001 (1.051)   105   1522245                  169.84- 229.84   199.54
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                          CAS #: 95-63-6
 12.467  12.467 (1.092)   120    712360 85.3667   85.367  80.00- 120.00   100.00
 12.467  12.467 (1.092)   105   1570966                  188.24- 248.24   220.53
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                             CAS #: 541-73-1
 12.796  12.796 (1.120)   146   1169041 113.195   113.19  80.00- 120.00   100.00
 12.796  12.796 (1.120)   148    751680                   33.94-  93.94    64.30
 12.796  12.796 (1.120)   111    436266                    9.99-  69.99    37.32
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                             CAS #: 106-46-7
 12.932  12.932 (1.132)   146   1166663 113.136   113.14  80.00- 120.00   100.00
 12.932  12.932 (1.132)   148    754349                   33.56-  93.56    64.66
 12.932  12.932 (1.132)   111    421629                    8.12-  68.12    36.14
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                             CAS #: 95-50-1
 13.369  13.369 (1.171)   146   1116057 114.362   114.36  80.00- 120.00   100.00
```

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

  105 1,2-Dichlorobenzene (continued)
 13.369  13.369 (1.171)   148    717880                    33.25-  93.25    64.32
 13.369  13.369 (1.171)   111    432286                    11.16-  71.16    38.73
-------------------------------------------------------------------------------
  106 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 15.425  15.425 (1.351)   180   1135211 169.198   169.20  80.00- 120.00   100.00
 15.425  15.425 (1.351)   182   1078188                    64.82- 124.82    94.98
-------------------------------------------------------------------------------
  107 Hexachlorobutadiene                           CAS #: 87-68-3
 15.633  15.640 (1.369)   225    852141 247.143   247.14  80.00- 120.00   100.00
 15.633  15.640 (1.369)   223    533931                    32.09-  92.09    62.66
-------------------------------------------------------------------------------
  109 Naphthalene                                   CAS #: 91-20-3
 15.733  15.740 (1.378)   128   1658666 46.9114   46.911  80.00- 120.00   100.00
 15.733  15.740 (1.378)   127    215838                     0.00-  43.01    13.01
-------------------------------------------------------------------------------
  110 2-Methylnaphthalene                           CAS #: 91-57-6
 17.187  17.187 (1.505)   142   1160269 56.7725   56.772  80.00- 120.00   100.00
 17.187  17.187 (1.505)   141   1010693                    57.55- 117.55    87.11
 17.187  17.187 (1.505)   115    346098                     2.88-  62.88    29.83
-------------------------------------------------------------------------------
  111 1-Methylnaphthalene                           CAS #: 90-12-0
 17.402  17.402 (1.524)   142   1053982 57.3511   57.351  80.00- 120.00   100.00
 17.402  17.402 (1.524)   141    947913                    60.83- 120.83    89.94
 17.402  17.402 (1.524)   115    332224                     4.35-  64.35    31.52
-------------------------------------------------------------------------------
  112 Acenaphthylene                                CAS #: 208-96-8
 19.250  19.257 (1.686)   152   1719215 57.2768   57.277  80.00- 120.00   100.00
 19.250  19.257 (1.686)   151    345274                     0.00-  50.47    20.08
 19.250  19.257 (1.686)   153    225506                     0.00-  42.99    13.12
-------------------------------------------------------------------------------
  113 Acenaphthene                                  CAS #: 83-32-9
 19.515  19.515 (1.709)   154    955604 58.8948   58.895  80.00- 120.00   100.00
 19.515  19.522 (1.709)   152    496449                    23.49-  83.49    51.95
 19.515  19.515 (1.709)   153   1045884                    81.41- 141.41   109.45
-------------------------------------------------------------------------------
  114 Fluorene                                      CAS #: 86-73-7
 20.668  20.668 (1.810)   166    912080 56.6643   56.664  80.00- 120.00   100.00
 20.668  20.668 (1.810)   165    863283                    66.52- 126.52    94.65
-------------------------------------------------------------------------------
  115 Phenanthrene                                  CAS #: 85-01-8
 22.846  22.846 (2.000)   178   1558107 57.3386   57.339  80.00- 120.00   100.00
 22.846  22.846 (2.000)   176    294724                     0.00-  49.64    18.92
 22.846  22.846 (2.000)   179    236847                     0.00-  45.22    15.20
-------------------------------------------------------------------------------
  116 Anthracene                                    CAS #: 120-12-7
 22.953  22.953 (2.010)   178   1381819 53.6884   53.688  80.00- 120.00   100.00
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
116 Anthracene (continued)								
22.953	22.953	(2.010)	176	248968			0.00- 49.04	18.02
22.953	22.953	(2.010)	179	209762			0.00- 45.28	15.18
117 Fluoranthene						CAS #: 206-44-0		
26.141	26.141	(2.289)	202	1271284	67.2580	67.258	80.00- 120.00	100.00
26.141	26.141	(2.289)	101	167314			0.00- 48.21	13.16
118 Pyrene						CAS #: 129-00-0		
27.000	27.000	(2.364)	202	1275234	64.9469	64.947	80.00- 120.00	100.00
27.000	27.000	(2.364)	101	197322			0.00- 51.09	15.47
27.000	27.000	(2.364)	100	161394			0.00- 47.66	12.66

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6060105.d
Lab Smp Id: VI VOC+PAH LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/01jun16.b/616z0331vi.m
Misc Info: 2516-240(7/20/16),2744-32-50(7/20/16)

Calibration Date: 01-JUN-2016
Calibration Time: 10:25
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	196221	117733	274709	173860	-11.40
54 1,4-Difluorobenze	816668	490001	1143335	738248	-9.60
79 Chlorobenzene-d5	756740	454044	1059436	685784	-9.38
92 Bromofluorobenzen	580931	348559	813303	527022	-9.28

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.32	3.99	4.65	4.33	0.17
54 1,4-Difluorobenze	5.96	5.63	6.29	5.96	0.12
79 Chlorobenzene-d5	9.87	9.54	10.20	9.87	0.00
92 Bromofluorobenzen	11.42	11.09	11.75	11.42	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/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

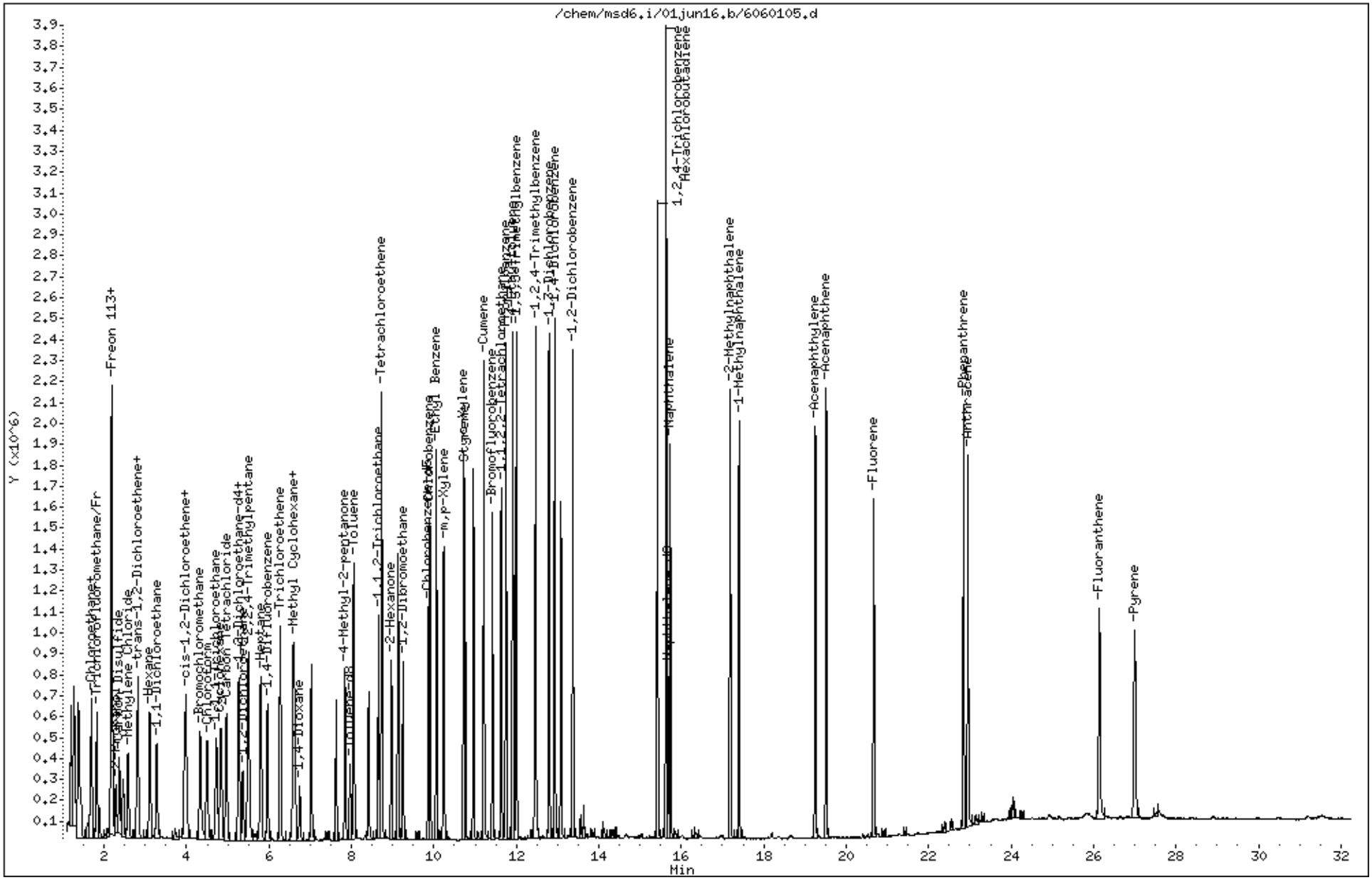
Sample Info: ;VI VOC+PAH LCSD;LCSD

Column phase: RTx-624

Instrument: msd6.i

Operator: CT

Column diameter: 0.53



Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

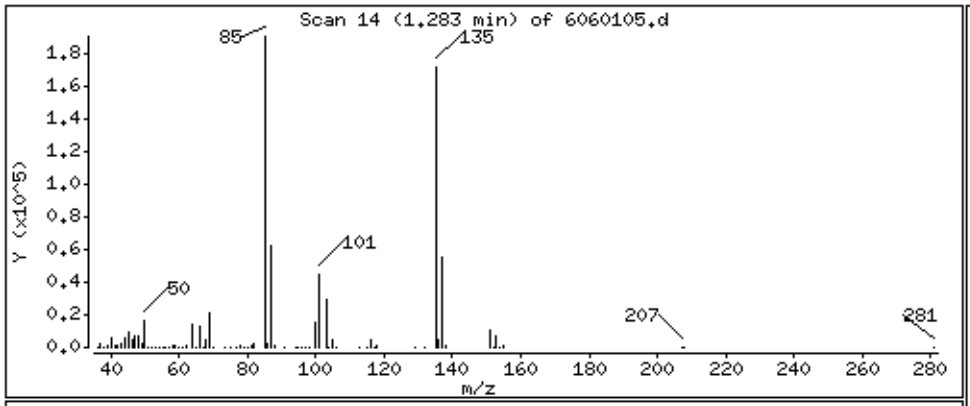
Operator: CT

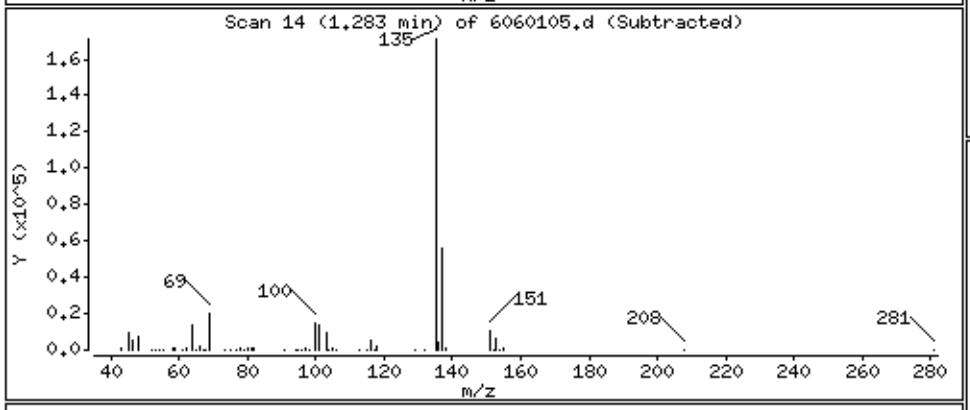
Column phase: RTx-624

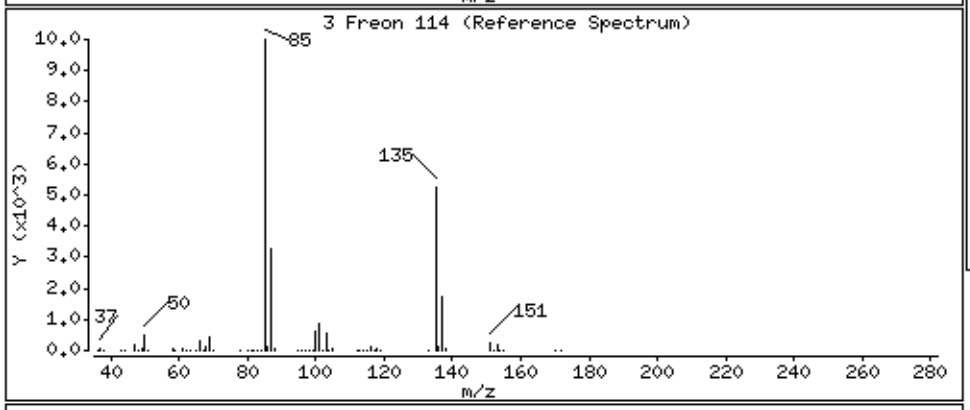
Column diameter: 0.53

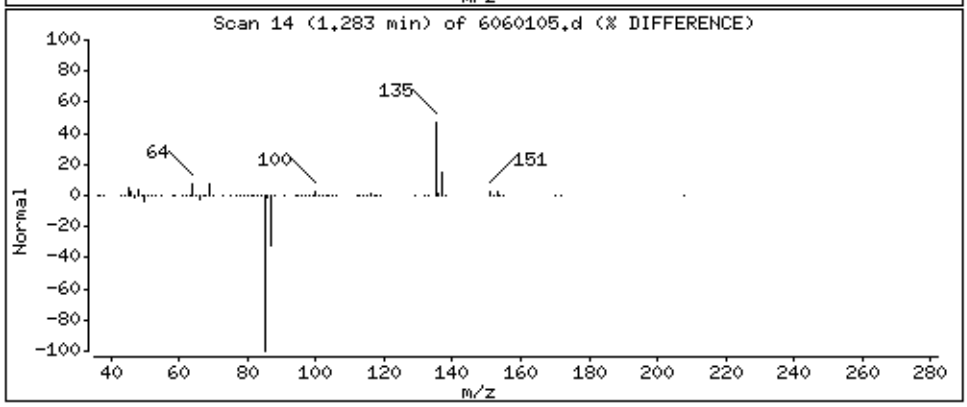
