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Electronic Comprehensive Validation Package (eCVP)

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COMPREHENSIVE VALIDATION PACKAGE

Modified TO-17 VI

INVENTORY SHEET

Work Order #: 1701478R1

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Comments:

Completed by:

Vera Belitsky	Vera Belitsky / Document Control	3/28/17
(Signature)	(Print Name & Title)	(Date)

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WORK ORDER #: 1701478R1

Work Order Summary

CLIENT:	Mr. Terry Taylor Anderson Mulholland & Associates, Inc. 2700 Westchester Avenue Suite 417 Purchase, NY 10577	**BILL TO:**	Accounts Payable Anderson Mulholland & Associates, Inc. 2700 Westchester Avenue Suite 417 Purchase, NY 10577
PHONE:	(914) 251-0400	**P.O. #**	
FAX:		**PROJECT #**	BMS VI Invest. Buildings 8, 13, 15, 18,
DATE RECEIVED:	01/31/2017	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	02/09/2017		
DATE REISSUED:	03/24/2017		

FRACTION #	NAME	TEST
01A	B18SS-1DUP-012617	Modified TO-17 VI
02A	B18SS-1-012617	Modified TO-17 VI
03A	B18SS-2-012617	Modified TO-17 VI
04A	B18SS-3-012617	Modified TO-17 VI
05A	B18SS-4-012617	Modified TO-17 VI
06A	B18SS-5-012617	Modified TO-17 VI
07A	Lab Blank	Modified TO-17 VI
08A	CCV	Modified TO-17 VI
09A	LCS	Modified TO-17 VI
09AA	LCSD	Modified TO-17 VI

CERTIFIED BY: Heidi Mayo DATE: 03/24/17

Technical Director

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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LABORATORY NARRATIVE
Modified EPA Method TO-17 (VI Tubes)
Anderson Mulholland & Associates, Inc.
Workorder# 1701478R1

Six TO-17 VI Tube samples were received on January 31, 2017. 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

A sampling volume of 0.400 L was used to convert ng to ug/m3 for the associated Lab Blank.

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.

Due to laboratory error, the workorder was reissued on 3/24/17 to quantify Naphthalene results for all samples using the correct initial calibration.

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
B18SS-1DUP-012617	1701478R1-01A	1/26/2017	1/31/2017	NA	6	2/ 1/2017	NA	Good
B18SS-1-012617	1701478R1-02A	1/26/2017	1/31/2017	NA	6	2/ 1/2017	NA	Good
B18SS-2-012617	1701478R1-03A	1/26/2017	1/31/2017	NA	6	2/ 1/2017	NA	Good
B18SS-3-012617	1701478R1-04A	1/26/2017	1/31/2017	NA	6	2/ 1/2017	NA	Good
B18SS-4-012617	1701478R1-05A	1/26/2017	1/31/2017	NA	6	2/ 1/2017	NA	Good
B18SS-5-012617	1701478R1-06A	1/26/2017	1/31/2017	NA	6	2/ 1/2017	NA	Good
Lab Blank	1701478R1-07A	NA	NA	NA	NA	2/ 1/2017	NA	Good
CCV	1701478R1-08A	NA	NA	NA	NA	2/ 1/2017	NA	Good
LCS	1701478R1-09A	NA	NA	NA	NA	2/ 1/2017	NA	Good
LCSD	1701478R1-09A	NA	NA	NA	NA	2/ 1/2017	NA	Good

Sample Results and Raw Data

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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B18SS-1DUP-012617

Lab ID#: 1701478R1-01A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	2.5	0.61 J	1.5 J

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Client Sample ID: B18SS-1DUP-012617

Lab ID#: 1701478R1-01A

EPA METHOD TO-17

File Name:	**6020111R1**	**Date of Extraction: NA**	**Date of Collection: 1/26/17 5:43:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 2/1/17 12:46 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	2.5	0.61 J	1.5 J

Air Sample Volume(L): 0.400

J = Estimated value.

Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	91	50-150

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EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01feb17.b/6020111R1.d
Lab Smp Id: 1701478R1-01A
Inj Date : 01-FEB-2017 12:46
Operator : su Inst ID: msd6.i
Smp Info : ;1701478R1-01A
Misc Info : G0151852
Comment :
Method : /chem/msd6.i/01feb17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:54 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: naph_MDL.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
* 79 Bromofluorobenzene							CAS #: 460-00-4	
12.101	12.123	(1.000)	174	489134	36.0000		80.00- 120.00	100.00
12.101	12.123	(1.000)	95	571224			81.24- 141.24	116.78
12.101	12.123	(1.000)	176	476746			64.86- 124.86	97.47
$ 97 Naphthalene-d8							CAS #: 1146-65-2	
16.320	16.313	(1.349)	136	508760	22.8678	22.868	80.00- 120.00	100.00
16.320	16.313	(1.349)	108	45407			0.00- 39.63	8.93
98 Naphthalene							CAS #: 91-20-3	
16.363	16.349	(1.352)	128	14765	0.60900	0.6090	80.00- 120.00	100.00(a)
16.371	16.349	(1.353)	127	1948			0.00- 42.83	13.19

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: 6020111R1.d
Lab Smp Id: 1701478R1-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/01feb17.b/617z0127via.m
Misc Info: G0151852

Calibration Date: 01-FEB-2017
Calibration Time: 02:28

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	478728	287237	670219	489134	2.17

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.12	11.79	12.45	12.10	-0.18

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.

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 01feb17
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701478R1-01A
Level: LOW Operator: su
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/01feb17.b/617z0127via.m
Misc Info: G0151852

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	22.868	91.47	50-150

Data File: /chem/msd6.i/01feb17.b/6020111R1.d

Date : 01-FEB-2017 12:46

Client ID:

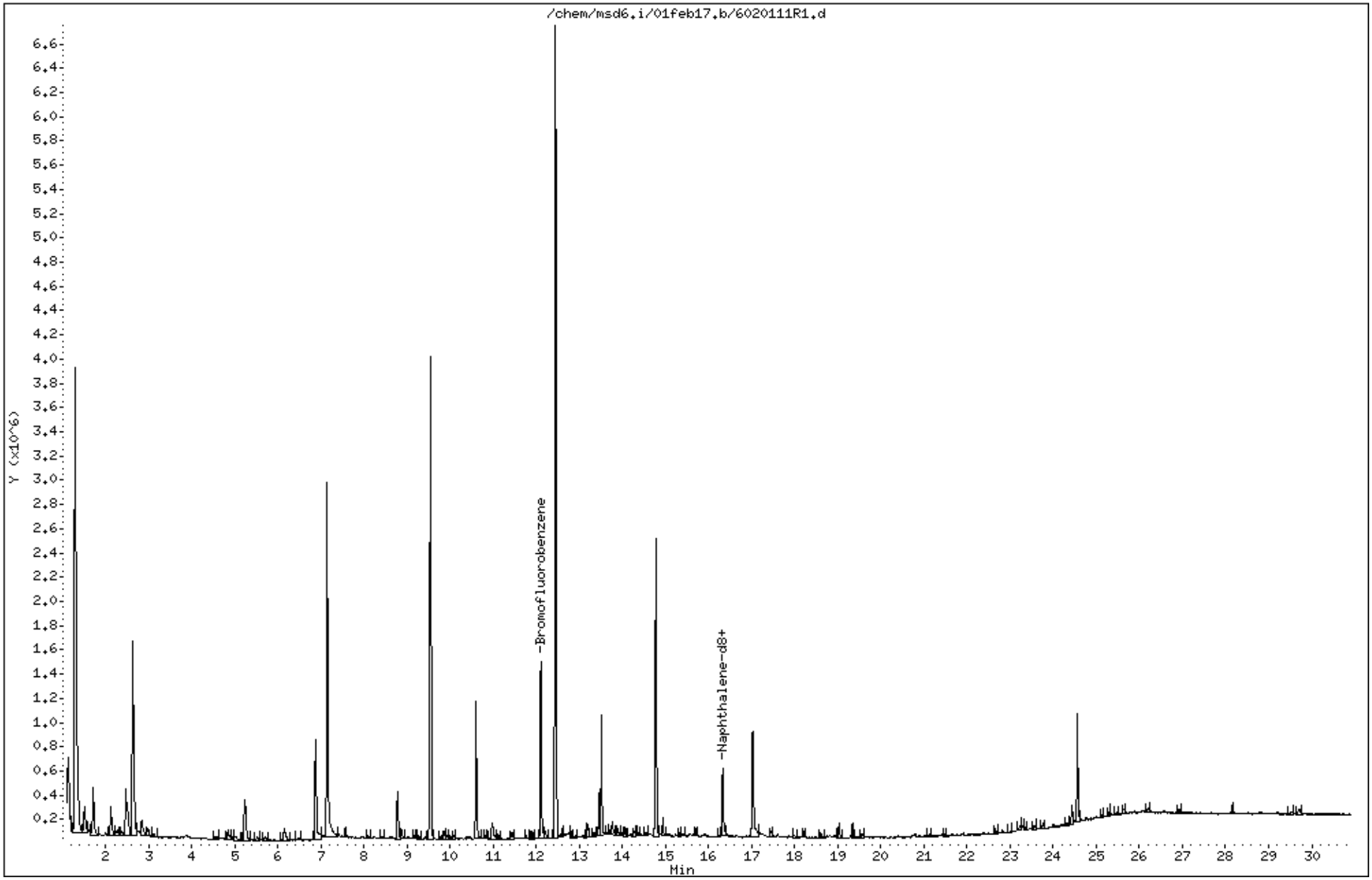
Sample Info: :1701478R1-01A

Column phase: RTx-624

Instrument: msd6.i

Operator: su

Column diameter: 0.53



Data File: /chem/msd6.i/01feb17.b/6020111R1.d

Date : 01-FEB-2017 12:46

Client ID:

Instrument: msd6.i

Sample Info: ;1701478R1-01A

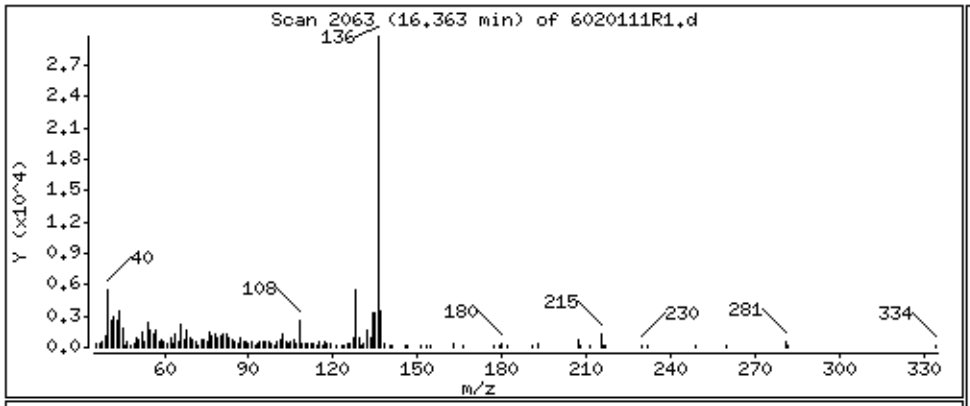
Operator: su

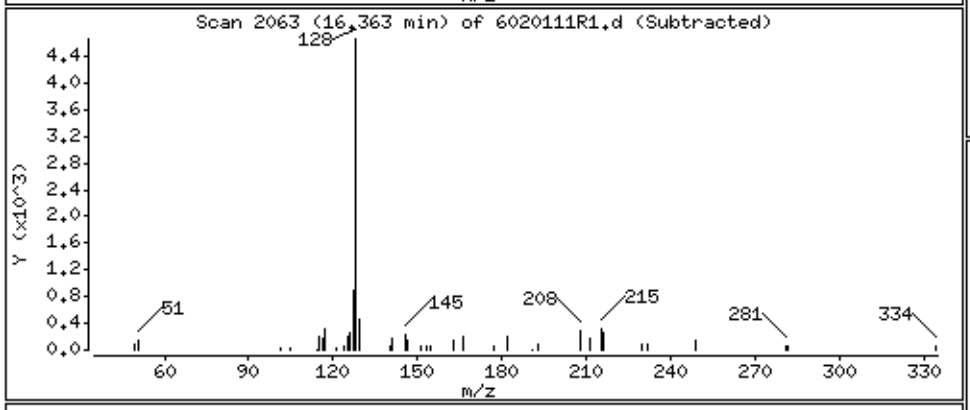
Column phase: RTx-624

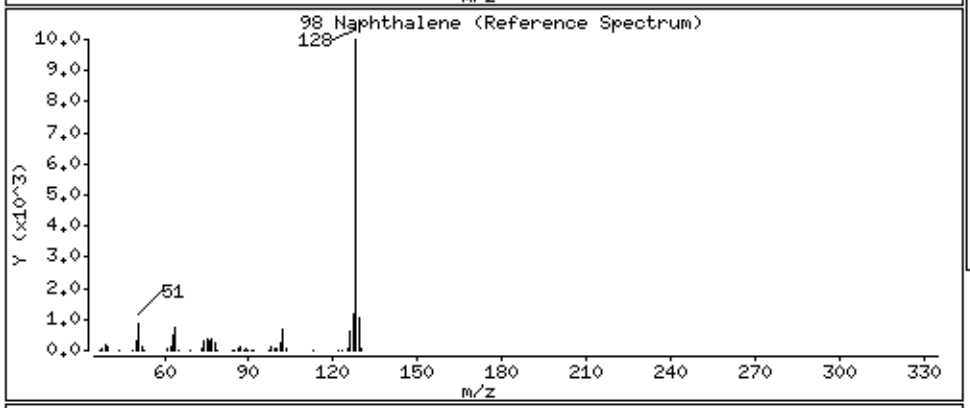
Column diameter: 0.53

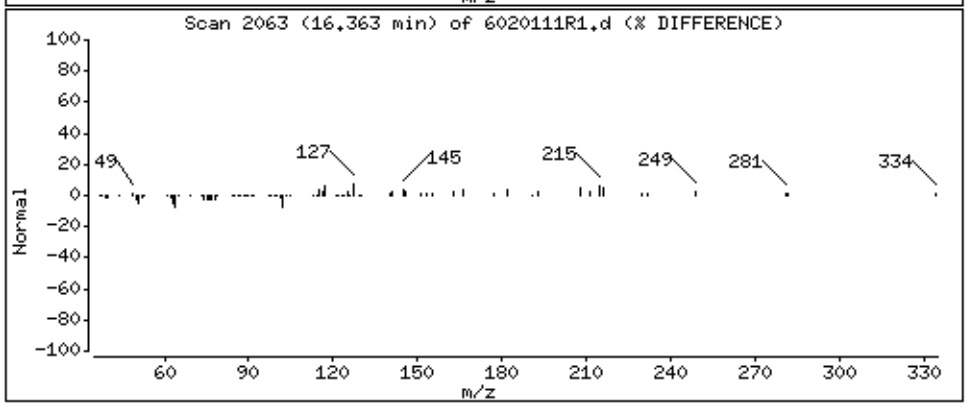
98 Naphthalene

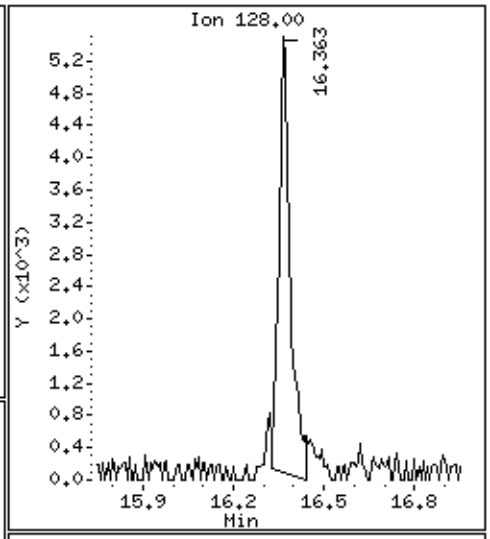
Concentration: 0.6090 NG

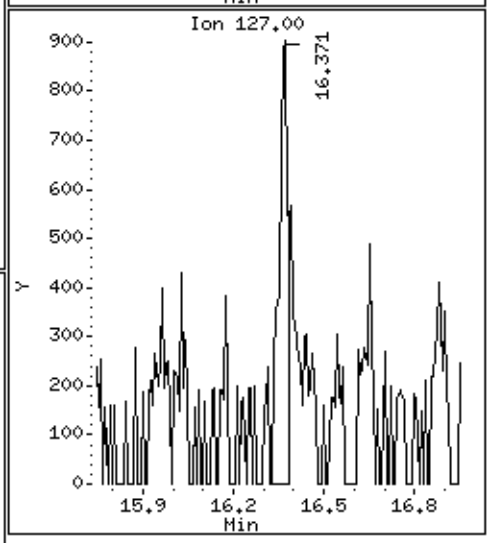












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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B18SS-1-012617

Lab ID#: 1701478R1-02A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	2.5	0.64 J	1.6 J

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Client Sample ID: B18SS-1-012617

Lab ID#: 1701478R1-02A

EPA METHOD TO-17

File Name:	**6020112R1**	**Date of Extraction: NA**	**Date of Collection: 1/26/17 5:37:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 2/1/17 01:26 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	2.5	0.64 J	1.6 J

Air Sample Volume(L): 0.400

J = Estimated value.

Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	97	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01feb17.b/6020112R1.d
Lab Smp Id: 1701478R1-02A
Inj Date : 01-FEB-2017 13:26
Operator : su Inst ID: msd6.i
Smp Info : ;1701478R1-02A
Misc Info : G0150050
Comment :
Method : /chem/msd6.i/01feb17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:54 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: naph_MDL.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
* 79 Bromofluorobenzene							CAS #: 460-00-4	
12.108	12.123	(1.000)	174	475436	36.0000		80.00- 120.00	100.00
12.101	12.123	(1.000)	95	555133			81.24- 141.24	116.76
12.108	12.123	(1.000)	176	466465			64.86- 124.86	98.11
$ 97 Naphthalene-d8							CAS #: 1146-65-2	
16.320	16.313	(1.348)	136	523606	24.2132	24.213	80.00- 120.00	100.00
16.320	16.313	(1.348)	108	43850			0.00- 39.63	8.37
98 Naphthalene							CAS #: 91-20-3	
16.363	16.349	(1.351)	128	15058	0.63898	0.6390	80.00- 120.00	100.00(a)
16.363	16.349	(1.351)	127	1323			0.00- 42.83	8.79

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: 6020112R1.d
Lab Smp Id: 1701478R1-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/01feb17.b/617z0127via.m
Misc Info: G0150050

Calibration Date: 01-FEB-2017
Calibration Time: 02:28

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	478728	287237	670219	475436	-0.69

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.12	11.79	12.45	12.11	-0.12

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: 24-Mar-2017 13:28

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 01feb17
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701478R1-02A
Level: LOW Operator: su
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/01feb17.b/617z0127via.m
Misc Info: G0150050

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	24.213	96.85	50-150

Data File: /chem/msd6.i/01feb17.b/6020112R1.d

Date : 01-FEB-2017 13:26

Client ID:

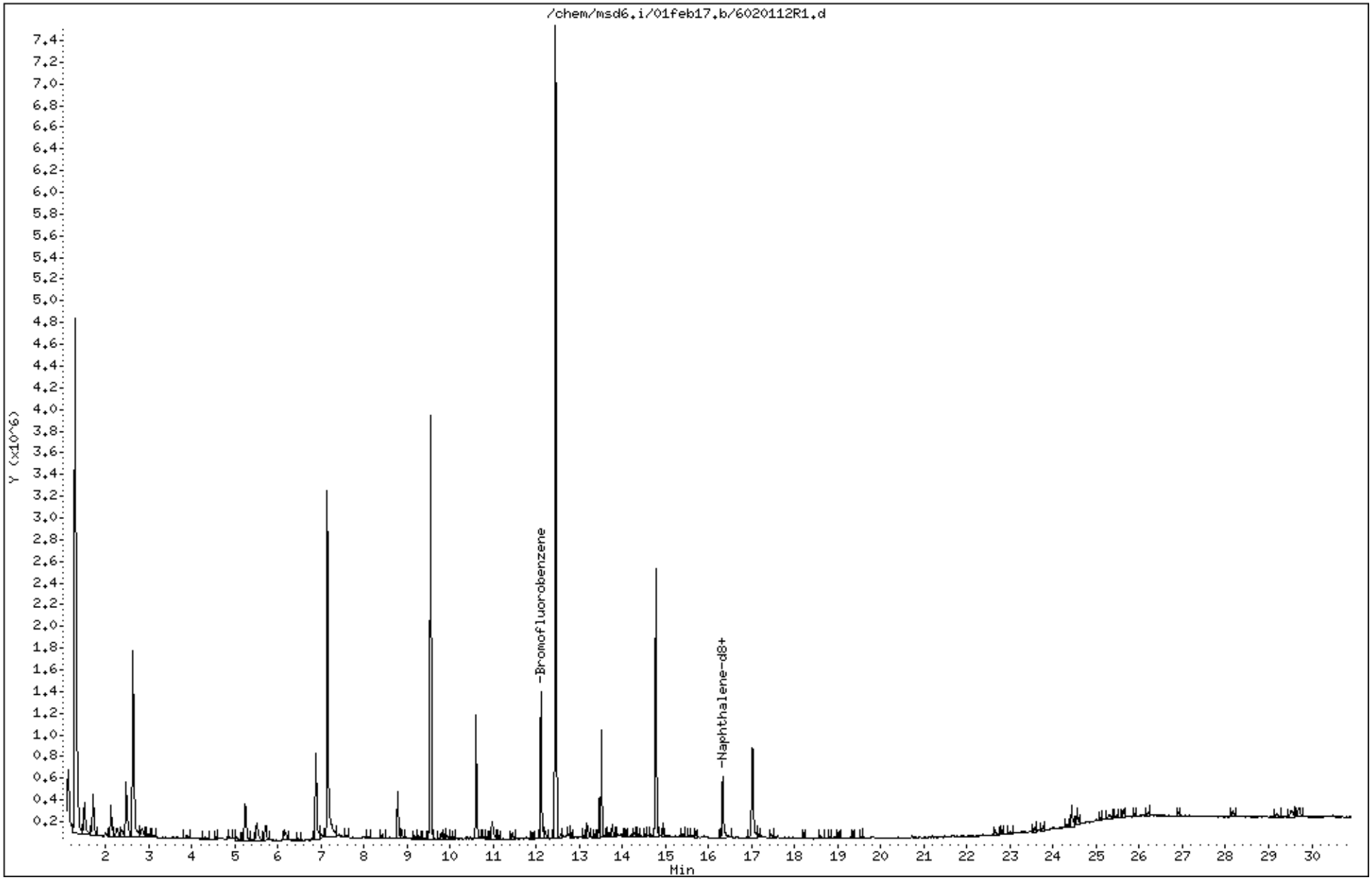
Instrument: msd6.i

Sample Info: ;1701478R1-02A

Operator: su

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/01feb17.b/6020112R1.d

Date : 01-FEB-2017 13:26

Client ID:

Instrument: msd6.i

Sample Info: ;1701478R1-02A

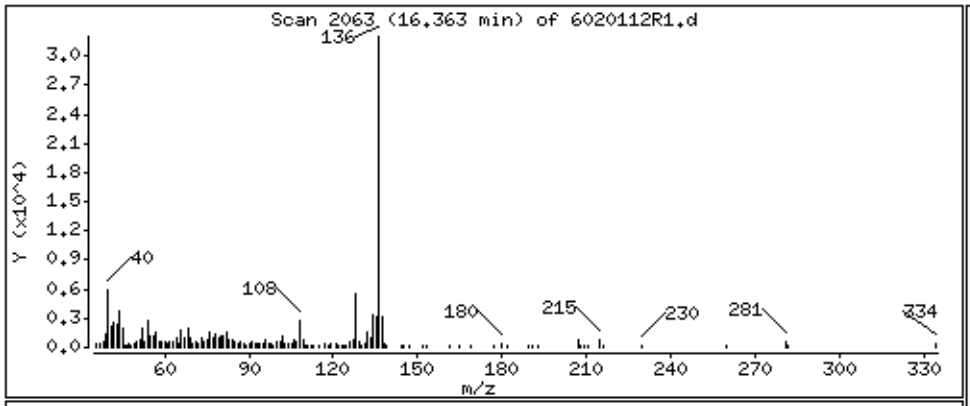
Operator: su

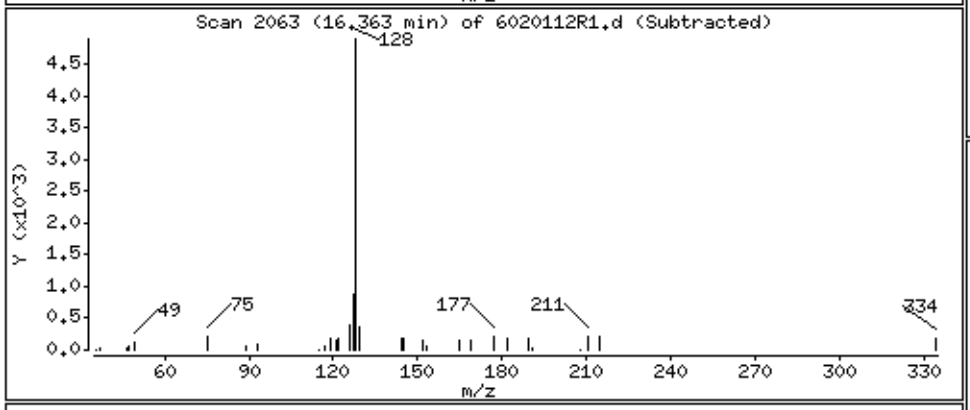
Column phase: RTx-624

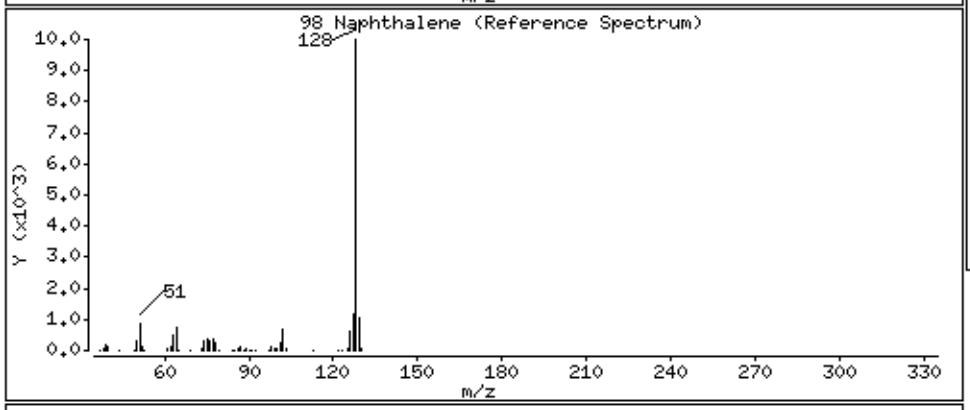
Column diameter: 0.53

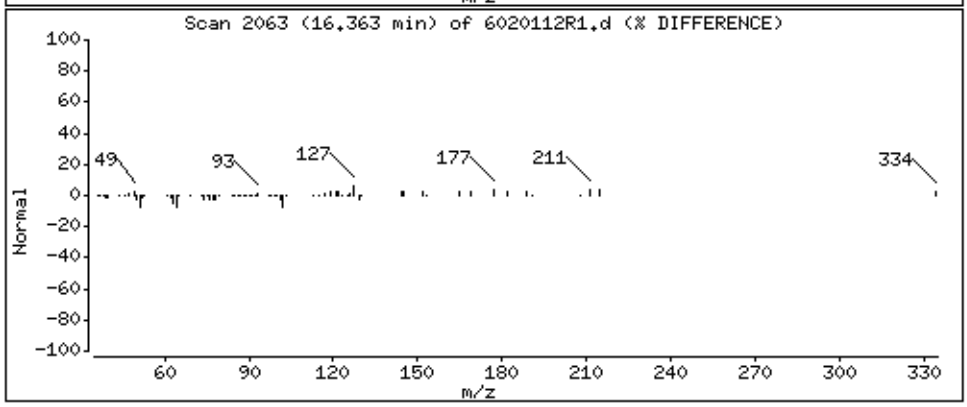
98 Naphthalene

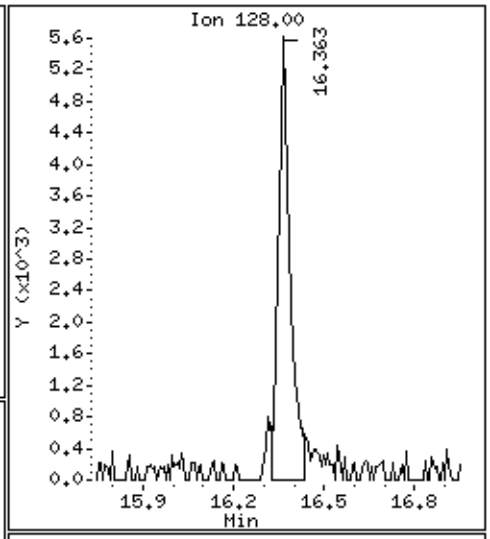
Concentration: 0.6390 NG

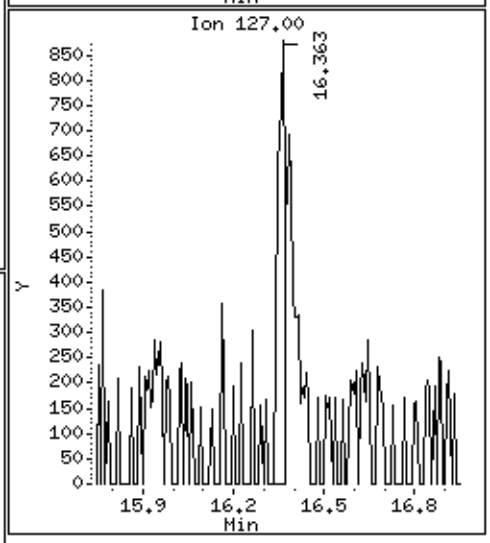












Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B18SS-2-012617

Lab ID#: 1701478R1-03A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	2.5	0.58 J	1.4 J

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Client Sample ID: B18SS-2-012617

Lab ID#: 1701478R1-03A

EPA METHOD TO-17

File Name:	**6020113R1**	**Date of Extraction: NA**	**Date of Collection: 1/26/17 6:43:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 2/1/17 02:06 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	2.5	0.58 J	1.4 J

Air Sample Volume(L): 0.400

J = Estimated value.

Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	91	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01feb17.b/6020113R1.d
Lab Smp Id: 1701478R1-03A
Inj Date : 01-FEB-2017 14:06
Operator : su Inst ID: msd6.i
Smp Info : ;1701478R1-03A
Misc Info : G0149970
Comment :
Method : /chem/msd6.i/01feb17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:54 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: naph_MDL.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
* 79 Bromofluorobenzene							CAS #: 460-00-4	
12.101	12.123	(1.000)	174	481279	36.0000		80.00- 120.00	100.00
12.101	12.123	(1.000)	95	556554			81.24- 141.24	115.64
12.101	12.123	(1.000)	176	468063			64.86- 124.86	97.25
$ 97 Naphthalene-d8							CAS #: 1146-65-2	
16.320	16.313	(1.349)	136	497004	22.7040	22.704	80.00- 120.00	100.00
16.320	16.313	(1.349)	108	43455			0.00- 39.63	8.74
98 Naphthalene							CAS #: 91-20-3	
16.363	16.349	(1.352)	128	13721	0.57518	0.5752	80.00- 120.00	100.00(a)
16.363	16.349	(1.352)	127	854			0.00- 42.83	6.22

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: 6020113R1.d
Lab Smp Id: 1701478R1-03A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/01feb17.b/617z0127via.m
Misc Info: G0149970

Calibration Date: 01-FEB-2017
Calibration Time: 02:28

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	478728	287237	670219	481279	0.53

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.12	11.79	12.45	12.10	-0.18

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: 24-Mar-2017 13:28

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 01feb17
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701478R1-03A
Level: LOW Operator: su
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/01feb17.b/617z0127via.m
Misc Info: G0149970

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	22.704	90.82	50-150

Data File: /chem/msd6.i/01feb17.b/6020113R1.d

Date : 01-FEB-2017 14:06

Client ID:

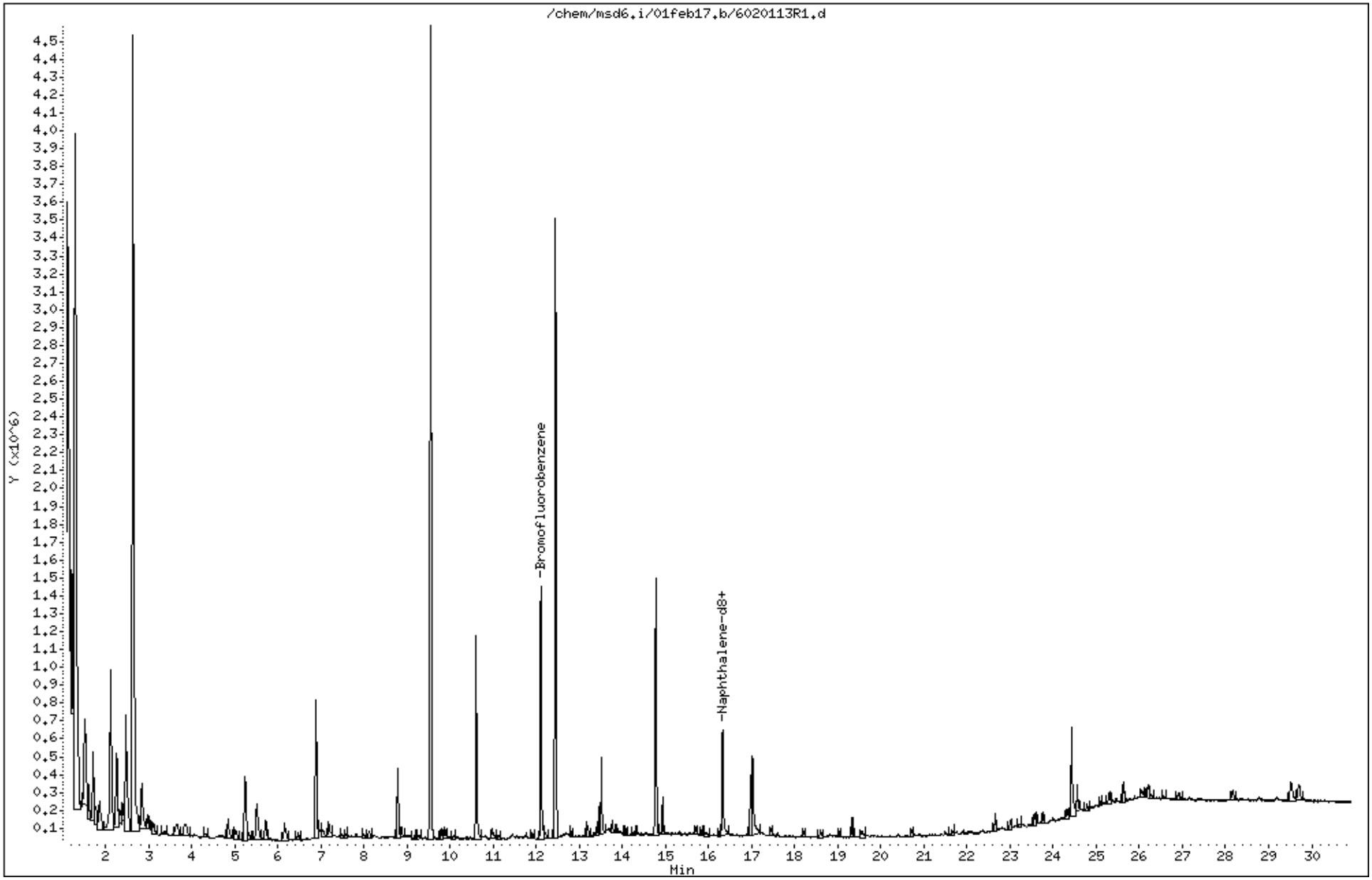
Instrument: msd6.i

Sample Info: ;1701478R1-03A

Operator: su

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/01feb17.b/6020113R1.d

Date : 01-FEB-2017 14:06

Client ID:

Instrument: msd6.i

Sample Info: ;1701478R1-03A

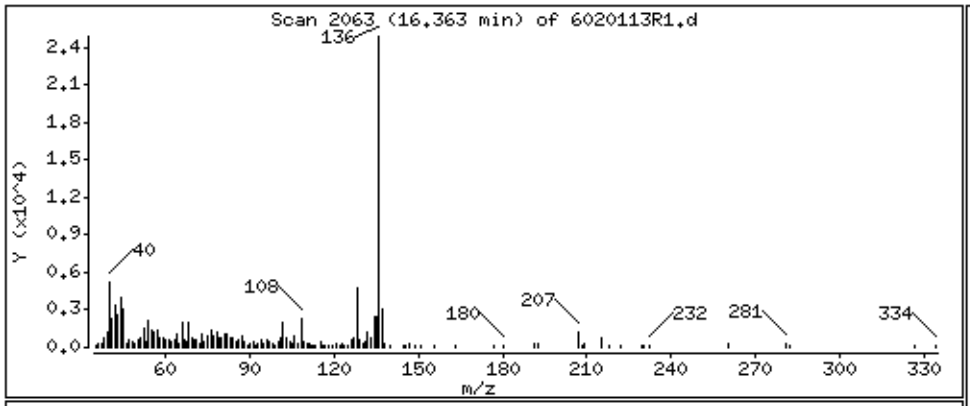
Operator: su

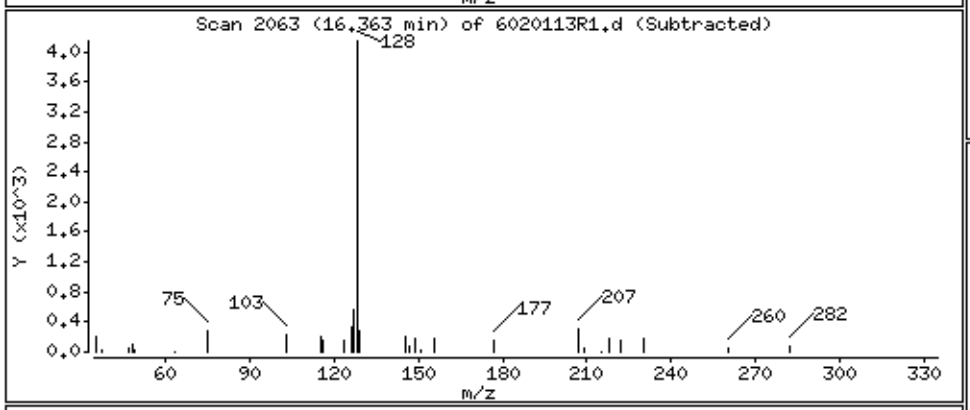
Column phase: RTx-624

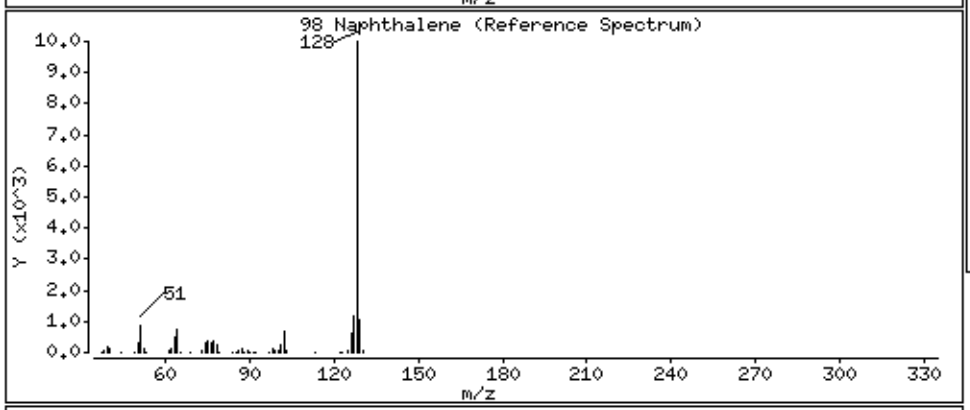
Column diameter: 0.53

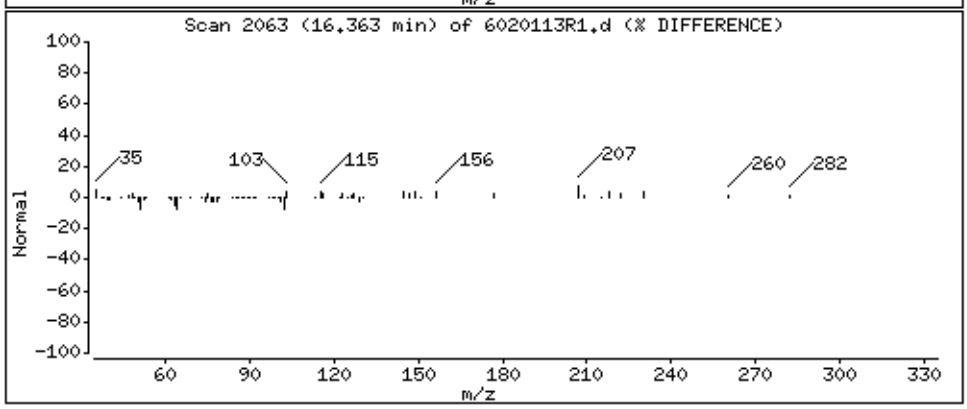
98 Naphthalene

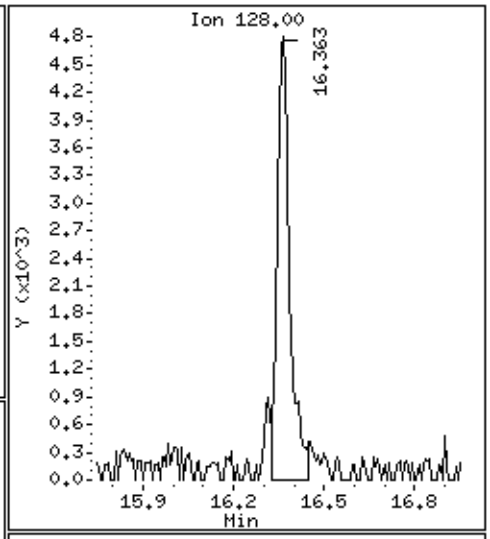
Concentration: 0.5752 NG

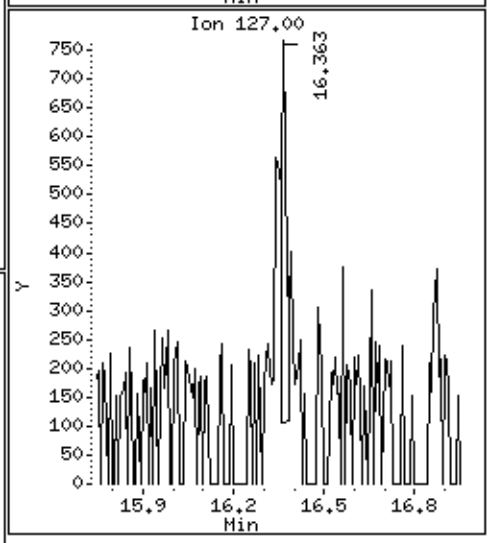












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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B18SS-3-012617

Lab ID#: 1701478R1-04A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	2.5	0.83 J	2.1 J

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Client Sample ID: B18SS-3-012617

Lab ID#: 1701478R1-04A

EPA METHOD TO-17

File Name:	**6020114R1**	**Date of Extraction: NA**	**Date of Collection: 1/26/17 6:23:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 2/1/17 02:46 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	2.5	0.83 J	2.1 J

Air Sample Volume(L): 0.400

J = Estimated value.

Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	106	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01feb17.b/6020114R1.d
Lab Smp Id: 1701478R1-04A
Inj Date : 01-FEB-2017 14:46
Operator : su Inst ID: msd6.i
Smp Info : ;1701478R1-04A
Misc Info : G0135660
Comment :
Method : /chem/msd6.i/01feb17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:54 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: naph_MDL.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
* 79 Bromofluorobenzene							CAS #: 460-00-4	
12.101	12.123	(1.000)	174	487003	36.0000		80.00- 120.00	100.00
12.101	12.123	(1.000)	95	552986			81.24- 141.24	113.55
12.101	12.123	(1.000)	176	472166			64.86- 124.86	96.95
$ 97 Naphthalene-d8							CAS #: 1146-65-2	
16.320	16.313	(1.349)	136	587171	26.5077	26.508	80.00- 120.00	100.00
16.320	16.313	(1.349)	108	50764			0.00- 39.63	8.65
98 Naphthalene							CAS #: 91-20-3	
16.363	16.349	(1.352)	128	20097	0.83256	0.8326	80.00- 120.00	100.00(a)
16.370	16.349	(1.353)	127	3323			0.00- 42.83	16.53

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: 6020114R1.d
Lab Smp Id: 1701478R1-04A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/01feb17.b/617z0127via.m
Misc Info: G0135660

Calibration Date: 01-FEB-2017
Calibration Time: 02:28

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	478728	287237	670219	487003	1.73

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.12	11.79	12.45	12.10	-0.18

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: 24-Mar-2017 13:28

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 01feb17
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701478R1-04A
Level: LOW Operator: su
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/01feb17.b/617z0127via.m
Misc Info: G0135660

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	26.508	106.03	50-150

Data File: /chem/msd6.i/01feb17.b/6020114R1.d

Date : 01-FEB-2017 14:46

Client ID:

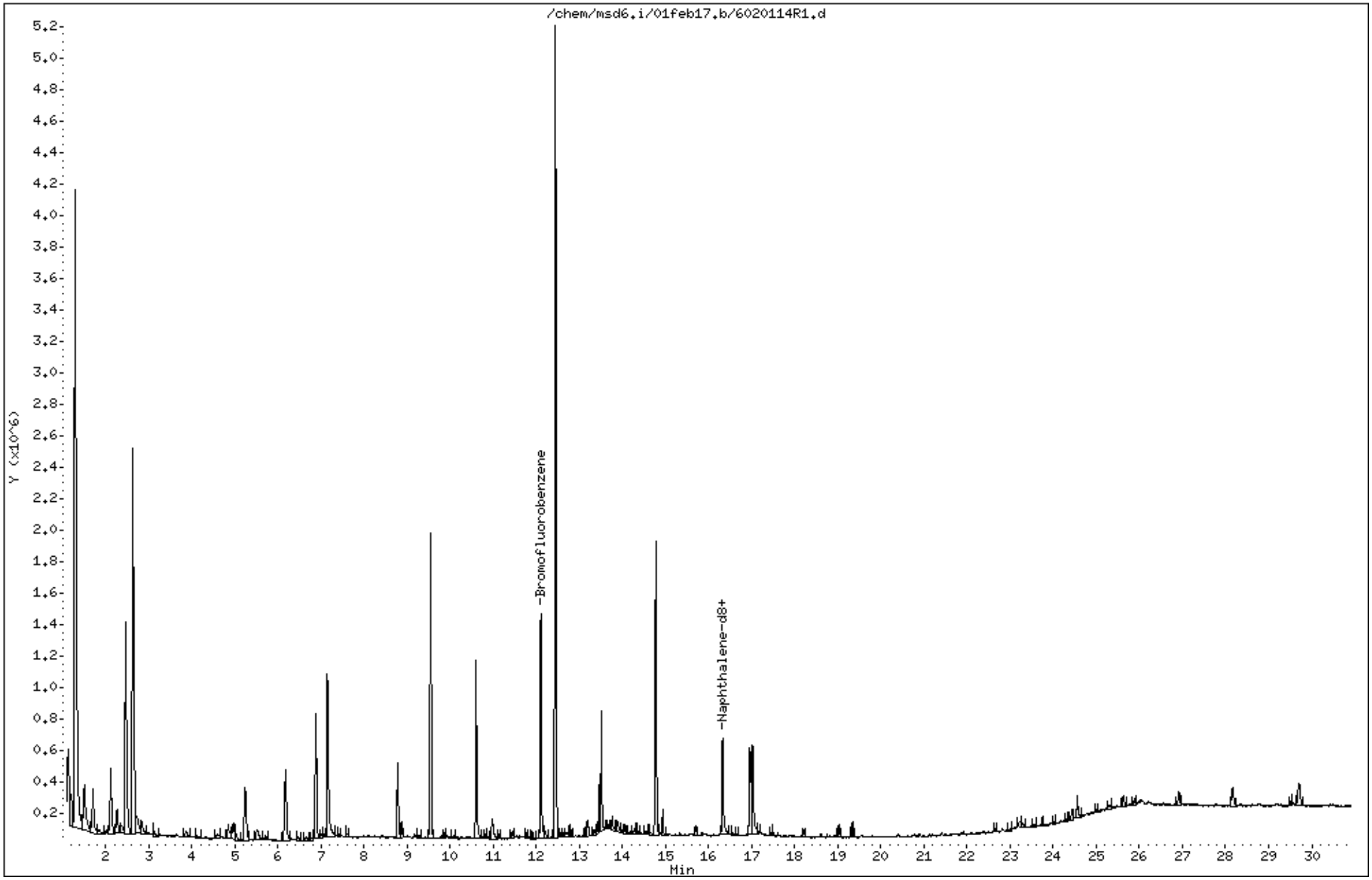
Instrument: msd6.i

Sample Info: ;1701478R1-04A

Operator: su

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/01feb17.b/6020114R1.d

Date : 01-FEB-2017 14:46

Client ID:

Instrument: msd6.i

Sample Info: ;1701478R1-04A

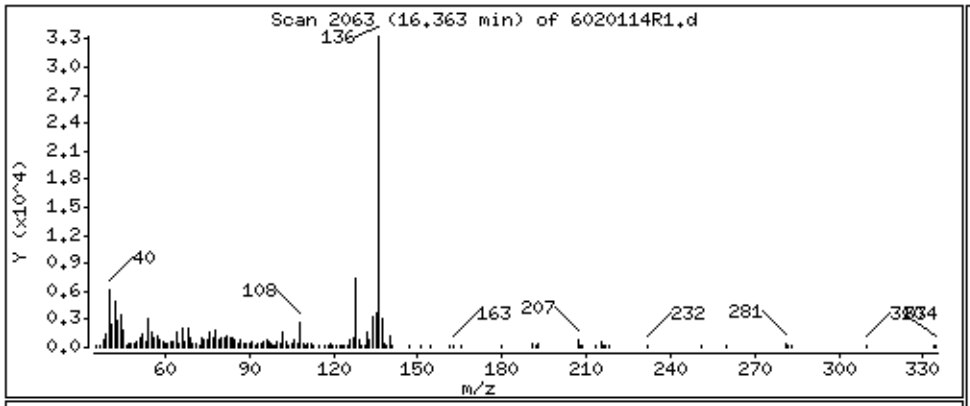
Operator: su

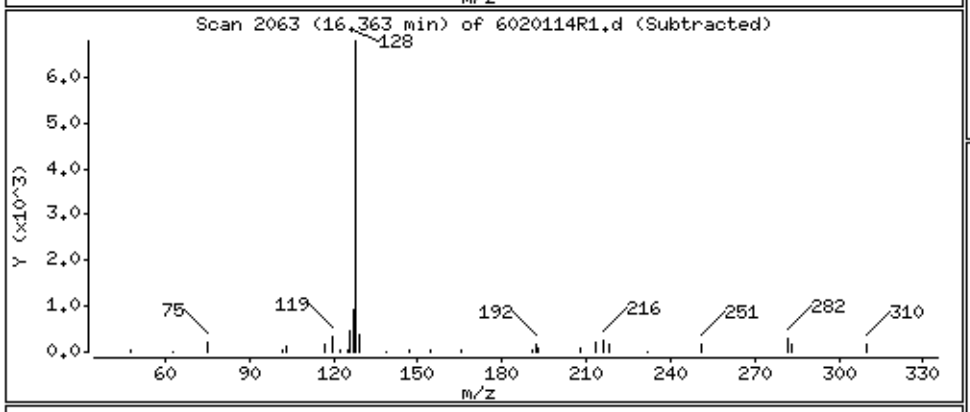
Column phase: RTx-624

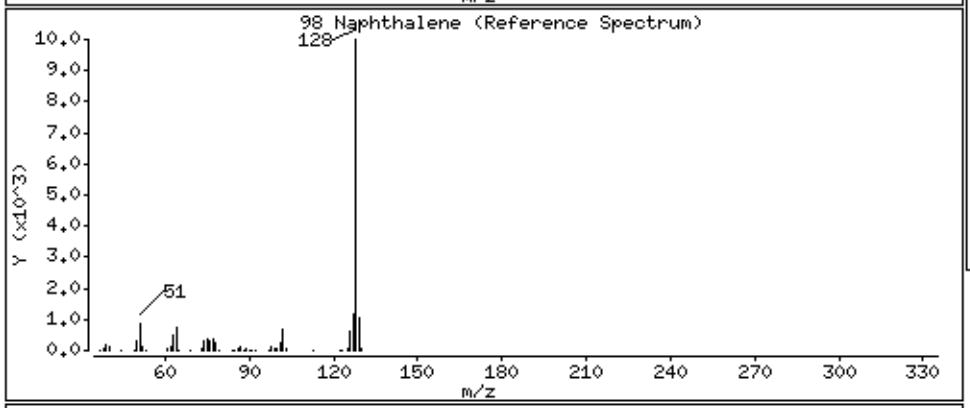
Column diameter: 0.53

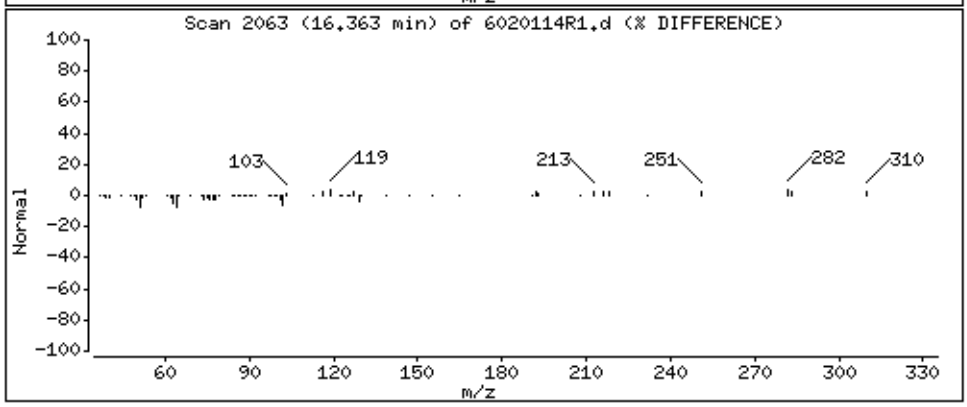
98 Naphthalene

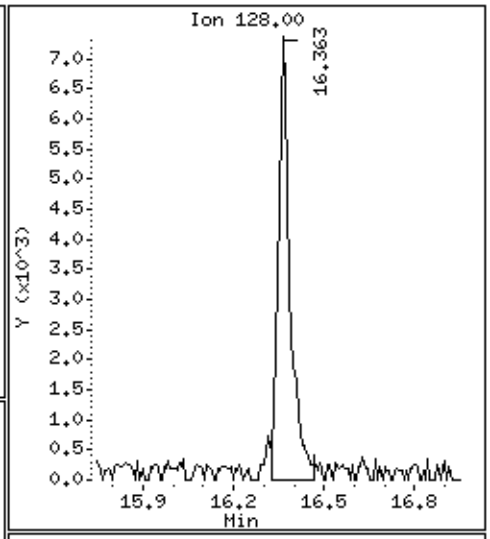
Concentration: 0.8326 NG

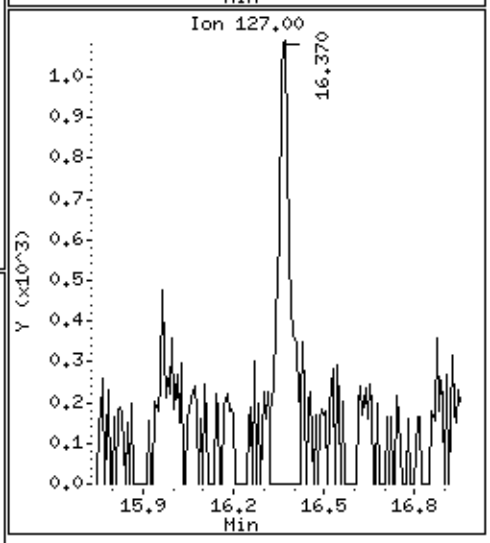












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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B18SS-4-012617

Lab ID#: 1701478R1-05A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	2.5	0.64 J	1.6 J

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Client Sample ID: B18SS-4-012617

Lab ID#: 1701478R1-05A

EPA METHOD TO-17

File Name:	**6020115R1**	**Date of Extraction: NA**	**Date of Collection: 1/26/17 5:13:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 2/1/17 03:26 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	2.5	0.64 J	1.6 J

Air Sample Volume(L): 0.400

J = Estimated value.

Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	96	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01feb17.b/6020115R1.d
Lab Smp Id: 1701478R1-05A
Inj Date : 01-FEB-2017 15:26
Operator : su Inst ID: msd6.i
Smp Info : ;1701478R1-05A
Misc Info : G0150515
Comment :
Method : /chem/msd6.i/01feb17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:54 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: naph_MDL.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
* 79 Bromofluorobenzene							CAS #: 460-00-4	
12.137	12.123	(1.000)	174	490162	36.0000		80.00- 120.00	100.00
12.130	12.123	(1.000)	95	557340			81.24- 141.24	113.71
12.137	12.123	(1.000)	176	476471			64.86- 124.86	97.21
$ 97 Naphthalene-d8							CAS #: 1146-65-2	
16.320	16.313	(1.345)	136	533299	23.9205	23.920	80.00- 120.00	100.00
16.320	16.313	(1.345)	108	48611			0.00- 39.63	9.12
98 Naphthalene							CAS #: 91-20-3	
16.371	16.349	(1.349)	128	15474	0.63691	0.6369	80.00- 120.00	100.00(a)
16.356	16.349	(1.348)	127	2597			0.00- 42.83	16.78

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: 6020115R1.d
Lab Smp Id: 1701478R1-05A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/01feb17.b/617z0127via.m
Misc Info: G0150515

Calibration Date: 01-FEB-2017
Calibration Time: 02:28

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	478728	287237	670219	490162	2.39

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.12	11.79	12.45	12.14	0.12

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: 24-Mar-2017 13:28

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 01feb17
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701478R1-05A
Level: LOW Operator: su
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/01feb17.b/617z0127via.m
Misc Info: G0150515

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	23.920	95.68	50-150

Data File: /chem/msd6.i/01feb17.b/6020115R1.d

Date : 01-FEB-2017 15:26

Client ID:

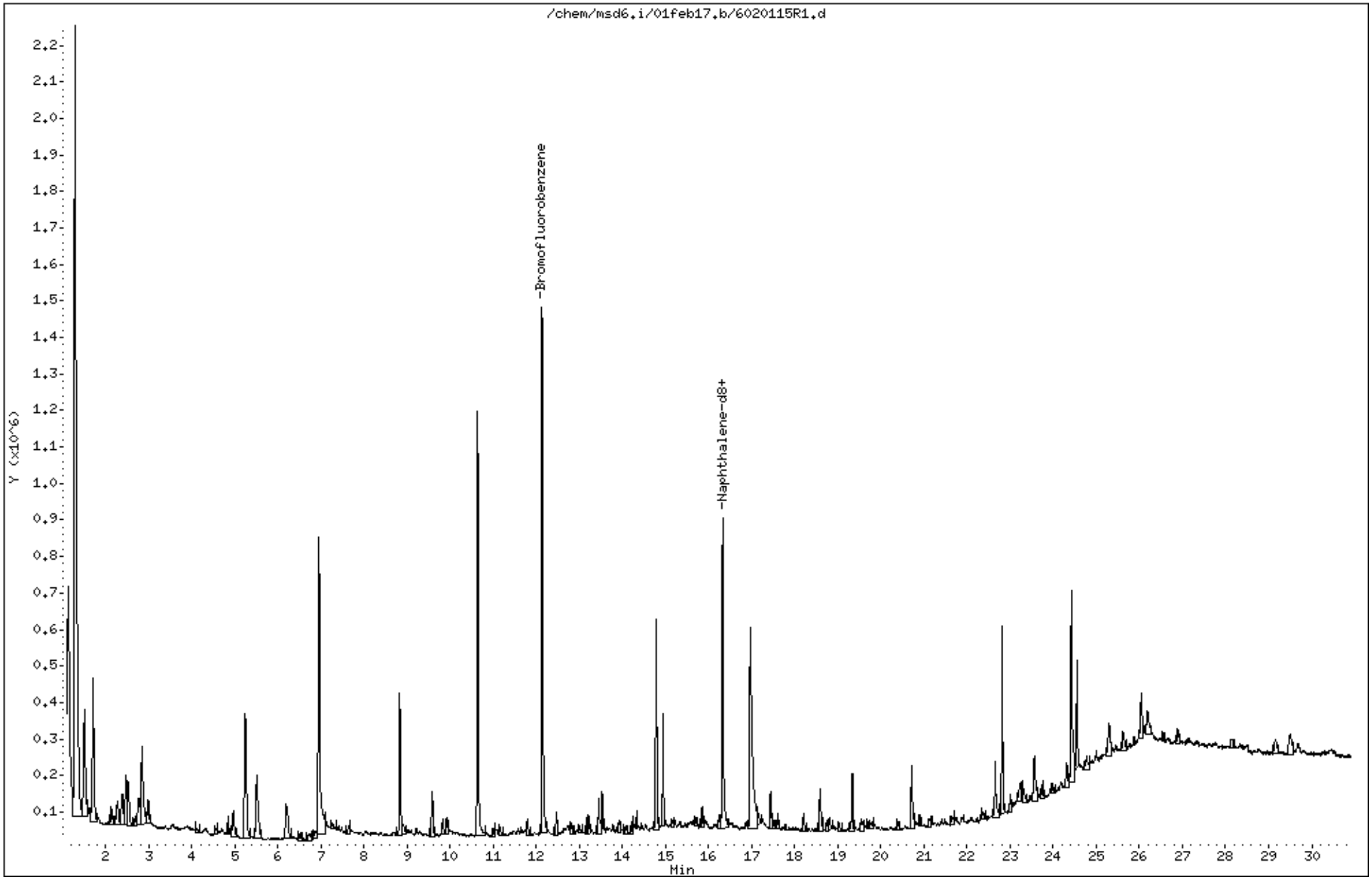
Instrument: msd6.i

Sample Info: ;1701478R1-05A

Operator: su

Column phase: RTx-624

Column diameter: 0.53



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Date : 01-FEB-2017 15:26

Client ID:

Instrument: msd6.i

Sample Info: ;1701478R1-05A

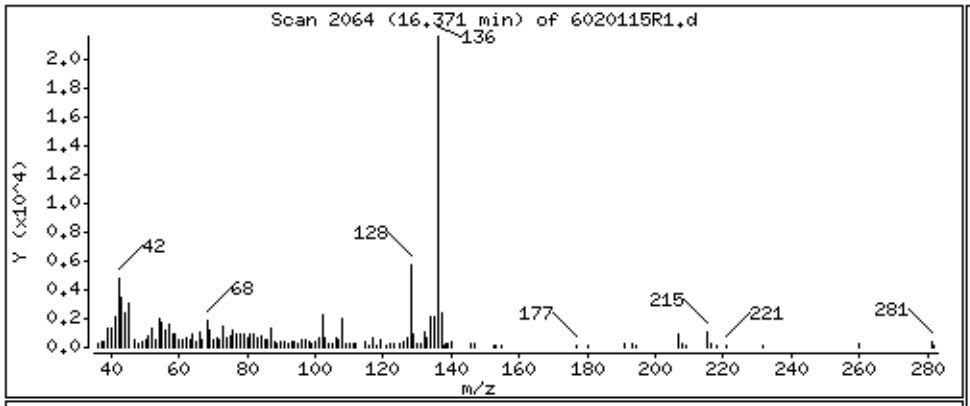
Operator: su

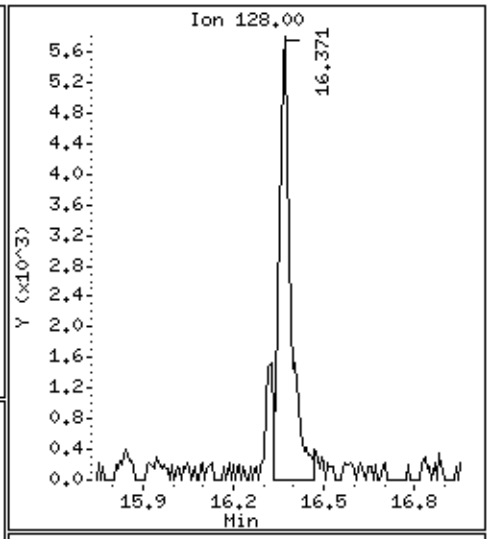
Column phase: RTx-624

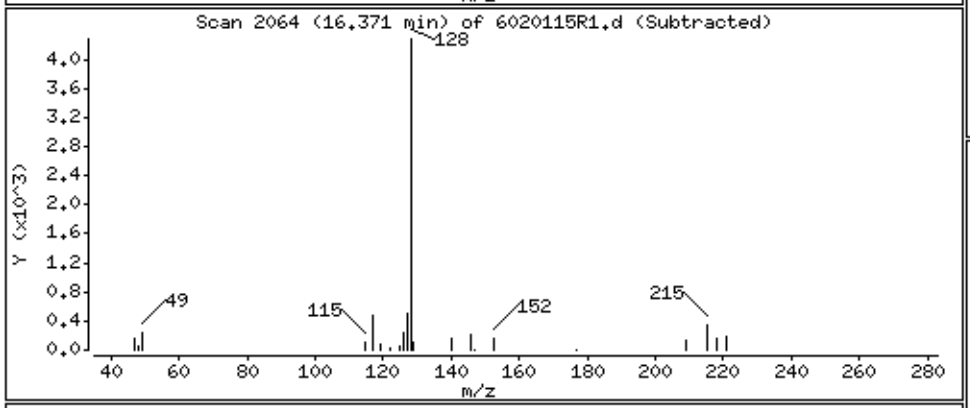
Column diameter: 0.53

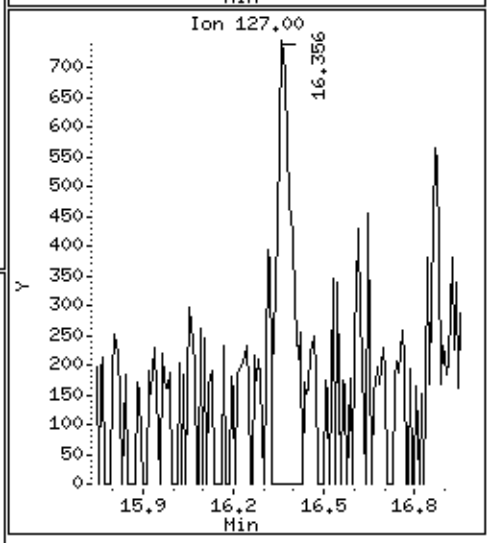
98 Naphthalene

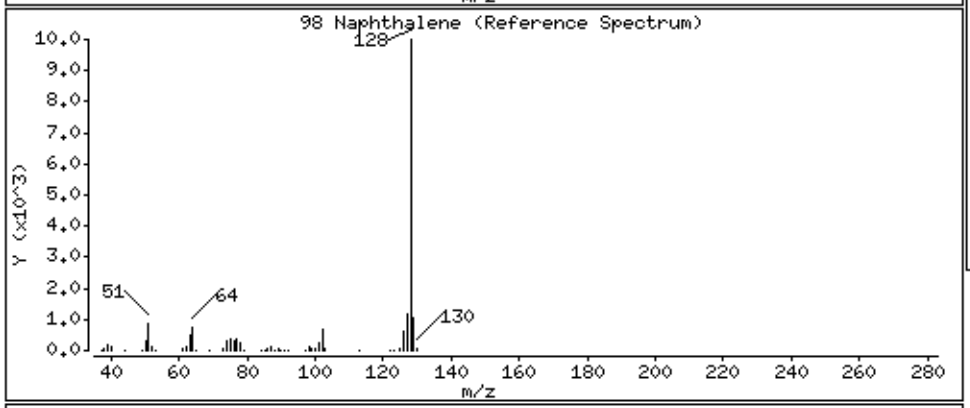
Concentration: 0.6369 NG

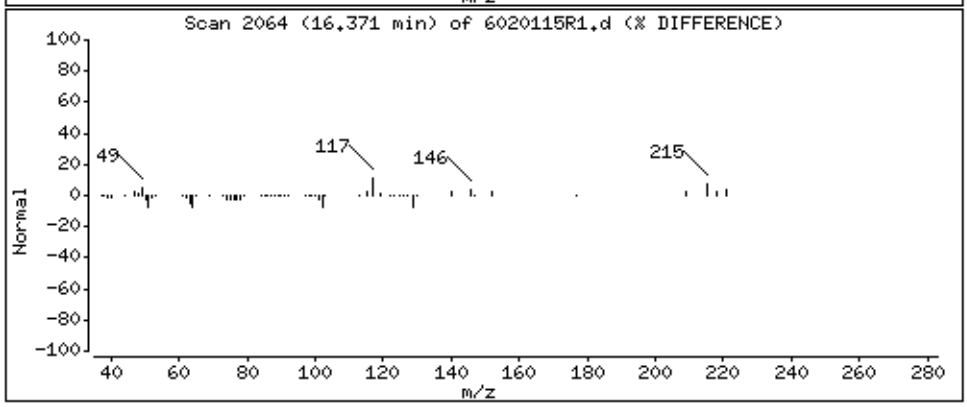












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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B18SS-5-012617

Lab ID#: 1701478R1-06A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	2.5	0.89 J	2.2 J

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Client Sample ID: B18SS-5-012617

Lab ID#: 1701478R1-06A

EPA METHOD TO-17

File Name:	**6020116R1**	**Date of Extraction: NA**	**Date of Collection: 1/26/17 6:03:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 2/1/17 04:18 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	2.5	0.89 J	2.2 J

Air Sample Volume(L): 0.400

J = Estimated value.

Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	96	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01feb17.b/6020116R1.d
Lab Smp Id: 1701478R1-06A
Inj Date : 01-FEB-2017 16:18
Operator : su Inst ID: msd6.i
Smp Info : ;1701478R1-06A
Misc Info : G0143614
Comment :
Method : /chem/msd6.i/01feb17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:54 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: naph_MDL.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
* 79 Bromofluorobenzene							CAS #: 460-00-4	
12.101	12.123	(1.000)	174	492395	36.0000		80.00- 120.00	100.00
12.094	12.123	(1.000)	95	574526			81.24- 141.24	116.68
12.101	12.123	(1.000)	176	479774			64.86- 124.86	97.44
$ 97 Naphthalene-d8							CAS #: 1146-65-2	
16.320	16.313	(1.349)	136	537229	23.9875	23.988	80.00- 120.00	100.00
16.320	16.313	(1.349)	108	48236			0.00- 39.63	8.98
98 Naphthalene							CAS #: 91-20-3	
16.363	16.349	(1.352)	128	21800	0.89322	0.8932	80.00- 120.00	100.00(a)
16.363	16.349	(1.352)	127	2581			0.00- 42.83	11.84

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: 6020116R1.d
Lab Smp Id: 1701478R1-06A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/01feb17.b/617z0127via.m
Misc Info: G0143614

Calibration Date: 01-FEB-2017
Calibration Time: 02:28

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	478728	287237	670219	492395	2.85

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.12	11.79	12.45	12.10	-0.18

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: 24-Mar-2017 13:28

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 01feb17
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701478R1-06A
Level: LOW Operator: su
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/01feb17.b/617z0127via.m
Misc Info: G0143614

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	23.988	95.95	50-150

Data File: /chem/msd6.i/01feb17.b/6020116R1.d

Date : 01-FEB-2017 16:18

Client ID:

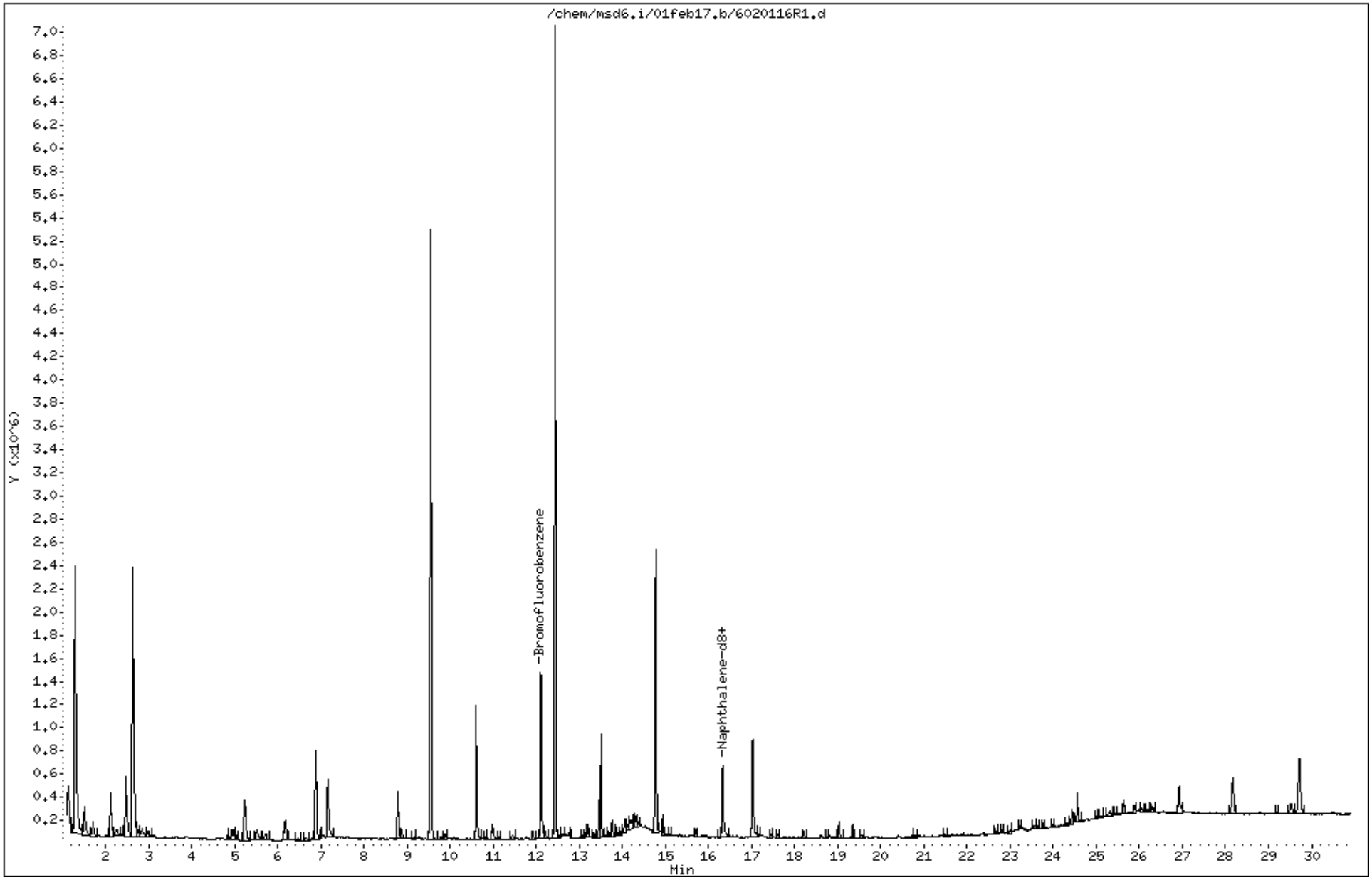
Instrument: msd6.i

Sample Info: ;1701478R1-06A

Operator: su

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/01feb17.b/6020116R1.d

Date : 01-FEB-2017 16:18

Client ID:

Instrument: msd6.i

Sample Info: ;1701478R1-06A

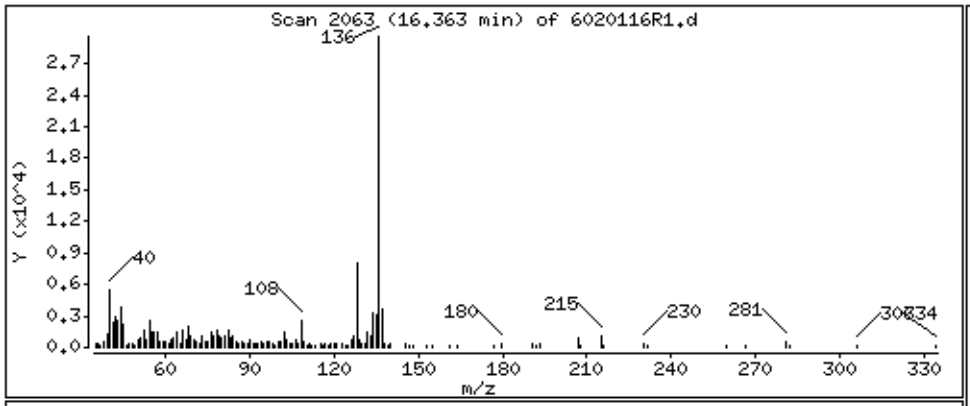
Operator: su

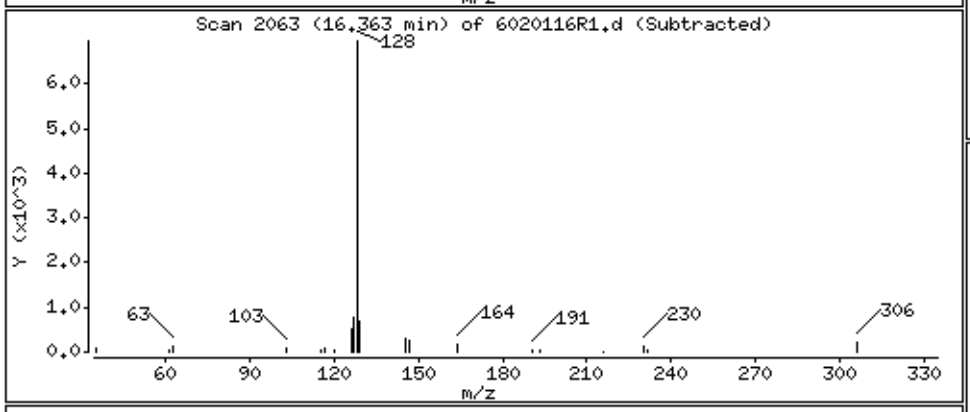
Column phase: RTx-624

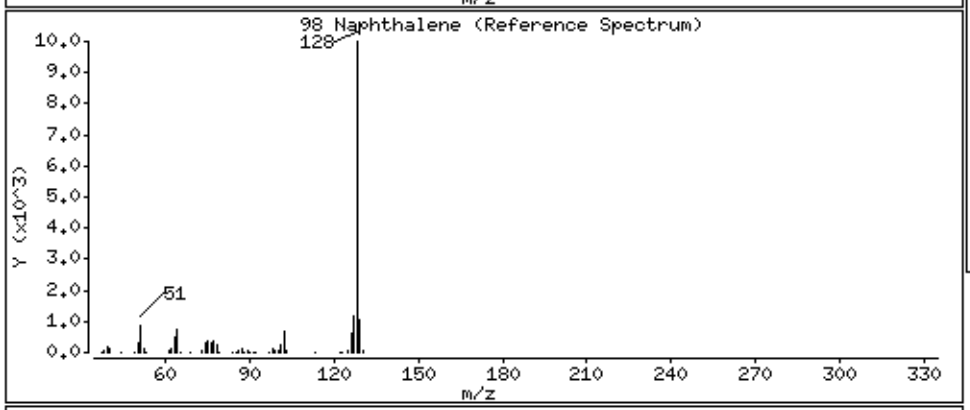
Column diameter: 0.53

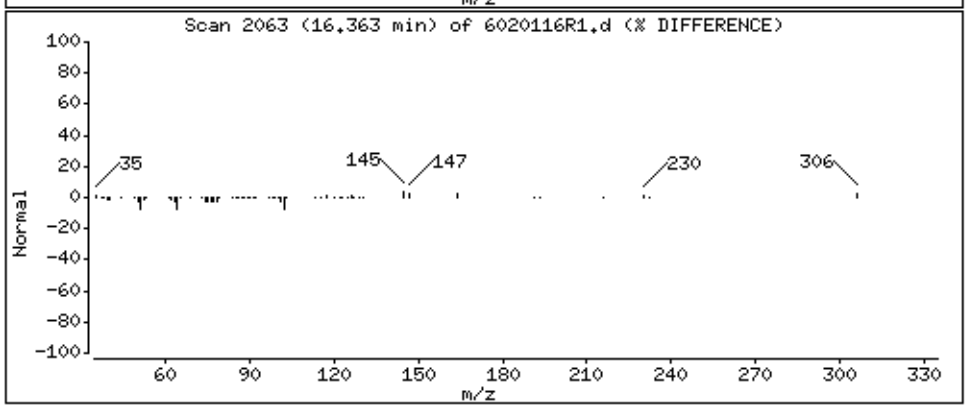
98 Naphthalene

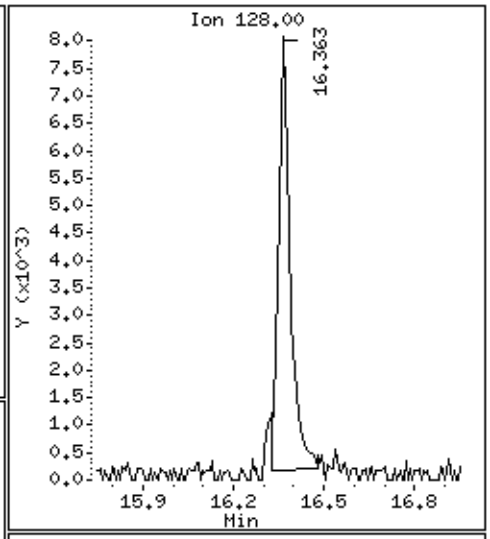
Concentration: 0.8932 NG

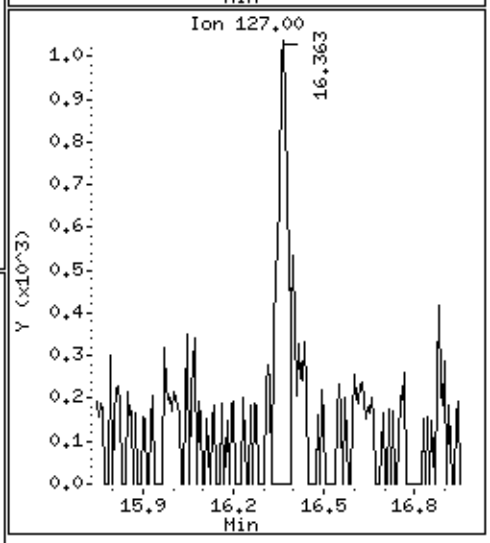












QC Results and Raw Data

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1701478R1-07A

EPA METHOD TO-17

File Name:	**6020108dR1**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 2/1/17 07:21 AM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	2.5	Not Detected	Not Detected

Air Sample Volume(L): 0.400
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Naphthalene-d8	110	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01feb17.b/6020108dR1.d
Lab Smp Id: DP Lab Blank Client Smp ID: Lab Blank
Inj Date : 01-FEB-2017 07:21
Operator : su Inst ID: msd6.i
Smp Info : ;DP Lab Blank;Lab Blank
Misc Info : G0152855
Comment :
Method : /chem/msd6.i/01feb17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:54 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: naph_MDL.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
* 79 Bromofluorobenzene							CAS #: 460-00-4	
12.130	12.123	(1.000)	174	474933	36.0000		80.00- 120.00	100.00
12.123	12.123	(1.000)	95	540308			81.24- 141.24	113.76
12.130	12.123	(1.000)	176	462913			64.86- 124.86	97.47
$ 97 Naphthalene-d8							CAS #: 1146-65-2	
16.320	16.313	(1.345)	136	595712	27.5768	27.577	80.00- 120.00	100.00
16.320	16.313	(1.345)	108	50320			0.00- 39.63	8.45

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6020108dR1.d
Lab Smp Id: DP Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/01feb17.b/617z0127via.m
Misc Info: G0152855

Calibration Date: 01-FEB-2017
Calibration Time: 02:28
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	478728	287237	670219	474933	-0.79

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.12	11.79	12.45	12.13	0.06

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: 03-Mar-2017 15:57

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 01feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: DP Lab Blank
Client Smp ID: Lab Blank
Level: LOW
Operator: su
Data Type: MS DATA
SampleType: BLANK
SpikeList File: VOC+PAHlcs50.spk
Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/01feb17.b/617z0127via.m
Misc Info: G0152855

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	27.577	110.31	50-150

Data File: /chem/msd6.i/01feb17.b/6020108dR1.d

Date : 01-FEB-2017 07:21

Client ID: Lab Blank

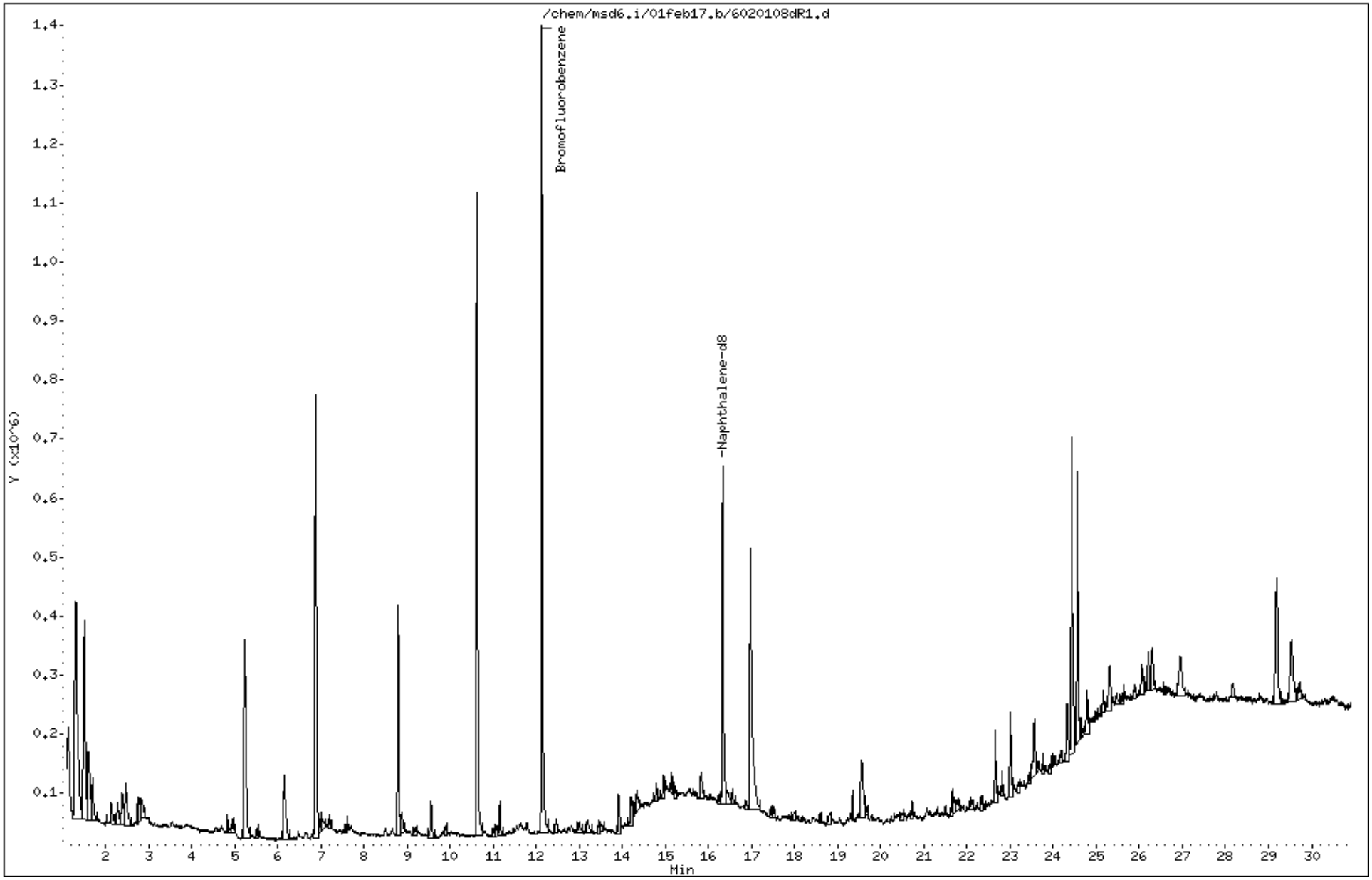
Sample Info: ;DP Lab Blank;Lab Blank

Column phase: RTx-624

Instrument: msd6.i

Operator: su

Column diameter: 0.53



LEVEL-IV VALIDATABLE

EPA METHOD TO-17

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1701478R1

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY								
		Naphthalene-d8	#		#		#		#	TOTAL OUT
01	B18SS-1DUP-012617	91								0
02	B18SS-1-012617	97								0
03	B18SS-2-012617	91								0
04	B18SS-3-012617	106								0
05	B18SS-4-012617	96								0
06	B18SS-5-012617	96								0
07	Lab Blank	110								0
08	CCV	109								0
09	LCS	110								0
10	LCSD	108								0
11										0
12										0
13										0
14										0
15										0
16										0
17										0
18										0
19										0
20										0
21										0
22										0
23										0
24										0

Surrogate Recovery Limits

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

Lab File ID: 6020102R1.d

Instrument ID: msd6.i

SDG No: 1701478R1

Date Analyzed: 02/01/2017

Time Analyzed: 02:28 AM

		4-Bromofluorobenzene Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
	24-HOUR STD	478728		12.12									
	UPPER LIMIT	670219		12.45									
	LOWER LIMIT	287237		11.79									
	CLIENT SAMPLE NO												
01	B18SS-1DUP-012617	489134		12.1									
02	B18SS-1-012617	475436		12.11									
03	B18SS-2-012617	481279		12.1									
04	B18SS-3-012617	487003		12.1									
05	B18SS-4-012617	490162		12.14									
06	B18SS-5-012617	492395		12.1									
07	Lab Blank	474933		12.13									
08	CCV	478728		12.12									
09	LCS	481209		12.13									
10	LCSD	437030		12.1									
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

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

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

RT Upper Limit=+0.33 minutes of internal standard RT

RT Lower Limit=-0.33 minutes of internal standard RT

* Designates values outside of QC limits

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: 6020105R1.d & 6020104R1.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 2/1/17 & 2/1/17

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
91-20-3	Naphthalene	115		115		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 : 27-JAN-2017 12:05
End Cal Date : 27-JAN-2017 17:25
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/27jan17.b/617z0127via.m
Cal Date : 16-Feb-2017 15:42 lantonic
Curve Type : Average

Calibration File Names:
Level 1: /chem/msd6.i/27jan17.b/6012702.d
Level 2: /chem/msd6.i/27jan17.b/6012703.d
Level 3: /chem/msd6.i/27jan17.b/6012704.d
Level 4: /chem/msd6.i/27jan17.b/6012705.d
Level 5: /chem/msd6.i/27jan17.b/6012706.d
Level 6: /chem/msd6.i/27jan17.b/6012707.d
Level 7: /chem/msd6.i/27jan17.b/6012708.d
Level 8: /chem/msd6.i/27jan17.b/6012709.d

Compound	0.50000 Level 1	1.000 Level 2	5.000 Level 3	10.000 Level 4	25.000 Level 5	50.000 Level 6	RRF	% RSD
	100.000 Level 7	250.000 Level 8						
4 Freon 114	0.64294	0.62487	0.67178	0.66637	0.64409	0.64898		
	0.64566	0.64842					0.64914	2.236
6 Vinyl Chloride	0.85665	0.73290	0.86900	0.81228	0.77058	0.77347		
	0.76520	0.76929					0.79367	6.029
7 1,3-Butadiene	0.80964	0.60940	0.68595	0.70580	0.71280	0.71728		
	0.70465	0.70579					0.70641	7.689
9 Chloroethane	+++++	0.38772	0.49473	0.38441	0.36883	0.35198		
	0.34456	0.34899					0.38303	13.610
10 Isopentane	0.58902	0.54537	0.55221	0.55548	0.54346	0.53159		
	0.52760	0.51273					0.54468	4.178
11 Trichlorofluoromethane/Fr11	1.04690	0.84559	1.04018	0.91778	0.96733	1.04887		
	1.06720	1.07161					1.00069	8.233
15 Freon 113	0.52769	0.49047	0.53606	0.54492	0.51926	0.54044		
	0.54030	0.53333					0.52906	3.321

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-JAN-2017 12:05
End Cal Date : 27-JAN-2017 17:25
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/27jan17.b/617z0127via.m
Cal Date : 16-Feb-2017 15:42 lantonic
Curve Type : Average

Compound	0.50000 Level 1	1.000 Level 2	5.000 Level 3	10.000 Level 4	25.000 Level 5	50.000 Level 6	___ RRF	% RSD
	100.000 Level 7	250.000 Level 8						
14 1,1-Dichloroethene	0.38030	0.33139	0.38105	0.35717	0.34230	0.33994		
	0.34045	0.33884					0.35143	5.526
18 Carbon Disulfide	+++++	1.87575	1.88767	1.91067	1.77639	1.72840		
	1.70609	1.68935					1.79633	5.199
17 2-Propanol	+++++	+++++	1.59731	1.55303	1.49972	1.45989		
	1.48834	1.41211					1.50173	4.390
21 Methylene Chloride	+++++	+++++	+++++	0.87886	0.74206	0.71854		
	0.70818	0.69700					0.74893	9.949
23 MTBE	1.38631	1.28875	1.29543	1.47256	1.51878	1.44664		
	1.31304	1.02318					1.34309	11.558
24 trans-1,2-Dichloroethene	0.32668	0.28246	0.31208	0.30267	0.31195	0.30826		
	0.30768	0.30767					0.30743	4.003
25 Hexane	0.95514	0.83634	0.91539	0.92080	0.92668	0.89762		
	0.89183	0.88541					0.90365	3.891
26 1,1-Dichloroethane	0.84319	0.75722	0.79201	0.87303	0.90822	0.88730		
	0.88416	0.87362					0.85234	6.114
29 cis-1,2-Dichloroethene	0.35733	0.33452	0.38872	0.35957	0.38068	0.36903		
	0.37243	0.37071					0.36663	4.504
28 2-Butanone	+++++	+++++	+++++	0.51129	0.39124	0.32484		
	0.31091	0.28864					0.36539	24.654

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-JAN-2017 12:05
End Cal Date : 27-JAN-2017 17:25
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/27jan17.b/617z0127via.m
Cal Date : 16-Feb-2017 15:42 lantonic
Curve Type : Average

Compound	0.50000 Level 1	1.000 Level 2	5.000 Level 3	10.000 Level 4	25.000 Level 5	50.000 Level 6	___ RRF	% RSD
	100.000 Level 7	250.000 Level 8						
35 Chloroform	0.83850	0.77147	0.89519	0.88775	0.89030	0.81499		
	0.84189	0.83684					0.84711	5.046
37 Cyclohexane	0.16935	0.15401	0.16931	0.16188	0.16640	0.16597		
	0.17124	0.17067					0.16610	3.467
36 1,1,1-Trichloroethane	0.16606	0.15712	0.15907	0.18267	0.18937	0.19280		
	0.19606	0.19645					0.17995	9.258
38 Carbon Tetrachloride	0.14413	0.14319	0.09090	0.16668	0.17207	0.17983		
	0.18693	0.18361					0.15842	20.182
45 2,2,4-Trimethylpentane	0.47203	0.45738	0.51701	0.51228	0.49797	0.49575		
	0.51283	0.49907					0.49554	4.224
41 Benzene	+++++	0.52916	0.63091	0.44905	0.43452	0.42047		
	0.43034	0.42554					0.47429	16.549
43 1,2-Dichloroethane	0.14821	0.13023	0.15471	0.16564	0.16798	0.16883		
	0.17201	0.17115					0.15985	9.143
46 Heptane	0.11263	0.09791	0.11469	0.11235	0.10969	0.11013		
	0.11325	0.11522					0.11073	4.996
48 Trichloroethene	0.11557	0.10683	0.12604	0.12301	0.12358	0.12415		
	0.13294	0.14109					0.12415	8.298
51 Methyl Cyclohexane	0.19815	0.18135	0.21083	0.20062	0.20539	0.20690		
	0.21614	0.22080					0.20502	5.936

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-JAN-2017 12:05
End Cal Date : 27-JAN-2017 17:25
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/27jan17.b/617z0127via.m
Cal Date : 16-Feb-2017 15:42 lantonic
Curve Type : Average

Compound	0.50000 Level 1	1.000 Level 2	5.000 Level 3	10.000 Level 4	25.000 Level 5	50.000 Level 6	___ RRF	% RSD
	100.000 Level 7	250.000 Level 8						
52 1,2-Dichloropropane	0.11640	0.09846	0.10630	0.11291	0.11579	0.11606		
	0.12193	0.12349					0.11392	7.178
53 1,4-Dioxane	0.10692	0.08907	0.10504	0.08856	0.09355	0.09273		
	0.09778	0.09684					0.09631	7.068
56 4-Methyl-2-pentanone	0.08881	0.08903	0.10045	0.10408	0.10496	0.10613		
	0.11159	0.11311					0.10227	8.972
58 Toluene	0.51326	0.44730	0.54073	0.51609	0.52693	0.52510		
	0.54292	0.53599					0.51854	5.928
61 1,1,2-Trichloroethane	0.09941	0.09132	0.10351	0.10470	0.10822	0.10596		
	0.11312	0.11452					0.10509	7.090
62 Tetrachloroethene	0.14003	0.13679	0.15640	0.15974	0.16309	0.16083		
	0.17158	0.17635					0.15810	8.729
63 2-Hexanone	0.13736	0.12984	0.12980	0.15316	0.16167	0.15979		
	0.16812	0.17030					0.15125	11.017
66 1,2-Dibromoethane	0.11551	0.12307	0.13927	0.14917	0.15441	0.15449		
	0.15890	0.15962					0.14430	11.662
68 Chlorobenzene	0.32501	0.30621	0.35311	0.36230	0.37019	0.35609		
	0.38024	0.38361					0.35460	7.554
69 Ethyl Benzene	0.16574	0.16203	0.17790	0.18908	0.19445	0.18817		
	0.20329	0.20997					0.18633	9.092