3 Freon 114

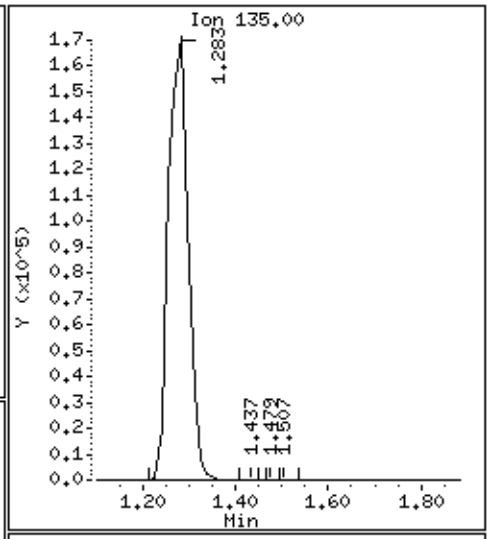
Concentration: 162.06 NG

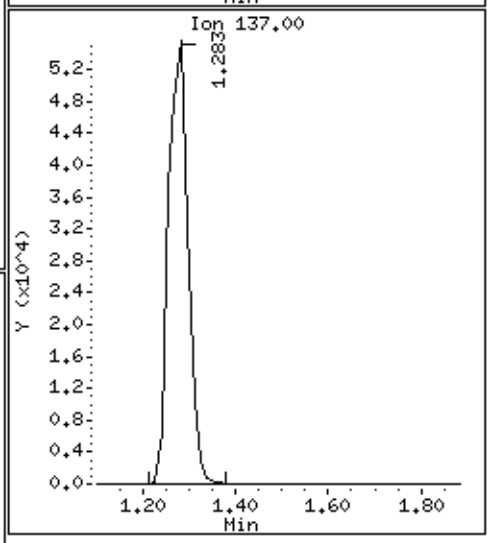












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

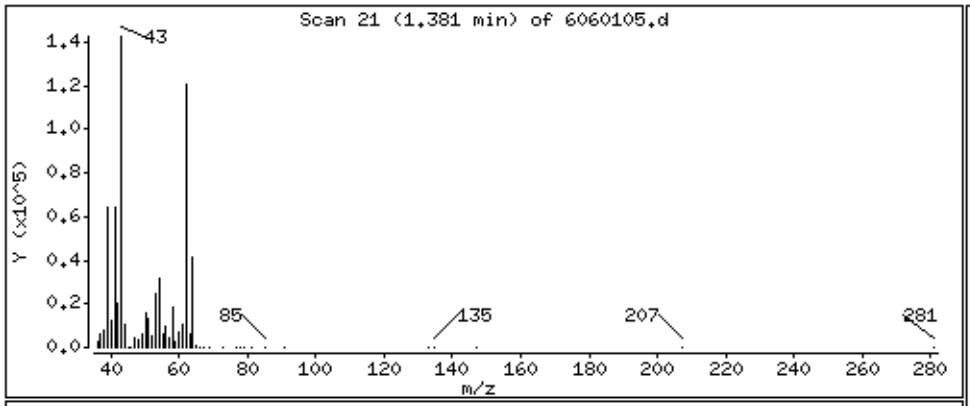
Operator: CT

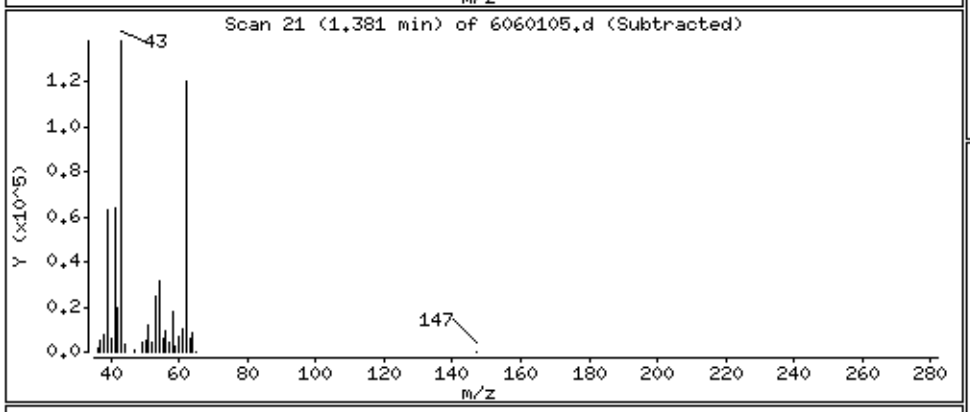
Column phase: RTx-624

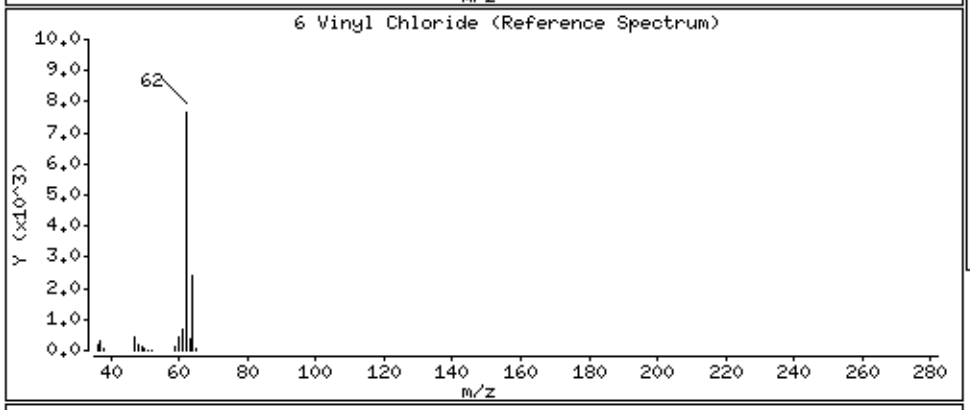
Column diameter: 0.53

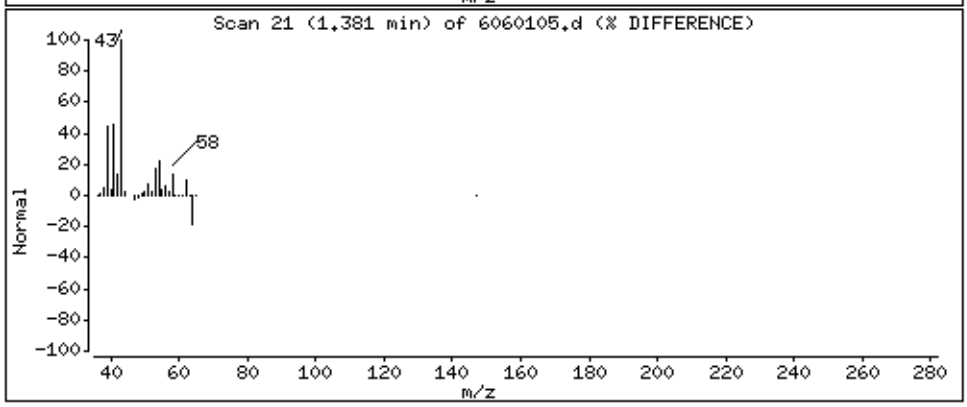
6 Vinyl Chloride

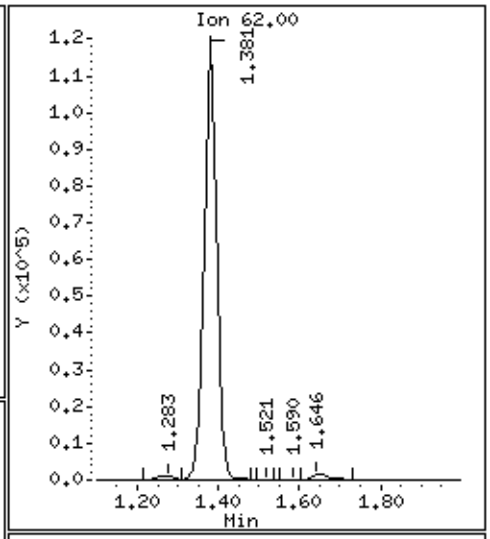
Concentration: 51.120 NG

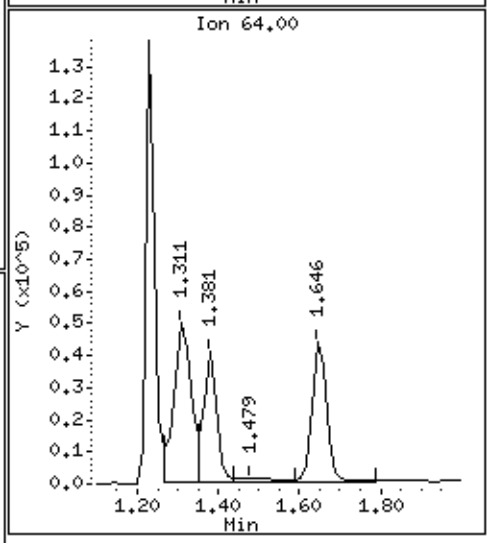












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

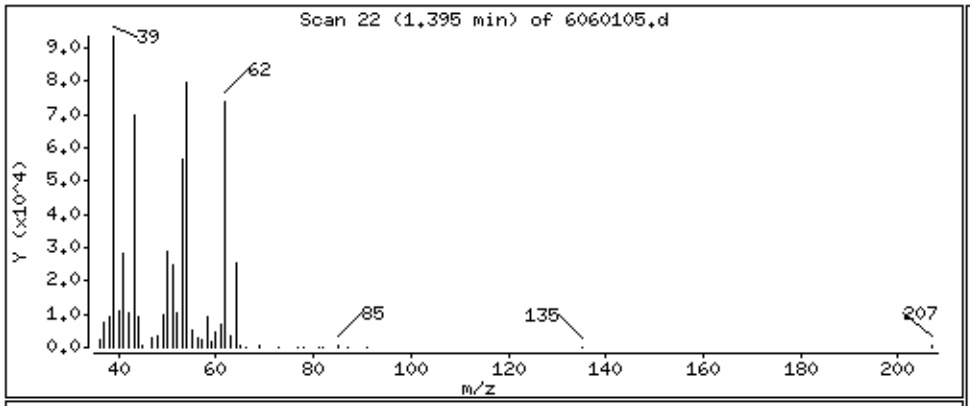
Operator: CT

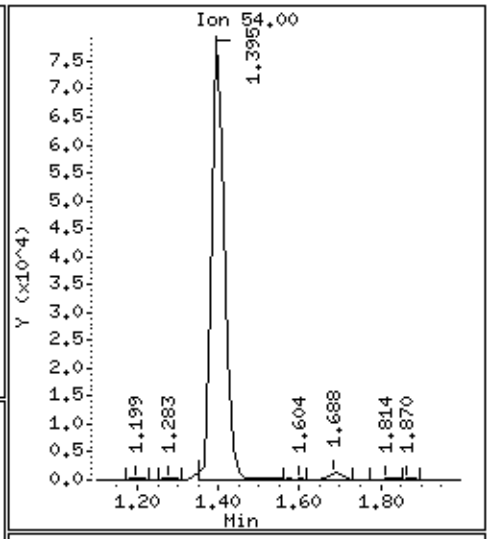
Column phase: RTx-624

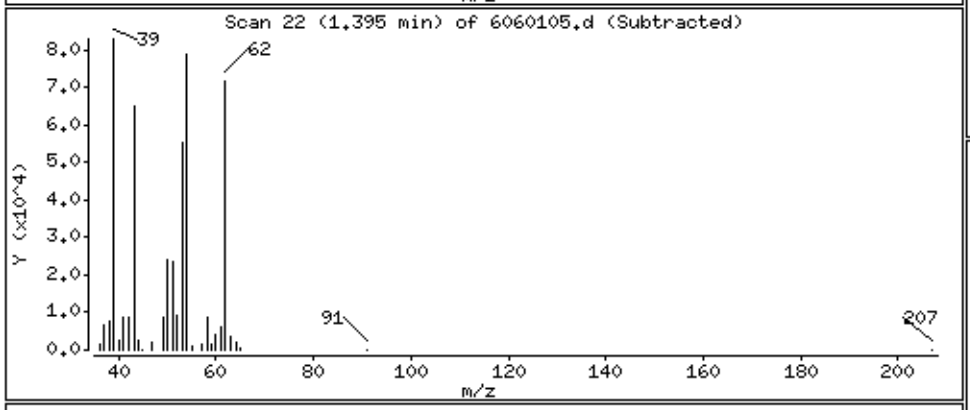
Column diameter: 0.53

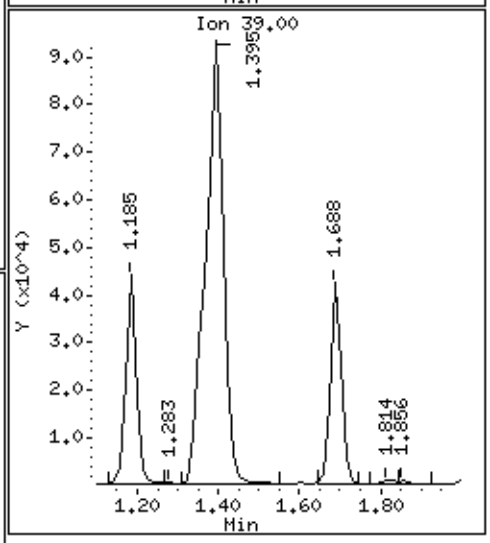
7 1,3-Butadiene

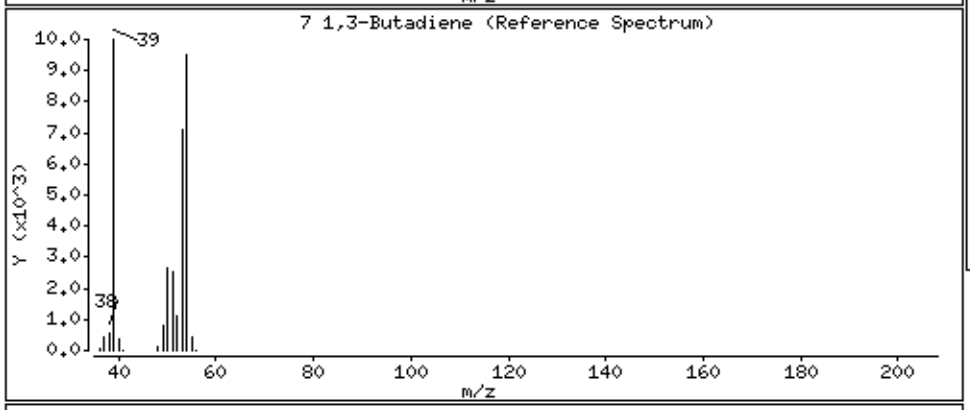
Concentration: 37.072 NG

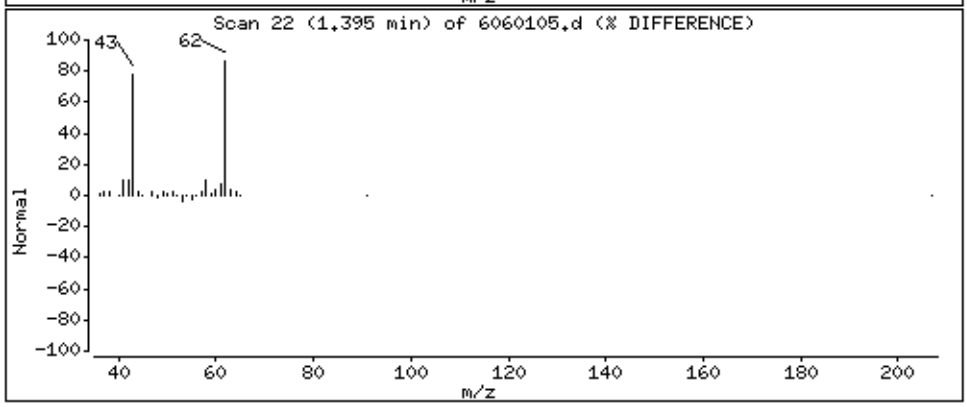












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

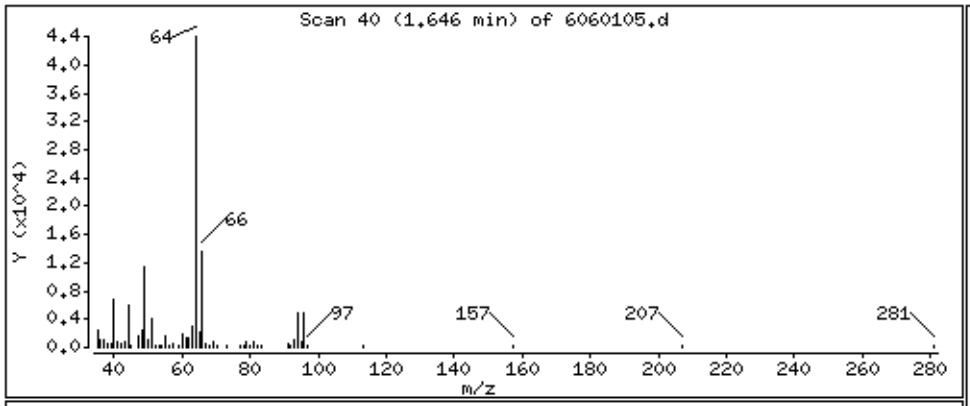
Operator: CT

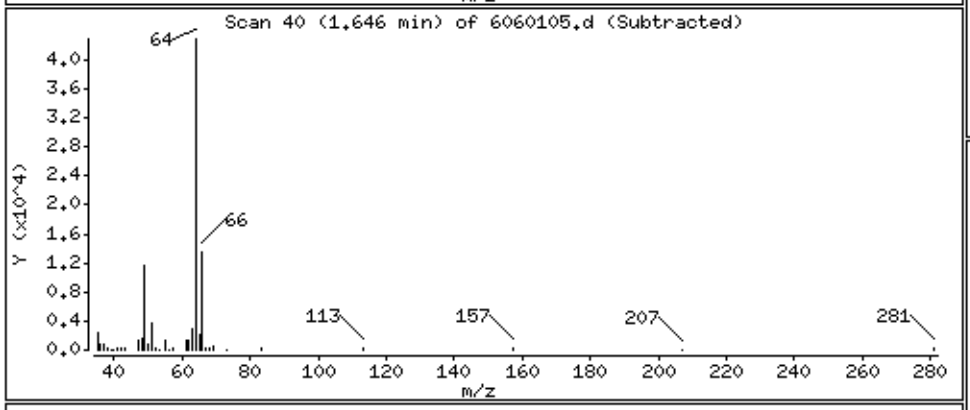
Column phase: RTx-624

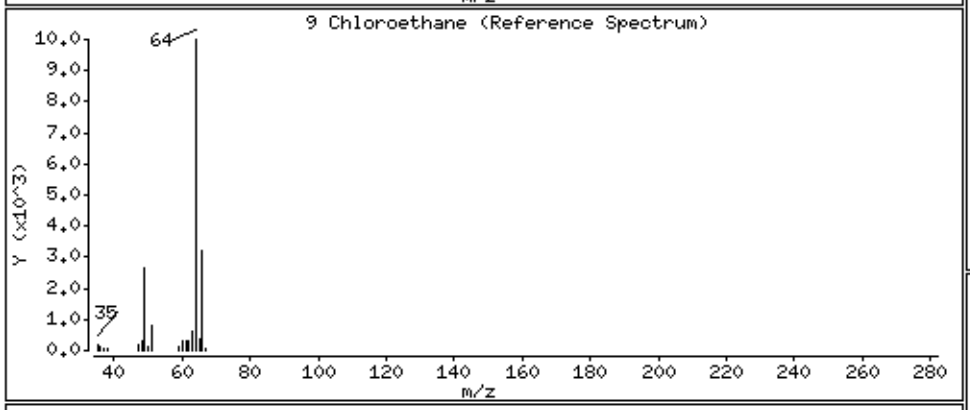
Column diameter: 0.53

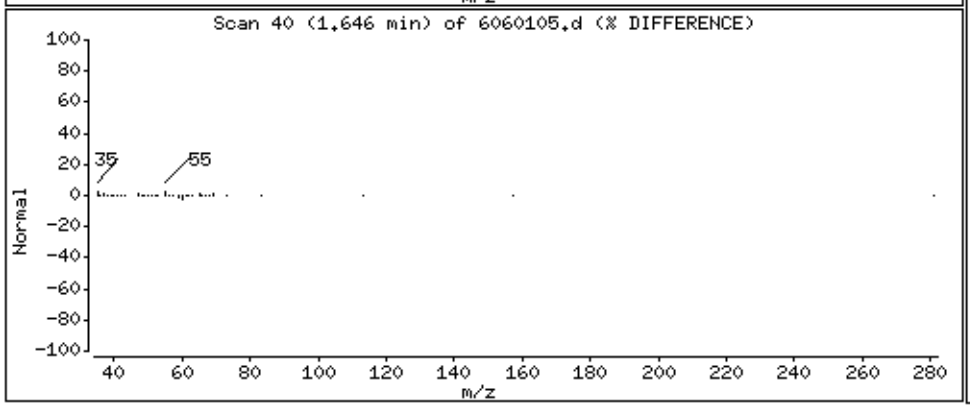
9 Chloroethane

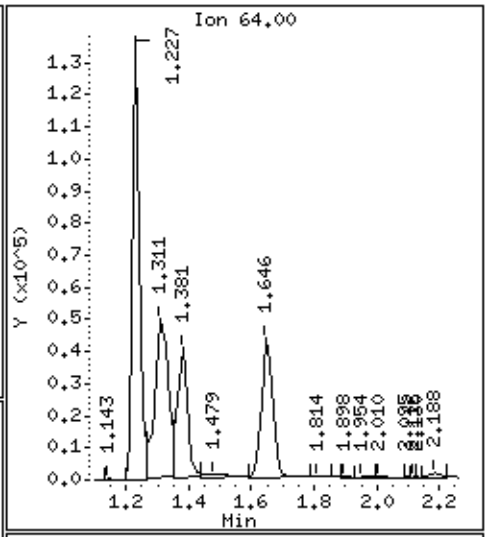
Concentration: 37.914 NG

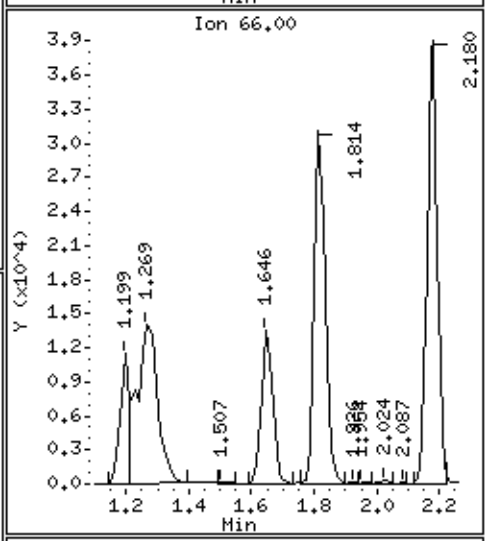


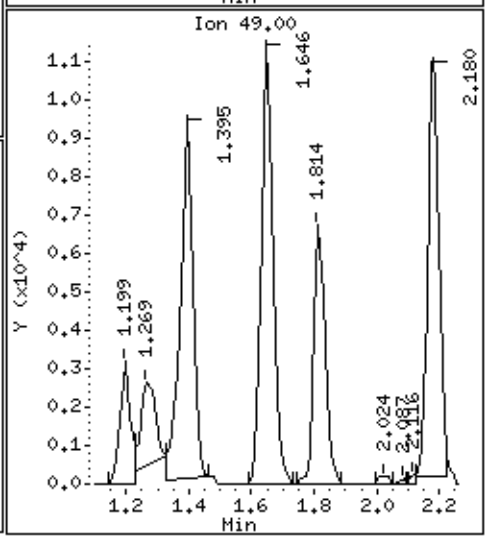












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

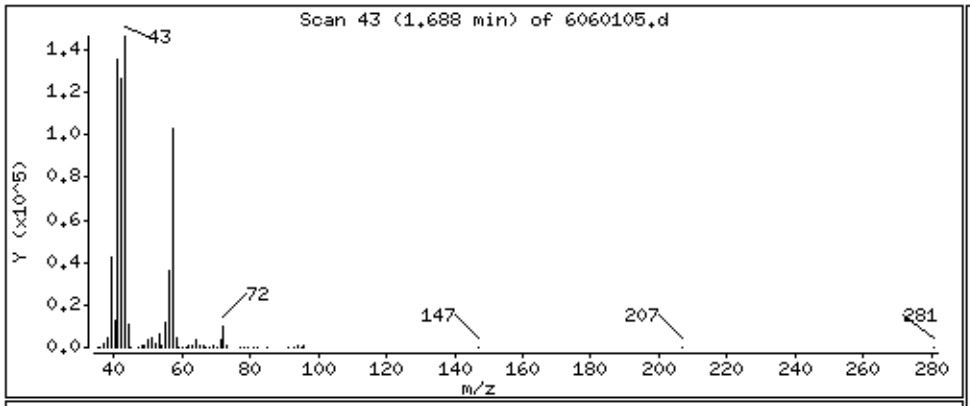
Operator: CT

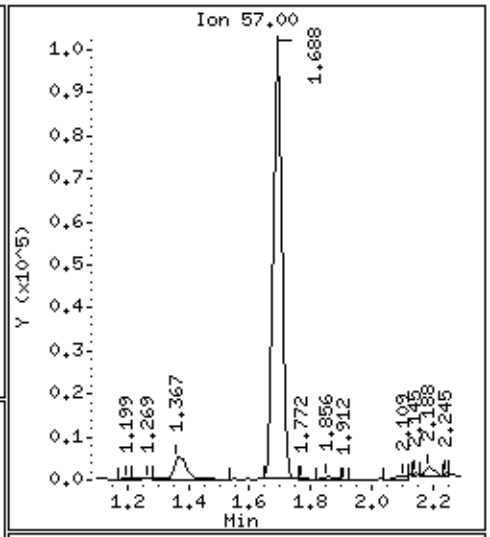
Column phase: RTx-624

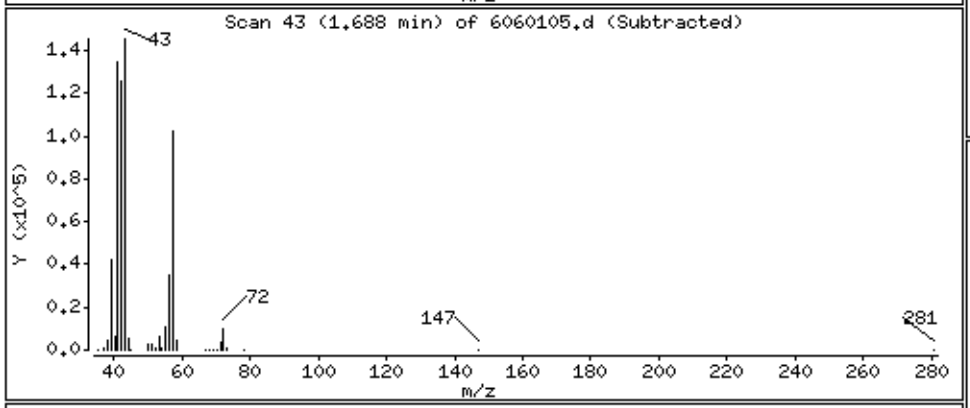
Column diameter: 0.53

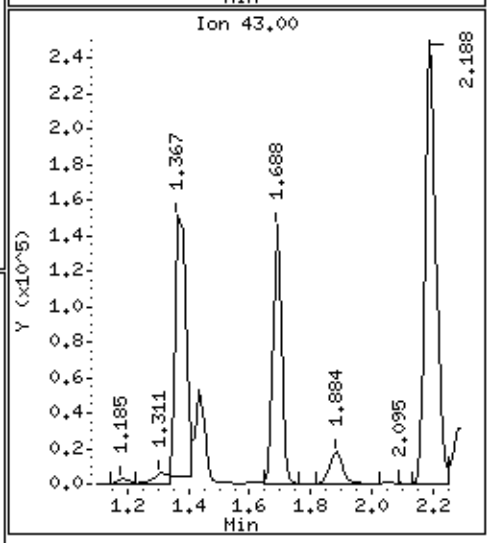
10 Isopentane

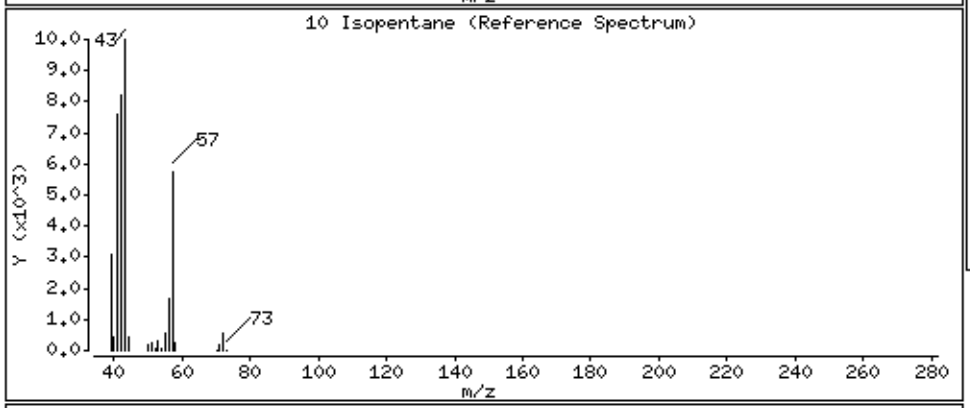
Concentration: 53.487 NG

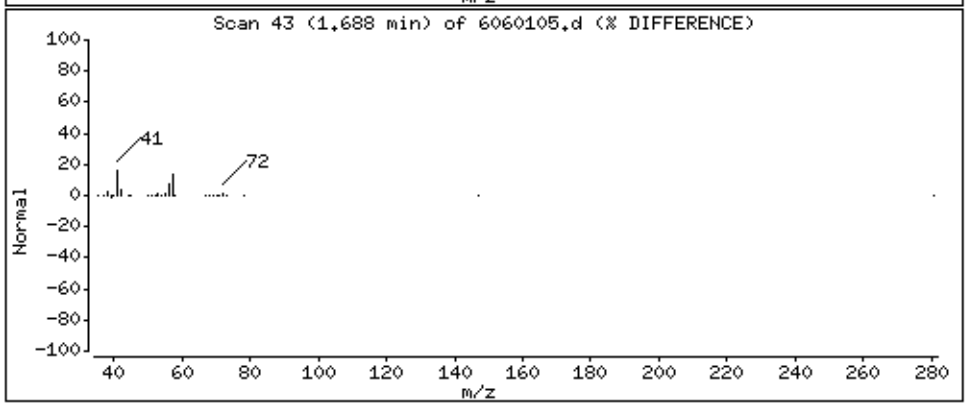












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

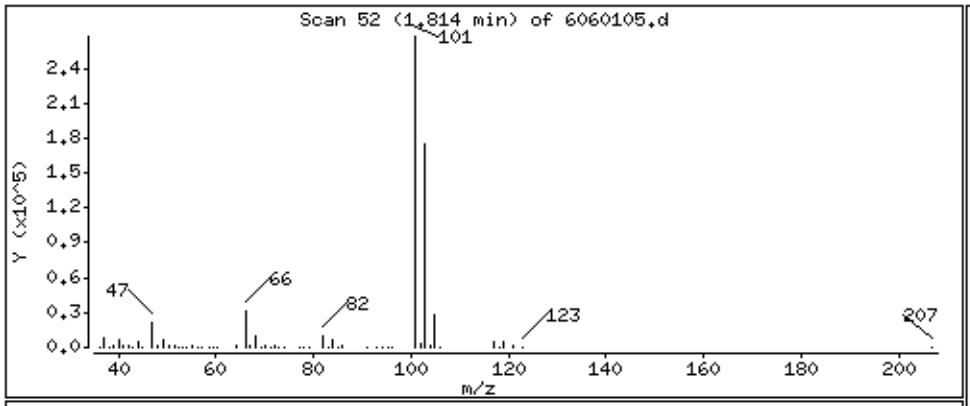
Operator: CT

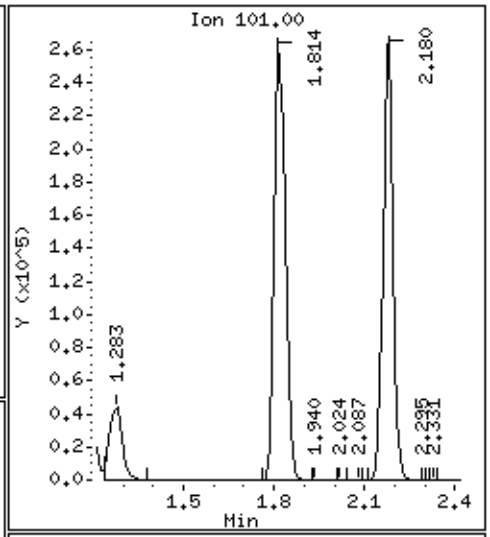
Column phase: RTx-624

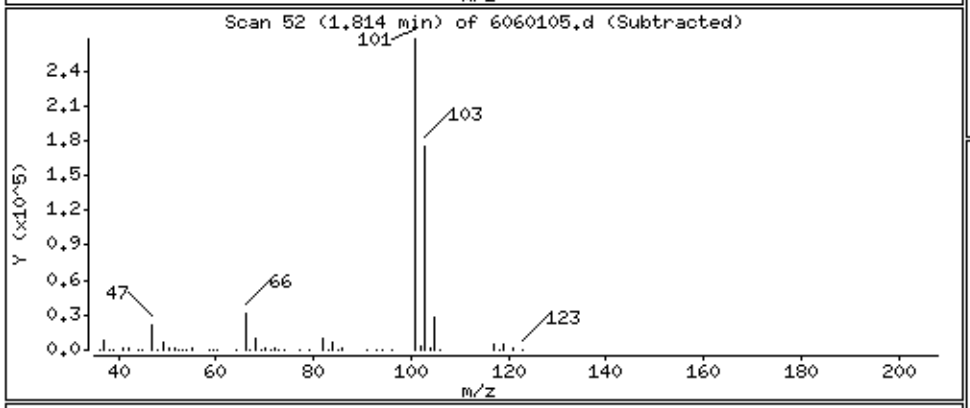
Column diameter: 0.53

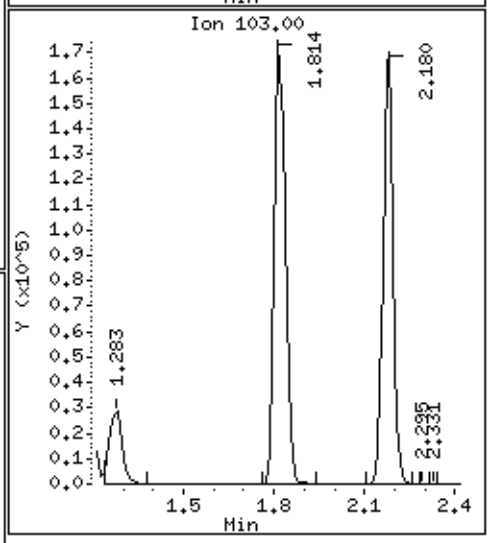
11 Trichlorofluoromethane/Fr11

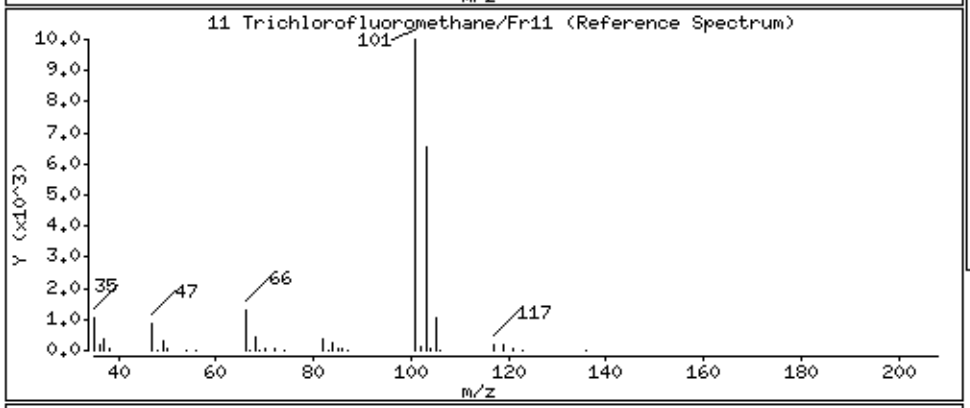
Concentration: 118.49 NG

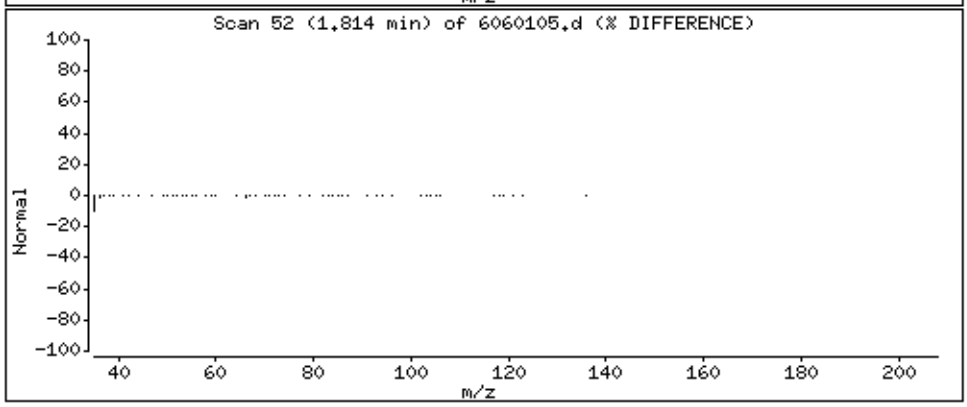












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

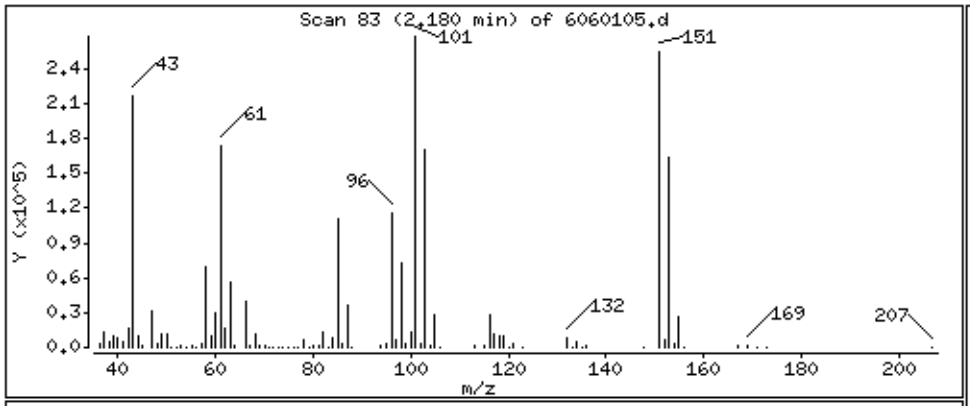
Operator: CT

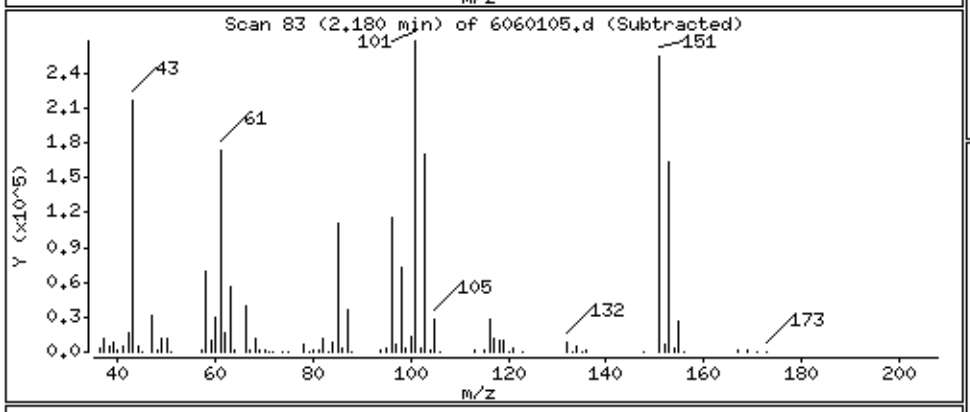
Column phase: RTx-624

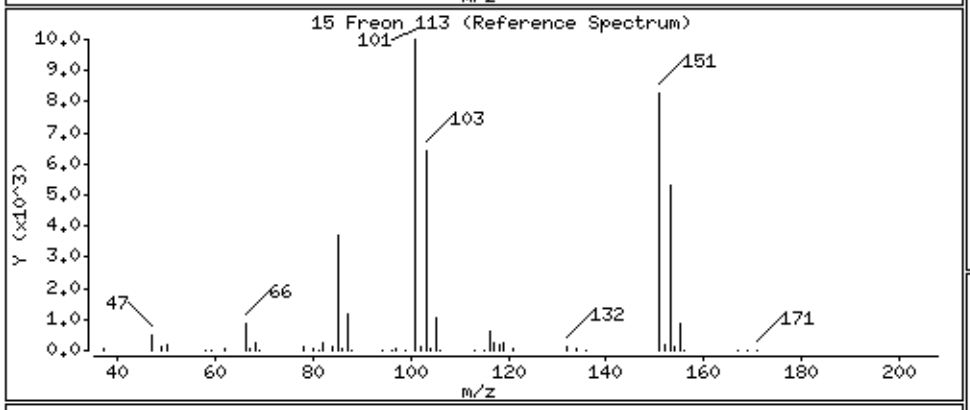
Column diameter: 0.53

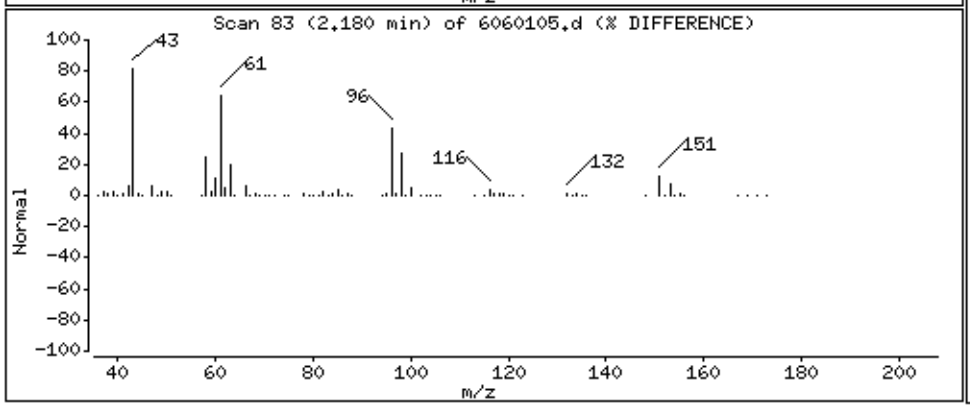
15 Freon 113

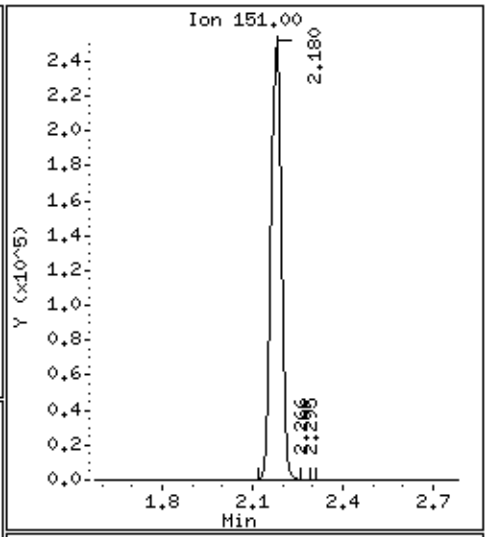
Concentration: 185.31 NG

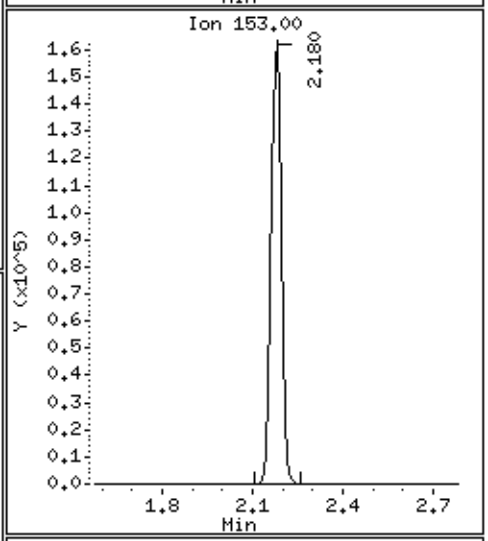


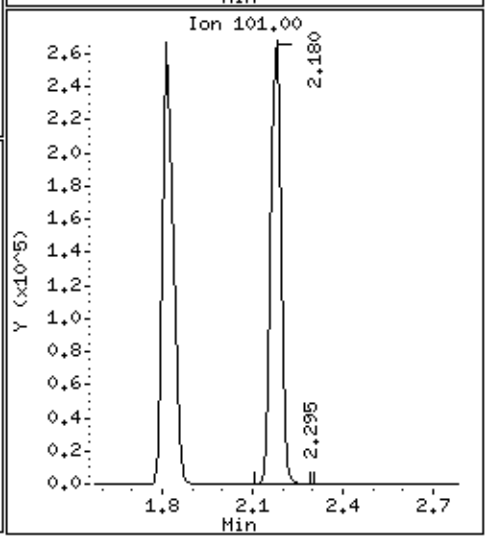












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

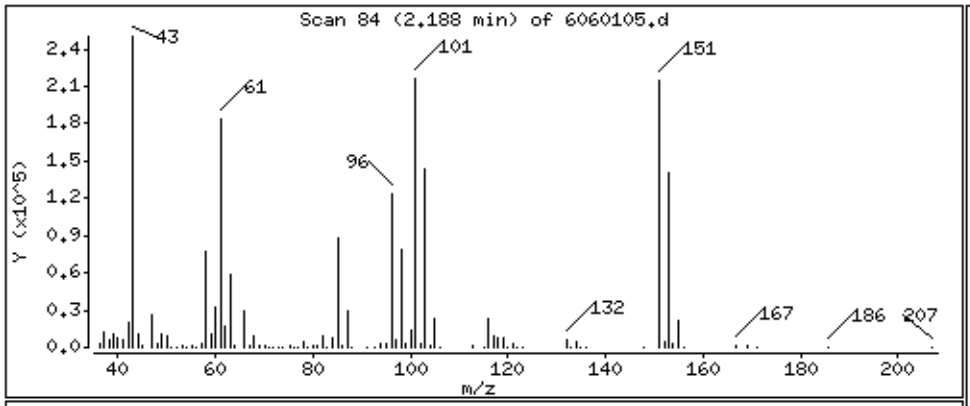
Operator: CT

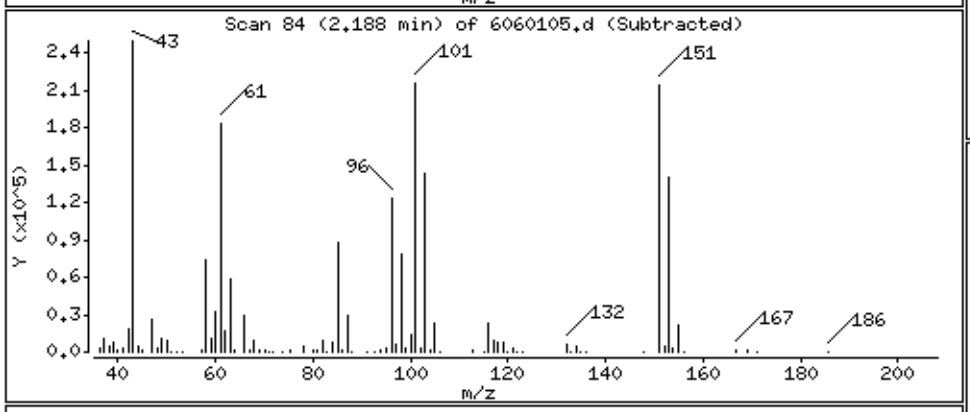
Column phase: RTx-624

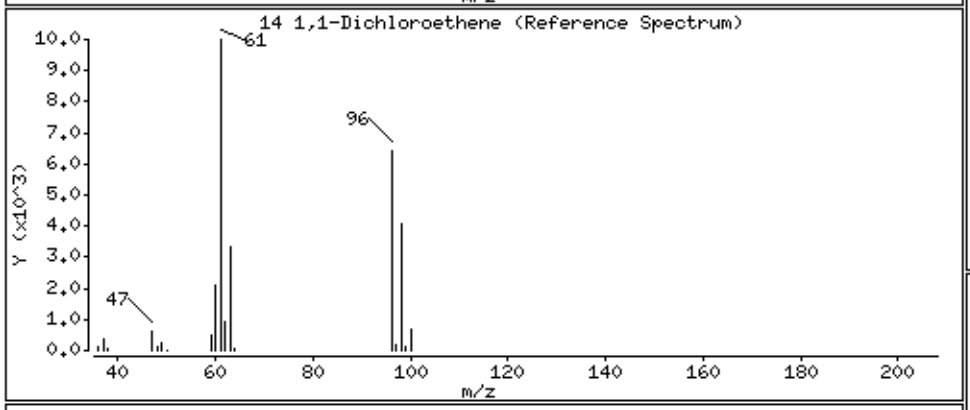
Column diameter: 0.53

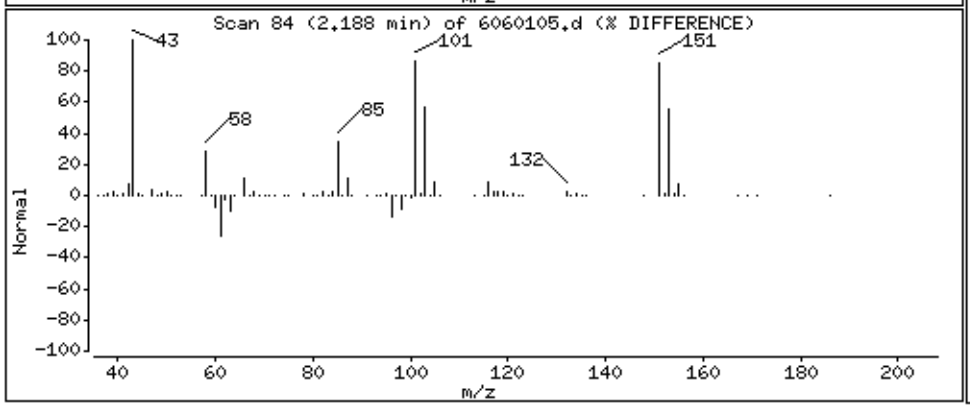
14 1,1-Dichloroethene

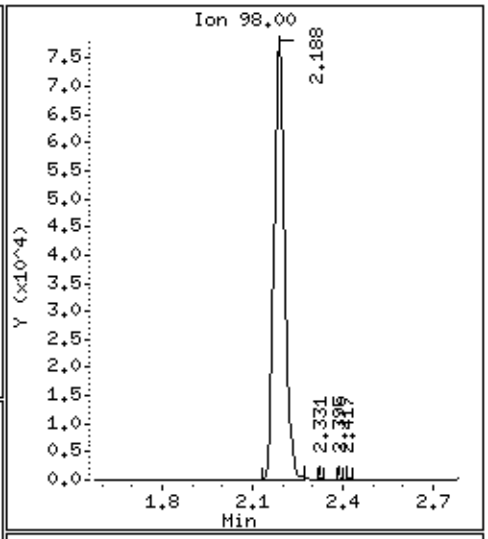
Concentration: 86.855 NG

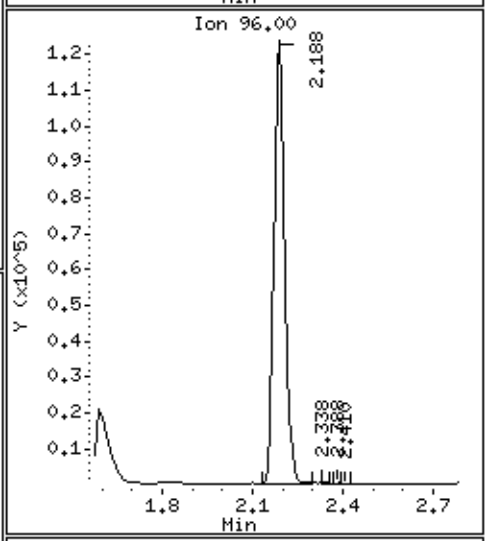


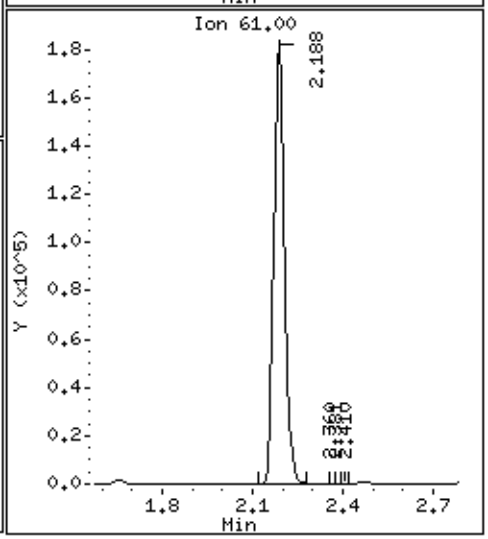












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

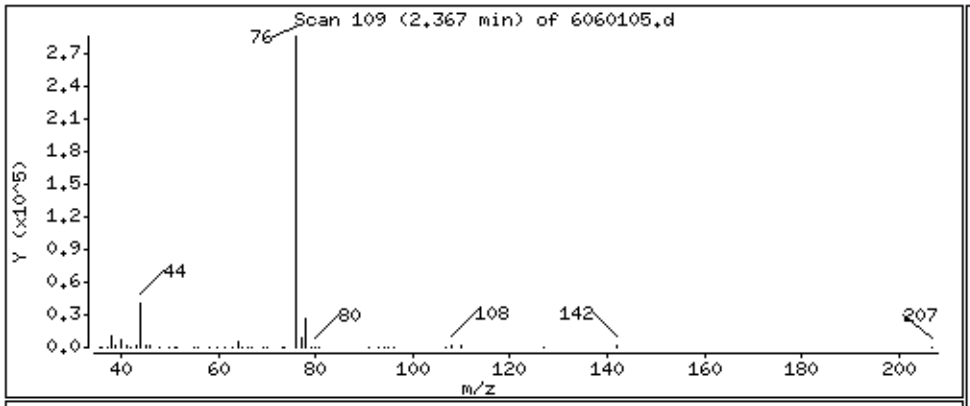
Operator: CT

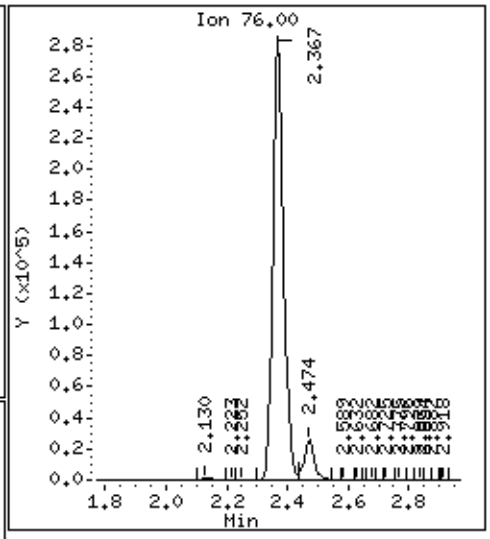
Column phase: RTx-624

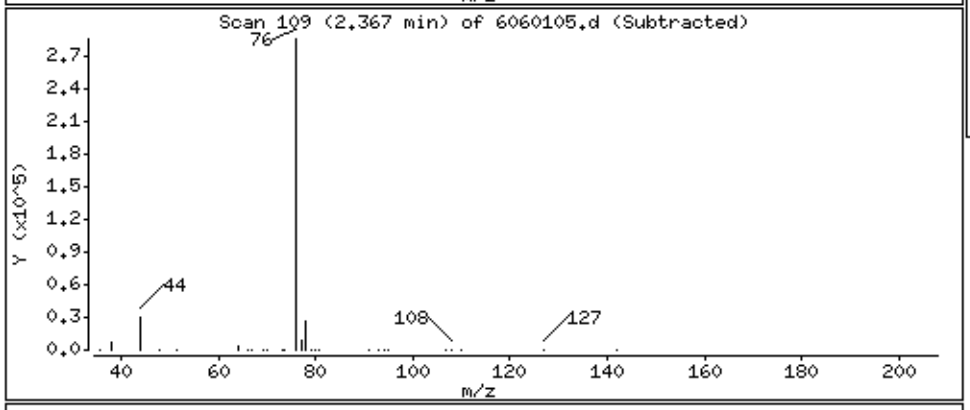
Column diameter: 0.53

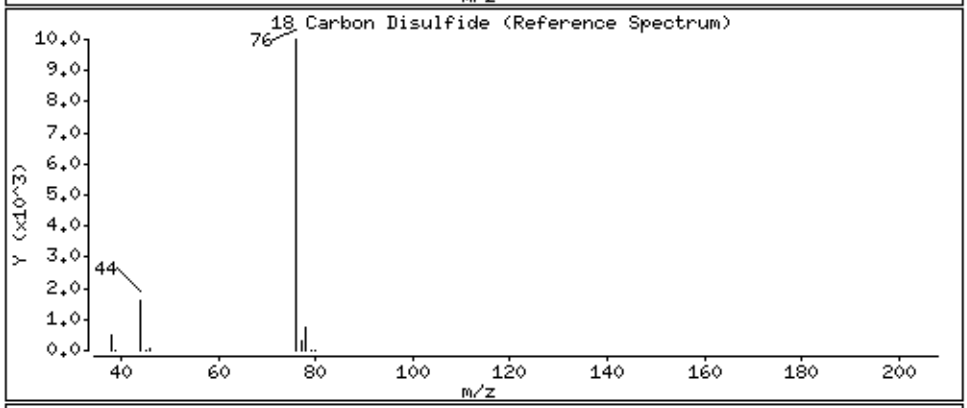
18 Carbon Disulfide

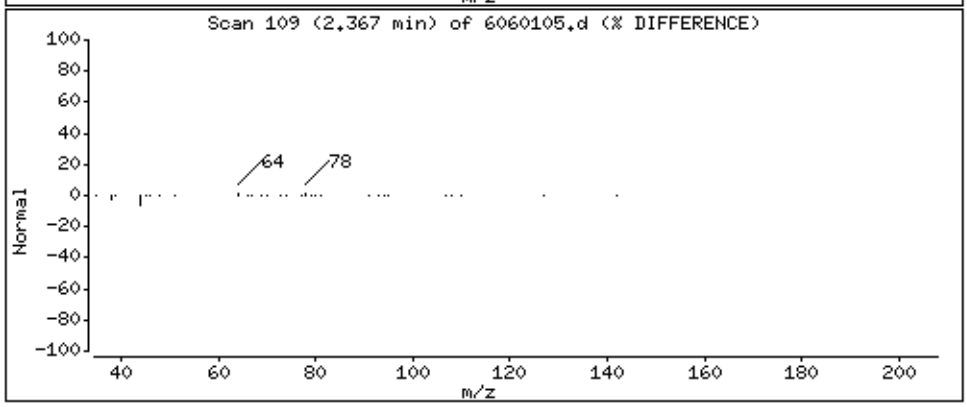
Concentration: 55.032 NG











Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

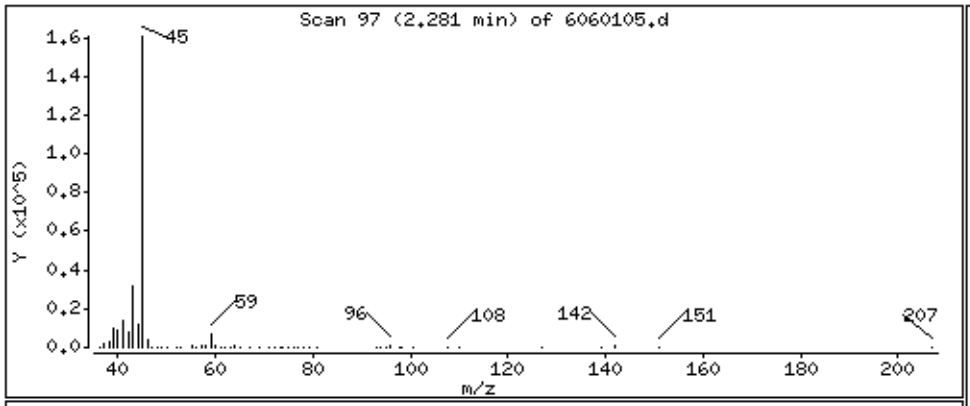
Operator: CT

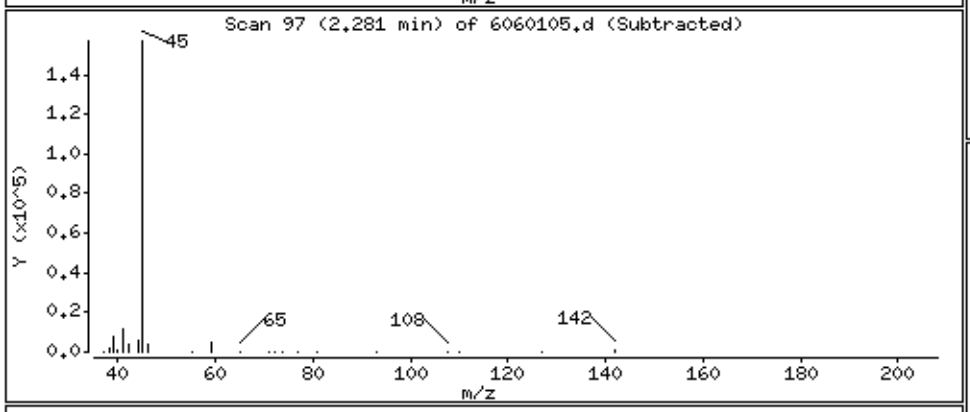
Column phase: RTx-624

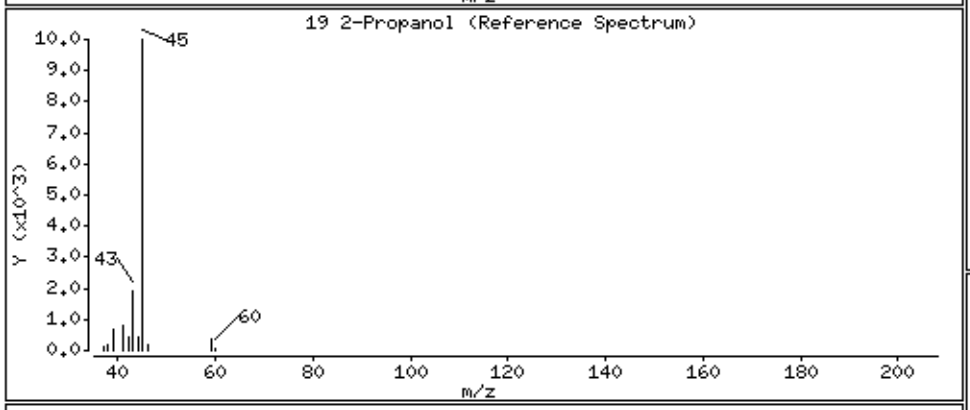
Column diameter: 0.53

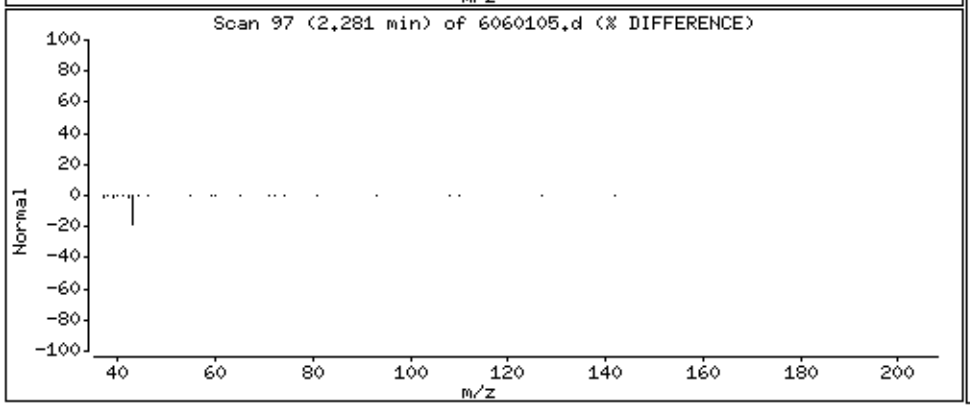
19 2-Propanol

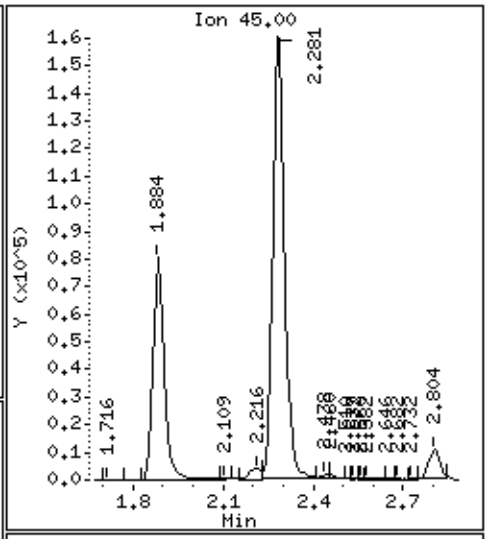
Concentration: 35.993 NG

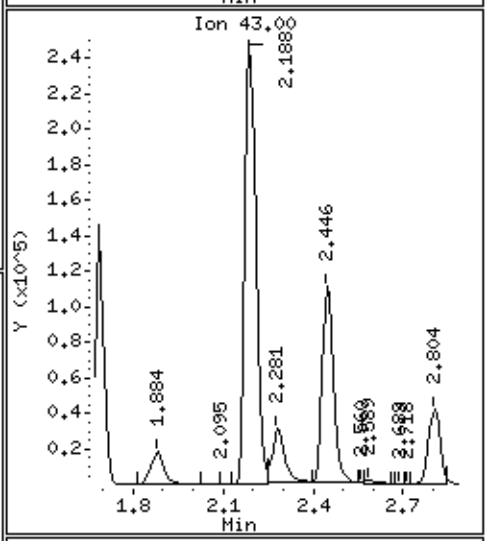


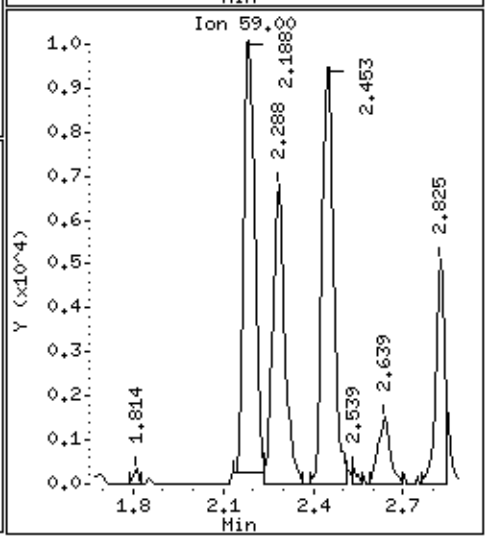












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

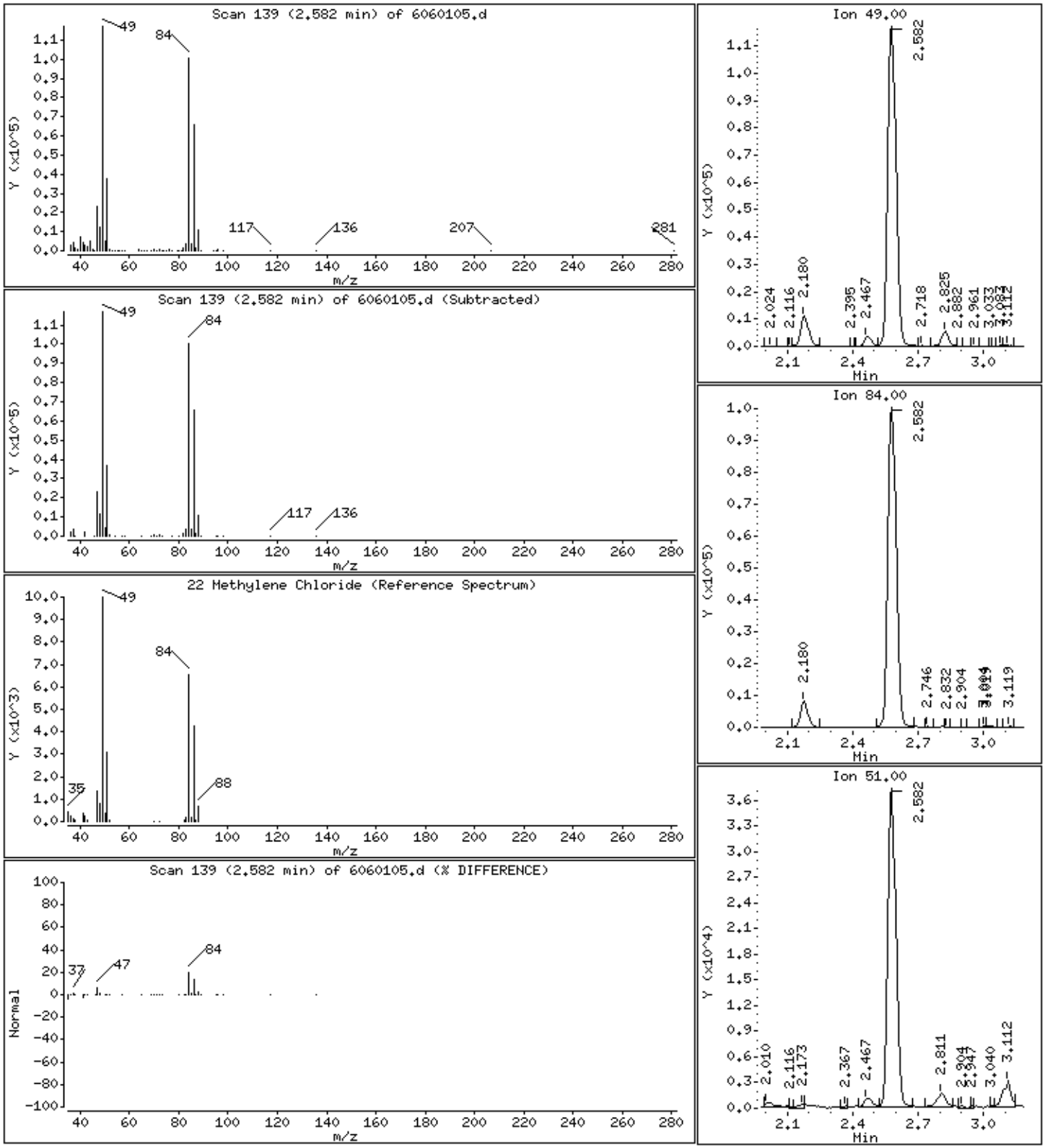
Operator: CT

Column phase: RTx-624

Column diameter: 0.53

22 Methylene Chloride

Concentration: 56.915 NG



Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

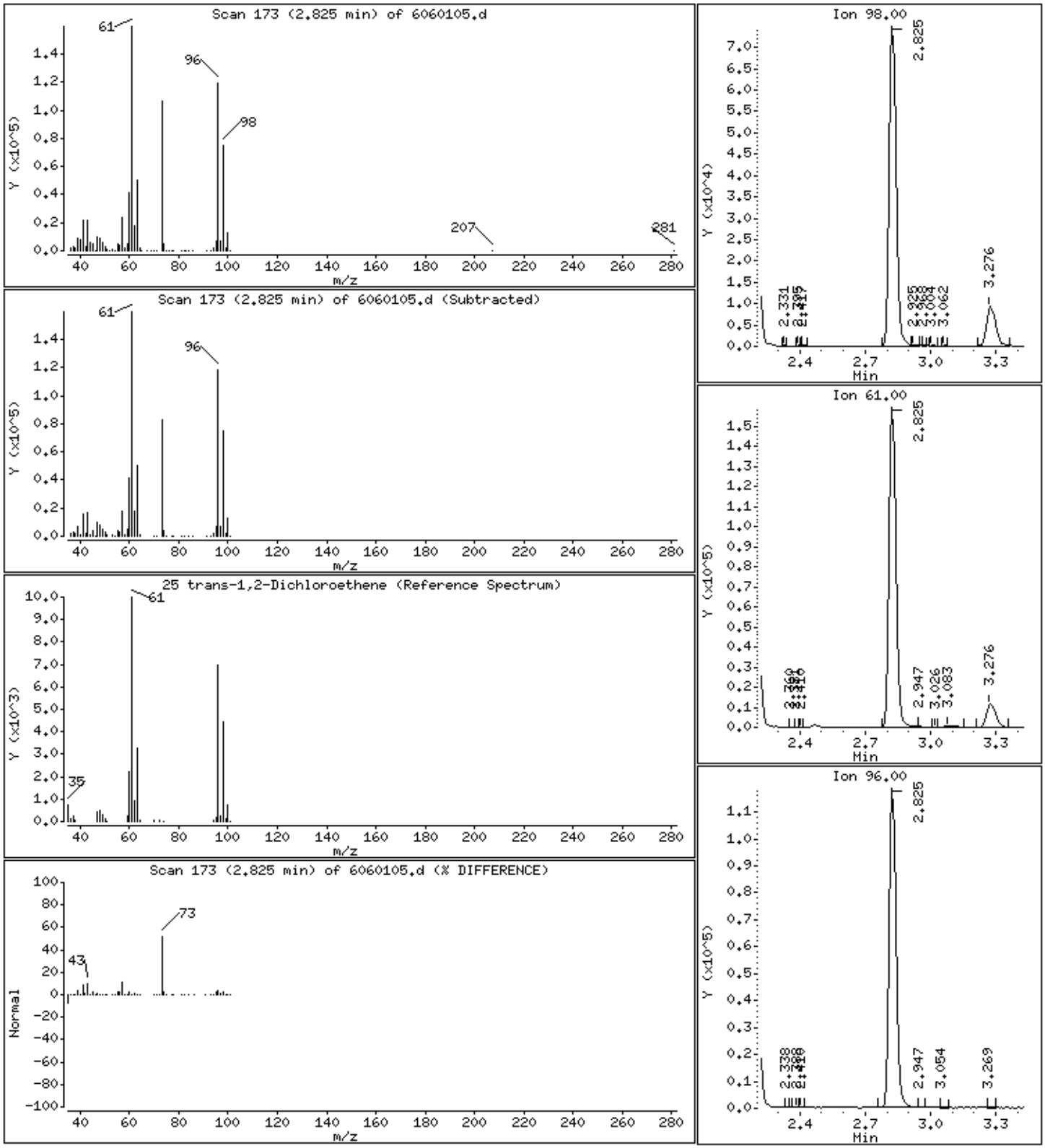
Operator: CT

Column phase: RTx-624

Column diameter: 0.53

25 trans-1,2-Dichloroethene

Concentration: 72.196 NG



Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

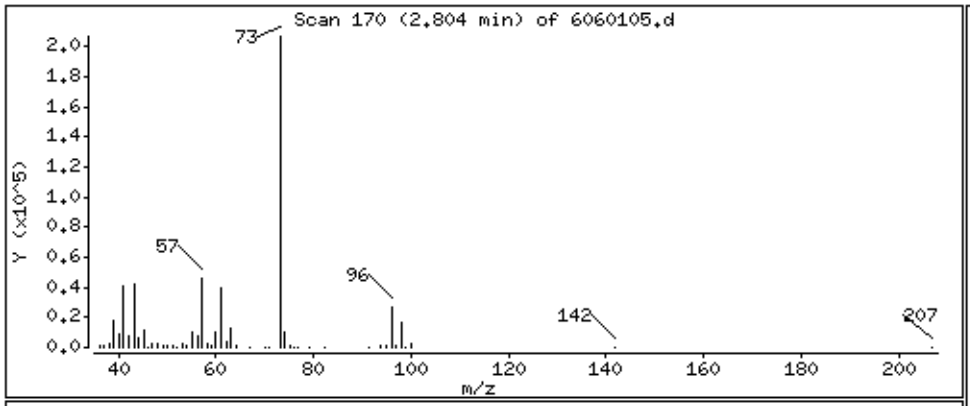
Operator: CT

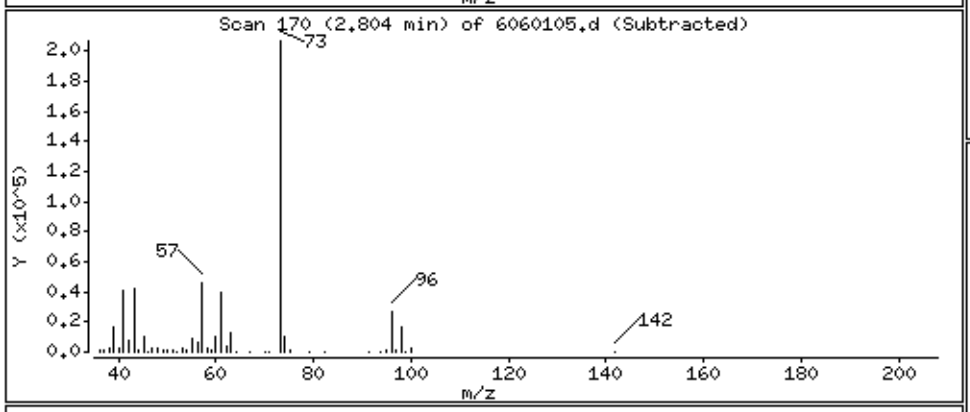
Column phase: RTx-624

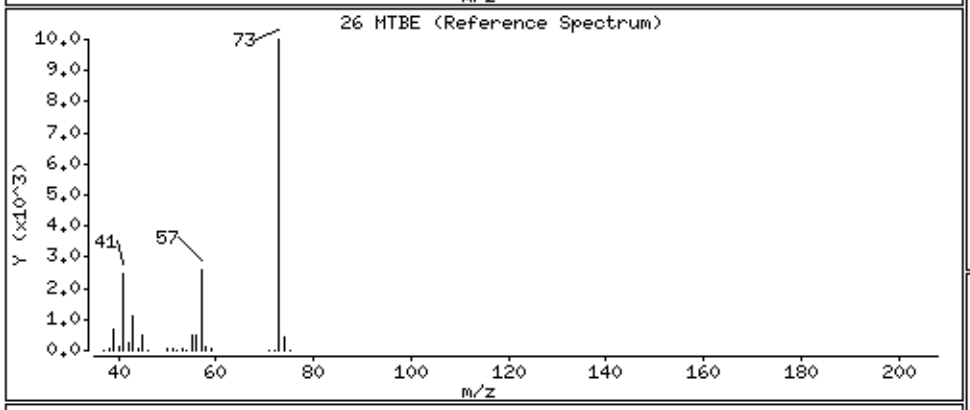
Column diameter: 0.53

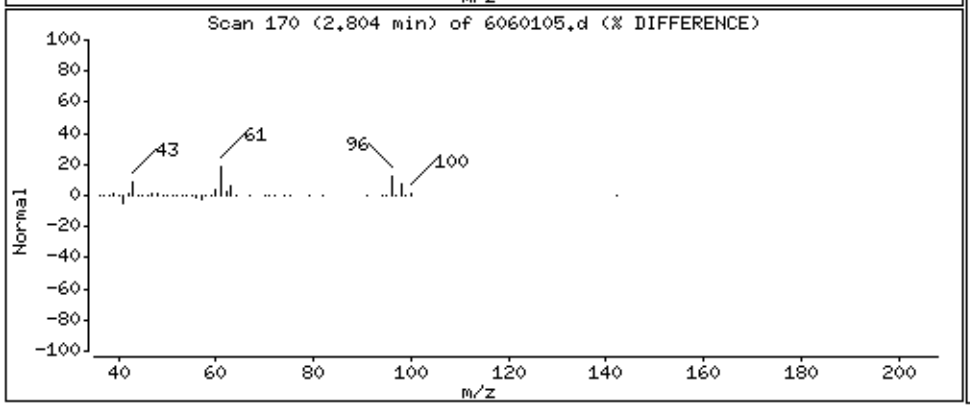
26 MTBE

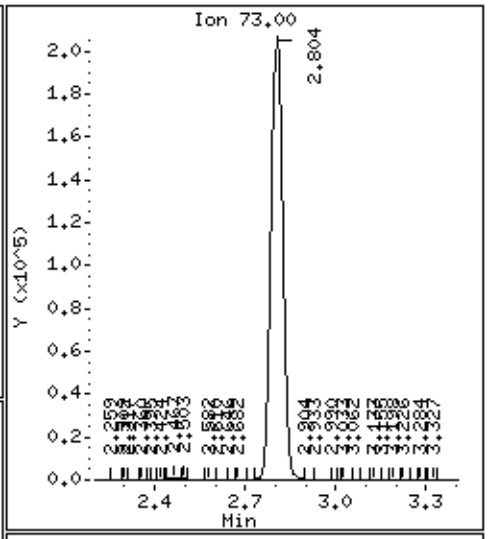
Concentration: 59.739 NG

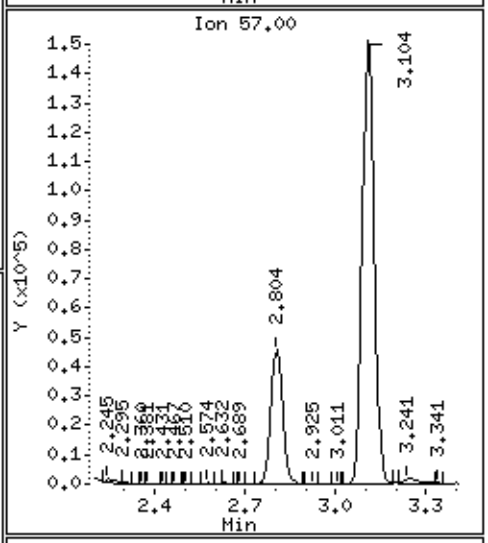


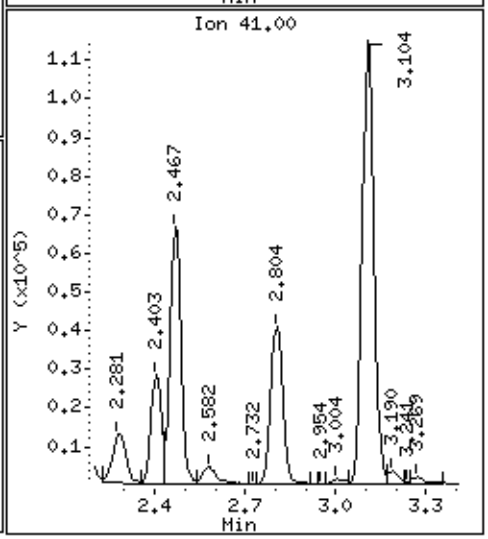












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

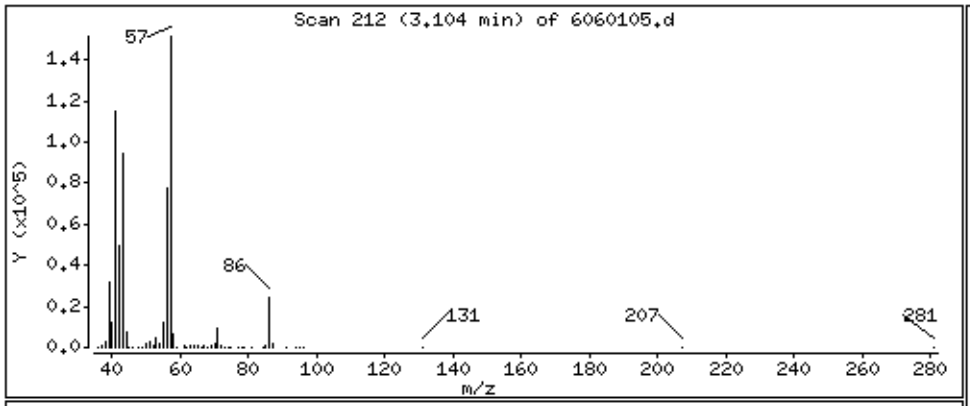
Operator: CT

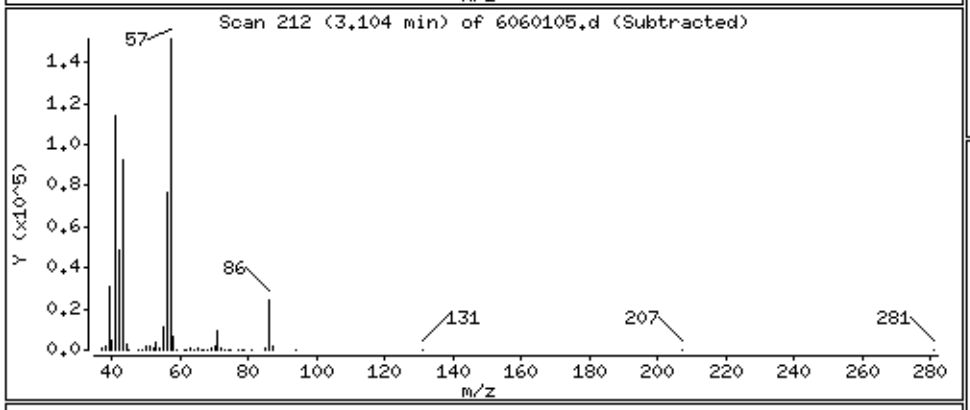
Column phase: RTx-624

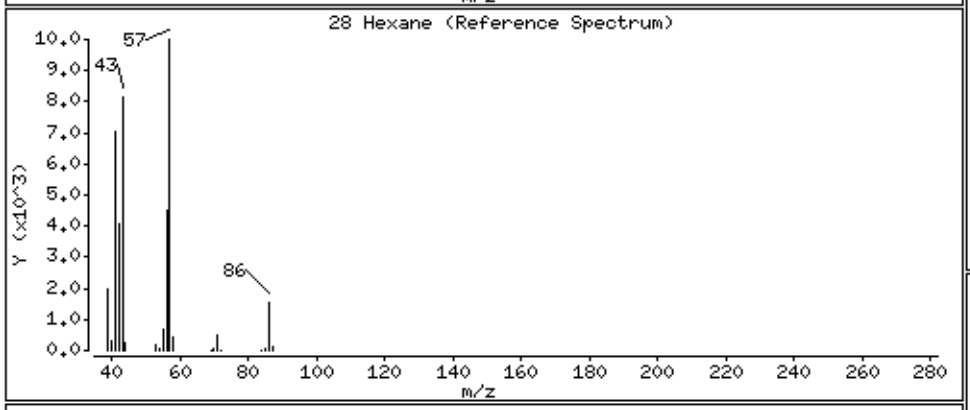
Column diameter: 0.53

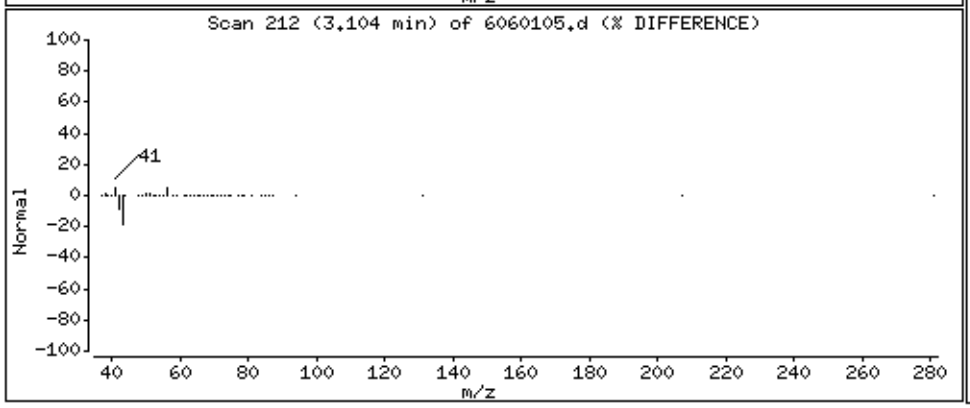
28 Hexane

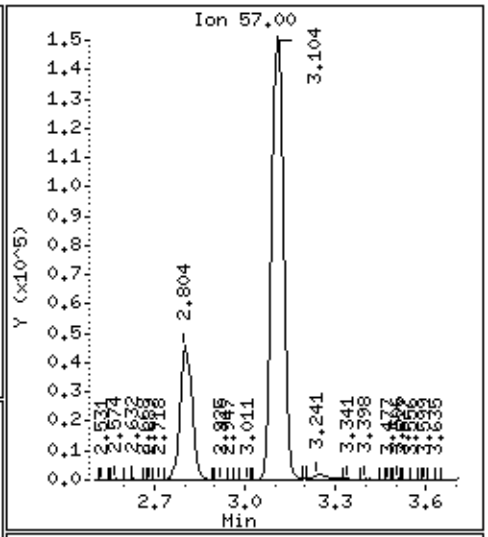
Concentration: 63.311 NG

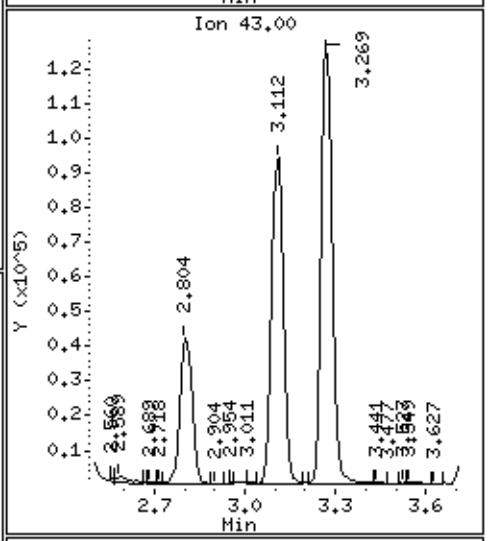


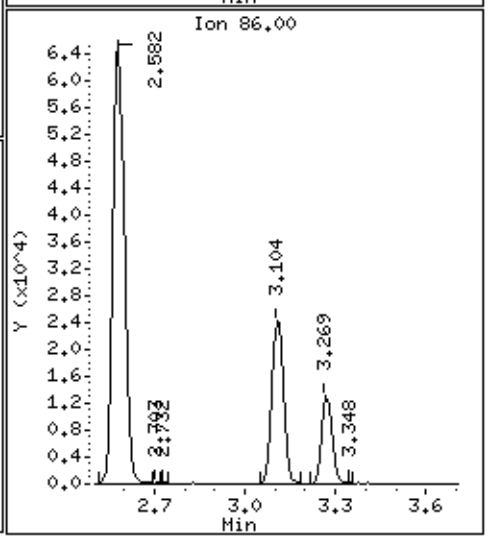












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

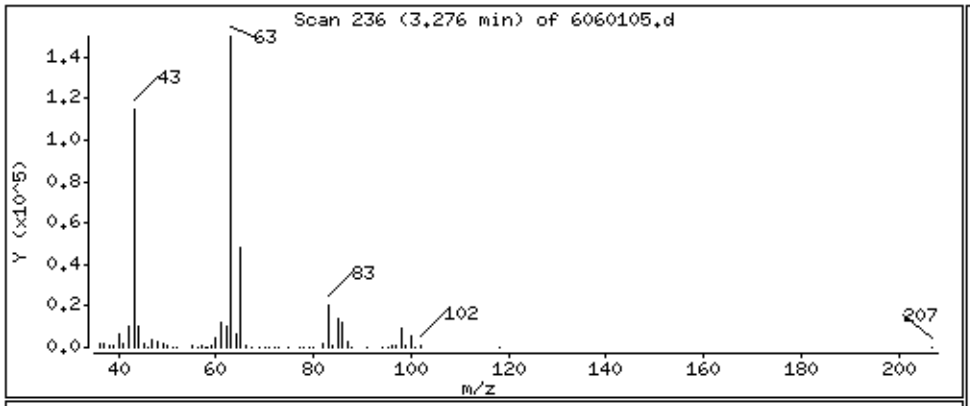
Operator: CT

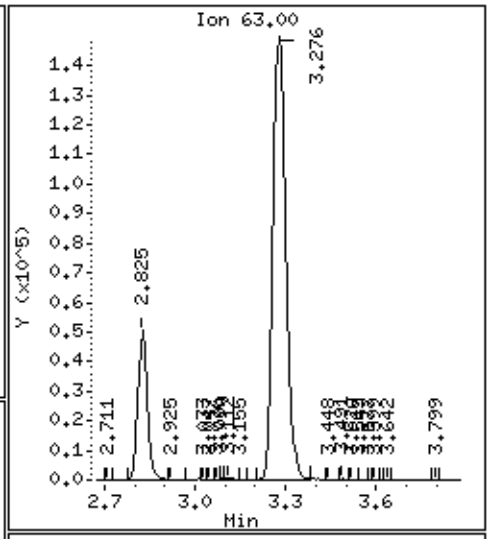
Column phase: RTx-624

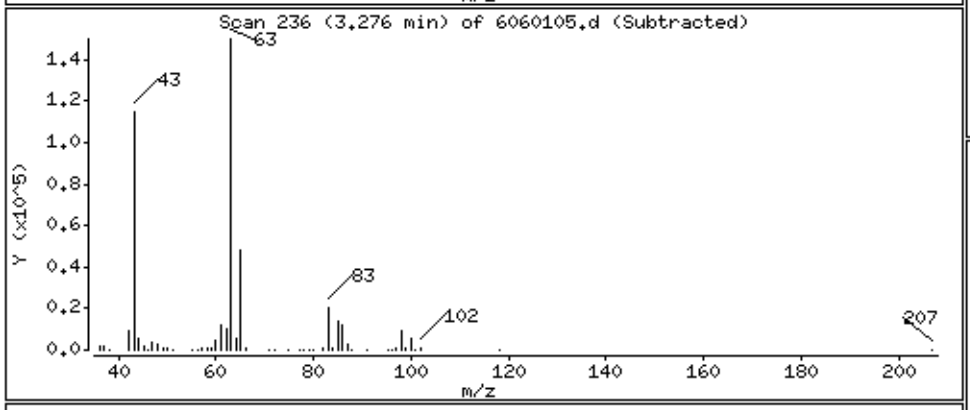
Column diameter: 0.53

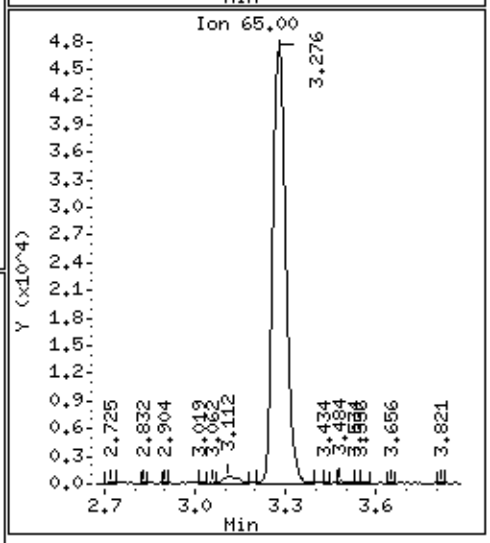
29 1,1-Dichloroethane

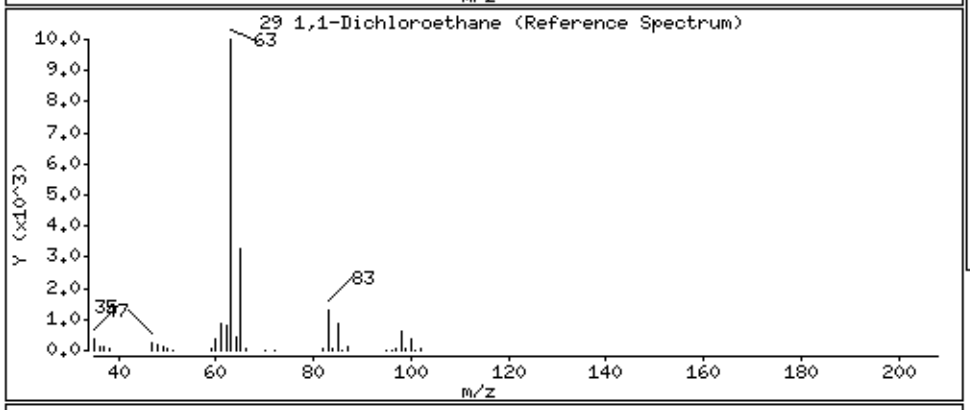
Concentration: 73.794 NG

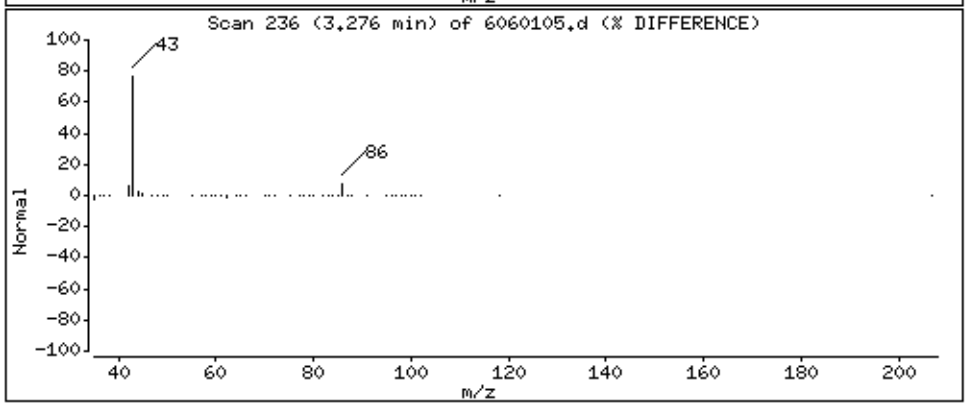












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

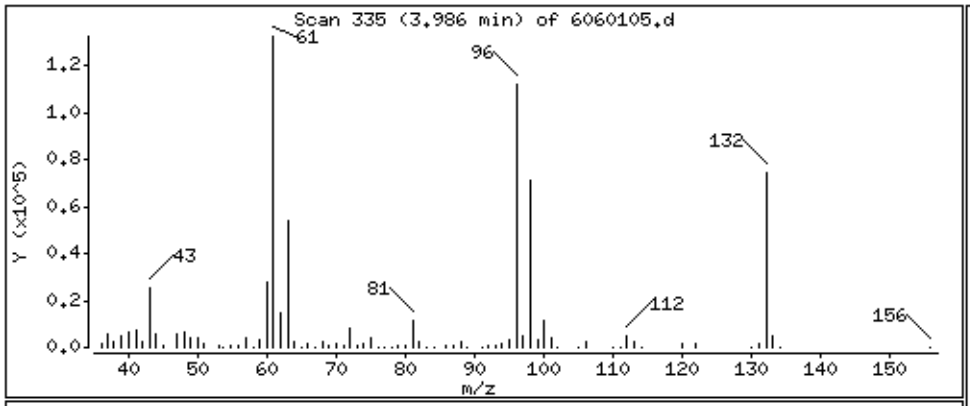
Operator: CT

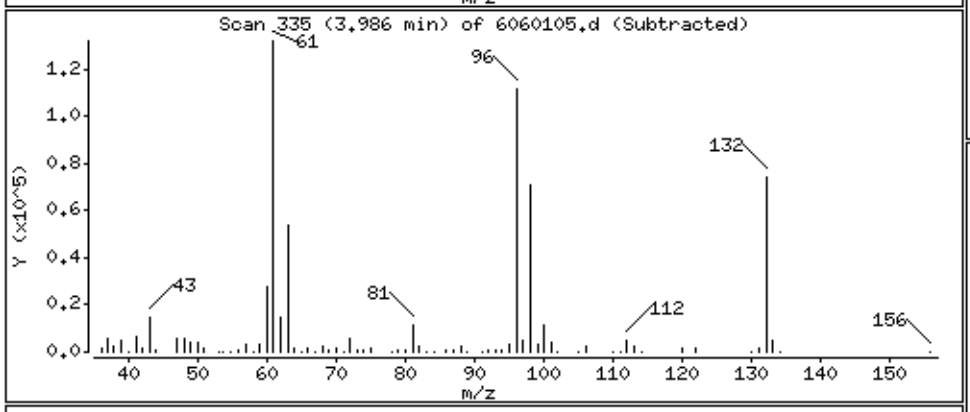
Column phase: RTx-624

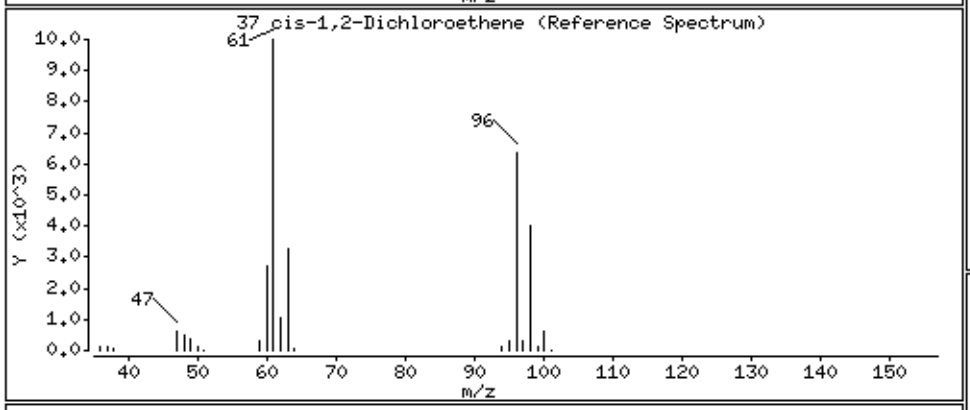
Column diameter: 0.53

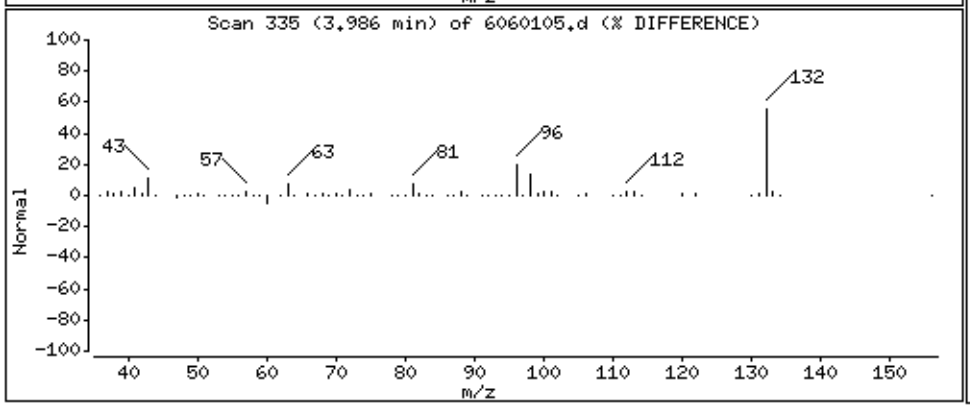
37 cis-1,2-Dichloroethene

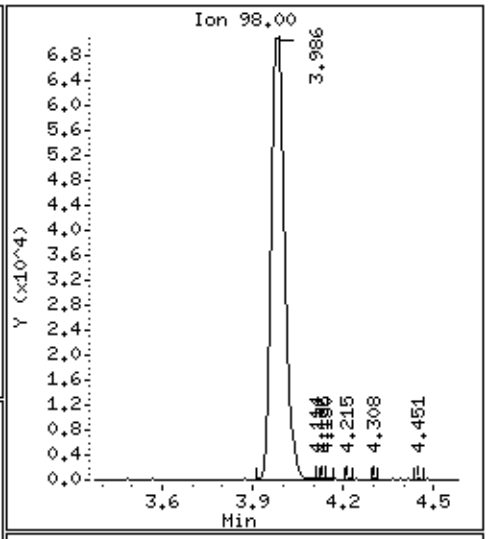
Concentration: 90.172 NG

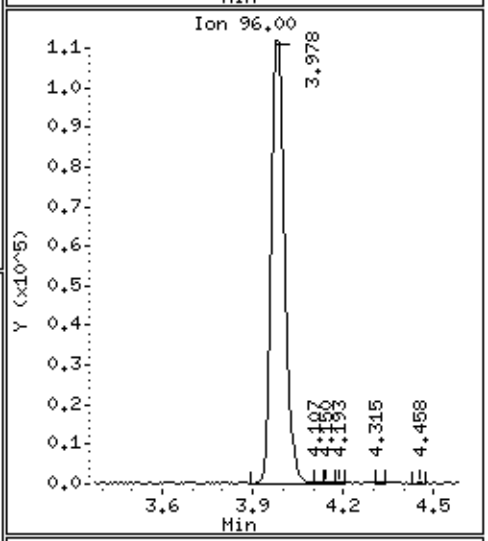


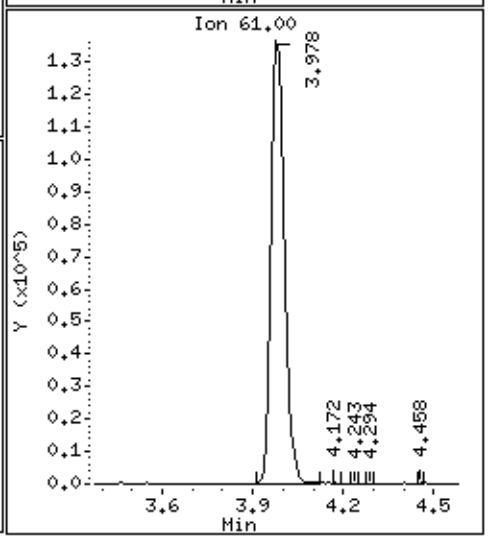












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

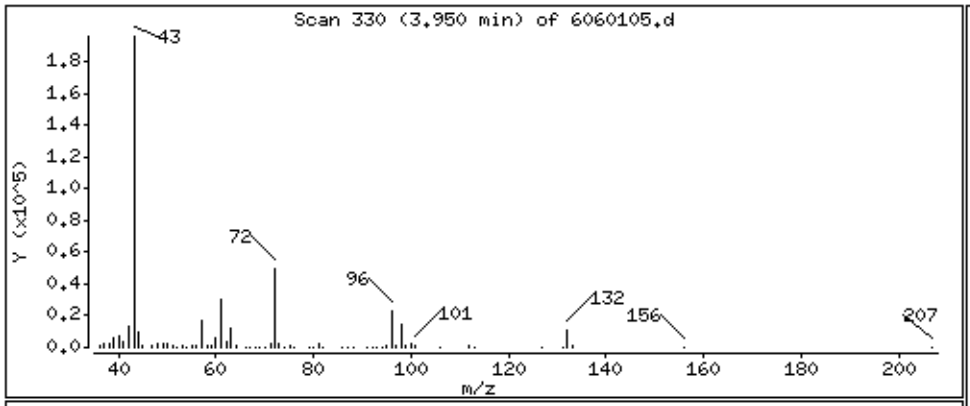
Operator: CT

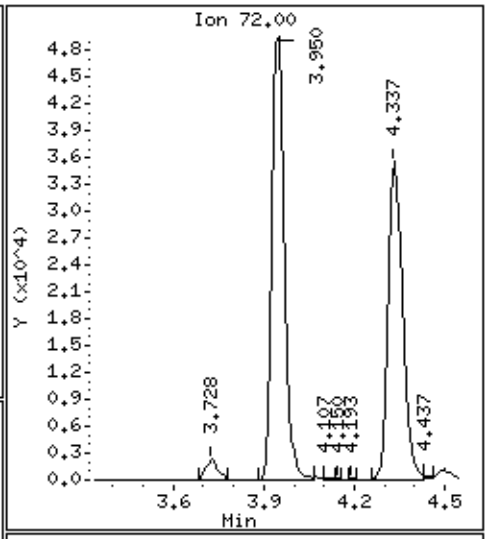
Column phase: RTx-624

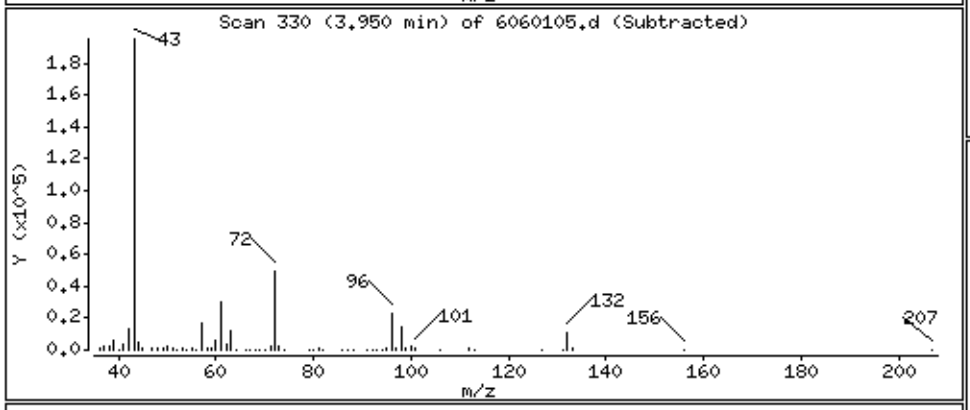
Column diameter: 0.53

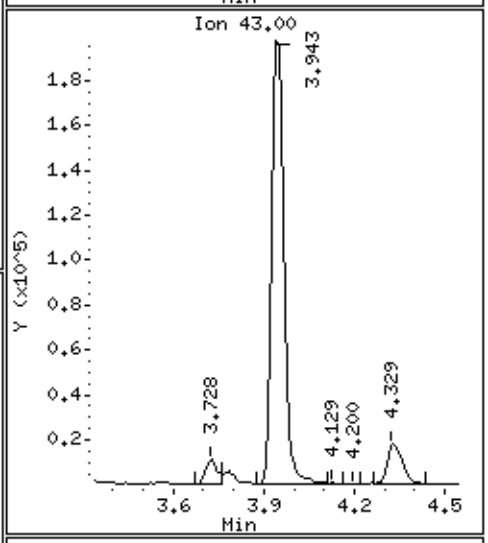
38 2-Butanone

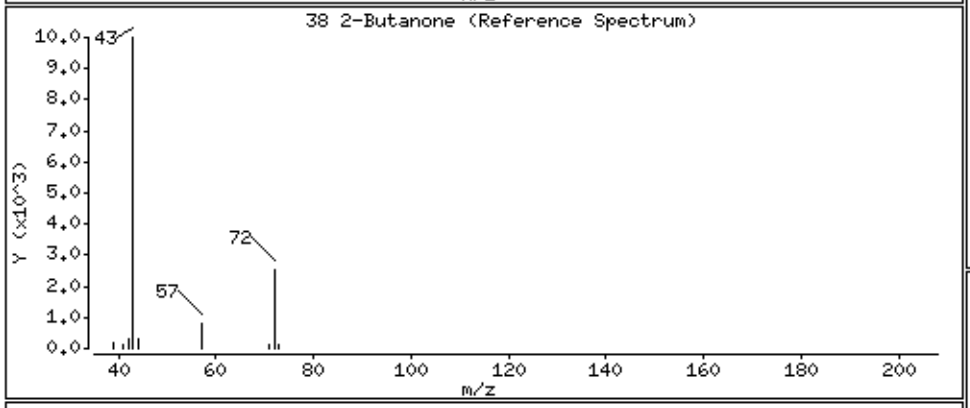
Concentration: 56.807 NG

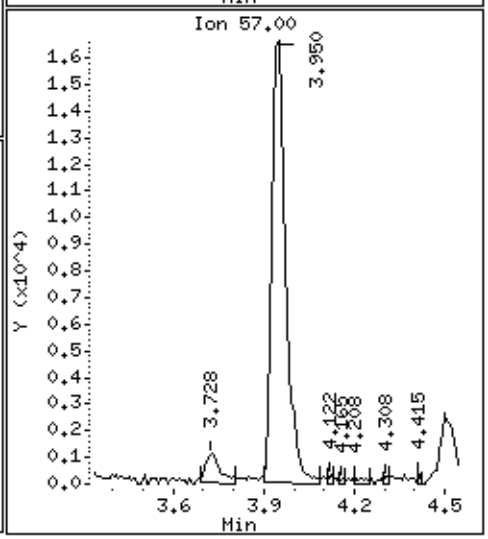


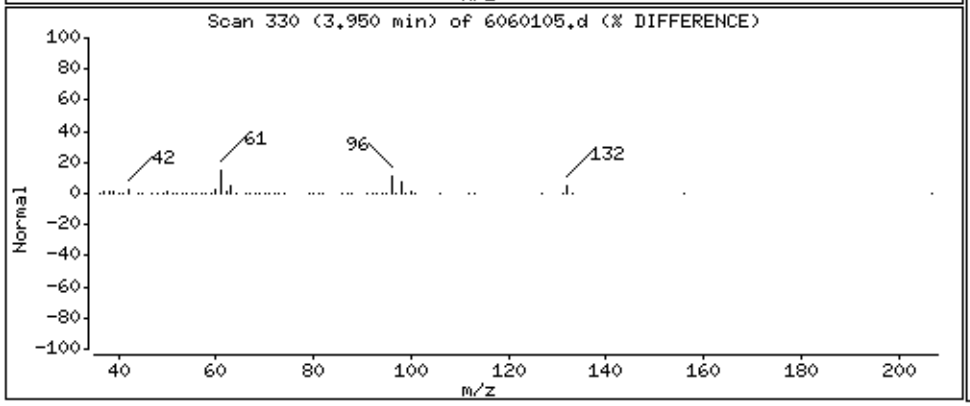












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