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-JAN-2017 12:05
End Cal Date : 27-JAN-2017 17:25
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/27jan17.b/617z0127via.m
Cal Date : 16-Feb-2017 15:42 lantonic
Curve Type : Average

Compound	0.50000 Level 1	1.000 Level 2	5.000 Level 3	10.000 Level 4	25.000 Level 5	50.000 Level 6	___ RRF	% RSD
	100.000 Level 7	250.000 Level 8						
71 m,p-Xylene	0.21969	0.20209	0.22767	0.23587	0.24048	0.22966		
	0.24695	0.25462					0.23213	7.083
74 o-Xylene	0.43728	0.44634	0.48488	0.50996	0.51366	0.49430		
	0.54677	0.57031					0.50044	9.091
75 Styrene	0.59031	0.62442	0.73210	0.82487	0.84987	0.82851		
	0.93393	0.96752					0.79394	17.101
77 Cumene	1.07073	1.15303	1.18295	1.36550	1.39123	1.30623		
	1.43466	+++++					1.27205	10.797
80 1,1,2,2-Tetrachloroethane	0.32780	0.38678	0.38071	0.46959	0.50320	0.45691		
	0.51005	0.50395					0.44237	15.531
81 Propylbenzene	1.13612	1.24782	1.22794	1.48630	1.58362	1.44015		
	1.61564	+++++					1.39108	13.484
82 4-Ethyltoluene	0.30586	0.32496	0.31439	0.35367	0.40632	0.36864		
	0.43302	0.46707					0.37174	15.814
83 1,3,5-Trimethylbenzene	0.44252	0.45830	0.42853	0.53590	0.58995	0.52798		
	0.62013	0.66587					0.53365	16.336
84 1,2,4-Trimethylbenzene	0.35384	0.39469	0.36775	0.47806	0.54149	0.47316		
	0.56418	0.61140					0.47307	20.148
86 1,3-Dichlorobenzene	0.44696	0.46968	0.44723	0.58180	0.68917	0.60623		
	0.71985	0.77903					0.59249	21.916

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-JAN-2017 12:05
End Cal Date : 27-JAN-2017 17:25
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/27jan17.b/617z0127via.m
Cal Date : 16-Feb-2017 15:42 lantonic
Curve Type : Average

Compound	0.50000 Level 1 / 100.000 Level 7	1.000 Level 2 / 250.000 Level 8	5.000 Level 3	10.000 Level 4	25.000 Level 5	50.000 Level 6	___ RRF	% RSD
87 1,4-Dichlorobenzene	0.47875	0.49017	0.45162	0.58857	0.69518	0.60031		
	0.72907	0.79267					0.60329	20.936
90 1,2-Dichlorobenzene	0.42311	0.45785	0.39724	0.51950	0.65779	0.54733		
	0.67464	0.72850					0.55075	22.541
95 1,2,4-Trichlorobenzene	0.26446	0.27136	0.18545	0.21731	0.43055	0.28179		
	0.42114	0.49891					0.32137	35.284 <-
96 Hexachlorobutadiene	0.16008	0.15429	0.09188	0.10318	0.21662	0.16839		
	0.23839	0.28785					0.17758	37.592 <-
98 Naphthalene	1.77079	1.69376	1.81849	1.80042	1.82529	1.73137		
	1.85054	+++++					1.78438	3.127
103 2-Methylnaphthalene	1.29367	1.11474	1.22339	1.21720	1.19489	1.23107		
	1.22789	+++++					1.21470	4.401
104 1-Methylnaphthalene	1.27276	1.08230	1.18573	1.14296	1.10440	1.12745		
	1.12265	+++++					1.14832	5.541
$ 39 1,2-Dichloroethane-d4	+++++	0.10636	0.09855	0.10887	0.11598	0.11806		
	0.11568	+++++					0.11058	6.725
$ 57 Toluene-d8	+++++	0.38448	0.36858	0.39467	0.42369	0.43086		
	0.42026	+++++					0.40376	6.163
$ 97 Naphthalene-d8	+++++	1.73354	1.44801	1.54256	1.74065	1.70204		
	1.65778	+++++					1.63743	7.193

Calibration History

Method : /chem/msd6.i/27jan17.b/617z0127via.m
Start Cal Date: 27-JAN-2017 12:05
End Cal Date : 27-JAN-2017 17:25

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.50000		
27-JAN-2017 12:05	VOC+naphs_noSS	/chem/msd6.i/27jan17.b/6012702.d
Cal Level: 2 , Cal Amount: 1.00000		
27-JAN-2017 12:45	VOC+naphs_ICAL	/chem/msd6.i/27jan17.b/6012703.d
Cal Level: 3 , Cal Amount: 5.00000		
27-JAN-2017 13:24	VOC+naphs_ICAL	/chem/msd6.i/27jan17.b/6012704.d
Cal Level: 4 , Cal Amount: 10.00000		
27-JAN-2017 14:04	VOC+naphs_ICAL	/chem/msd6.i/27jan17.b/6012705.d
Cal Level: 5 , Cal Amount: 25.00000		
27-JAN-2017 14:44	VOC+naphs_ICAL	/chem/msd6.i/27jan17.b/6012706.d
Cal Level: 6 , Cal Amount: 50.00000		
27-JAN-2017 16:05	VOC+naphs_ICAL	/chem/msd6.i/27jan17.b/6012707.d
Cal Level: 7 , Cal Amount: 100.00000		
27-JAN-2017 16:45	VOC+naphs_ICAL	/chem/msd6.i/27jan17.b/6012708.d
Cal Level: 8 , Cal Amount: 250.00000		

```
|27-JAN-2017 17:25 |VOC_ICALnoSS     |/chem/msd6.i/27jan17.b/6012709.d        |
+------------------+-----------------+----------------------------------------+


Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5
+------------------+-----------------+----------------------------------------+
| Ccal Level: 5 , Ccal Amount: 25.000                                          |
+==============================================================================+
|27-JAN-2017 14:44 |VOC+naphs_ICAL   |/chem/msd6.i/27jan17.b/6012706a.d       |
+------------------+-----------------+----------------------------------------+
```

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-JAN-2017 12:05
End Cal Date : 27-JAN-2017 17:25
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/27jan17.b/617z0127vi.m
Cal Date : 30-Jan-2017 09:56 JIX3
Curve Type : Average

Calibration File Names:
Level 1: /chem/msd6.i/27jan17.b/6012702.d
Level 2: /chem/msd6.i/27jan17.b/6012703.d
Level 3: /chem/msd6.i/27jan17.b/6012704.d
Level 4: /chem/msd6.i/27jan17.b/6012705.d
Level 5: /chem/msd6.i/27jan17.b/6012706.d
Level 6: /chem/msd6.i/27jan17.b/6012707.d
Level 7: /chem/msd6.i/27jan17.b/6012708.d
Level 8: /chem/msd6.i/27jan17.b/6012709.d

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Compound	0.50000 Level 1	1.000 Level 2	5.000 Level 3	10.000 Level 4	25.000 Level 5	50.000 Level 6	RRF	% RSD
	100.000 Level 7	250.000 Level 8						
1 Propylene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
2 Dichlorodifluoromethane/Fr12	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
3 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
4 Freon 114	0.64294	0.62487	0.67178	0.66637	0.64409	0.64898		
	0.64566	0.64842					0.64914	2.236
5 Butane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
6 Vinyl Chloride	0.85665	0.73290	0.86900	0.81228	0.77058	0.77347		
	0.76520	0.76929					0.79367	6.029
7 1,3-Butadiene	0.60964	0.60940	0.68595	0.70580	0.71280	0.71728		
	0.70465	0.70579					0.70641	7.689

Initial Calibration Narrative

An 8 point calibration curve was performed for VOC and 7 point calibration curve was performed for PAH compounds (Level 8 at 250ng PAHs was not spiked) on instrument MSD-6 using VI sorbent media on January 27, 2017.

- 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.
- BFB File: 6012701.d
- ICAL name: 617z0127vi.m
- 2 compounds out: 1,2,4-Tricholorobenzene (35%) and Hexachlorobutadiene (38%).
- 2 compounds saturated at ICAL level 8: Cumene and propylbenzene are both turned off for this ICAL level.
- Units: in ng
- Markes Unity Method: VI.mth
- Chemstation Method: TO17+PAH.m
- DE study for PAH @ 100ng : 6012712.d (Passed)
- ICV file: 6012713.d (1 Out)
  - 1,2,4-Trichlorobenzene out at 143%R
- **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: (161933/164458)x100=98.46%

Standard ID 1476-2872 Exp. date 5/4/18

Bromochloromethane 266046 File ID: 6012706.d

1,4-Difluorobenzene 822168 Compound: Benzene

Chlorobenzene-d5 727418 InitialIS: Su

Bromofluorobenzene 482287

Verification CCV IS vs ICAL mid-point (-40%)

Calculation Check:

$$\text{ppbv of compound} = \frac{\text{Area of sample}}{\text{Area of IS}} * \frac{\text{Concentration of IS}}{\text{RRF}} = \frac{(992527)}{(822168)} * \frac{(23)}{(0.47429)} = 58.542$$

Method: 6172012 7vim

Data Directory: C:\msdchem\1\DATA\27JAN17.B\

Use SampleName		Port pos.	Injection Time		Init.
1) ✓ 6012701.D Comments					
;BFB; BFB	1476-2872, 36ng (5/4/18)	1	27 Jan 2017	8:26	Su ✓
2) ✓ 6012702.D Comments					
;VI VOC+PAH ICAL 1; 1/1/1	;2787-57-1000, 1ml (4/12/	11	27 Jan 2017	12:05	
3) ✓ 6012703.D Comments					
;VI VOC+PAH ICAL 2; 2/2/5	;2787-57-1000, 2ml (4/12/	12	27 Jan 2017	12:45	
4) ✓ 6012704.D Comments					
;VI VOC+PAH ICAL 3; 3/5/10	;2787-57-1000, 3ml (4/12/	13	27 Jan 2017	13:24	
5) ✓ 6012705.D Comments					
;VI VOC+PAH ICAL 4; 6/10/25	;2787-57-1000, 6ml (4/12/	14	27 Jan 2017	14:04	
6) ✓ 6012706.D Comments	Midpoint; 1-out				
;VI VOC+PAH ICAL 5; 20/25/50	;2787-57-1000, 20ml (4/12	15	27 Jan 2017	14:44	
7) ✓ 6012707.D Comments					
;VI VOC+PAH ICAL 6; 50/50/100	;2787-57-1000, 50ml (4/12	16	27 Jan 2017	16:05	
8) ✓ 6012708.D Comments					
;VI VOC+PAH ICAL 7; 100/100/25	;2787-57-1000, 100ml (4/1	17	27 Jan 2017	16:45	
9) ✓ 6012709.D Comments	Cumene, propylbenzene saturation				
;VI VOC+PAH ICAL 8; 200/NA/NA	;2787-57-1000, 200ml (4/1	18	27 Jan 2017	17:25	
10) ✓ 6012710.D Comments					
;Lab Blank; Lab Blank		11	27 Jan 2017	18:05	
11) ✓ 6012711.D Comments					
;DE Study L6		16	27 Jan 2017	18:44	
12) ✓ 6012712.D Comments					
;DE Study L7		17	27 Jan 2017	19:24	
	1 Su 1/30/17				
13) ✓ 6012713.D Comments	2-out				
;VI VOC+PAH ICV; LCS	;2787-58-1000, 1ml (4/12/	19	27 Jan 2017	20:03	
14) ✓ 6012714.D Comments	1-out				
;VI VOC+PAH LCSD;LCSD	;2787-58-1000, 1ml (4/12/	19	27 Jan 2017	20:43	
15) ✓ 6012715.D Comments					
;VI Tube Cert	G0146179	21	27 Jan 2017	21:22	
16) ✓ 6012716.D Comments					
;VI Tube Cert	G0152576	22	27 Jan 2017	22:02	✓
17) ✓ 6012717.D Comments					

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;VI Tube Cert	G0143635	23	27 Jan 2017	22:41	Sid
18) ✓ 6012718.D Comments					
;VI Tube Cert	G0139909	24	27 Jan 2017	23:21	
19) ✓ 6012719.D Comments					
;VI Tube Cert	G0132044	25	28 Jan 2017	00:00	
20) ✓ 6012720.D Comments					
;VI Tube Cert	G0144370	26	28 Jan 2017	00:39	
21) ✓ 6012721.D Comments					
;VI Tube Cert	G0153898	27	28 Jan 2017	1:18	
22) ✓ 6012722.D Comments					
;VI Tube Cert	G0143624	28	28 Jan 2017	1:57	
23) ✓ 6012723.D Comments					
;VI Tube Cert	G0147721	29	28 Jan 2017	2:36	
24) ___ 6012724.D Comments CS2>RL , Naph only okay /Benzene only okay					
;VI Tube Cert	G0135616	30	28 Jan 2017	3:15	
25) ✓ 6012725.D Comments					
;VI Tube Cert	G0143439	31	28 Jan 2017	3:54	
26) ✓ 6012726.D Comments					
;VI Tube Cert	G0153827	32	28 Jan 2017	4:33	
27) ✓ 6012727.D Comments					
;VI Tube Cert	G0150908	33	28 Jan 2017	5:12	
28) ___ 6012728.D Comments Benzene>RL Naph only okay					
;VI Tube Cert	G0132065	34	28 Jan 2017	5:51	
29) ✓ 6012729.D Comments					
;VI Tube Cert	G0151105	35	28 Jan 2017	6:30	
30) ✓ 6012730.D Comments					
;VI Tube Cert	G0152206	36	28 Jan 2017	7:10	
31) ✓ 6012731.D Comments					
;VI Tube Cert	G0143452	37	28 Jan 2017	7:49	
32) ✓ 6012732.D Comments					
;VI Tube Cert	G0150192	38	28 Jan 2017	8:28	
33) ✓ 6012733.D Comments					
;VI Tube Cert	G0153663	39	28 Jan 2017	9:07	
34) ✓ 6012734.D Comments					
;VI Tube Cert	G0151944	40	28 Jan 2017	9:47	
35) ✓ 6012801.D Comments					
BFB; BFB	1476-2872, 36ng (5/4/18)	1	28 Jan 2017	10:26	
36) ✓ 6012802.D Comments					
;VI VOC+PAH CCV;CCV	2787-57-1000, 20ml (4/12/	2	28 Jan 2017	11:06	
37) ✓ 6012803.D Comments					
;VI Tube Cert	G0152588	41	28 Jan 2017	11:45	
38) ✓ 6012804.D Comments					
;VI Tube Cert	G0135662	42	28 Jan 2017	12:25	
39) ✓ 6012805.D Comments					
;VI Tube Cert	G0152484	43	28 Jan 2017	13:04	✓

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40) ✓ 6012806.D Comments
;VI Tube Cert G0149932 44 28 Jan 2017 13:44 SU

41) ✓ 6012807.D Comments
;VI Tube Cert G0150157 45 28 Jan 2017 14:24

42) ✓ 6012808.D Comments
;VI Tube Cert G0143691 46 28 Jan 2017 15:03

43) ✓ 6012809.D Comments
;VI Tube Cert G0143718 47 28 Jan 2017 15:43

44) ✓ 6012810.D Comments
;VI Tube Cert G0150602 48 28 Jan 2017 16:23

45) ✓ 6012811.D Comments
;VI Tube Cert G0149817 49 28 Jan 2017 17:02

46) ✓ 6012812.D Comments
;VI Tube Cert G0147256 50 28 Jan 2017 17:42

47) ✓ 6012813.D Comments
;VI Tube Cert G0139970 51 28 Jan 2017 18:22

48) ✓ 6012814.D Comments
;VI Tube Cert G0149959 52 28 Jan 2017 19:01

49) ✓ 6012815.D Comments
;VI Tube Cert G0152515 53 28 Jan 2017 19:40

50) ✓ 6012816.D Comments
;VI Tube Cert G0143746 54 28 Jan 2017 20:20

51) ✓ 6012817.D Comments
;VI Tube Cert G0160972 55 28 Jan 2017 20:59

52) ✓ 6012818.D Comments
;VI Tube Cert G0151100 56 28 Jan 2017 21:39

53) ✓ 6012819.D Comments
;VI Tube Cert G0145574 57 28 Jan 2017 22:18

54) ✓ 6012820.D Comments
;VI Tube Cert G0135686 58 28 Jan 2017 22:57

55) ✓ 6012821.D Comments
;VI Tube Cert G0152266 59 28 Jan 2017 23:36

56) ✓ 6012822.D Comments
;VI Tube Cert G0149759 60 29 Jan 2017 00:15

57) ___ 6012823.D Comments CS2>RL, Naph/Benzene only okay
;VI Tube Cert G0155336 61 29 Jan 2017 00:54

58) ___ 6012824.D Comments
;VI Tube Cert G0151943 62 29 Jan 2017 1:33

59) ___ 6012825.D Comments
;VI Tube Cert G0147209 63 29 Jan 2017 2:12

60) ___ 6012826.D Comments
;VI Tube Cert G0153696 64 29 Jan 2017 2:51

61) ✓ 6012827.D Comments ~~CS2>RL, Naph/Benzene only okay~~ SU 1/30/17
;VI Tube Cert G0152249 65 29 Jan 2017 3:30

62) ___ 6012828.D Comments CS2>RL, Naph/Benzene only okay
;VI Tube Cert G0148463 66 29 Jan 2017 4:09

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63) ✓ 6012829.D Comments
;VI Tube Cert G0143629 67 29 Jan 2017 4:48 SM

64) ___ 6012830.D Comments CS2 >RL, Naph/Benzene only okay
;VI Tube Cert G0147219 68 29 Jan 2017 5:27

65) x 6012831.D Comments Tube leak
;VI Tube Cert G0137121 69 29 Jan 2017 6:05

66) ___ 6012832.D Comments CS2>RL, Benzene>RL Naph only okay
;VI Tube Cert G0137603 70 29 Jan 2017 6:44

Signed [illegible] Date 1/30/17

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6012706.d
Lab Smp Id: VI VOC+PAH ICAL 5
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/27jan17.b/617z0127vi.m
Misc Info: ;2787-57-1000, 20ml (4/12/17), 2744-147-25.0,

Calibration Date: 27-JAN-2017
Calibration Time: 14:44
Client Smp ID: 20/25/50
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Bromochloromethan	206046	123628	288464	206046	0.00
47 1,4-Difluorobenze	822168	493301	1151035	822168	0.00
67 Chlorobenzene-d5	727418	436451	1018385	727418	0.00
79 Bromofluorobenzen	482287	289372	675202	482287	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Bromochloromethan	5.25	4.92	5.58	5.25	0.00
47 1,4-Difluorobenze	6.89	6.56	7.22	6.89	0.00
67 Chlorobenzene-d5	10.62	10.29	10.95	10.62	0.00
79 Bromofluorobenzen	12.13	11.80	12.46	12.13	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.

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/27jan17.b/6012713a.d
Lab Smp Id: VI VOC+PAH ICV Client Smp ID: LCS
Inj Date : 27-JAN-2017 20:03
Operator : su Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICV; LCS
Misc Info : ;2787-58-1000, 1ml (4/12/17), 2744-158-50.0,
Comment :
Method : /chem/msd6.i/27jan17.b/617z0127via.m
Meth Date : 16-Feb-2017 13:49 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 17:25 Cal File: 6012709.d
Als bottle: 19 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+naphs_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
* 32 Bromochloromethane						CAS #: 74-97-5	
5.246	5.246 (1.000)	130	215343	26.0000		80.00- 120.00	100.00
5.246	5.246 (1.000)	128	163708			49.56- 109.56	76.02
5.246	5.246 (1.000)	49	264783			92.63- 152.63	122.96
* 47 1,4-Difluorobenzene						CAS #: 540-36-3	
6.880	6.887 (1.000)	114	830411	23.0000		80.00- 120.00	100.00
6.880	6.887 (1.000)	88	122529			0.00- 45.38	14.76
* 67 Chlorobenzene-d5						CAS #: 3114-55-4	
10.626	10.597 (1.000)	117	744405	24.0000		80.00- 120.00	100.00
10.619	10.597 (1.000)	82	371626			19.82- 79.82	49.92
* 79 Bromofluorobenzene						CAS #: 460-00-4	
12.130	12.101 (1.000)	174	481513	36.0000		80.00- 120.00	100.00
12.130	12.101 (1.000)	95	536392			81.24- 141.24	111.40
12.130	12.101 (1.000)	176	469535			64.86- 124.86	97.51
$ 39 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.149	6.170 (0.894)	65	103916	26.0274	26.027	80.00- 120.00	100.00

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

$  39 1,2-Dichloroethane-d4 (continued)
  6.149   6.170 (0.894)    67     51369                    21.82-  81.82    49.43
-------------------------------------------------------------------------------
$  57 Toluene-d8                                   CAS #: 2037-26-5
  8.799   8.756 (0.828)    98    314196 25.0889   25.089  80.00- 120.00   100.00
  8.799   8.756 (0.828)    70     33113                     0.00-  40.85    10.54
  8.799   8.756 (0.828)   100    202564                    34.65-  94.65    64.47
-------------------------------------------------------------------------------
$  97 Naphthalene-d8                               CAS #: 1146-65-2
 16.320  16.320 (1.345)   136    557793 25.4686   25.468  80.00- 120.00   100.00
 16.320  16.320 (1.345)   108     50786                     0.00-  39.63     9.10
-------------------------------------------------------------------------------
    4 Freon 114                                    CAS #: 76-14-2
  1.311   1.311 (0.250)   135    708151 131.714   131.71  80.00- 120.00   100.00
  1.311   1.311 (0.250)   137    228737                     1.96-  61.96    32.30
-------------------------------------------------------------------------------
    6 Vinyl Chloride                               CAS #: 75-01-4
  1.437   1.437 (0.274)    62    328129 49.9168   49.917  80.00- 120.00   100.00
  1.437   1.437 (0.274)    64    122342                     7.91-  67.91    37.28
-------------------------------------------------------------------------------
    7 1,3-Butadiene                                CAS #: 106-99-0
  1.465   1.465 (0.279)    54    239417 40.9203   40.920  80.00- 120.00   100.00
  1.465   1.465 (0.279)    39    374587                   120.50- 180.50   156.46
-------------------------------------------------------------------------------
    9 Chloroethane                                 CAS #: 75-00-3
  1.772   1.773 (0.338)    64    154364 48.6578   48.658  80.00- 120.00   100.00
  1.772   1.773 (0.338)    66     46354                     0.00-  59.86    30.03
  1.772   1.773 (0.338)    49     44723                     0.00-  58.91    28.97
-------------------------------------------------------------------------------
   10 Isopentane                                   CAS #: 78-78-4
  1.842   1.856 (0.351)    57    249126 55.2226   55.223  80.00- 120.00   100.00
  1.842   1.856 (0.351)    43    398959                   125.84- 185.84   160.14
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                  CAS #: 75-69-4
  1.996   1.996 (0.381)   101    899227 108.496   108.50  80.00- 120.00   100.00
  1.996   1.996 (0.381)   103    589217                    35.51-  95.51    65.52
-------------------------------------------------------------------------------
   15 Freon 113                                    CAS #: 76-13-1
  2.496   2.510 (0.476)   151    632919 144.440   144.44  80.00- 120.00   100.00
  2.496   2.510 (0.476)   153    405800                    33.71-  93.71    64.12
  2.496   2.510 (0.476)   101    721958                    83.05- 143.05   114.07
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                           CAS #: 75-35-4
  2.467   2.474 (0.470)    98    208007 71.4632   71.463  80.00- 120.00   100.00
  2.467   2.474 (0.470)    96    320266                   122.40- 182.40   153.97
  2.467   2.474 (0.470)    61    539884                   227.99- 287.99   259.55
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.682	2.682 (0.511)	76	880502	59.1815	59.182	80.00- 120.00	100.00
17 2-Propanol					CAS #: 67-63-0		
2.639	2.639 (0.503)	45	585257	47.0539	47.054	80.00- 120.00	100.00
2.639	2.639 (0.503)	43	107735			0.00- 48.82	18.41
2.639	2.639 (0.503)	59	21622			0.00- 33.57	3.69
21 Methylene Chloride					CAS #: 75-09-2		
2.990	2.983 (0.570)	49	401273	64.6907	64.691	80.00- 120.00	100.00
2.990	2.983 (0.570)	84	269847			38.40- 98.40	67.25
2.990	2.983 (0.570)	51	120221			0.20- 60.20	29.96
23 MTBE					CAS #: 1634-04-4		
3.341	3.341 (0.637)	73	790216	71.0370	71.037	80.00- 120.00	100.00
3.341	3.341 (0.637)	57	190863			0.00- 53.85	24.15
3.341	3.341 (0.637)	41	196587			0.00- 54.68	24.88
24 trans-1,2-Dichloroethene					CAS #: 156-60-5		
3.348	3.355 (0.638)	98	209839	82.4103	82.410	80.00- 120.00	100.00
3.348	3.355 (0.638)	61	465323			199.30- 259.30	221.75
3.348	3.355 (0.638)	96	317019			124.73- 184.73	151.08
25 Hexane					CAS #: 110-54-3		
3.778	3.778 (0.720)	57	514495	68.7420	68.742	80.00- 120.00	100.00
3.778	3.778 (0.720)	43	351906			38.59- 98.59	68.40
3.771	3.778 (0.719)	86	72058			0.00- 44.35	14.01
26 1,1-Dichloroethane					CAS #: 75-34-3		
3.928	3.936 (0.749)	63	549614	77.8547	77.855	80.00- 120.00	100.00
3.928	3.936 (0.749)	65	168331			0.70- 60.70	30.63
29 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.874	4.867 (0.929)	98	208455	68.6488	68.649	80.00- 120.00	100.00
4.874	4.867 (0.929)	96	323952			123.29- 183.29	155.41
4.874	4.867 (0.929)	61	437858			178.61- 238.61	210.05
28 2-Butanone					CAS #: 78-93-3		
4.838	4.838 (0.922)	72	157875	52.1681	52.168	80.00- 120.00	100.00
4.838	4.838 (0.922)	43	775044			466.78- 526.78	490.92
4.838	4.838 (0.922)	57	57754			5.92- 65.92	36.58
35 Chloroform					CAS #: 67-66-3		
5.447	5.454 (1.038)	83	660834	94.1874	94.187	80.00- 120.00	100.00
5.447	5.454 (1.038)	85	424401			34.58- 94.58	64.22

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
37 Cyclohexane					CAS #: 110-82-7		
5.791	5.798 (0.842)	84	400813	66.8339	66.834	80.00- 120.00	100.00
5.791	5.798 (0.842)	56	525075			97.51- 157.51	131.00
5.791	5.798 (0.842)	41	323482			49.37- 109.37	80.71
36 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.662	5.669 (0.823)	97	695618	107.067	107.07	80.00- 120.00	100.00
5.662	5.669 (0.823)	99	457439			36.78- 96.78	65.76
38 Carbon Tetrachloride					CAS #: 56-23-5		
5.913	5.920 (0.859)	119	743240	129.947	129.95	80.00- 120.00	100.00
5.913	5.920 (0.859)	117	776643			74.79- 134.79	104.49
45 2,2,4-Trimethylpentane					CAS #: 540-84-1		
6.464	6.478 (0.940)	57	1608975	89.9300	89.930	80.00- 120.00	100.00
6.464	6.478 (0.940)	56	509459			1.65- 61.65	31.66
6.464	6.478 (0.940)	41	485408			0.50- 60.50	30.17
41 Benzene					CAS #: 71-43-2		
6.178	6.185 (0.898)	78	945643	55.2233	55.223	80.00- 120.00	100.00
6.178	6.185 (0.898)	77	218417			0.00- 53.70	23.10
43 1,2-Dichloroethane					CAS #: 107-06-2		
6.256	6.271 (0.909)	62	450867	78.1237	78.124	80.00- 120.00	100.00
6.256	6.271 (0.909)	64	138697			1.50- 61.50	30.76
46 Heptane					CAS #: 142-82-5		
6.779	6.786 (0.985)	71	315487	78.9114	78.911	80.00- 120.00	100.00
6.779	6.786 (0.985)	43	629609			165.84- 225.84	199.57
6.779	6.786 (0.985)	57	313260			68.69- 128.69	99.29
48 Trichloroethene					CAS #: 79-01-6		
7.180	7.173 (1.044)	95	461624	102.983	102.98	80.00- 120.00	100.00
7.180	7.173 (1.044)	130	503247			79.94- 139.94	109.02
7.180	7.173 (1.044)	97	296905			34.22- 94.22	64.32
51 Methyl Cyclohexane					CAS #: 108-87-2		
7.496	7.496 (1.090)	83	574722	77.6412	77.641	80.00- 120.00	100.00
7.496	7.496 (1.090)	98	267344			16.28- 76.28	46.52
7.496	7.496 (1.090)	55	503647			57.14- 117.14	87.63
52 1,2-Dichloropropane					CAS #: 78-87-5		
7.481	7.474 (1.087)	63	361743	87.9501	87.950	80.00- 120.00	100.00
7.481	7.474 (1.087)	62	248177			38.30- 98.30	68.61
7.488	7.474 (1.089)	41	513682			109.93- 169.93	142.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
53 1,4-Dioxane					CAS #: 123-91-1		
7.610	7.603 (1.106)	88	233112	67.0376	67.038	80.00- 120.00	100.00
7.610	7.603 (1.106)	58	166248			41.68- 101.68	71.32
7.610	7.603 (1.106)	57	71986			5.91- 65.91	30.88
56 4-Methyl-2-pentanone					CAS #: 108-10-1		
8.656	8.635 (1.258)	58	301240	81.5821	81.582	80.00- 120.00	100.00
8.656	8.635 (1.258)	43	860436			255.95- 315.95	285.63
8.656	8.635 (1.258)	85	123203			12.61- 72.61	40.90
58 Toluene					CAS #: 108-88-3		
8.885	8.864 (0.836)	91	1141078	70.9470	70.947	80.00- 120.00	100.00
8.885	8.864 (0.836)	92	674368			29.58- 89.58	59.10
61 1,1,2-Trichloroethane					CAS #: 79-00-5		
9.430	9.408 (1.371)	97	401920	105.924	105.92	80.00- 120.00	100.00
9.437	9.408 (1.372)	99	261442			34.45- 94.45	65.05
9.430	9.408 (1.371)	83	344226			55.36- 115.36	85.65
62 Tetrachloroethene					CAS #: 127-18-4		
9.559	9.537 (0.900)	166	628818	128.230	128.23	80.00- 120.00	100.00
9.551	9.537 (0.899)	129	486811			46.89- 106.89	77.42
9.551	9.537 (0.899)	131	473174			44.31- 104.31	75.25
63 2-Hexanone					CAS #: 591-78-6		
9.738	9.709 (0.916)	58	388382	82.7856	82.786	80.00- 120.00	100.00
9.738	9.709 (0.916)	43	799458			173.90- 233.90	205.84
9.738	9.709 (0.916)	100	73001			0.00- 48.87	18.80
66 1,2-Dibromoethane					CAS #: 106-93-4		
10.010	9.981 (0.942)	107	674524	150.702	150.70	80.00- 120.00	100.00
10.010	9.981 (0.942)	109	653080			66.71- 126.71	96.82
68 Chlorobenzene					CAS #: 108-90-7		
10.654	10.633 (1.003)	112	977170	88.8460	88.846	80.00- 120.00	100.00
10.654	10.633 (1.003)	114	319150			1.97- 61.97	32.66
10.654	10.633 (1.003)	77	527188			23.53- 83.53	53.95
69 Ethyl Benzene					CAS #: 100-41-4		
10.812	10.791 (1.018)	106	493555	85.3997	85.400	80.00- 120.00	100.00
10.812	10.791 (1.018)	91	1519250			275.71- 335.71	307.82
71 m,p-Xylene					CAS #: 108-38-3		
10.991	10.970 (1.034)	106	606115	84.1837	84.184	80.00- 120.00	100.00
10.991	10.970 (1.034)	91	1208839			166.96- 226.96	199.44

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
74 o-Xylene					CAS #: 95-47-6		
11.450	11.421 (0.944)	106	578341	86.4031	86.403	80.00- 120.00	100.00
11.450	11.421 (0.944)	91	1206618			177.81- 237.81	208.63
75 Styrene					CAS #: 100-42-5		
11.485	11.442 (0.947)	104	961389	90.5328	90.533	80.00- 120.00	100.00
11.485	11.442 (0.947)	78	461001			18.87- 78.87	47.95
77 Cumene					CAS #: 98-82-8		
11.929	11.901 (0.983)	105	1784283	104.871	104.87	80.00- 120.00	100.00(A)
11.929	11.901 (0.983)	120	495673			0.00- 58.24	27.78
11.929	11.901 (0.983)	51	186608			0.00- 40.40	10.46
80 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
12.302	12.266 (1.014)	83	885573	149.668	149.67	80.00- 120.00	100.00
12.302	12.266 (1.014)	85	566844			34.09- 94.09	64.01
81 Propylbenzene					CAS #: 103-65-1		
12.452	12.431 (1.027)	91	2056158	110.509	110.51	80.00- 120.00	100.00(A)
12.452	12.431 (1.027)	120	518499			0.00- 55.47	25.22
12.452	12.431 (1.027)	105	78349			0.00- 33.86	3.81
82 4-Ethyltoluene					CAS #: 622-96-8		
12.617	12.589 (1.040)	120	524767	105.541	105.54	80.00- 120.00	100.00
12.617	12.589 (1.040)	105	1679095			290.15- 350.15	319.97
83 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
12.703	12.674 (1.047)	120	762217	106.787	106.79	80.00- 120.00	100.00
12.703	12.674 (1.047)	105	1516978			168.29- 228.29	199.02
84 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
13.154	13.133 (1.084)	120	704589	111.354	111.35	80.00- 120.00	100.00
13.154	13.133 (1.084)	105	1513129			184.33- 244.33	214.75
86 1,3-Dichlorobenzene					CAS #: 541-73-1		
13.470	13.448 (1.110)	146	1089409	137.468	137.47	80.00- 120.00	100.00
13.470	13.448 (1.110)	148	694337			33.69- 93.69	63.74
13.470	13.448 (1.110)	111	416988			8.17- 68.17	38.28
87 1,4-Dichlorobenzene					CAS #: 106-46-7		
13.606	13.584 (1.122)	146	1125576	139.490	139.49	80.00- 120.00	100.00
13.606	13.584 (1.122)	148	710714			34.61- 94.61	63.14
13.606	13.584 (1.122)	111	410700			7.08- 67.08	36.49
90 1,2-Dichlorobenzene					CAS #: 95-50-1		
14.021	14.007 (1.156)	146	1050605	142.621	142.62	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
90 1,2-Dichlorobenzene (continued)							
14.021	14.007 (1.156)	148	676369			34.20- 94.20	64.38
14.021	14.007 (1.156)	111	415361			9.44- 69.44	39.54
95 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
16.055	16.048 (1.324)	180	913874	212.605	212.60	80.00- 120.00	100.00(AR)
16.055	16.048 (1.324)	182	840800			62.01- 122.01	92.00
96 Hexachlorobutadiene					CAS #: 87-68-3		
16.277	16.277 (1.342)	225	661494	278.495	278.49	80.00- 120.00	100.00(AR)
16.277	16.277 (1.342)	223	415696			32.95- 92.95	62.84
98 Naphthalene					CAS #: 91-20-3		
16.356	16.349 (1.348)	128	1630563	68.3194	68.319	80.00- 120.00	100.00
16.356	16.349 (1.348)	127	208559			0.00- 42.83	12.79
103 2-Methylnaphthalene					CAS #: 91-57-6		
17.803	17.882 (1.468)	142	903955	55.6383	55.638	80.00- 120.00	100.00
17.803	17.882 (1.468)	141	773526			57.25- 117.25	85.57
17.803	17.882 (1.468)	115	295039			2.70- 62.70	32.64
104 1-Methylnaphthalene					CAS #: 90-12-0		
18.011	18.068 (1.485)	142	831947	54.1659	54.166	80.00- 120.00	100.00
18.011	18.068 (1.485)	141	747470			60.82- 120.82	89.85
18.011	18.068 (1.485)	115	285503			4.50- 64.50	34.32

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Report Date: 16-Feb-2017 13:50

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6012713a.d
Lab Smp Id: VI VOC+PAH ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/27jan17.b/617z0127via.m
Misc Info: ;2787-58-1000, 1ml (4/12/17), 2744-158-50.0,

Calibration Date: 27-JAN-2017
Calibration Time: 17:25
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Bromochloromethan	229294	137576	321012	215343	-6.08
47 1,4-Difluorobenze	861527	516916	1206138	830411	-3.61
67 Chlorobenzene-d5	772550	463530	1081570	744405	-3.64
79 Bromofluorobenzen	506546	303928	709164	481513	-4.94

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Bromochloromethan	5.25	4.92	5.58	5.25	0.00
47 1,4-Difluorobenze	6.89	6.56	7.22	6.88	-0.11
67 Chlorobenzene-d5	10.60	10.27	10.93	10.63	0.27
79 Bromofluorobenzen	12.10	11.77	12.43	12.13	0.24

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: 16-Feb-2017 13:50

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 27jan17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: VI VOC+PAH ICV
Client Smp ID: LCS
Level: LOW
Operator: su
Data Type: MS DATA
SampleType: LCS
SpikeList File: VOC+PAHlcs60.5.spk
Quant Type: ISTD
Sublist File: VOC+naphs_ICAL.sub
Method File: /chem/msd6.i/27jan17.b/617z0127via.m
Misc Info: ;2787-58-1000, 1ml (4/12/17), 2744-158-50.0,

SPIKE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
4 Freon 114	139.80	131.71	94.22	70-130
6 Vinyl Chloride	51.100	49.917	97.68	70-130
7 1,3-Butadiene	44.200	40.920	92.58	70-130
9 Chloroethane	52.800	48.658	92.15	70-130
10 Isopentane	59.000	55.223	93.60	70-130
11 Trichlorofluoromet	112.40	108.50	96.53	70-130
14 1,1-Dichloroethene	79.300	71.463	90.12	70-130
15 Freon 113	153.30	144.44	94.22	70-130
18 Carbon Disulfide	62.300	59.182	94.99	70-130
17 2-Propanol	49.200	47.054	95.64	70-130
21 Methylene Chloride	69.500	64.691	93.08	70-130
24 trans-1,2-Dichloro	79.300	82.410	103.92	70-130
23 MTBE	72.100	71.037	98.53	70-130
25 Hexane	70.500	68.742	97.51	70-130
26 1,1-Dichloroethane	81.000	77.855	96.12	70-130
29 cis-1,2-Dichloroet	79.300	68.649	86.57	70-130
28 2-Butanone	59.000	52.168	88.42	70-130
35 Chloroform	97.700	94.187	96.40	70-130
36 1,1,1-Trichloroeth	109.10	107.07	98.14	70-130
37 Cyclohexane	68.800	66.834	97.14	70-130
38 Carbon Tetrachlori	125.80	129.95	103.30	70-130
41 Benzene	63.900	55.223	86.42	70-130
43 1,2-Dichloroethane	80.900	78.124	96.57	70-130
45 2,2,4-Trimethylpen	93.400	89.930	96.28	70-130
46 Heptane	82.000	78.911	96.23	70-130
48 Trichloroethene	107.50	102.98	95.80	70-130
51 Methyl Cyclohexane	80.300	77.641	96.69	70-130
52 1,2-Dichloropropan	92.400	87.950	95.18	70-130
53 1,4-Dioxane	72.100	67.038	92.98	70-130
56 4-Methyl-2-pentano	81.900	81.582	99.61	70-130
58 Toluene	75.400	70.947	94.09	70-130
61 1,1,2-Trichloroeth	109.10	105.92	97.09	70-130
62 Tetrachloroethene	135.70	128.23	94.50	70-130

SPIKE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
63 2-Hexanone	81.900	82.786	101.08	70-130
66 1,2-Dibromoethane	153.70	150.70	98.05	70-130
68 Chlorobenzene	92.100	88.846	96.47	70-130
69 Ethyl Benzene	86.800	85.400	98.39	70-130
71 m,p-Xylene	86.800	84.184	96.99	70-130
74 o-Xylene	86.800	86.403	99.54	70-130
75 Styrene	85.200	90.533	106.26	70-130
77 Cumene	98.300	104.87	106.68	70-130
80 1,1,2,2-Tetrachlor	137.30	149.67	109.01	70-130
81 Propylbenzene	98.300	110.51	112.42	70-130
82 4-Ethyltoluene	98.300	105.54	107.37	70-130
83 1,3,5-Trimethylben	98.300	106.79	108.63	70-130
84 1,2,4-Trimethylben	98.300	111.35	113.28	70-130
86 1,3-Dichlorobenzen	120.30	137.47	114.27	70-130
87 1,4-Dichlorobenzen	120.30	139.49	115.95	70-130
90 1,2-Dichlorobenzen	120.30	142.62	118.55	70-130
95 1,2,4-Trichloroben	148.40	212.60	143.26*	70-130
96 Hexachlorobutadien	213.30	278.49	130.56*	70-130
98 Naphthalene	60.500	68.319	112.92	70-130
103 2-Methylnaphthalen	50.000	55.638	111.28	70-130
104 1-Methylnaphthalen	50.000	54.166	108.33	70-130

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 39 1,2-Dichloroethane	25.000	26.027	104.11	50-150
$ 57 Toluene-d8	25.000	25.089	100.36	50-150
$ 97 Naphthalene-d8	25.000	25.468	101.87	50-150

Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

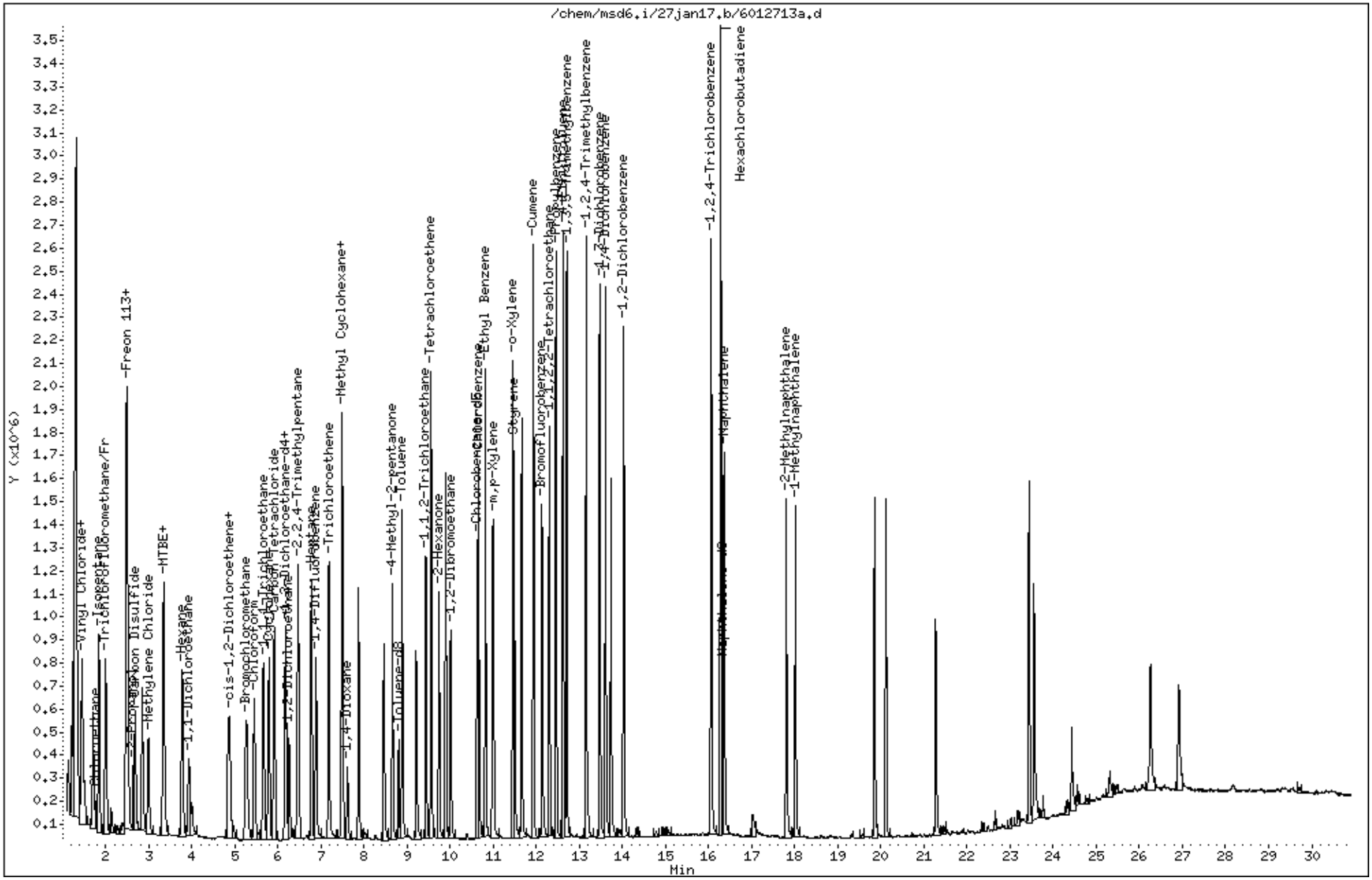
Sample Info: ;VI VOC+PAH ICV; LCS

Column phase: RTx-624

Instrument: msd6.i

Operator: su

Column diameter: 0.53



Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

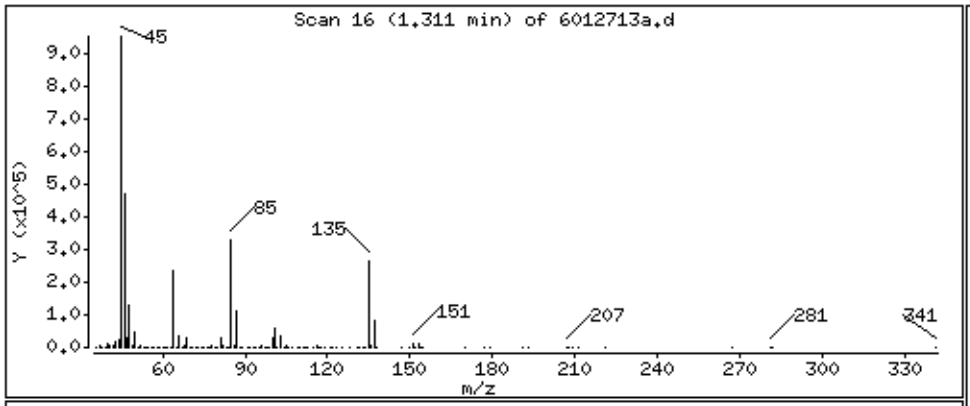
Operator: su

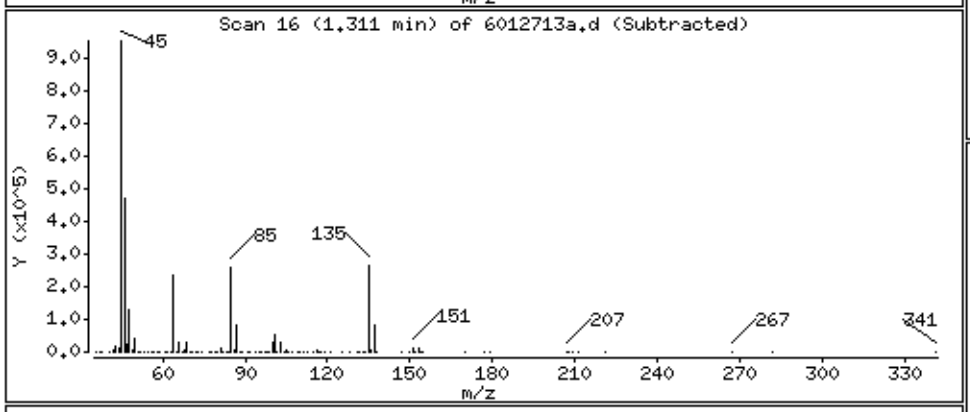
Column phase: RTx-624

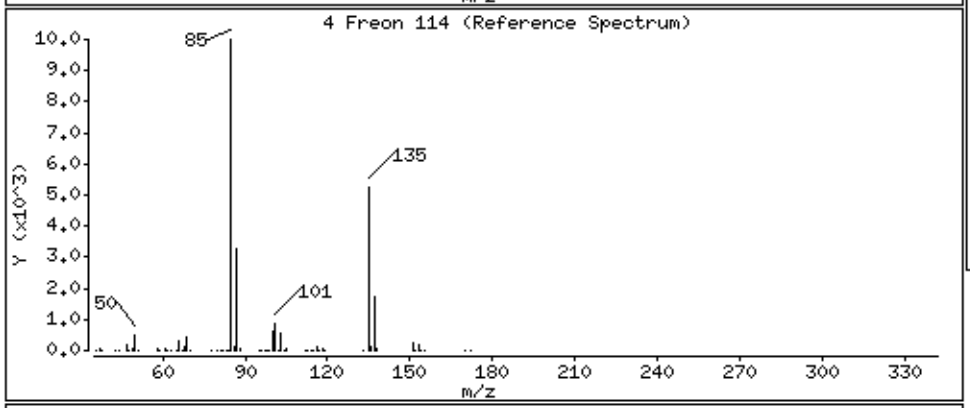
Column diameter: 0.53

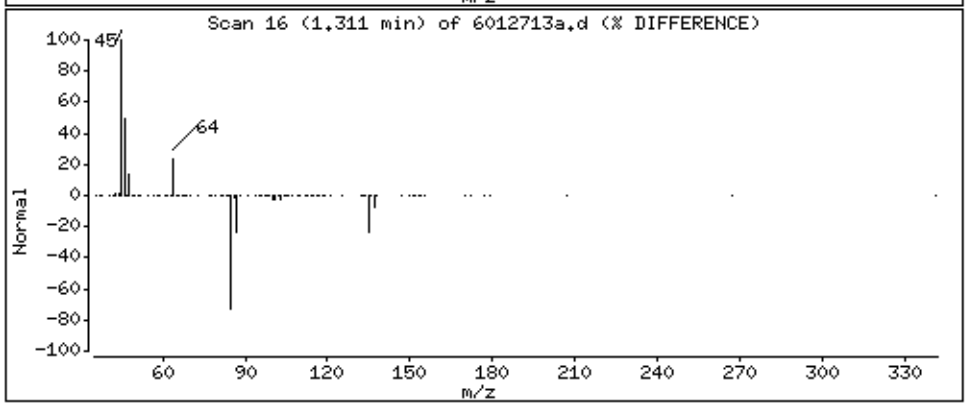
4 Freon 114

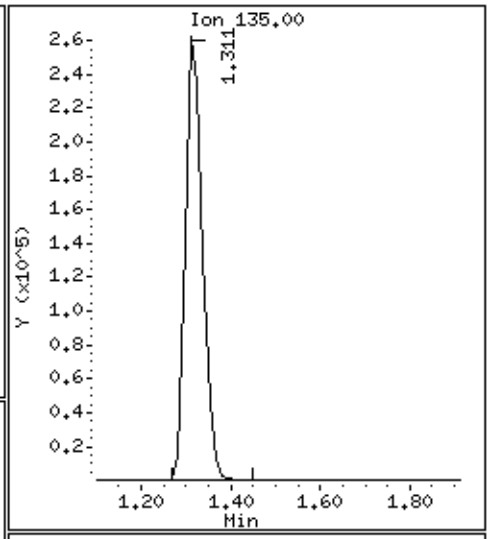
Concentration: 131.71 NG

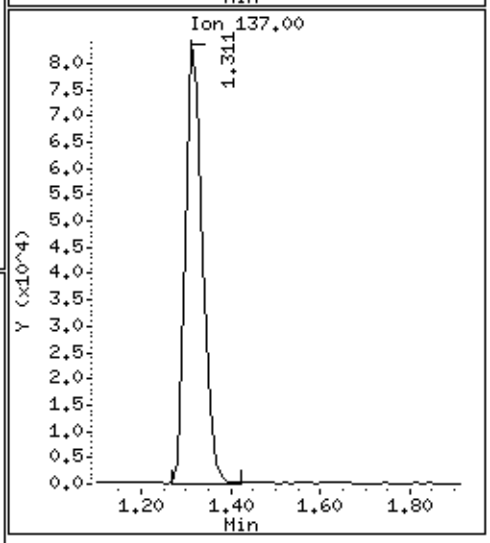












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

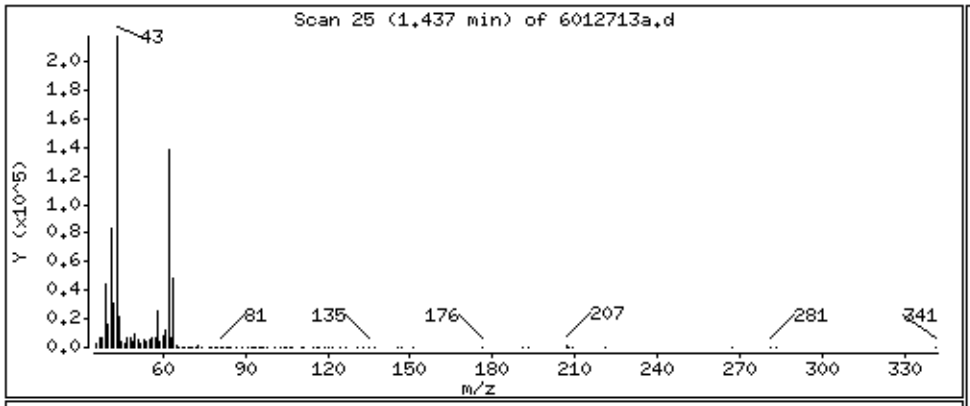
Operator: su

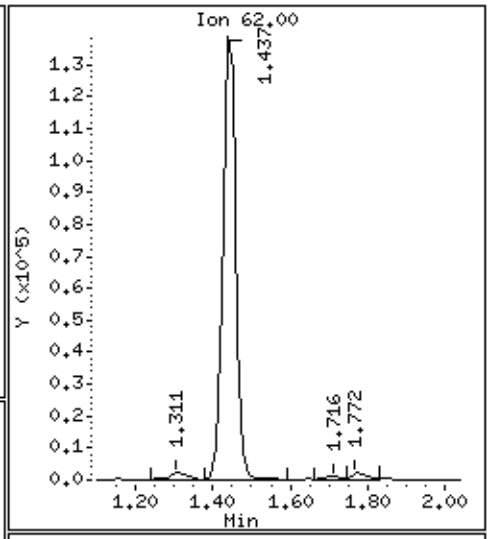
Column phase: RTx-624

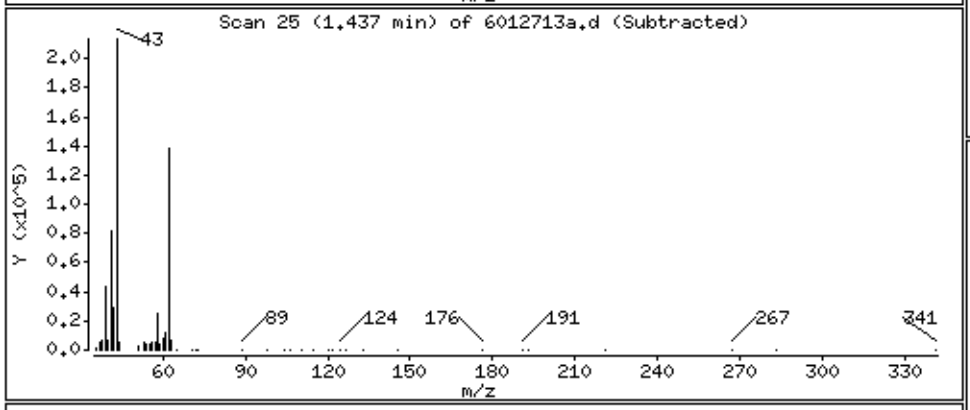
Column diameter: 0.53

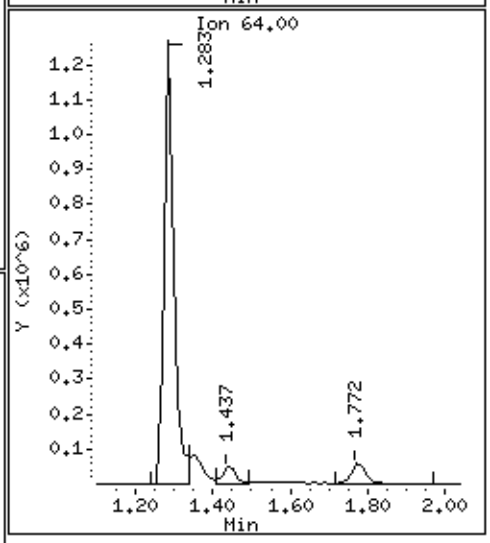
6 Vinyl Chloride

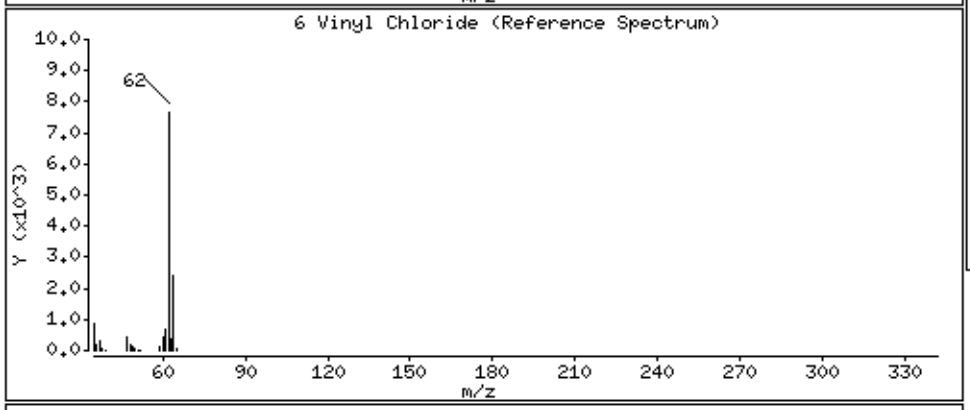
Concentration: 49.917 NG

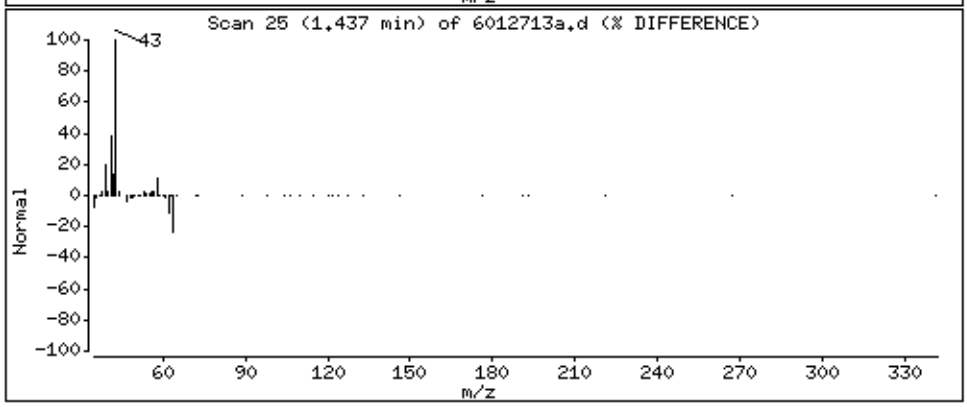












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

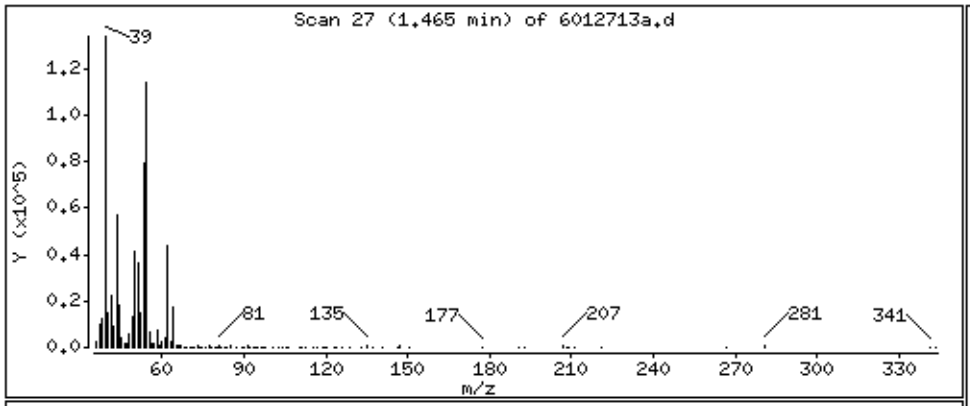
Operator: su

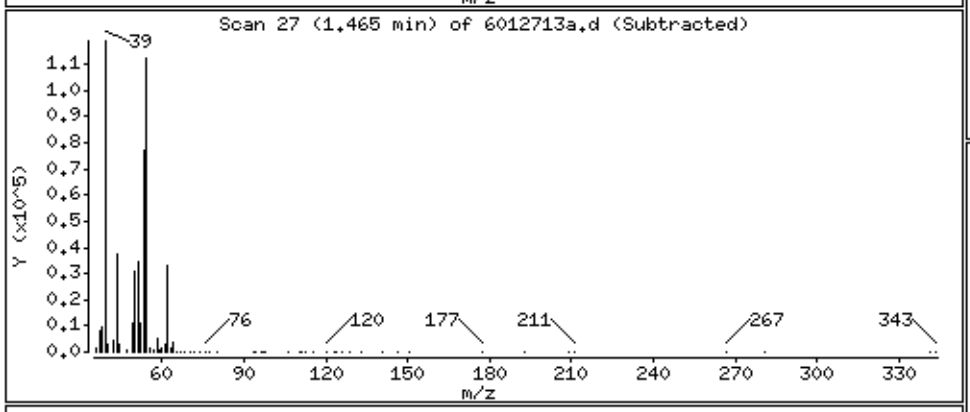
Column phase: RTx-624

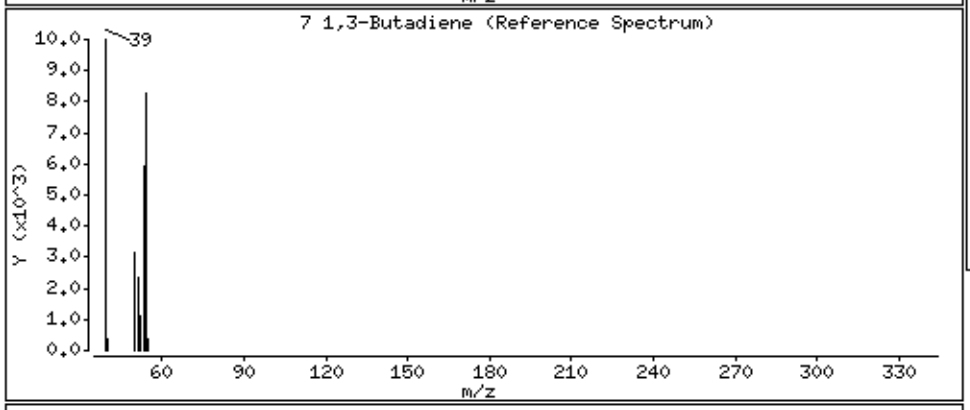
Column diameter: 0.53

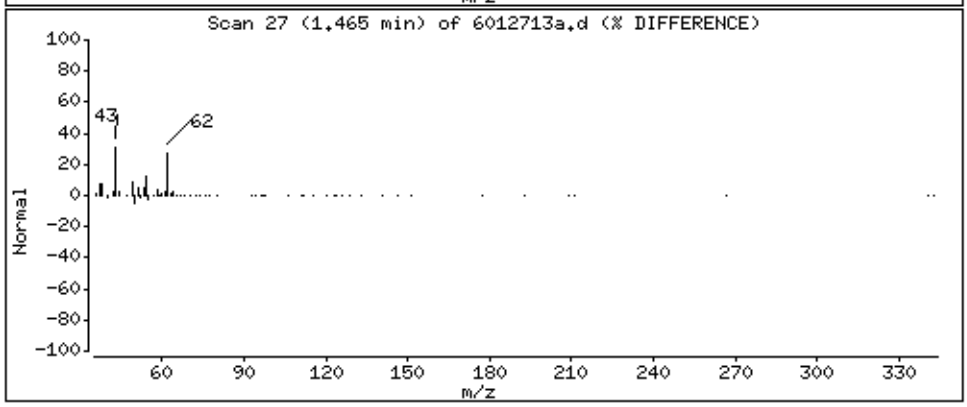
7 1,3-Butadiene

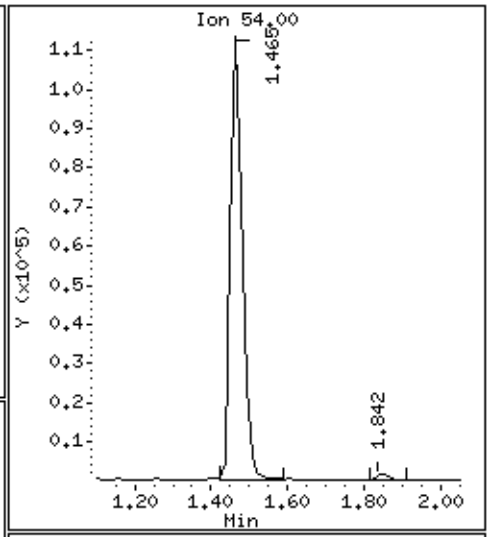
Concentration: 40.920 NG

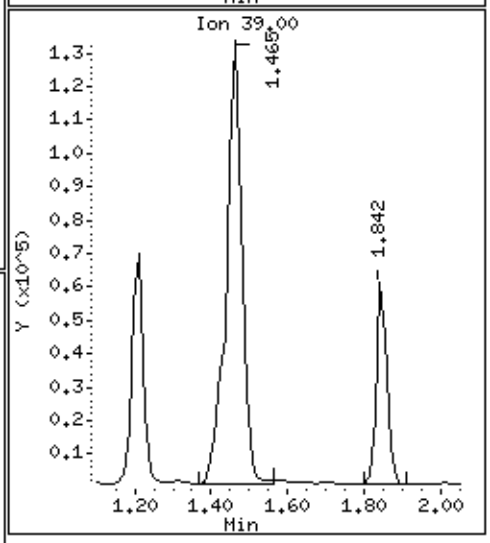












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

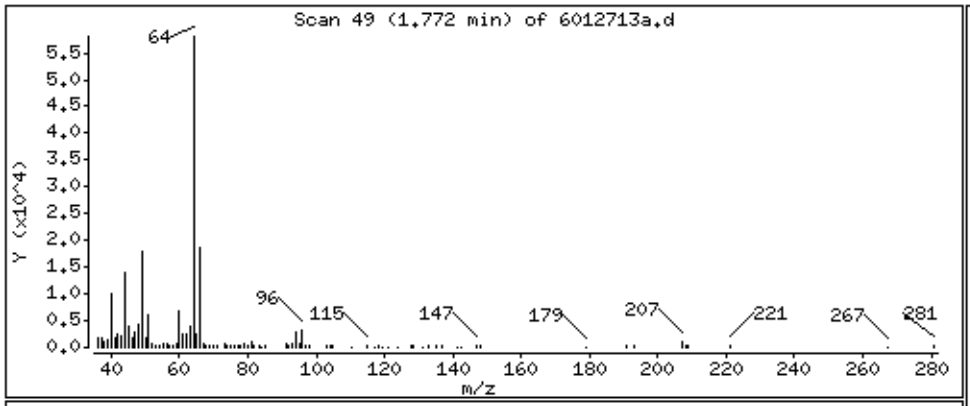
Operator: su

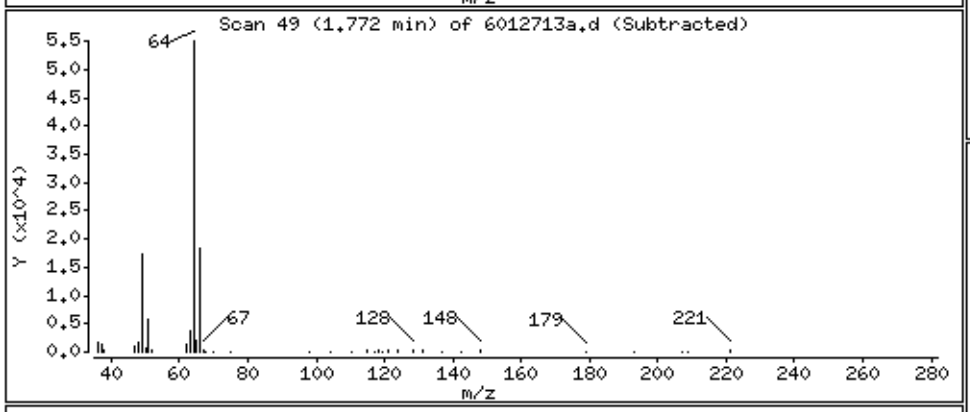
Column phase: RTx-624

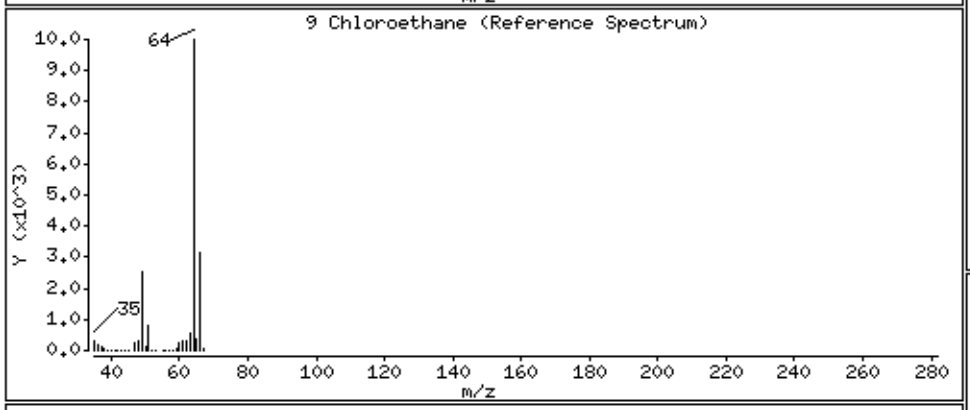
Column diameter: 0.53

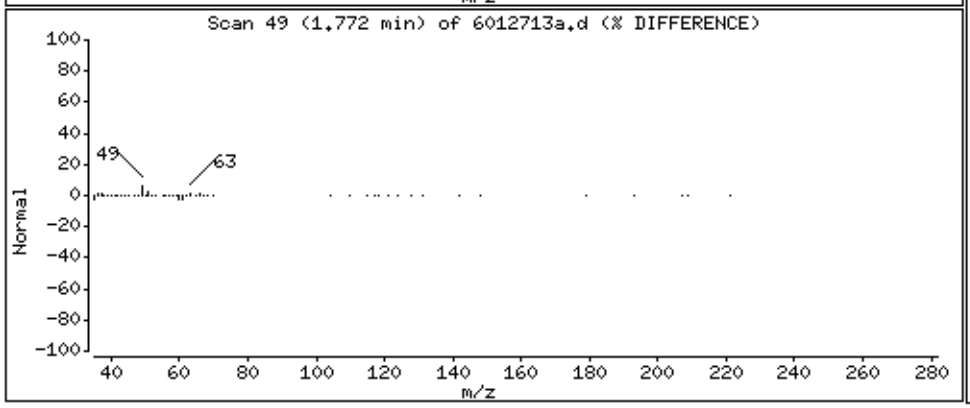
9 Chloroethane

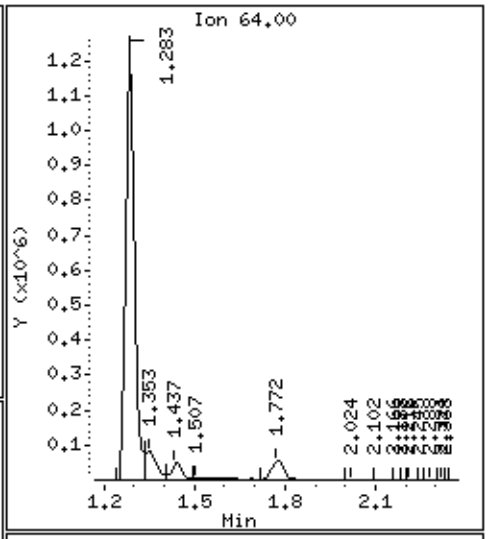
Concentration: 48.658 NG

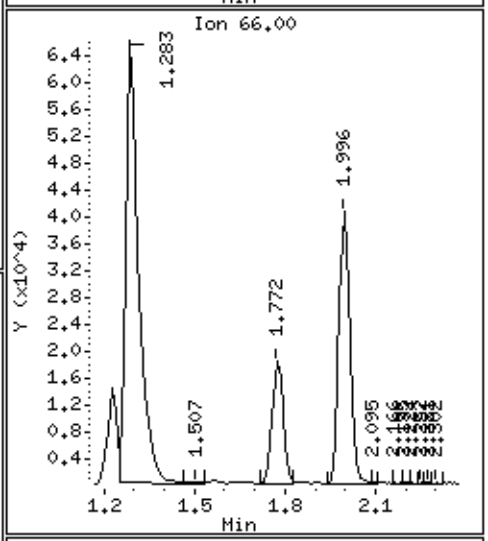


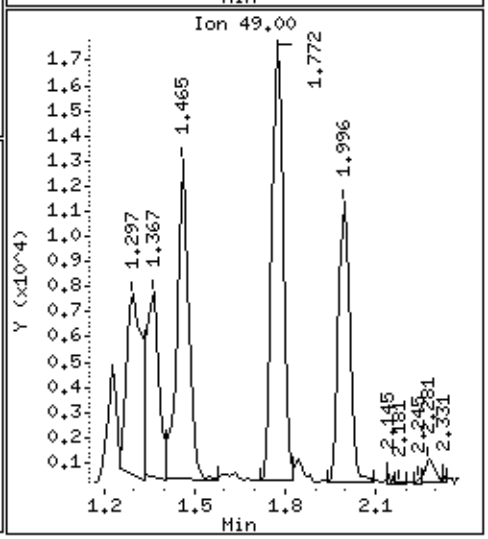












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

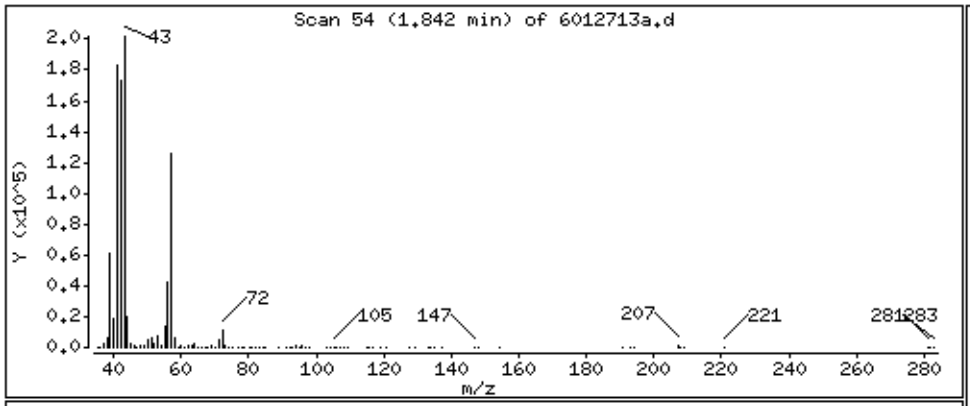
Operator: su

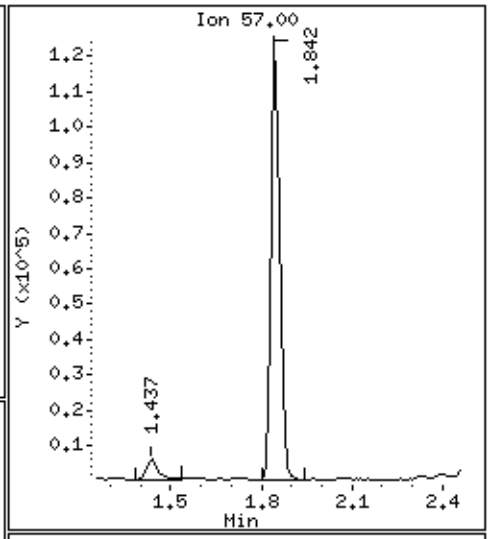
Column phase: RTx-624

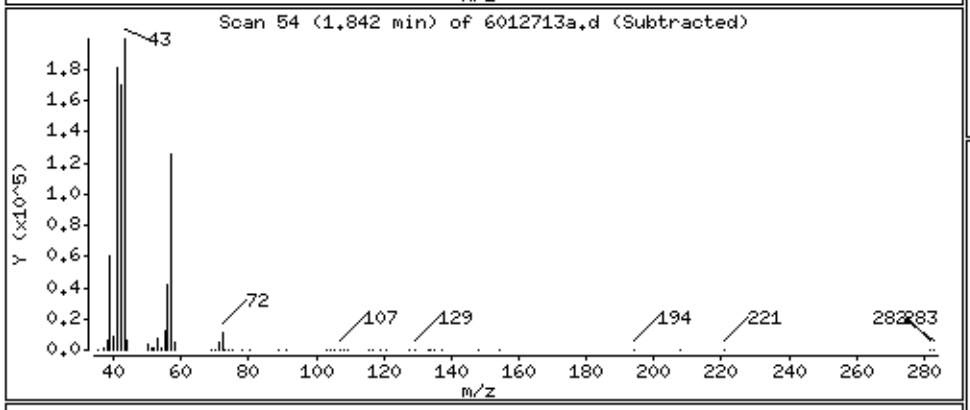
Column diameter: 0.53

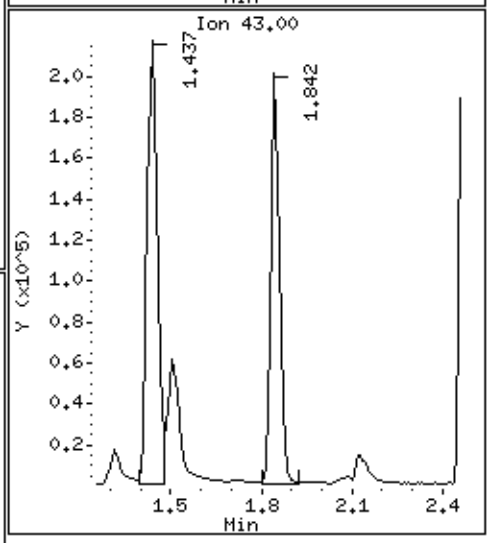
10 Isopentane

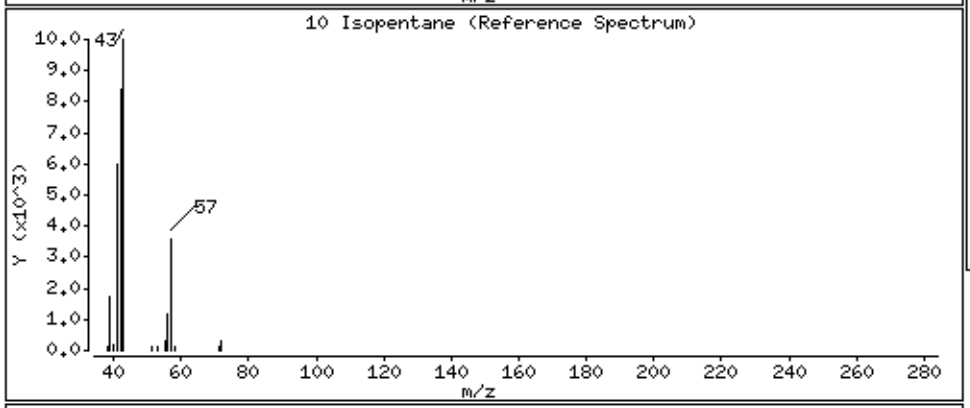
Concentration: 55.223 NG

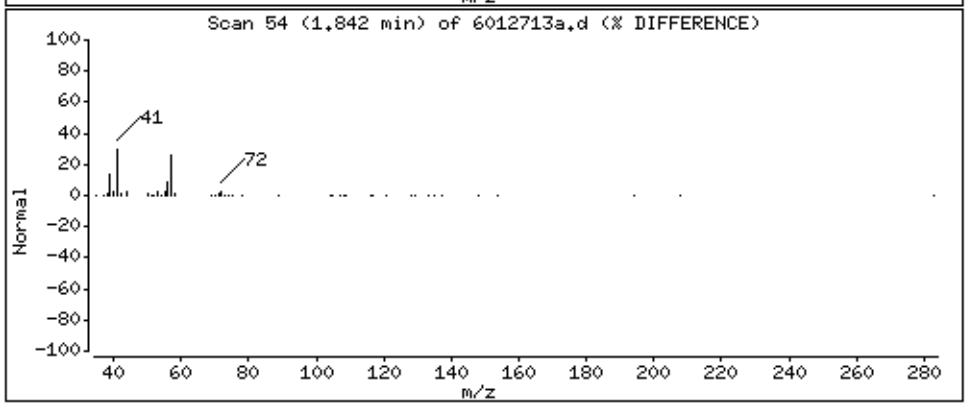












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

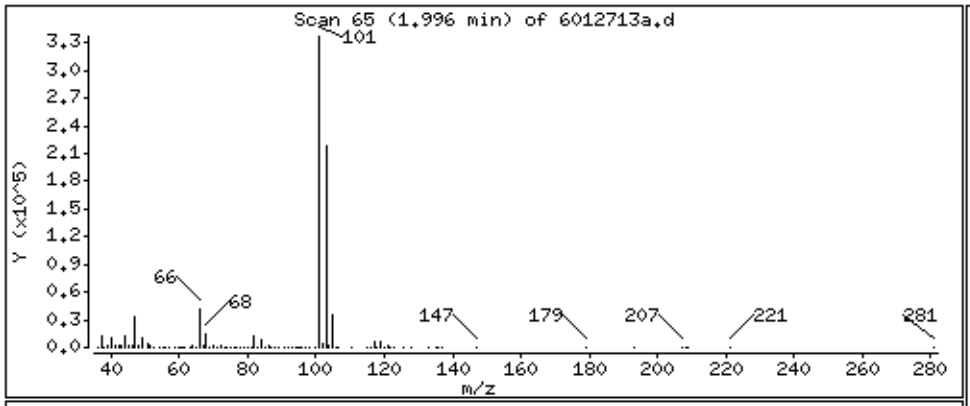
Operator: su

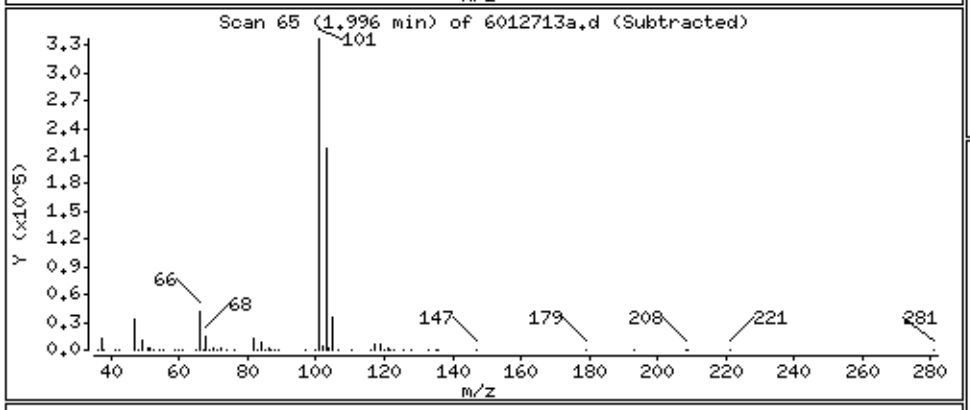
Column phase: RTx-624

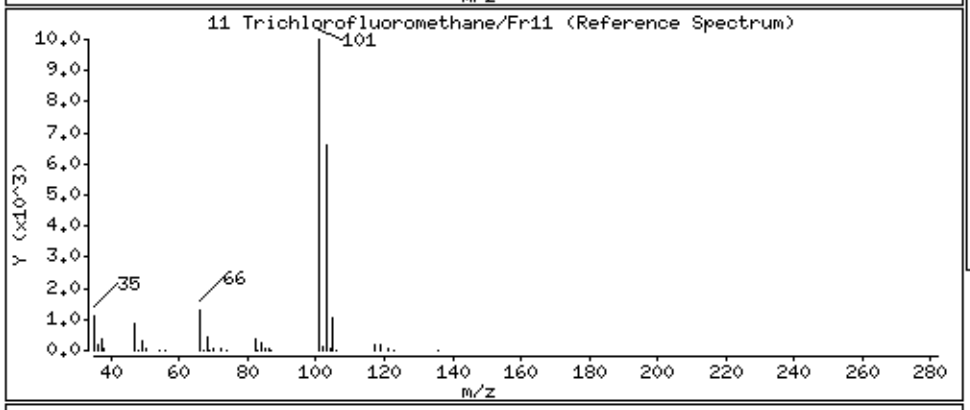
Column diameter: 0.53

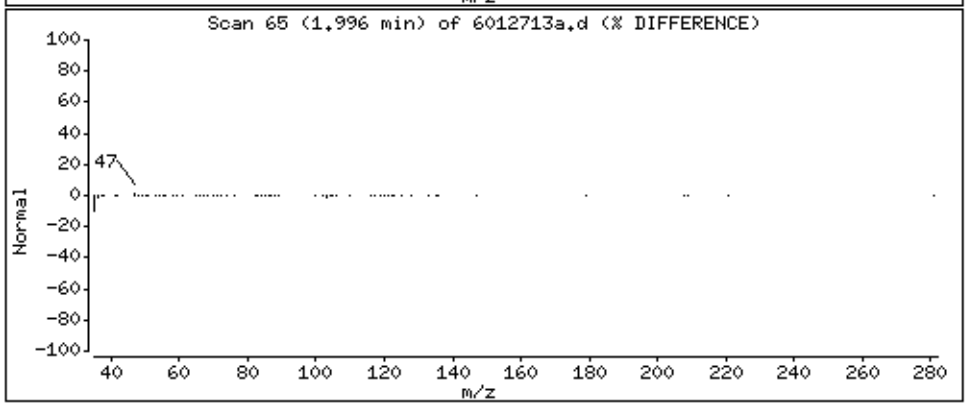
11 Trichlorofluoromethane/Fr11

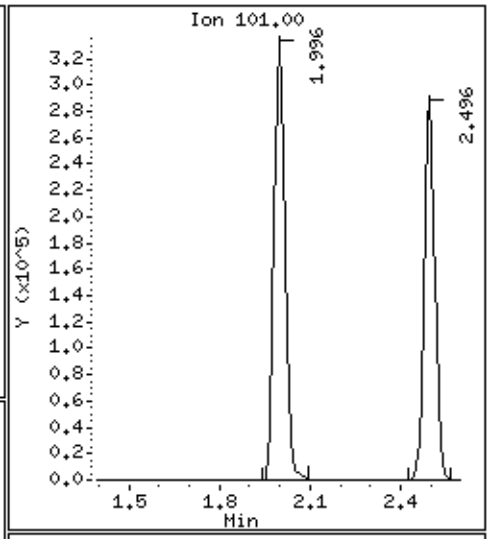
Concentration: 108.50 NG

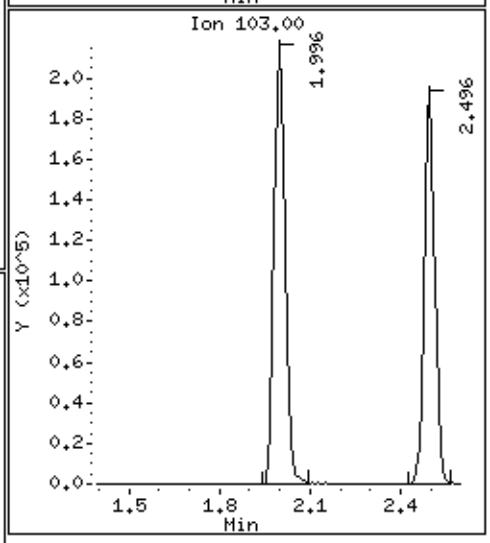












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

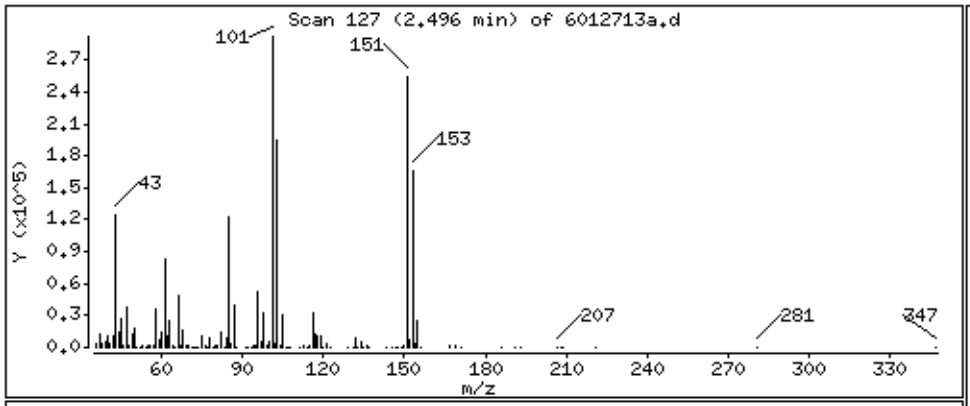
Operator: su

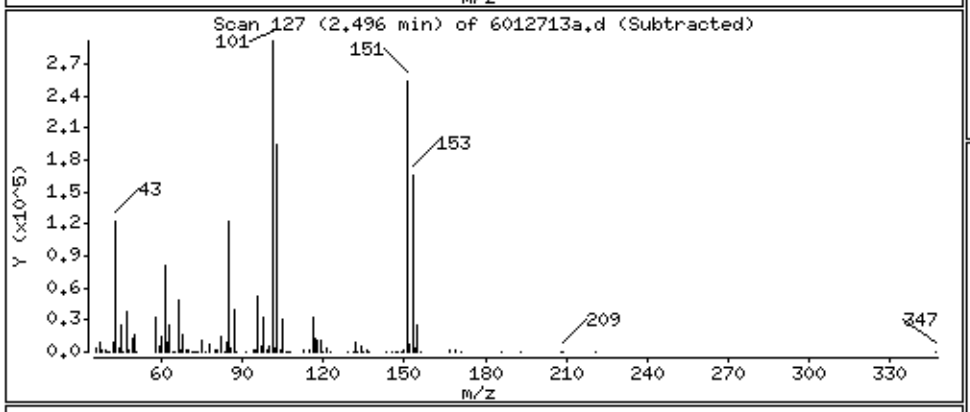
Column phase: RTx-624

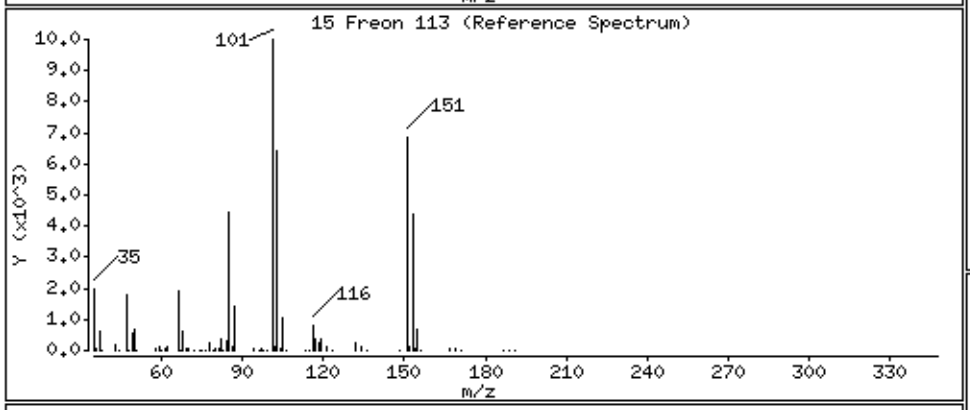