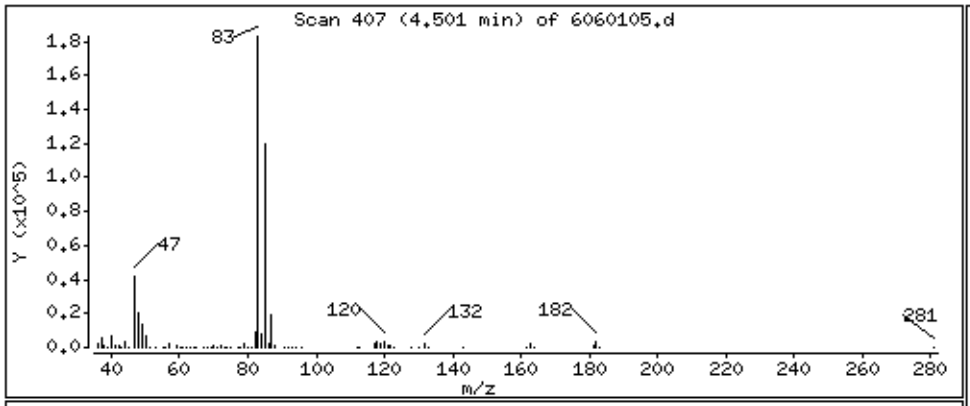
Operator: CT

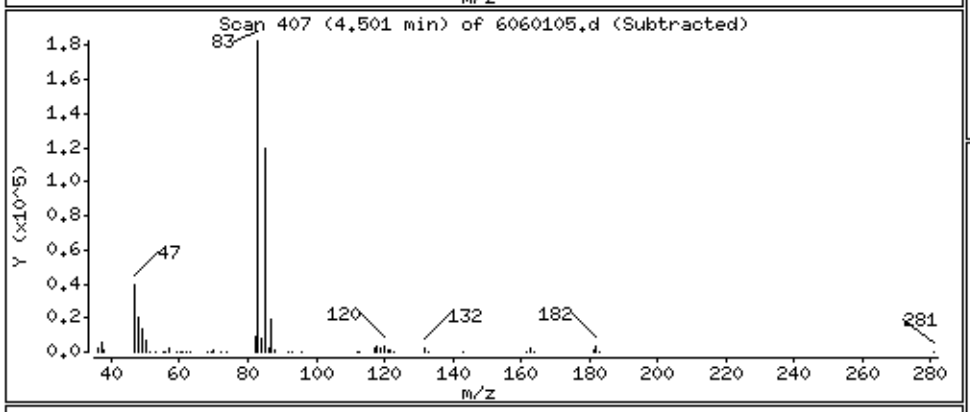
Column phase: RTx-624

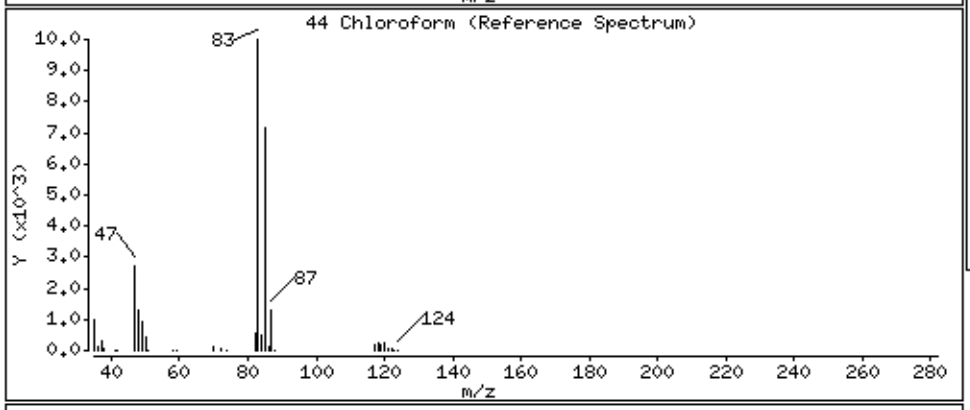
Column diameter: 0.53

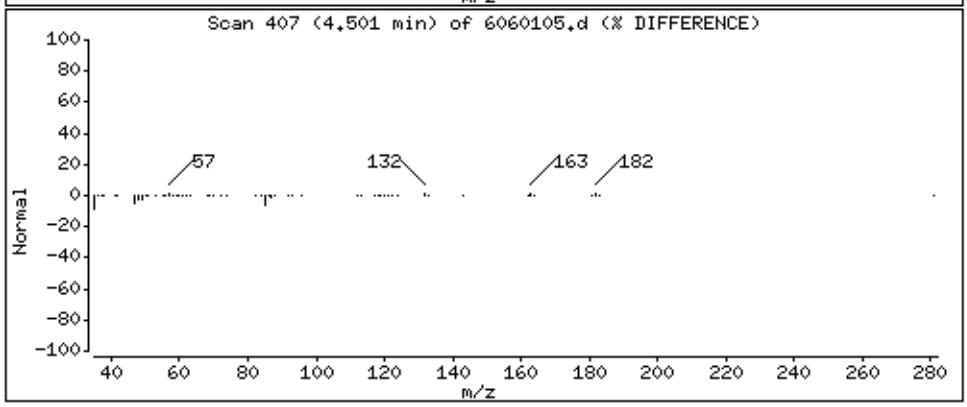
44 Chloroform

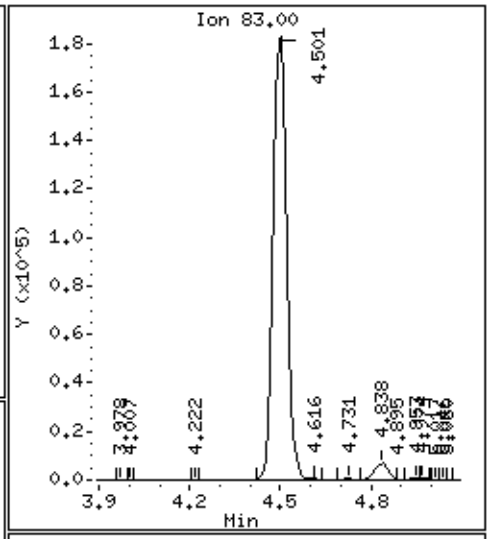
Concentration: 99.945 NG

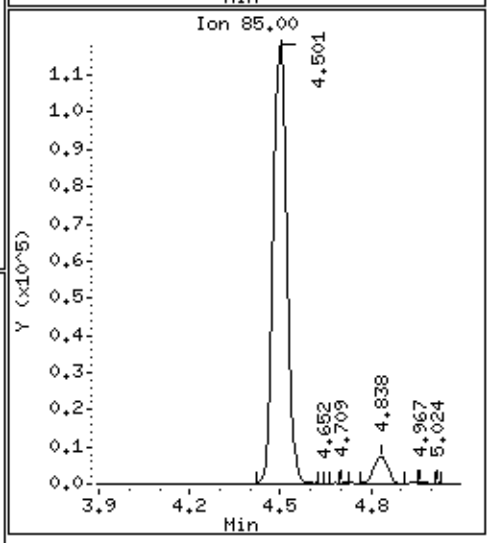












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

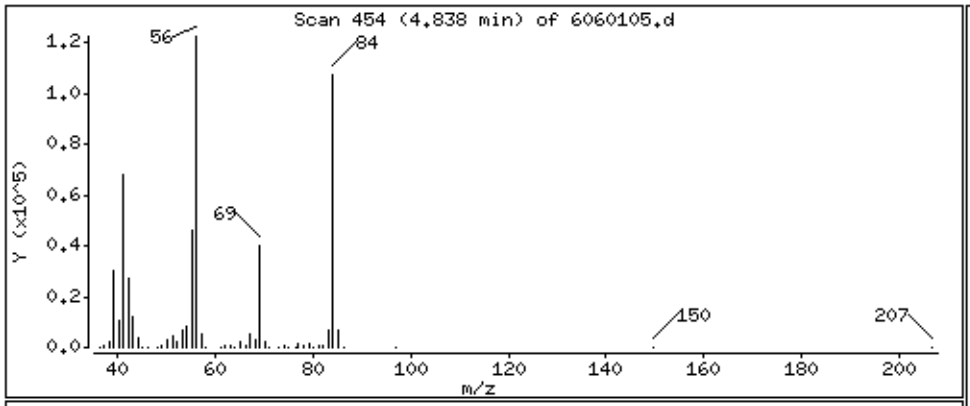
Operator: CT

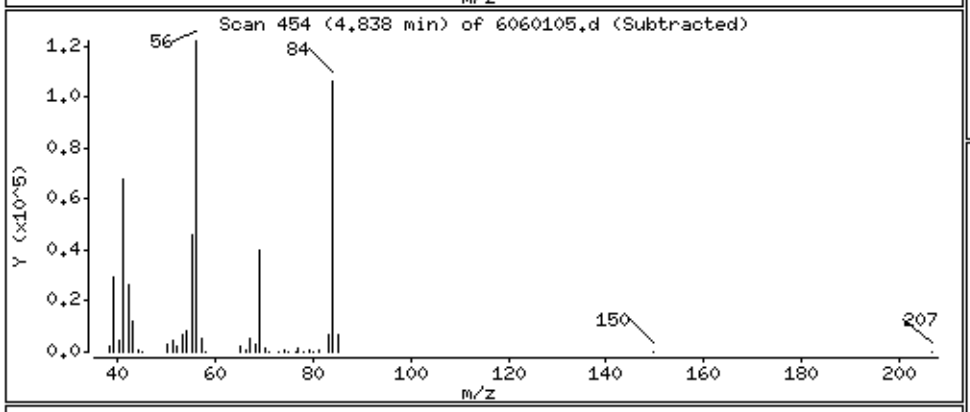
Column phase: RTx-624

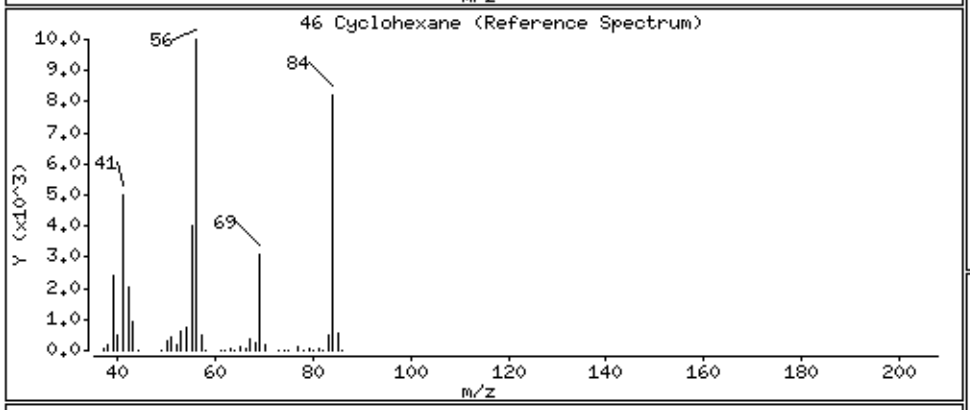
Column diameter: 0.53

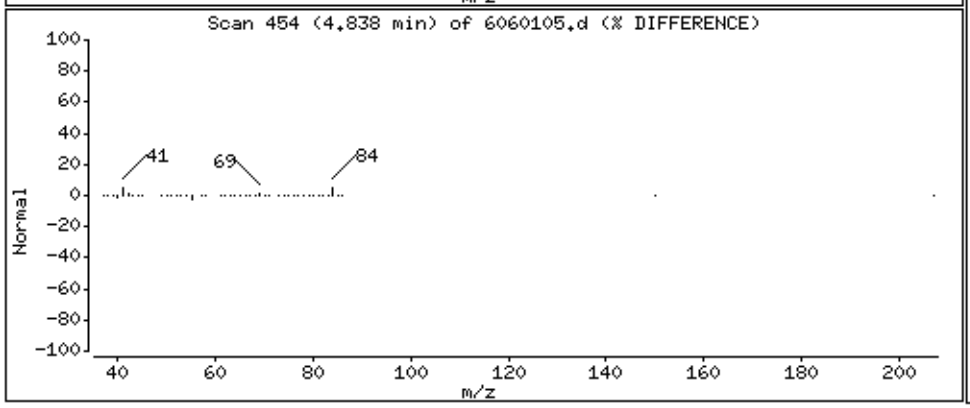
46 Cyclohexane

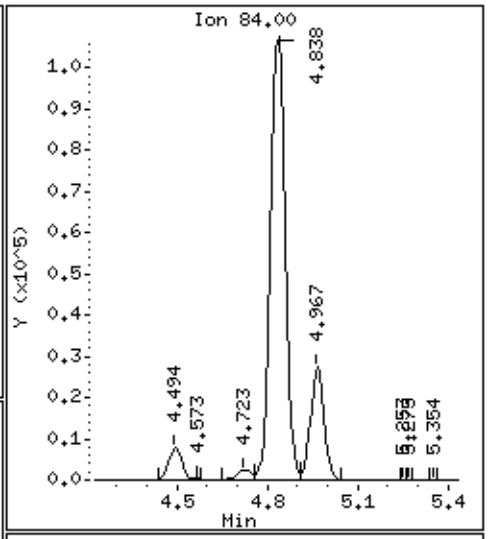
Concentration: 65.077 NG

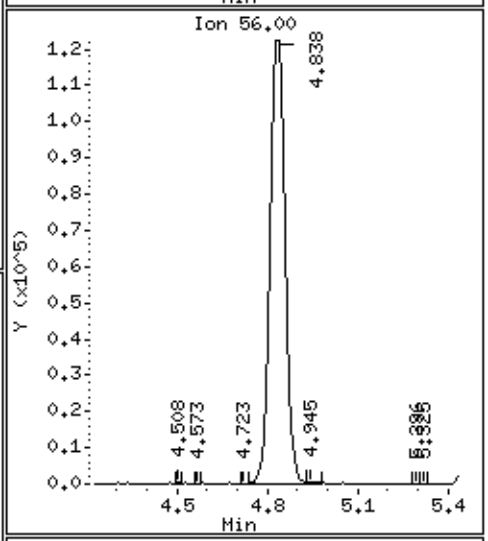


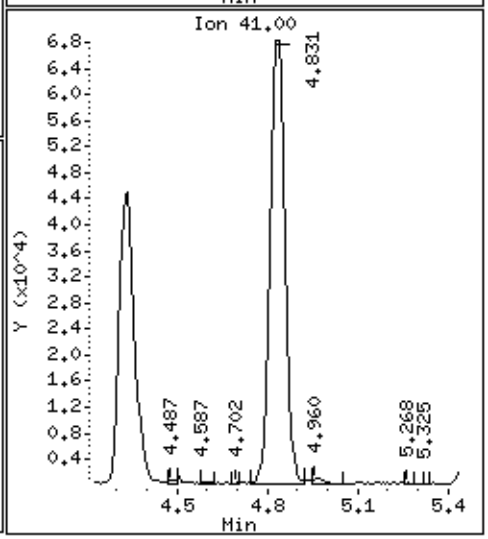












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

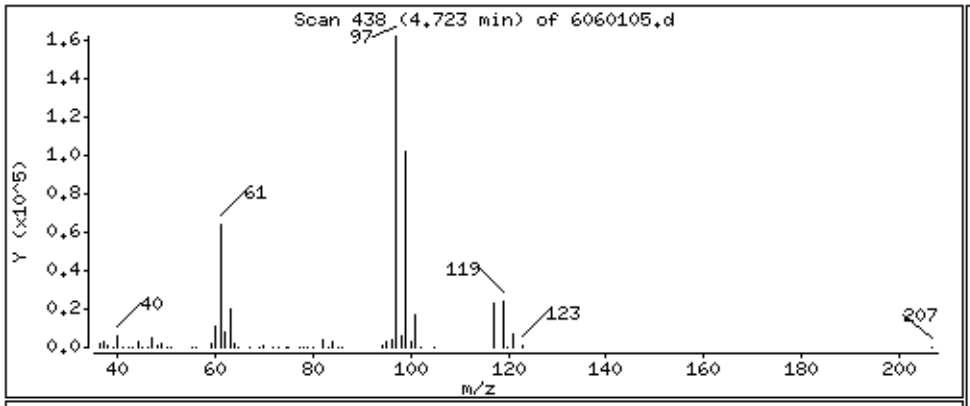
Operator: CT

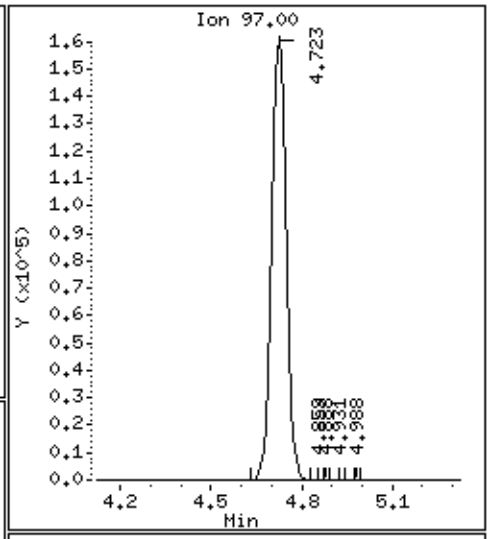
Column phase: RTx-624

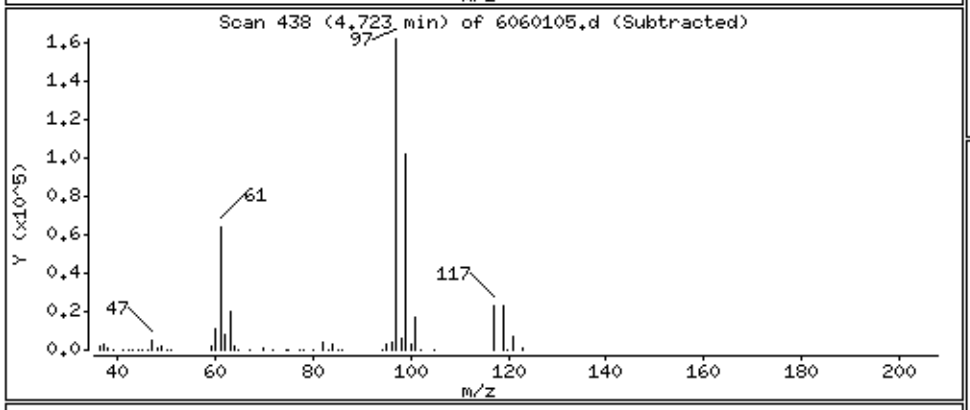
Column diameter: 0.53

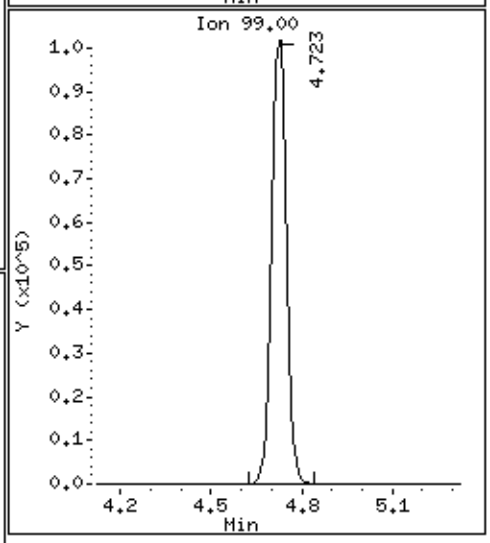
45 1,1,1-Trichloroethane

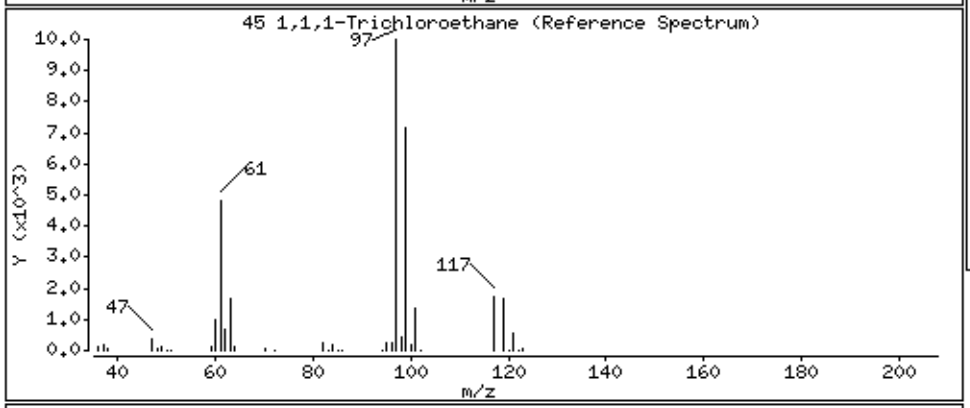
Concentration: 98.065 NG

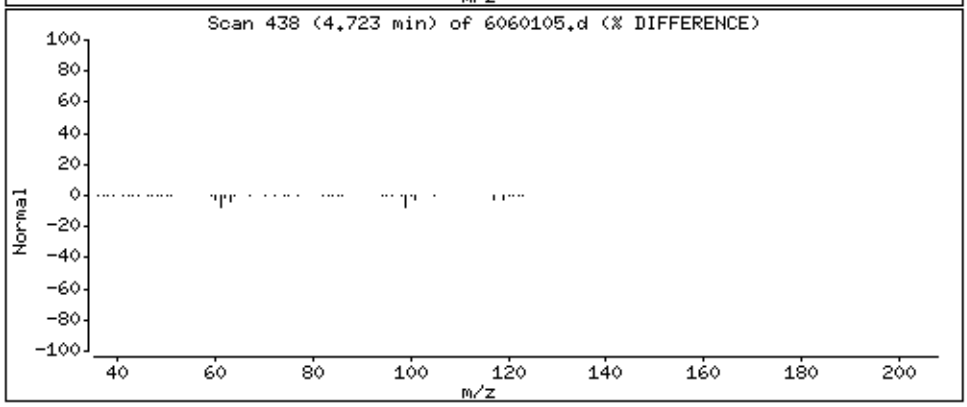












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

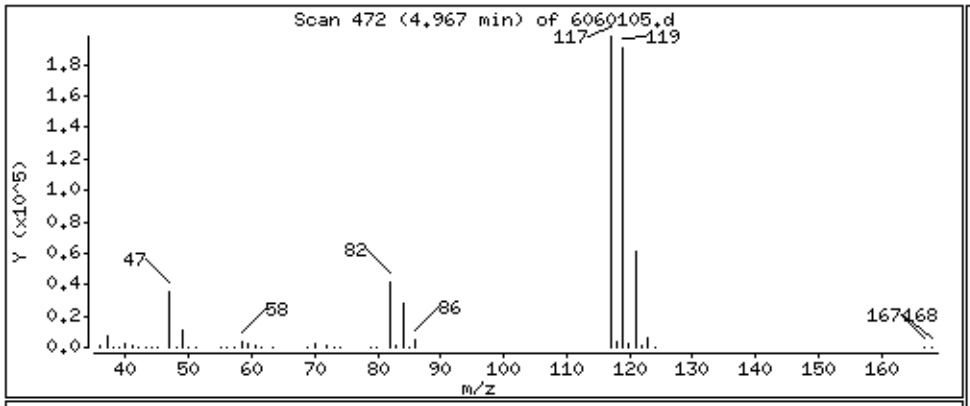
Operator: CT

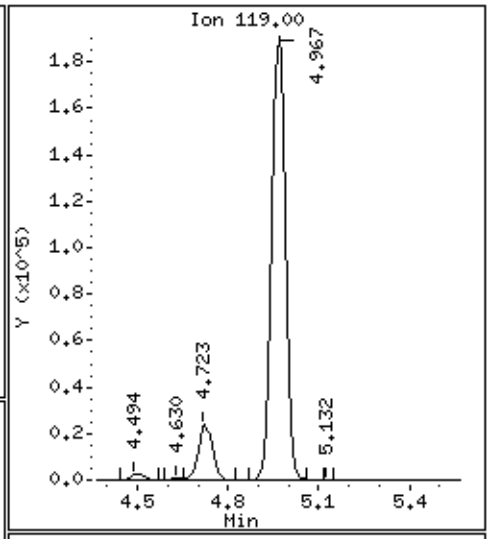
Column phase: RTx-624

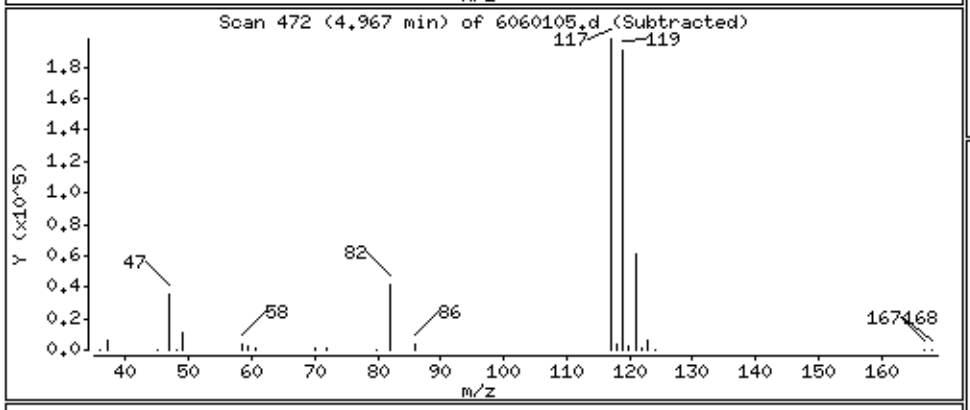
Column diameter: 0.53

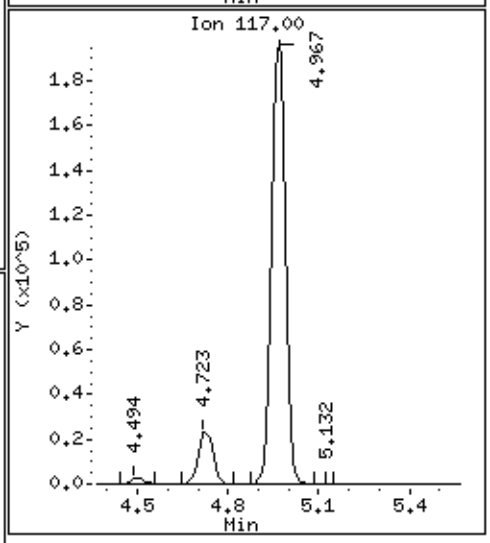
47 Carbon Tetrachloride

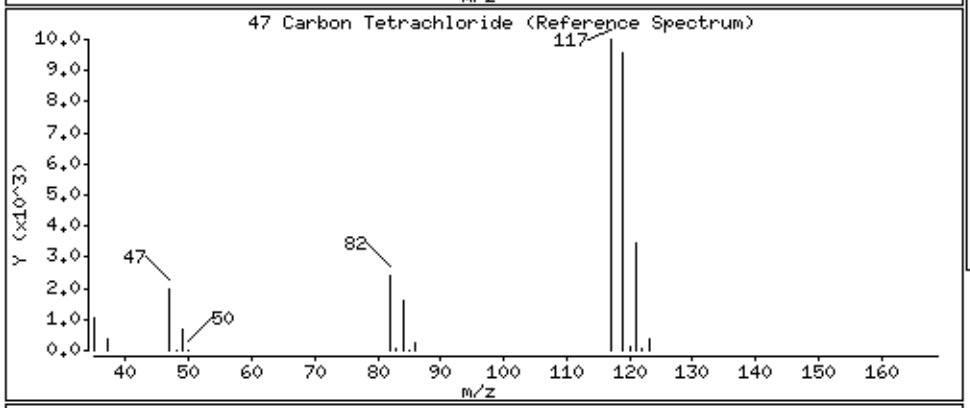
Concentration: 126.63 NG

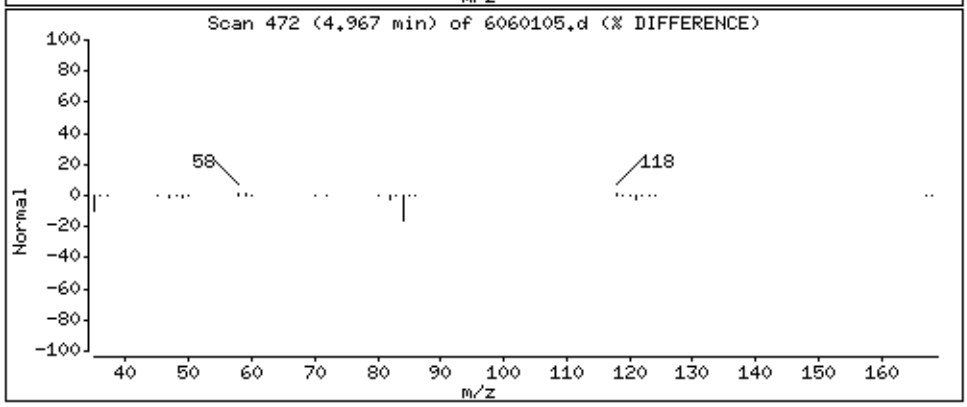












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

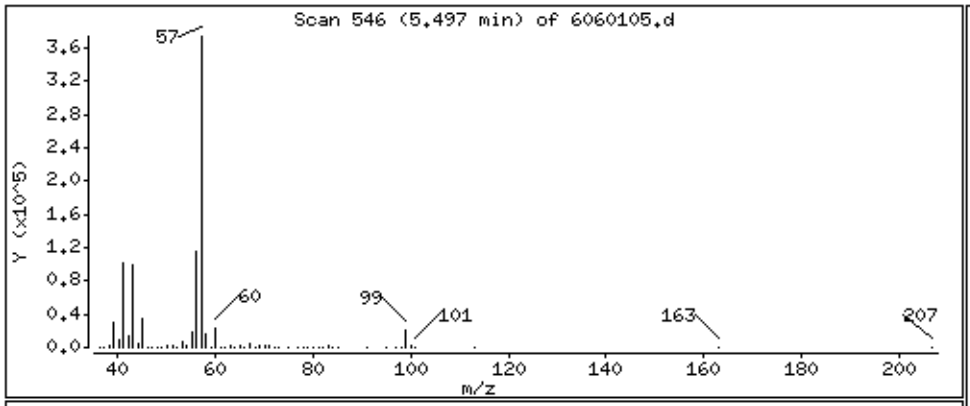
Operator: CT

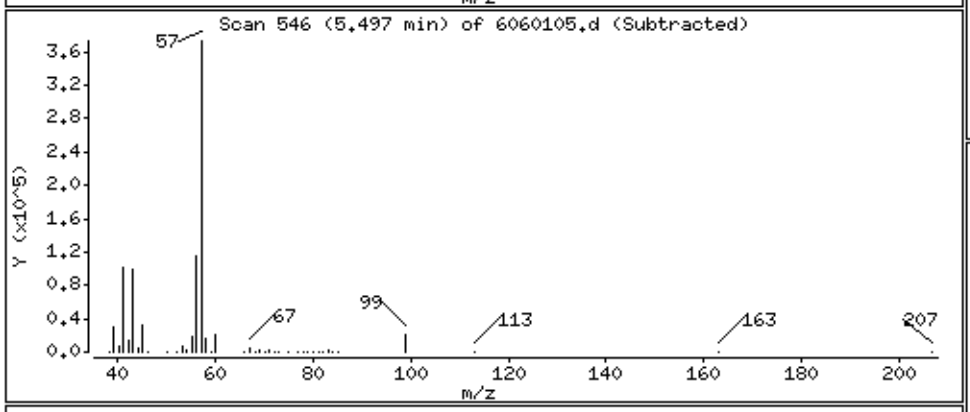
Column phase: RTx-624

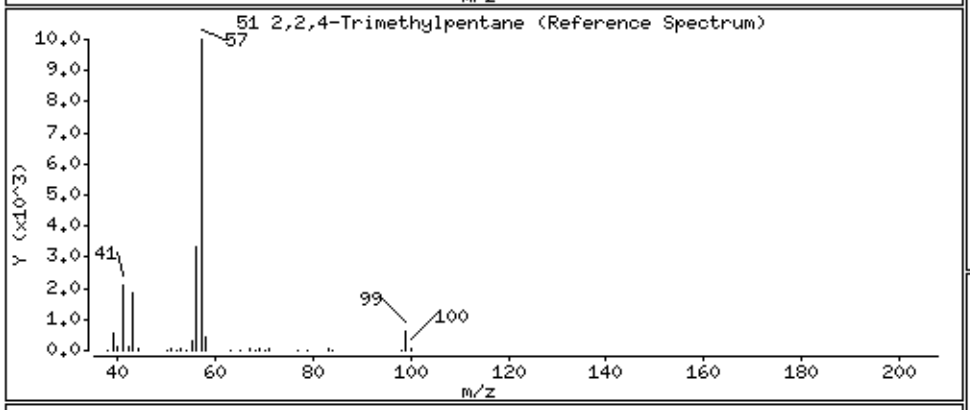
Column diameter: 0.53

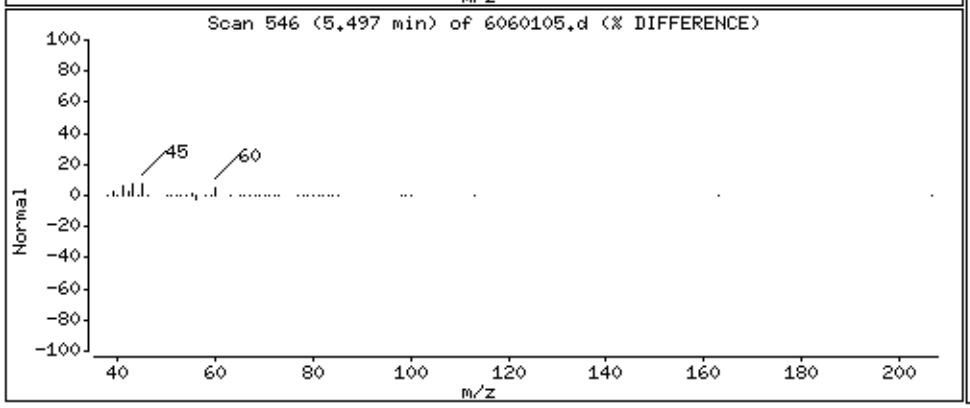
51 2,2,4-Trimethylpentane

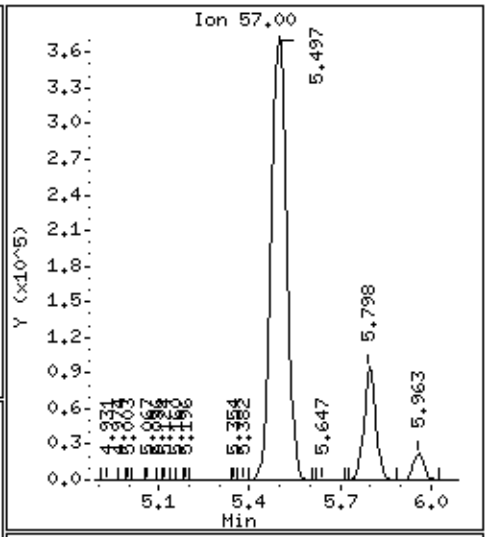
Concentration: 78.229 NG

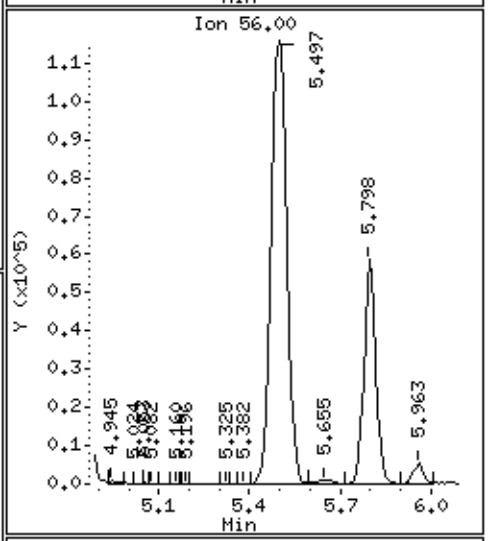


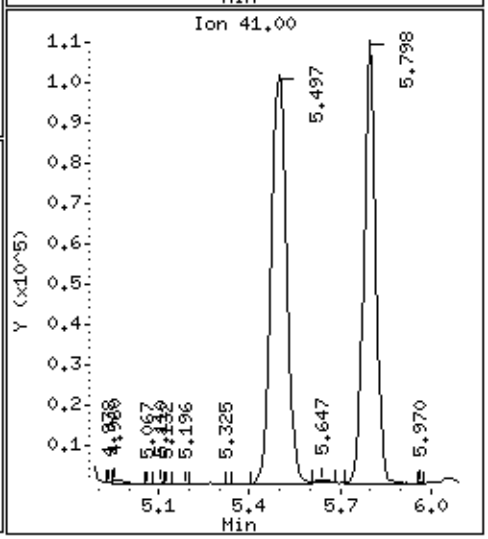












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

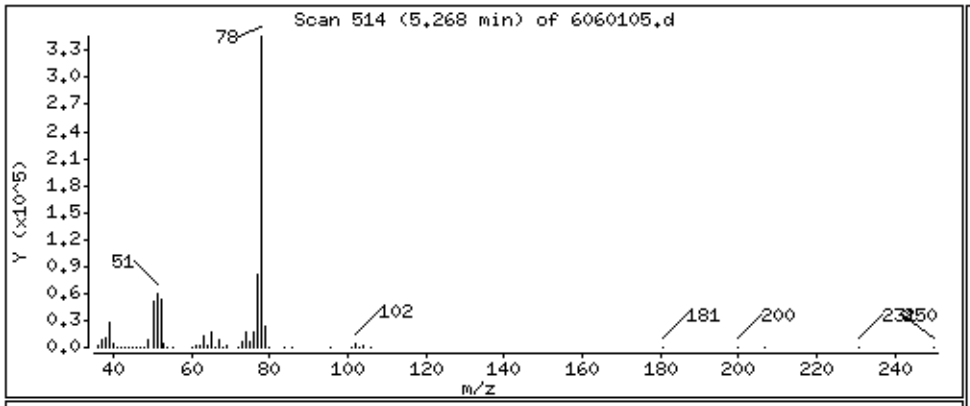
Operator: CT

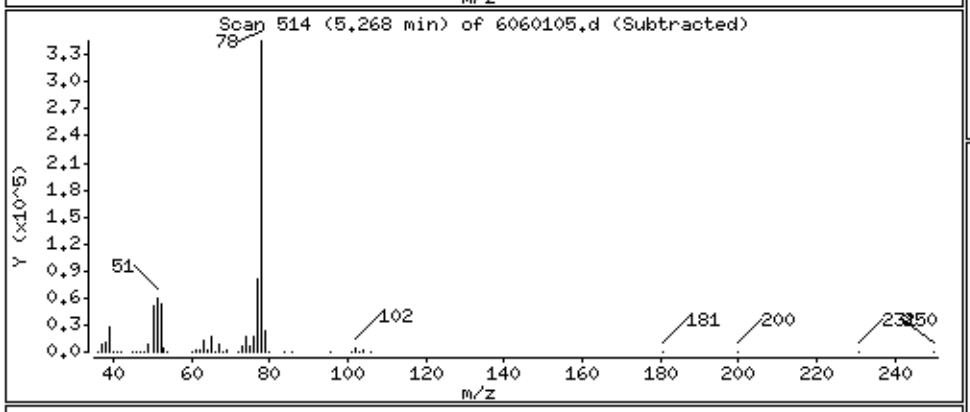
Column phase: RTx-624

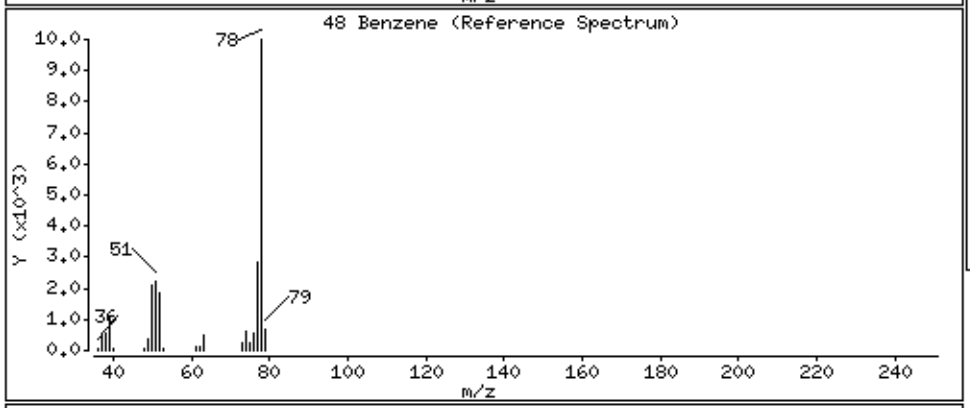
Column diameter: 0.53

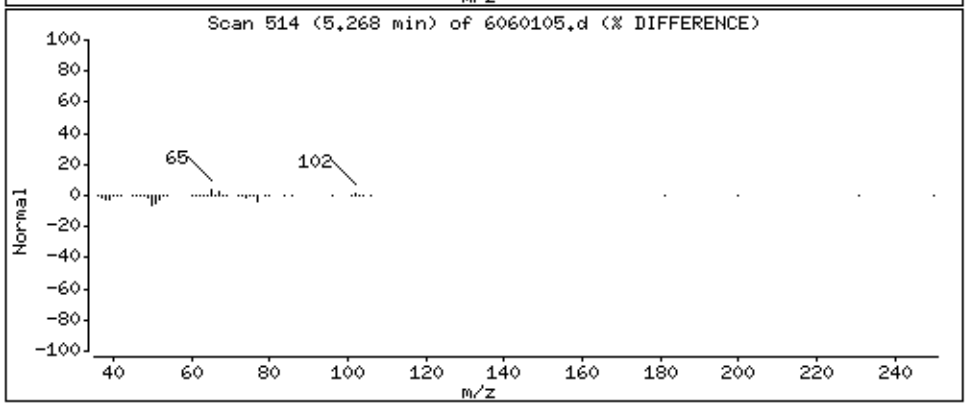
48 Benzene

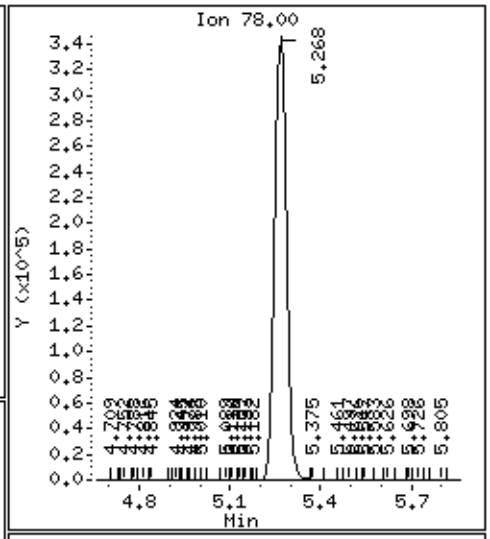
Concentration: 57.339 NG

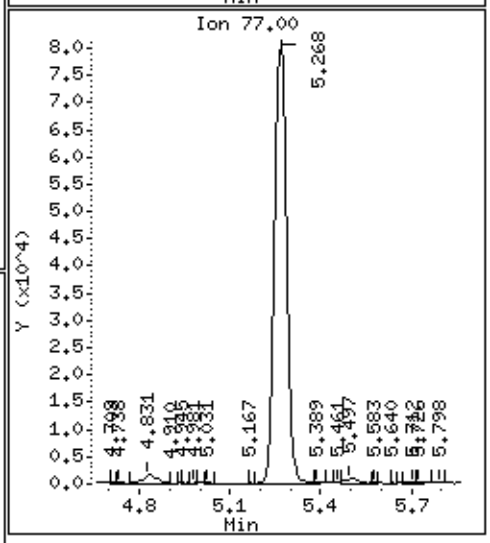












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

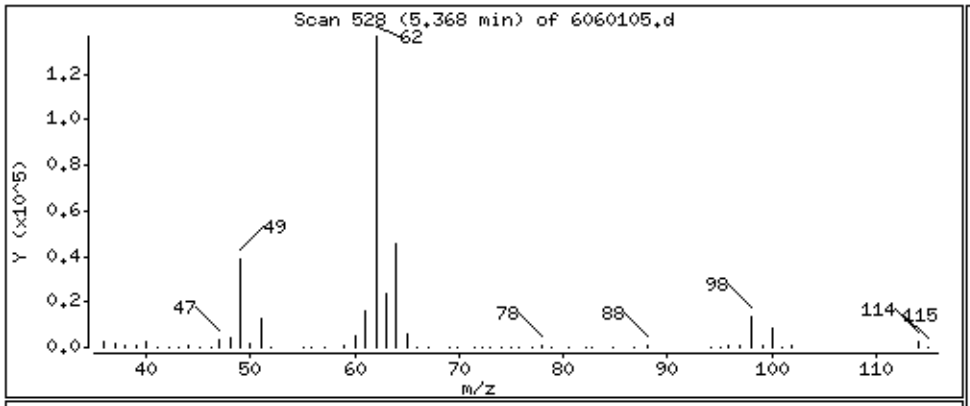
Operator: CT

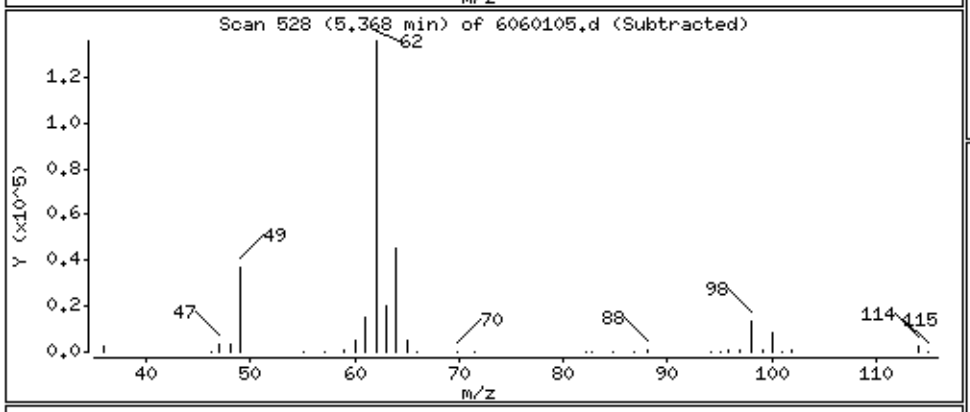
Column phase: RTx-624

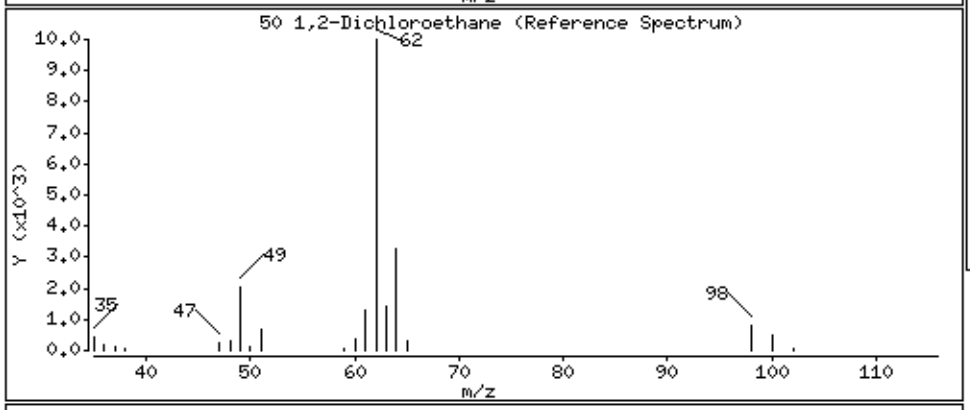
Column diameter: 0.53

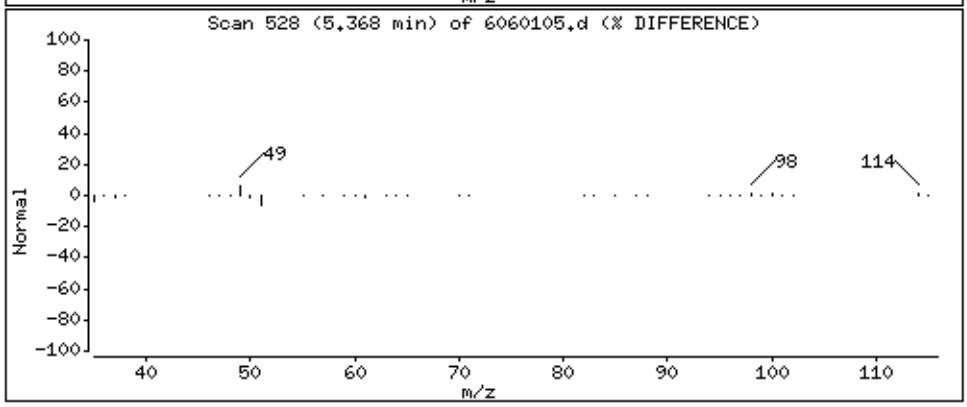
50 1,2-Dichloroethane

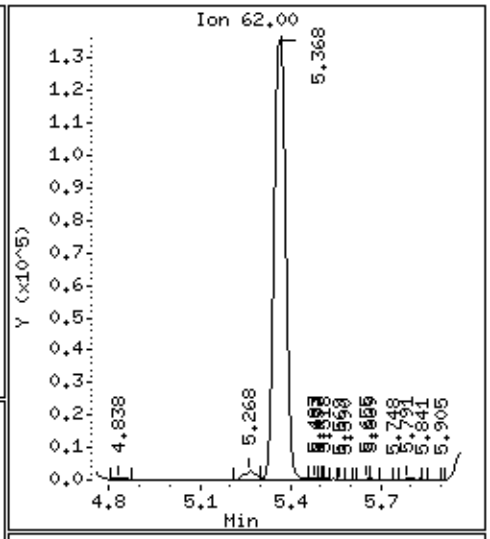
Concentration: 70.752 NG

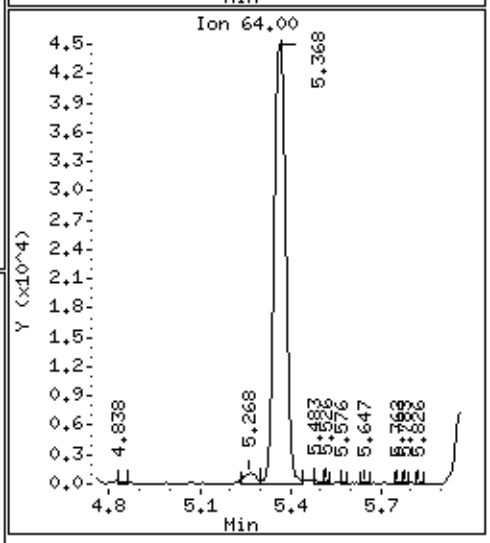












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

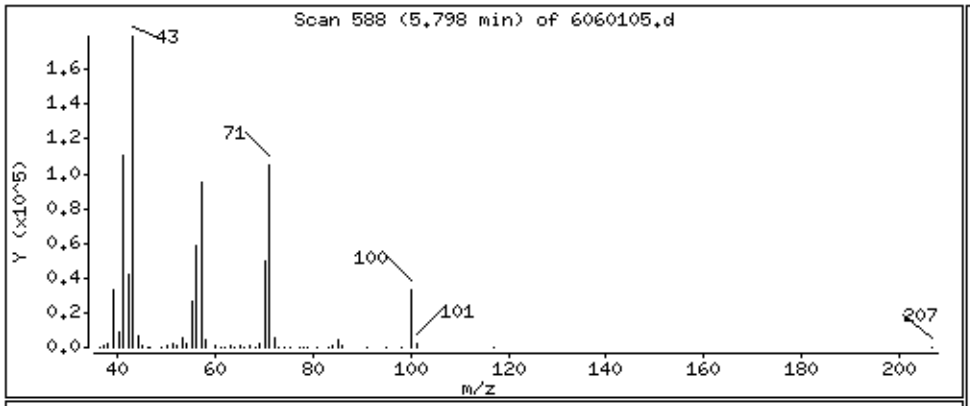
Operator: CT

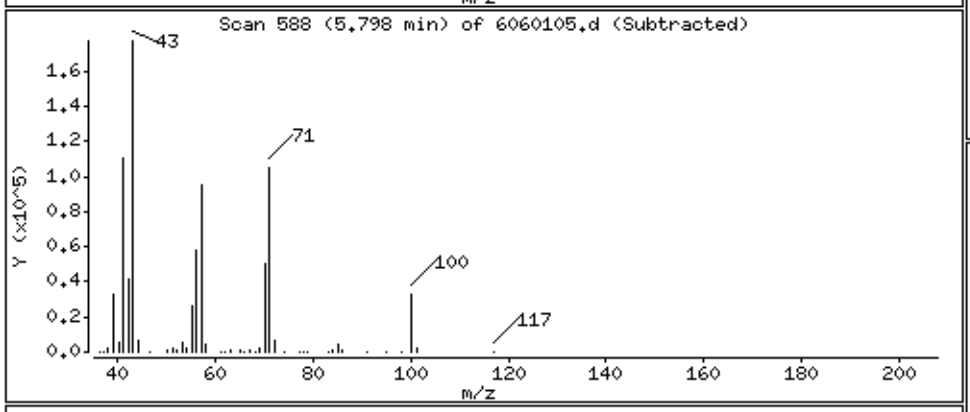
Column phase: RTx-624

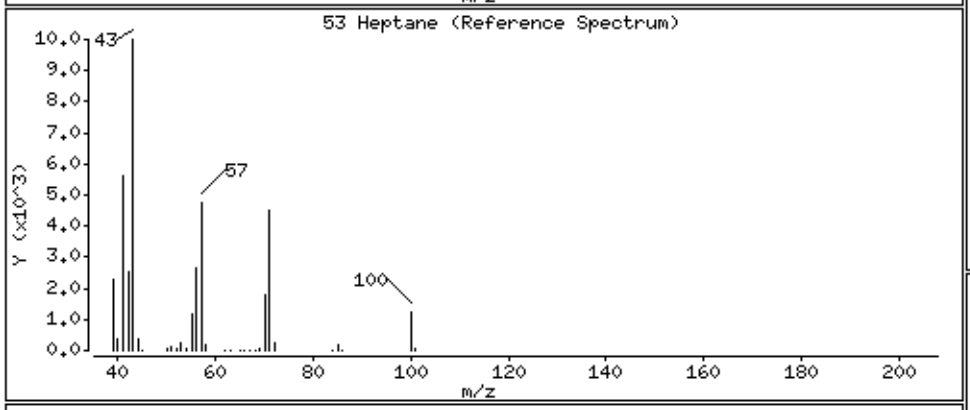
Column diameter: 0.53

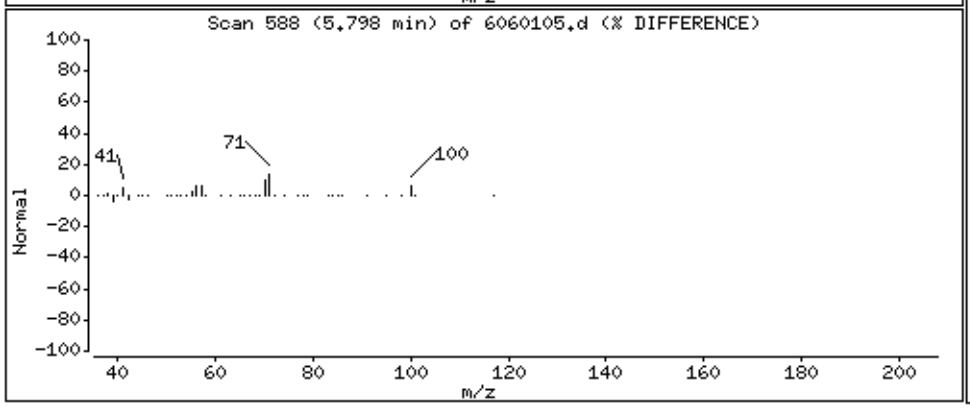
53 Heptane

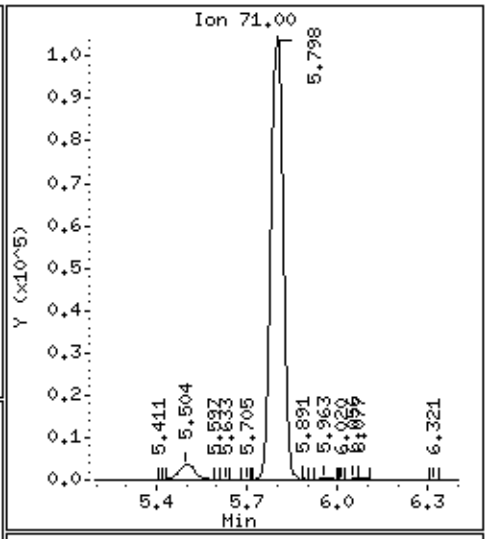
Concentration: 77.032 NG

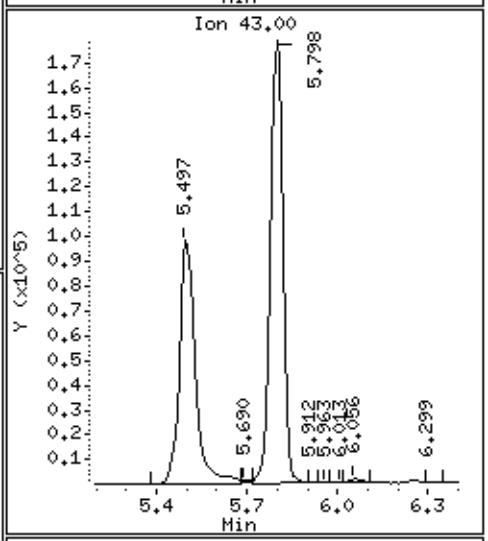


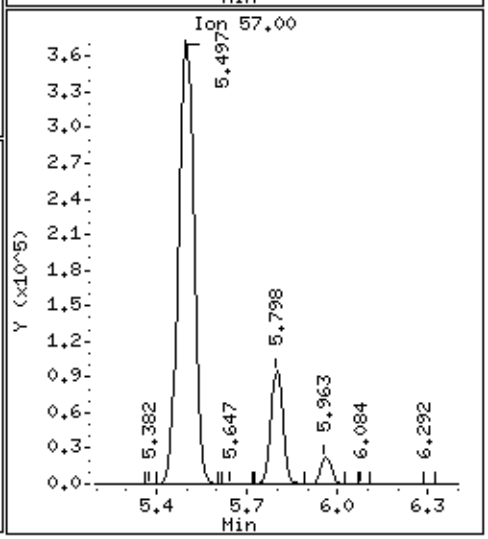












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

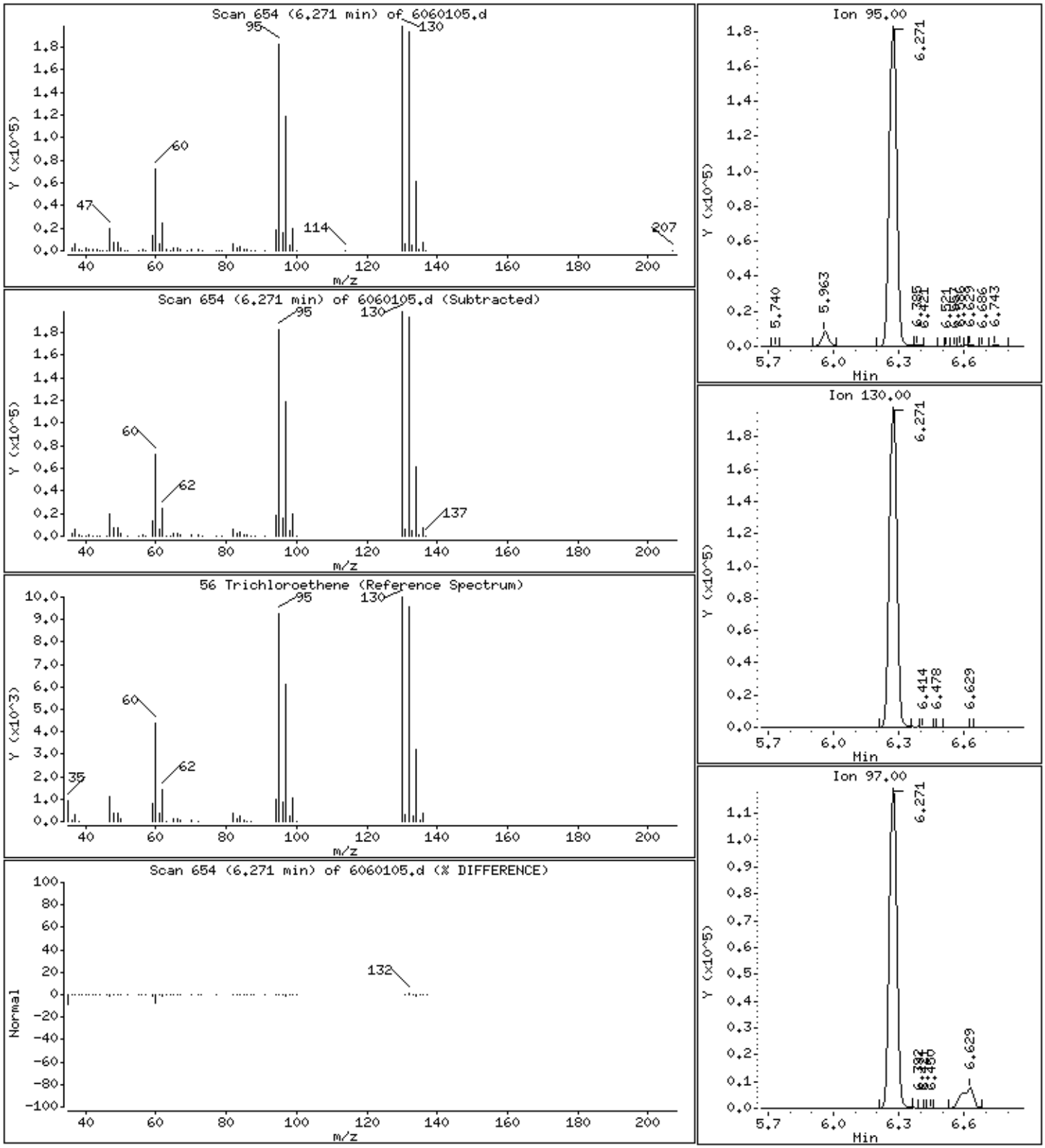
Operator: CT

Column phase: RTx-624

Column diameter: 0.53

56 Trichloroethene

Concentration: 96.068 NG



Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

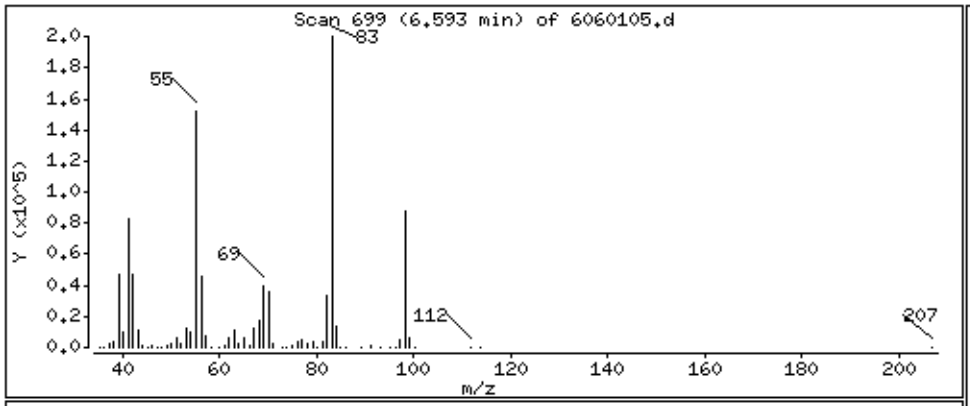
Operator: CT

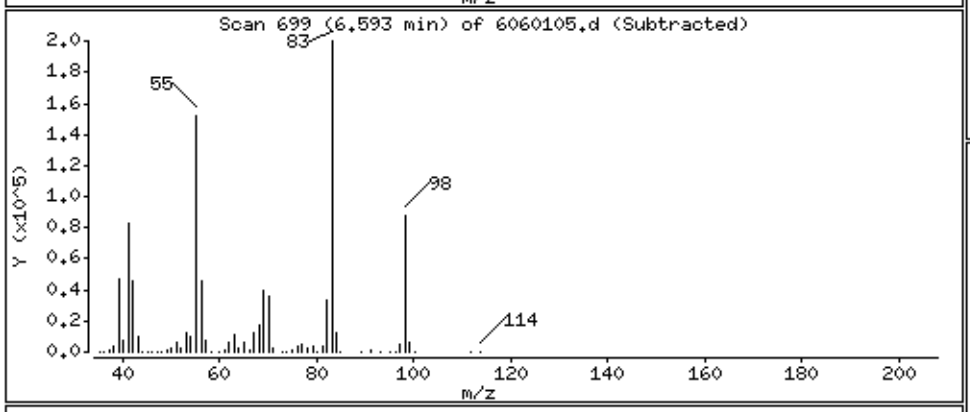
Column phase: RTx-624

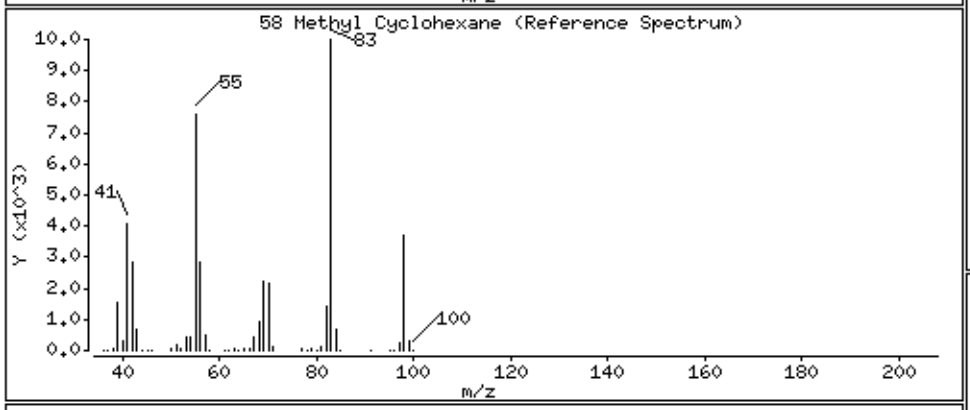
Column diameter: 0.53

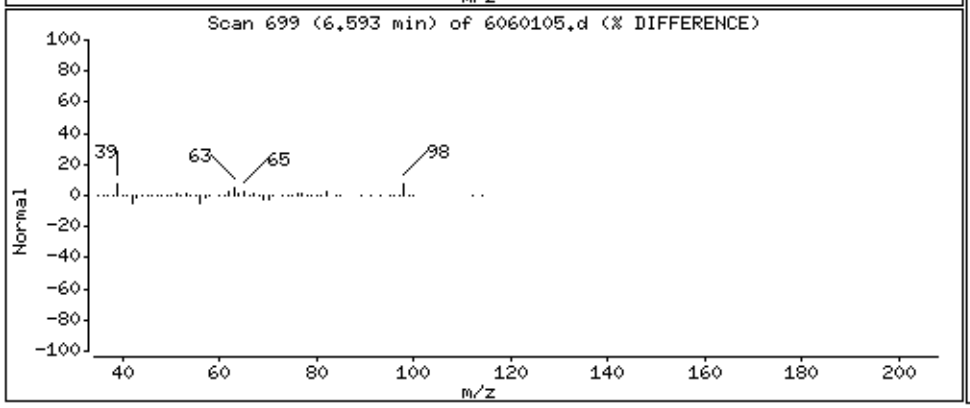
58 Methyl Cyclohexane

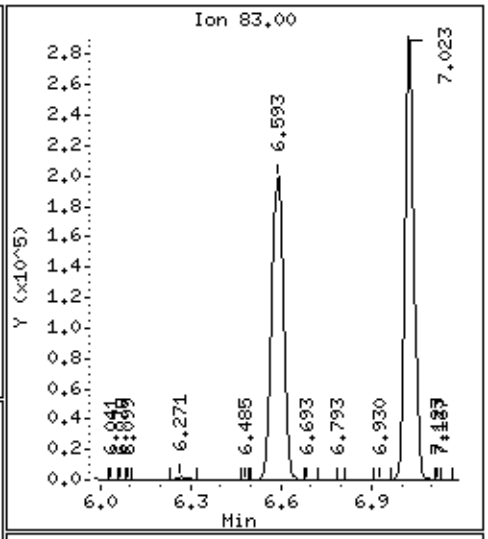
Concentration: 77.985 NG

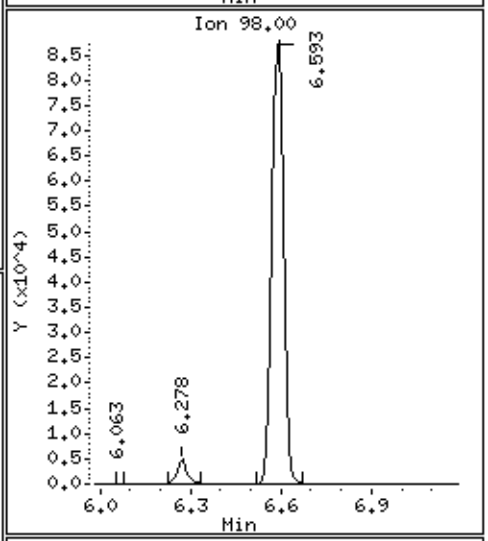


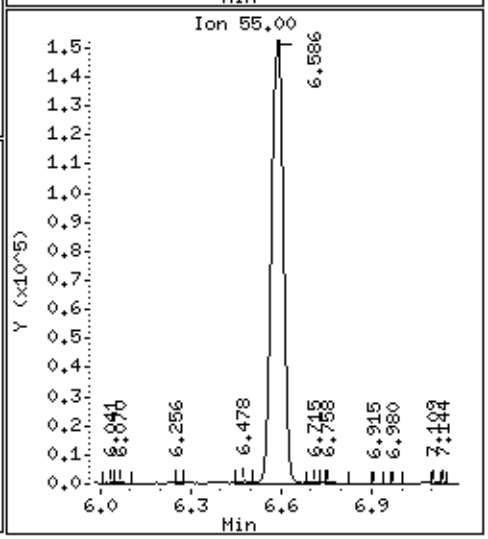












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

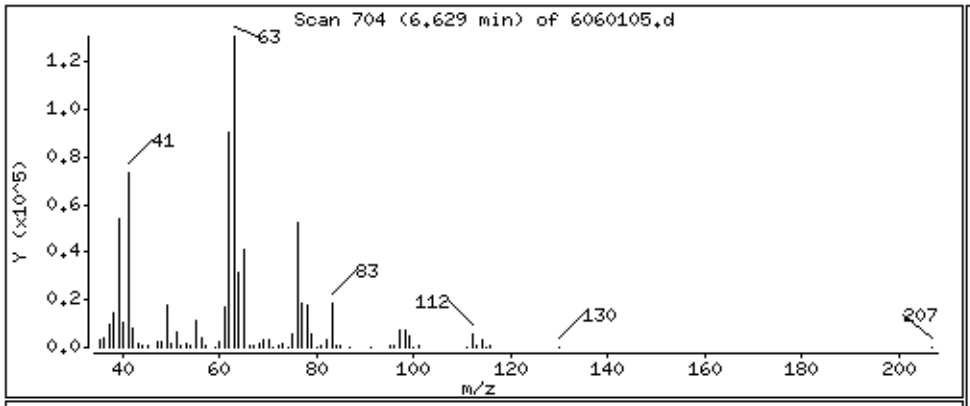
Operator: CT

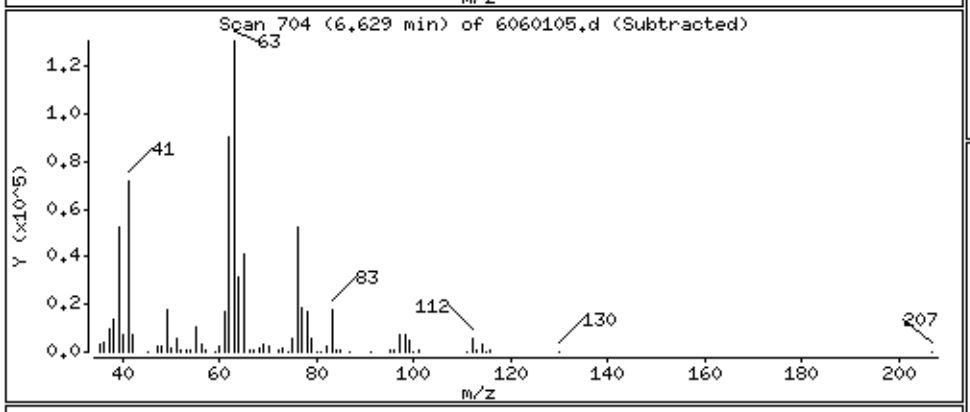
Column phase: RTx-624

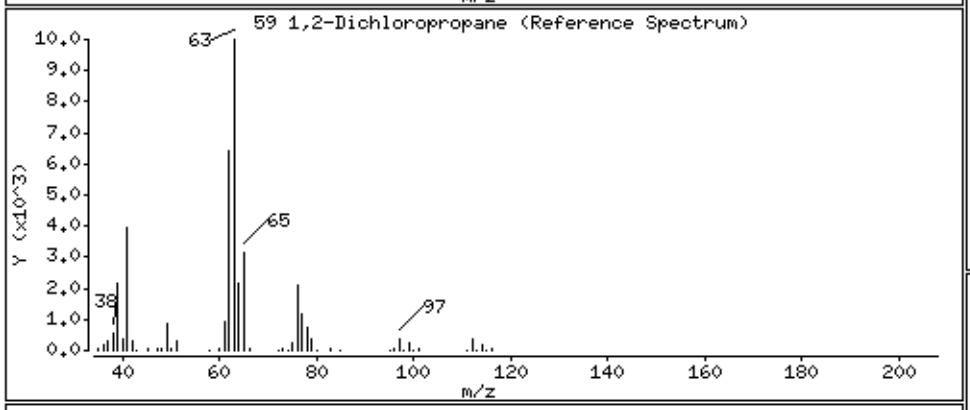
Column diameter: 0.53

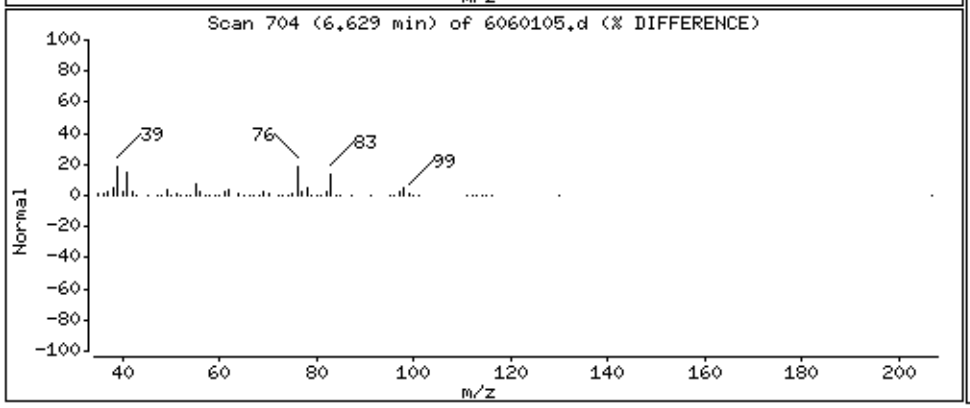
59 1,2-Dichloropropane

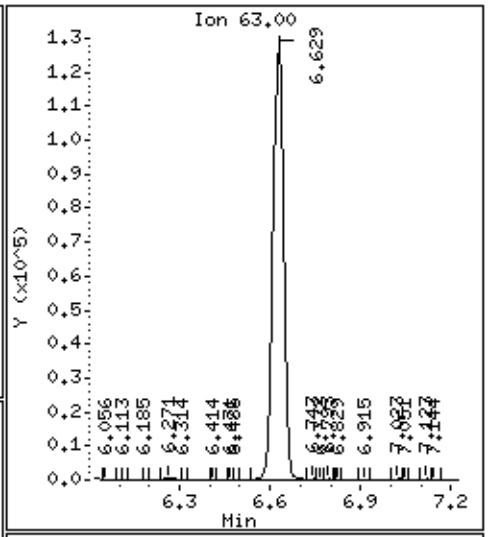
Concentration: 83.464 NG

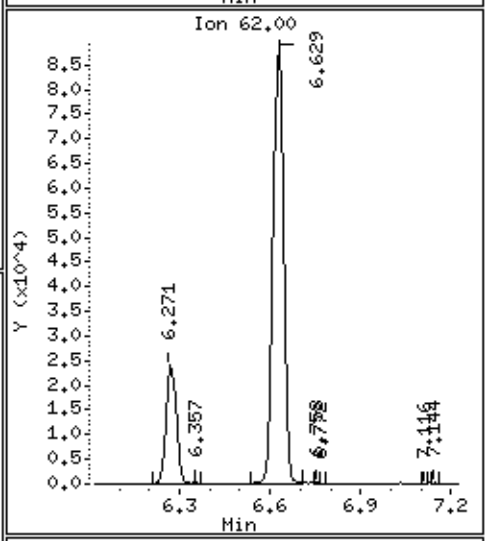


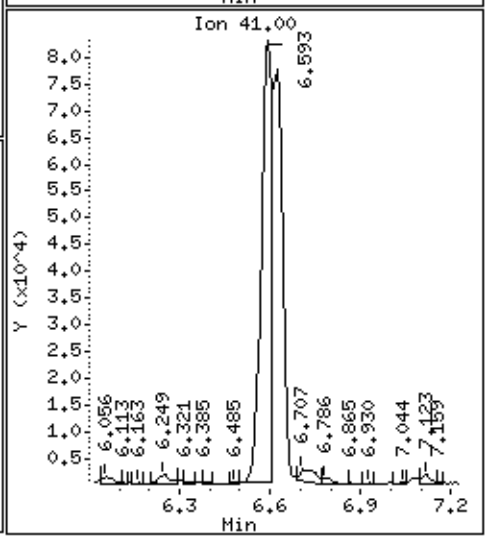












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

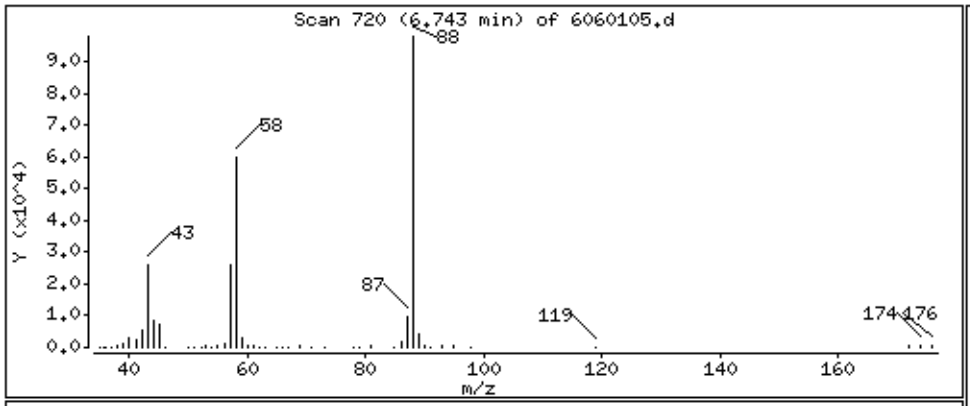
Operator: CT

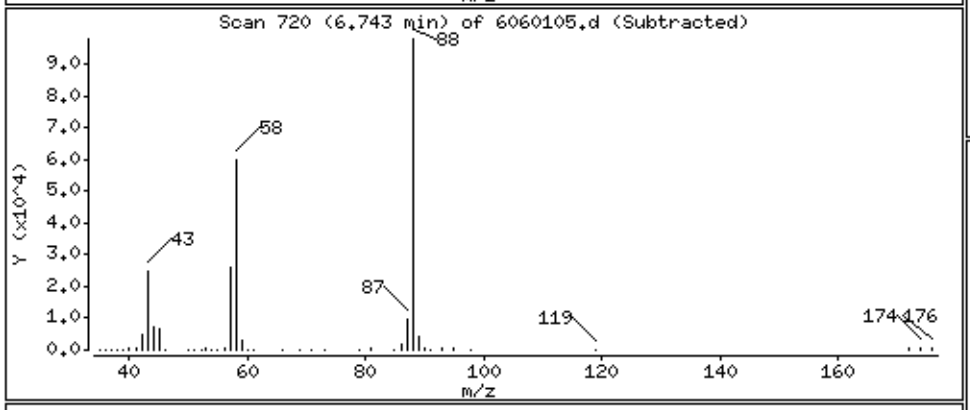
Column phase: RTx-624

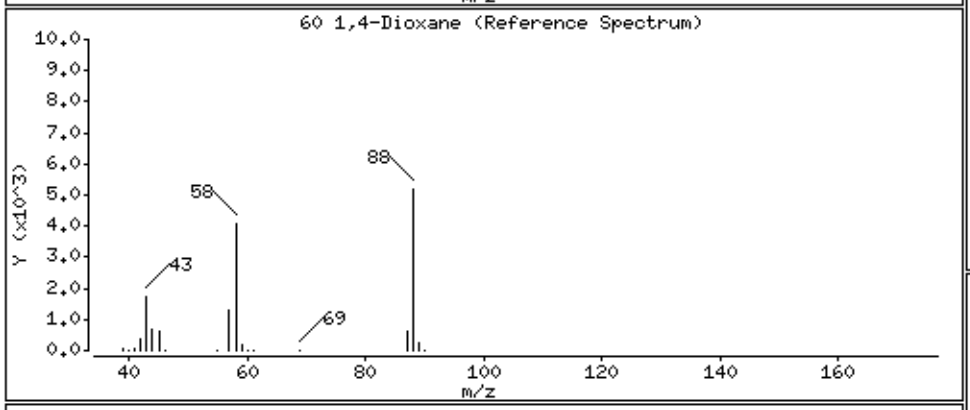
Column diameter: 0.53

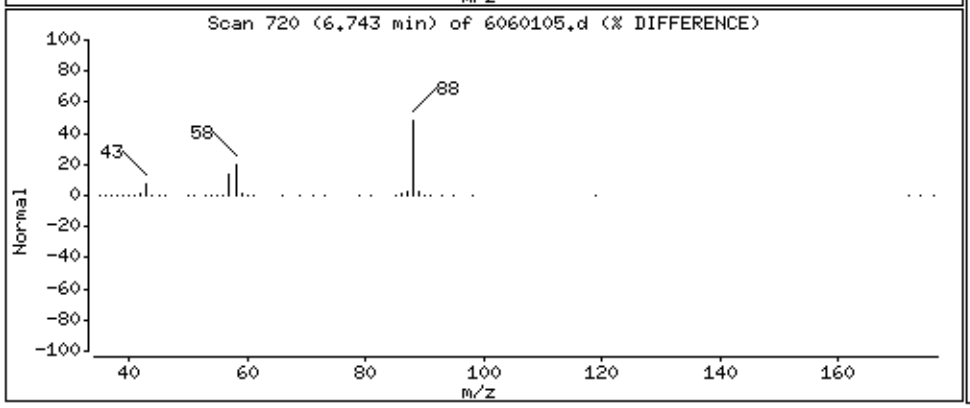
60 1,4-Dioxane

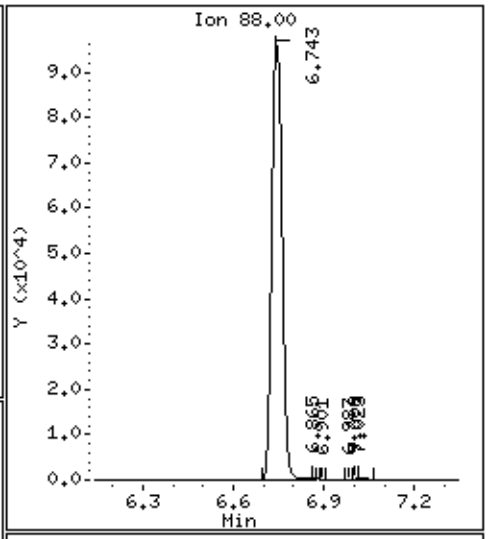
Concentration: 69.006 NG

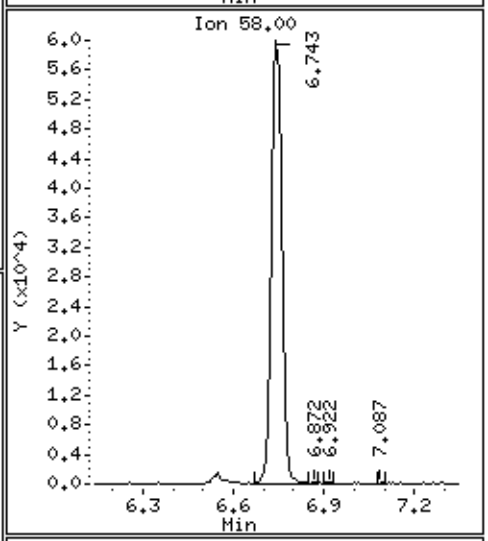


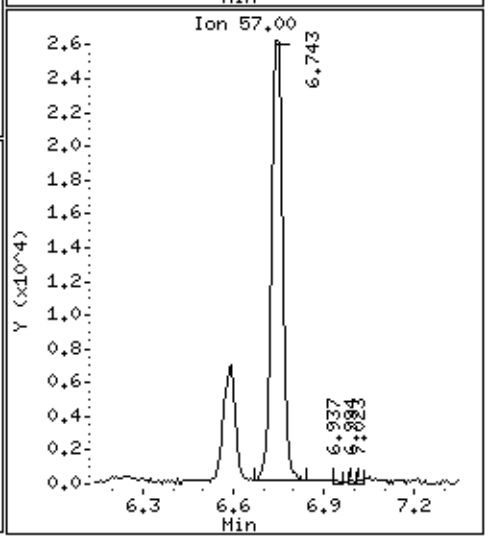












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

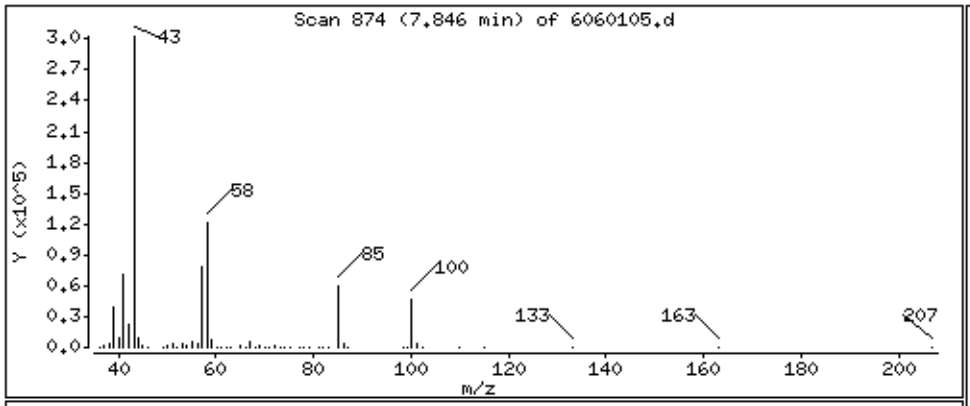
Operator: CT

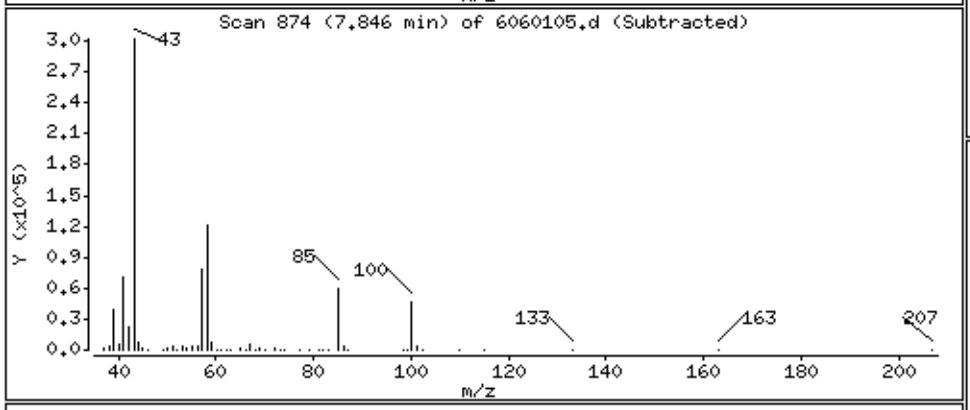
Column phase: RTx-624

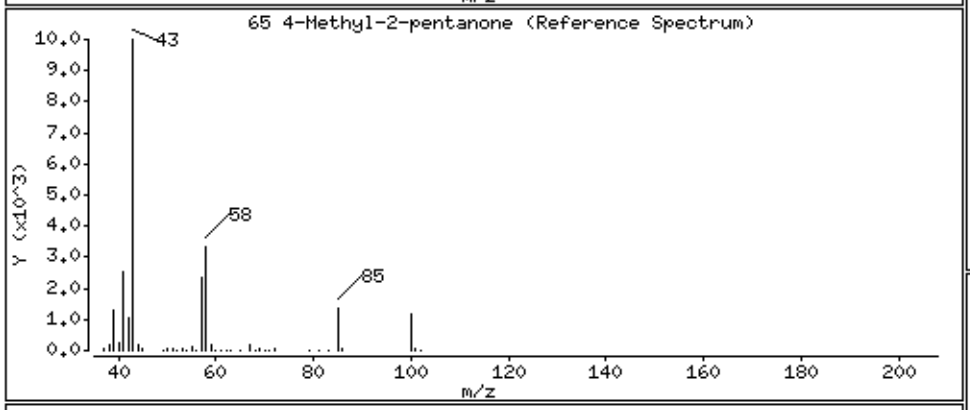
Column diameter: 0.53

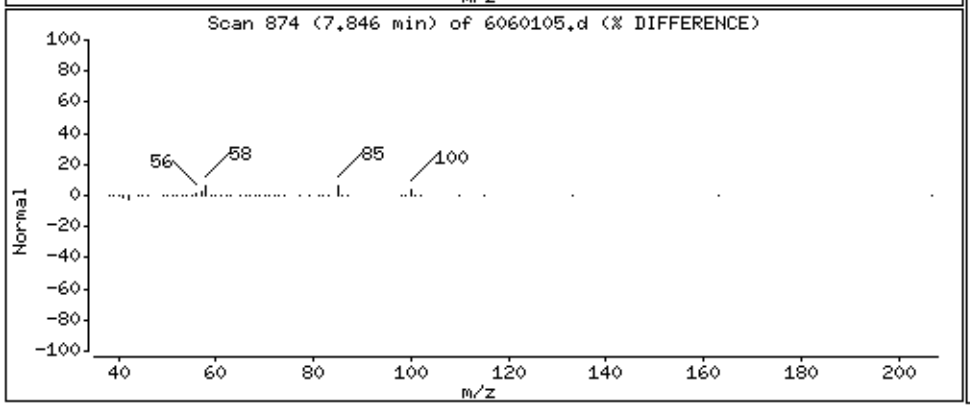
65 4-Methyl-2-pentanone

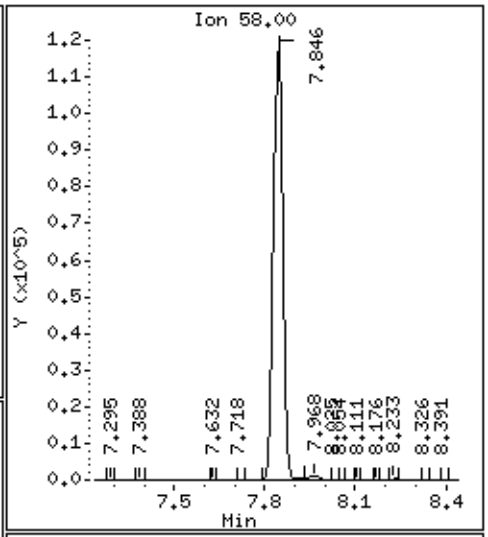
Concentration: 68.765 NG

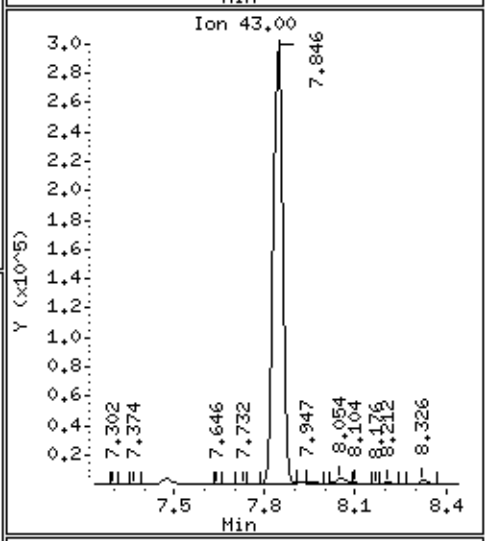


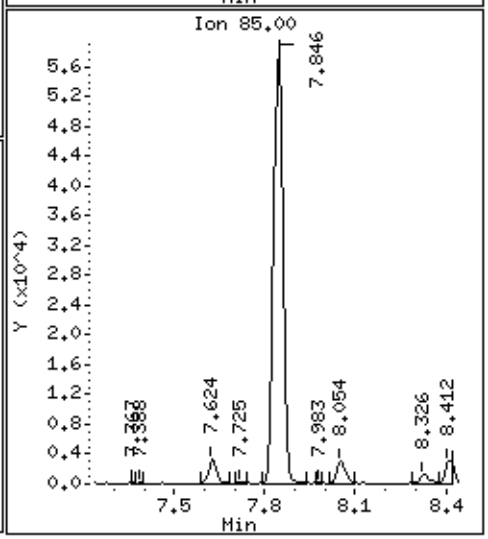












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

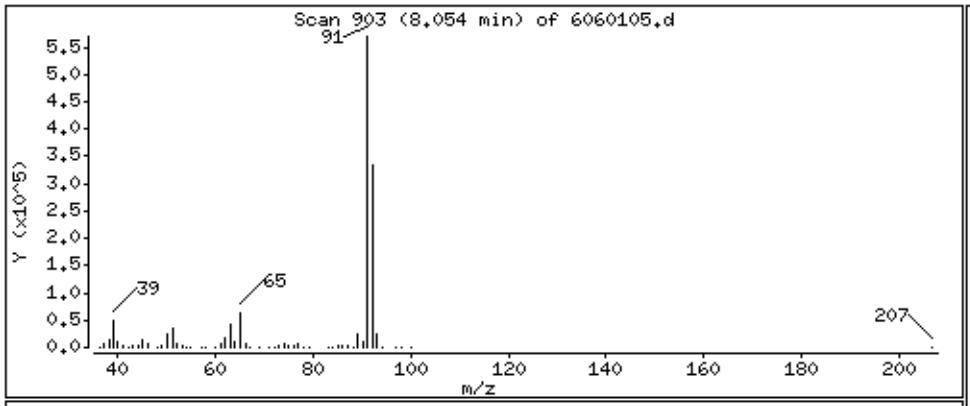
Operator: CT

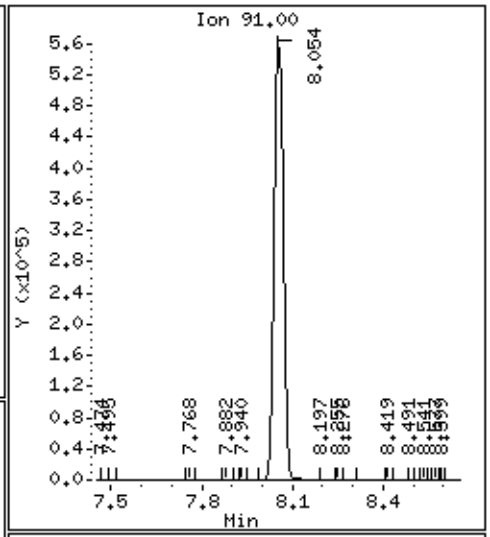
Column phase: RTx-624

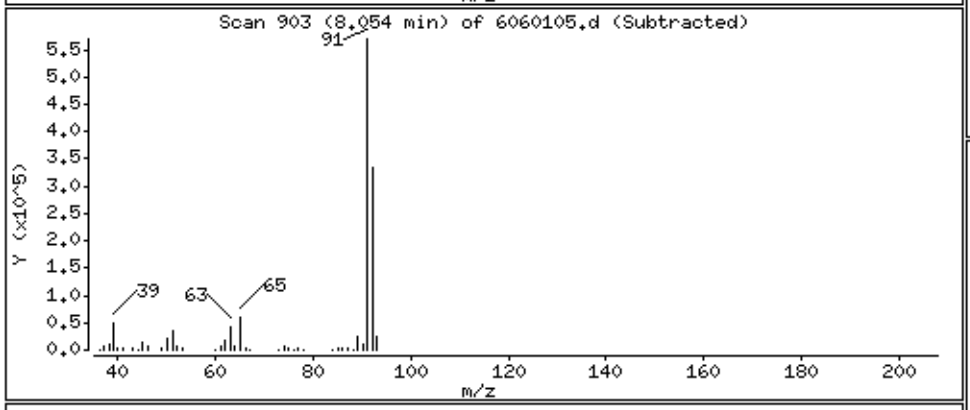
Column diameter: 0.53

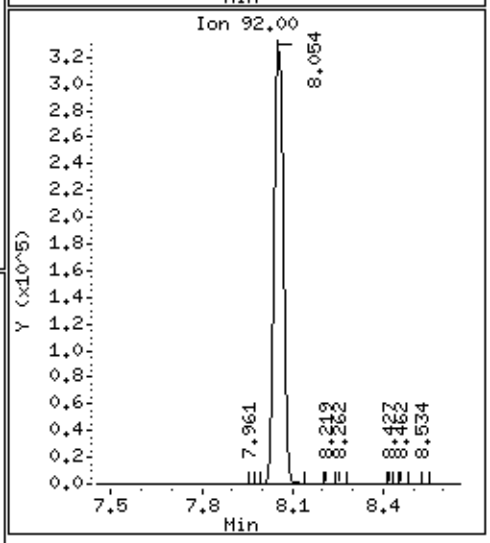
67 Toluene

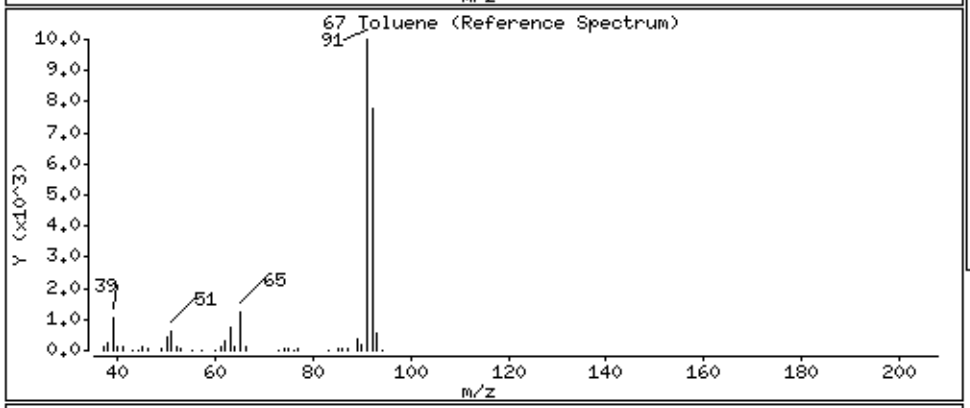
Concentration: 68.463 NG

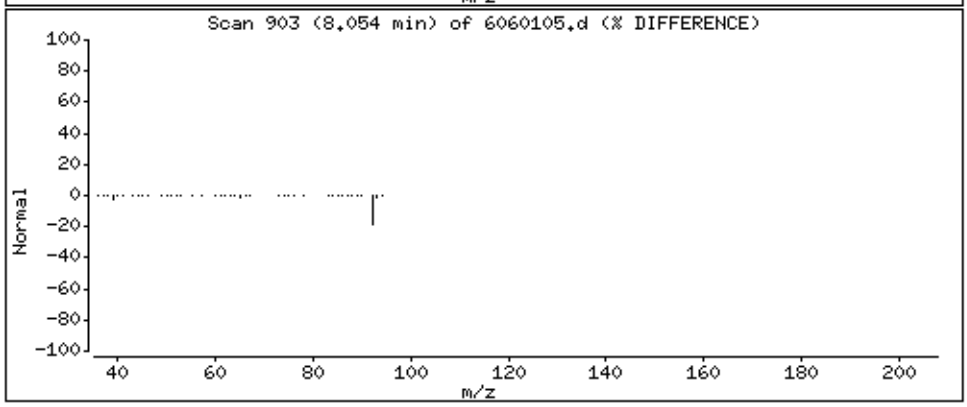












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

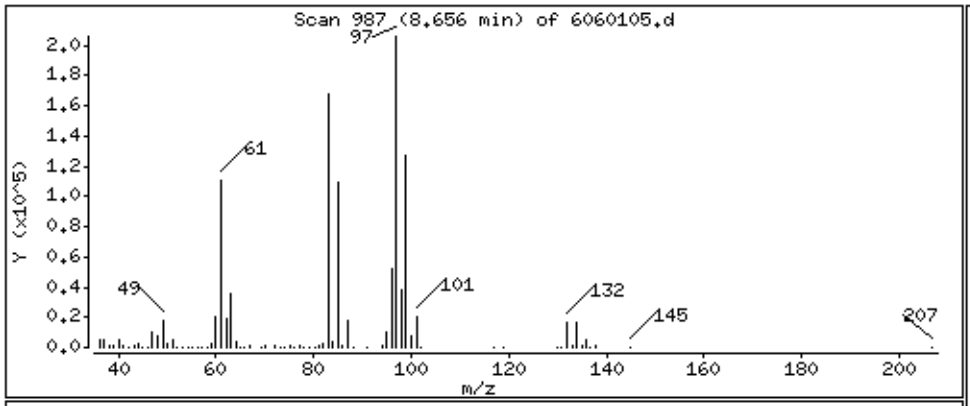
Operator: CT

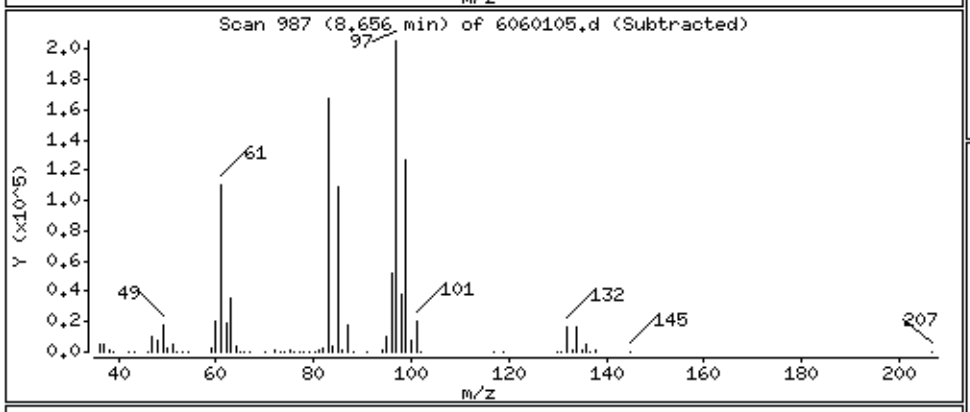
Column phase: RTx-624

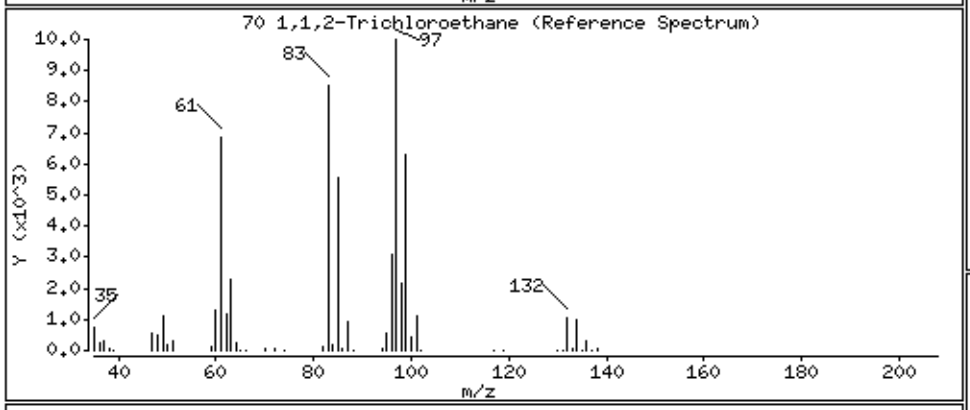
Column diameter: 0.53

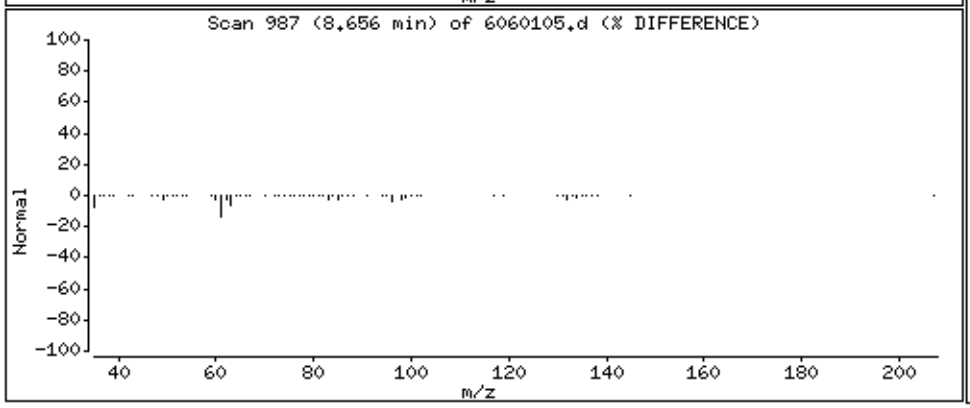
70 1,1,2-Trichloroethane

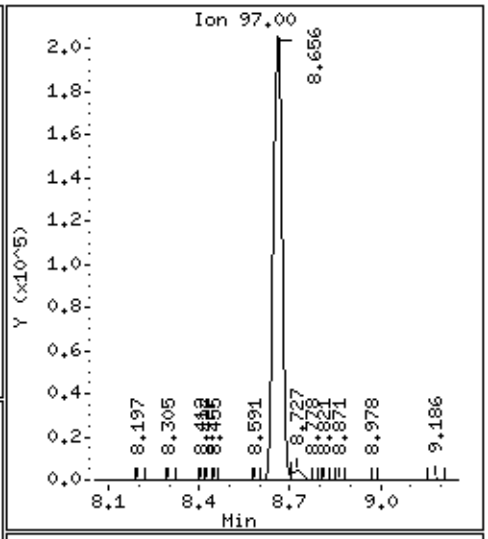
Concentration: 105.75 NG

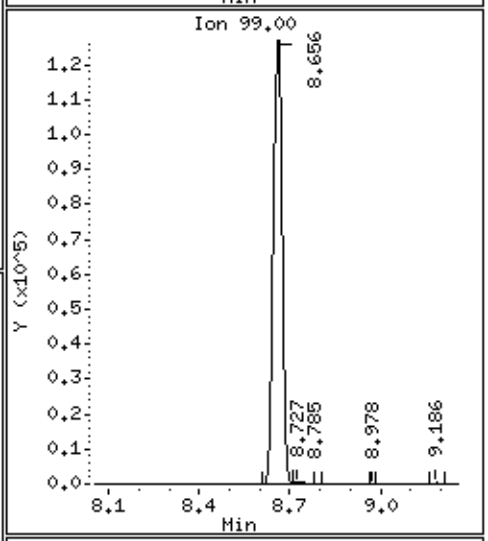


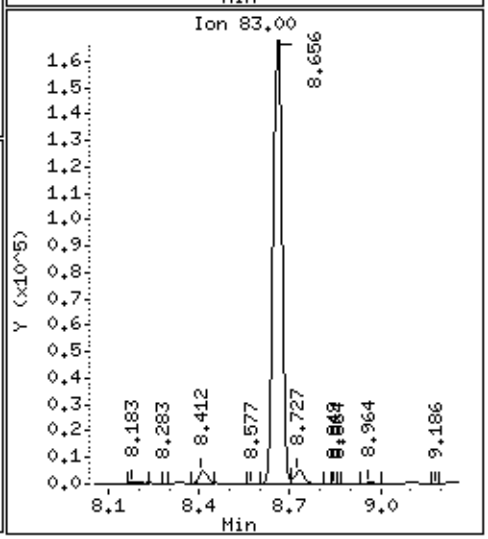












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

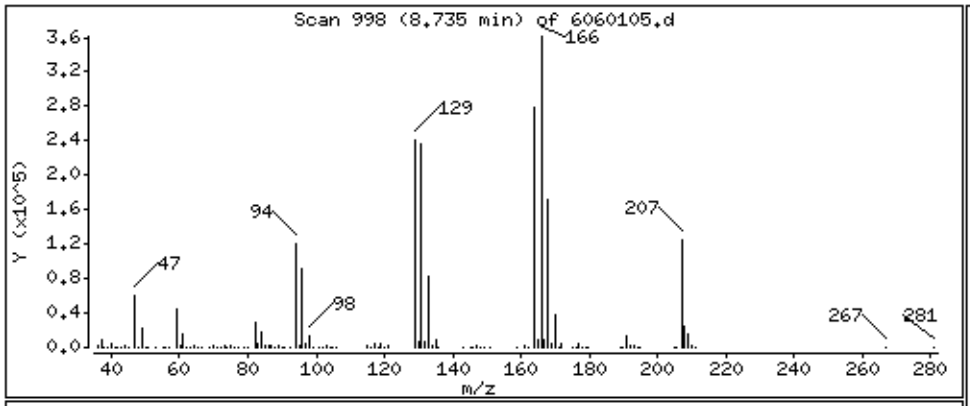
Operator: CT

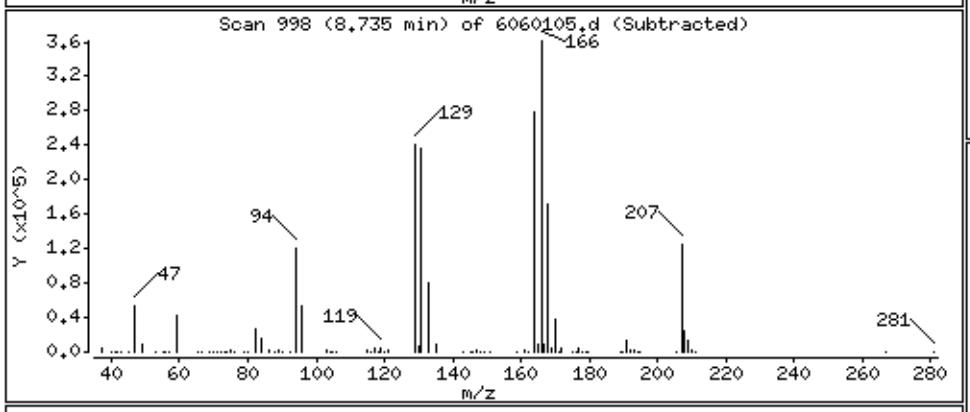
Column phase: RTx-624

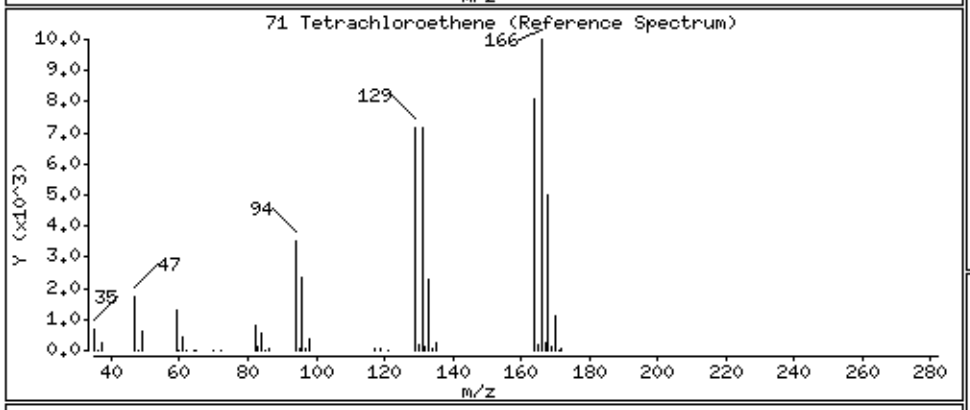
Column diameter: 0.53

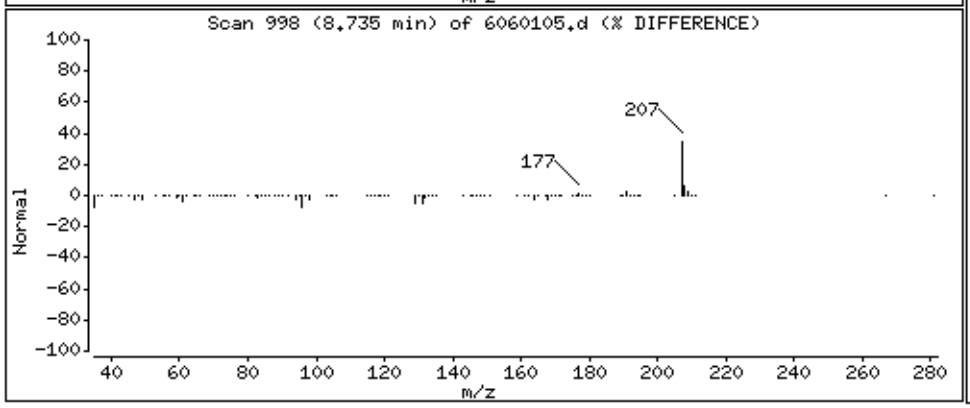
71 Tetrachloroethene

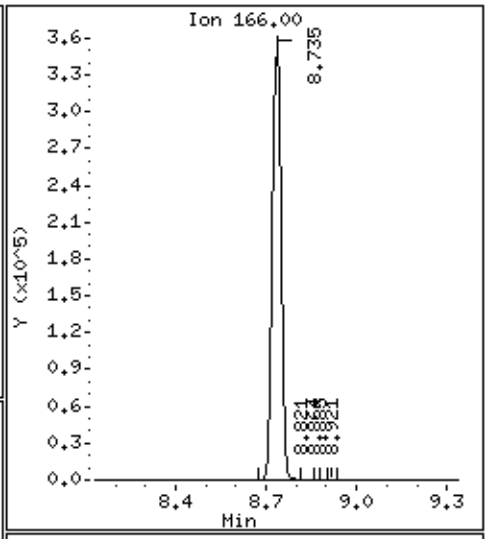
Concentration: 156.20 NG

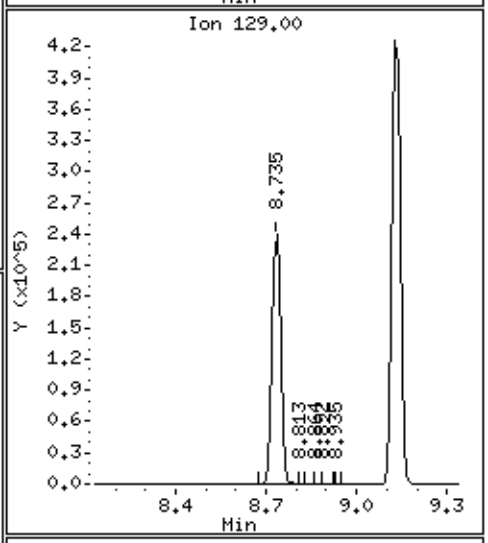


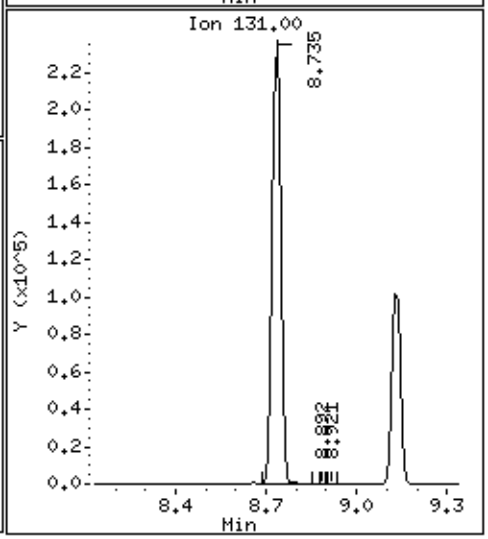












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

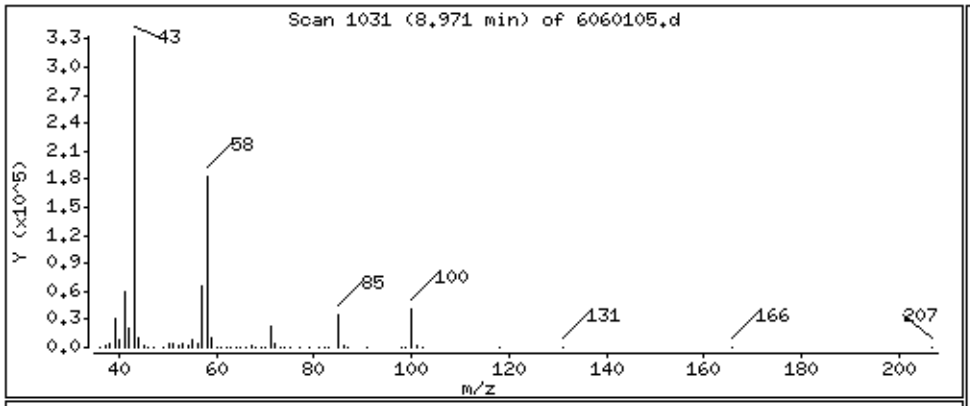
Operator: CT

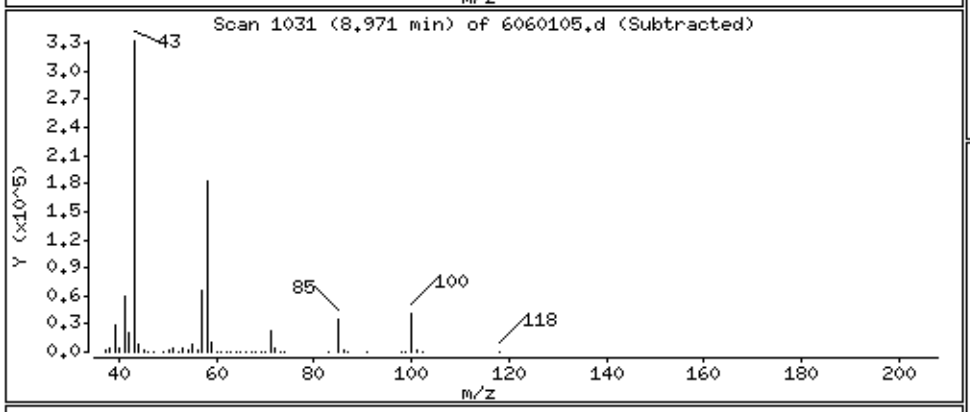
Column phase: RTx-624

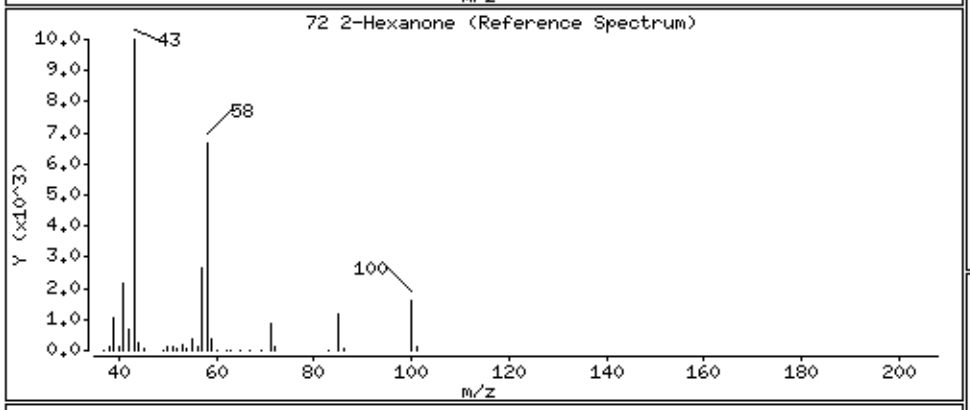
Column diameter: 0.53

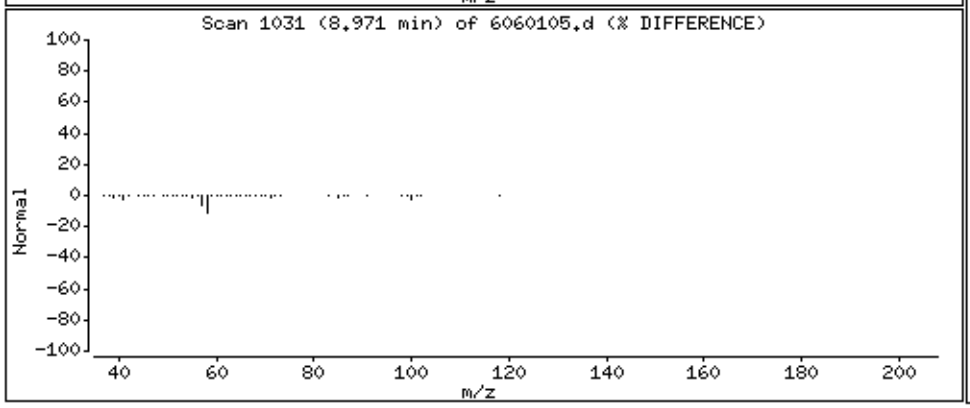
72 2-Hexanone

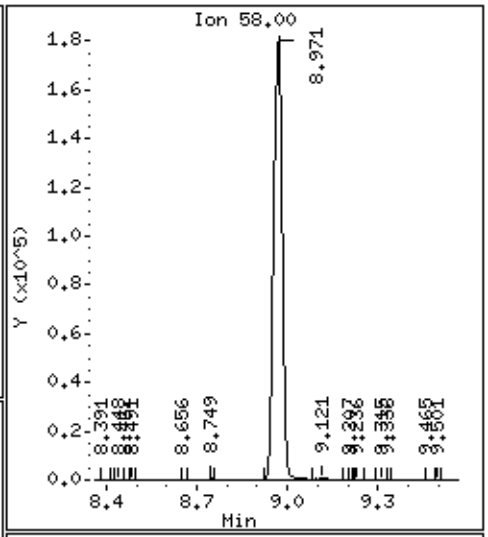
Concentration: 68.308 NG

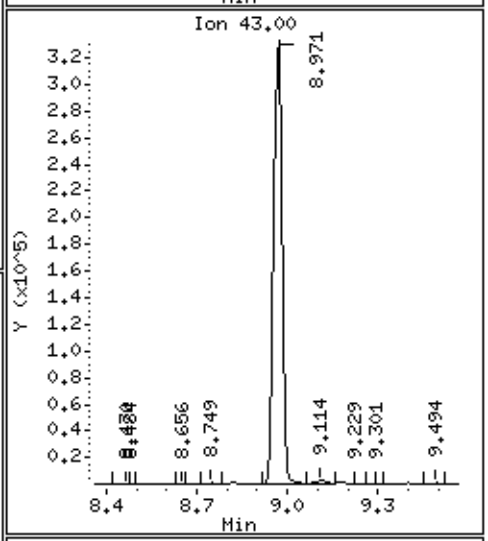


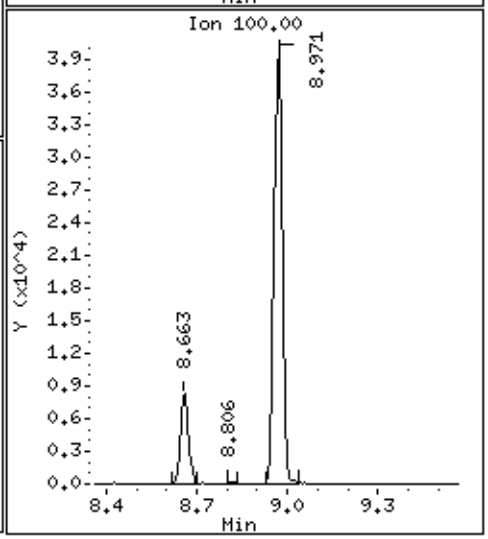












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

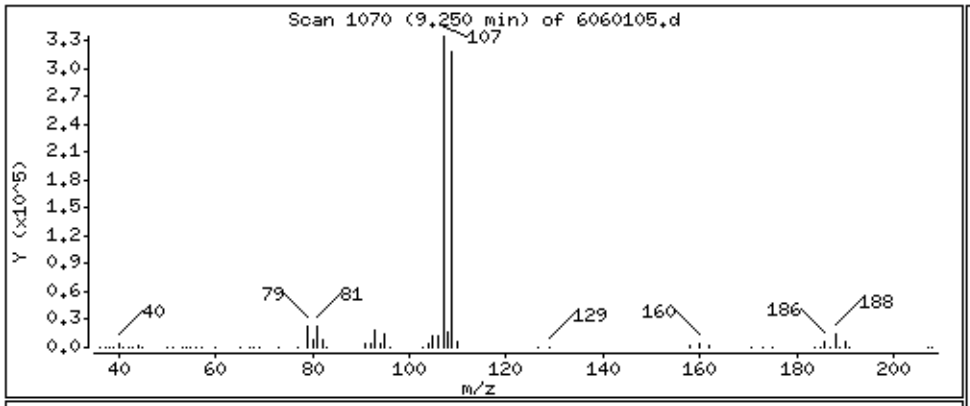
Operator: CT

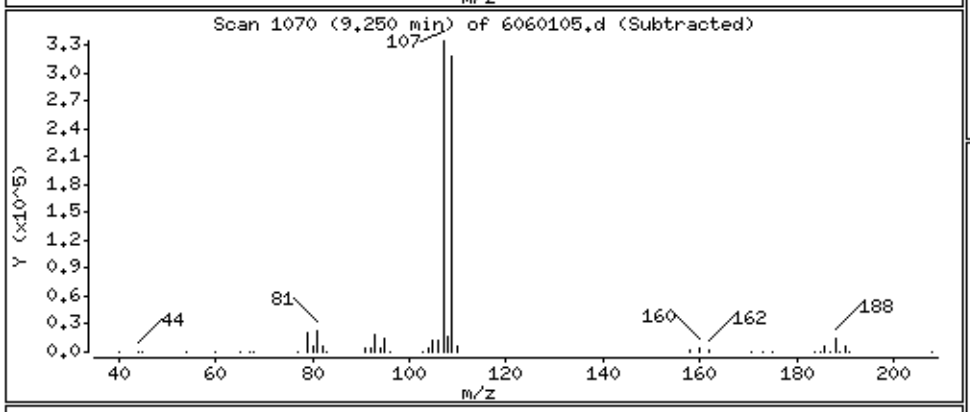
Column phase: RTx-624

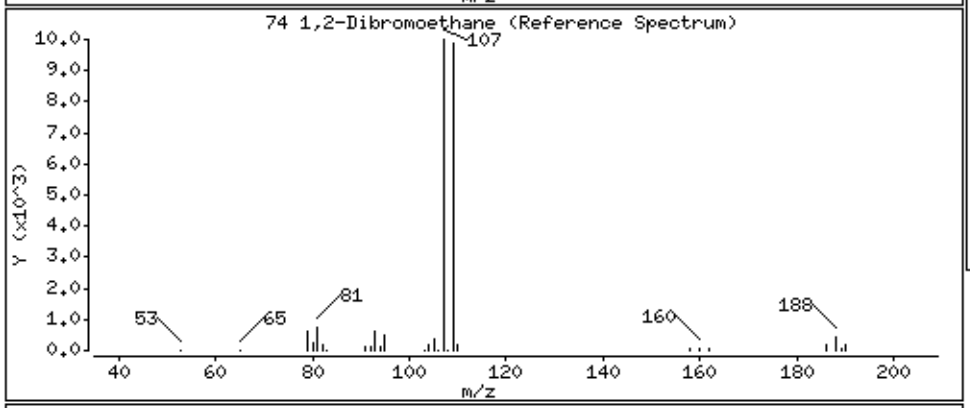
Column diameter: 0.53

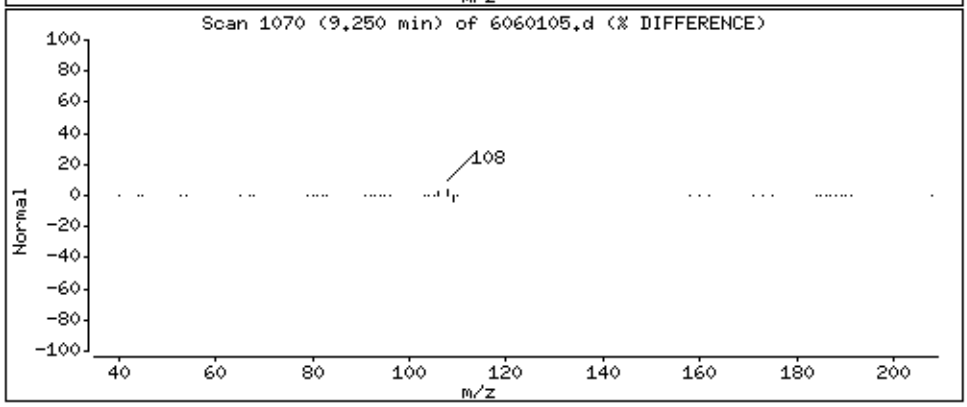
74 1,2-Dibromoethane

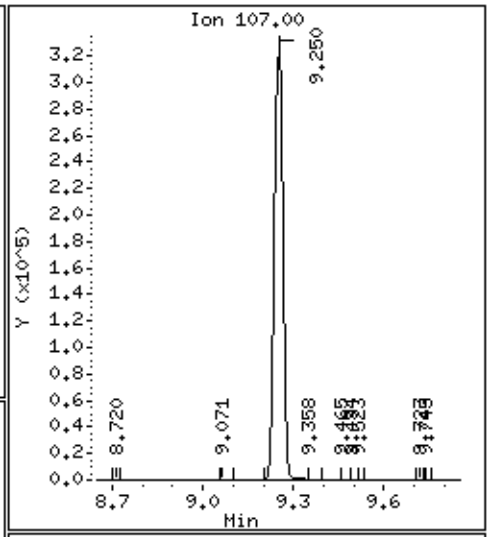
Concentration: 148.06 NG

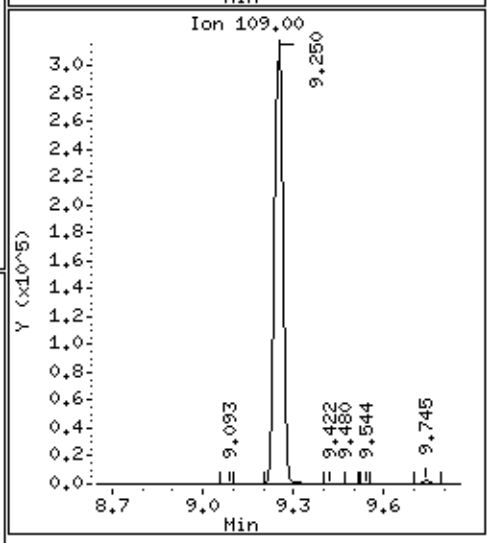












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

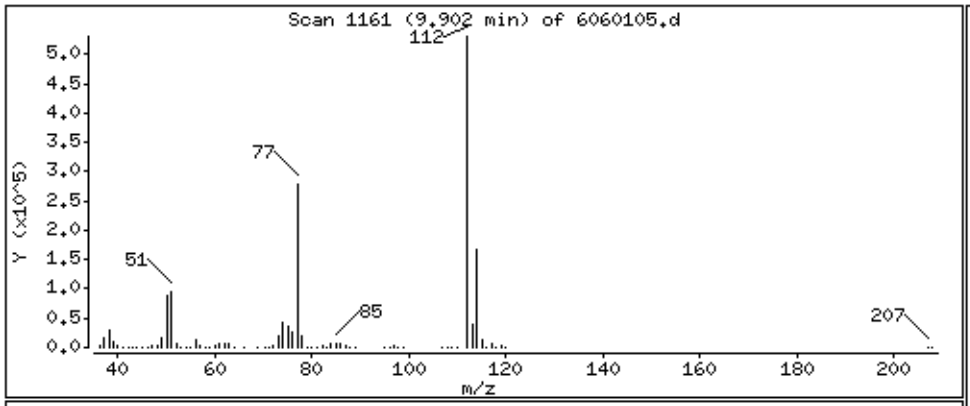
Operator: CT

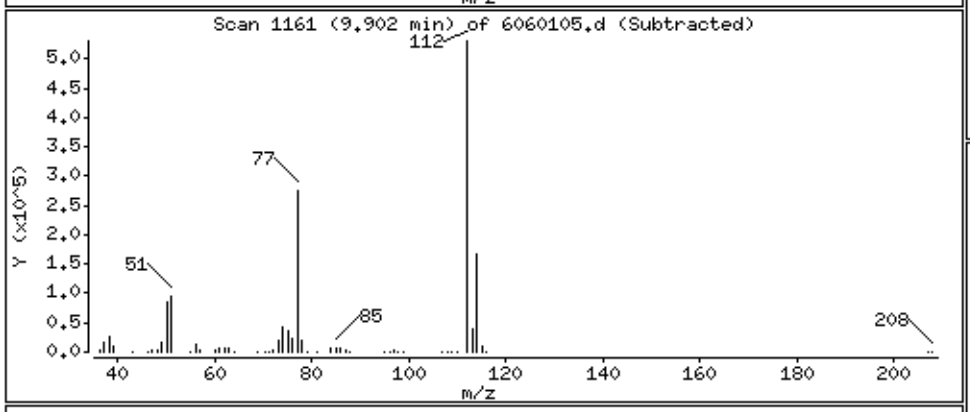
Column phase: RTx-624

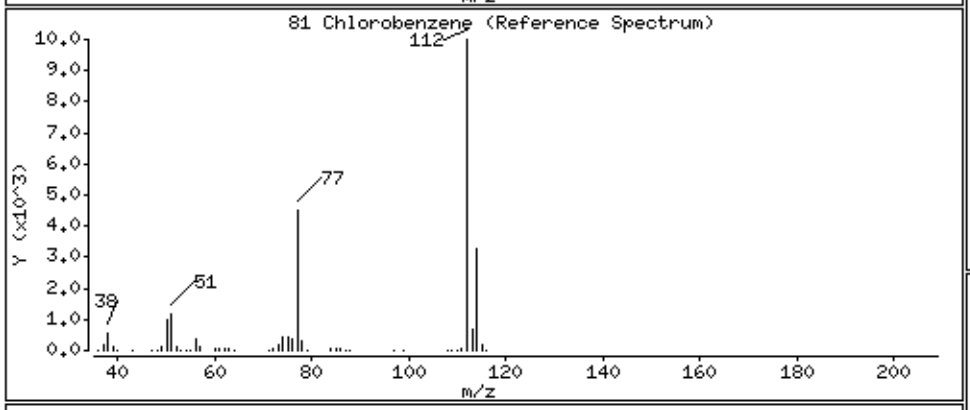
Column diameter: 0.53

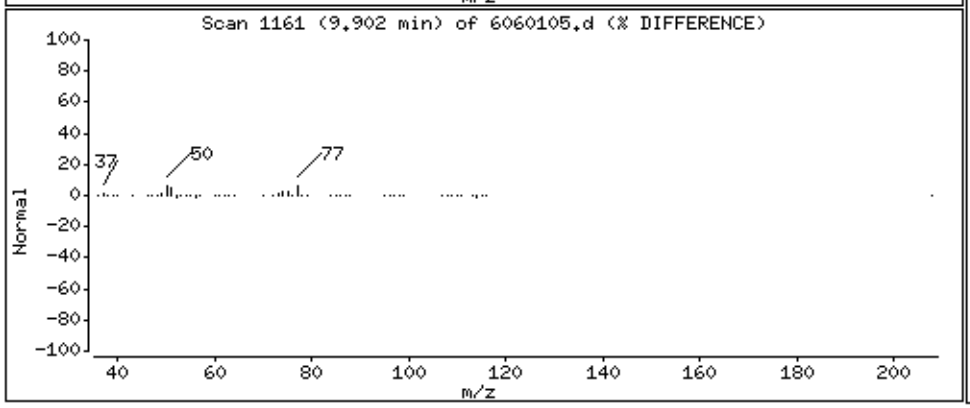
81 Chlorobenzene

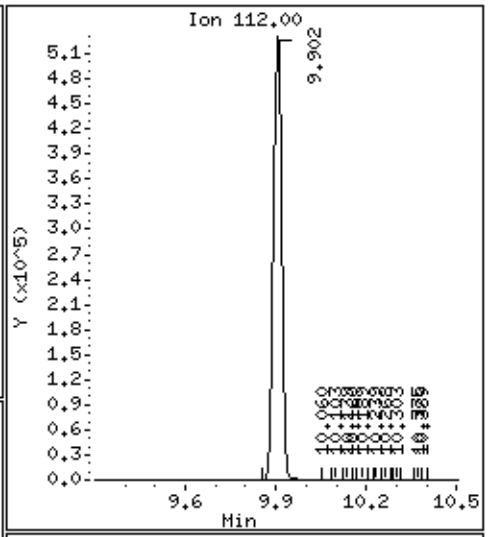
Concentration: 91.307 NG

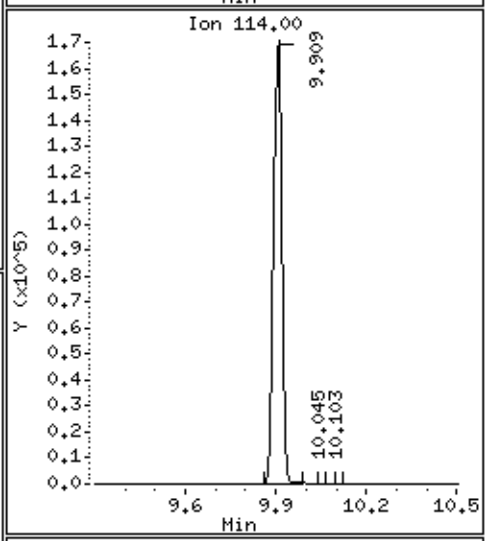


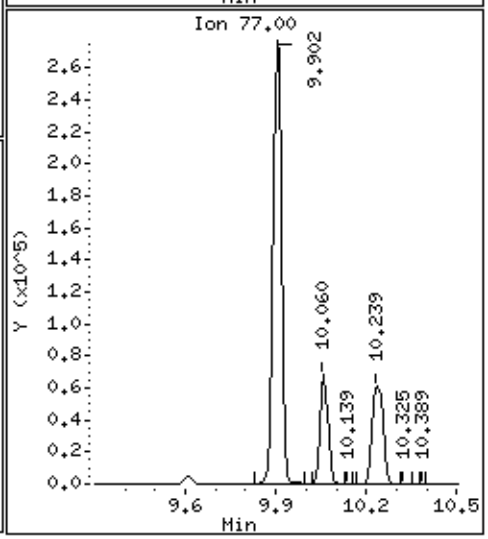












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

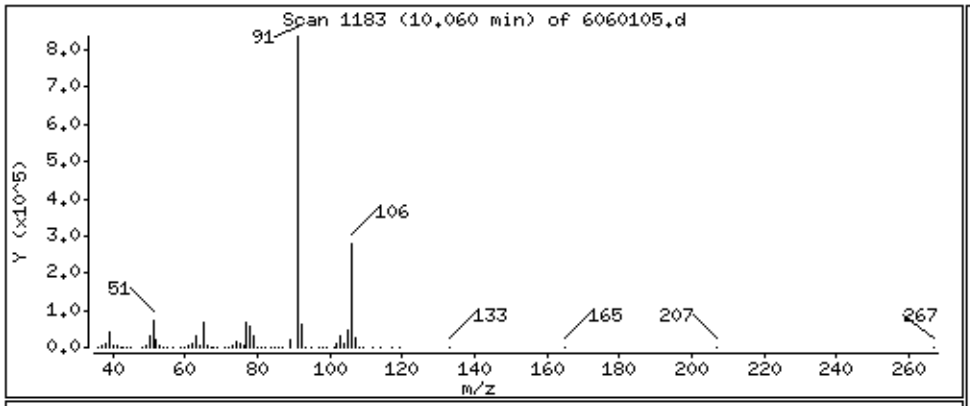
Operator: CT

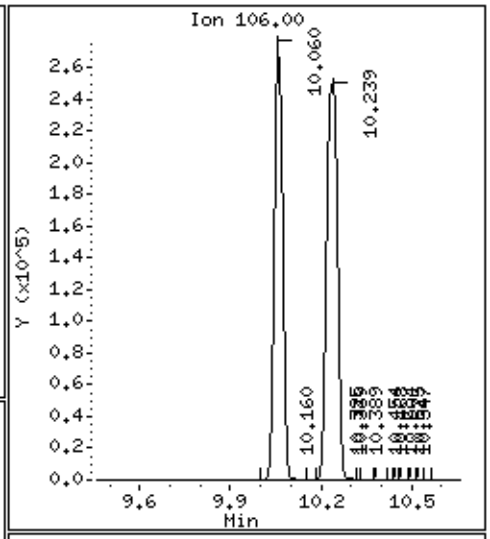
Column phase: RTx-624

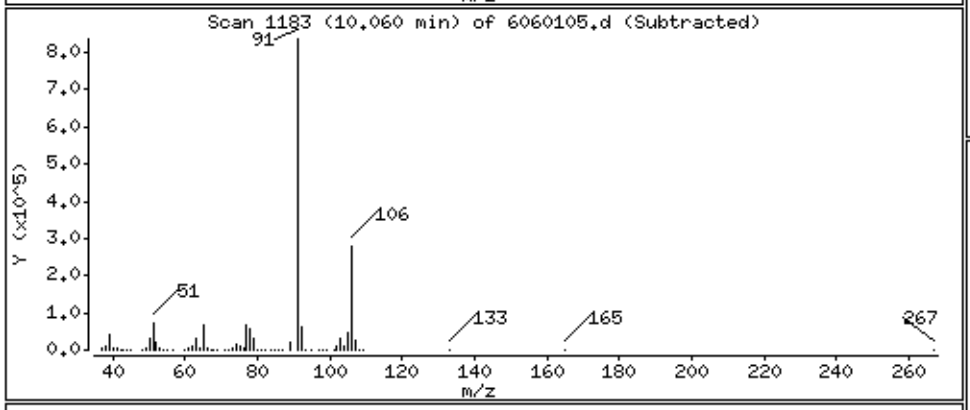
Column diameter: 0.53

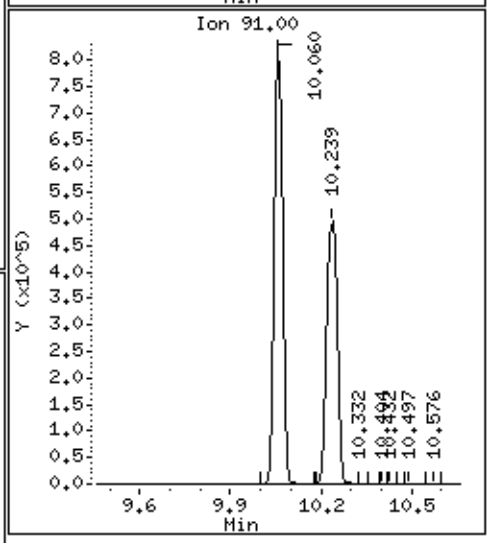
82 Ethyl Benzene

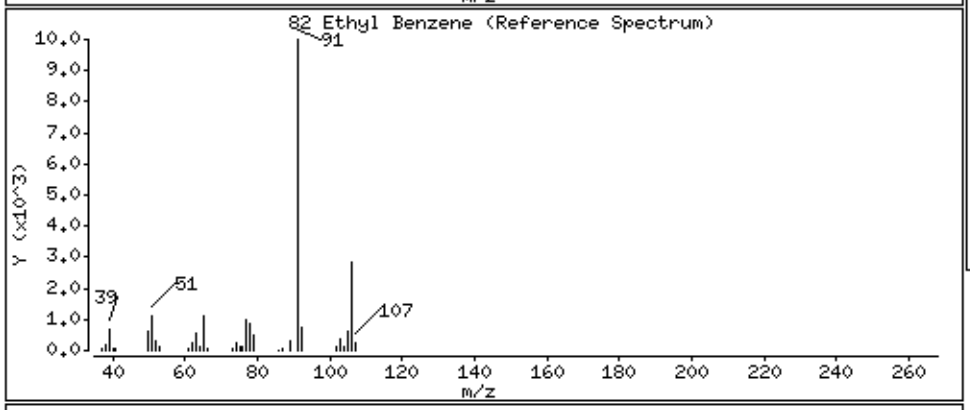
Concentration: 84.222 NG

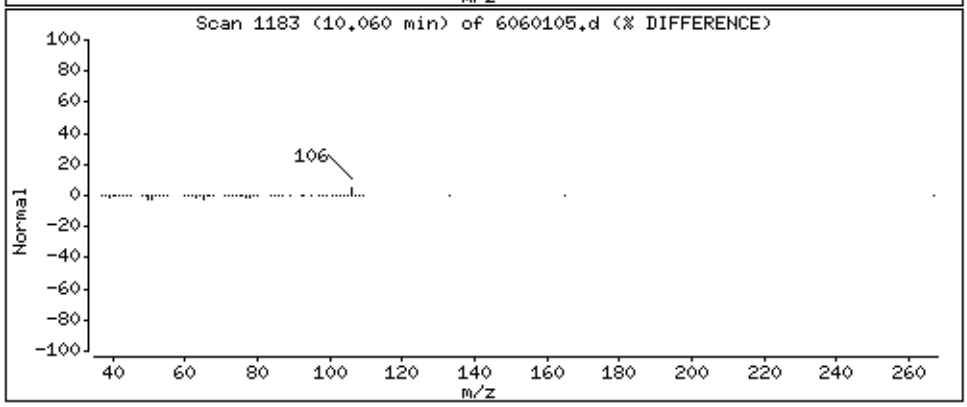












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

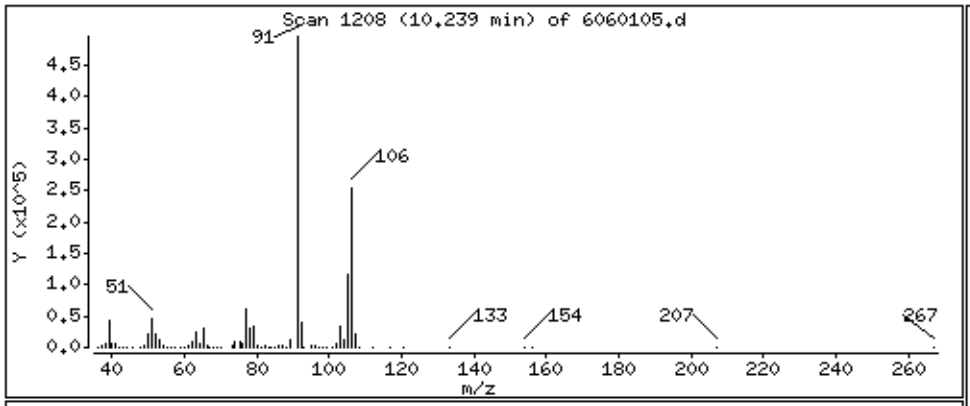
Operator: CT

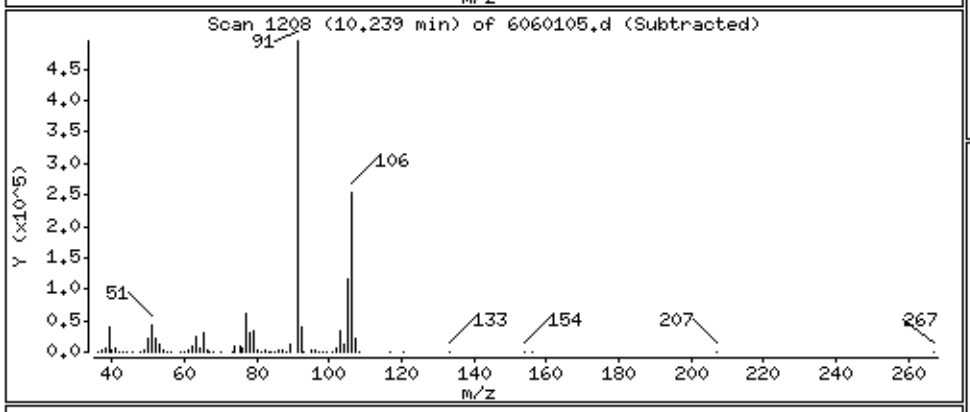
Column phase: RTx-624

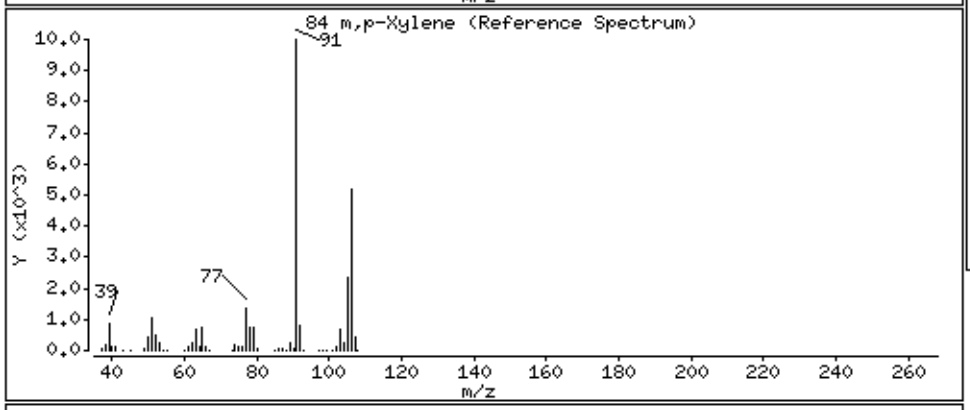
Column diameter: 0.53

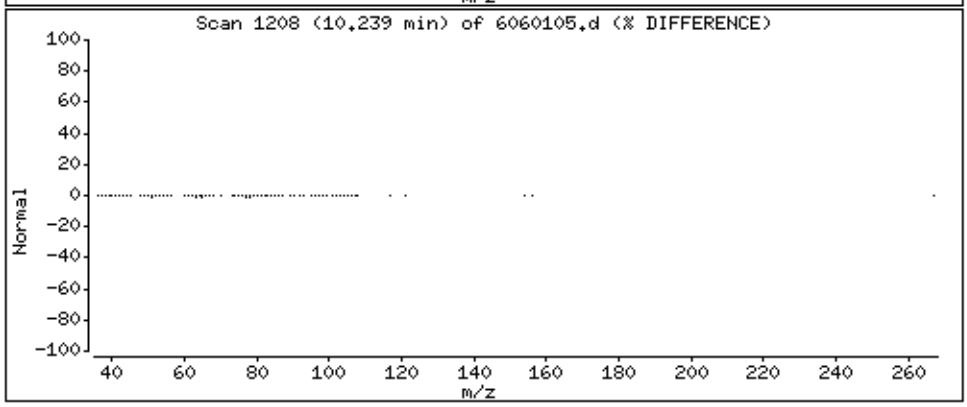
84 m,p-Xylene

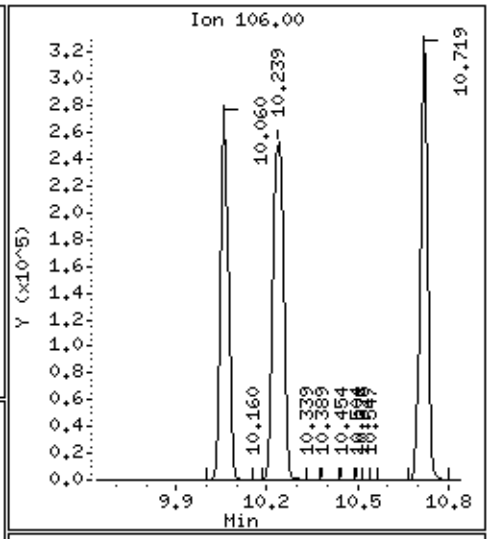
Concentration: 81.511 NG

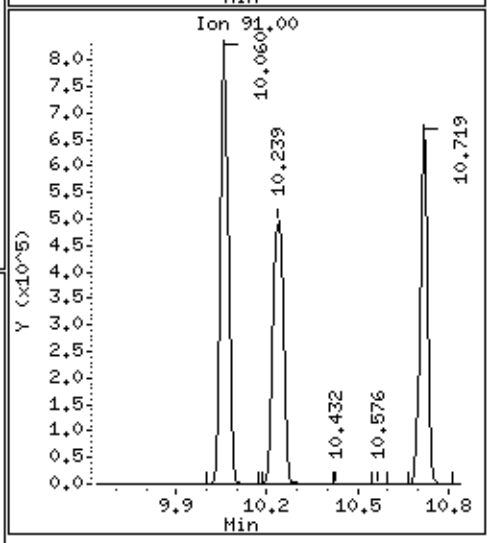












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

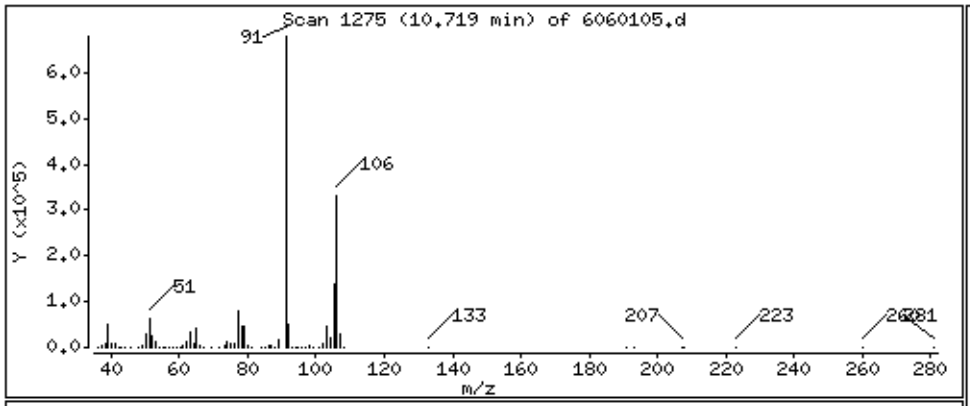
Operator: CT

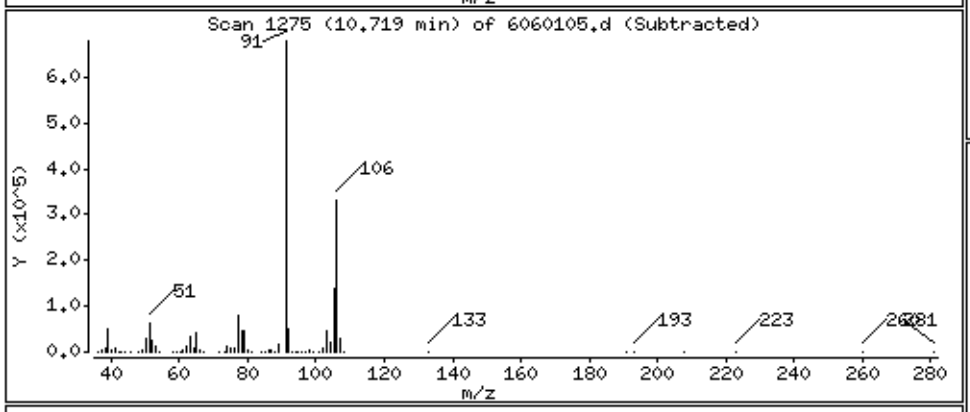
Column phase: RTx-624

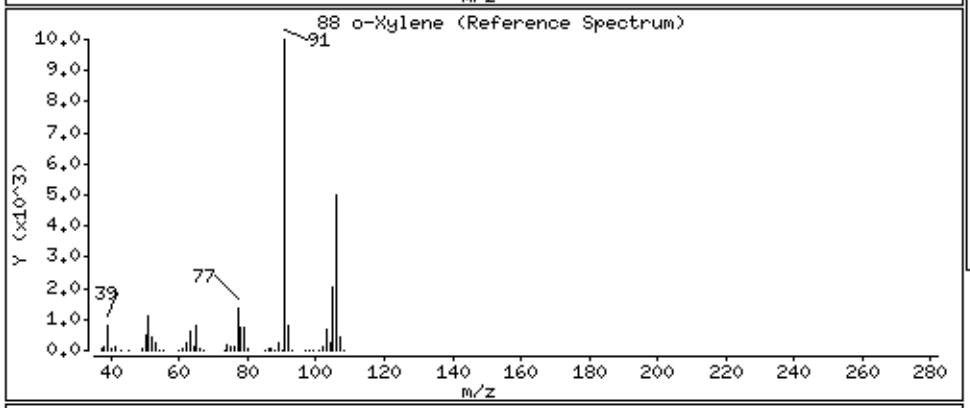
Column diameter: 0.53

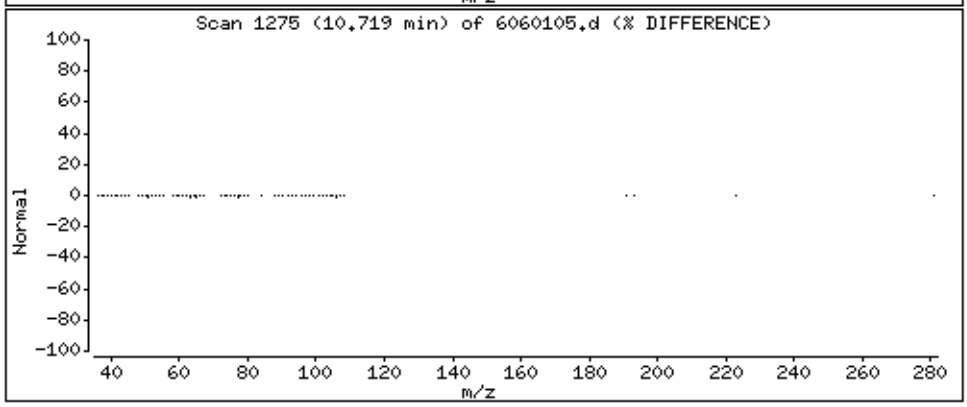
88 o-Xylene

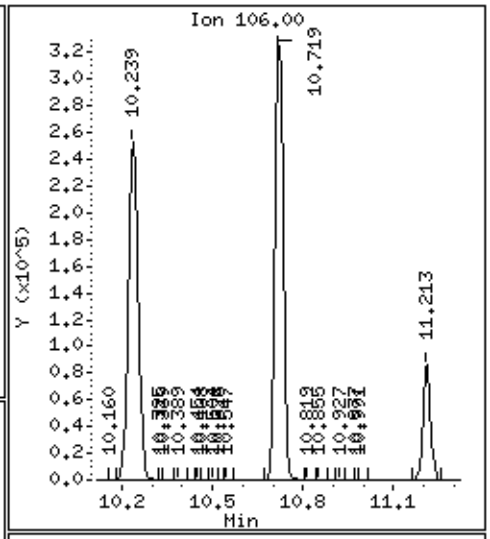
Concentration: 73.596 NG

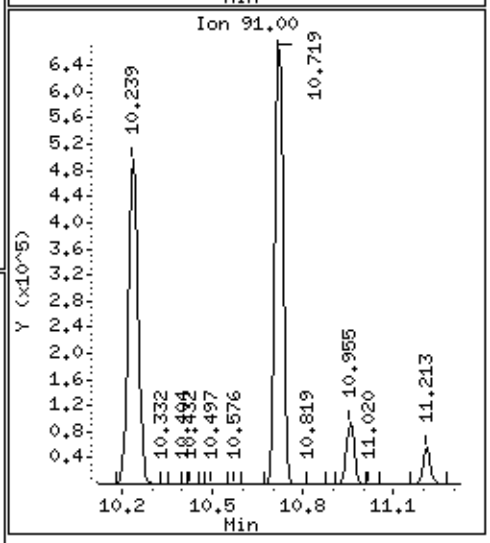












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

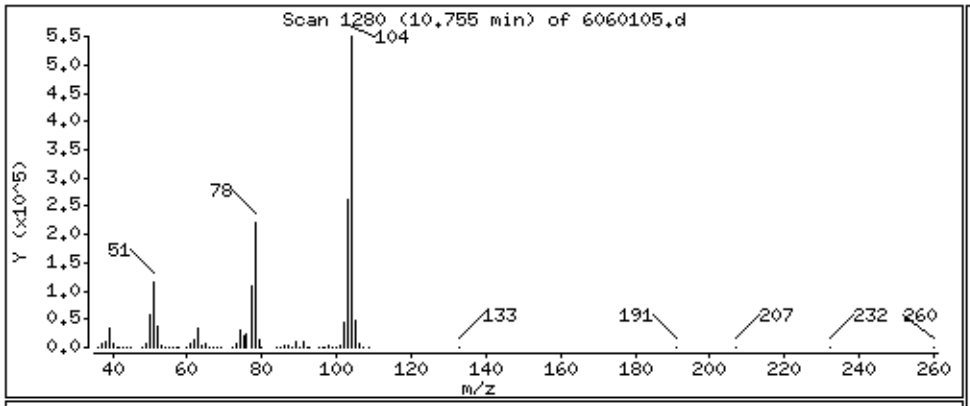
Operator: CT

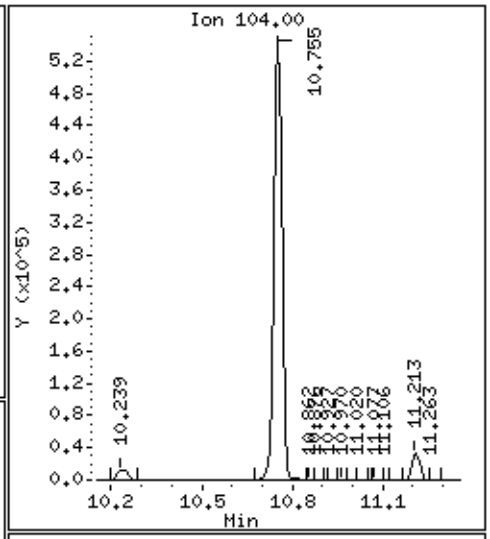
Column phase: RTx-624

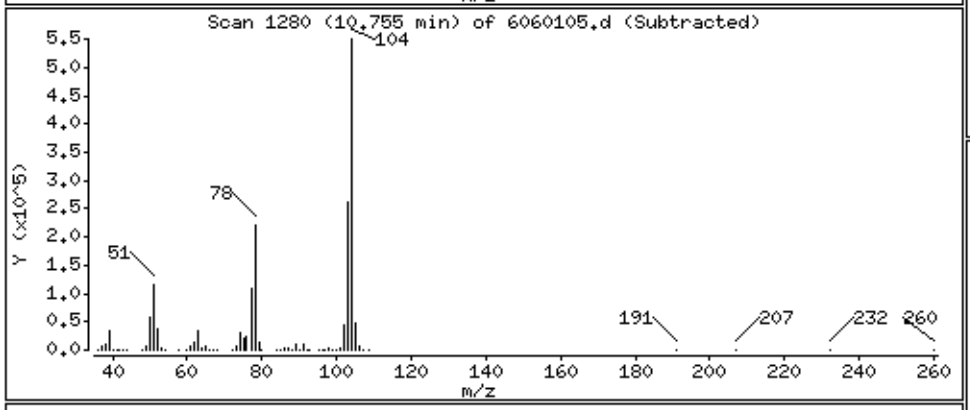
Column diameter: 0.53

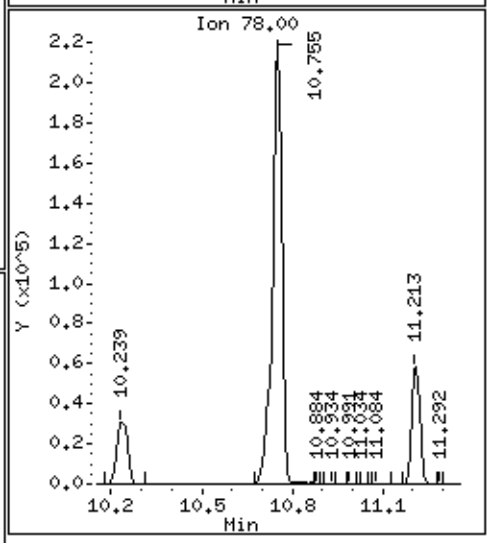
89 Styrene

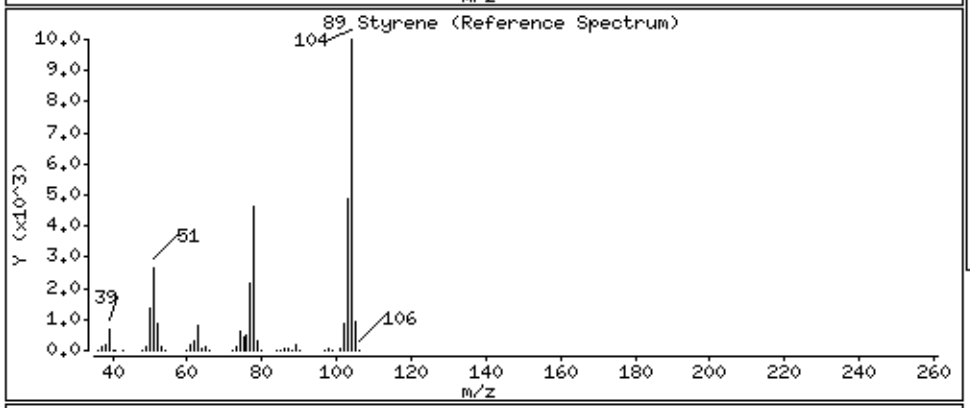
Concentration: 69.936 NG

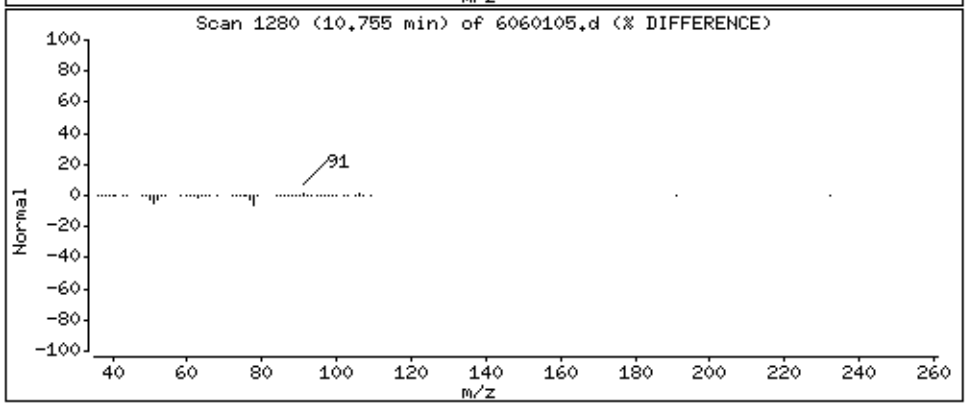












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

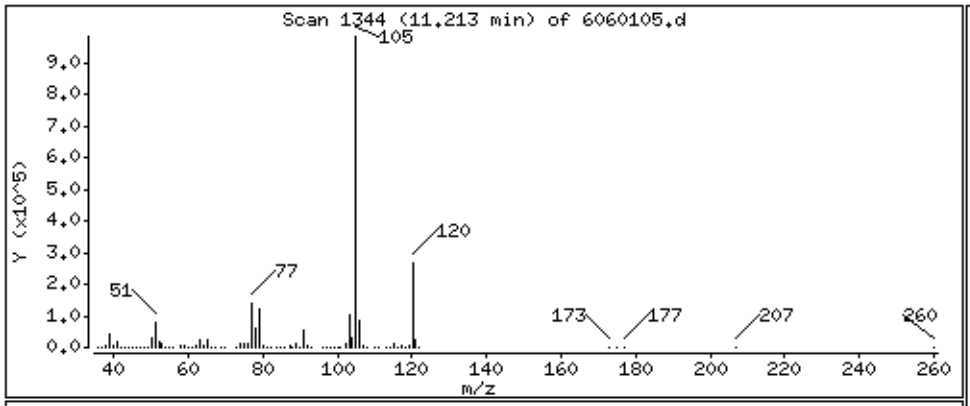
Operator: CT

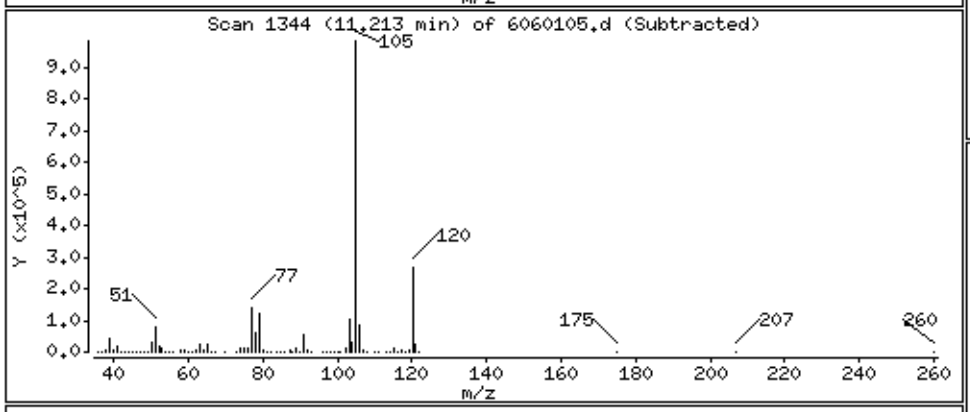
Column phase: RTx-624

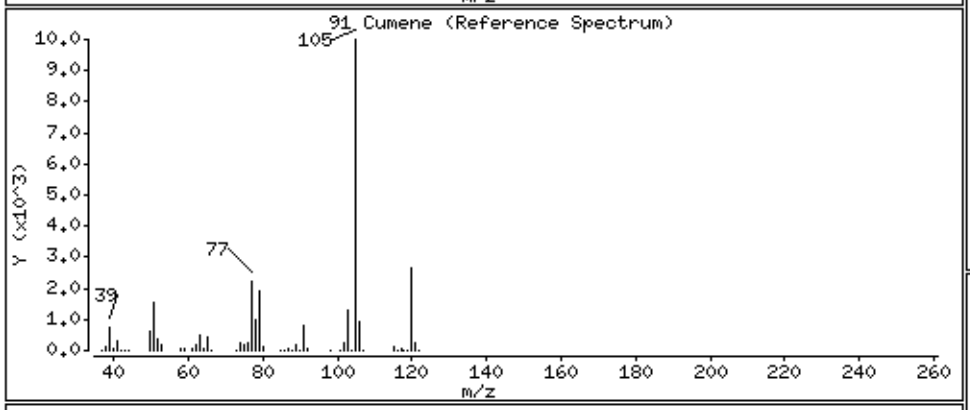
Column diameter: 0.53

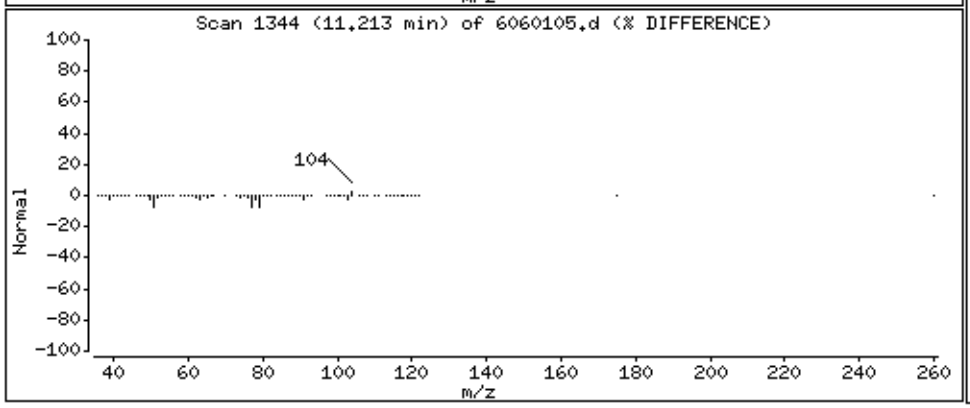
91 Cumene

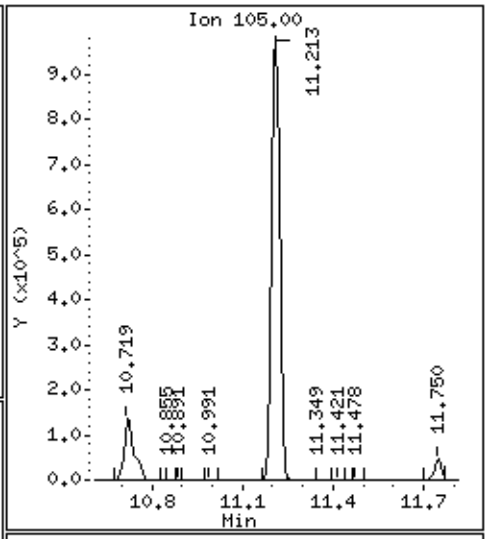
Concentration: 84.000 NG

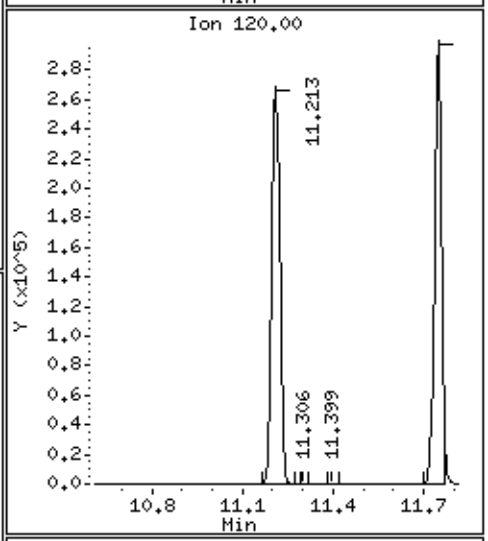


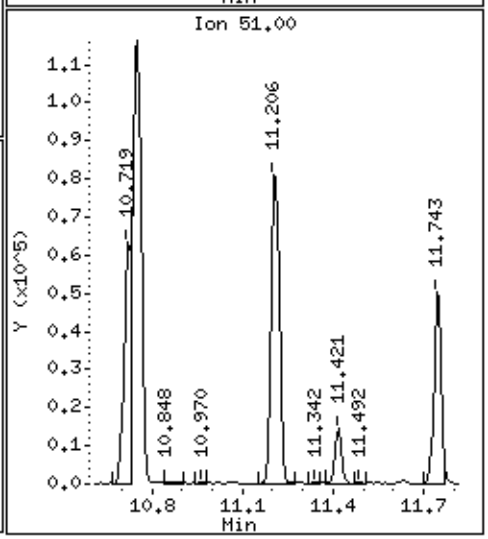












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

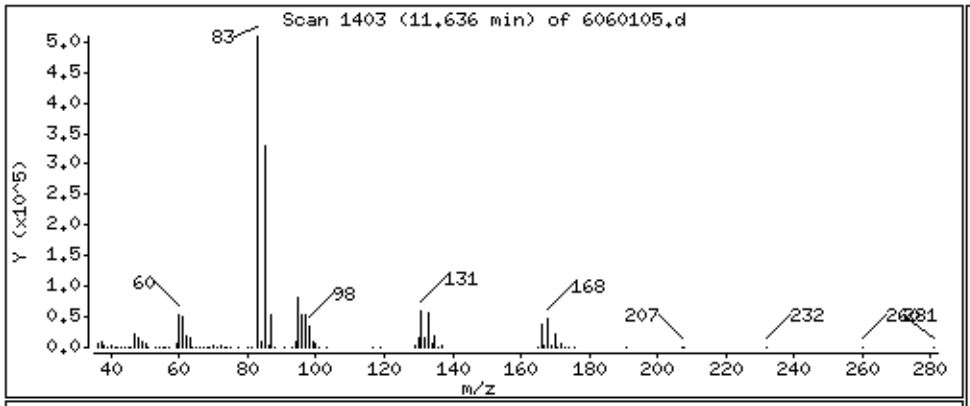
Operator: CT

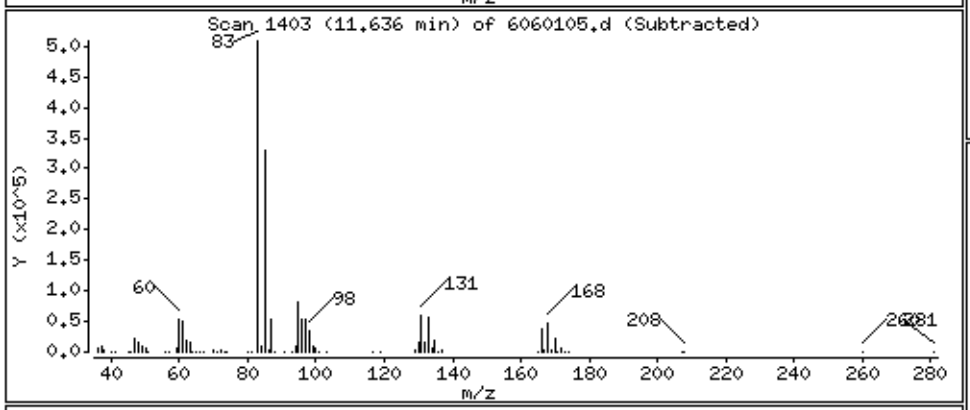
Column phase: RTx-624

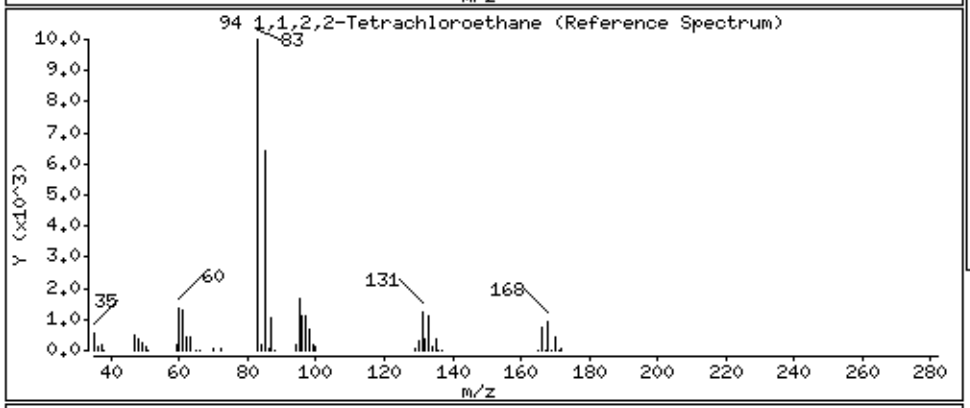
Column diameter: 0.53

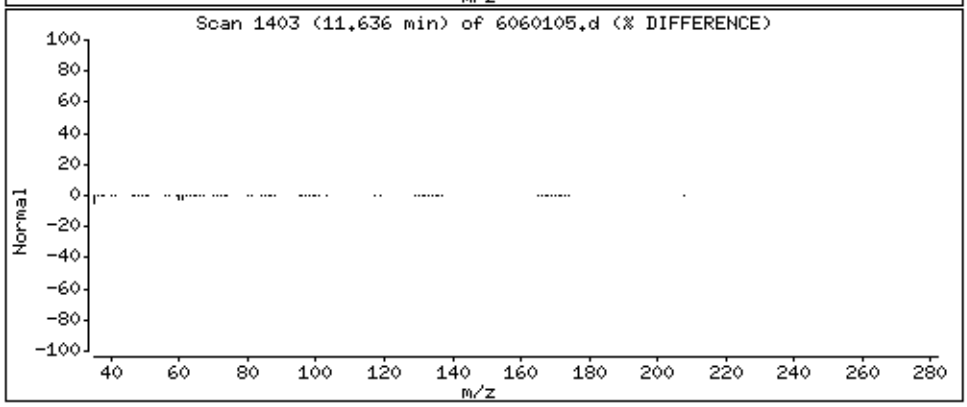
94 1,1,2,2-Tetrachloroethane

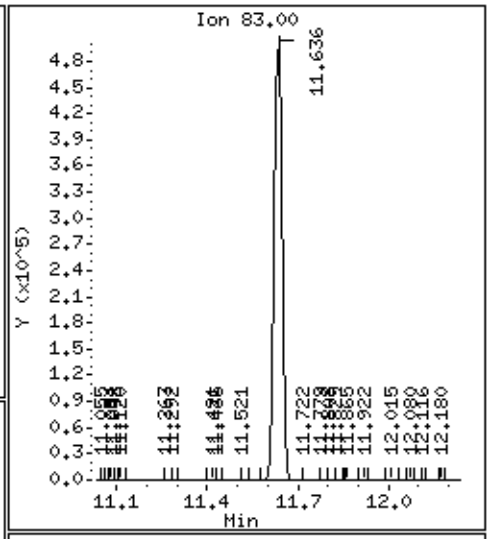
Concentration: 123.43 NG

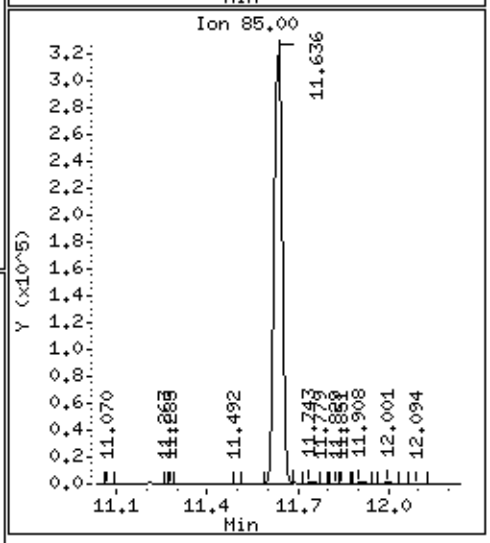












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

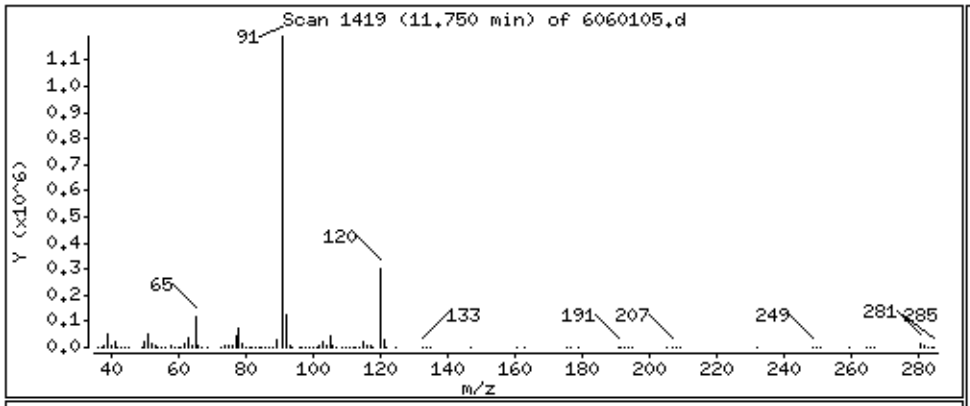
Operator: CT

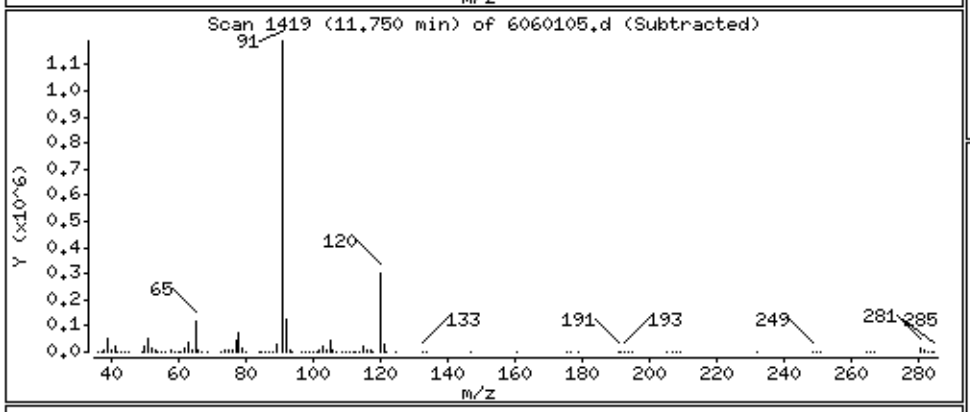
Column phase: RTx-624

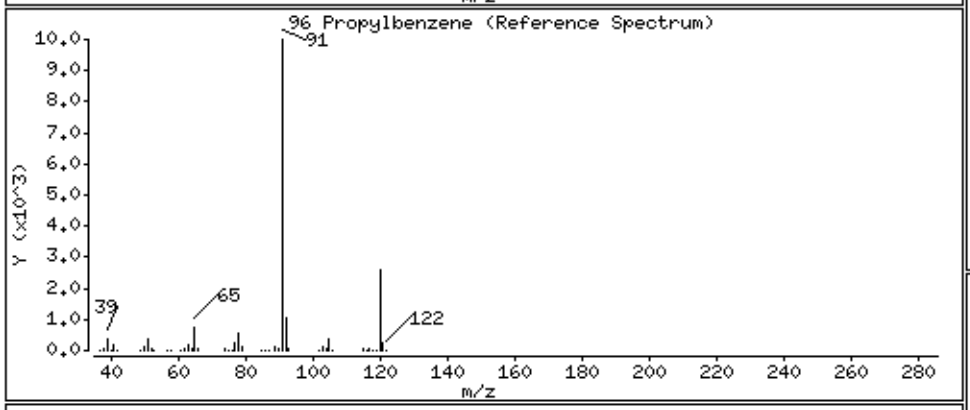
Column diameter: 0.53

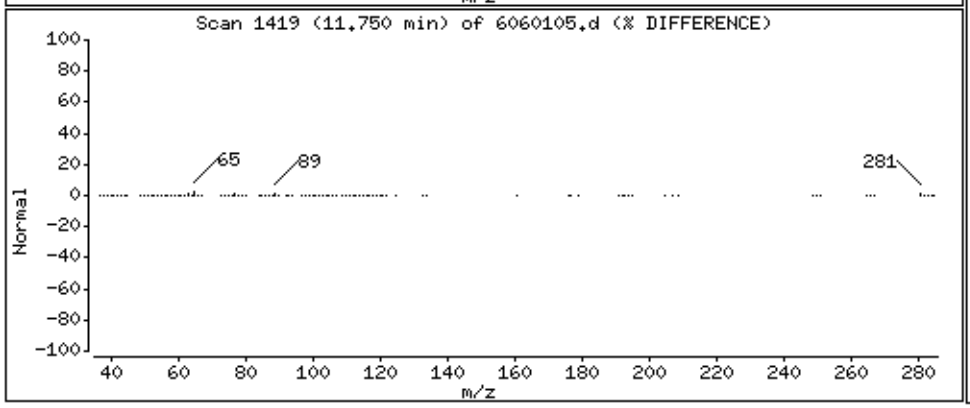
96 Propylbenzene

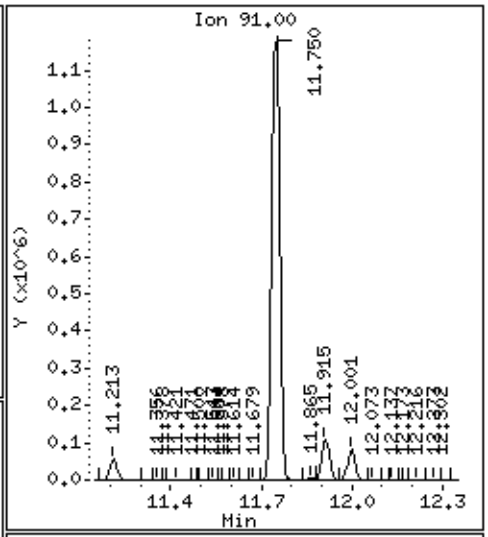
Concentration: 83.987 NG

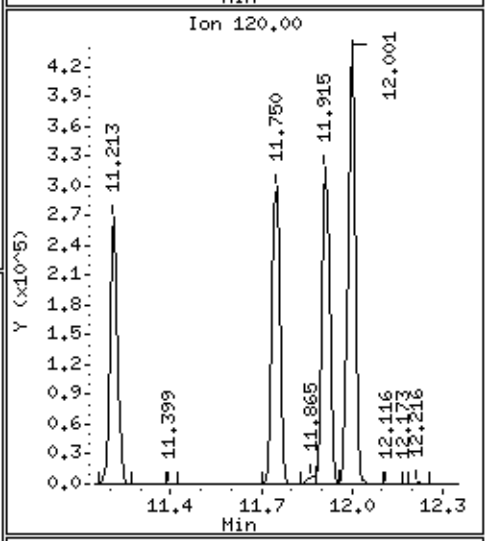


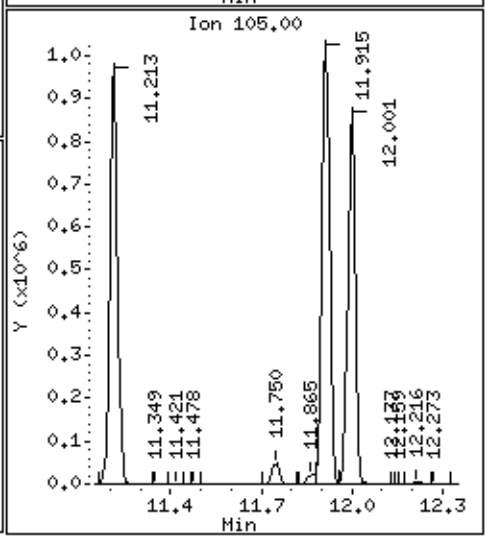












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

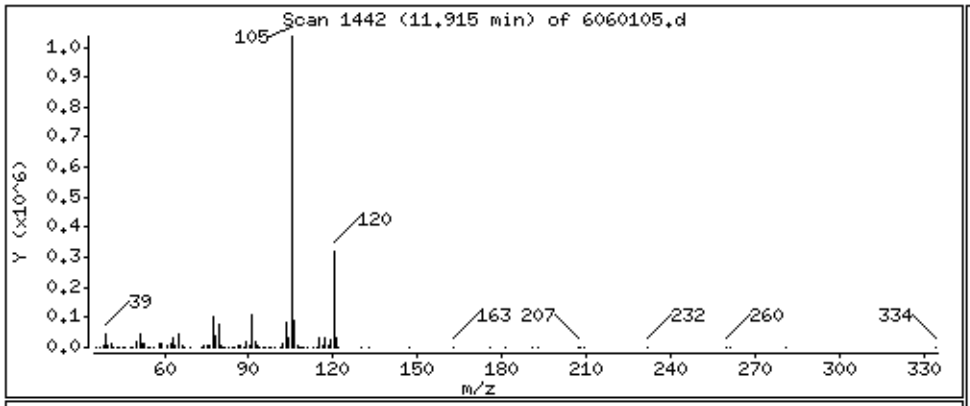
Operator: CT

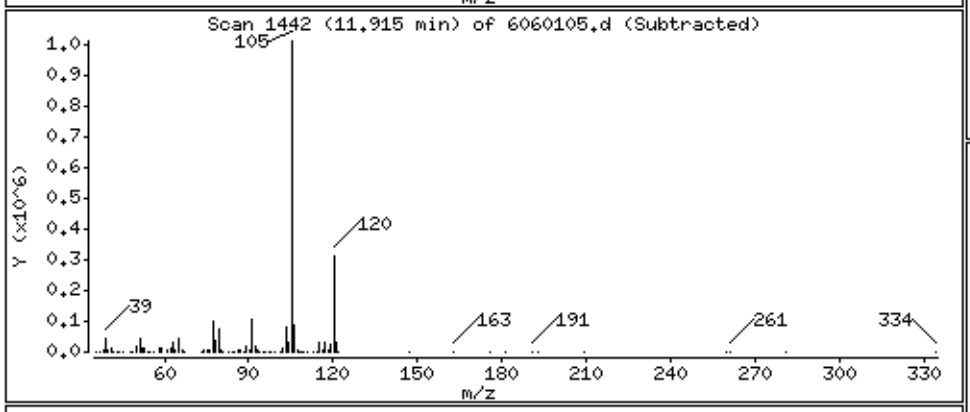
Column phase: RTx-624

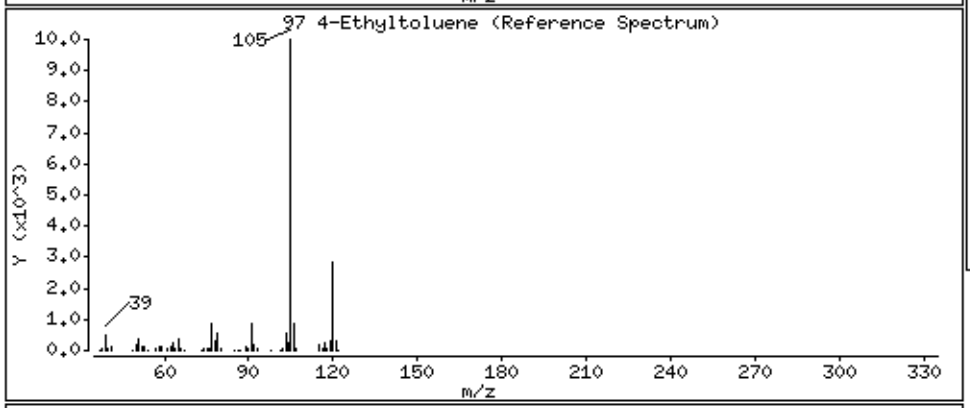
Column diameter: 0.53

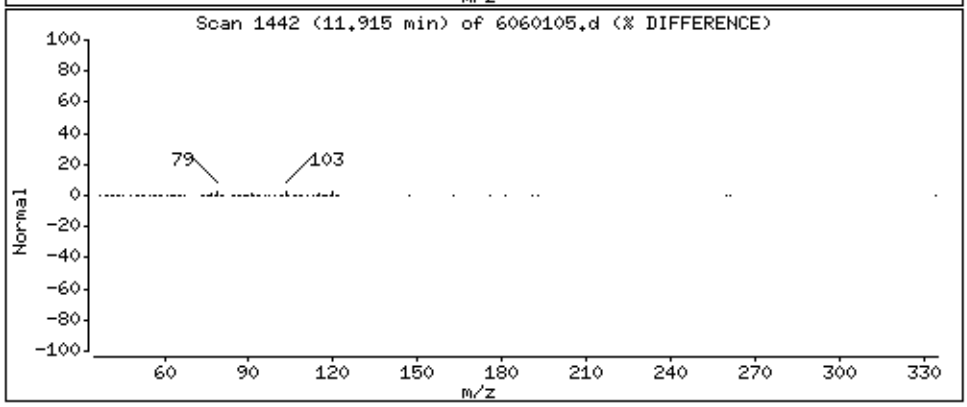
97 4-Ethyltoluene

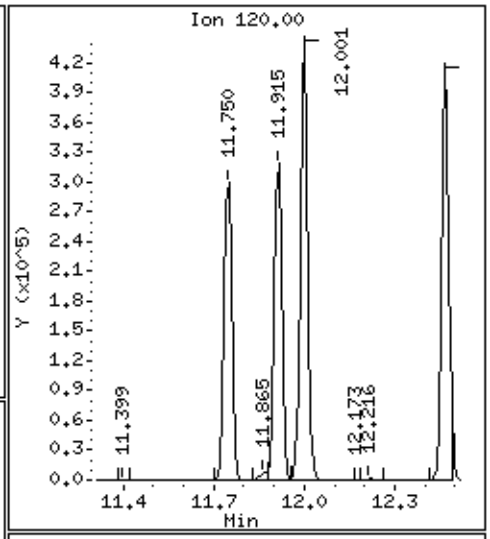
Concentration: 84.478 NG

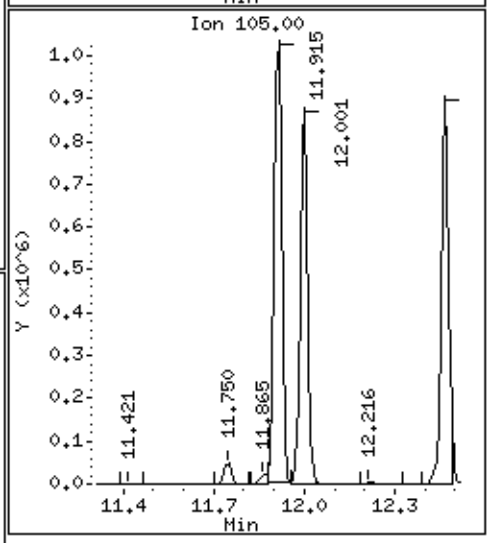












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

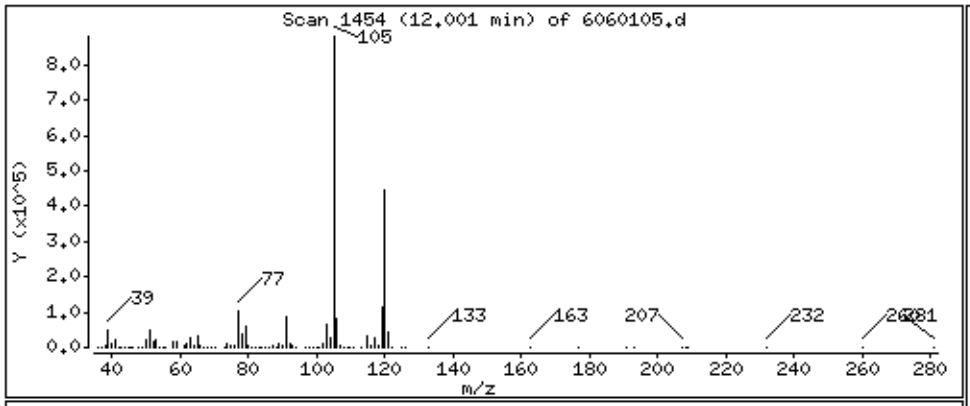
Operator: CT

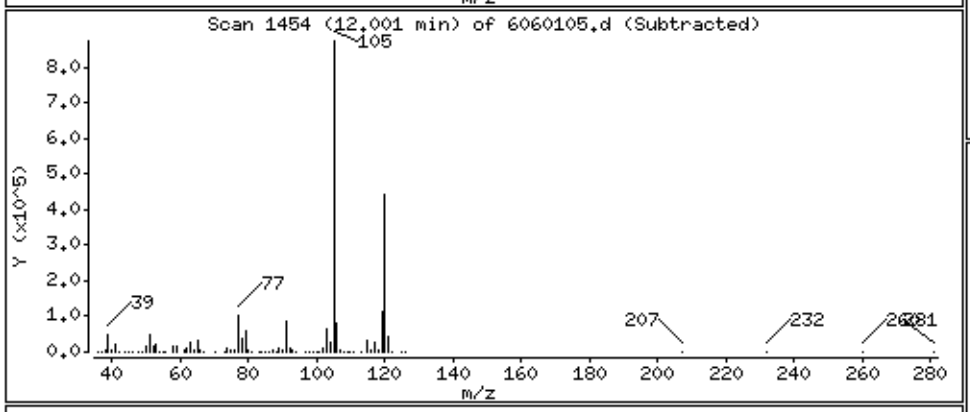
Column phase: RTx-624

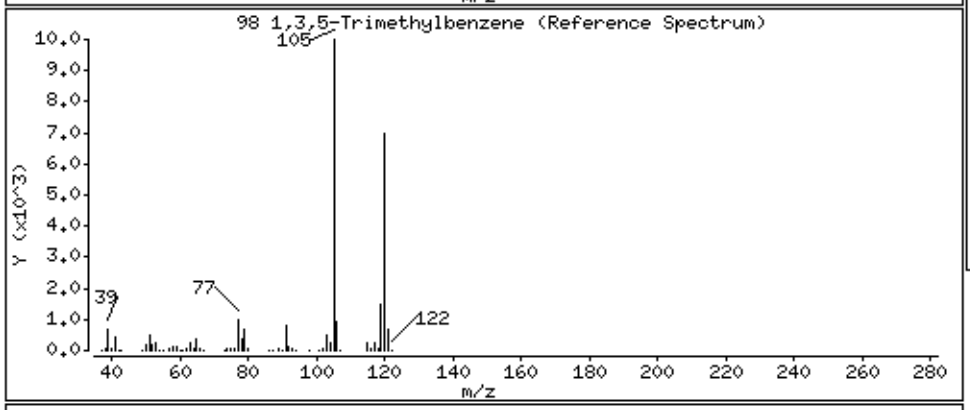
Column diameter: 0.53

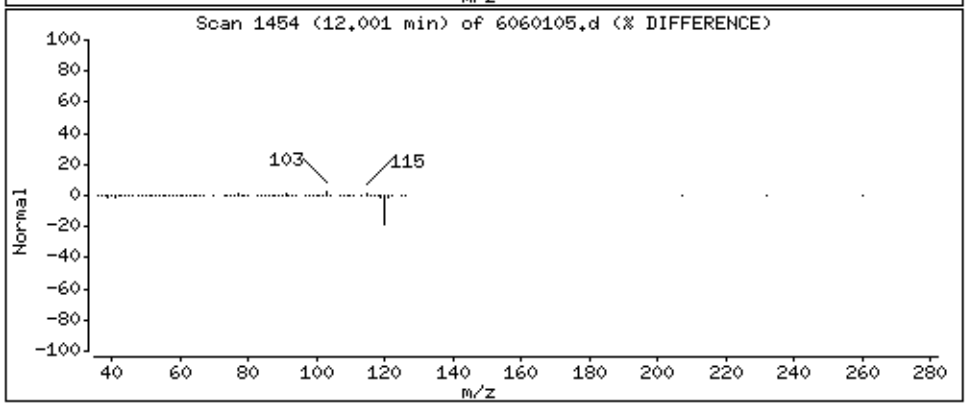
98 1,3,5-Trimethylbenzene

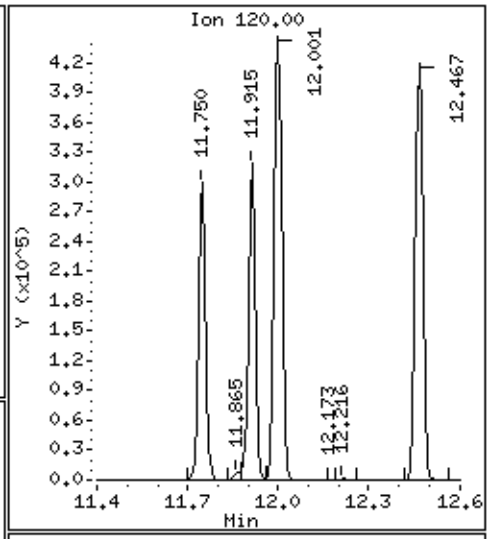
Concentration: 85.194 NG

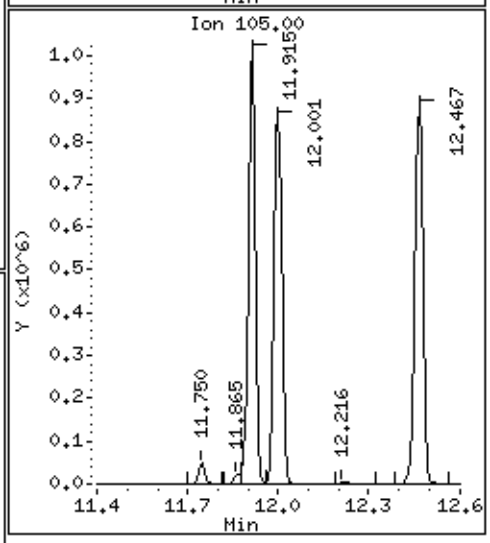












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

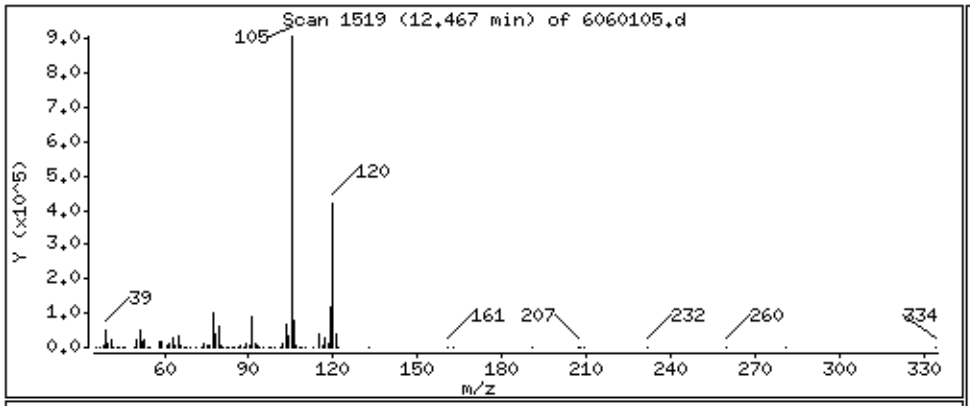
Operator: CT

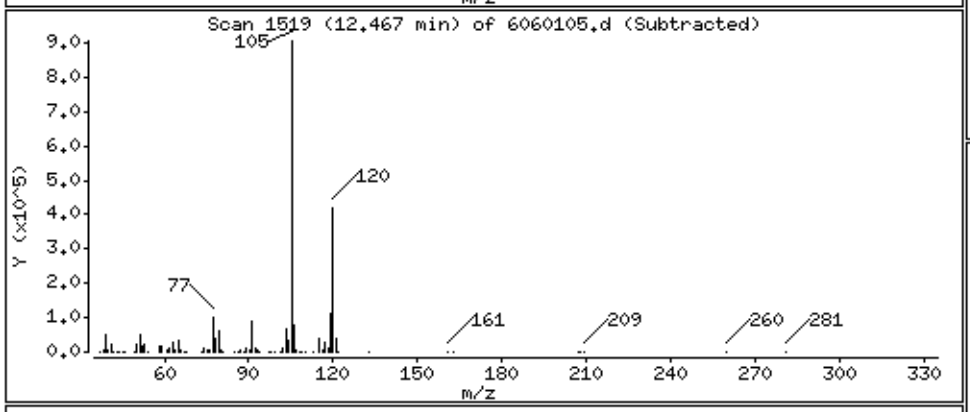
Column phase: RTx-624

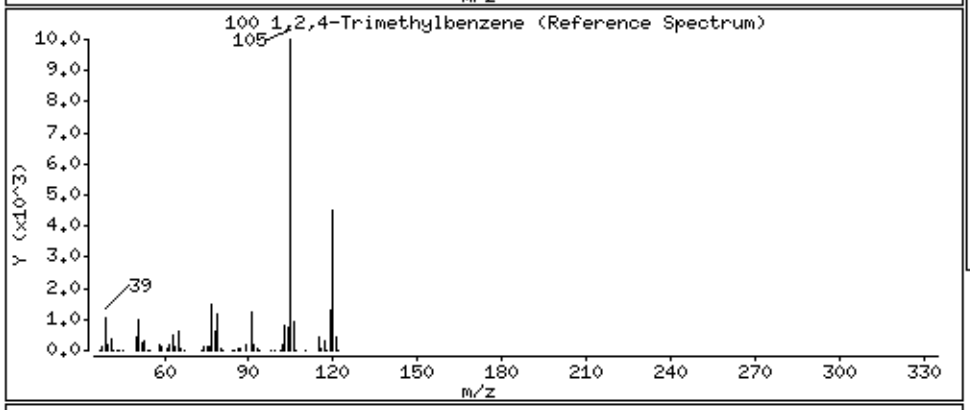
Column diameter: 0.53

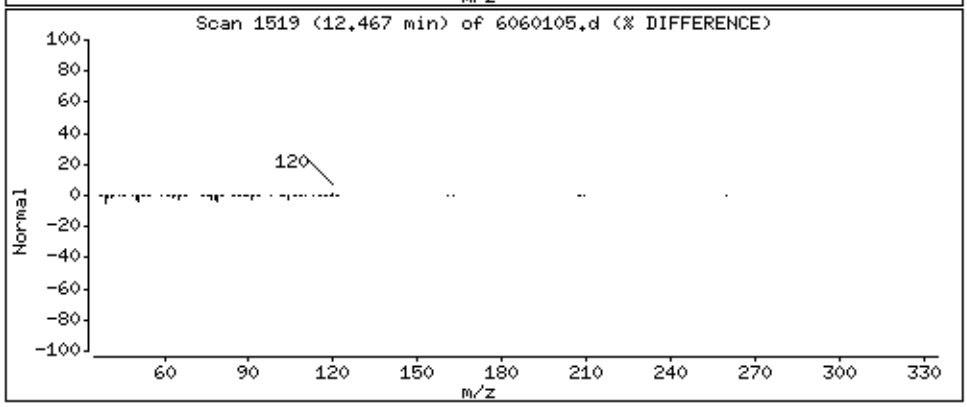
100 1,2,4-Trimethylbenzene

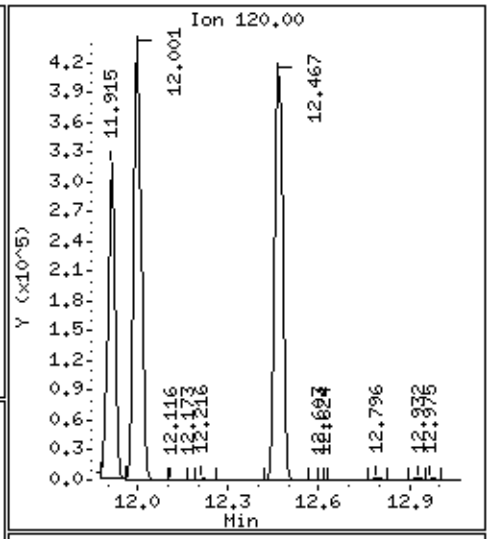
Concentration: 85.367 NG

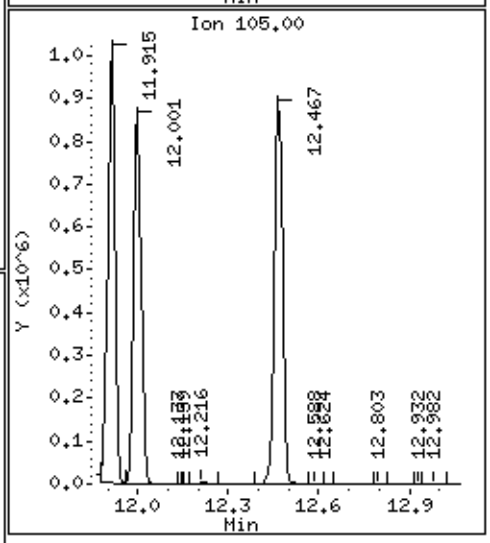












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

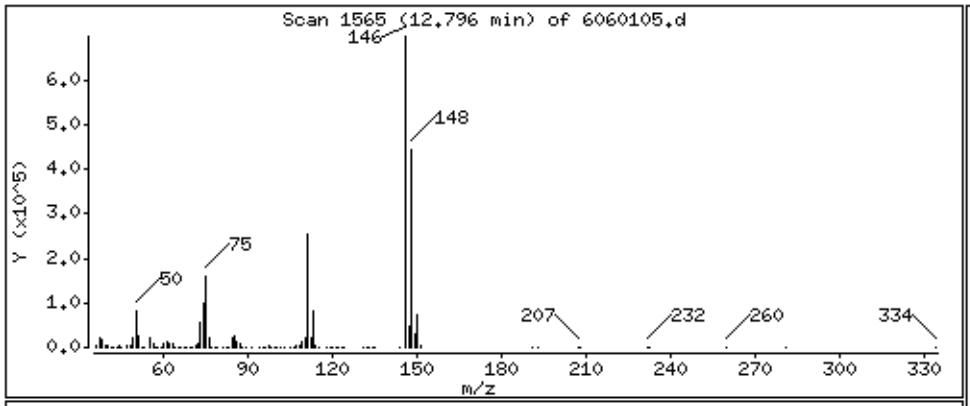
Operator: CT

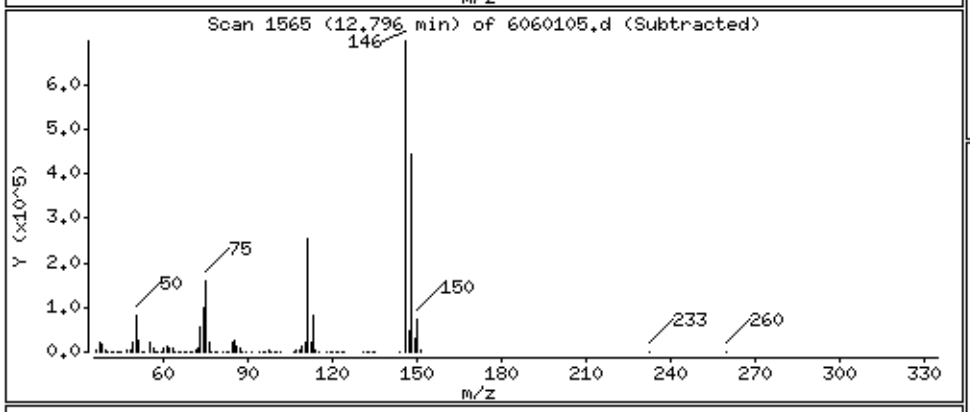
Column phase: RTx-624

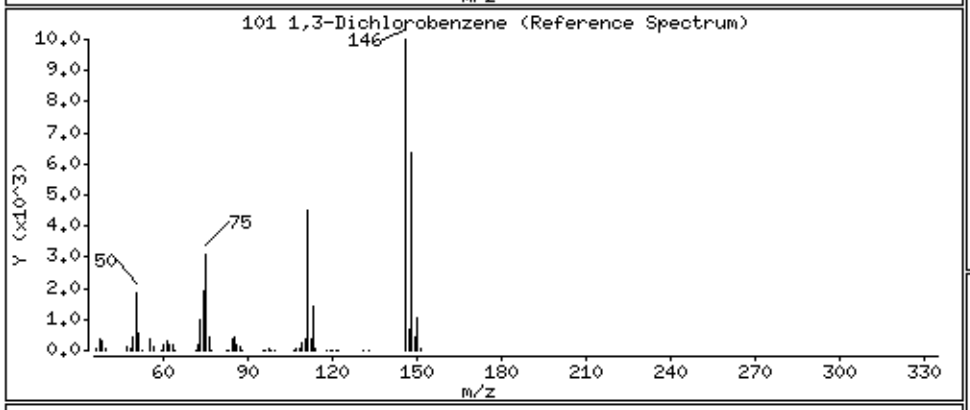
Column diameter: 0.53

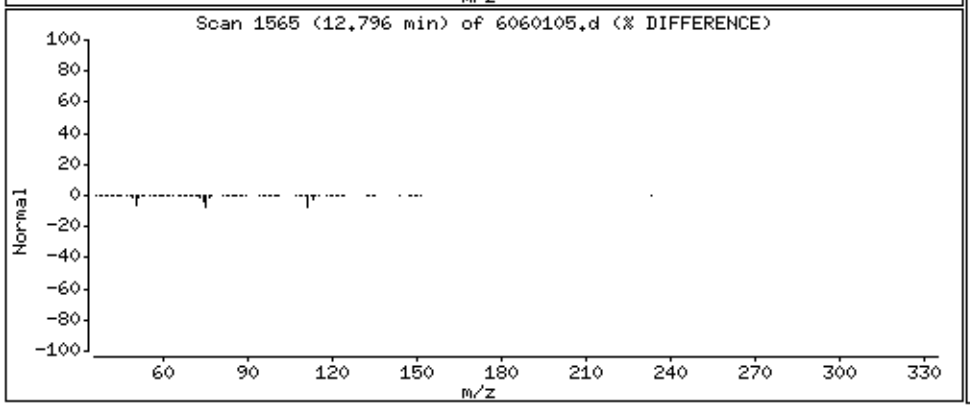
101 1,3-Dichlorobenzene

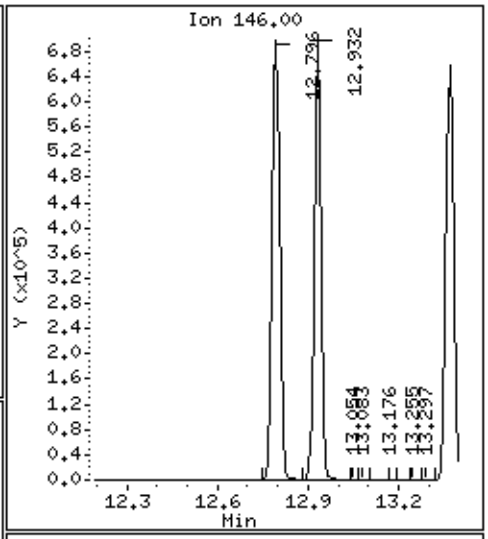
Concentration: 113.19 NG

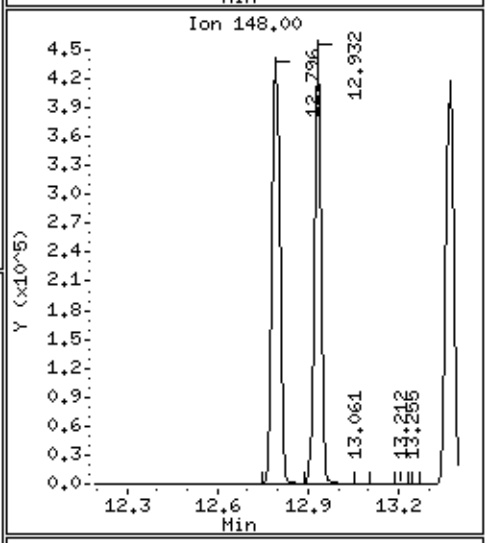


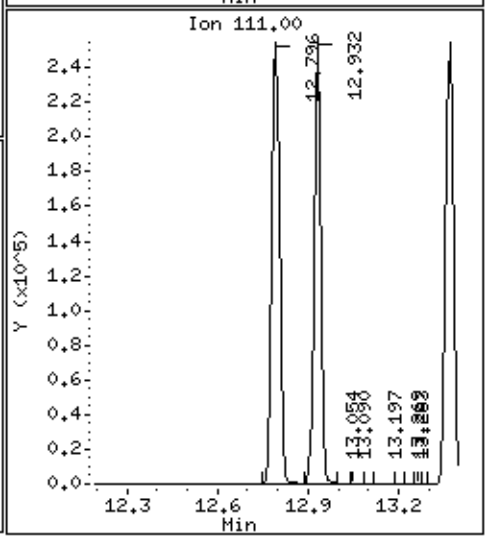












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

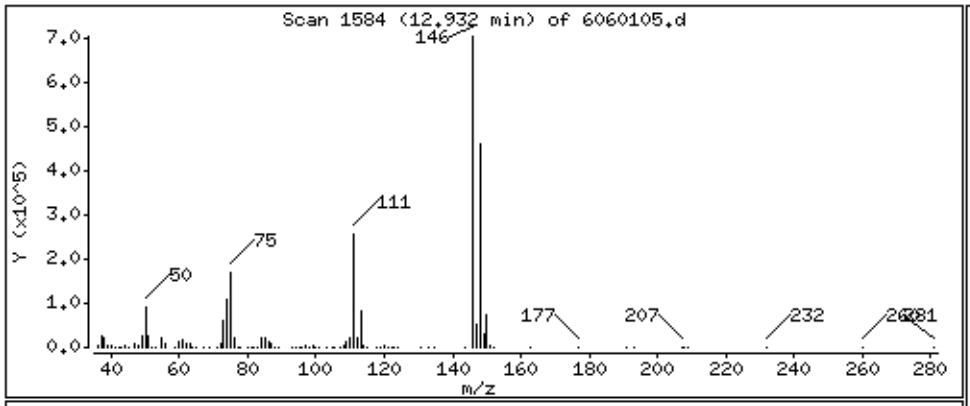
Operator: CT

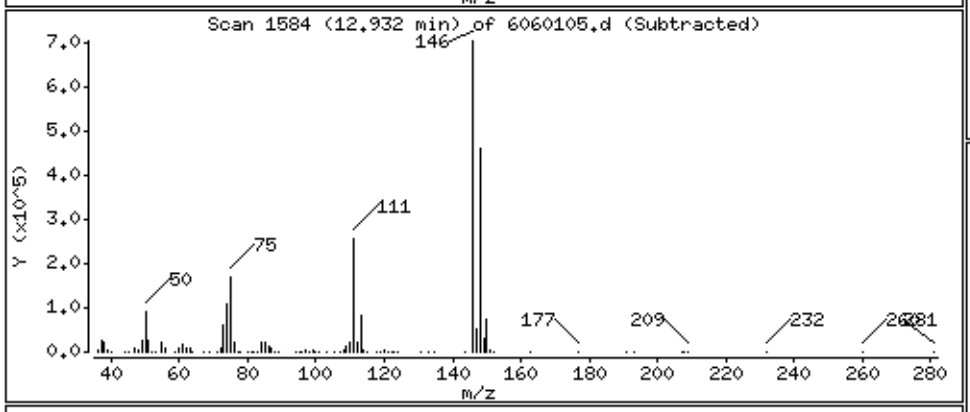
Column phase: RTx-624

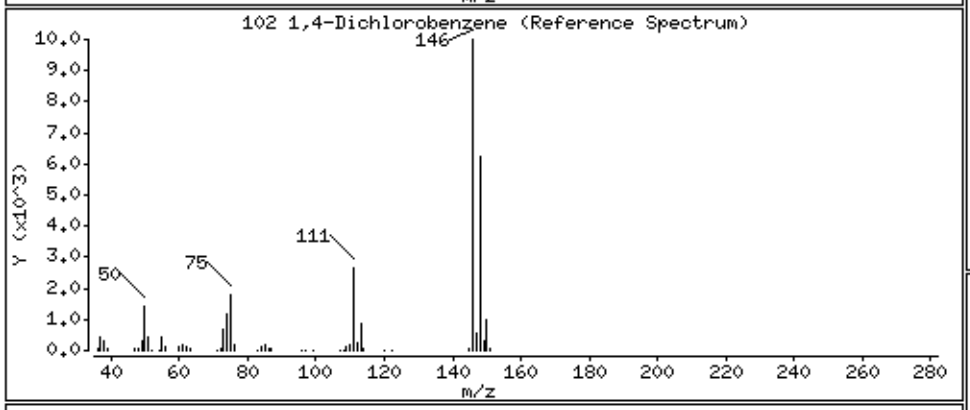
Column diameter: 0.53

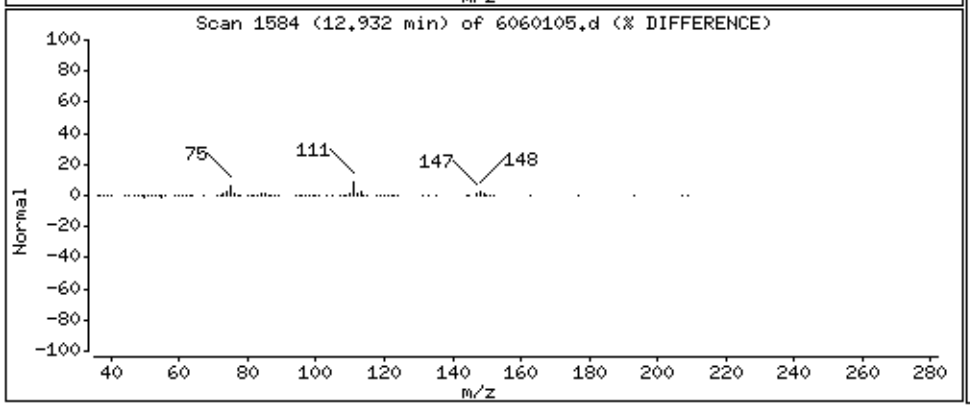
102 1,4-Dichlorobenzene

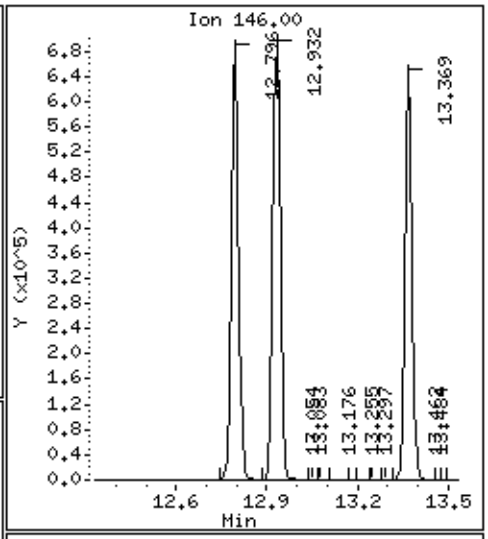
Concentration: 113.14 NG

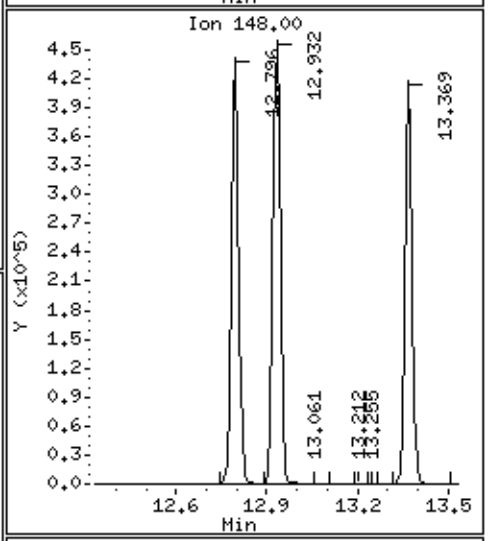


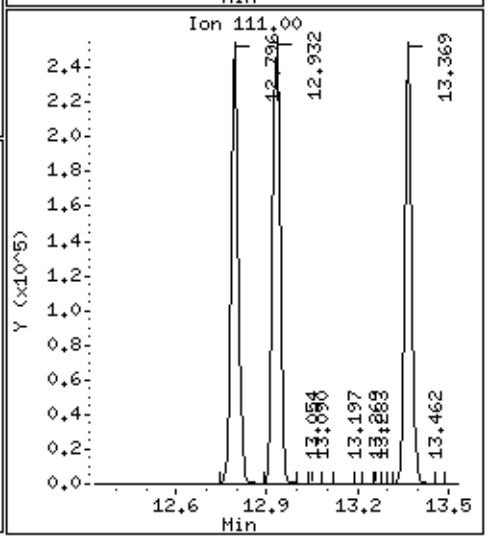












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