Column diameter: 0.53

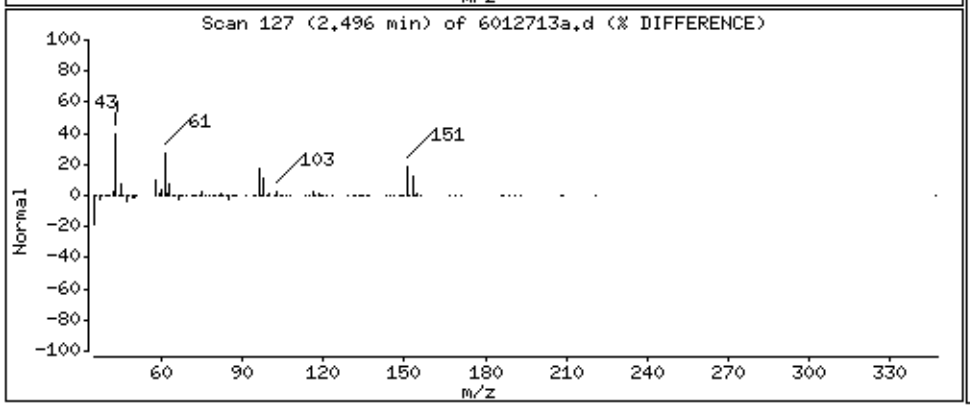
15 Freon 113

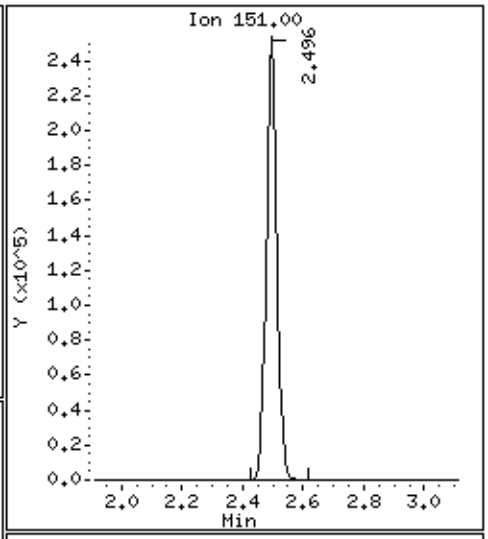
Concentration: 144.44 NG

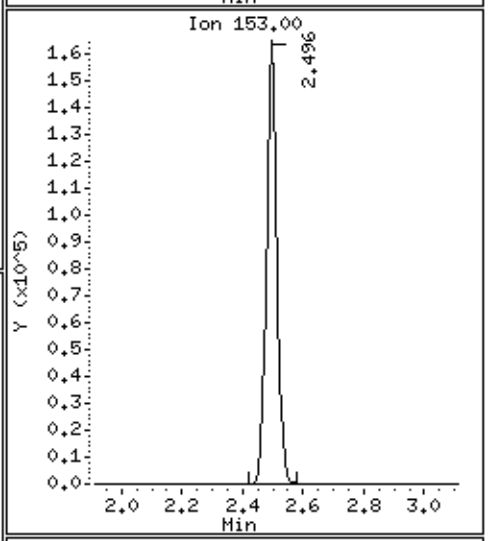


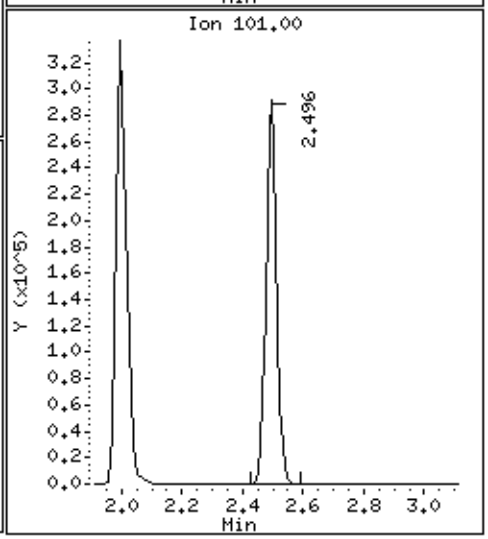












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

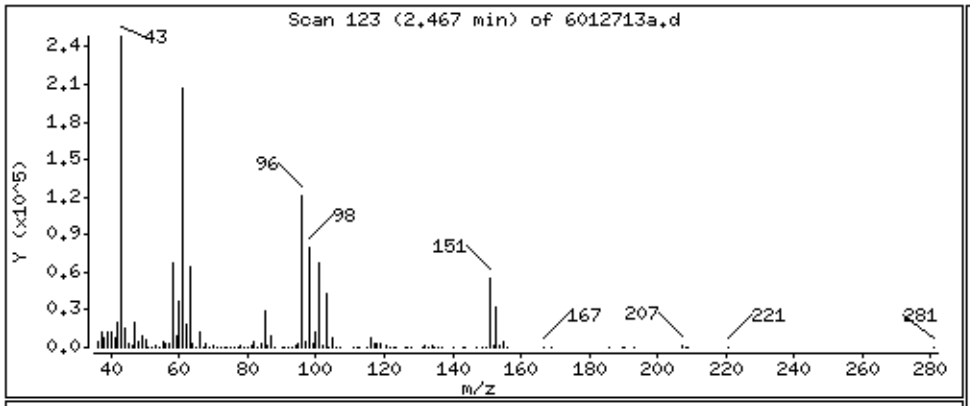
Operator: su

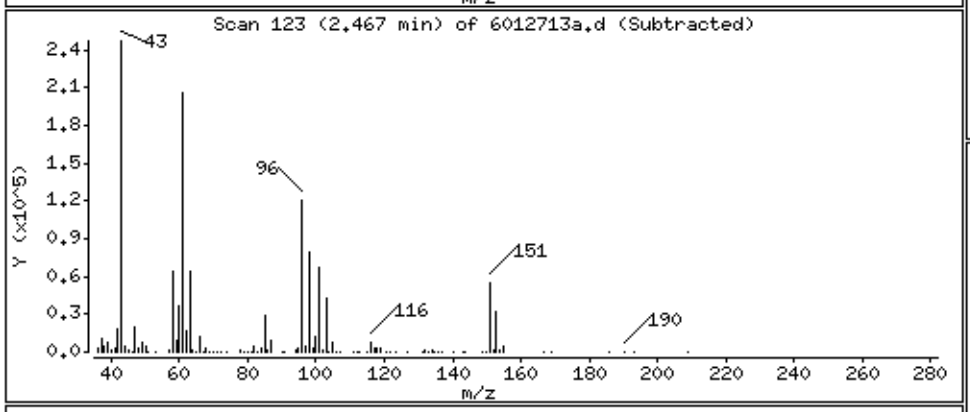
Column phase: RTx-624

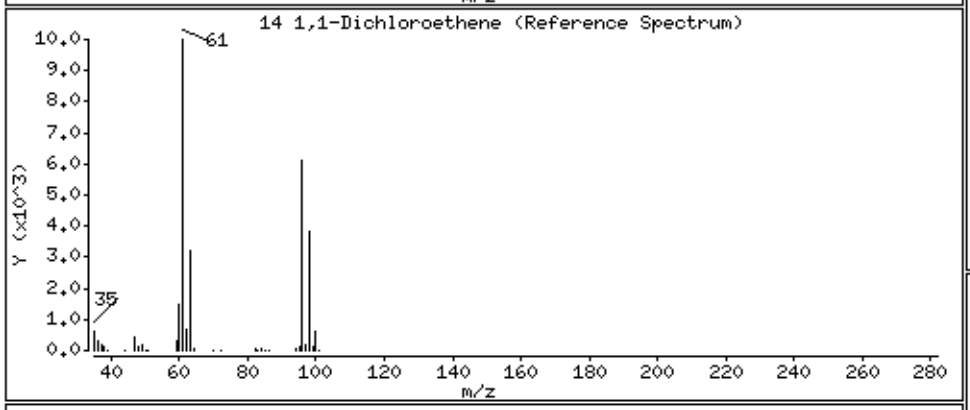
Column diameter: 0.53

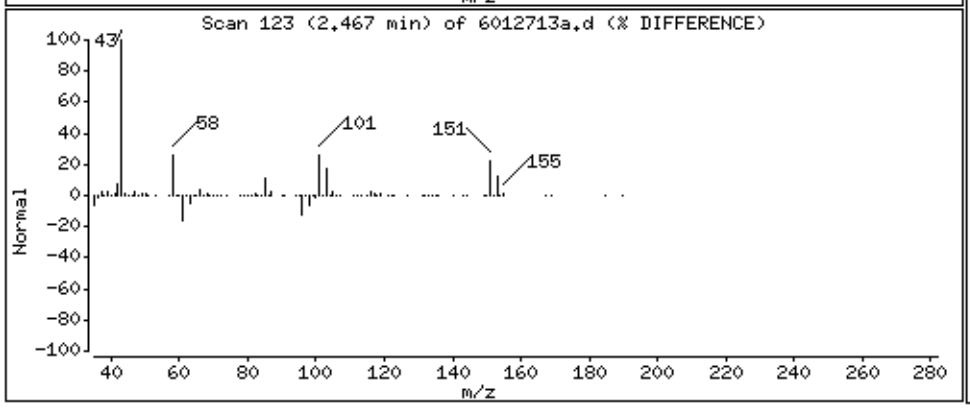
14 1,1-Dichloroethene

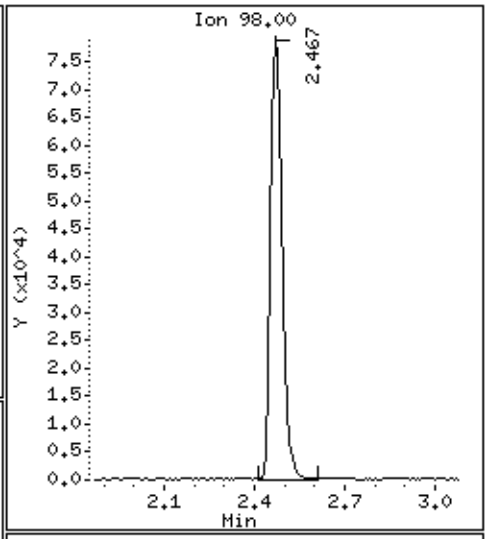
Concentration: 71.463 NG

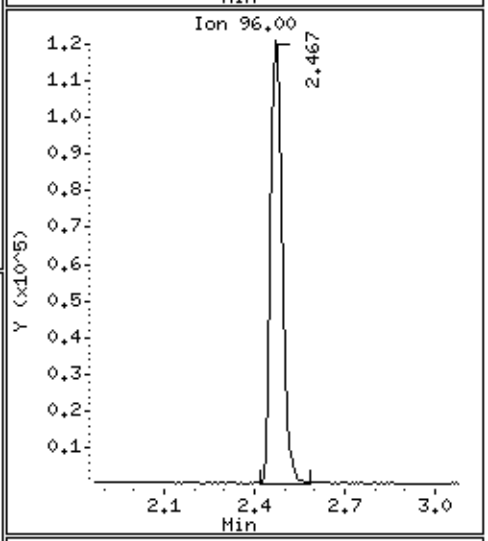


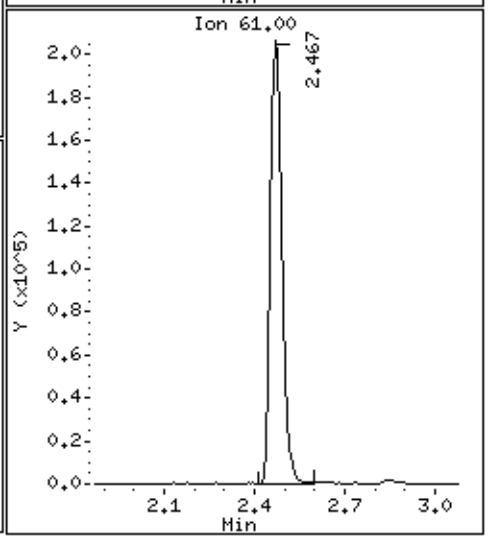












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

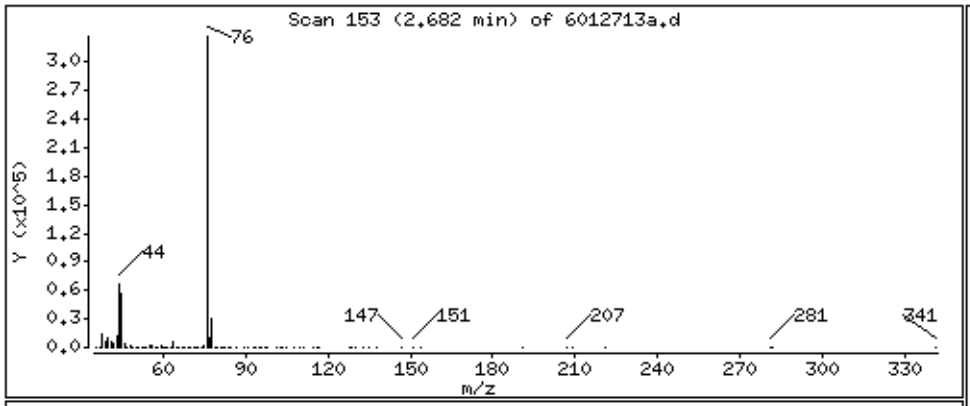
Operator: su

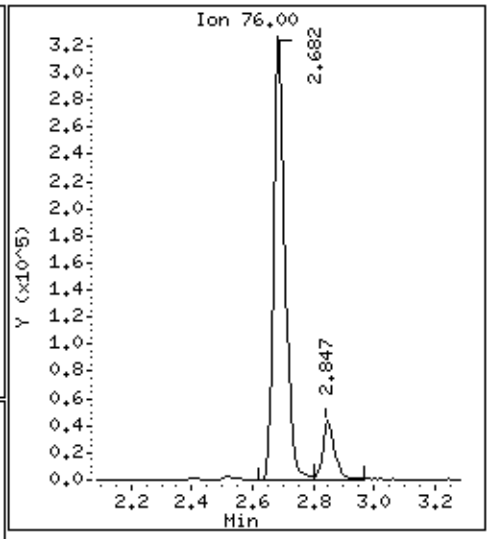
Column phase: RTx-624

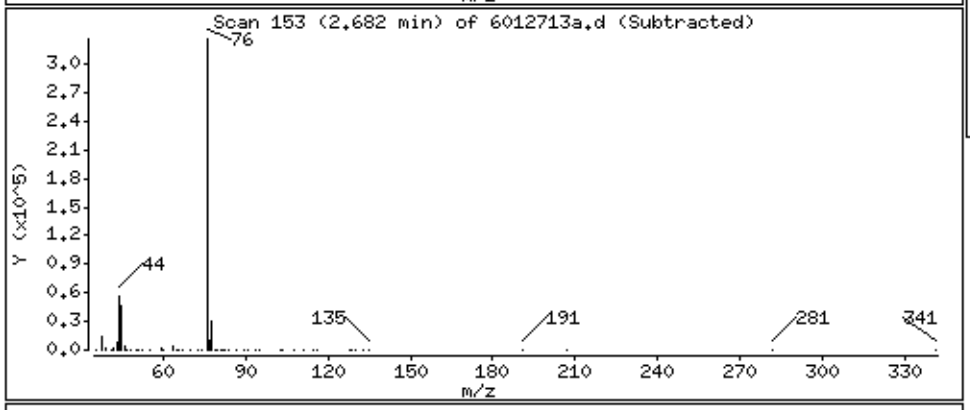
Column diameter: 0.53

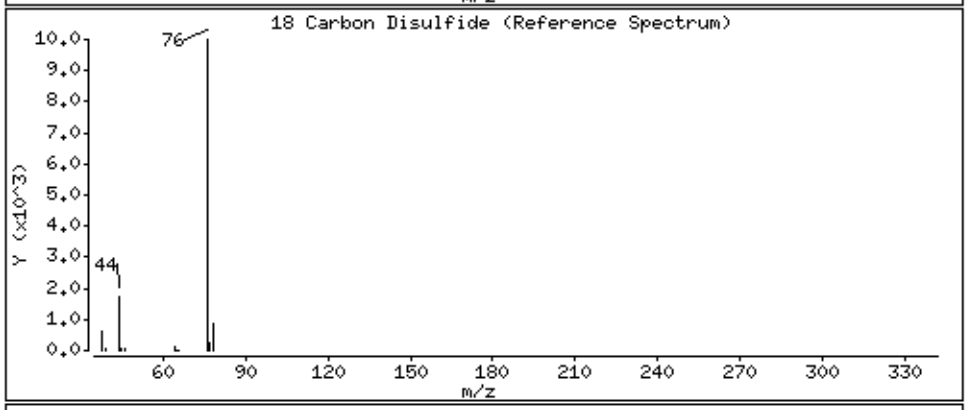
18 Carbon Disulfide

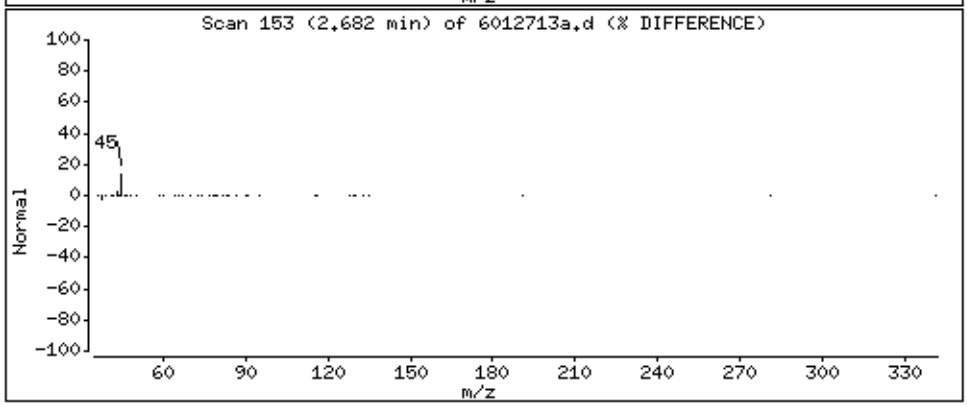
Concentration: 59.182 NG











Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

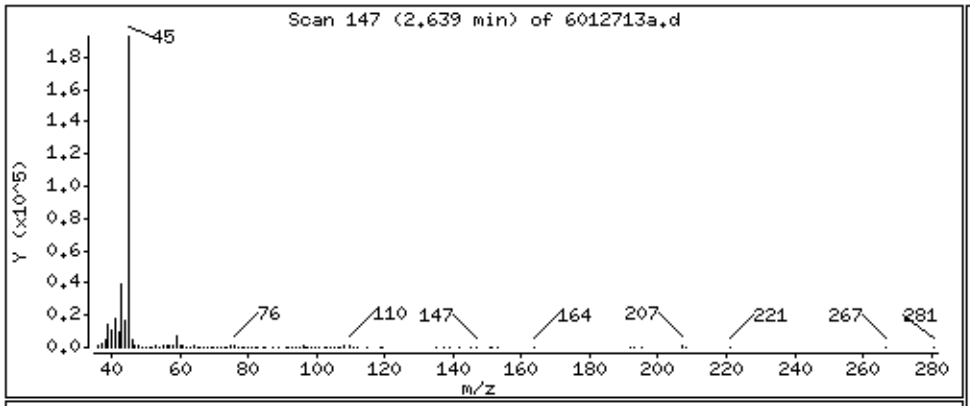
Operator: su

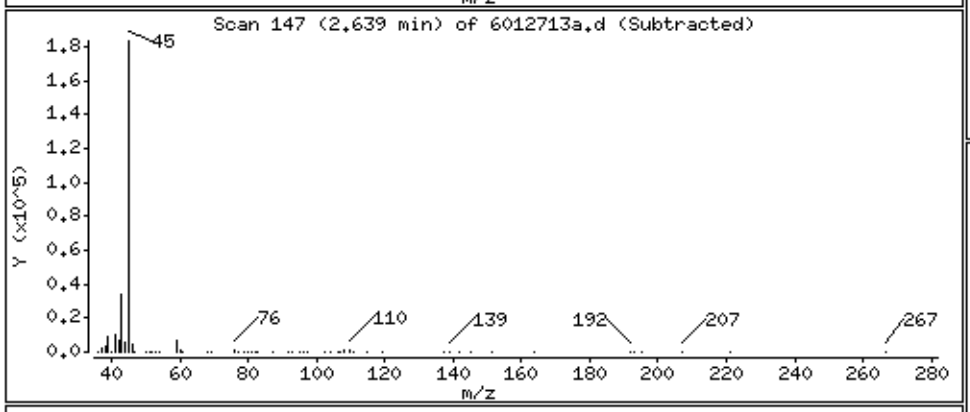
Column phase: RTx-624

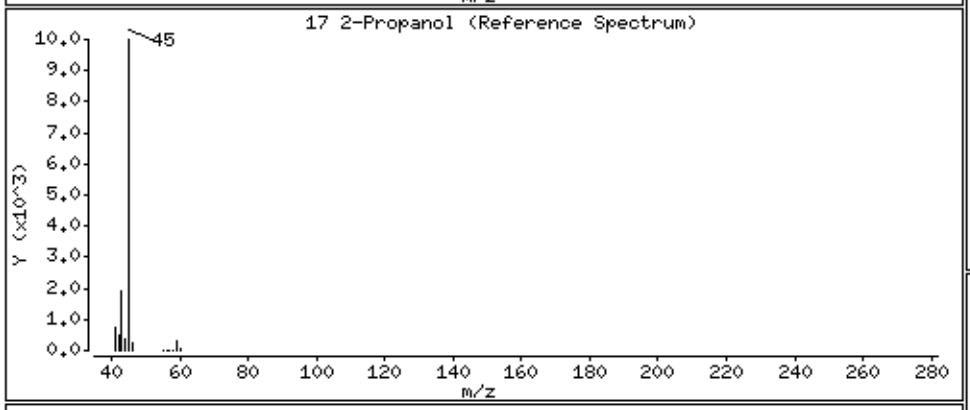
Column diameter: 0.53

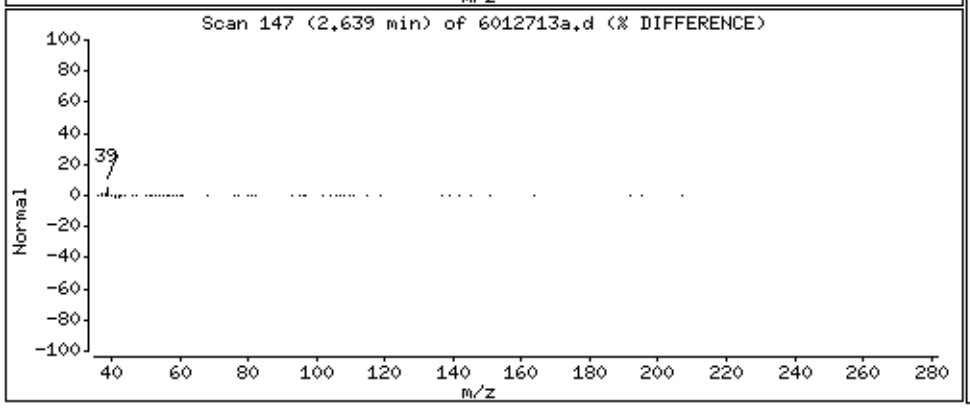
17 2-Propanol

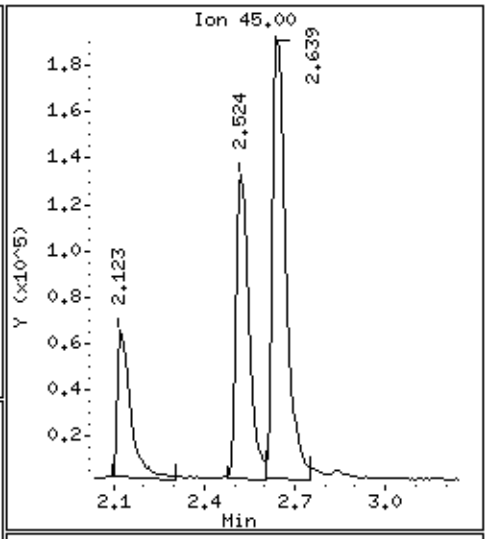
Concentration: 47.054 NG

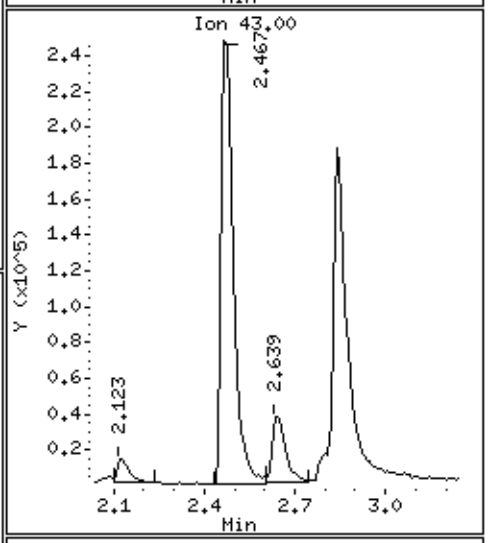


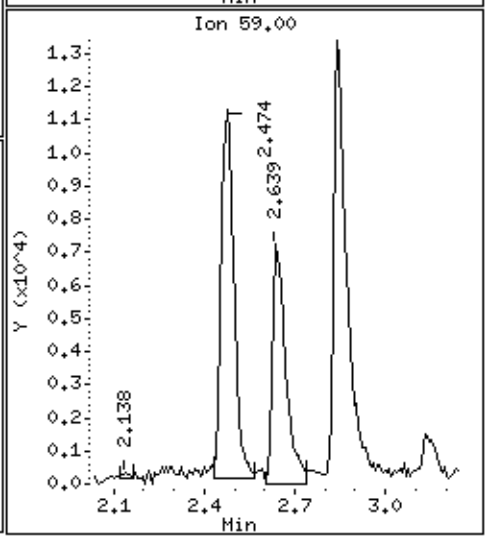












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

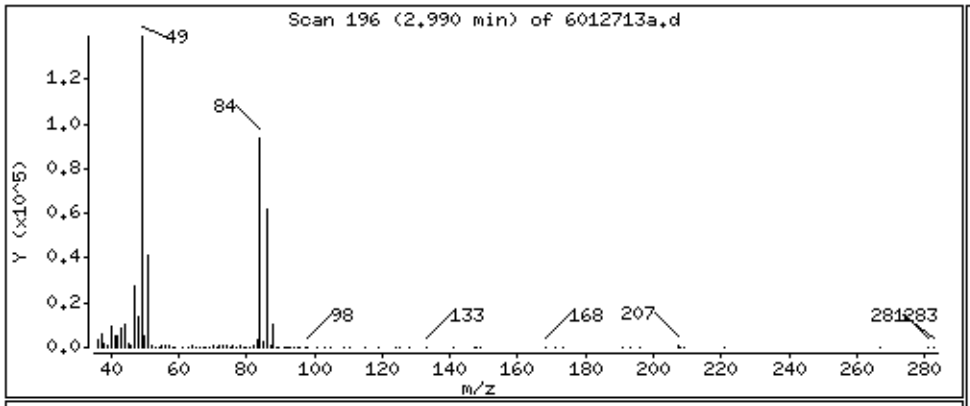
Operator: su

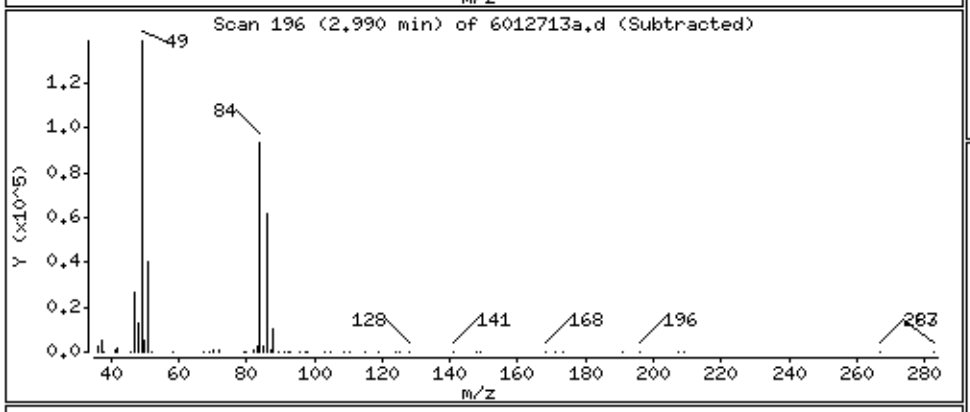
Column phase: RTx-624

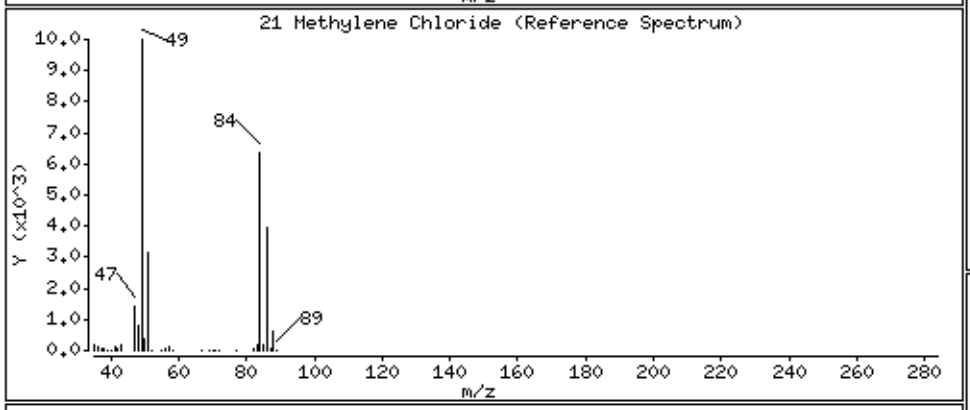
Column diameter: 0.53

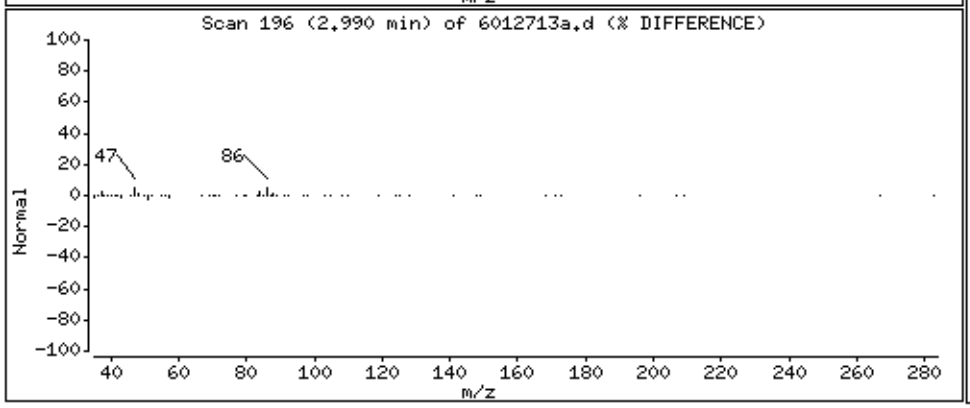
21 Methylene Chloride

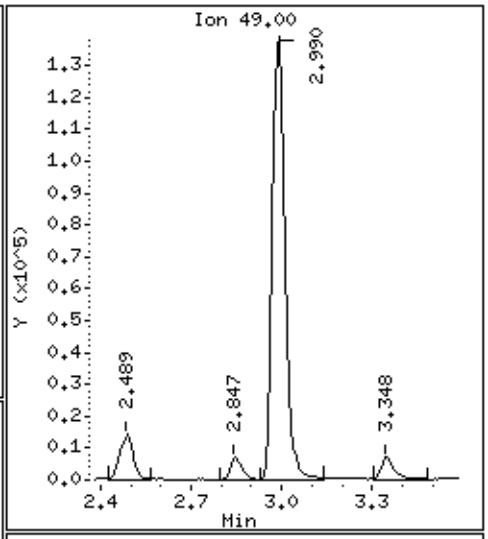
Concentration: 64.691 NG

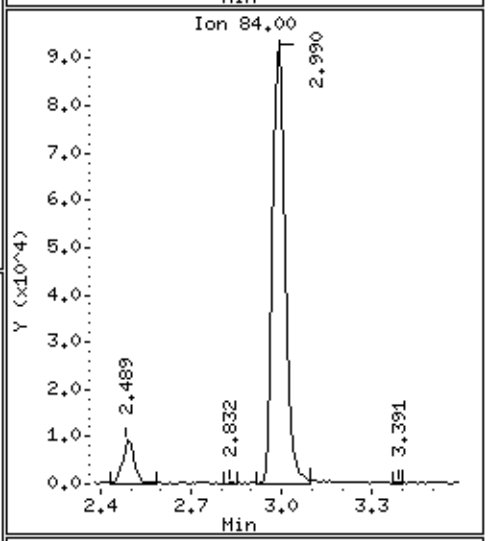


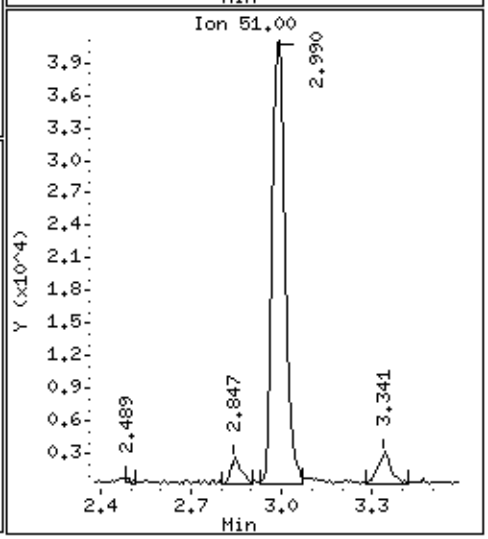












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

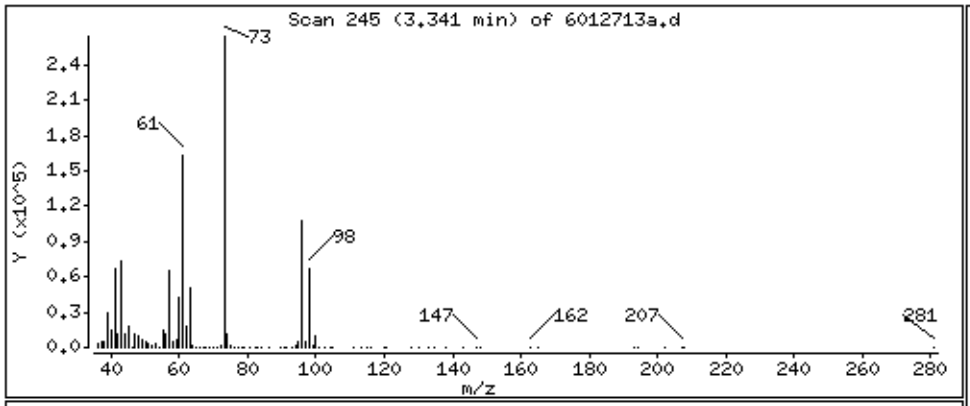
Operator: su

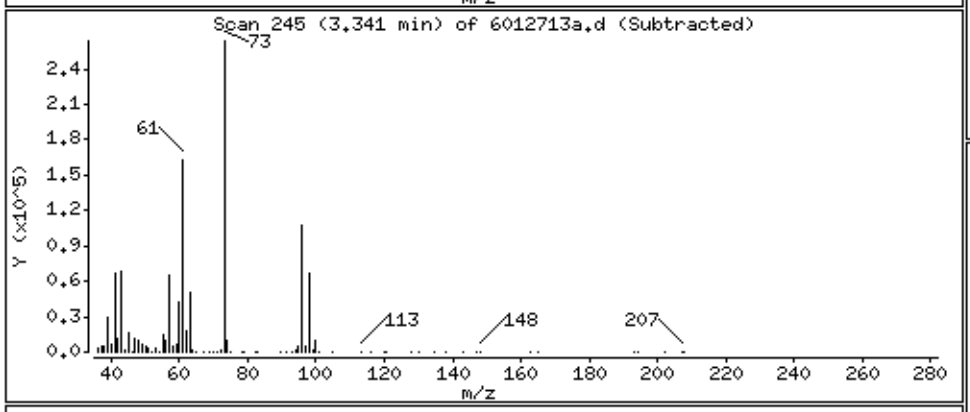
Column phase: RTx-624

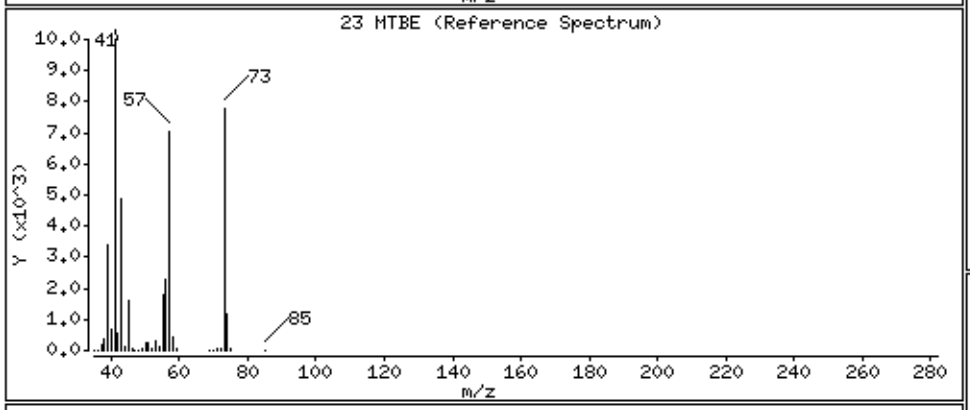
Column diameter: 0.53

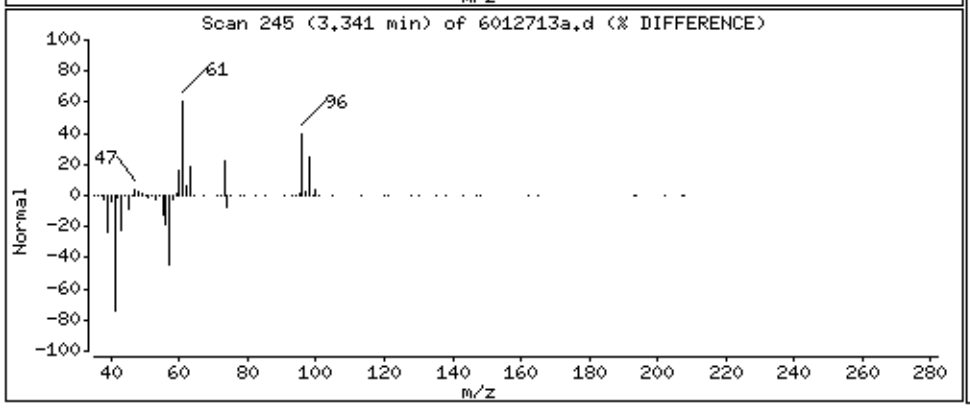
23 MTBE

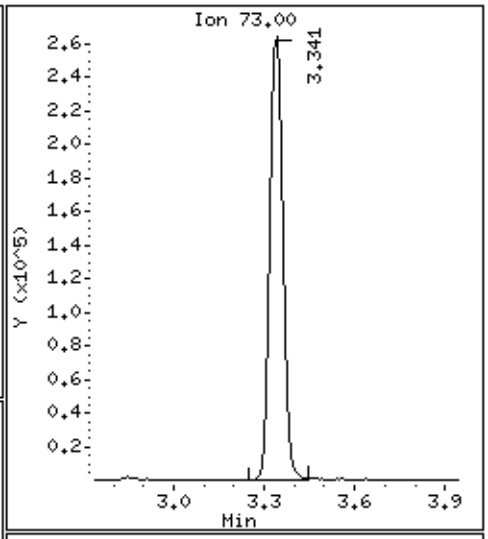
Concentration: 71.037 NG

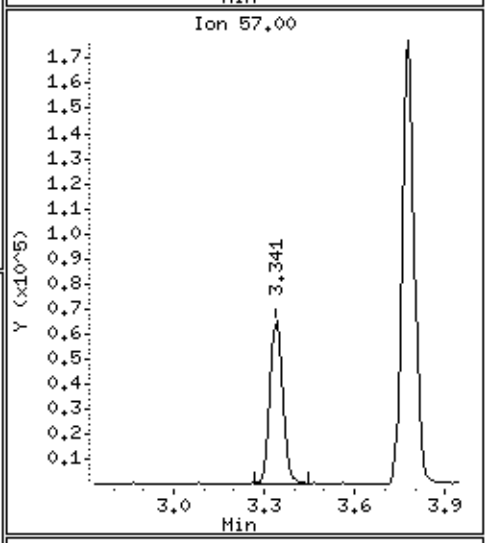


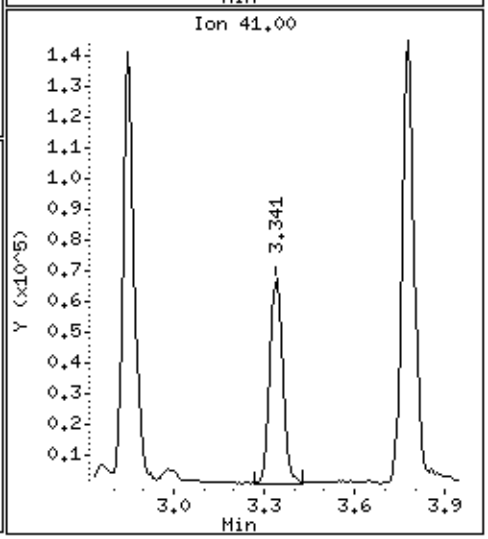












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

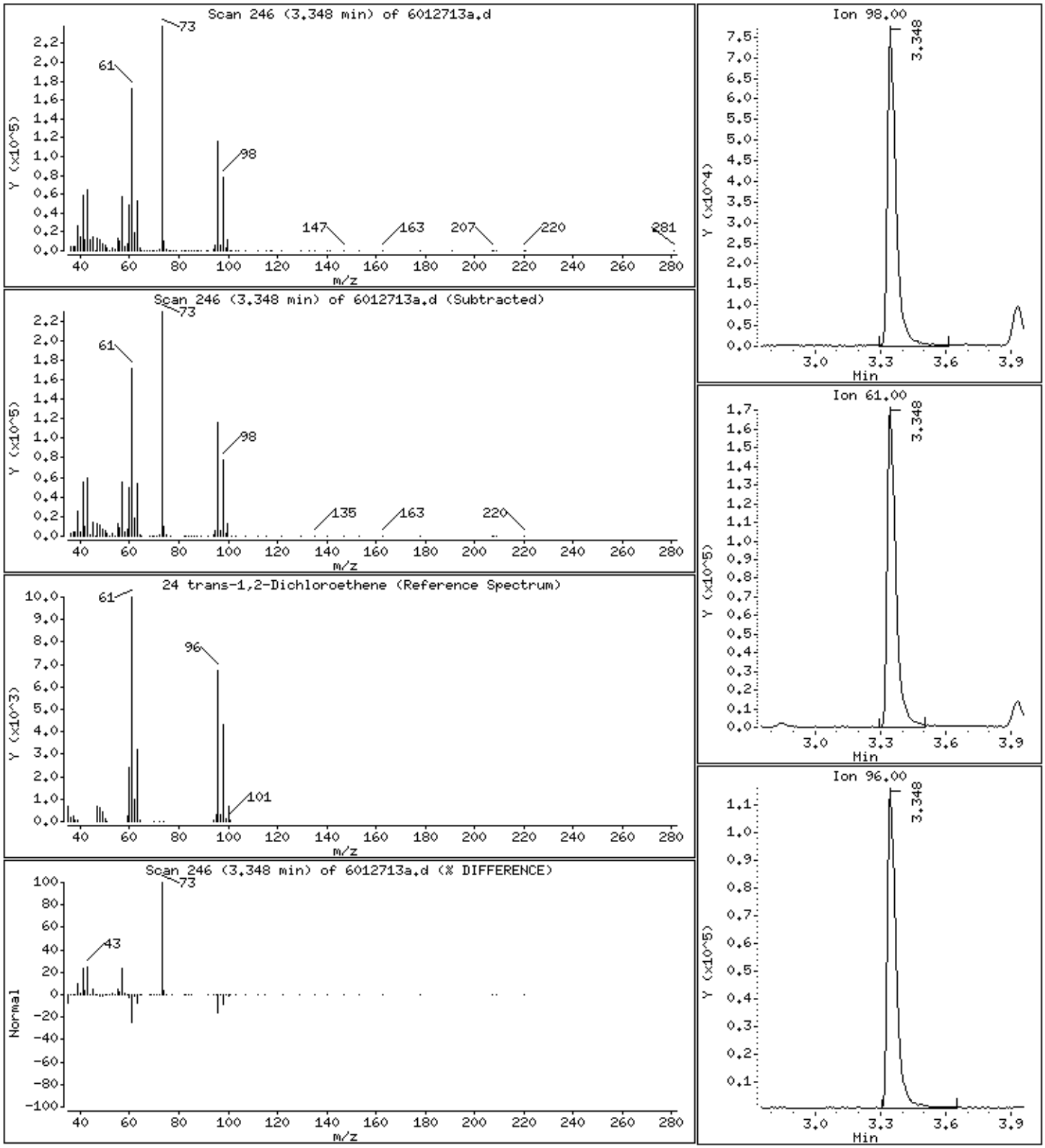
Operator: su

Column phase: RTx-624

Column diameter: 0.53

24 trans-1,2-Dichloroethene

Concentration: 82.410 NG



Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

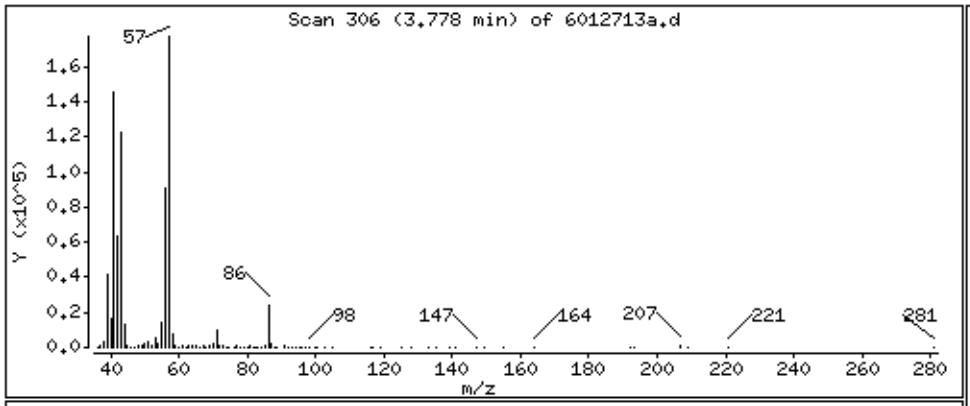
Operator: su

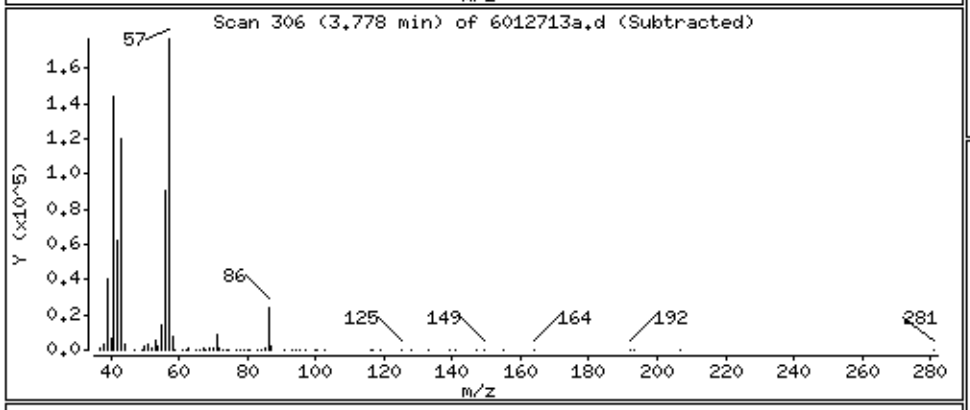
Column phase: RTx-624

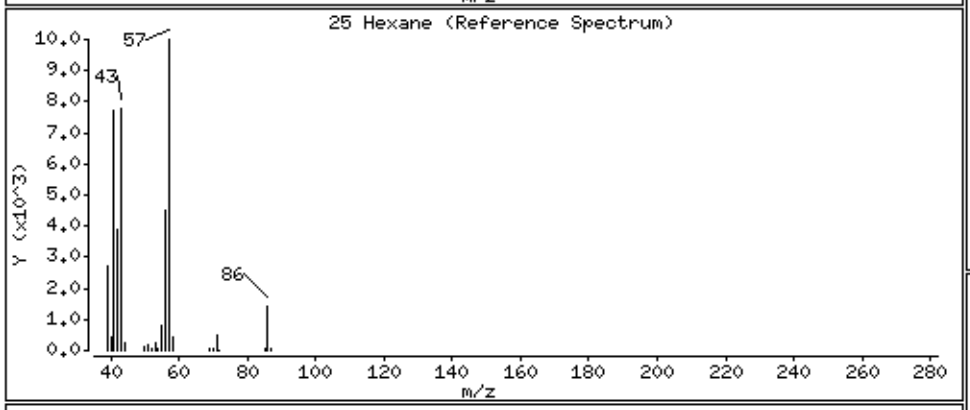
Column diameter: 0.53

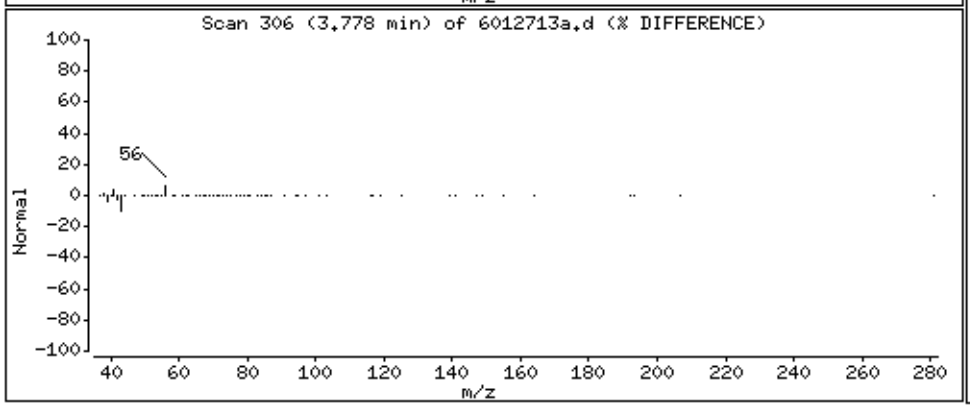
25 Hexane