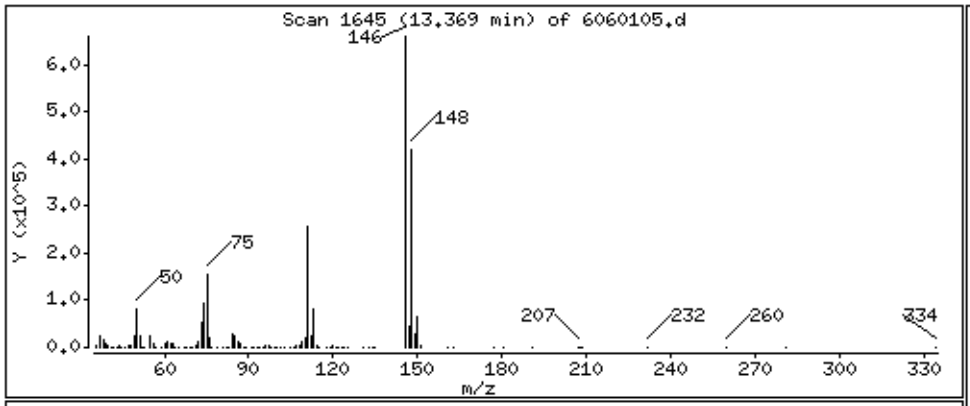
Operator: CT

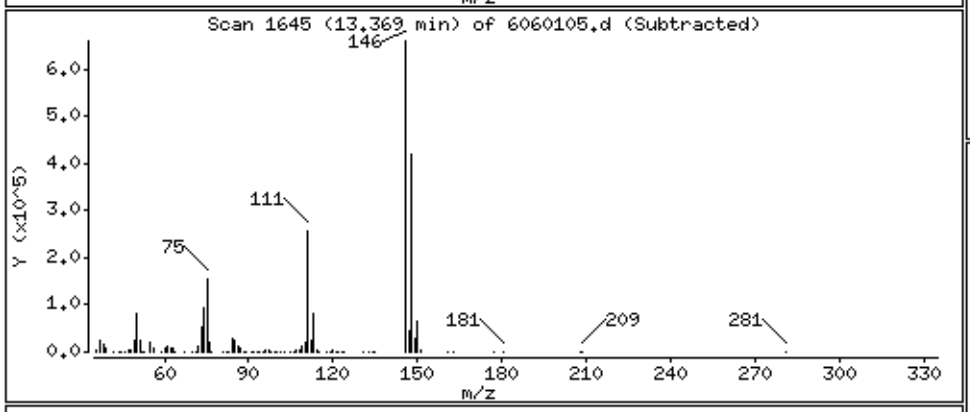
Column phase: RTx-624

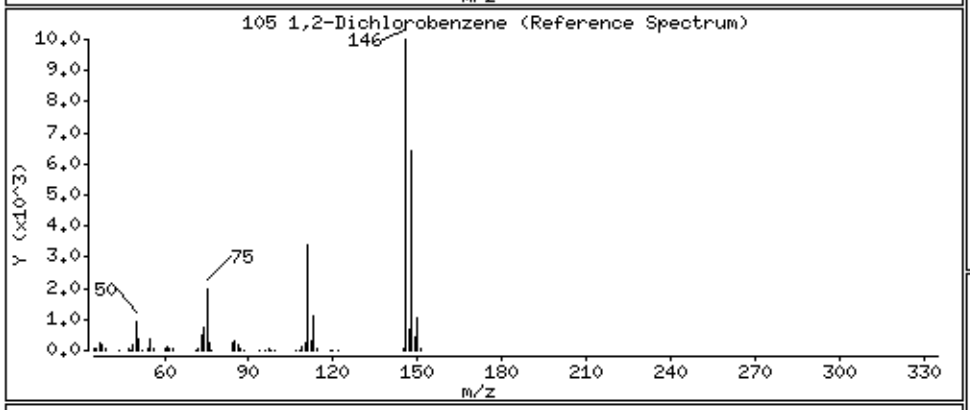
Column diameter: 0.53

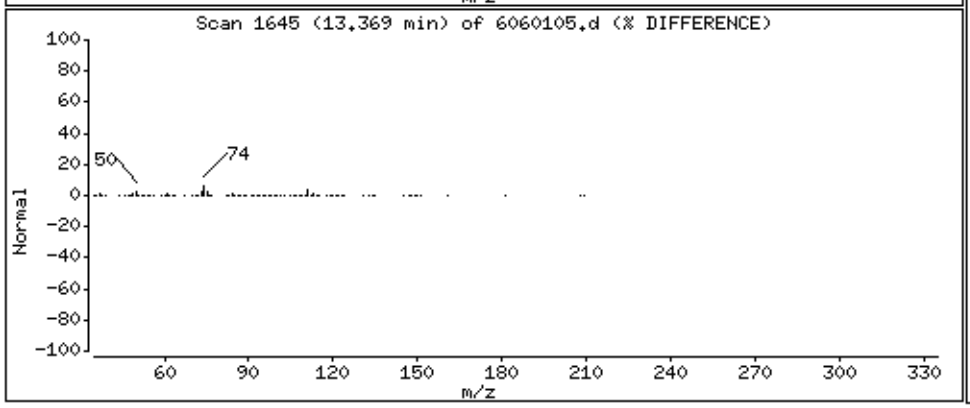
105 1,2-Dichlorobenzene

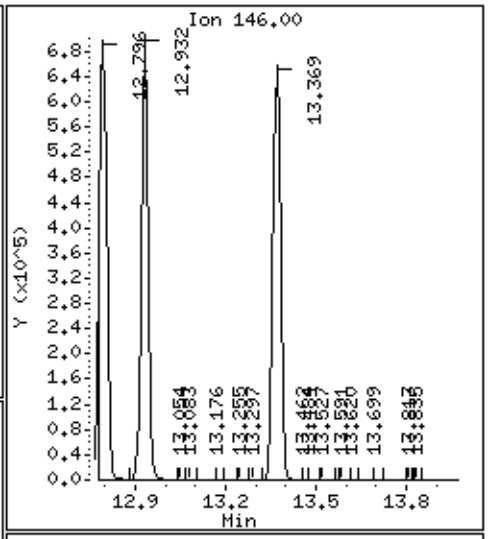
Concentration: 114.36 NG

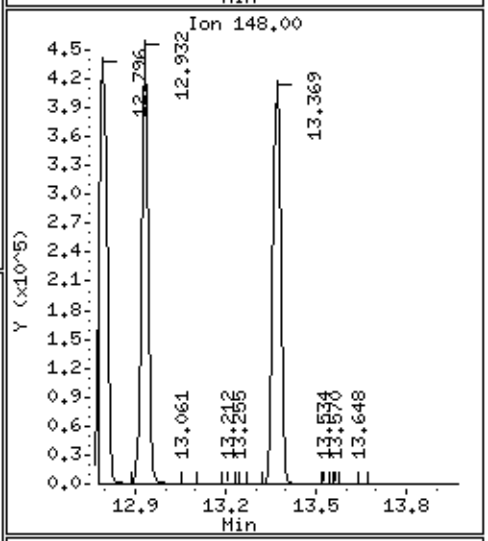


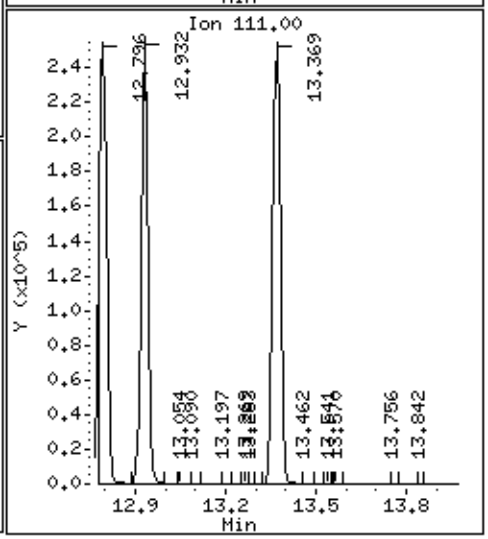












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

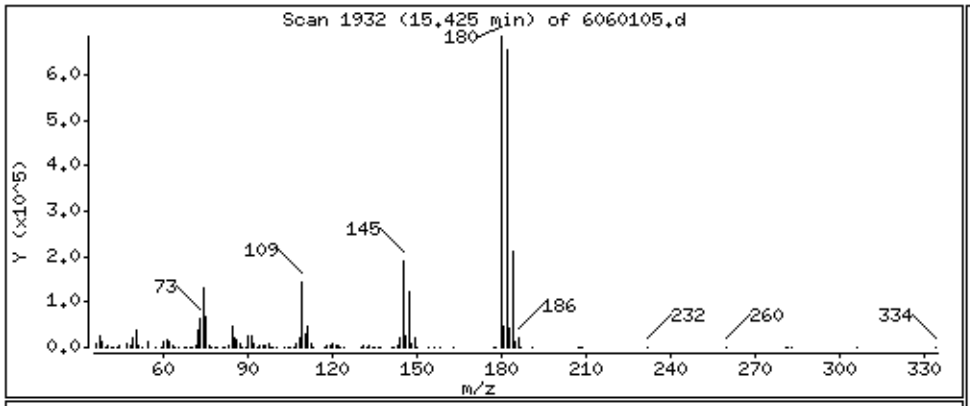
Operator: CT

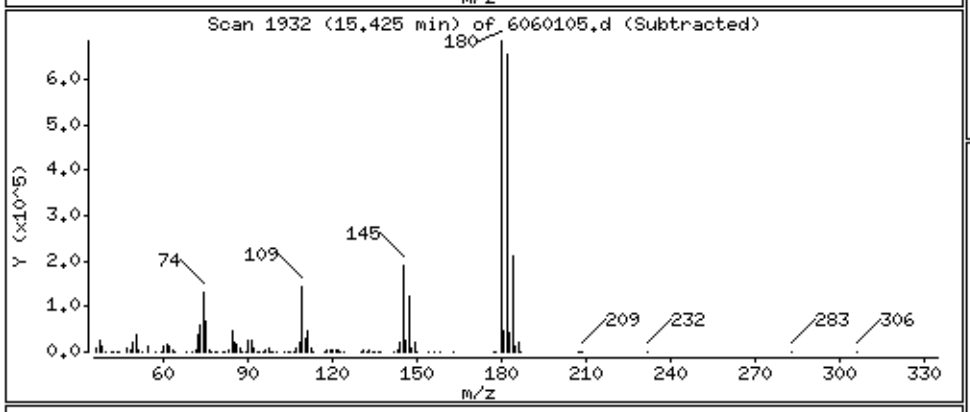
Column phase: RTx-624

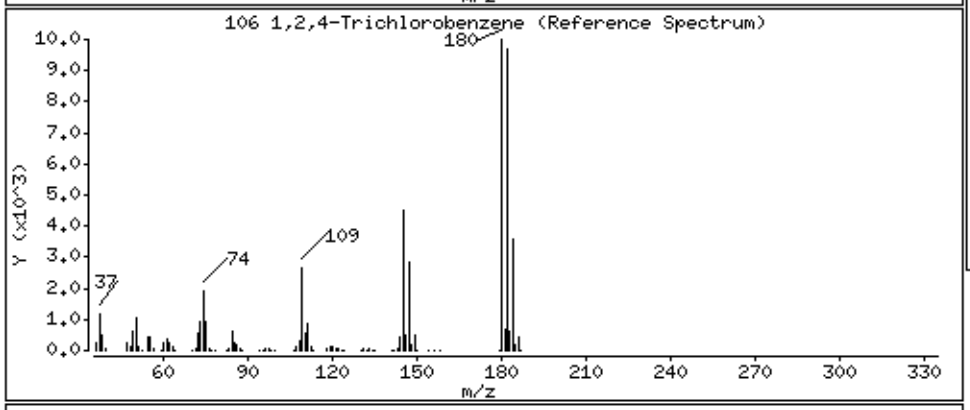
Column diameter: 0.53

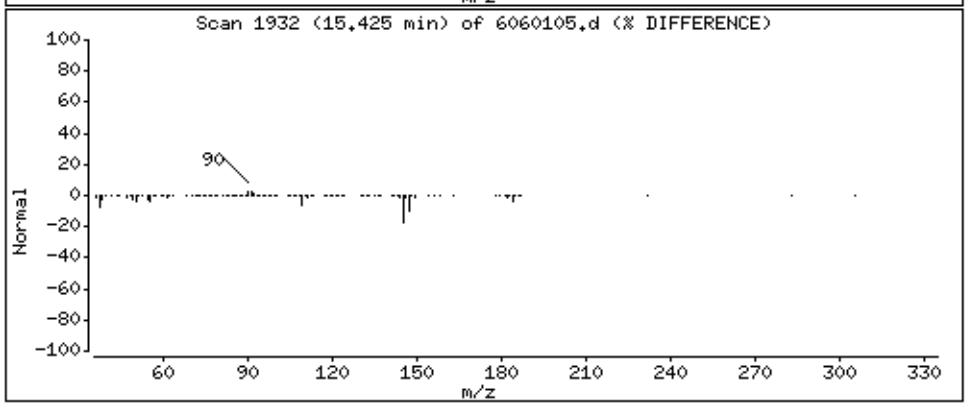
106 1,2,4-Trichlorobenzene

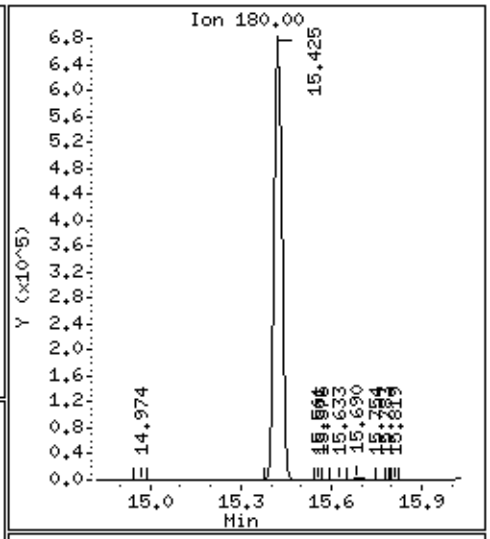
Concentration: 169.20 NG

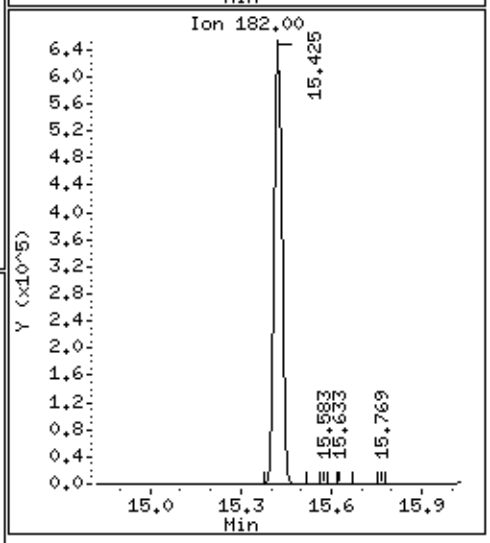












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

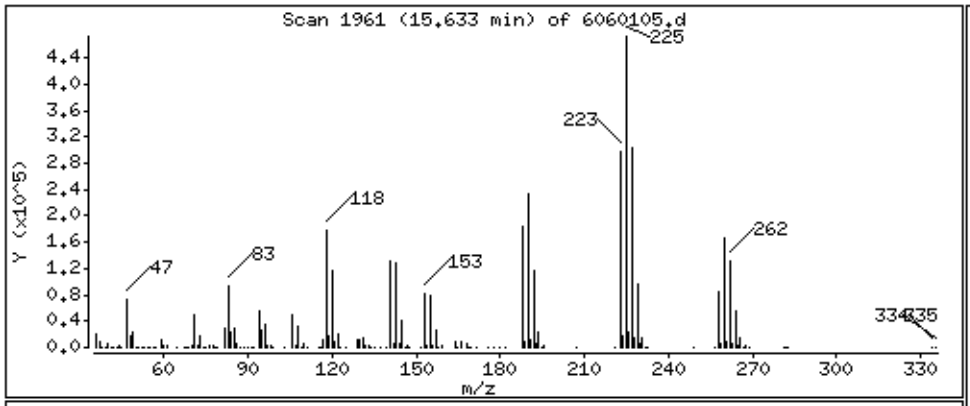
Operator: CT

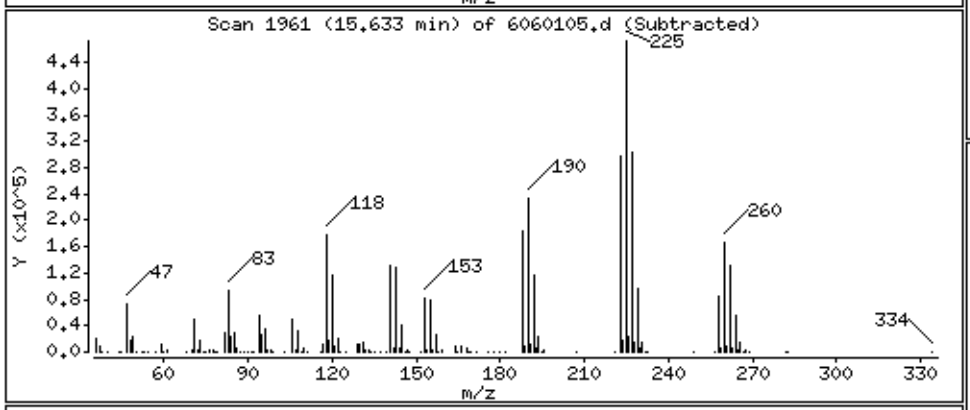
Column phase: RTx-624

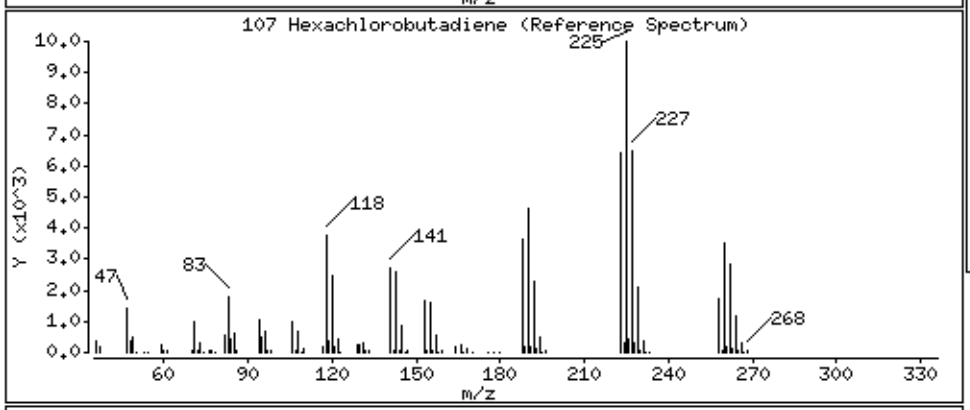
Column diameter: 0.53

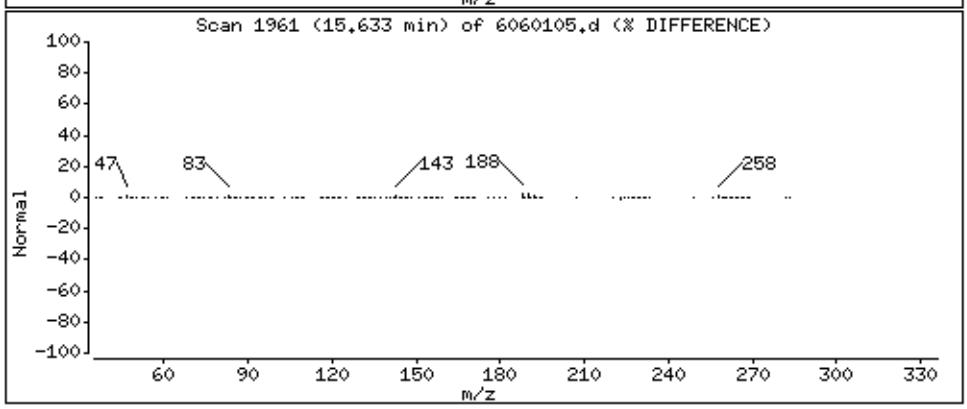
107 Hexachlorobutadiene

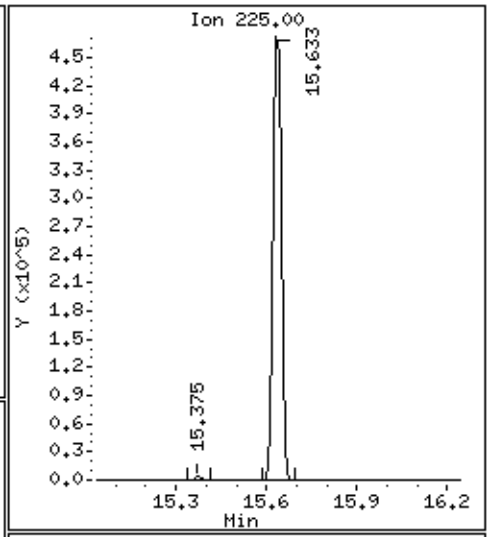
Concentration: 247.14 NG

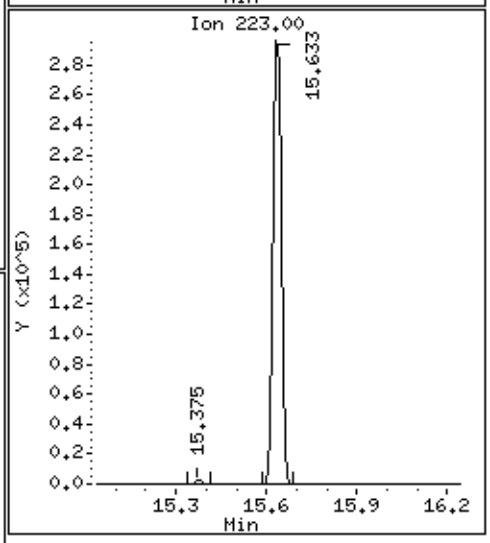












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

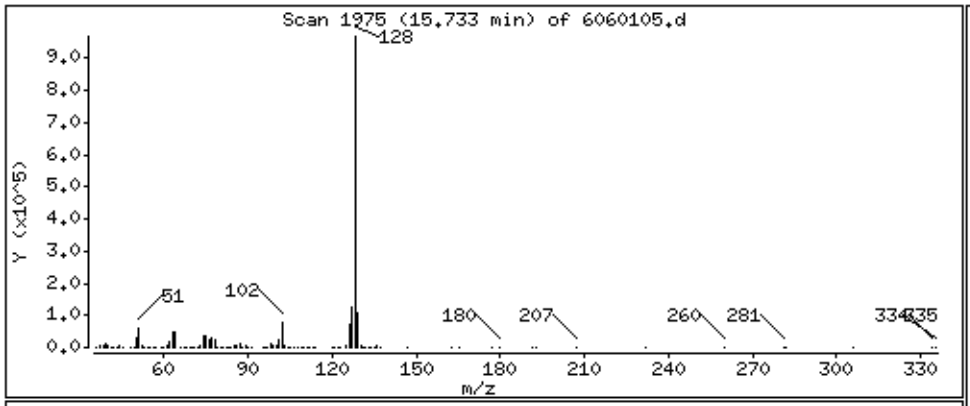
Operator: CT

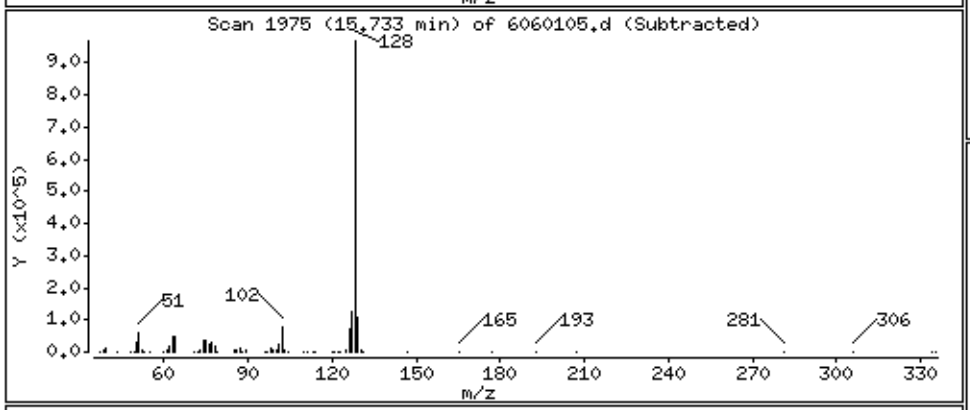
Column phase: RTx-624

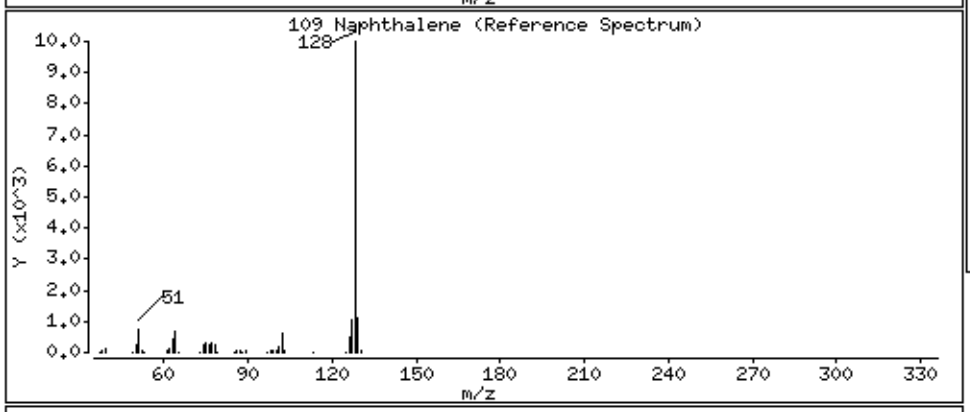
Column diameter: 0.53

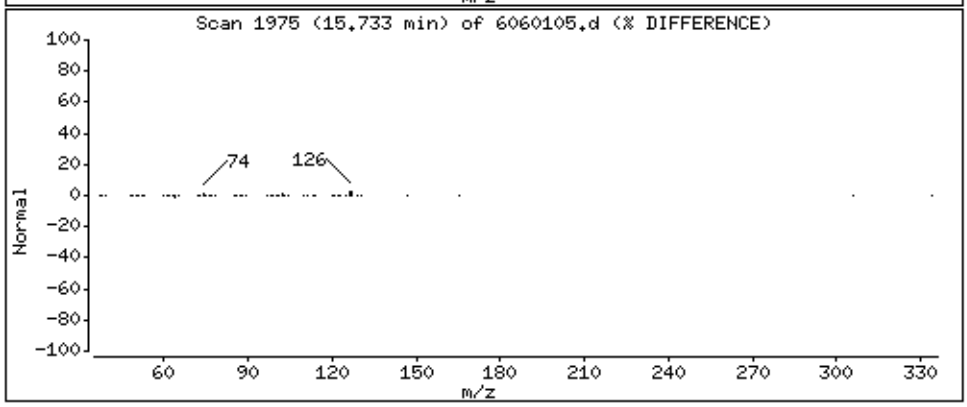
109 Naphthalene

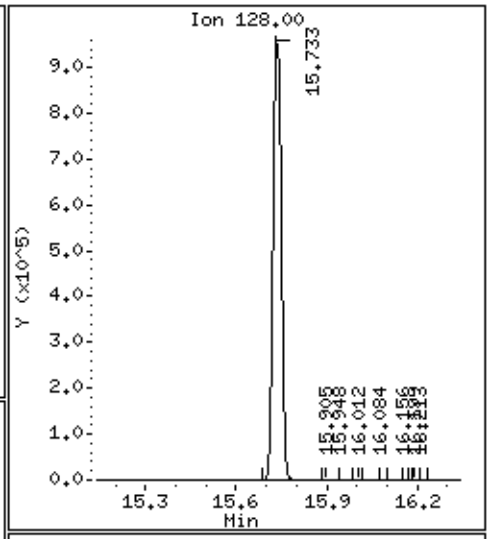
Concentration: 46.911 NG

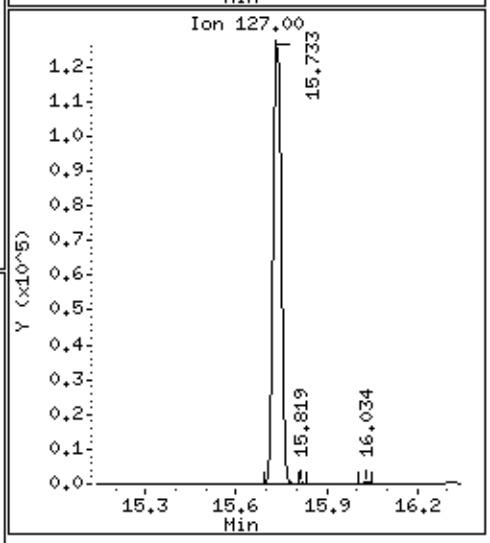












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

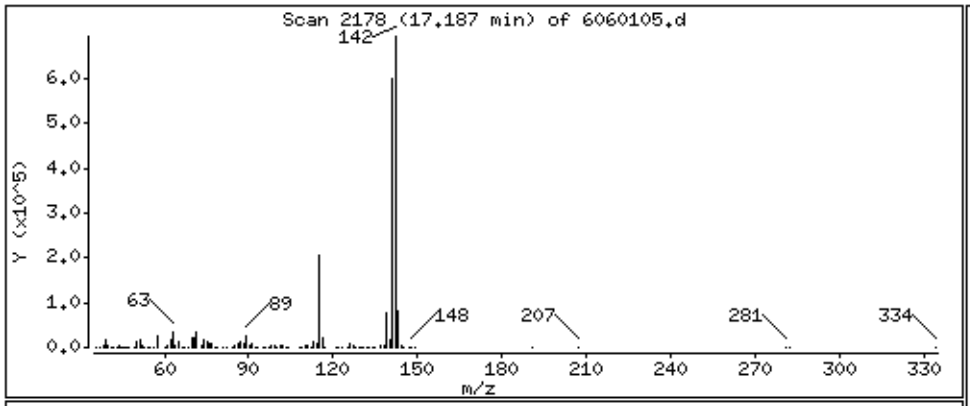
Operator: CT

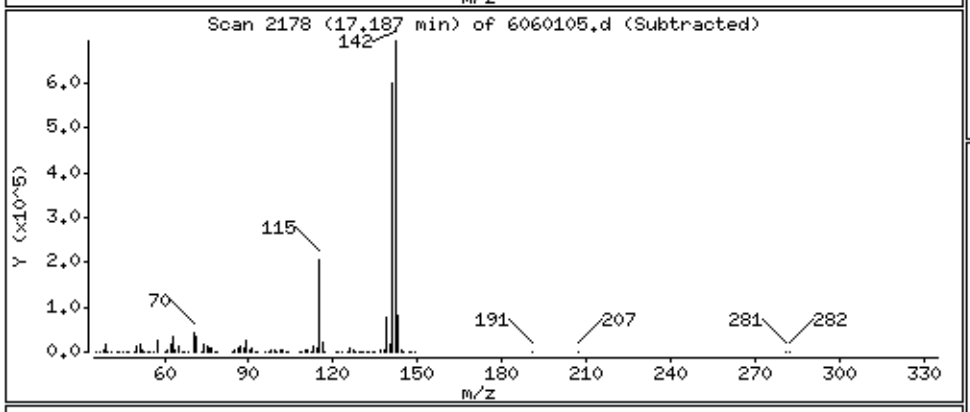
Column phase: RTx-624

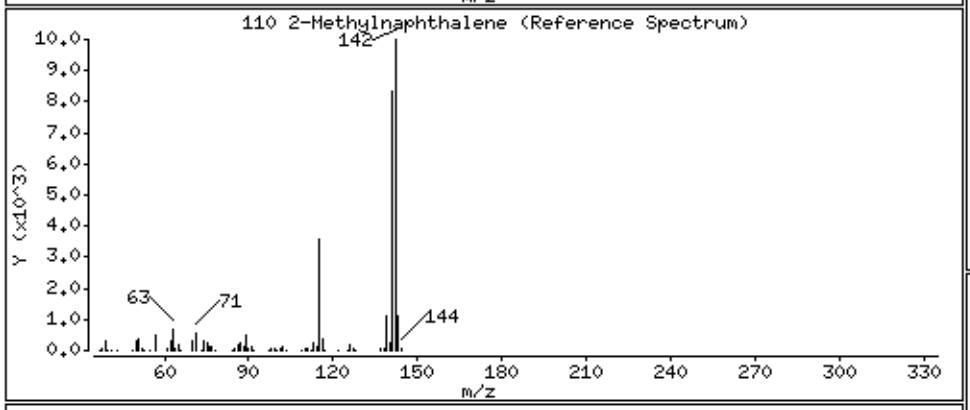
Column diameter: 0.53

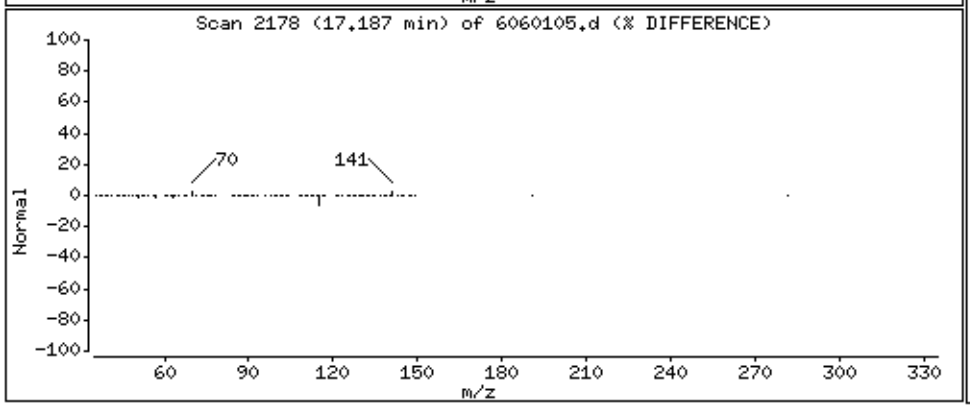
110 2-Methylnaphthalene

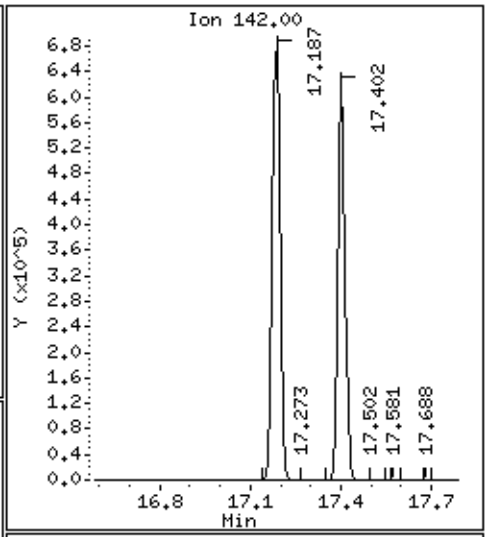
Concentration: 56.772 NG

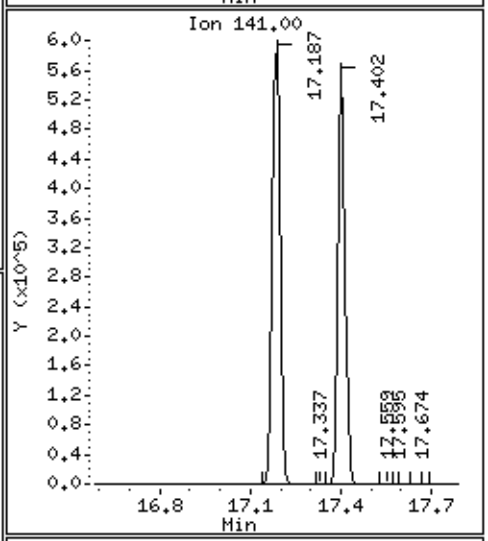


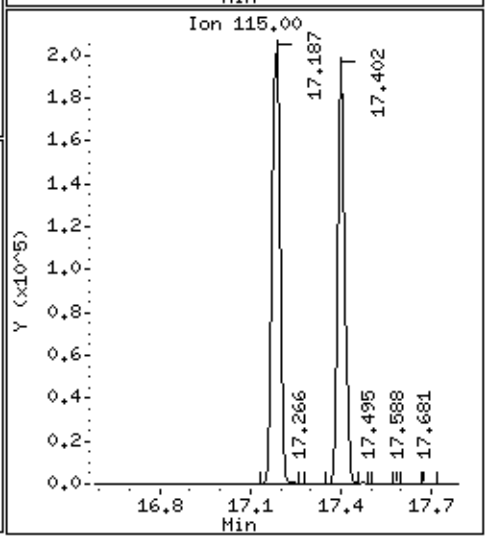












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

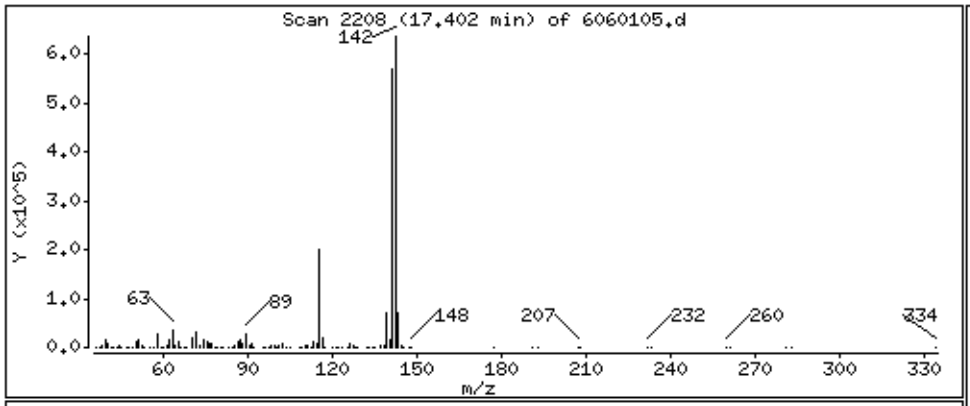
Operator: CT

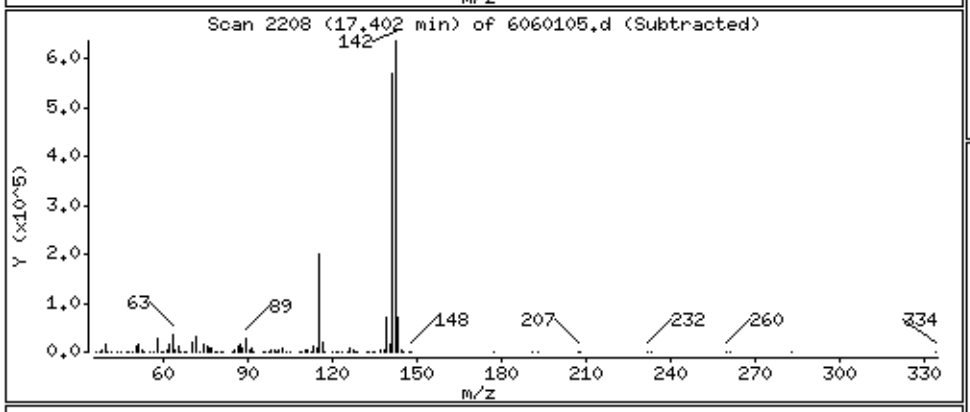
Column phase: RTx-624

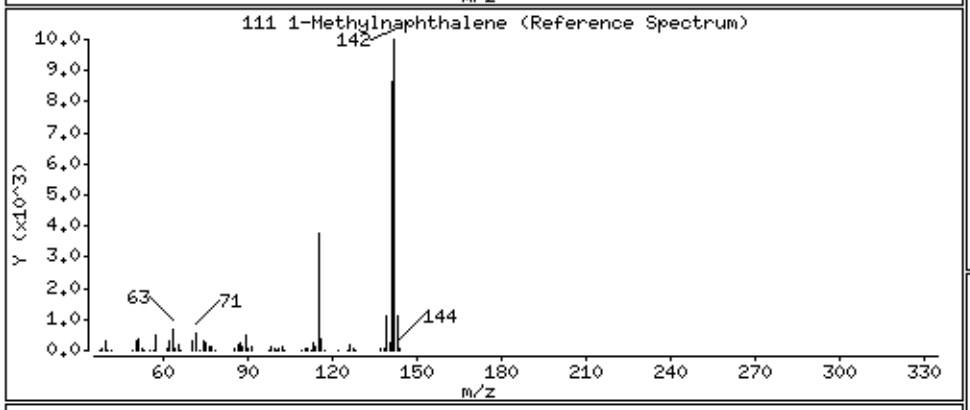
Column diameter: 0.53

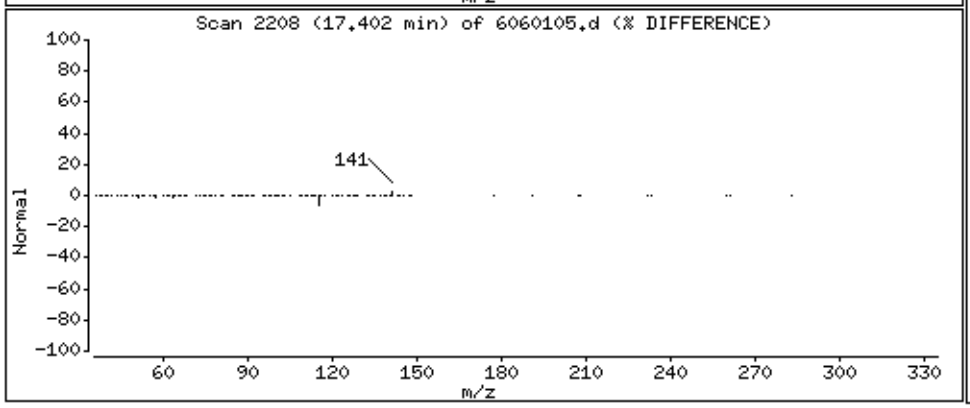
111 1-Methylnaphthalene

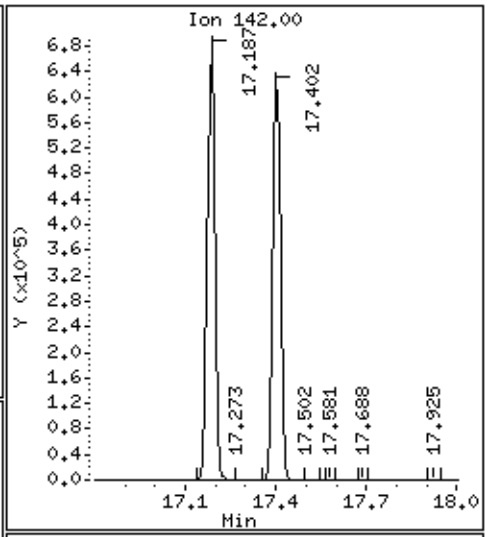
Concentration: 57.351 NG

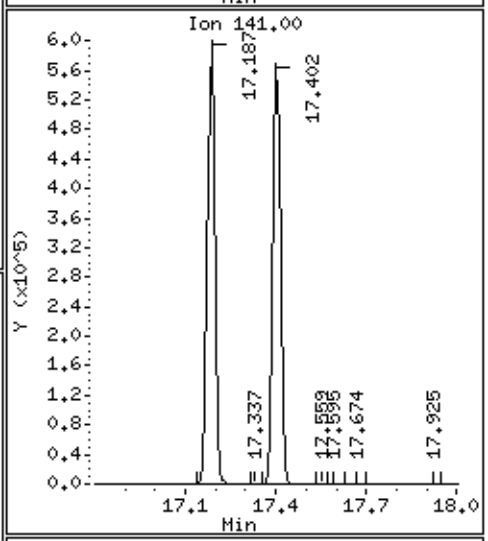


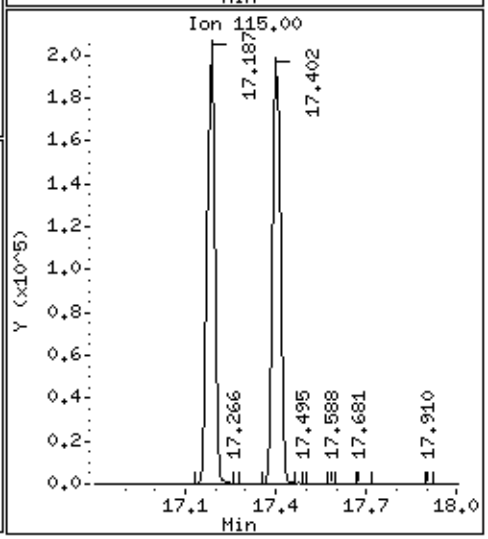












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

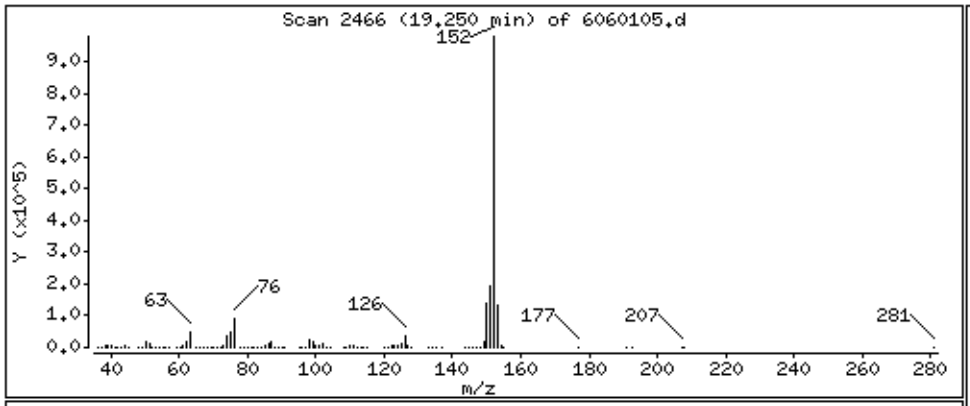
Operator: CT

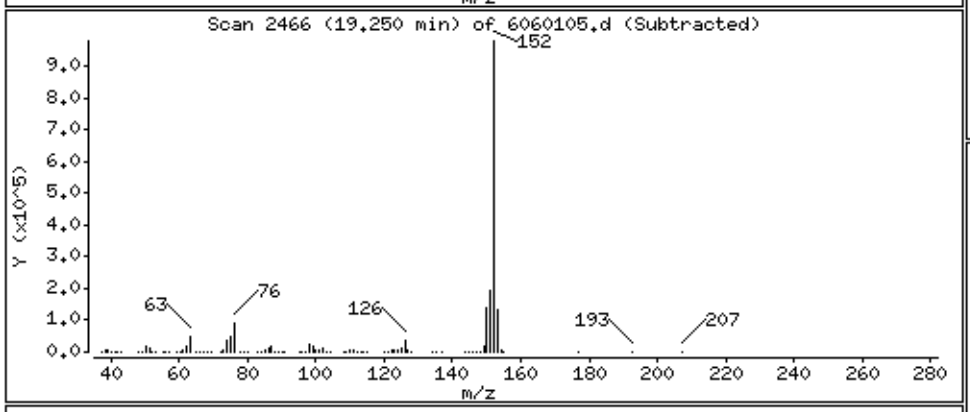
Column phase: RTx-624

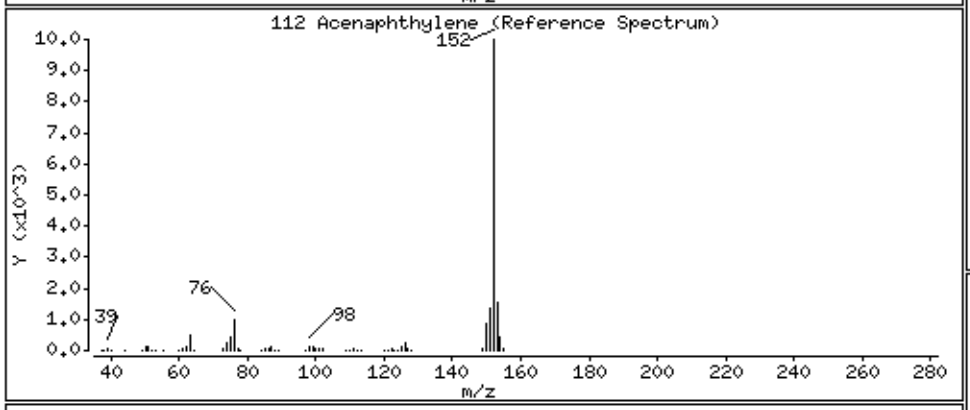
Column diameter: 0.53

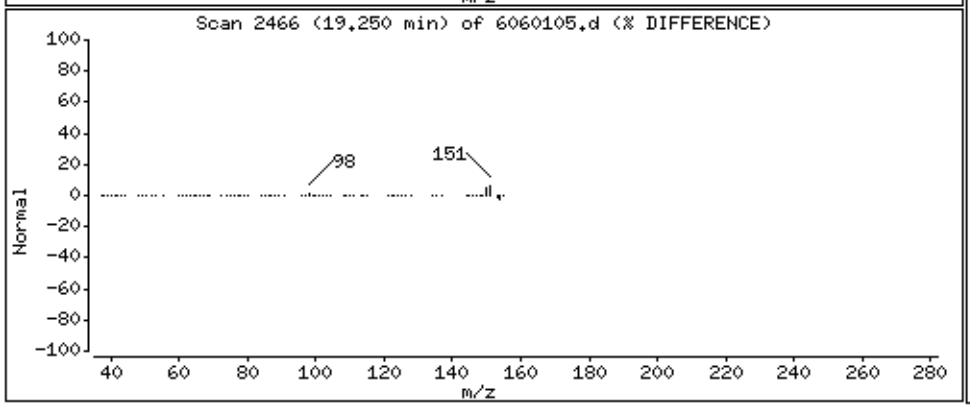
112 Acenaphthylene

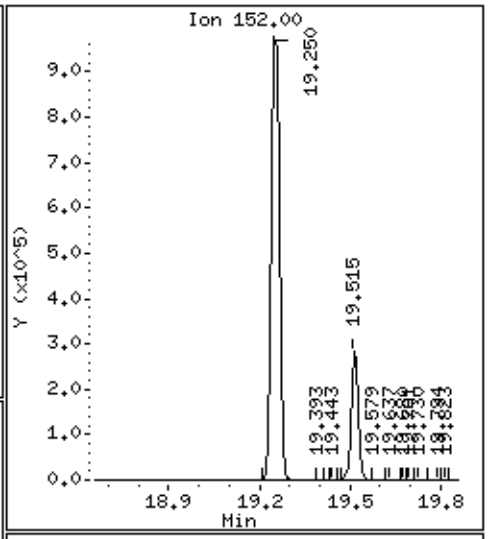
Concentration: 57.277 NG

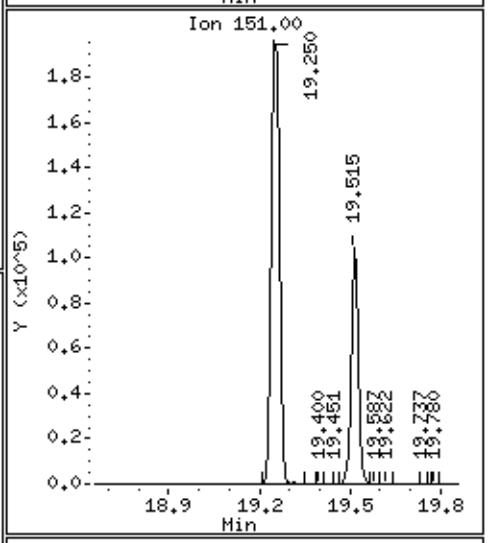


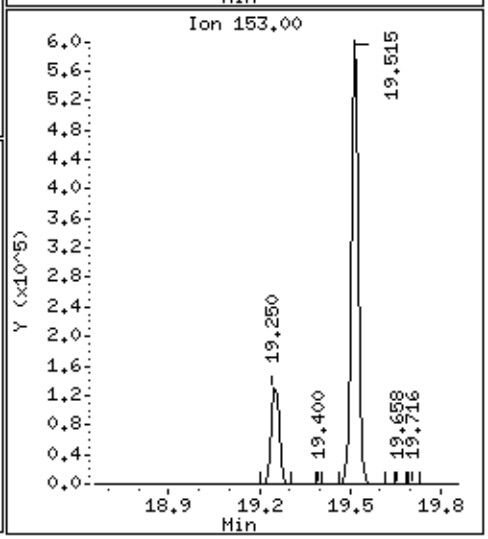












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

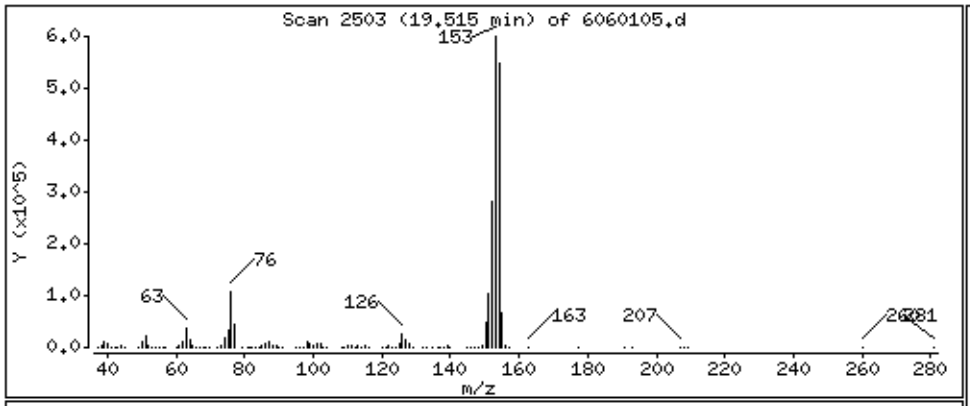
Operator: CT

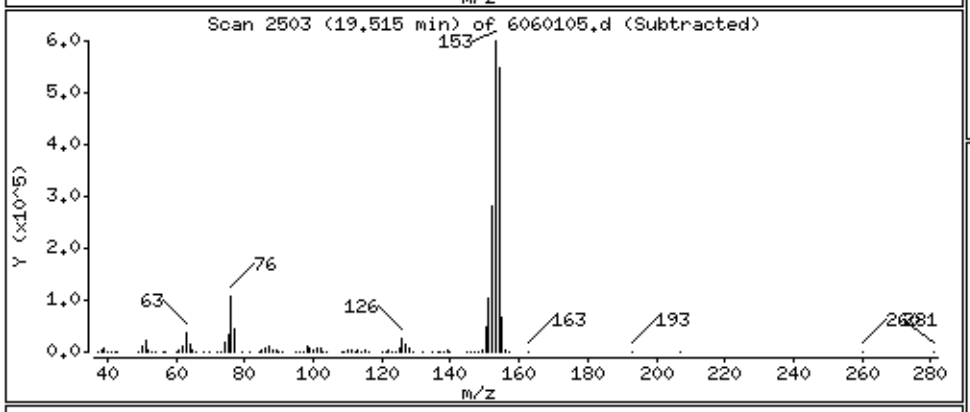
Column phase: RTx-624

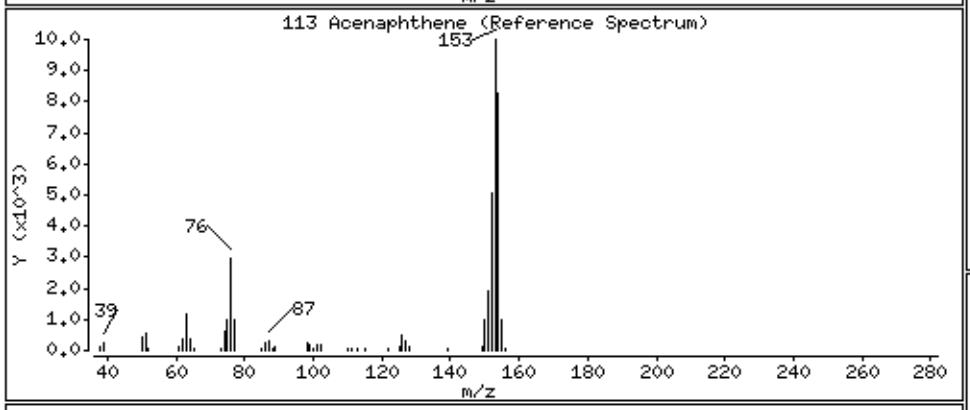
Column diameter: 0.53

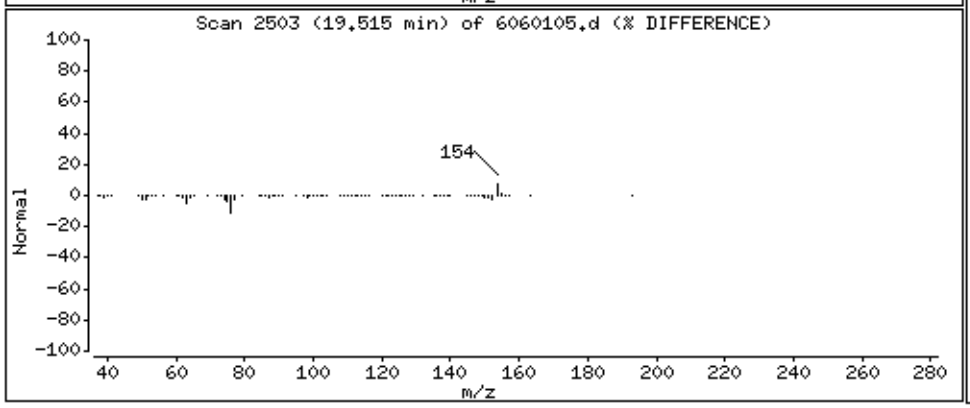
113 Acenaphthene

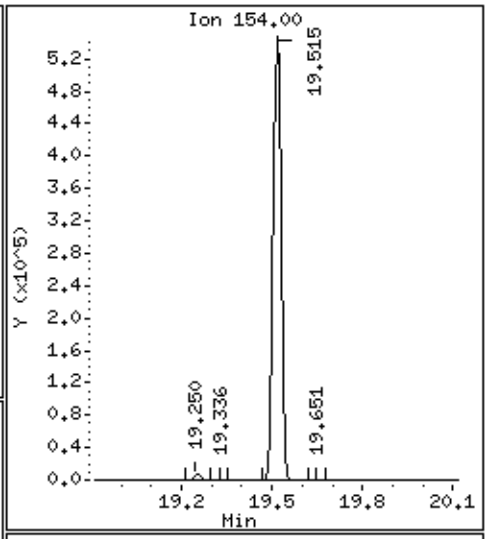
Concentration: 58.895 NG

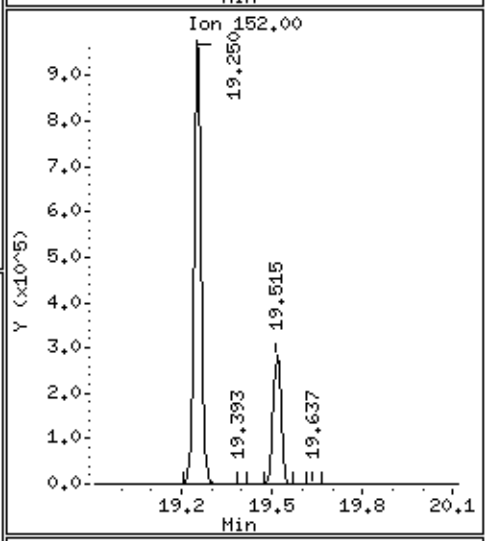


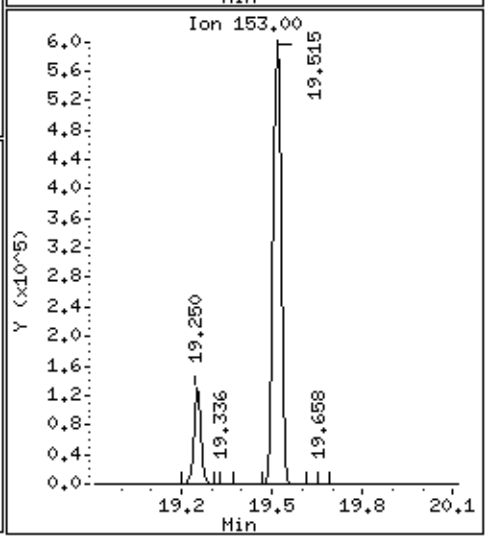












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

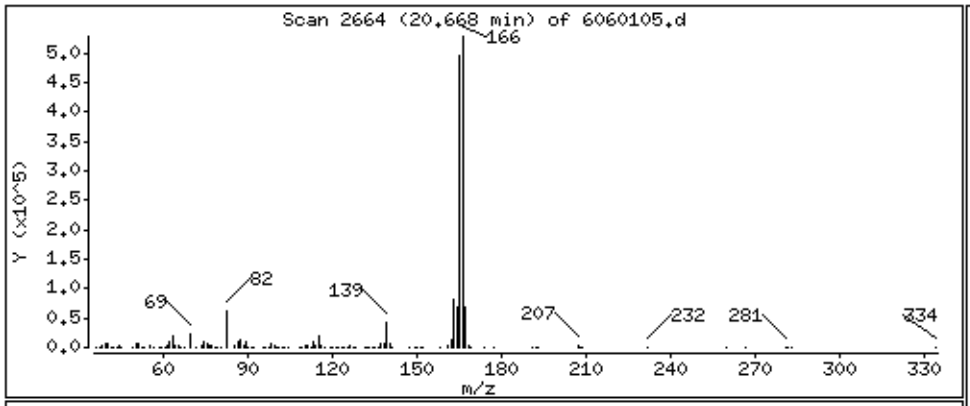
Operator: CT

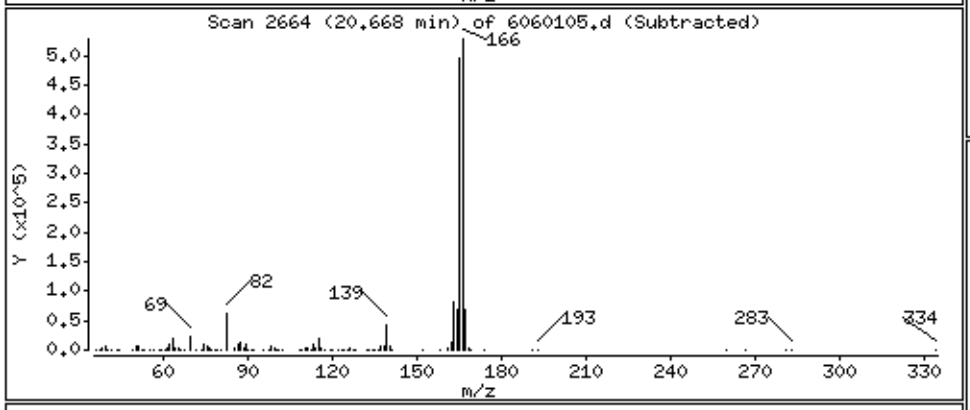
Column phase: RTx-624

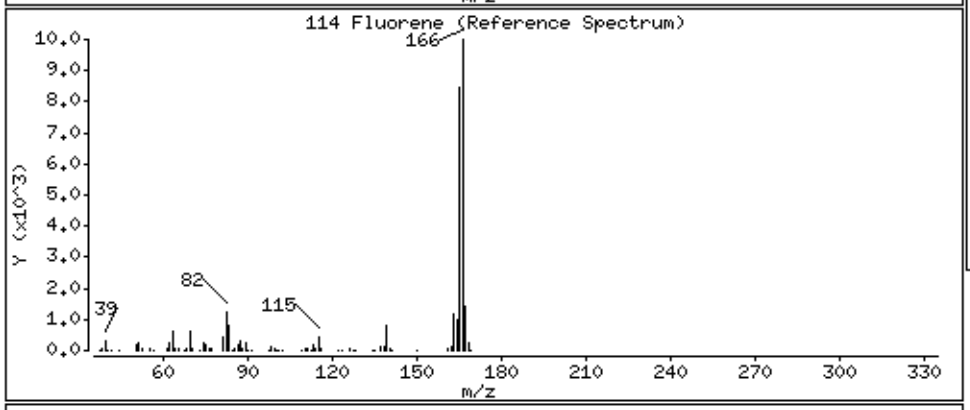
Column diameter: 0.53

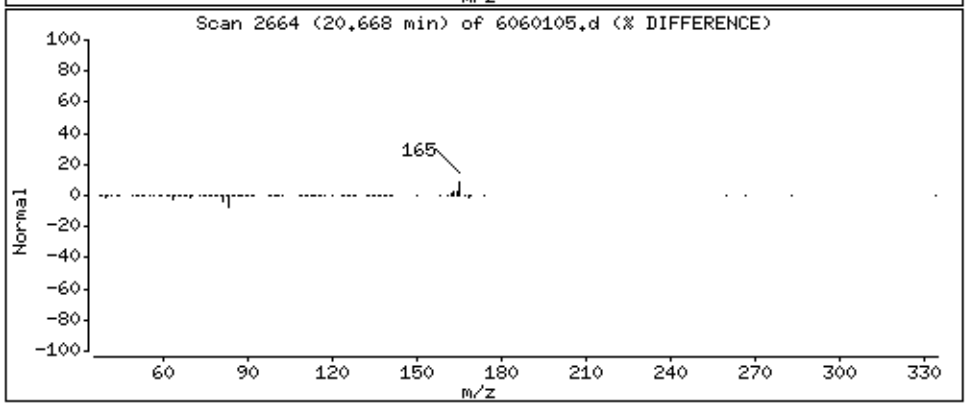
114 Fluorene

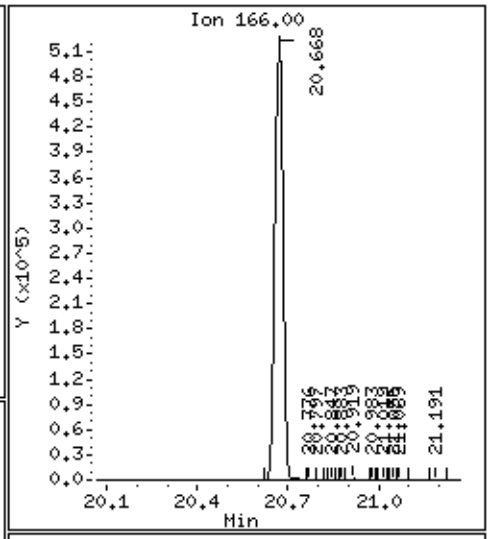
Concentration: 56.664 NG

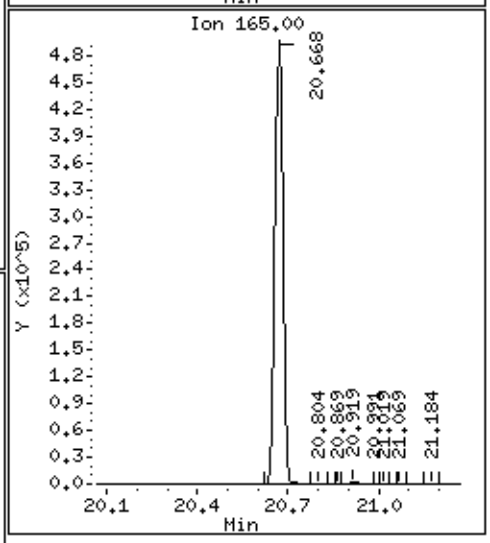












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

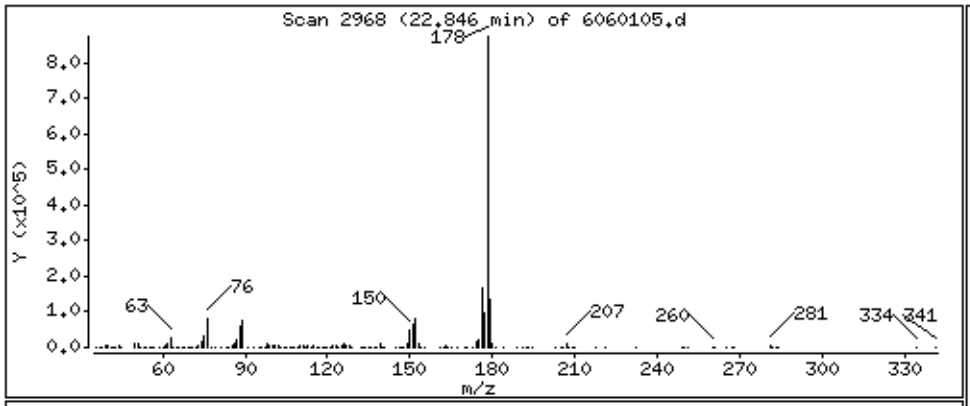
Operator: CT

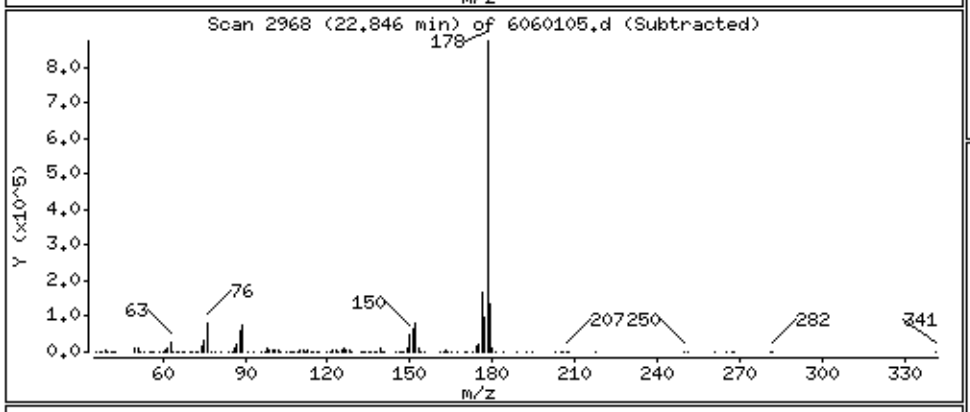
Column phase: RTx-624

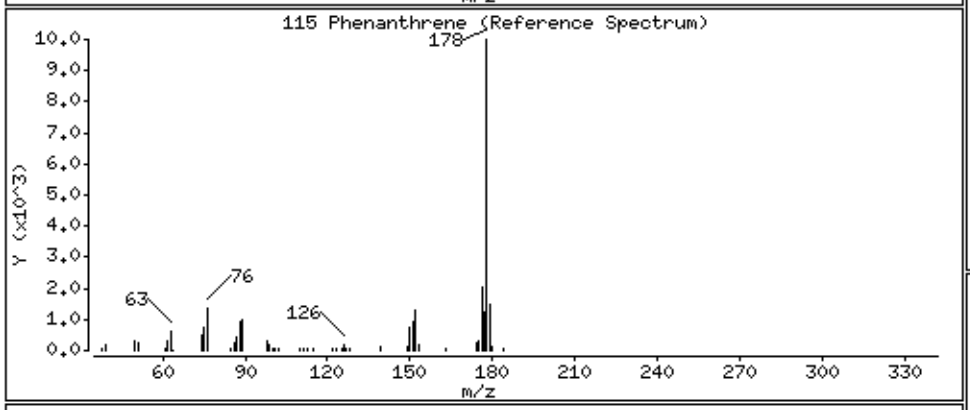
Column diameter: 0.53

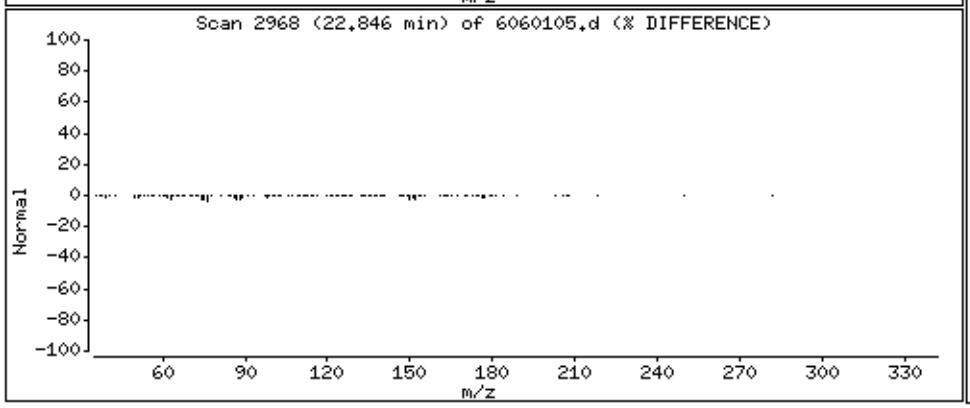
115 Phenanthrene

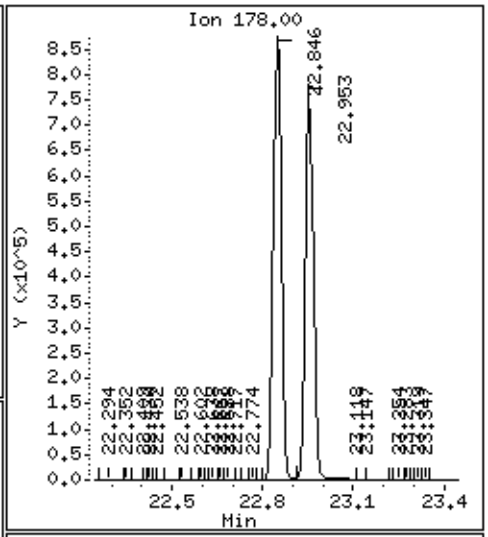
Concentration: 57.339 NG

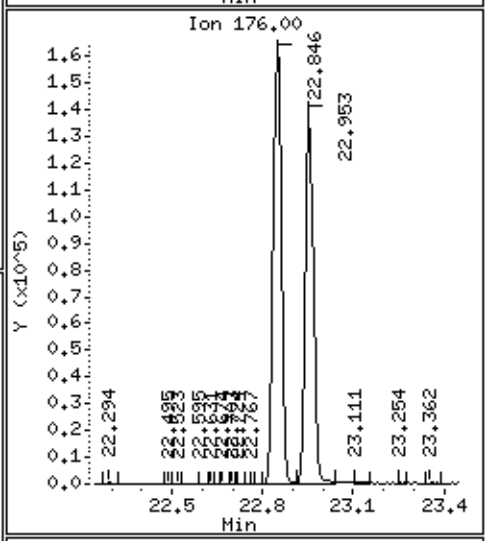


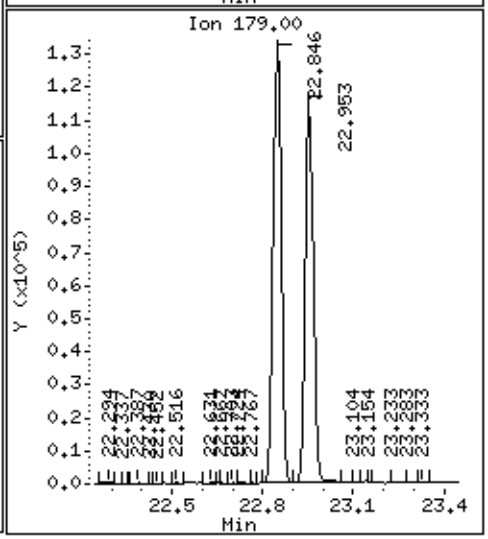












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

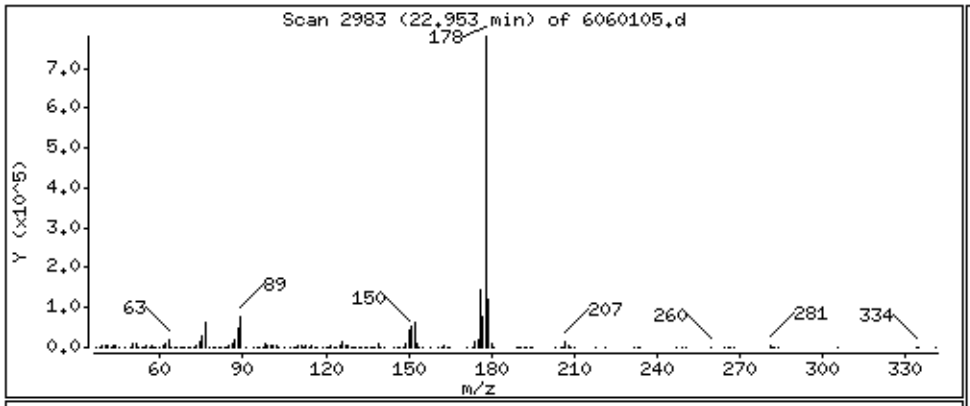
Operator: CT

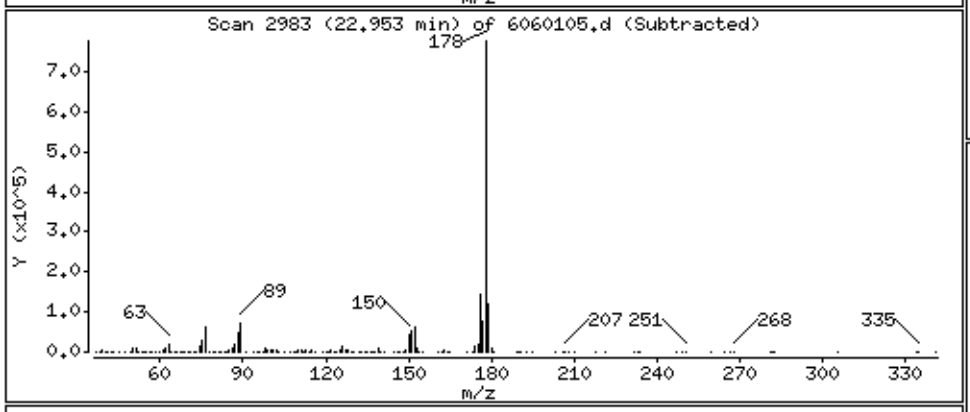
Column phase: RTx-624

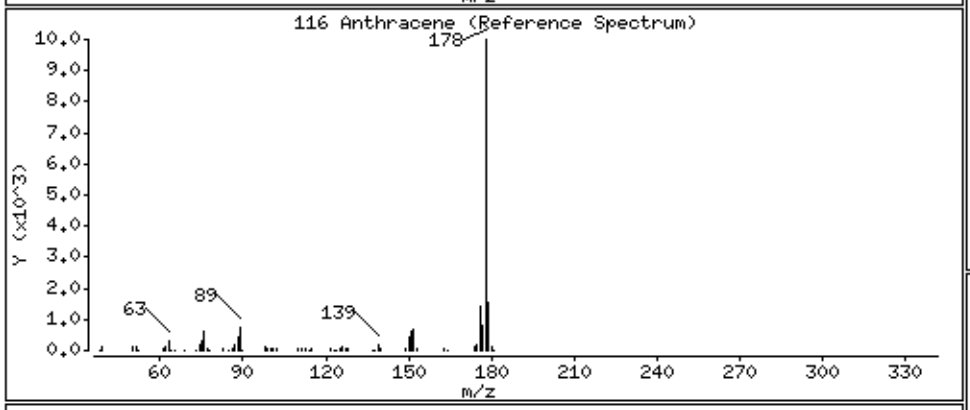
Column diameter: 0.53

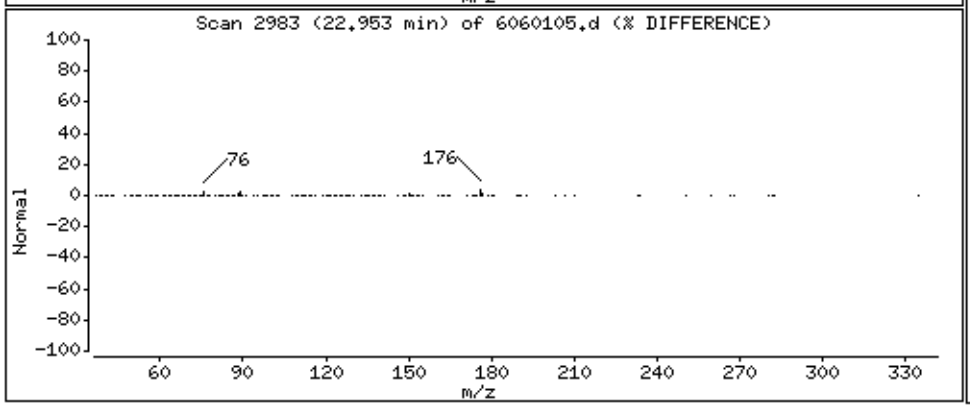
116 Anthracene

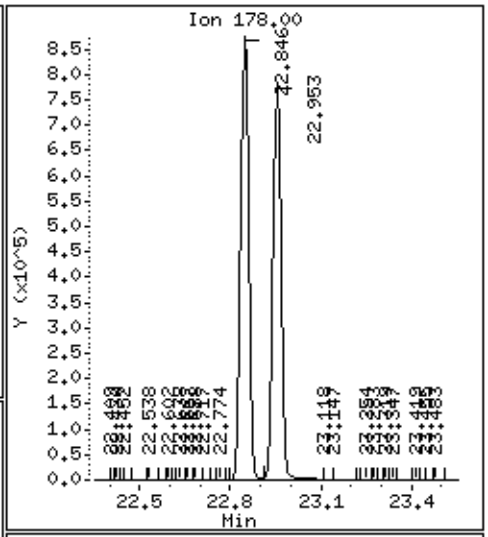
Concentration: 53.688 NG

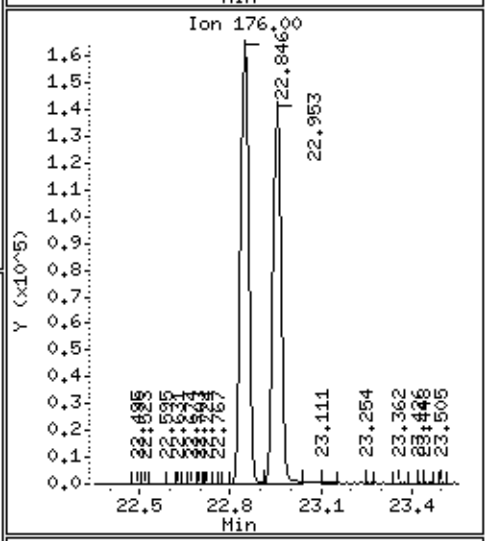


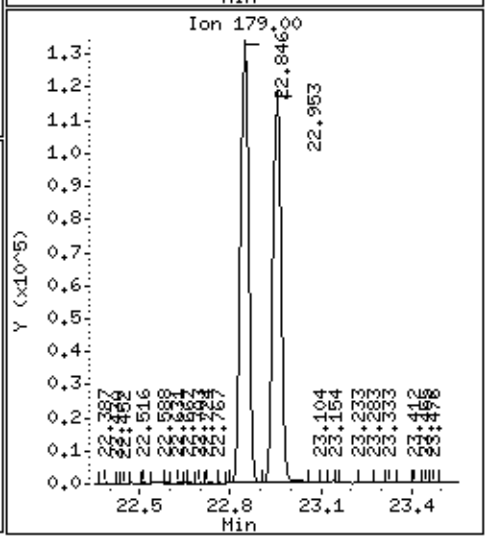












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

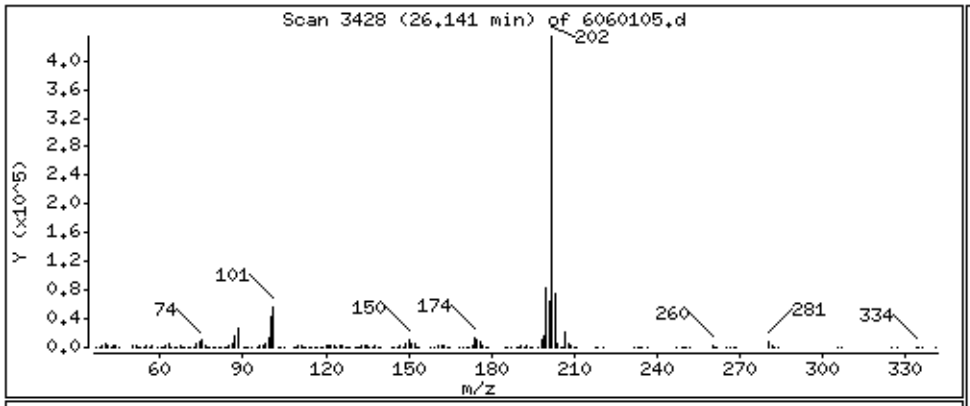
Operator: CT

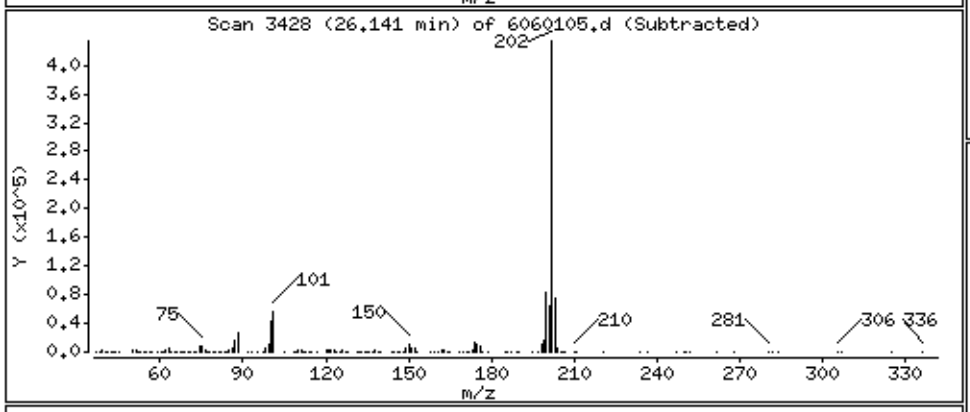
Column phase: RTx-624

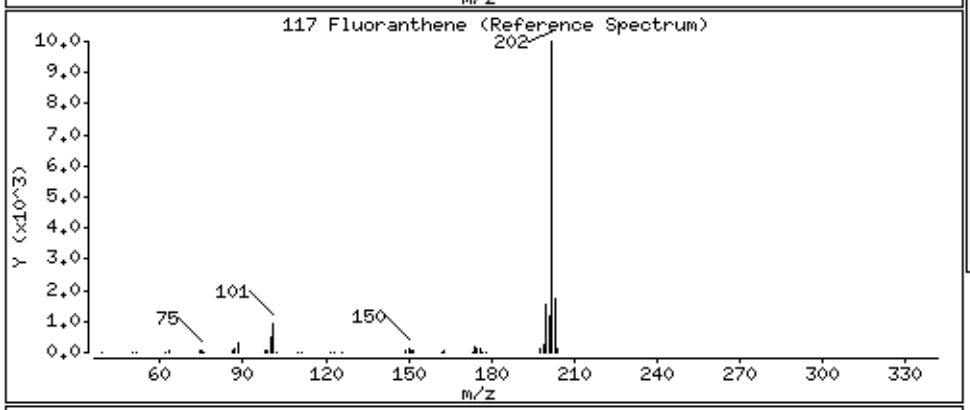
Column diameter: 0.53

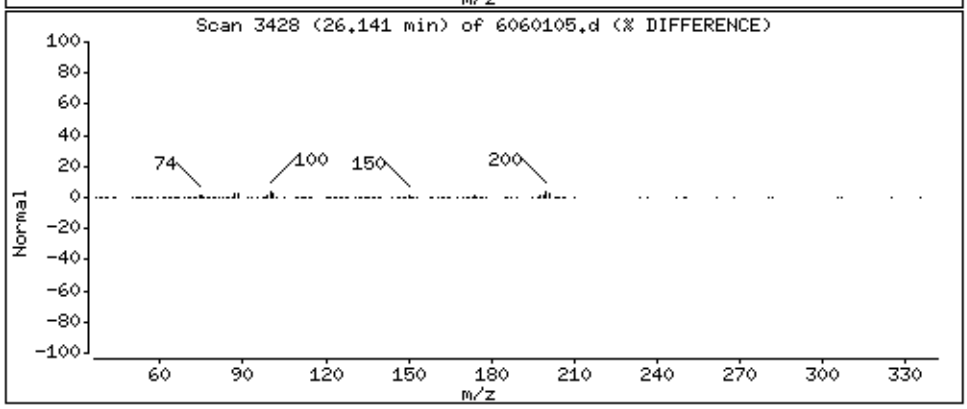
117 Fluoranthene

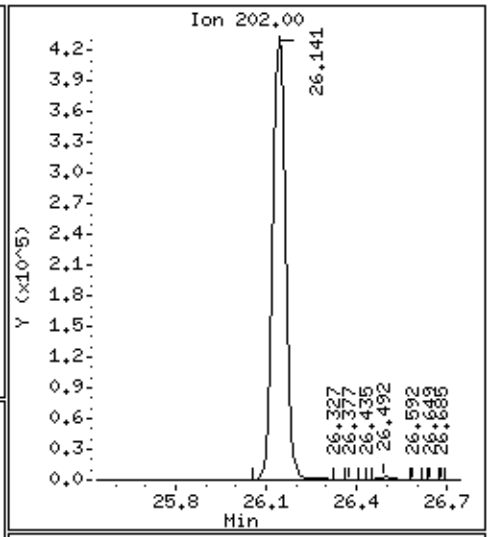
Concentration: 67.258 NG

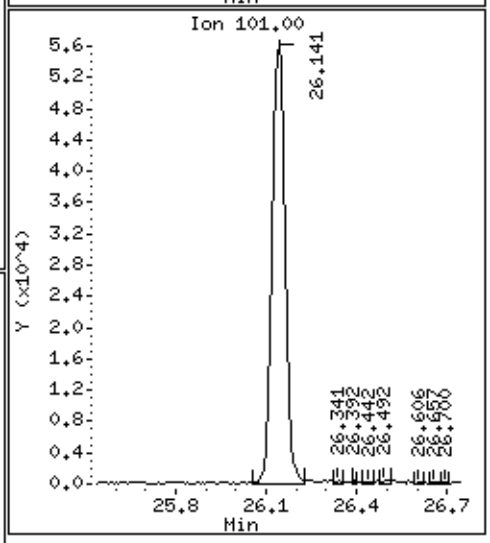












Data File: /chem/msd6.i/01jun16.b/6060105.d

Date : 01-JUN-2016 11:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

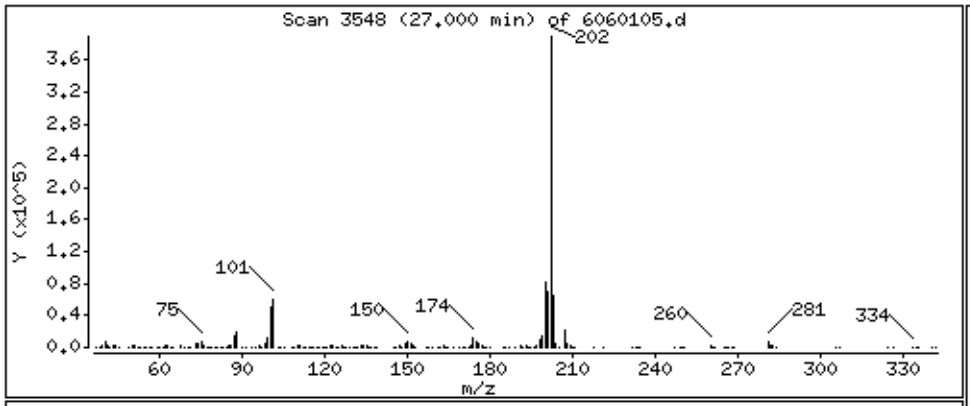
Operator: CT

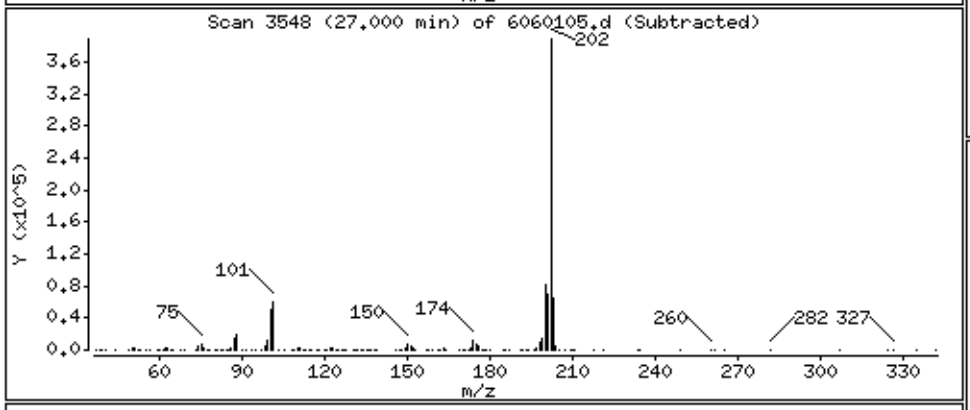
Column phase: RTx-624

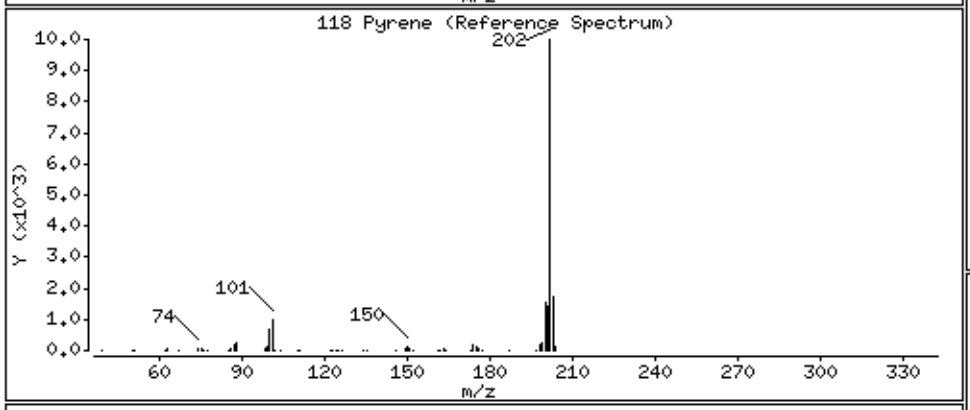
Column diameter: 0.53

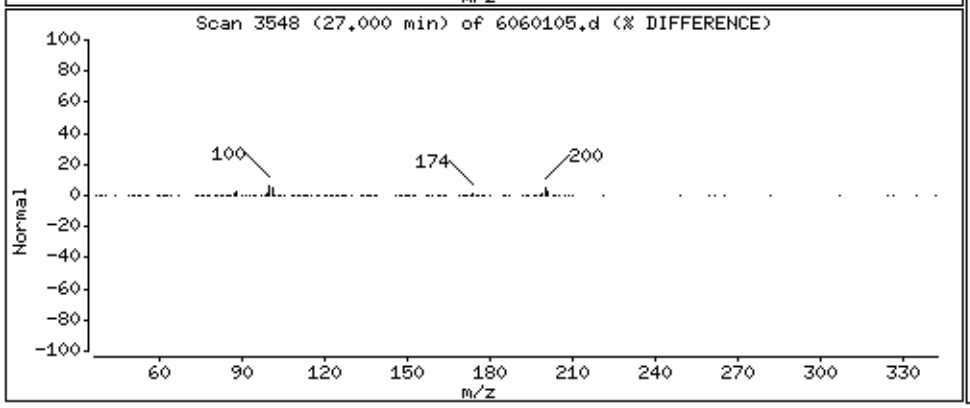
118 Pyrene

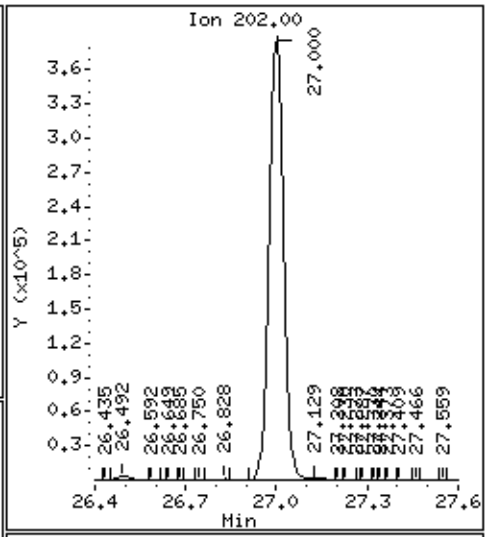
Concentration: 64.947 NG

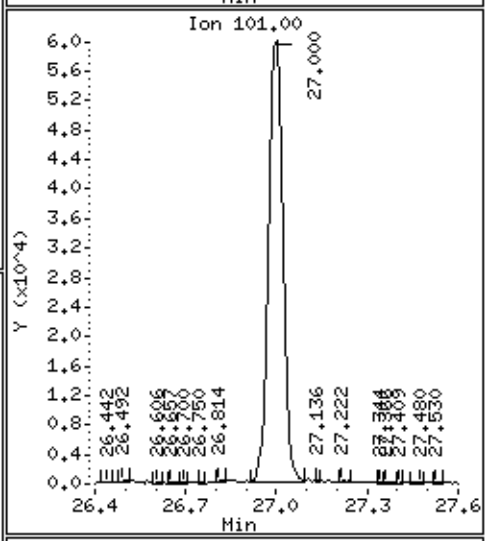


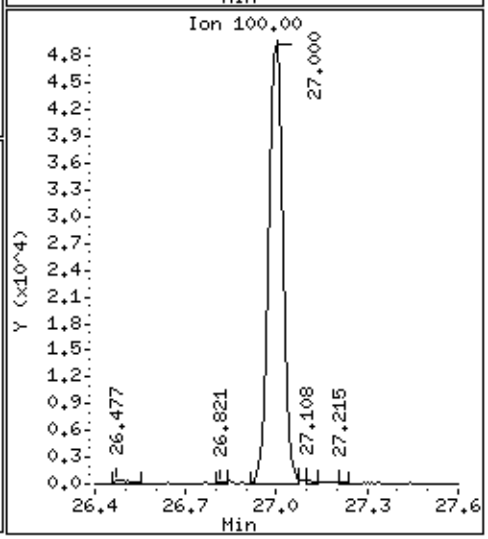












@ Air Toxics Ltd. Run Log for MSD-6 Method TO14 & TO15
BFB verification of 176/174 Ratio: (293120/299392) x100% = 97.91%
Standard ID 1476-2872 Exp. date 5/4/18
Bromochloromethane 196221 File ID: 6060103.d
1,4-Difluorobenzene 816668 Compound: Benzene
Chlorobenzene-d5 756740 InitialIS: ct
BromoFluoroBenzene 580931
Verification CCV IS vs ICAL mid-point (-40%)
Calculation Check:

$$\text{ppbv of compound} = \frac{\text{Area of sample}}{\text{Area of IS}} * \frac{\text{Concentration of IS}}{\text{RRF}} = \left(\frac{979320}{816668}\right) * \left(\frac{23.0}{0.50440}\right) = 54.681$$

Method: 6162033i vi.m

Data Directory: C:\msdchem\1\DATA\01JUN16.B\

Use	SampleName		Port pos.	Injection Time	Init.
1) ✓	6060101.D Comments				
;BFB;BFB		1476-2872, 36ng (5/4/18)	1	1 Jun 2016 9:00 am	ct
2) ✓	6060102.D Comments				
;BFB;BFB		1476-2872, 36ng (5/4/18)	2	1 Jun 2016 9:40 am	
3) ✓	6060103.D Comments				
;VI VOC+PAH CCV;CCV		2516-241(7/20/16),2744-31	11	1 Jun 2016 10:25 am	
4) ✓	6060104.D Comments				
;VI VOC+PAH LCS;LCS		2516-240(7/20/16),2744-32	12	1 Jun 2016 11:05 am	
5) ✓	6060105.D Comments				
;VI VOC+PAH LCSD;LCSD		2516-240(7/20/16),2744-32	12	1 Jun 2016 11:45 am	
6) ✓	6060106.D Comments				
;DP Lab Blank;Lab Blank		G0148388	13	1 Jun 2016 12:24 pm	
7) ✓	6060107.D Comments				
;1605570-07A		G0143694	21	1 Jun 2016 1:49 pm	
8) ✓	6060108.D Comments	Surr 1,2-DCA ✓			
;1605570-01A		G0147082	31	1 Jun 2016 2:38 pm	
9) ✓	6060109.D Comments				
;1605570-02A		G0145596	32	1 Jun 2016 3:18 pm	
10) ✓	6060110.D Comments	Surr 1,2-DCA ✓			
;1605570-03A		G0144403	33	1 Jun 2016 3:58 pm	
11) ✓	6060111.D Comments				
;1605570-04A		G0148162	34	1 Jun 2016 4:46 pm	
12) ✓	6060112.D Comments				
;1605570-05A		G0143427	35	1 Jun 2016 5:26 pm	
13) ✓	6060113.D Comments	Surr 1,2-DCA ✓			
;1605570-06A		G0139904	36	1 Jun 2016 6:05 pm	
14) C	6060114.D Comments	Surr 1,2-DCA ✓			
;1605570-01A		G0147082,reanalysis	31	1 Jun 2016 6:45 pm	
15) ✓	6060115.D Comments				
;Blank		G0148388	13	1 Jun 2016 7:25 pm	
16) ✓	6060116.D Comments	ct 6/2/16			
;1606008-01A		G0135616	41	1 Jun 2016 8:05 pm	
17) ✓	6060117.D Comments				
;1606008-02A		G0139979	42	1 Jun 2016 8:44 pm	

6/3/16

18) ✓	6060118.D	Comments				
;1606008-03A			G0139982	43	1 Jun 2016	9:24 pm ct
19) ✓	6060119.D	Comments				
;1606008-04A			G0144325	44	1 Jun 2016	10:04 pm
20) ✓	6060120.D	Comments				
;1606008-05A			G0154148	45	1 Jun 2016	10:43 pm
21) ✓	6060121.D	Comments				
;1606008-06A			G0135687	46	1 Jun 2016	11:23 pm
22) ✓	6060122.D	Comments				
;1606008-07A			G0147370	47	2 Jun 2016	12:03 am
23) ✓	6060123.D	Comments				
;Blank			G0148388	13	2 Jun 2016	12:42 am
24) ✓	6060124.D	Comments	Not for TPH			
;VI tube cert			G0132082	51	2 Jun 2016	1:22 am
25) ✓	6060125.D	Comments	Not for TPH			
;VI tube cert			G0141302	52	2 Jun 2016	2:02 am
26) ✓	6060126.D	Comments				
;VI tube cert			G0145511	53	2 Jun 2016	2:41 am
27) ✓	6060127.D	Comments				
;VI tube cert			G0143432	54	2 Jun 2016	3:21 am
28) ✓	6060128.D	Comments	Not for TPH			
;VI tube cert			G0143671	55	2 Jun 2016	4:01 am
29) ✓	6060129.D	Comments				
;VI tube cert			G0146100	56	2 Jun 2016	4:41 am
30) ✓	6060130.D	Comments				
;VI tube cert			G0137129	57	2 Jun 2016	5:20 am
31) ✓	6060131.D	Comments				
;VI tube cert			G0139965	58	2 Jun 2016	6:00 am
32) ✓	6060132.D	Comments	Not for TPH			
;VI tube cert			G0147322	59	2 Jun 2016	6:40 am
33) X	6060133.D	Comments	dirty			
;VI tube cert			G0147257	60	2 Jun 2016	7:20 am
34) C	6060134.D	Comments	Surr 1,4-DCA ✓			
;1605570-03A			G0144403,reanalysis	33	2 Jun 2016	8:56 am
35) C	6060135.D	Comments	Surr 1,4-DCA ✓			
;1605570-06A			G0139904,reanalysis	36	2 Jun 2016	9:35 am

Clarissa 6/2/16

Eurofins Air Toxics Inc.

Data file : /chem/msd6.i/31mar16.b/6033101.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 30-MAR-2016 17:35
Operator : CT Inst ID: msd6.i
Smp Info : ;BFB;BFB
Misc Info :
Comment :
Method : /chem/msd6.i/31mar16.b/bfb.m
Meth Date : 02-Jul-2015 09:23 lantonic Quant Type: ESTD
Cal Date : 11-OCT-2009 15:24 Cal File: l101104.d
Als bottle: 11 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		
11.464	11.005	0.459	95	332487		100.00	100.00- 100.00	100.00
11.464	15.676	-4.212	50	66946		8.00	40.00- 40.00	20.13
11.464	15.676	-4.212	75	153301		30.00	66.00- 66.00	46.11
11.464	15.676	-4.212	96	21912		5.00	9.00- 9.00	6.59
11.464	15.676	-4.212	173	0		0.00	1.99- 1.99	0.00
11.464	15.676	-4.212	174	272448		50.00	120.00- 120.00	81.94
11.464	15.676	-4.212	175	20149		4.00	9.00- 9.00	7.40
11.464	15.676	-4.212	176	266965		93.00	101.00- 101.00	97.99
11.464	15.676	-4.212	177	16746		5.00	9.00- 9.00	6.27

Data File: /chem/msd6.i/31mar16.b/6033101.d

Date : 30-MAR-2016 17:35

Client ID: BFB

Instrument: msd6.i

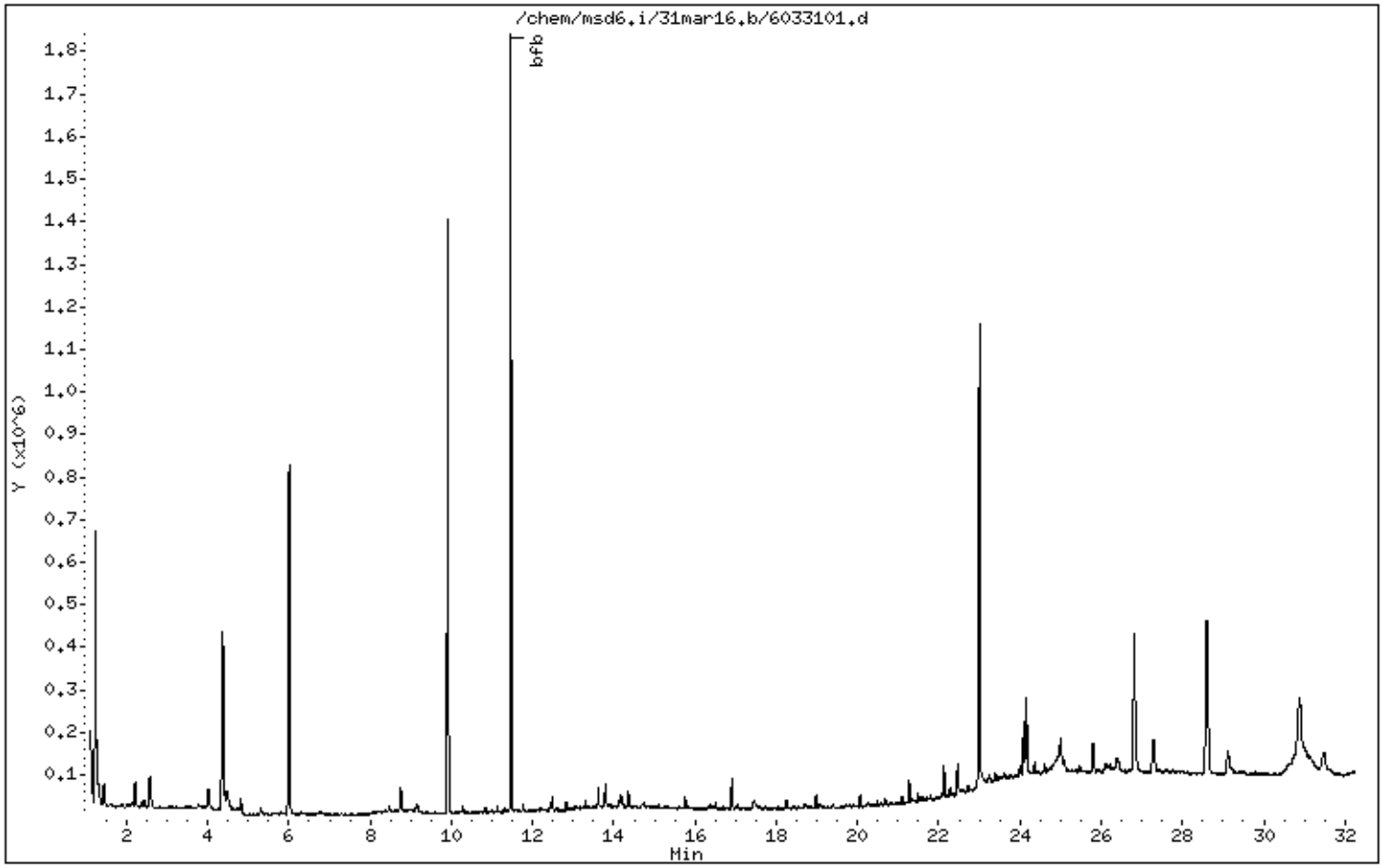
Sample Info: ;BFB;BFB

Volume Injected (uL): 1.0

Operator: CT

Column phase:

Column diameter: 2.00



Data File: /chem/msd6.i/31mar16.b/6033101.d

Date : 30-MAR-2016 17:35

Client ID: BFB

Instrument: msd6.i

Sample Info: ;BFB;BFB

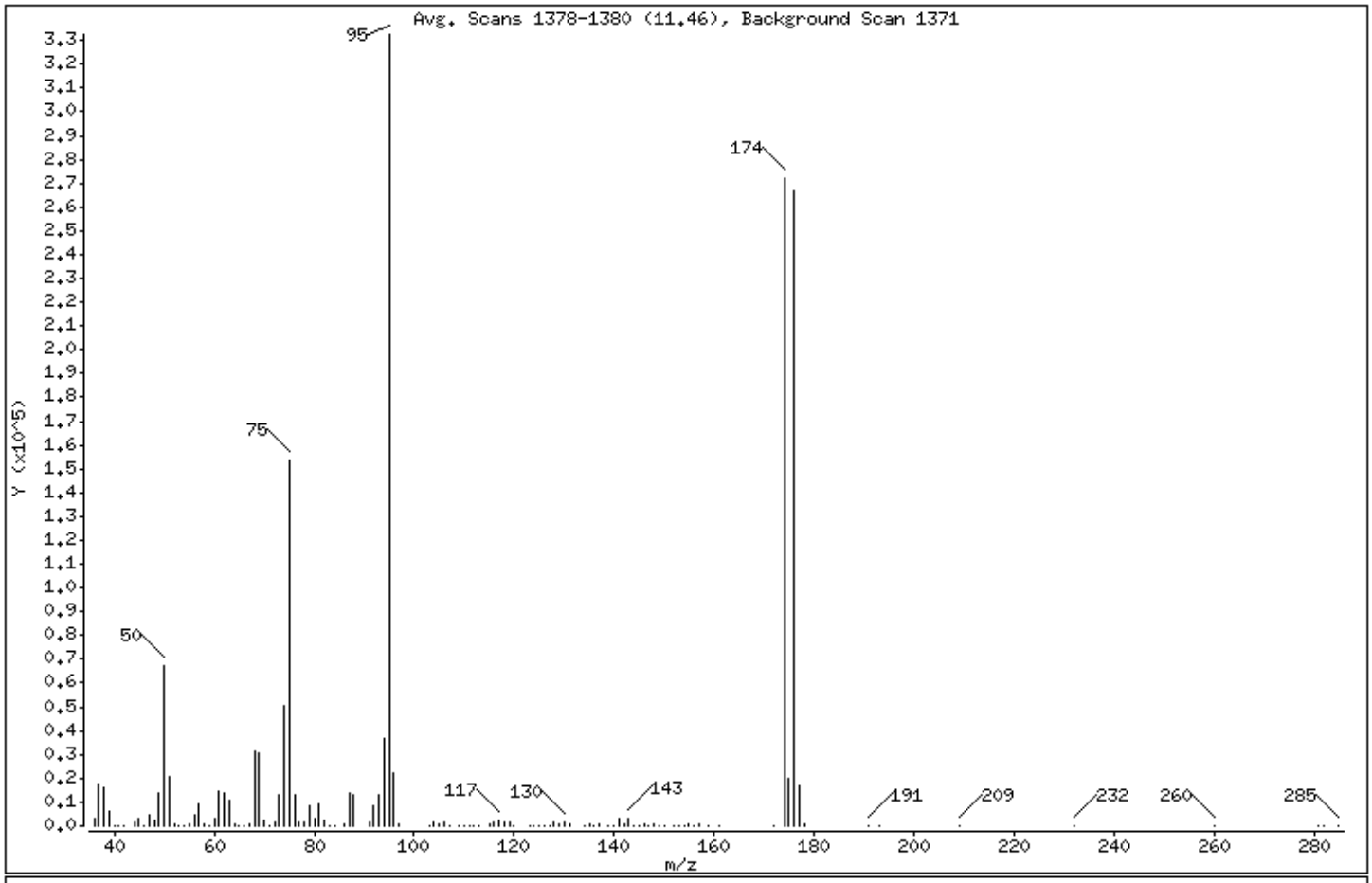
Volume Injected (uL): 1.0

Operator: CT

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	20.13
75	30.00 - 66.00% of mass 95	46.11
96	5.00 - 9.00% of mass 95	6.59
173	Less than 1.99% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	81.94
175	4.00 - 9.00% of mass 174	6.06 (7.40)
176	93.00 - 101.00% of mass 174	80.29 (97.99)
177	5.00 - 9.00% of mass 176	5.04 (6.27)

Data File: /chem/msd6.i/31mar16.b/6033101.d

Date : 30-MAR-2016 17:35

Client ID: BFB

Instrument: msd6.i

Sample Info: ;BFB;BFB

Volume Injected (uL): 1.0

Operator: CT

Column phase:

Column diameter: 2.00

Data File: 6033101.d
Spectrum: Avg. Scans 1378-1380 (11.46), Background Scan 1371
Location of Maximum: 95.00
Number of points: 121

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3027	68.00	31224	107.00	349	145.00	271
37.00	17912	69.00	30696	109.00	113	146.00	498
38.00	15692	70.00	2312	110.00	325	147.00	131
39.00	6111	71.00	130	111.00	323	148.00	861
40.00	11	72.00	1535	112.00	261	149.00	289
41.00	10	73.00	12682	113.00	313	150.00	333
42.00	20	74.00	50488	115.00	405	152.00	217
44.00	1828	75.00	153280	116.00	1153	153.00	245
45.00	2918	76.00	12873	117.00	1976	154.00	233
46.00	221	77.00	1864	118.00	1273	155.00	812
47.00	4793	78.00	1386	119.00	1662	156.00	122
48.00	1980	79.00	8586	120.00	52	157.00	598
49.00	13901	80.00	2860	123.00	188	159.00	337
50.00	66944	81.00	9312	124.00	265	161.00	380
51.00	20360	82.00	2152	125.00	108	172.00	264
52.00	1029	83.00	273	126.00	238	174.00	272448
53.00	10	84.00	52	127.00	78	175.00	20144
54.00	13	86.00	550	128.00	1224	176.00	266944
55.00	874	87.00	13895	129.00	648	177.00	16744
56.00	4885	88.00	13319	130.00	1290	178.00	513
57.00	8919	91.00	1346	131.00	501	191.00	81
58.00	387	92.00	8638	134.00	108	193.00	62
59.00	186	93.00	13049	135.00	643	209.00	156
60.00	2888	94.00	36376	136.00	128	232.00	85
61.00	14849	95.00	332480	137.00	513	260.00	11
62.00	13698	96.00	21912	139.00	117	281.00	64
63.00	10590	97.00	769	140.00	299	282.00	72
64.00	971	103.00	231	141.00	2874	285.00	130
65.00	76	104.00	1460	142.00	405		
66.00	65	105.00	545	143.00	2986		
67.00	804	106.00	1414	144.00	259		

Eurofins Air Toxics Inc.

Data file : /chem/msd6.i/01jun16.b/6060102.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 01-JUN-2016 09:40
Operator : CT Inst ID: msd6.i
Smp Info : ;BFB;BFB
Misc Info : 1476-2872, 36ng (5/4/18)
Comment :
Method : /chem/msd6.i/01jun16.b/bfb.m
Meth Date : 31-Mar-2016 12:20 lantonic Quant Type: ESTD
Cal Date : 11-OCT-2009 15:24 Cal File: l101104.d
Als bottle: 2 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		
11.435	11.478	-0.043	95	296405		100.00-	100.00	99.00
11.435	11.478	-0.043	50	45234		8.00-	40.00	15.26