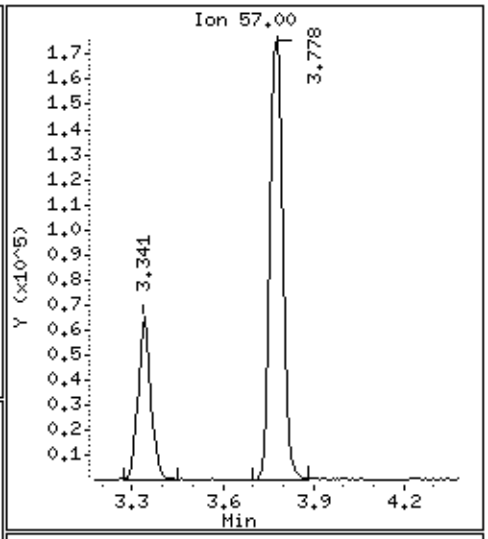
Concentration: 68.742 NG

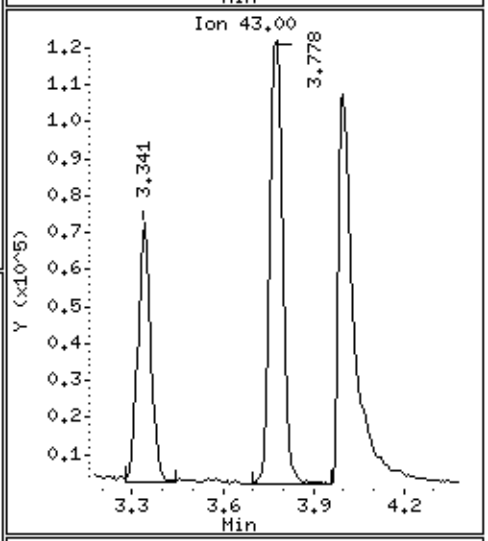


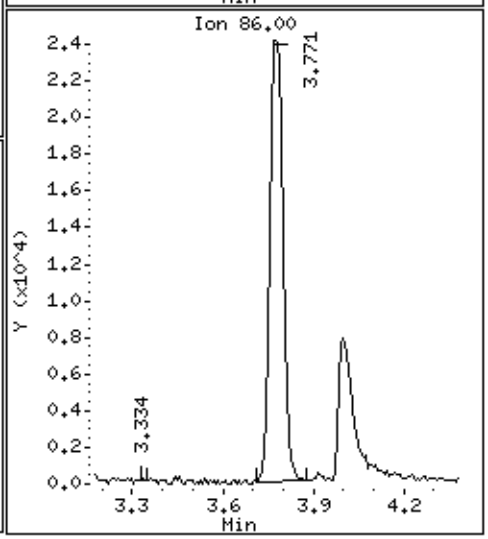












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

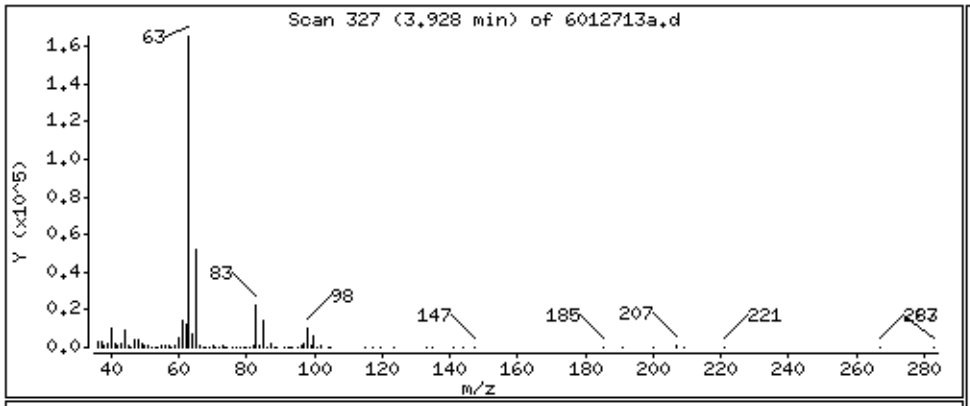
Operator: su

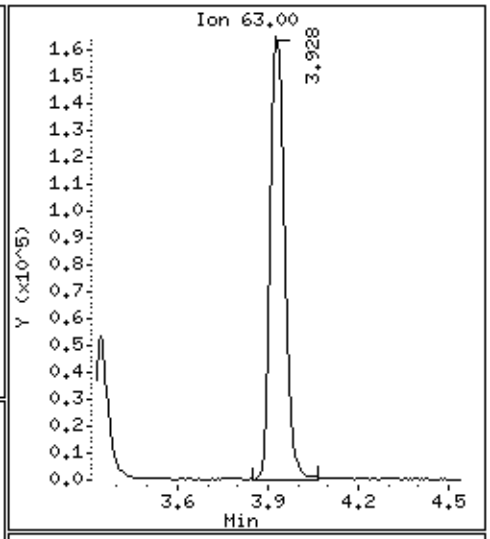
Column phase: RTx-624

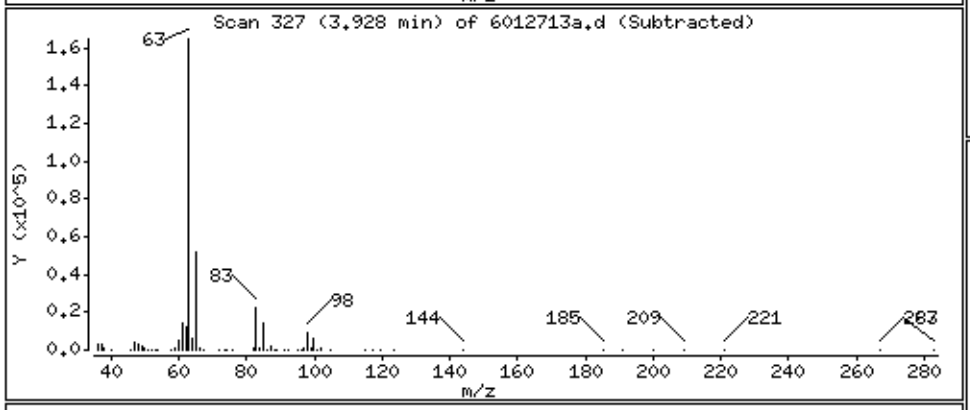
Column diameter: 0.53

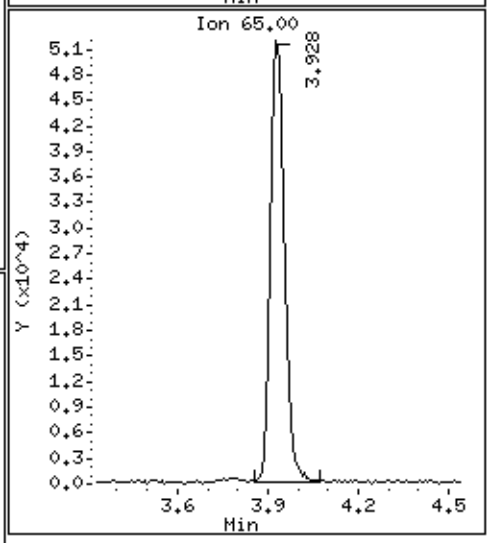
26 1,1-Dichloroethane

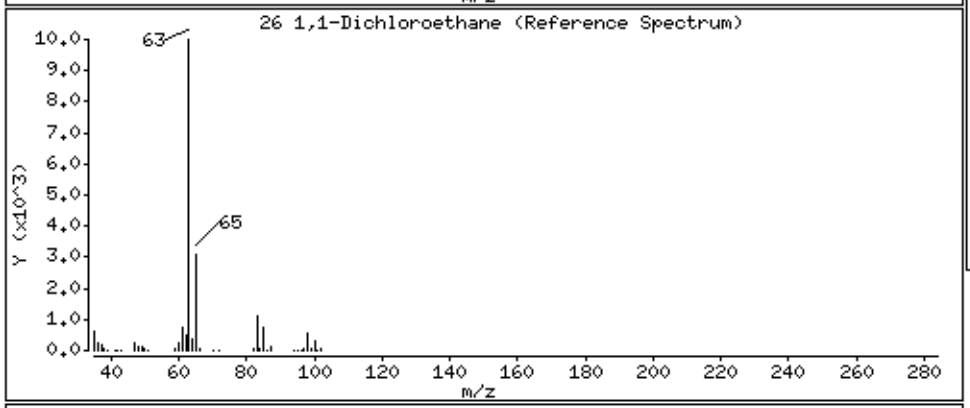
Concentration: 77.855 NG

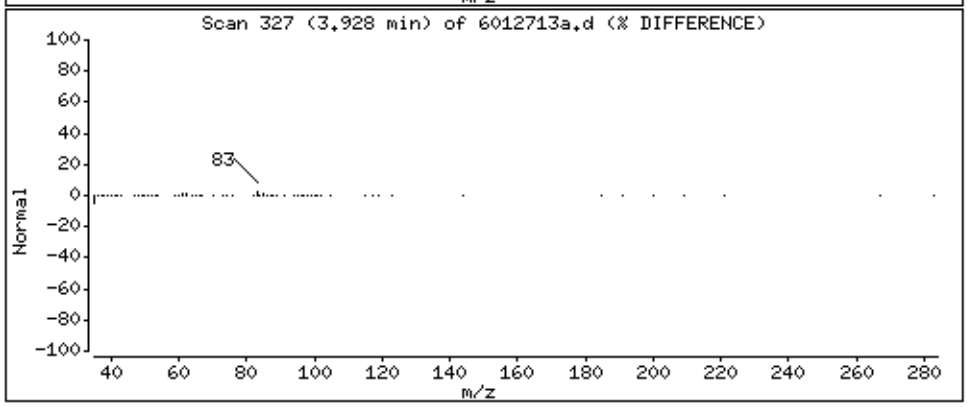












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

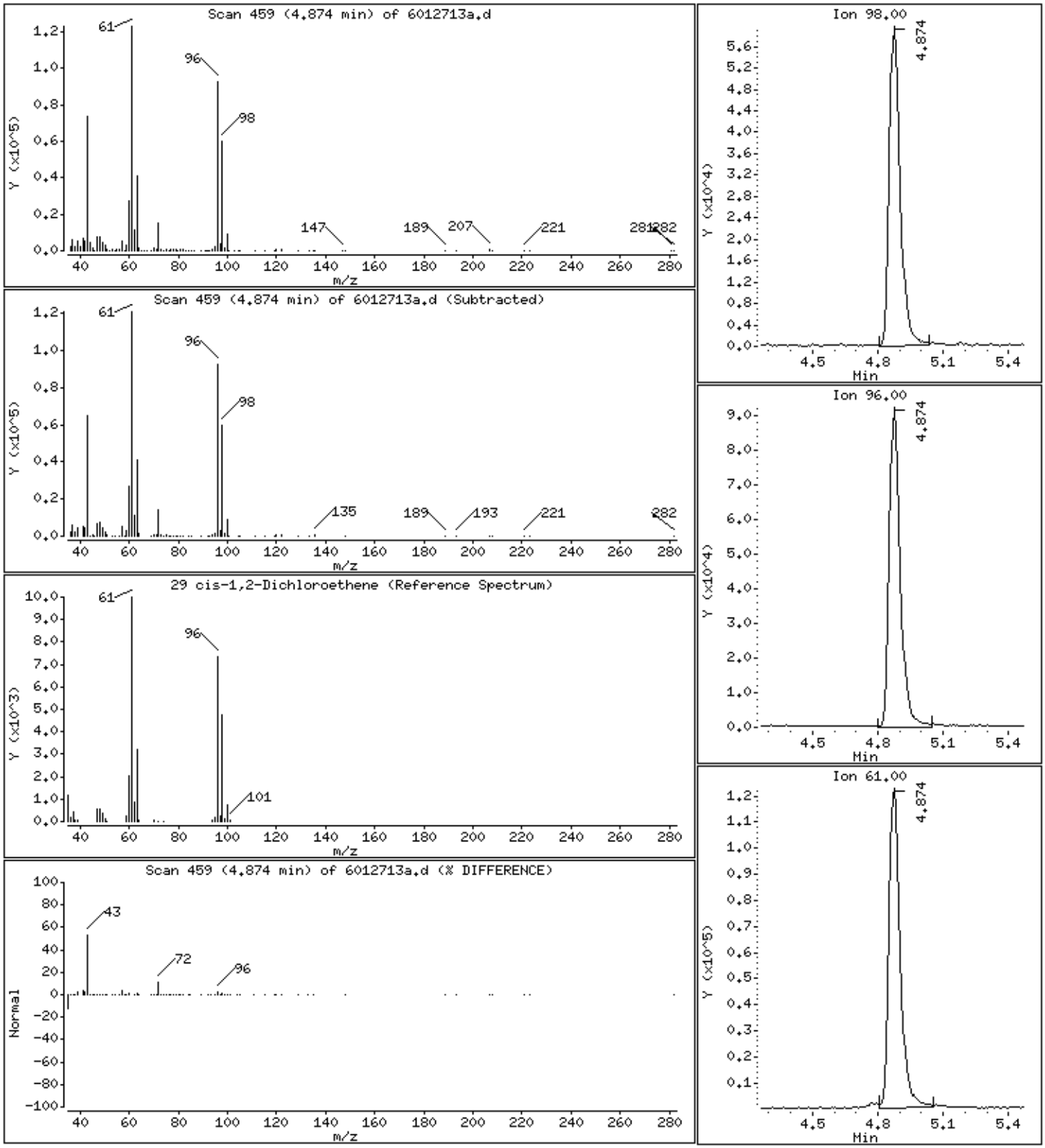
Operator: su

Column phase: RTx-624

Column diameter: 0.53

29 cis-1,2-Dichloroethene

Concentration: 68.649 NG



Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

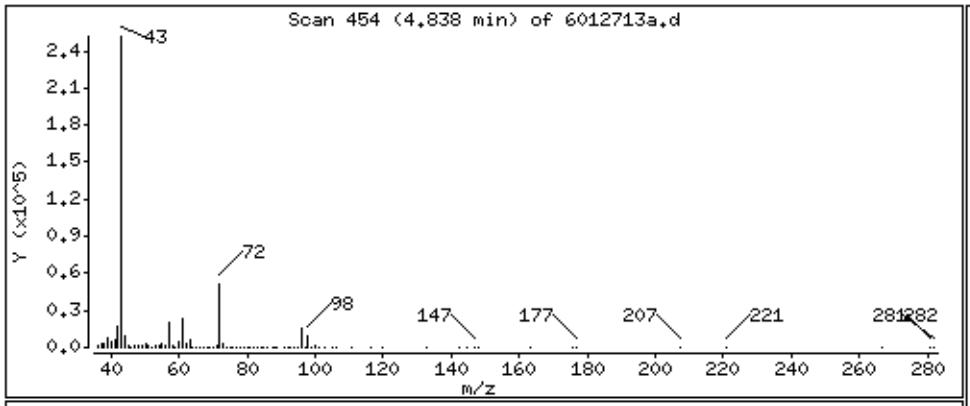
Operator: su

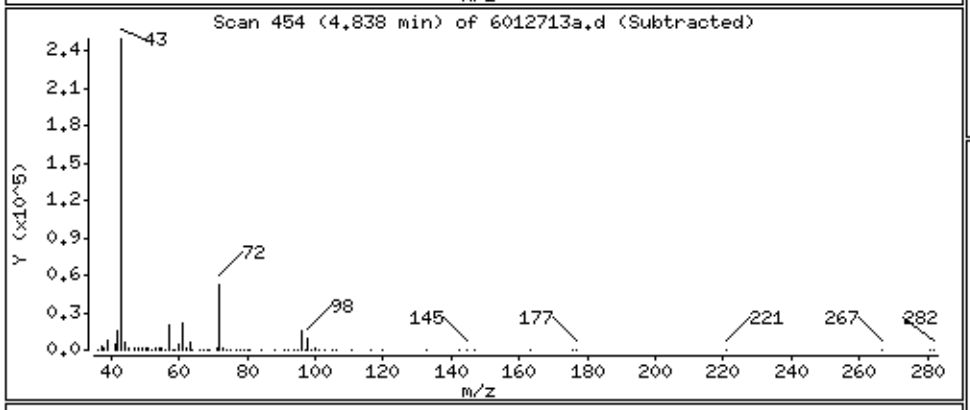
Column phase: RTx-624

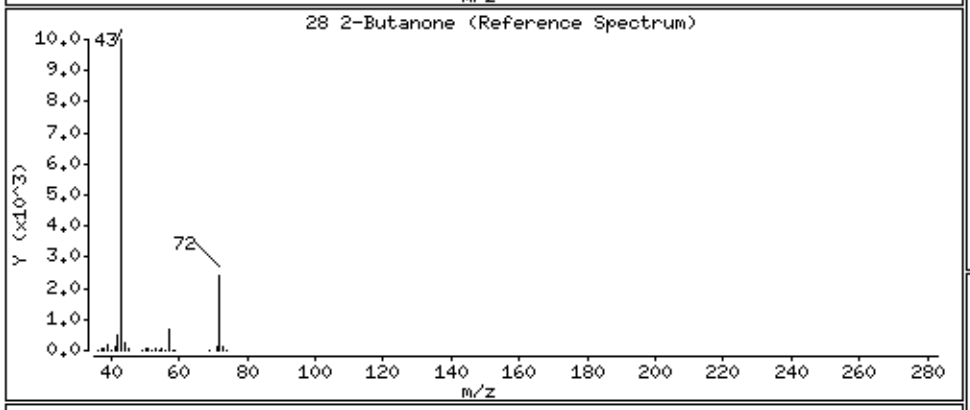
Column diameter: 0.53

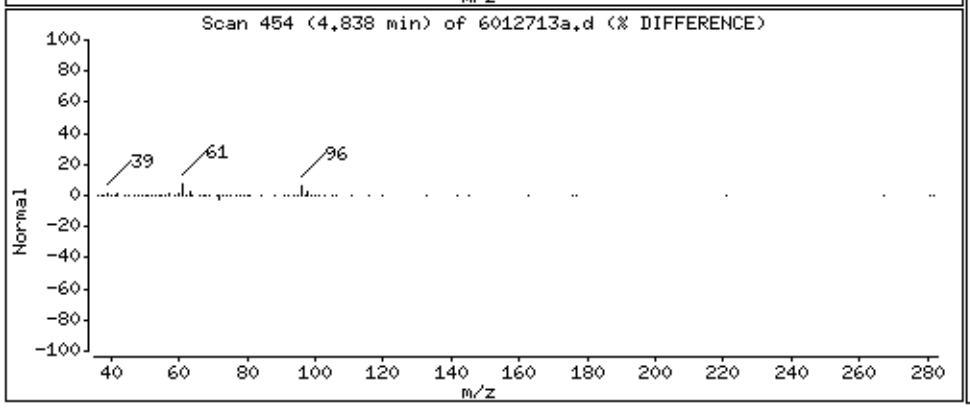
28 2-Butanone

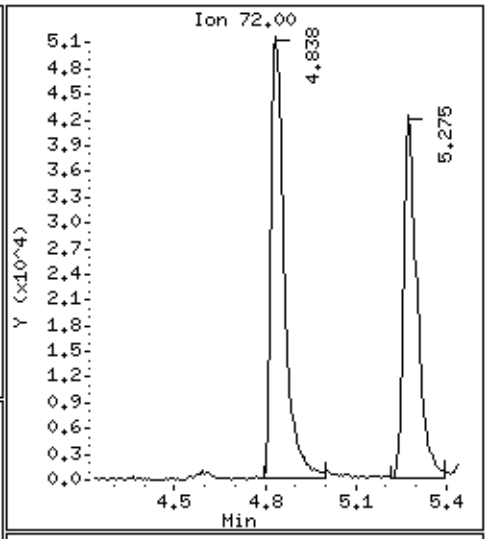
Concentration: 52.168 NG

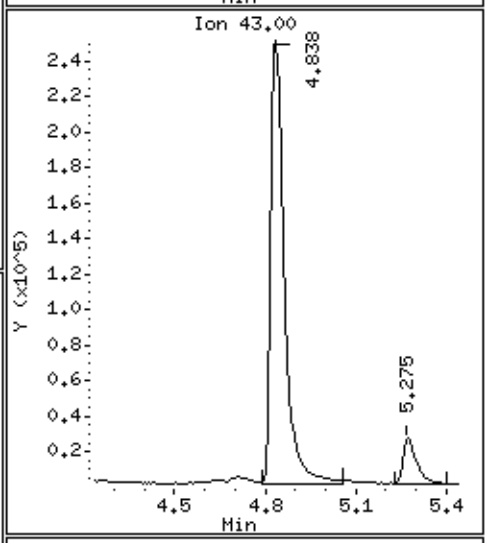


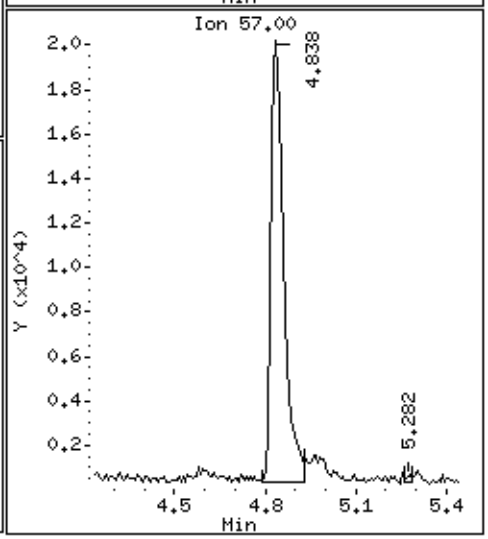












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

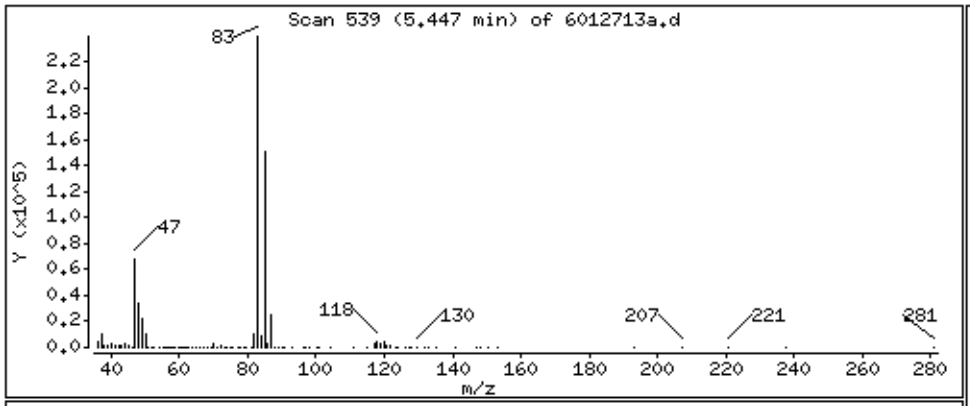
Operator: su

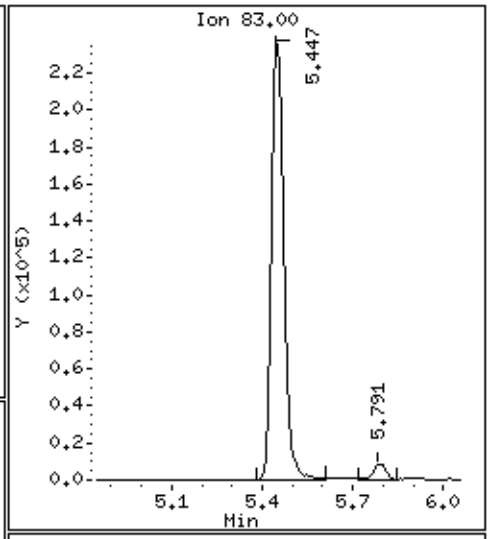
Column phase: RTx-624

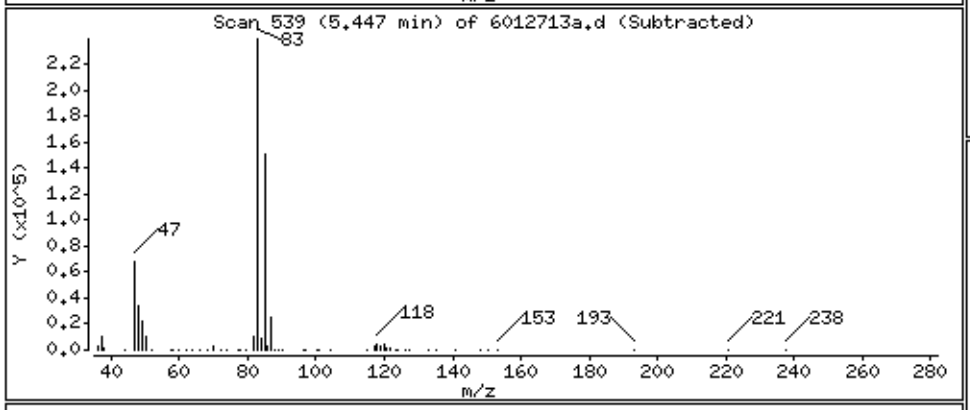
Column diameter: 0.53

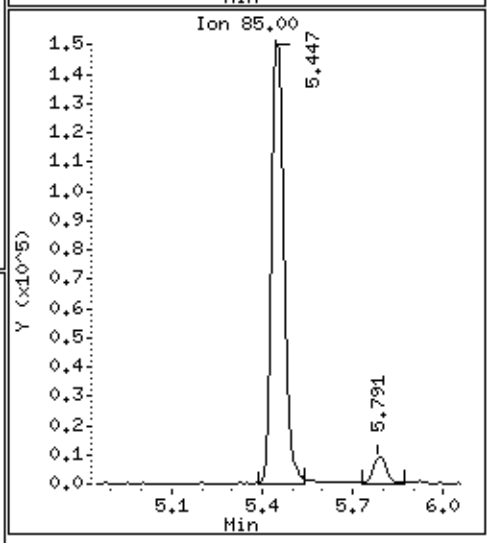
35 Chloroform

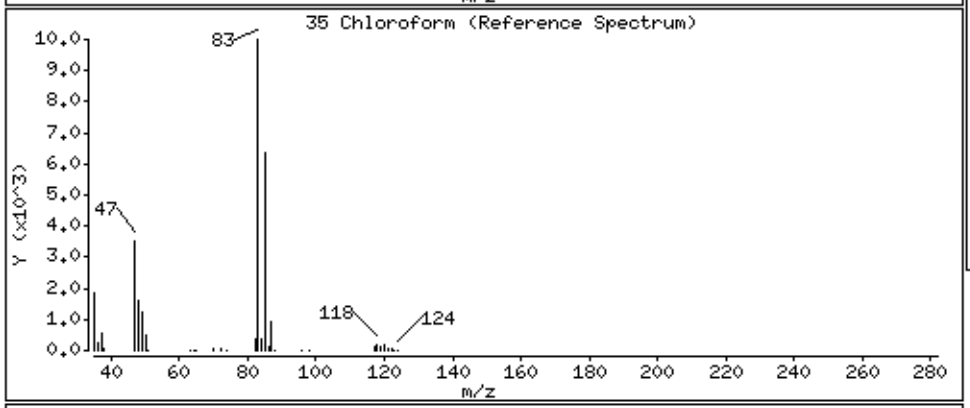
Concentration: 94.187 NG

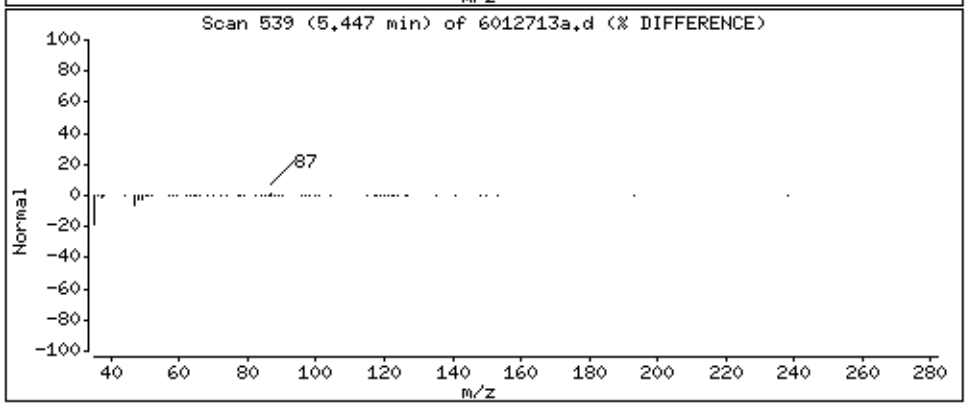












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

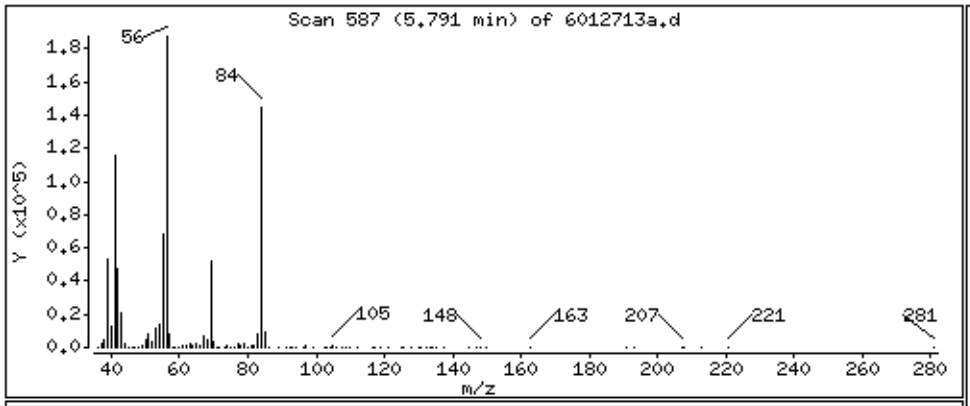
Operator: su

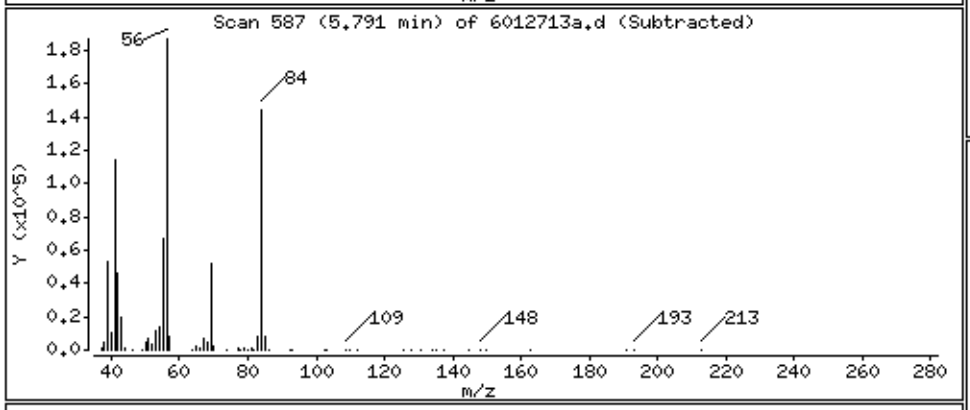
Column phase: RTx-624

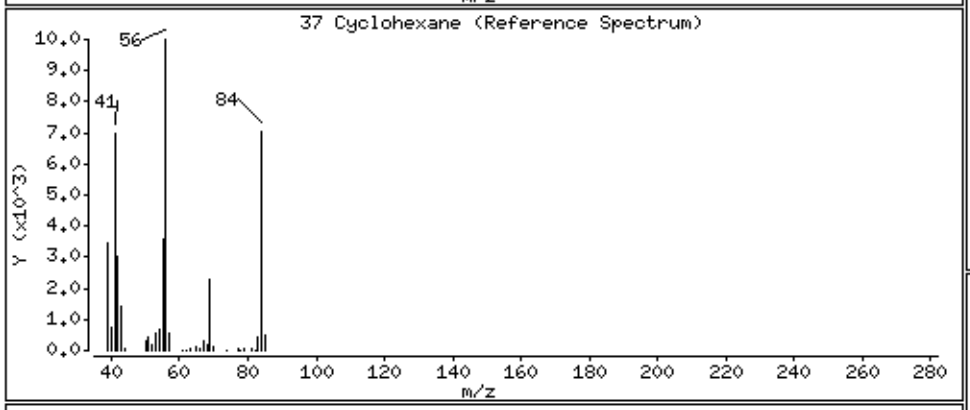
Column diameter: 0.53

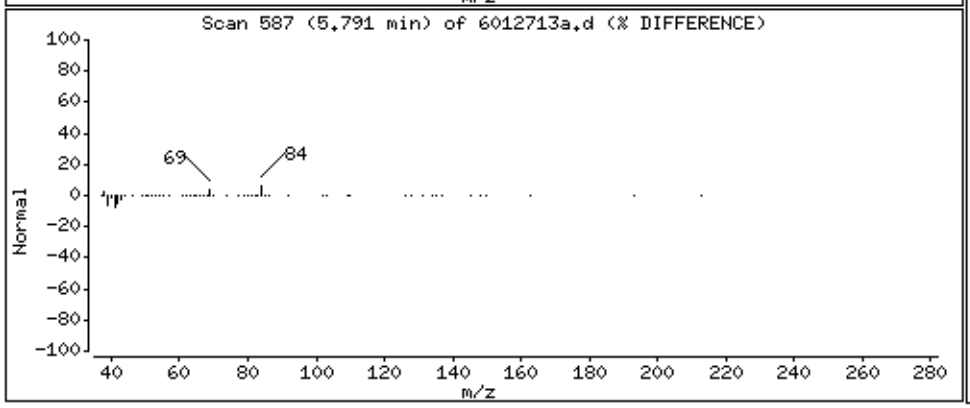
37 Cyclohexane

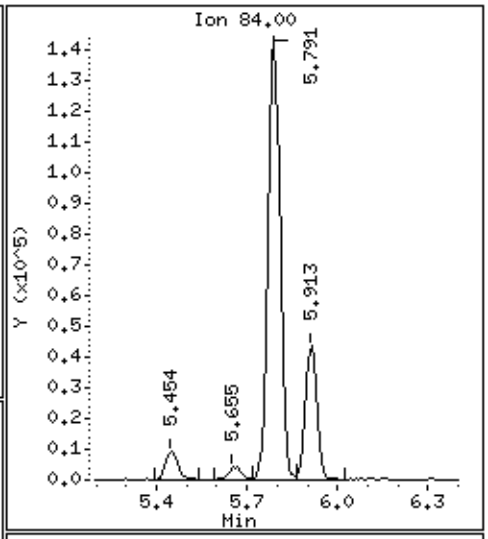
Concentration: 66.834 NG

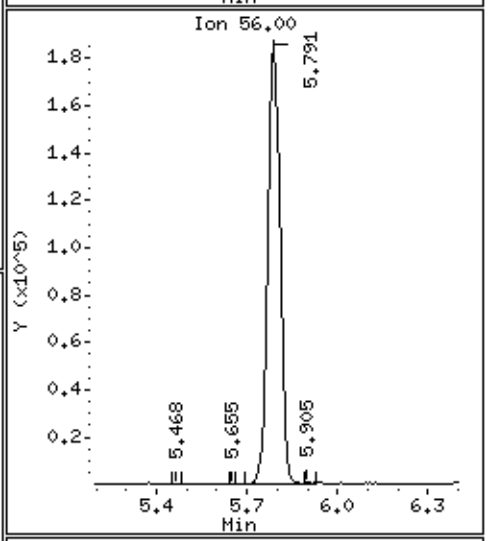


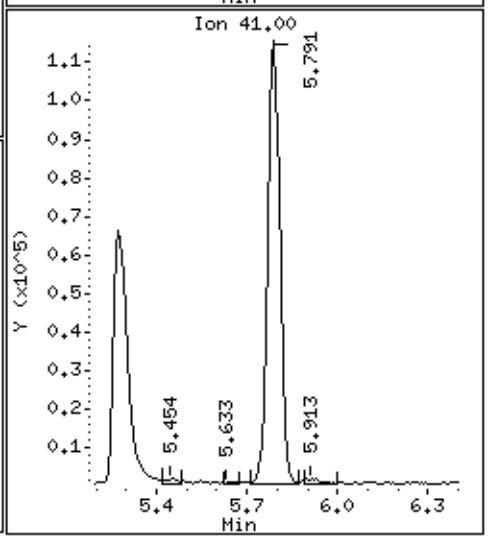












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

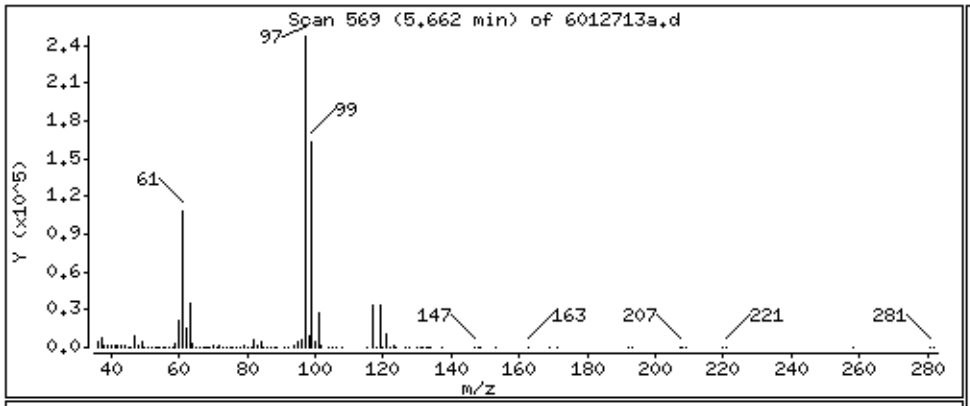
Operator: su

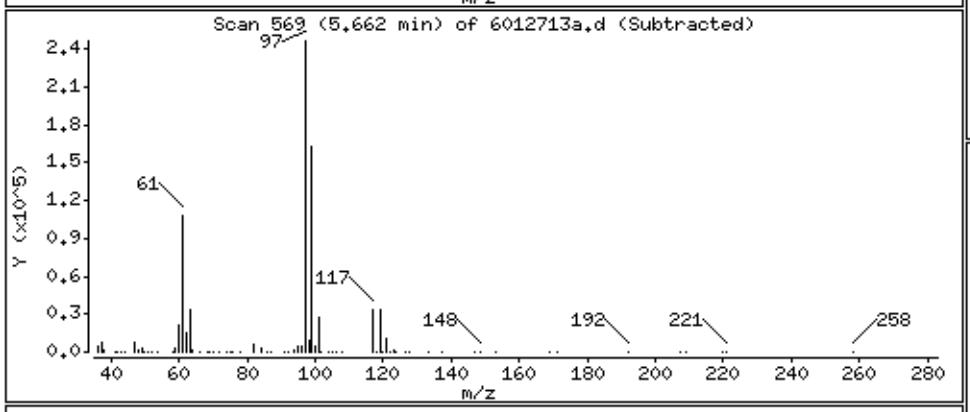
Column phase: RTx-624

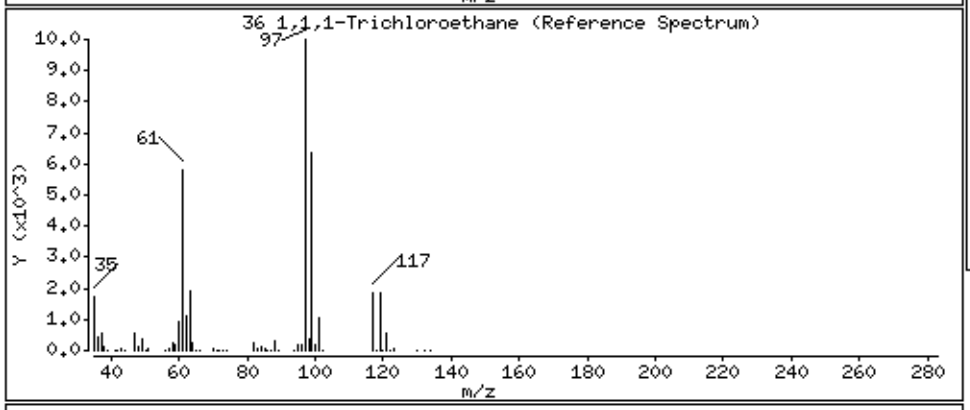
Column diameter: 0.53

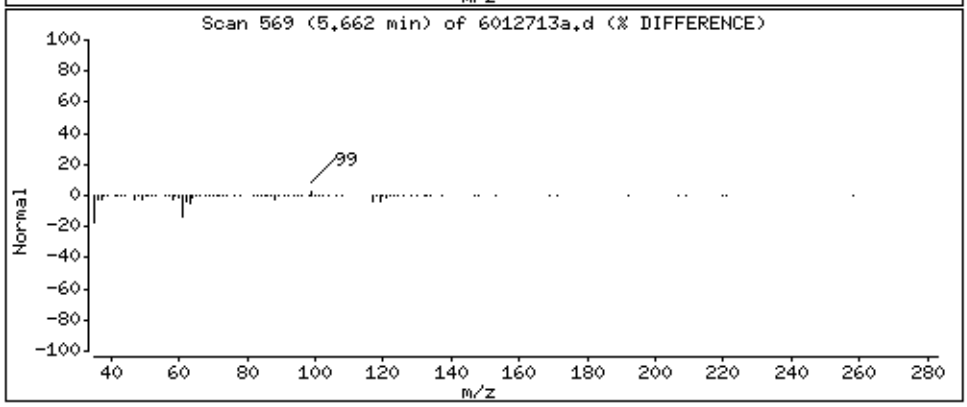
36 1,1,1-Trichloroethane

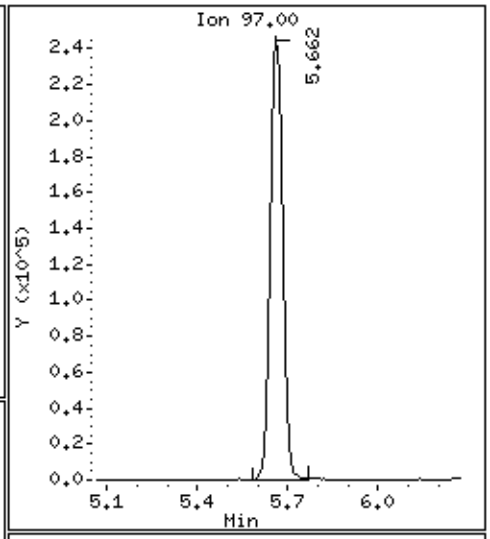
Concentration: 107.07 NG

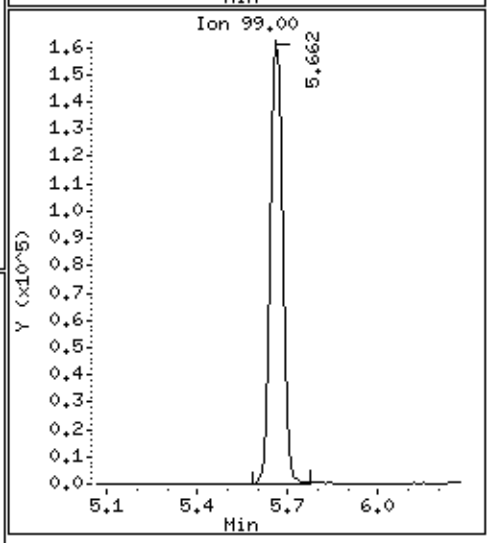












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

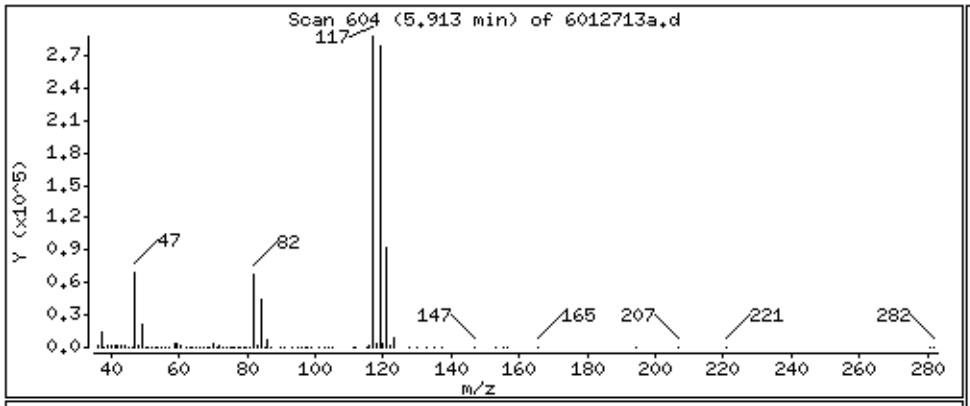
Operator: su

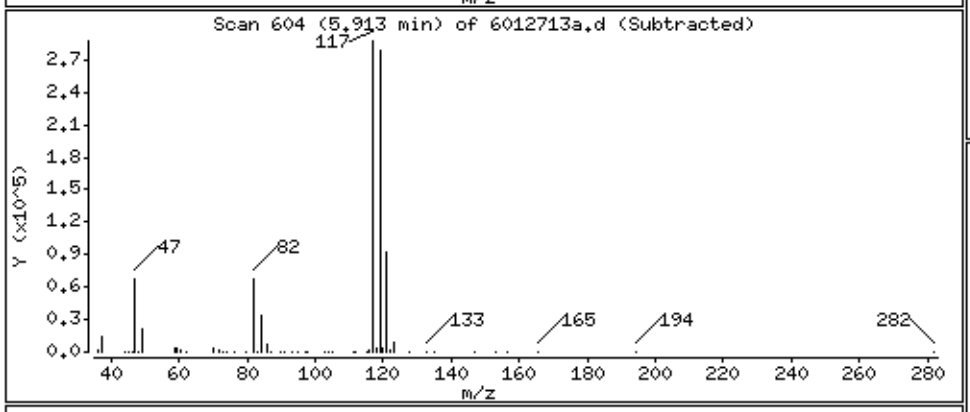
Column phase: RTx-624

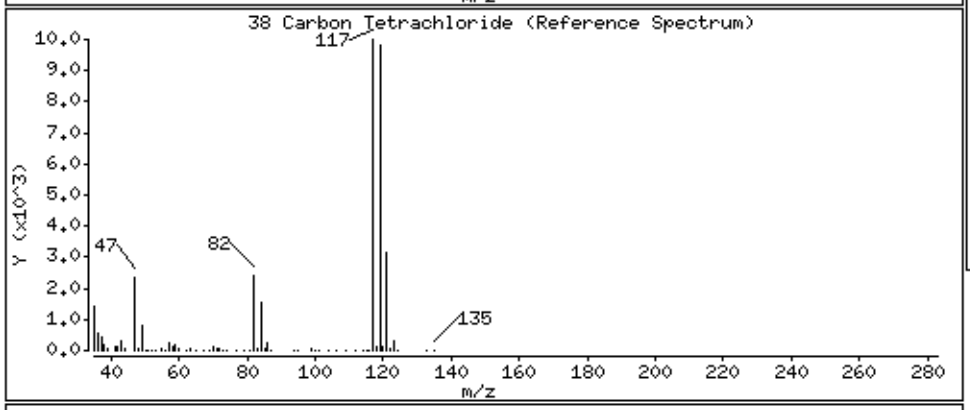
Column diameter: 0.53

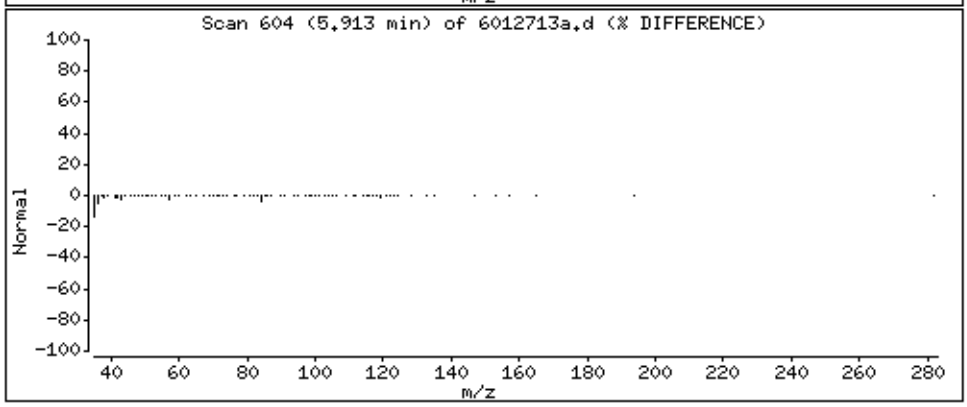
38 Carbon Tetrachloride

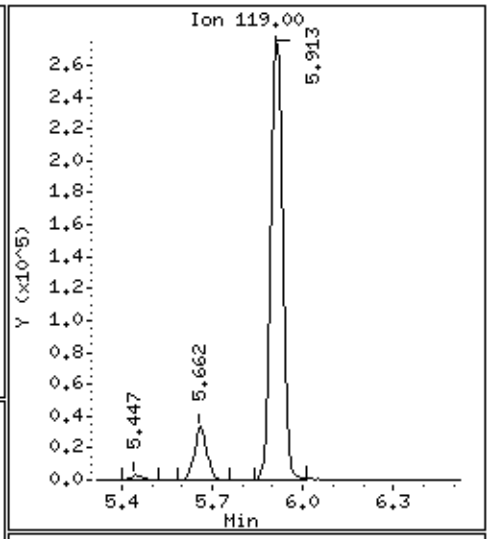
Concentration: 129.95 NG

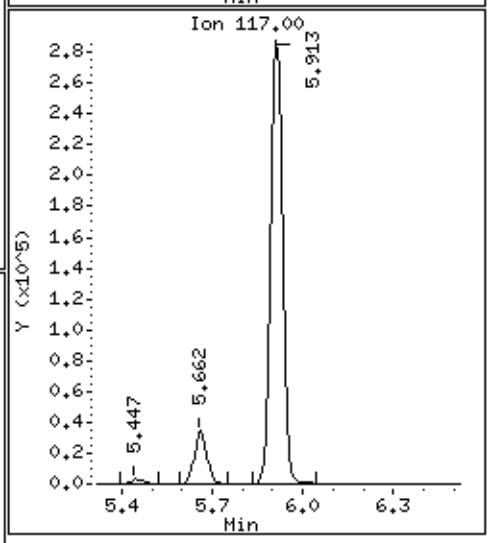