11.435	11.478	-0.043	75	127749		30.00-	66.00	43.10
11.435	11.478	-0.043	96	20050		5.00-	9.00	6.76
11.435	11.478	-0.043	173	0		0.00-	1.99	0.00
11.435	11.478	-0.043	174	299392		50.00-	120.00	101.01
11.435	11.478	-0.043	175	23157		4.00-	9.00	7.73
11.435	11.478	-0.043	176	293120		93.00-	101.00	97.91
11.435	11.478	-0.043	177	19181		5.00-	9.00	6.54

Data File: /chem/msd6.i/01jun16.b/6060102.d

Date : 01-JUN-2016 09:40

Client ID: BFB

Instrument: msd6.i

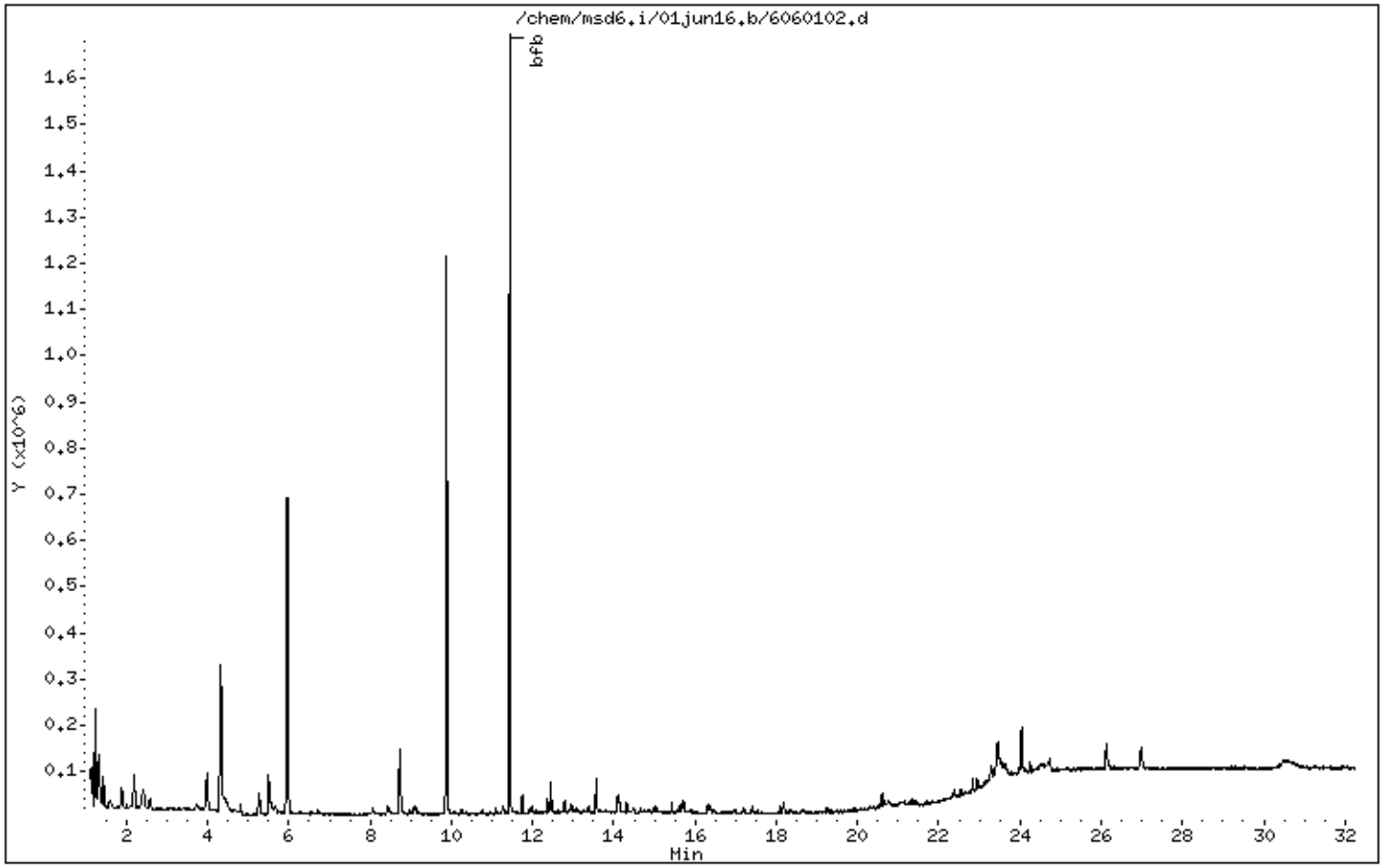
Sample Info: ;BFB;BFB

Volume Injected (uL): 1.0

Operator: CT

Column phase:

Column diameter: 2.00



Data File: /chem/msd6.i/01jun16.b/6060102.d

Date : 01-JUN-2016 09:40

Client ID: BFB

Instrument: msd6.i

Sample Info: ;BFB;BFB

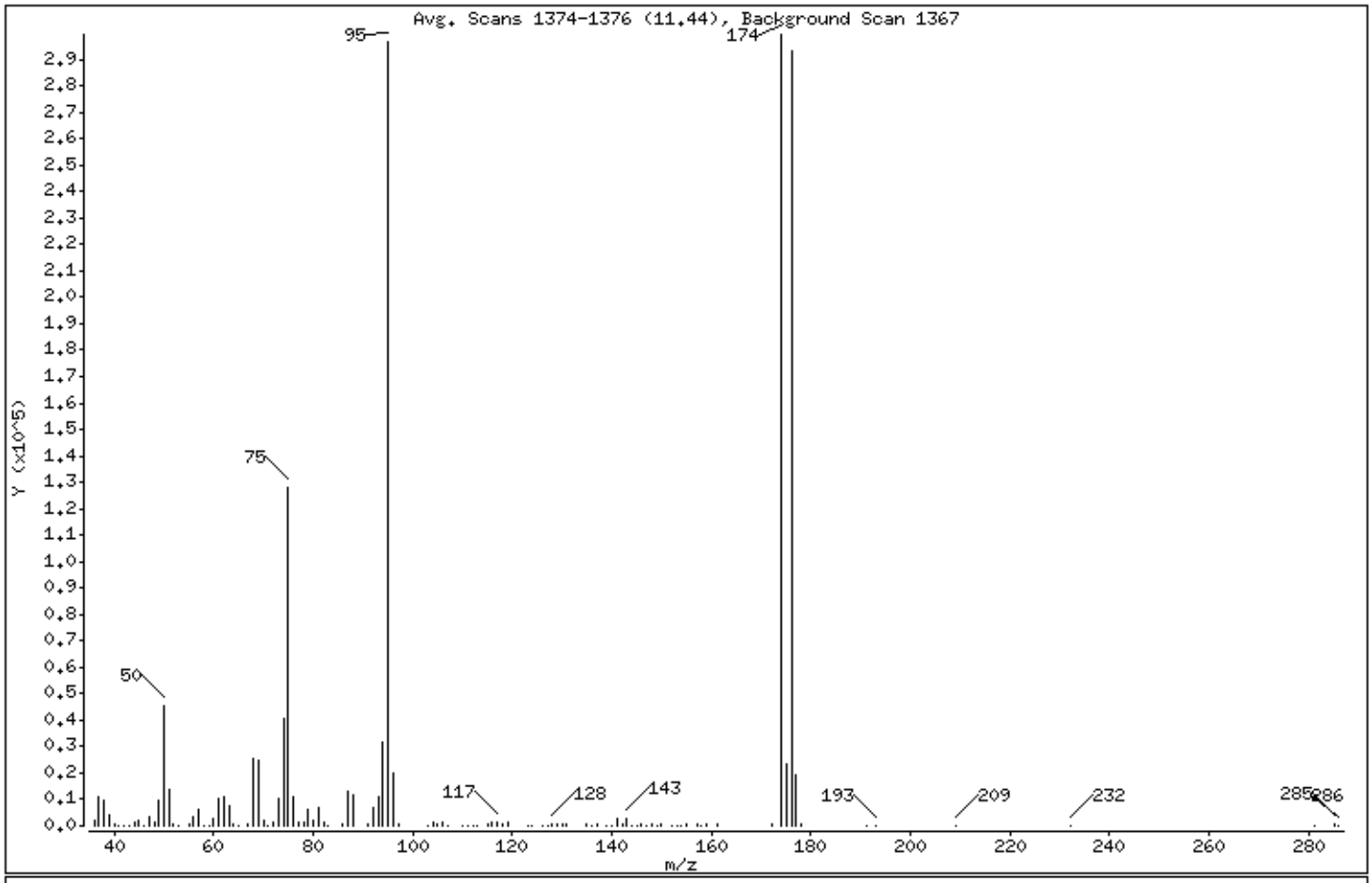
Volume Injected (uL): 1.0

Operator: CT

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	15.26
75	30.00 - 66.00% of mass 95	43.10
96	5.00 - 9.00% of mass 95	6.76
173	Less than 1.99% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	101.01
175	4.00 - 9.00% of mass 174	7.81 (7.73)
176	93.00 - 101.00% of mass 174	98.89 (97.91)
177	5.00 - 9.00% of mass 176	6.47 (6.54)

Data File: /chem/msd6.i/01jun16.b/6060102.d

Date : 01-JUN-2016 09:40

Client ID: BFB

Instrument: msd6.i

Sample Info: ;BFB;BFB

Volume Injected (uL): 1.0

Operator: CT

Column phase:

Column diameter: 2.00

Data File: 6060102.d
Spectrum: Avg. Scans 1374-1376 (11.44), Background Scan 1367
Location of Maximum: 174.00
Number of points: 114

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2210	67.00	904	105.00	474	145.00	287
37.00	11105	68.00	25280	106.00	1162	146.00	511
38.00	9758	69.00	24832	107.00	328	147.00	256
39.00	3957	70.00	2019	110.00	200	148.00	813
40.00	402	71.00	118	111.00	233	149.00	152
41.00	191	72.00	1406	112.00	245	150.00	358
42.00	104	73.00	10246	113.00	299	152.00	208
43.00	33	74.00	40536	115.00	378	153.00	251
44.00	1198	75.00	127744	116.00	1034	154.00	228
45.00	2094	76.00	10702	117.00	1700	155.00	819
46.00	270	77.00	1511	118.00	994	157.00	584
47.00	3185	78.00	1307	119.00	1410	158.00	54
48.00	1361	79.00	6507	123.00	180	159.00	372
49.00	9714	80.00	2242	124.00	220	161.00	425
50.00	45232	81.00	7067	126.00	183	172.00	443
51.00	13591	82.00	1652	127.00	175	174.00	299392
52.00	643	83.00	212	128.00	1011	175.00	23152
53.00	105	86.00	405	129.00	551	176.00	293120
55.00	522	87.00	12753	130.00	974	177.00	19176
56.00	3586	88.00	12022	131.00	413	178.00	572
57.00	6396	91.00	962	135.00	501	191.00	39
58.00	302	92.00	7186	136.00	53	193.00	141
59.00	120	93.00	11160	137.00	510	209.00	59
60.00	2578	94.00	31792	139.00	74	232.00	222
61.00	10591	95.00	296384	140.00	251	281.00	69
62.00	11021	96.00	20048	141.00	2669	285.00	423
63.00	7867	97.00	679	142.00	352	286.00	63
64.00	801	103.00	220	143.00	2693		
65.00	136	104.00	1106	144.00	260		

Shipping/ Receiving Documents

eurofins | Air Toxics

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

TO-17 SAMPLE COLLECTION

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

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
(916) 985-1000 FAX (916) 985-1020

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

Project Info:
P.O. #:
Project #:
Project Name: Building 30 VI

Turn Around Time: ☐ Normal ☐ Rush ____ specify

Reporting Units: ☐ ppmv ☐ ppbv ☐ µg/m3 ☐ mg/m3

Lab I.D.	Field Sample I.D. (Location)	Engraved or Stamped Tube #	Date of Collection (mm/dd/yy)	Start Time (hr:min)	End Time (hr:min)	Pre-Test Flow Rate ml/min	Post-Test Flow Rate ml/min	Volume ℓ	Indoor/Outdoor % RH	Indoor/Outdoor Temp	Indoor Air	Outdoor Air	Soil Vapor	Other ( )
01A	B30IA-1(052816)	0135616	5/29/16	1750	1110	36	36	10.4	93.2	81.5	☒	☐	☐	☐
02A	B30AA(052816)	0139929	5/29/16	1814	1814	33	33	15.8	86.3	88.7	☐	☒	☐	☐
03A	B30IA-5(052816)	0139982	5/29/16	1806	~~1103~~ 1556	34	34	16.1	81.4	83.7	☒	☐	☐	☐
04A	B30IA-2(052816)	0144325	5/29/16	1754	1754	34	33	15.8	98.6	80.9	☒	☐	☐	☐
05A	B30IA-1D(052816)	0154148	5/29/16	1750	1750	36	36	17.3	93.2	81.5	☒	☐	☐	☐
06A	B30IA-4(052816)	0135687	5/29/16	1804	1804	33	33	15.8	93.2	80.7	☒	☐	☐	☐
07A	B30IA-3(052816)	0147370	5/29/16	1759	1745	34	33	15.6	86.1	80.8	☒	☐	☐	☐
											☐	☐	☐	☐
											☐	☐	☐	☐
											☐	☐	☐	☐

Relinquished by: (signature) [signature] Date/Time 05/31/16 1700
Received by: (signature) FedEx - truck Date/Time 7764 0738 2968
Relinquished by: (signature) Date/Time
Received by: (signature) Andrea Augustin EATL Date/Time 6/1/16 1000
Relinquished by: (signature) Date/Time
Received by: (signature) Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		16.2	~~Good~~ SDR AA 6/1/16	Yes No (None)	1606008

Eurofins Air Toxics, Inc. **Dry Purge** **Logbook #: 2654**

Date: 6/1/16

Instrument: MSD-6

Drying Device: Short Path Thermal Desorption Conditioning System
Manufacturer: Scientific Instrument Services, INC. Ringoes, NJ USA
Model: CS-1
Drying Gas: Nitrogen (N_2) N 1866 126104
Flow Meter: ct 6/1/16 ~~CN~~ CS7476

Calibration Tube#: G0147703

Temperature (°C): 40
Acceptance Range (°C): 35-45

Position #	Workorder #/Lab ID #	Media Type	Tube ID #	Flow Rate (mL/min) Acceptance Range (mL/min): 45-55		Time		Comments
				Start	End	Start	End	
1	1606008_01A	VE	G0135616	49.9	48.1	1449	1520	
2	-02A		G0139979	49.3	47.5			
3	-03A		G0139982	49.6	44.1			
4	-04A		G0144325	49.3	47.8			
5	-05A		G0154148	51.2	49.6			
6	-06A		G0135687	50.3	48.0			
1	-07A		G0147370	49.5	48.8	1535	1605	
								6/1/16 ct

ct
Reviewed

6/1/16 ct
Date

eurofins | Air Toxics

SAMPLE RECEIPT SUMMARY

WORKORDER 1606008

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: 06/14/16
Date Completed: 6/14/16
Date Received: 6/1/16
PO#:
Project#: Building 30 VI

Total $: $ 700.00
Logged By: AA

Fraction	Sample #	Analysis	Collected	Amount$
01A	B30IA-1 (052816)	Modified TO-17 VI	5/29/2016	$100.00
02A	B30AA (052816)	Modified TO-17 VI	5/29/2016	$100.00
03A	B30IA-5 (052816)	Modified TO-17 VI	5/29/2016	$100.00
04A	B30IA-2 (052816)	Modified TO-17 VI	5/29/2016	$100.00
05A	B30IA-1D (052816)	Modified TO-17 VI	5/29/2016	$100.00
06A	B30IA-4 (052816)	Modified TO-17 VI	5/29/2016	$100.00
07A	B30IA-3 (052816)	Modified TO-17 VI	5/29/2016	$100.00
08A	Lab Blank	Modified TO-17 VI	NA	$0.00
09A	CCV	Modified TO-17 VI	NA	$0.00
10A	LCS	Modified TO-17 VI	NA	$0.00
10AA	LCSD	Modified TO-17 VI	NA	$0.00

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: Other MS

TERMS: NET 30

Reporting Method: TO-17 VI (Sh)-Naph only-1.0 ng

Sample Discrepancy Report

Identification

Initiated By: AA **Project ID:**19256 **PM**: BSW **Date:** 6/1/2016 **Discrepancy Type:** ☐ **1.** ☒ **2.** ☐ **3.**

Workorder(s) affected:1606008 **Sample(s) affected:** All

1. Sample Receipt Discrepancies

Narration Not Required:

1.1. ☐ Sample container (cartridge/tube/VOA vial) was received broken, however sample was intact.