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

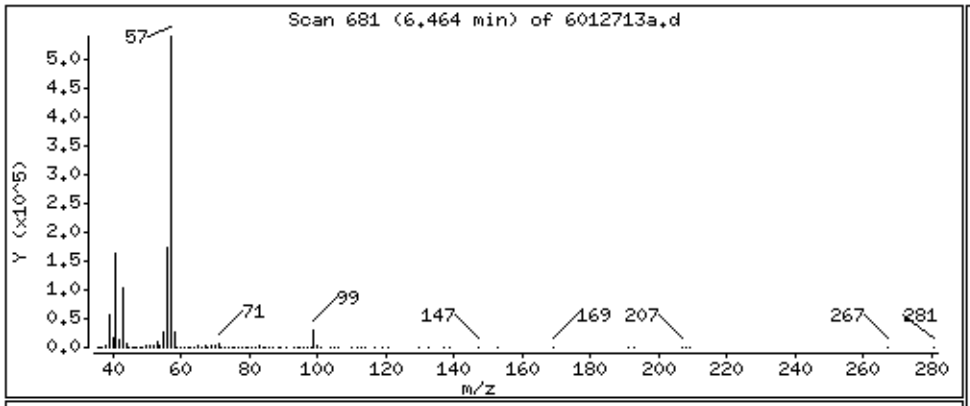
Operator: su

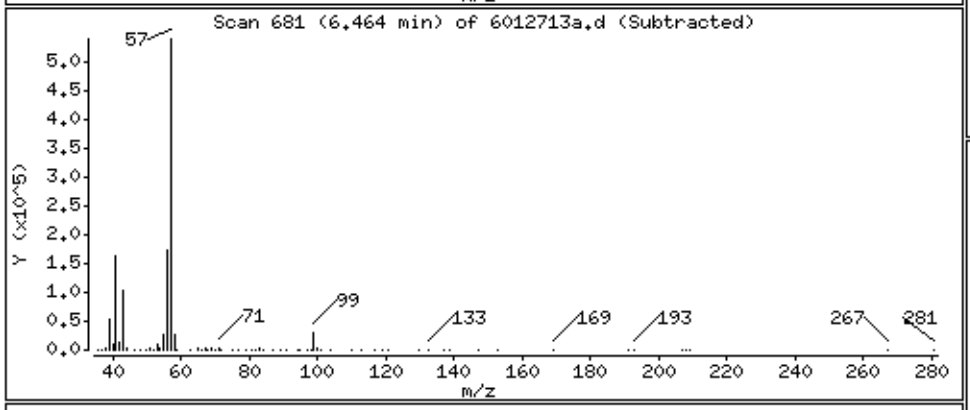
Column phase: RTx-624

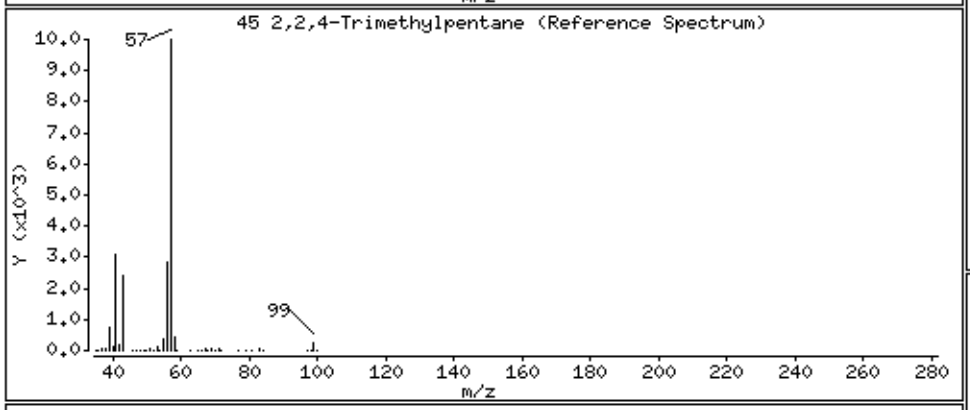
Column diameter: 0.53

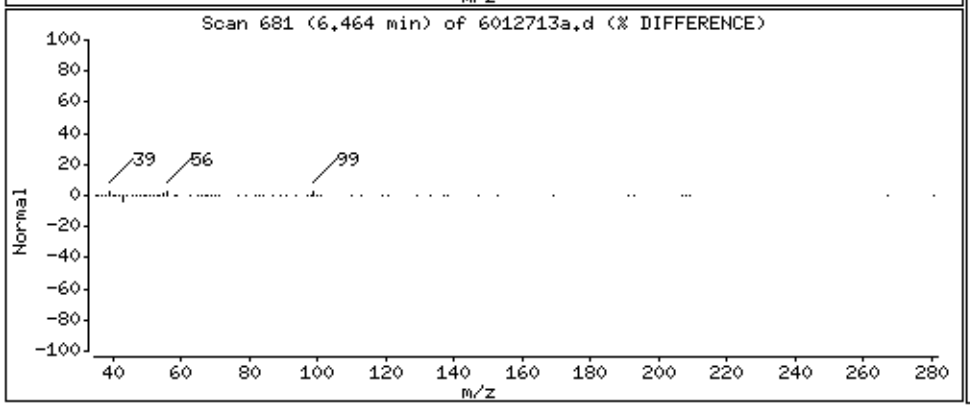
45 2,2,4-Trimethylpentane

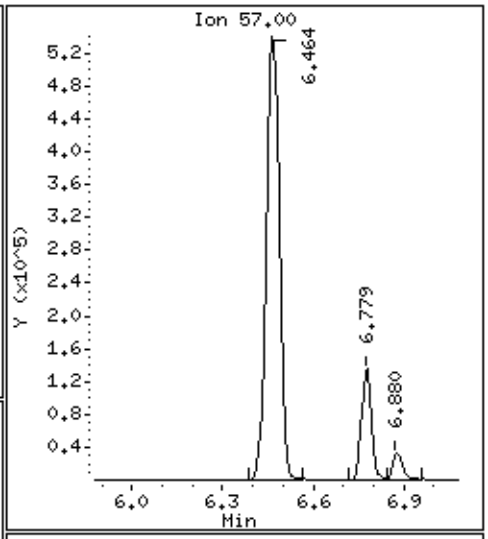
Concentration: 89.930 NG

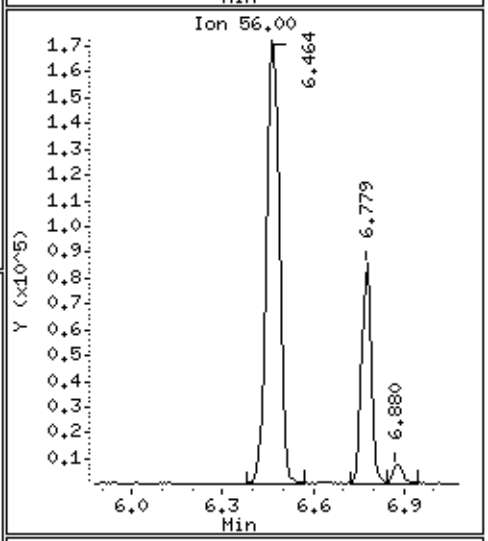


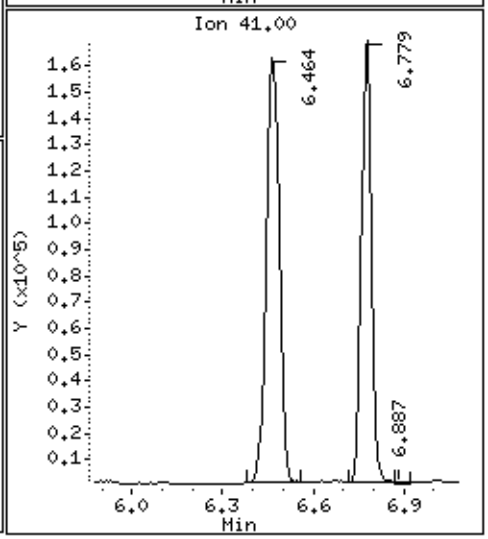












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

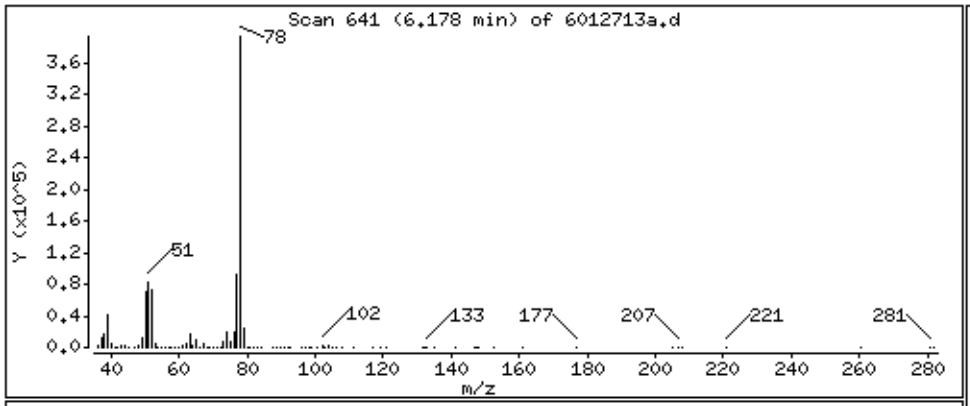
Operator: su

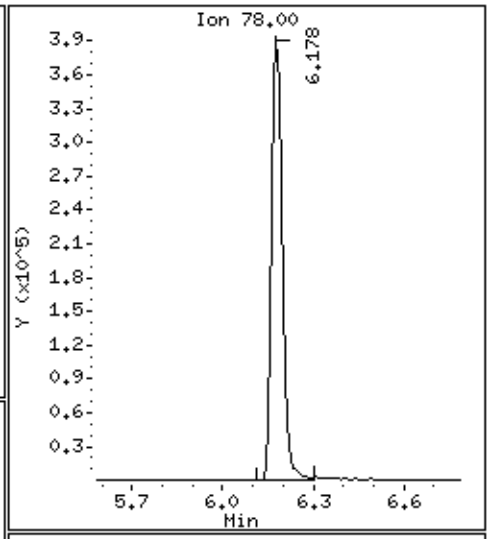
Column phase: RTx-624

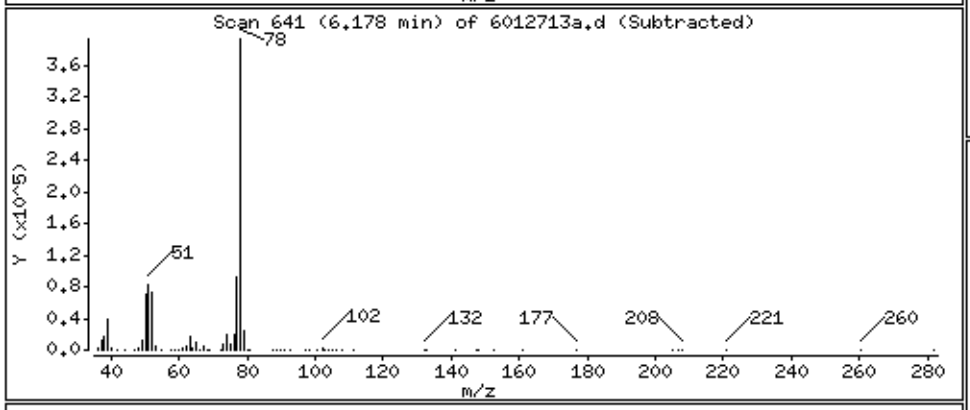
Column diameter: 0.53

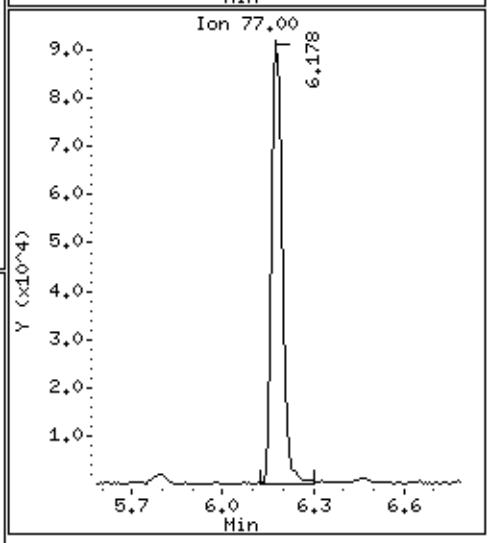
41 Benzene

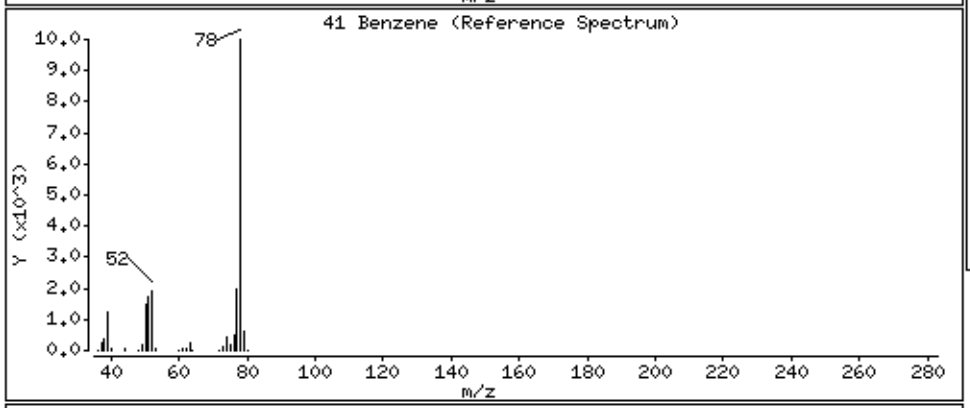
Concentration: 55.223 NG

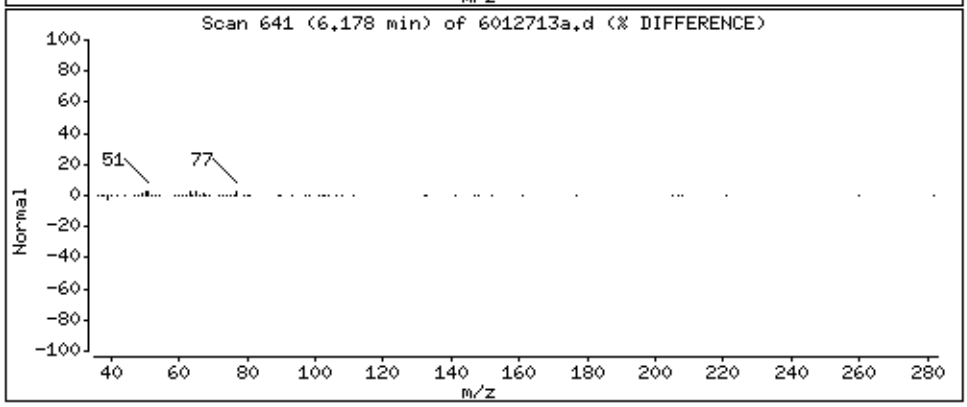












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

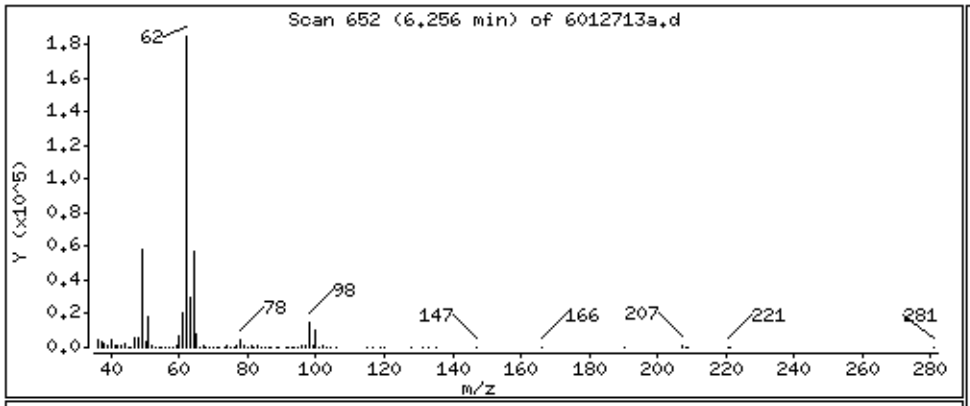
Operator: su

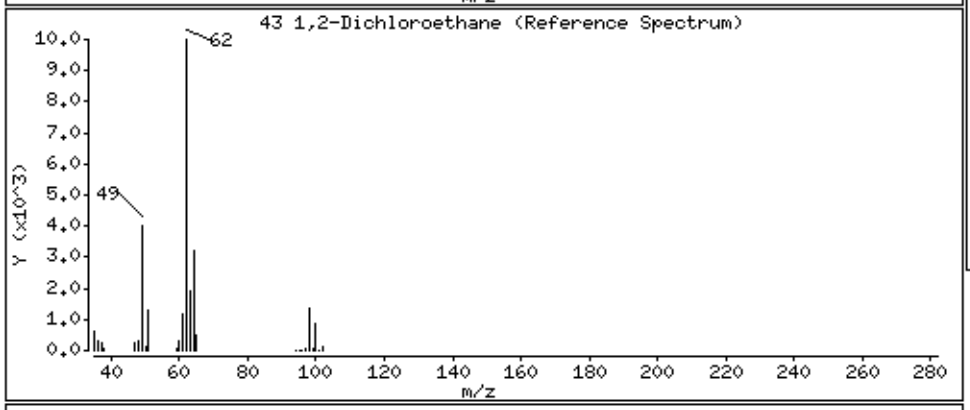
Column phase: RTx-624

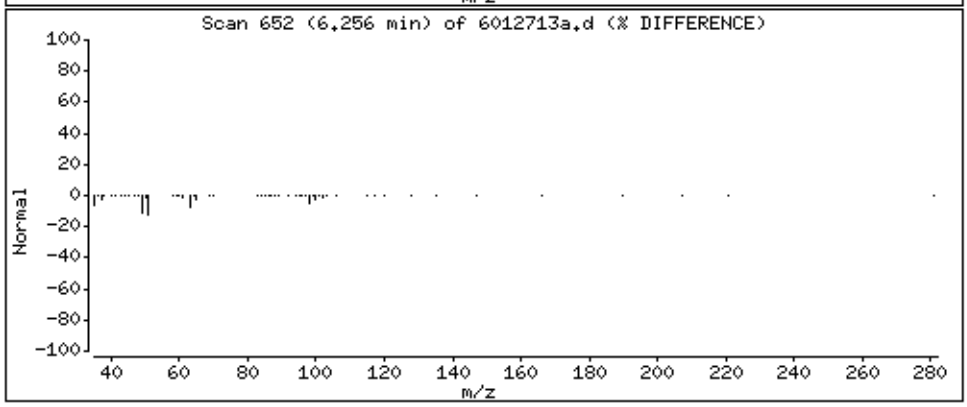
Column diameter: 0.53

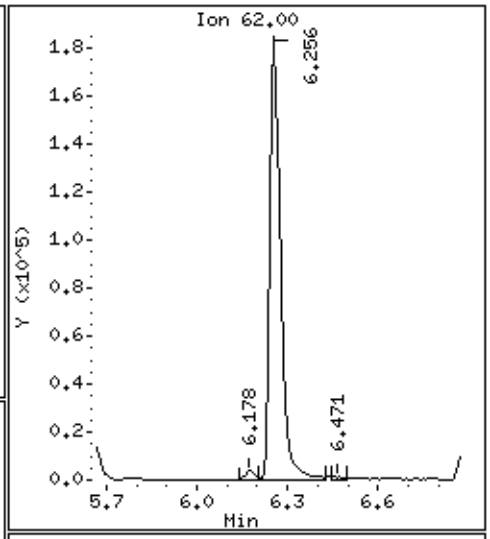
43 1,2-Dichloroethane

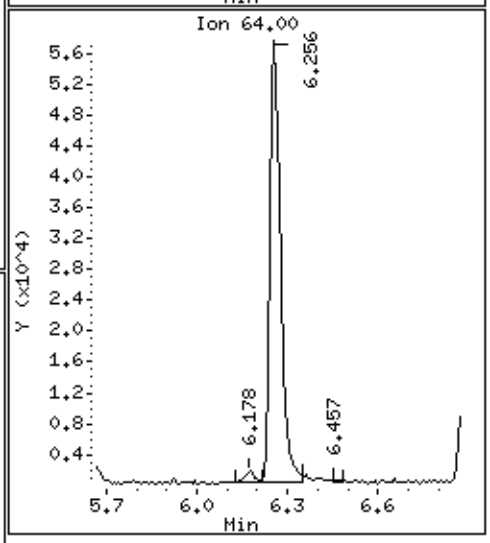
Concentration: 78.124 NG











Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

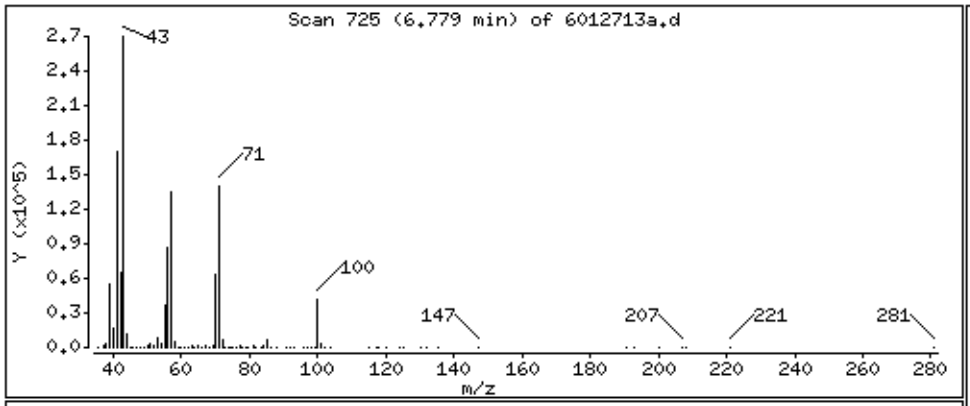
Operator: su

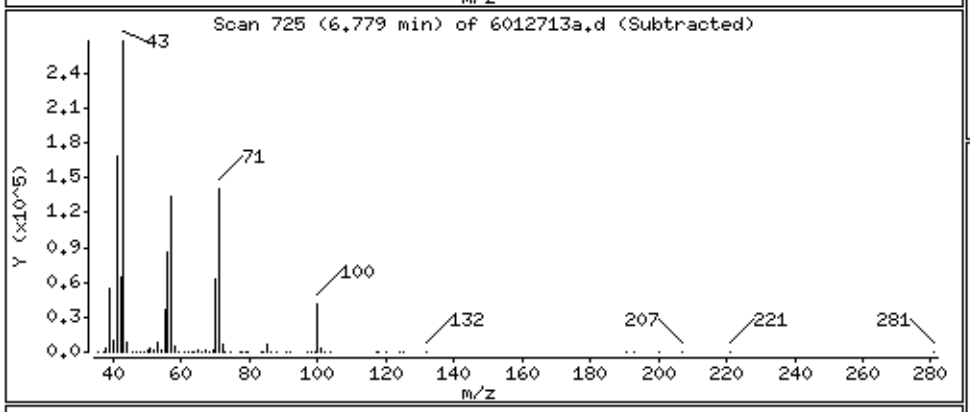
Column phase: RTx-624

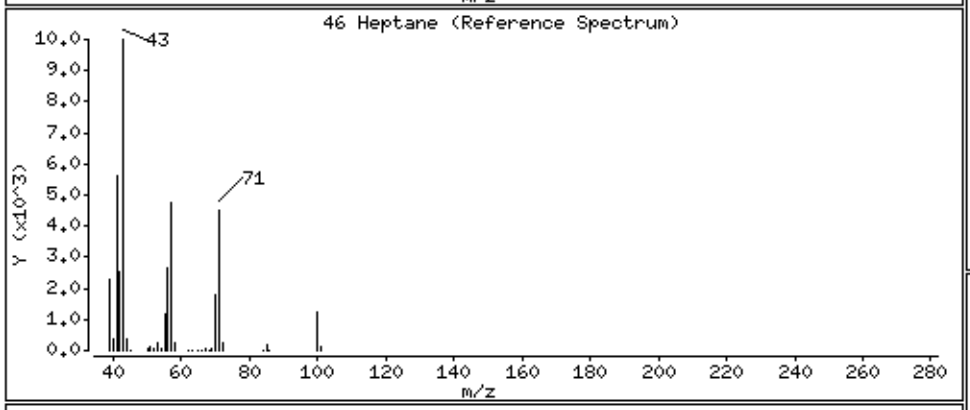
Column diameter: 0.53

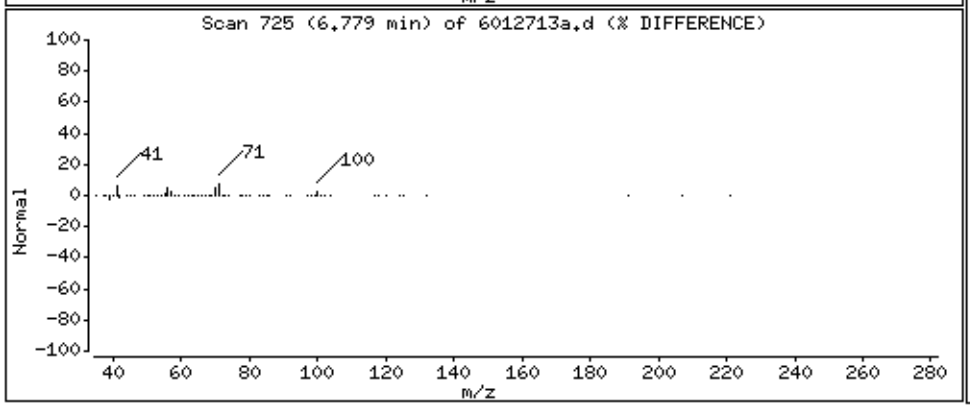
46 Heptane

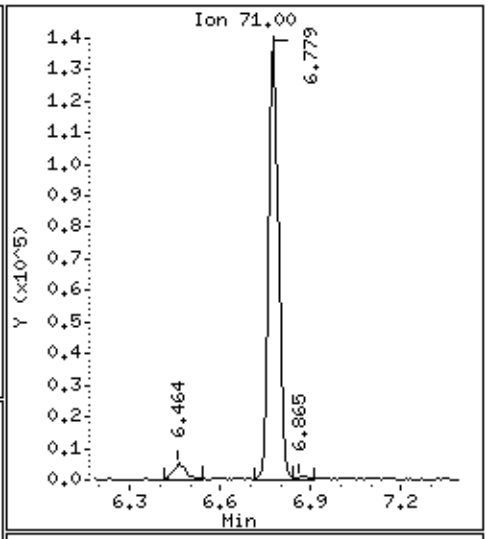
Concentration: 78.911 NG

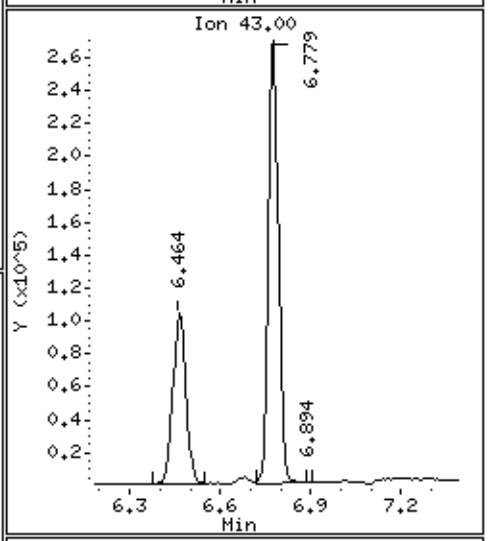


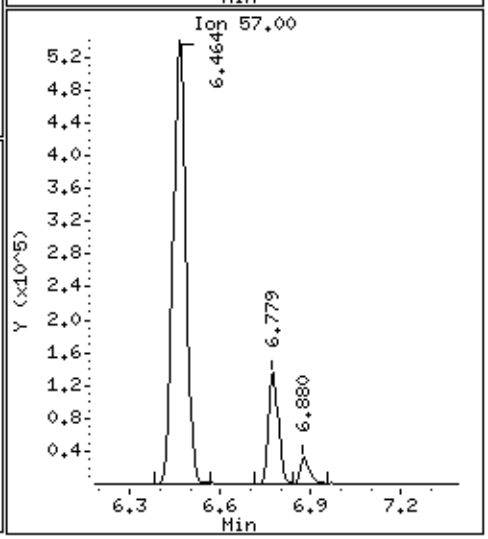












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

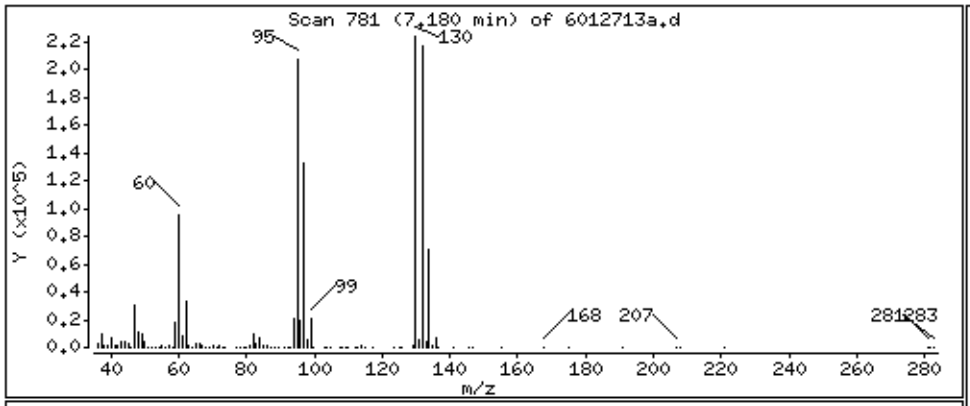
Operator: su

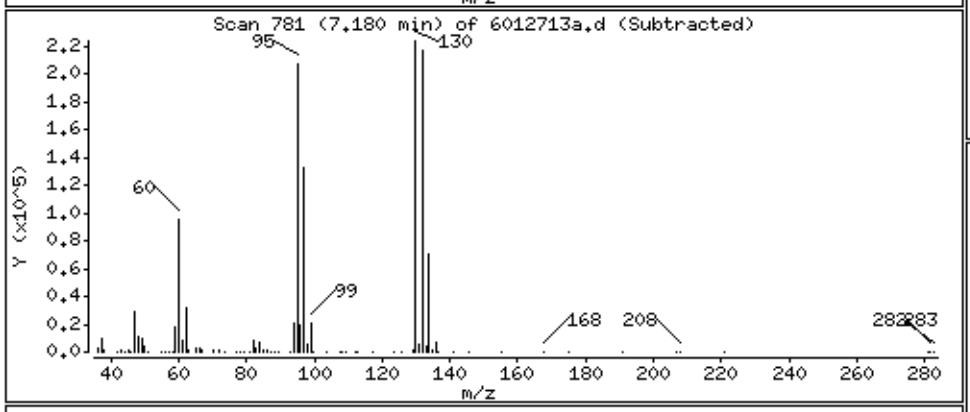
Column phase: RTx-624

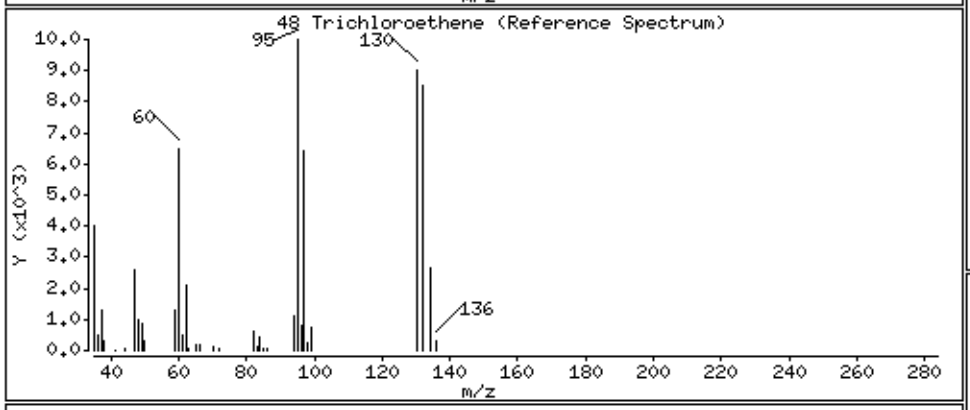
Column diameter: 0.53

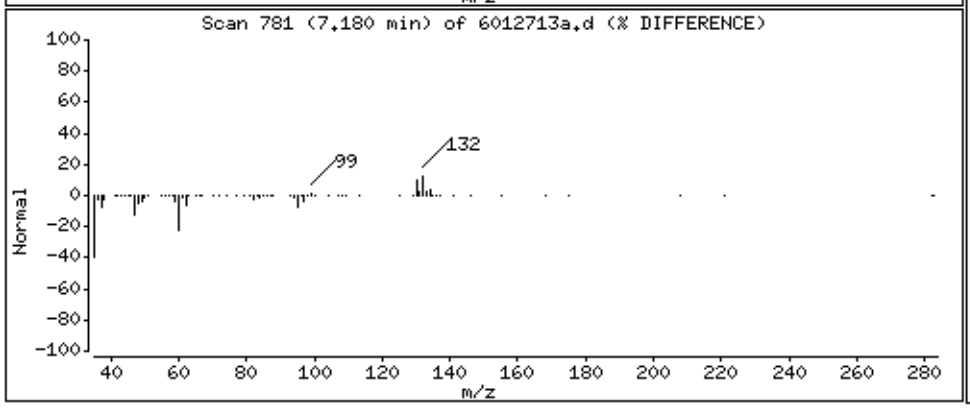
48 Trichloroethene

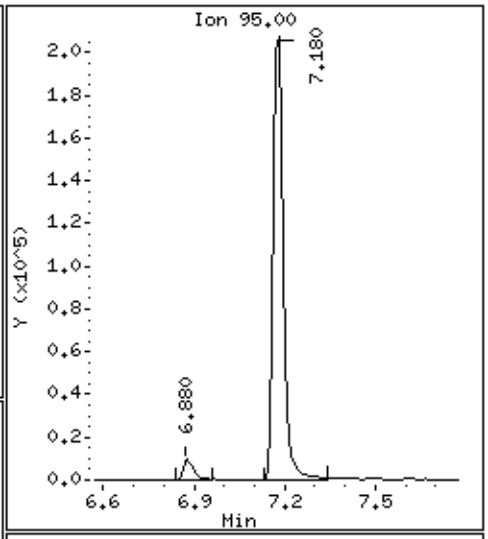
Concentration: 102.98 NG

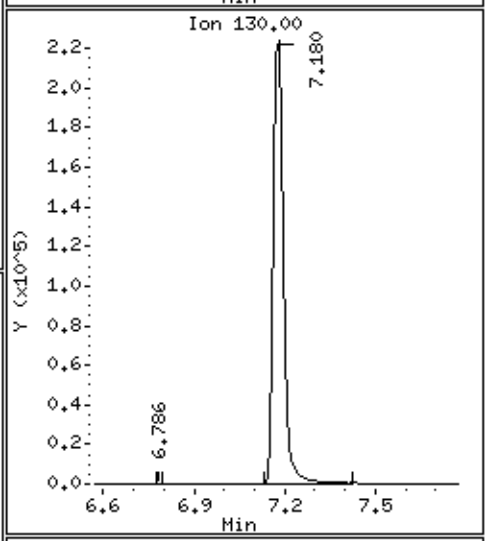


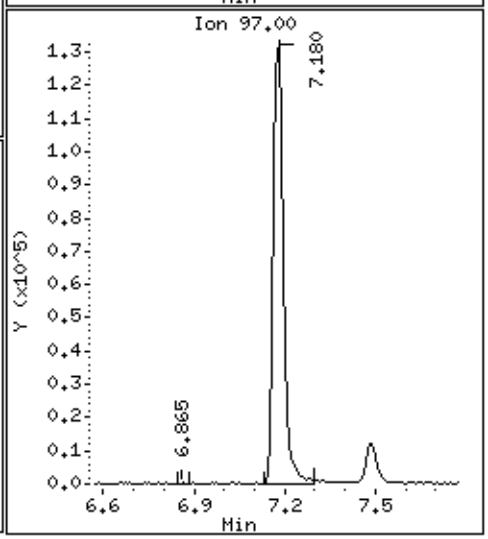












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

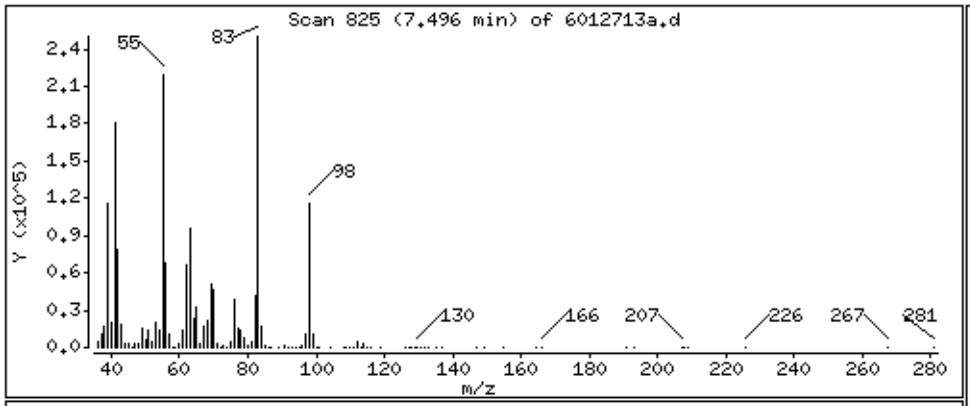
Operator: su

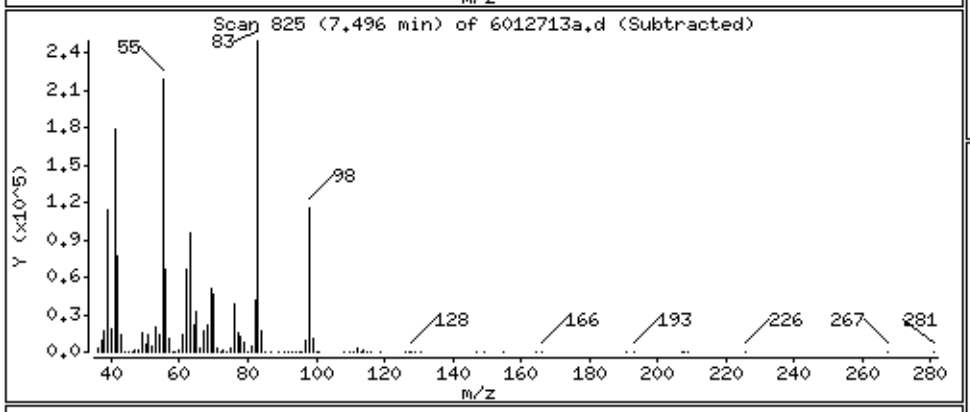
Column phase: RTx-624

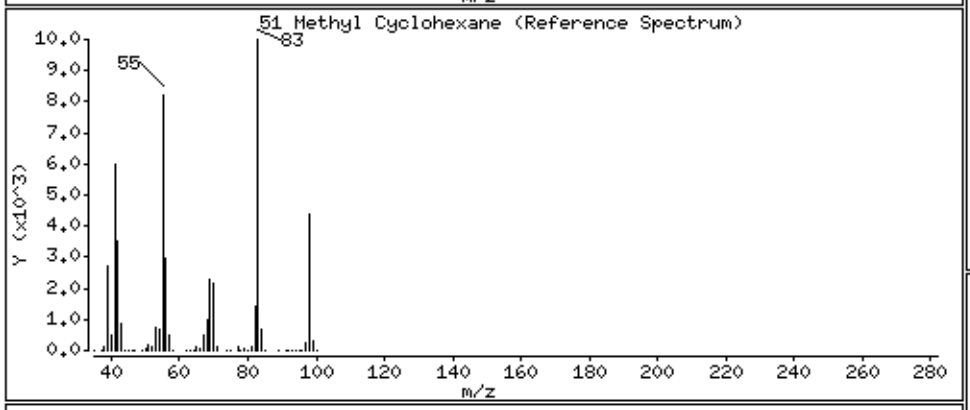
Column diameter: 0.53

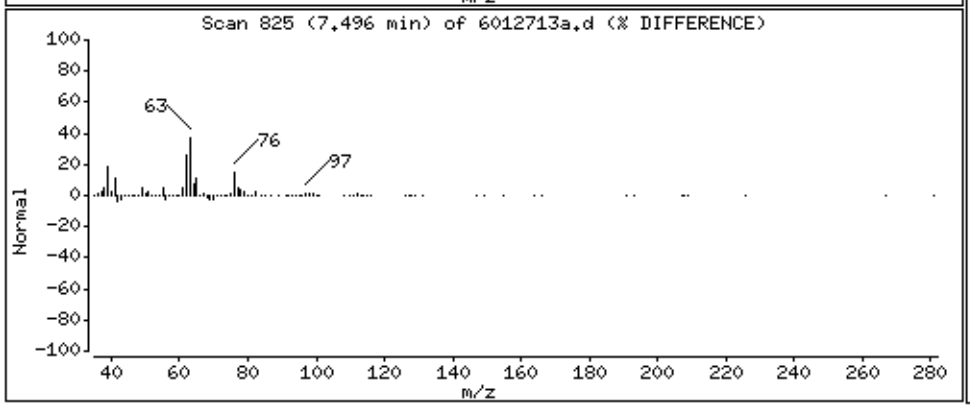
51 Methyl Cyclohexane

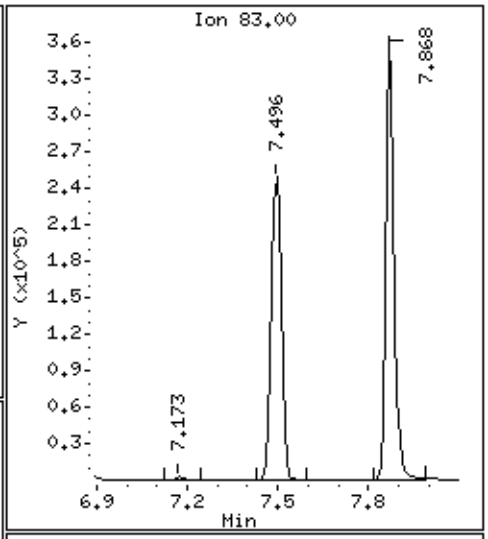
Concentration: 77.641 NG

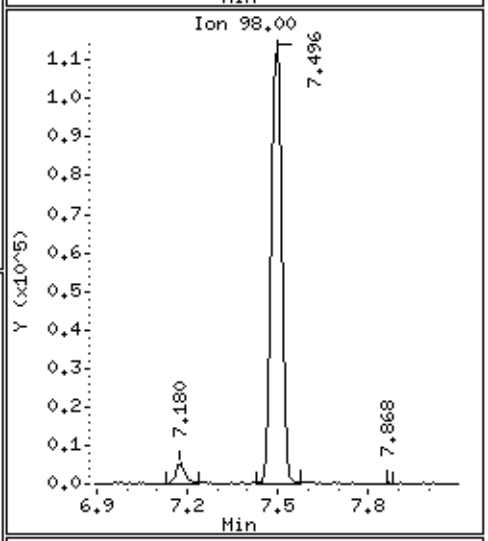


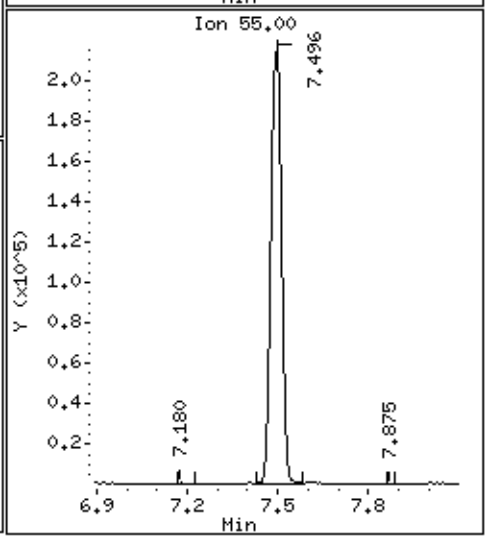












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

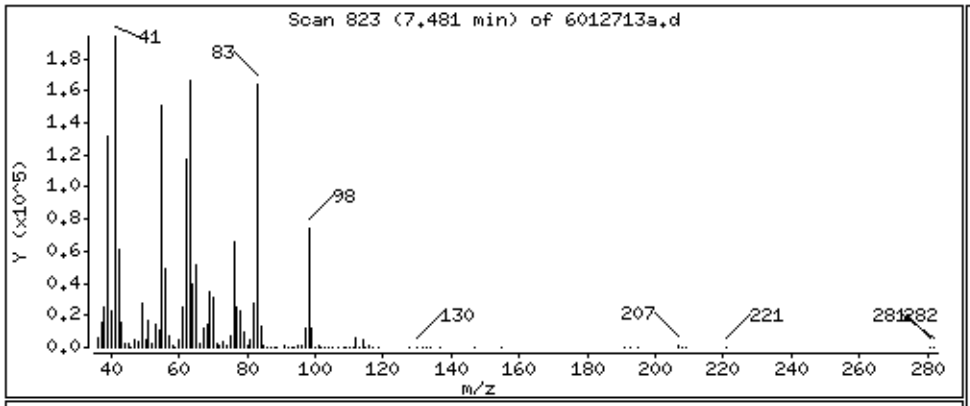
Operator: su

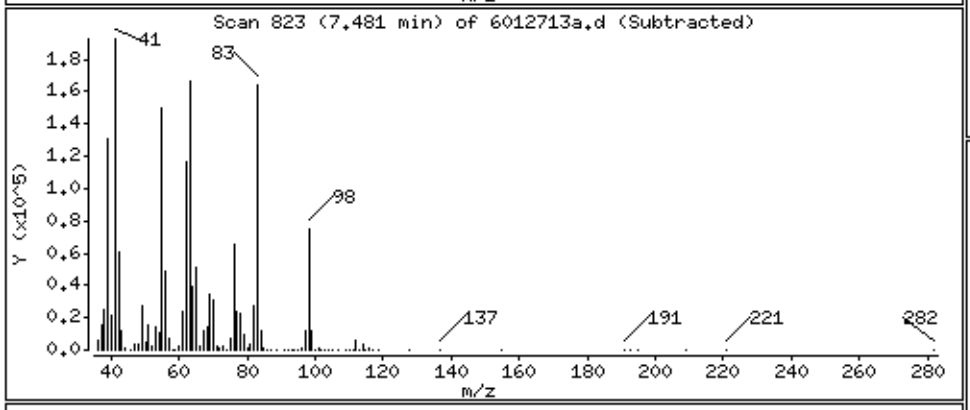
Column phase: RTx-624

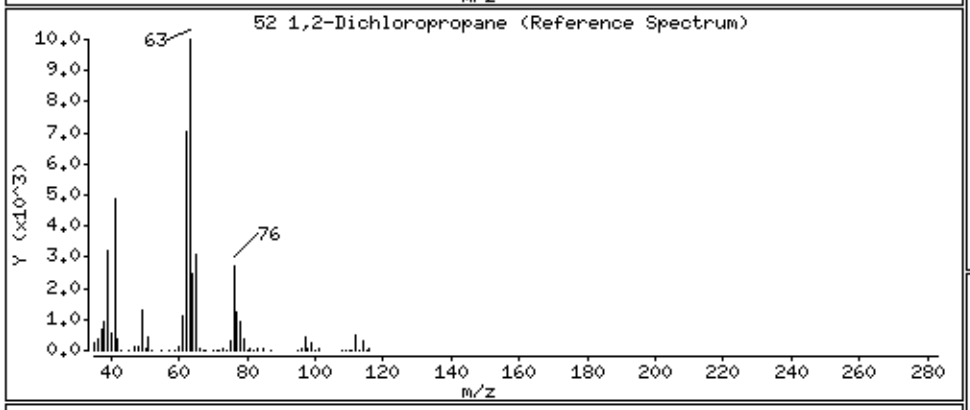
Column diameter: 0.53

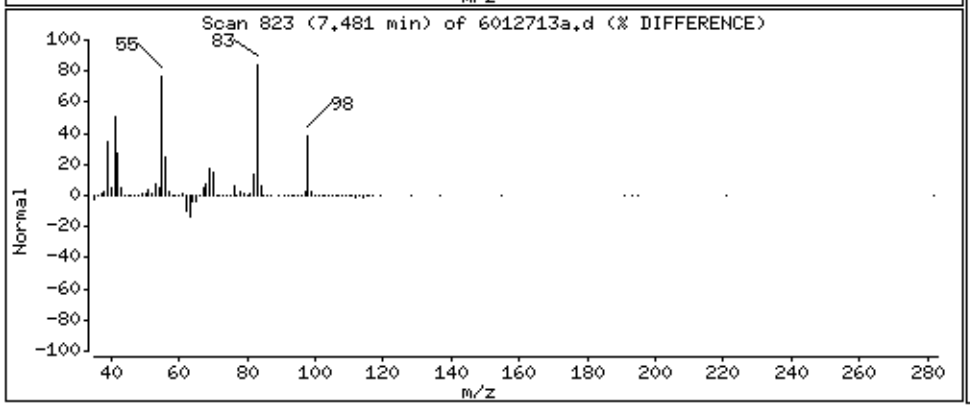
52 1,2-Dichloropropane

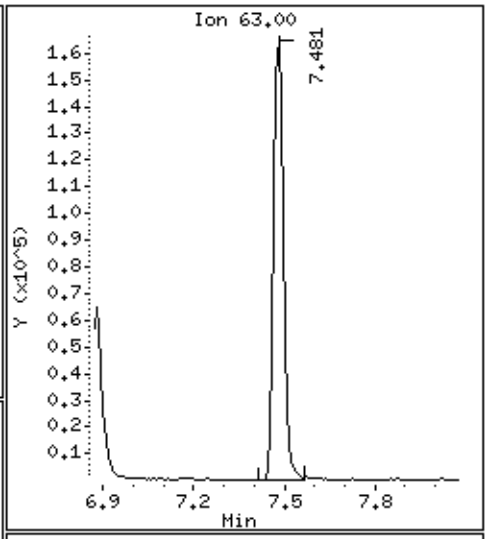