1.2. ☐ No brass cap on canister.

1.3. ☐ Date of Collection noted on first sample, but no arrow down to indicate all samples.

Notify Lab for further determination:

1.4. ☐ Tedlar bag received with minimal volume.

Initials: _____ Date: _____

Narration Required in Lab Narrative and Sample Confirmation:

1.5. ☐ COC was not filled out in ink.

1.6. ☐ COC improperly relinquished / received.

1.7. ☐ Sample tags / can numbers do not match the COC.

1.8. ☐ Sample date ☐ error / ☐ missing on COC but noted on sample tag (check one).

1.9. ☐ Custody Seal on the outside of the container was ☐ broken / ☐ improperly placed (check one).

1.10. ☐ ID-none on the sample Tag/Blank

1.11. ☐ Other (describe below).

Describe the Discrepancy: _____

2. Sample Receipt/Screening Discrepancies requiring PM notification

Document on Cover Page of Sample Receipt Confirmation and in Receiving Notes of Lab Narrative

If Section II. is filled out PM must be notified within 24 hrs of initiation

2.1. ☐ COC was not received with samples.

2.2. ☐ Analysis method(s) is ☐ not specified / ☐ incorrectly specified (check one) on the COC.

2.3. ☐ Incorrect sampling media / container for analysis requested.

2.4. ☐ Number of samples on the COC does not match the number of samples that were received.

2.5. ☐ Samples were received expired.

2.6. ☐ Sampling date (time for sulfur) is not documented for ☐ *some* / ☐ *any* samples (check one).

2.7. ☐ Sample received with amount of H_2O in the Tedlar Bag.

2.8. ☐ Sample cannot be analyzed. Container was ☐ received broken / ☐ leaking / ☐ flat / ☐ defective.

2.9. ☐ Tedlar bag / canister received emitting a strong odor; Sample ☐ can / ☐ cannot (check one) be analyzed.

2.10. ☐ Tedlar Bag for Sulfur analysis has metal fitting.

2.11. ☐ Environmental Supply Company valves

2.12. ☐ Sorbent samples-sampling volume was not provided

2.13. ☐ Flow controller used – canister samples received at ambient or under pressure.

2.14. ☐ Canister was at ambient pressure at time of pressurization and (check all that apply):

- ☐ Canister failed leak check on two manifolds,
- ☐ Canister valve was open,
- ☐ Brass nut was loose/not present.
- ☐ Sample can be analyzed
- ☐ Cannot be analyzed

2.15. ☐ Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. And the final vac. reported on the COC, indicating loss of vacuum.

2.16. ☐ Canister sample received at >15"Hg (*not* identified as a Trip/Field Blank).

2.17. ☐ Canister Trip Blank received at low vacuum (<25"Hg).

2.18. ☒ Sorbent Sample received outside method required temperature of 2°C to 6°C; ☐ ice / ☒ blue ice (check one) was present. A temp. Blank ☐ was / ☒ was not present (check one).

2.19. ☐ Flow Controller RPD of = 20% was not met.

2.20. ☐ Other (describe below)

Initials: AA **Date:** 6/1/2016 **Notify Receiving:** ☐ **Notify PM:** ☒

Describe the Discrepancy: 2.18, All; Samples received above required temperature

3. Lab Discrepancies requiring Team Leader/PM notification

Document in Analytical Notes of Lab Narrative

If Section III. is filled out PM must be notified within 24 hrs of initiation

3.1. ☐ Tedlar Bag found to be leaking at the time of analysis; sample ☐ can / ☐ cannot (check one) be analyzed.

3.2. ☐ Tedlar Bag found to be flat/low volume; sample cannot be analyzed.

3.3. ☐ Sulfur samples received with insufficient time to analyze prior to expiration.

3.4. ☐ Canister found to be leaking at the time of analysis.

3.5. ☐ VOST tube saturated; bag dilution necessary.

3.6. ☐ Sample loss due to instrument malfunction / broken glassware.

3.7. ☐ Low/high surrogate recoveries noted in QC/sample(s) for extractable samples.

3.8. ☐ Reporting Limit was raised.

3.9. ☐ Post weight > Pre weight in field/lab Blank for PM10/TSP samples.

3.10. ☐ Other (describe below).

Initials: _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐ _____

Team Lead Initials: _____ **Date:** _____

Describe the Discrepancy: _____

_____

_____

How Does this Affect Client: _____

_____

_____

Project Manager Use Only

Project Manager Notification ☒ **Section 2 Complete** ☐ **Section 3 Complete**

Action:

☒ It is not necessary to notify the client. Narrate the discrepancy in Receiving Notes/Analytical Notes of Lab Narrative.

PM Initials: BSW Date: 6/1/2016

☐ Client notification required. See attached client contact / email, or comments below:

Client Notification:

PM Initials: _____ Person notified: _____ Date: _____

☐ Waiting for Client Reply

Comments: **Narrate and proceed.**

_____

☐ Notify Lab Name: _____ Date: _____ **Notify Receiving:** ☐ _____

☐ **Additional notifications attached.**

Additional Comments:

_____

Other Records

Compound List

TO-17 VI (Sh)-Naph only-1.0 ng

CAS Number	Compound	Detection Limit ng	Type
91-20-3	Naphthalene	1.0	
1146-65-2	Naphthalene-d8		

Eurofins Air Toxics, Inc.	Data Review Checklist			Release Date: 02/23/16
Workorder # 1606008	Form F1.27	Revision #13	Revision Date: 02/23/16	Page 1 of 2

S1	S2	S3	S4	D	*Section 1* – Spec Out				
					Initials/Instrument/Date	S1: AT MS06 6/6/16	S2:	S3:	S4:
✓					Project Identification (PID), Project Requirements Table (PRT), Daily QC and ICAL met Criteria				
NA					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)				
✓					Non-standard Target sublist verified (MDL, LOD, RL, control limits, etc.)				

Profile, analyses, reporting, special notes and unusual circumstances:

J-Flag to the MDL

A1	A2	A3	A4	D	*Section 2* – Sample Analysis				
					Initials/Date	A1: AT 6/6/16	A2:	A3:	A4:
✓					IS/Surr Recoveries, Dilution Factors, Load Volumes, leg(s) of instrument, Initial/Final Pressures, and Canister #s Verified				
NA					**a)** Tedlar Bag IDs verified against COC **b)** Tedlar Bag ID confirmed with loading sequence/leg(s) of instrument				
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) has been evaluated for comparability and/or sample(s) has/have been checked for trends (Inf/Eff), field dups/trip blanks, samples following bad loads on CIAAs have been verified (system blks, confirmation runs).				
✓					All runs have been evaluated for potential carry-over (TPHg/non-Target/over-range compounds/ etc.)				

Analytical and special notes: OLA + OSA 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: AT 6/6/16	D2:	D3:	D4:
N						CAR # *(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				
N						TPH/NMOC calculations complete and included in folder				

Special notes:

A	3T	*Section 4*- Atlas Data Entry	Lumen verified and included in folder	Circle one: Yes/No
		Initials/Date: AT 6/14/16	3rd Tier: *(needed only for DOD or per client request)*	
	✓	Sample Discrepancy Report (SDR) complete and approved *(if applicable)*		
N		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