Concentration: 87.950 NG

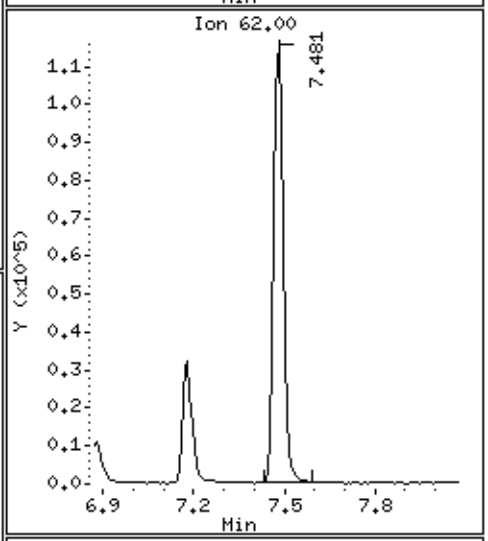


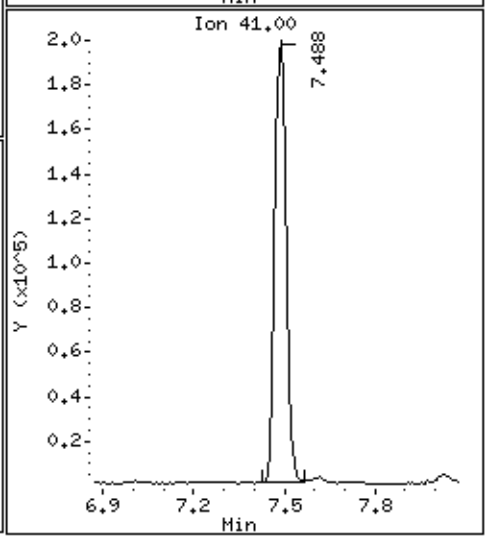












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

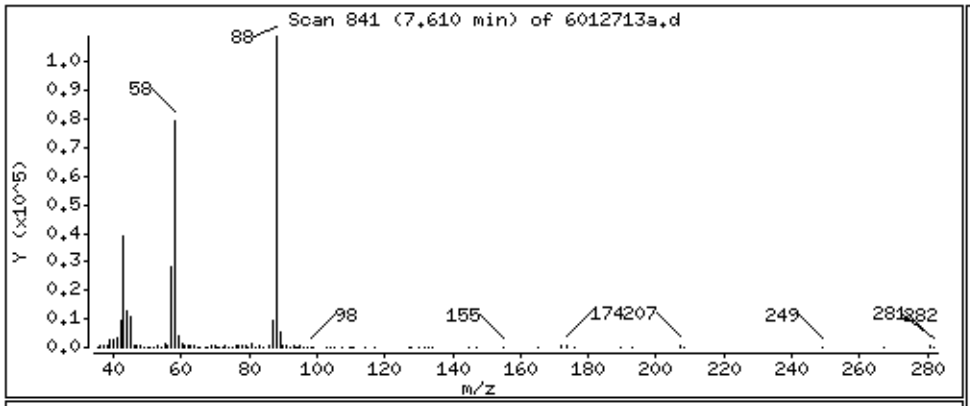
Operator: su

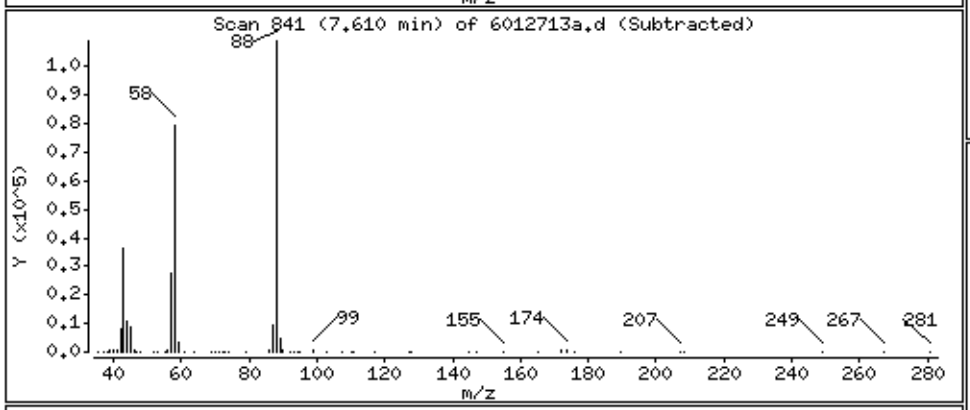
Column phase: RTx-624

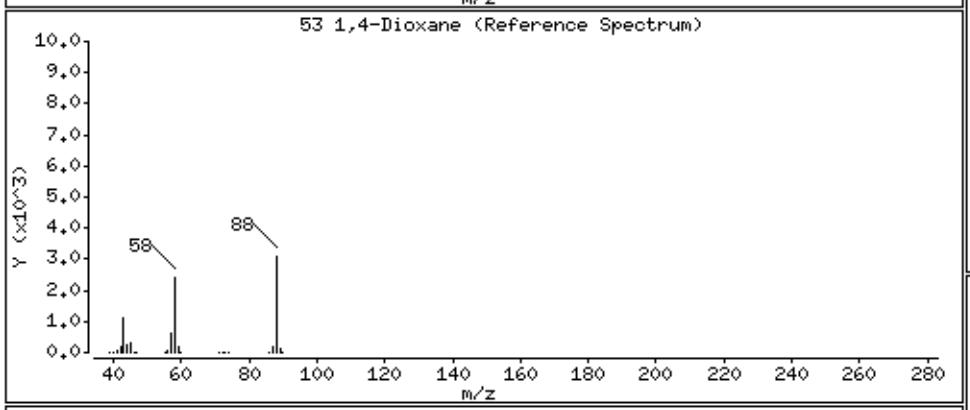
Column diameter: 0.53

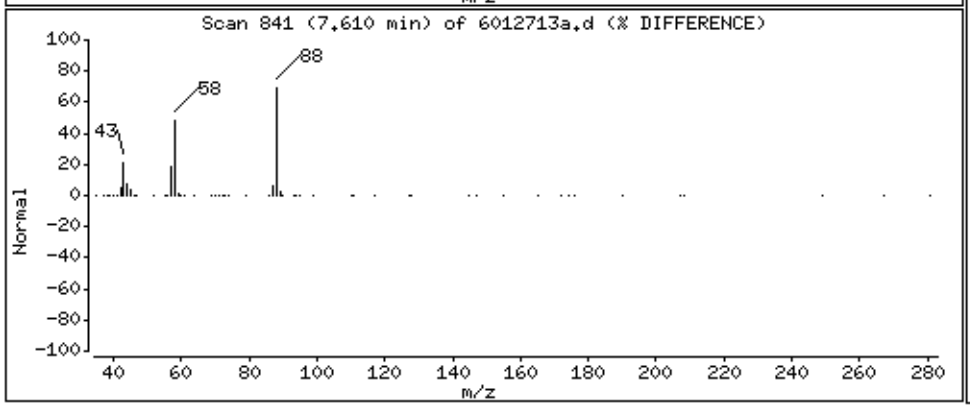
53 1,4-Dioxane

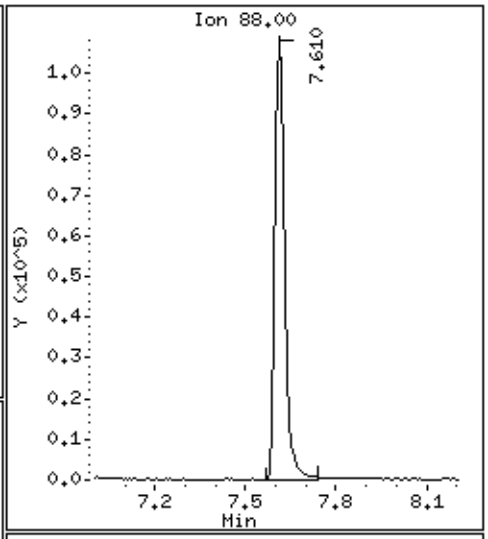
Concentration: 67.038 NG

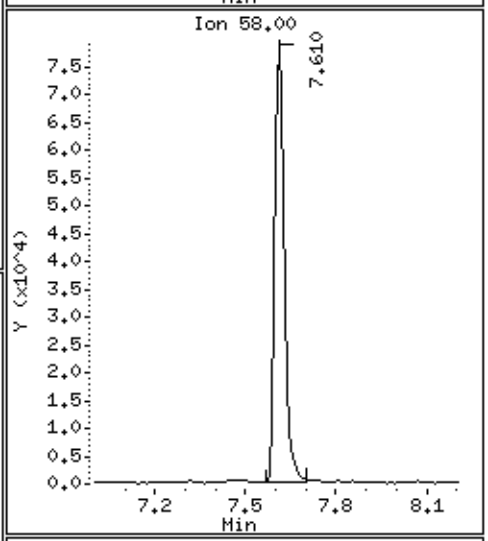


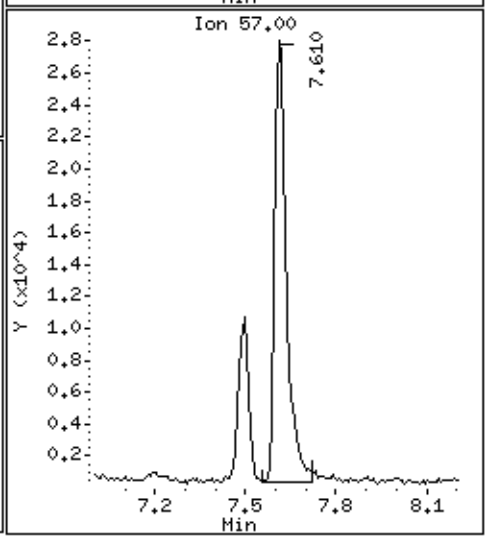












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

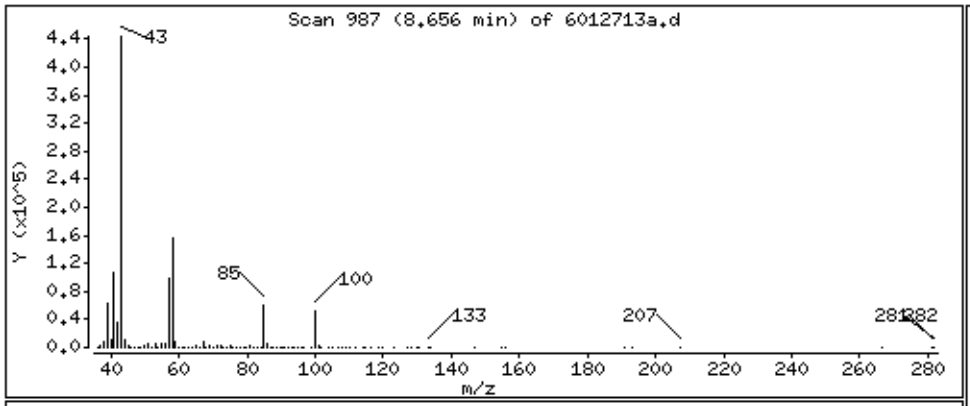
Operator: su

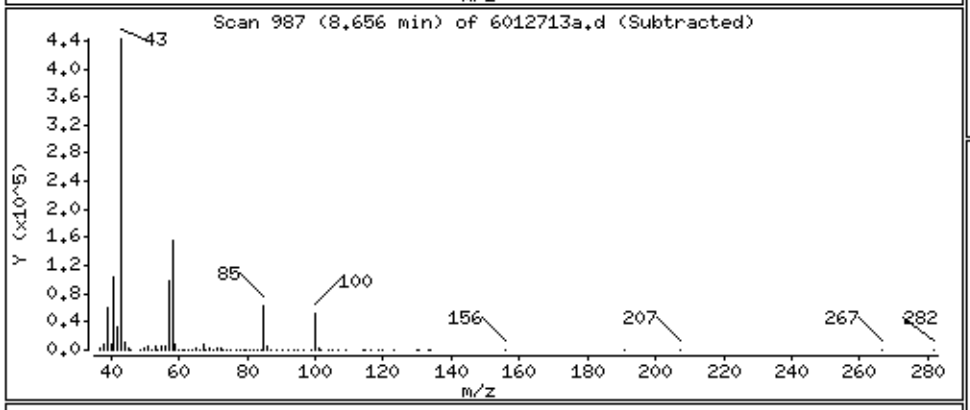
Column phase: RTx-624

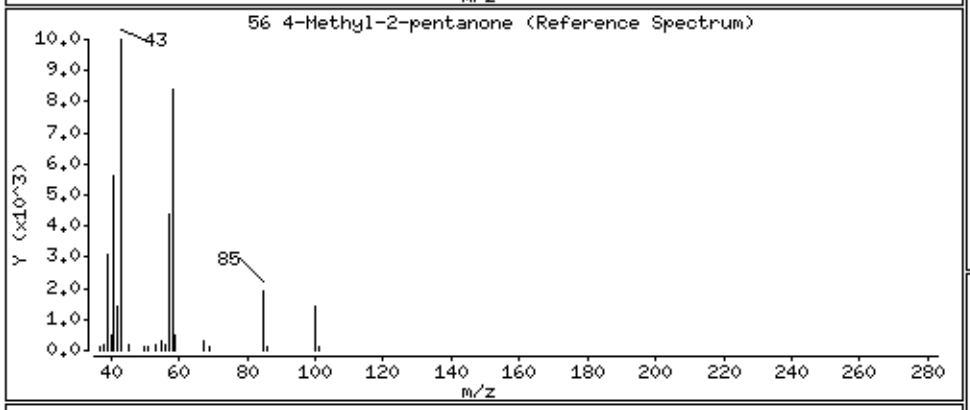
Column diameter: 0.53

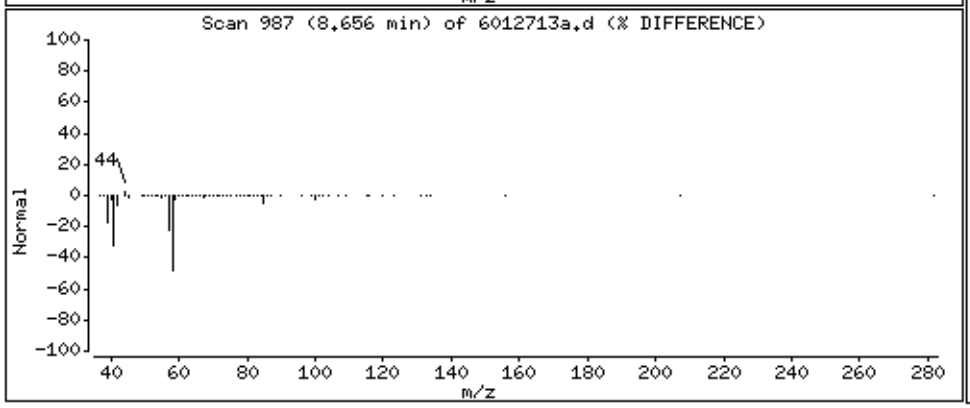
56 4-Methyl-2-pentanone

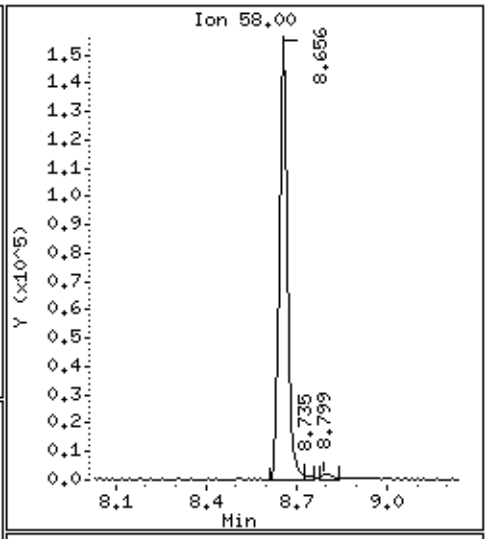
Concentration: 81.582 NG

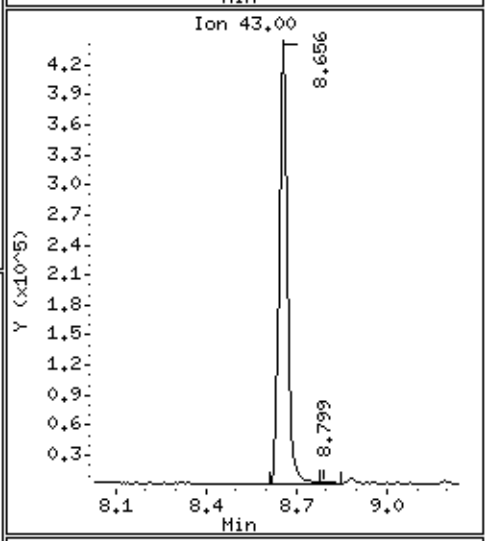


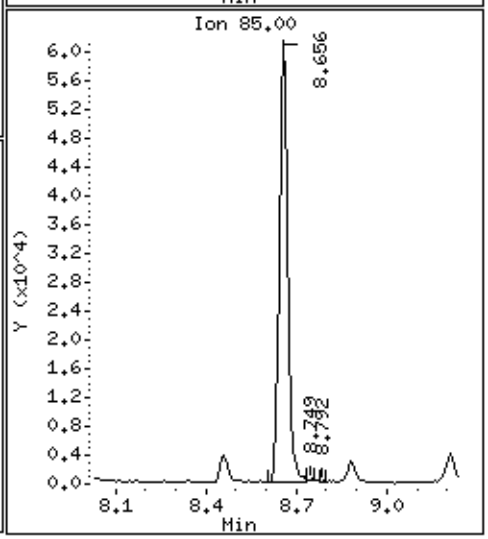












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

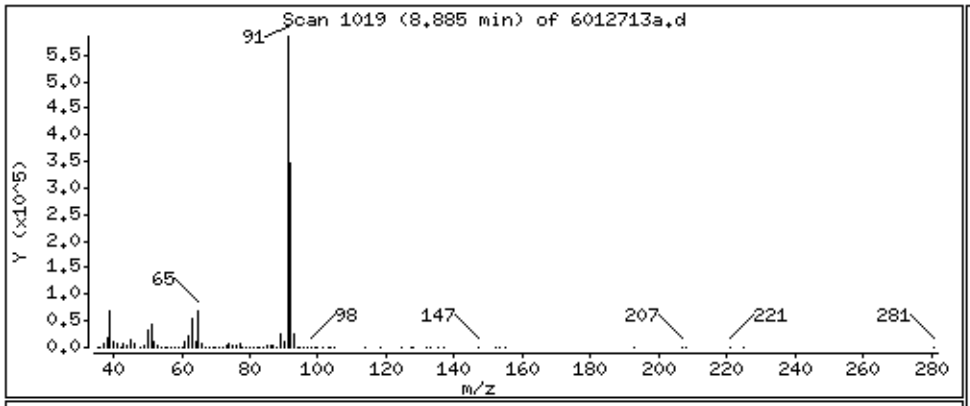
Operator: su

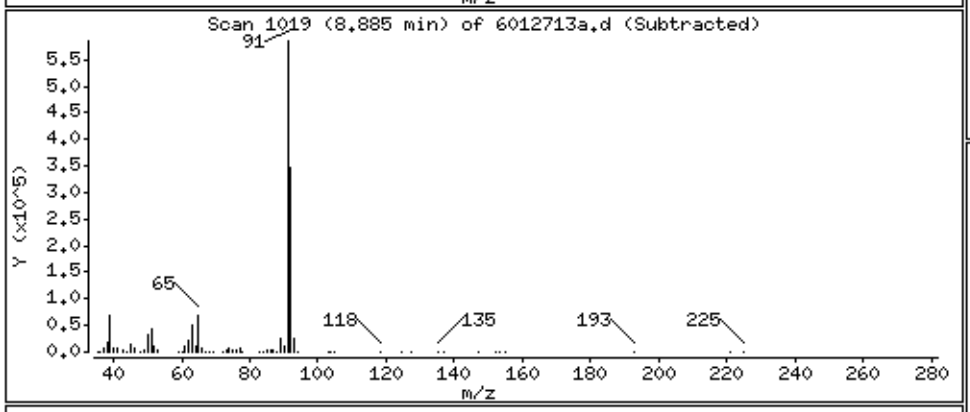
Column phase: RTx-624

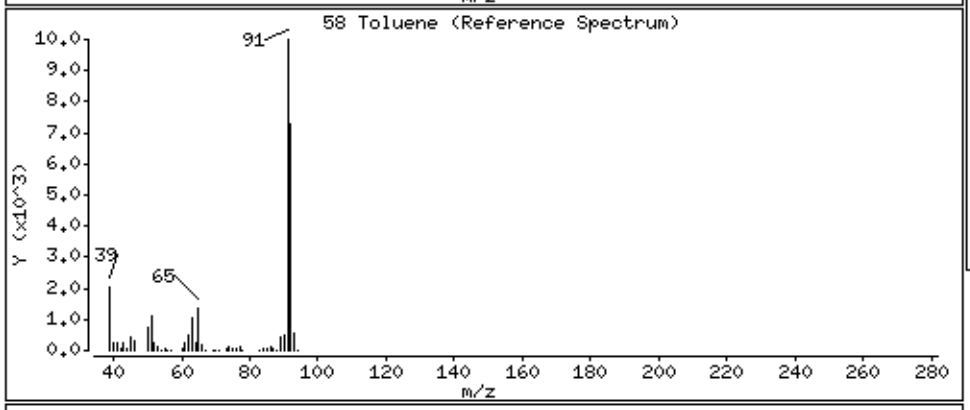
Column diameter: 0.53

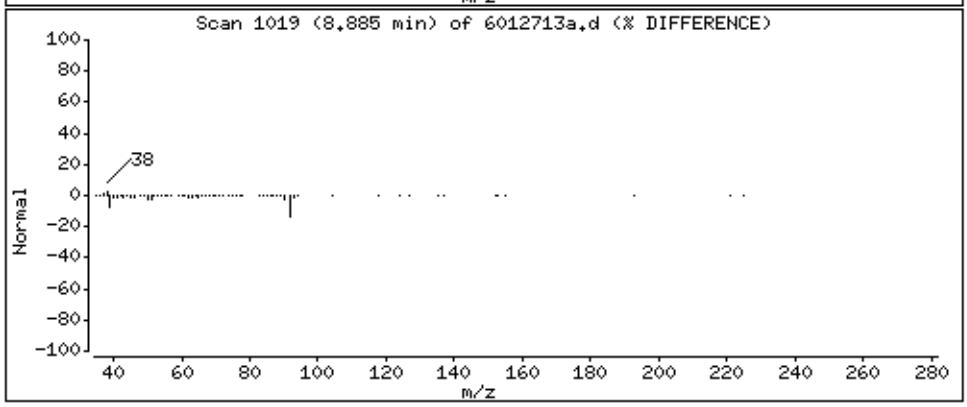
58 Toluene

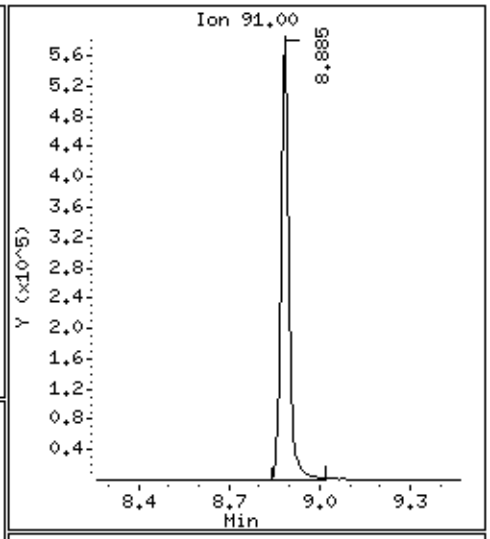
Concentration: 70.947 NG

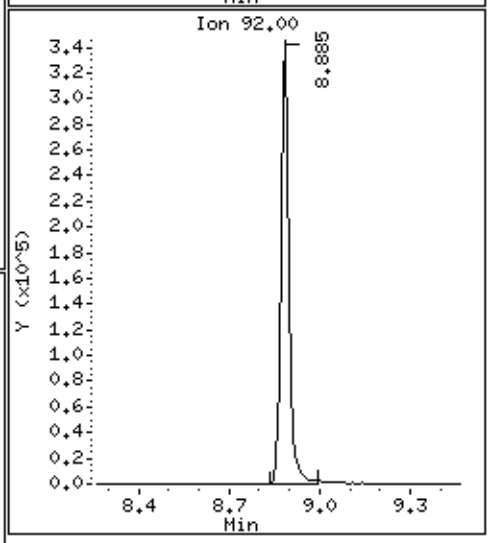












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

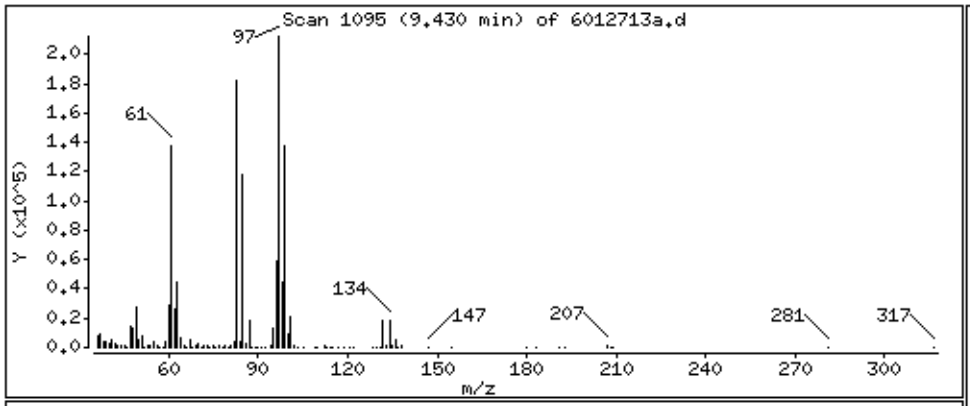
Operator: su

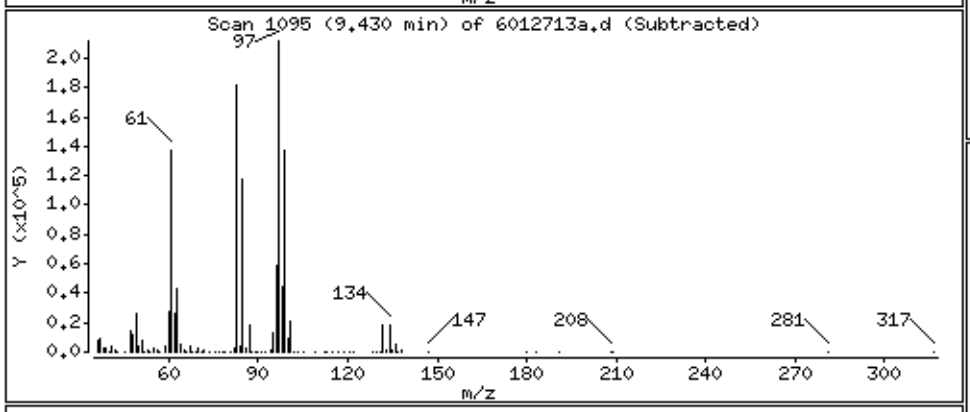
Column phase: RTx-624

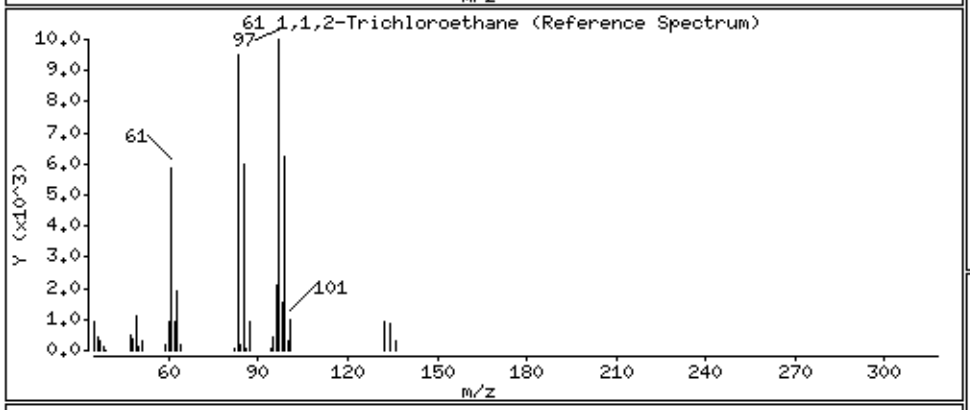
Column diameter: 0.53

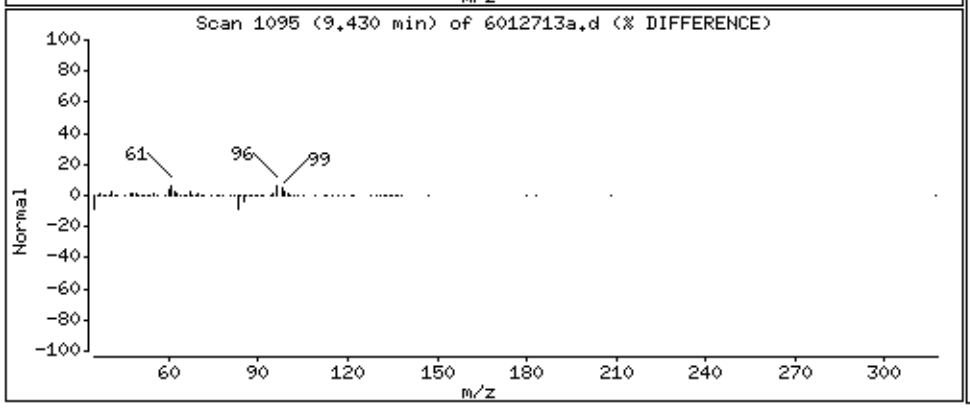
61 1,1,2-Trichloroethane

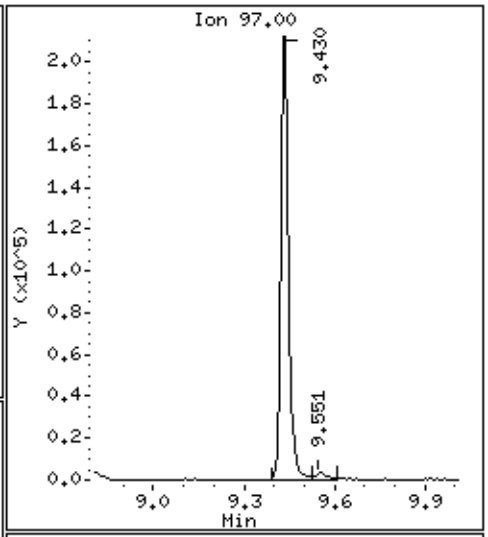
Concentration: 105.92 NG

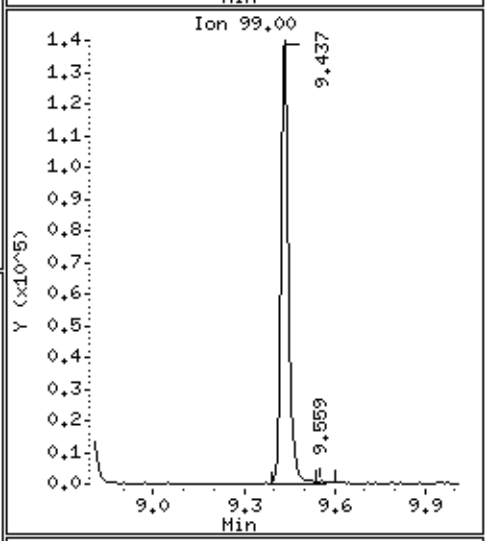


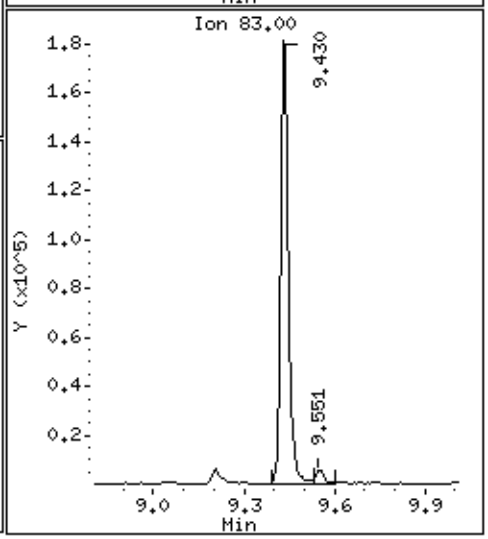












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

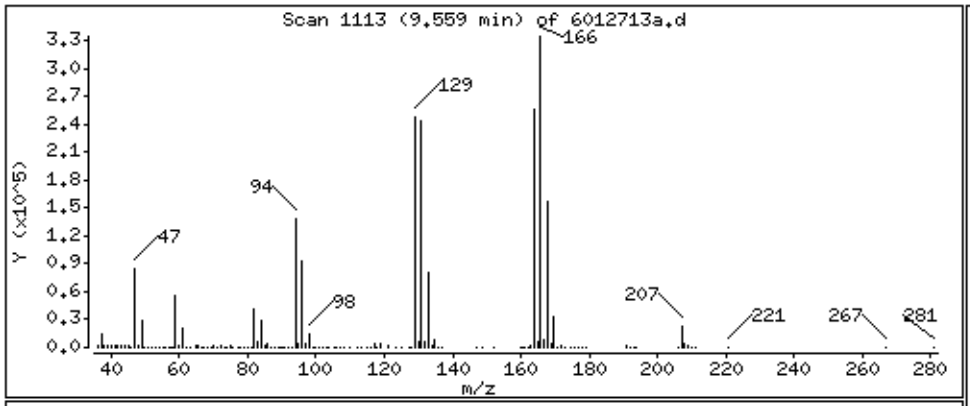
Operator: su

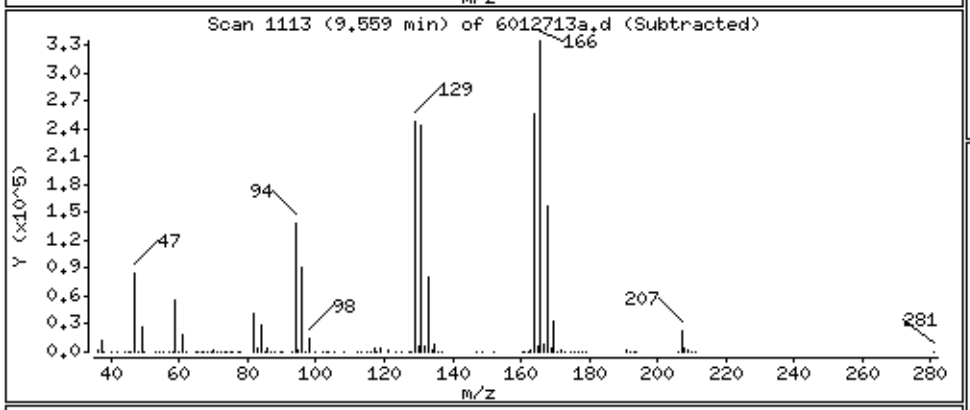
Column phase: RTx-624

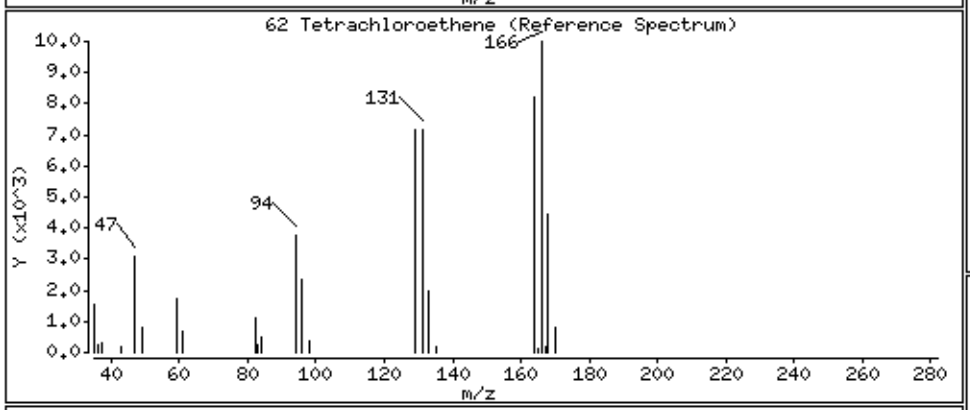
Column diameter: 0.53

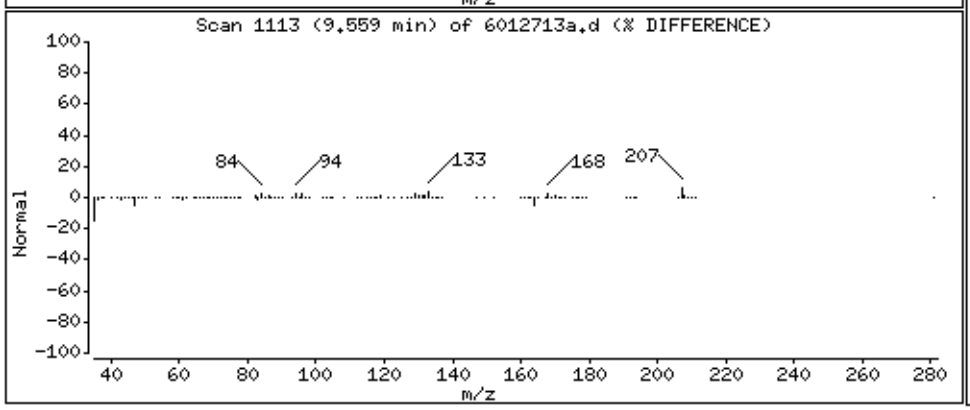
62 Tetrachloroethene

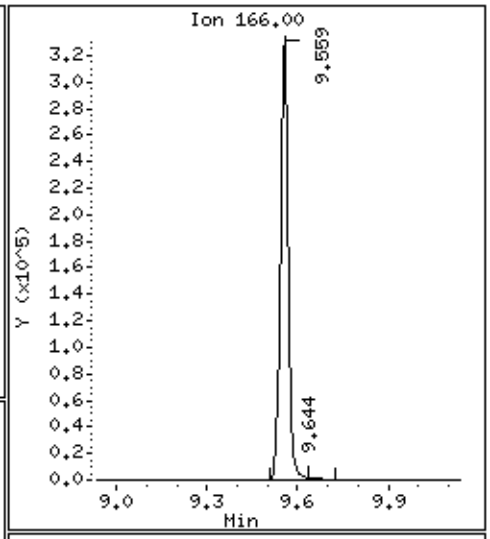
Concentration: 128.23 NG

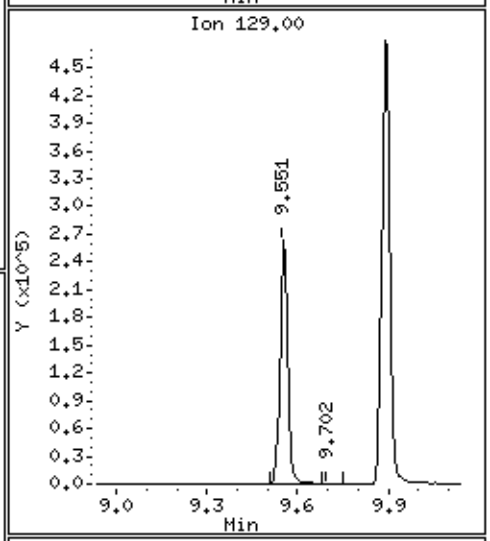


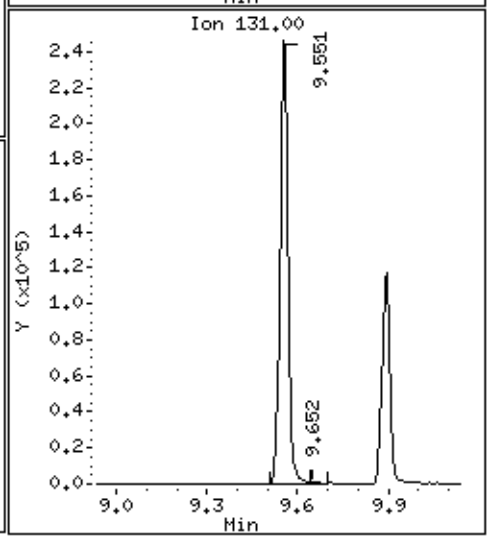












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

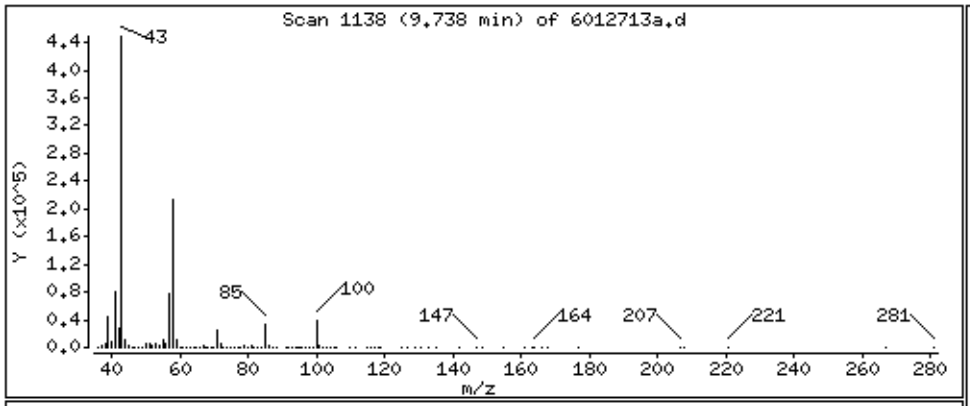
Operator: su

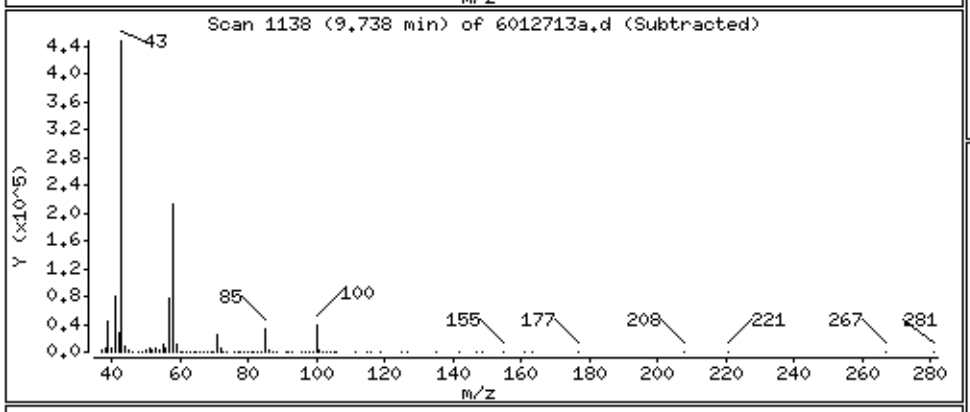
Column phase: RTx-624

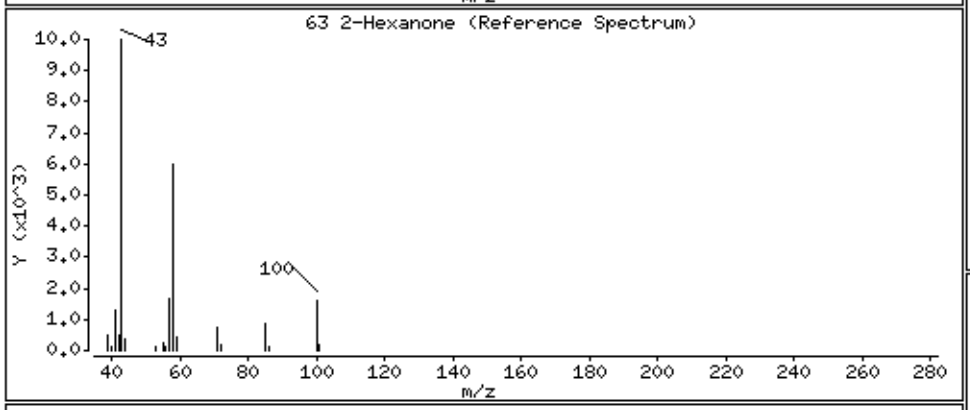
Column diameter: 0.53

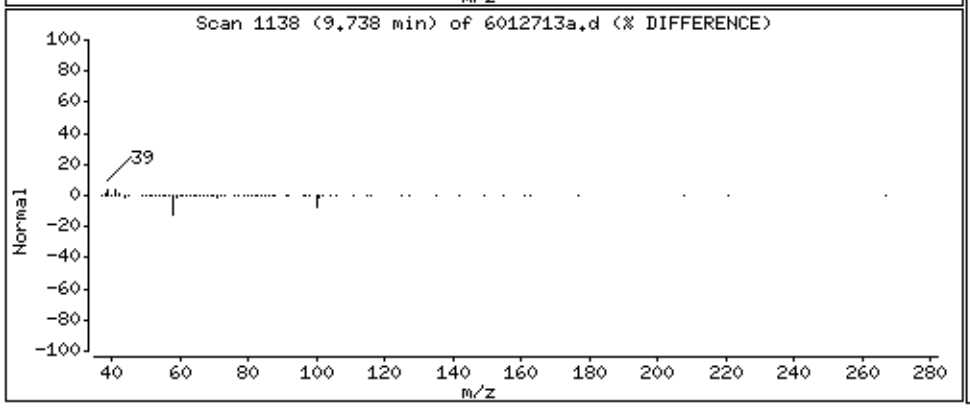
63 2-Hexanone

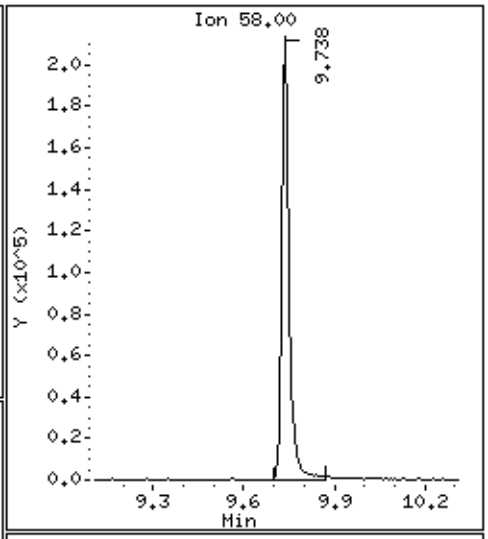
Concentration: 82.786 NG

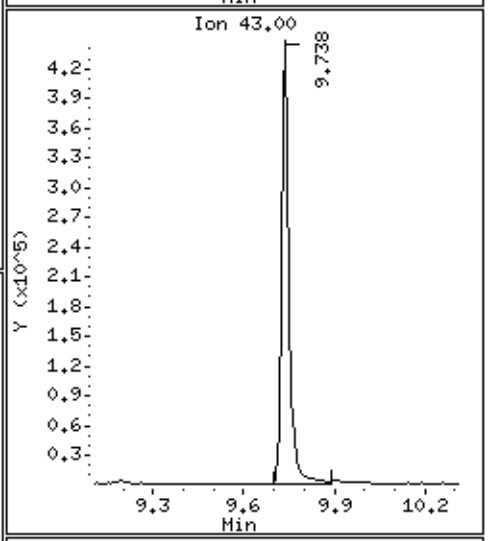


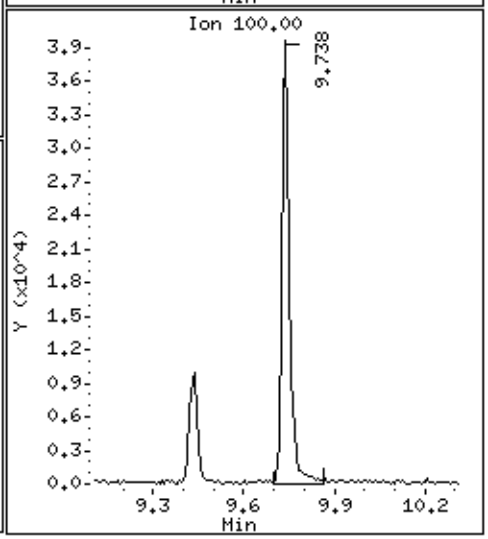












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

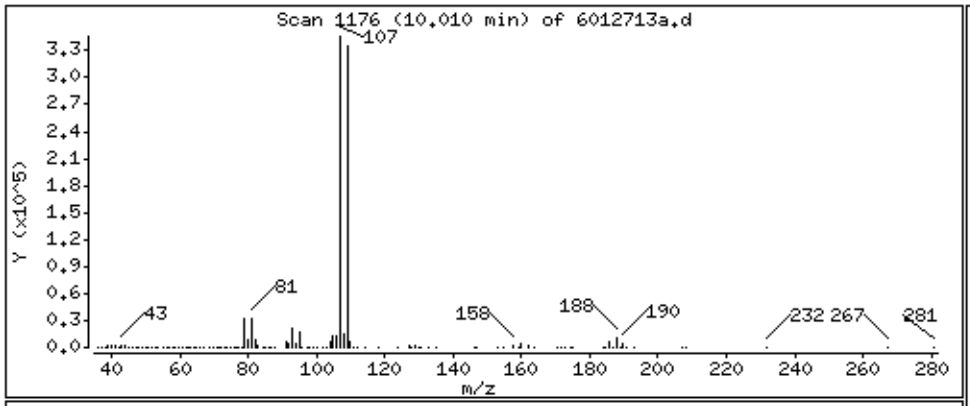
Operator: su

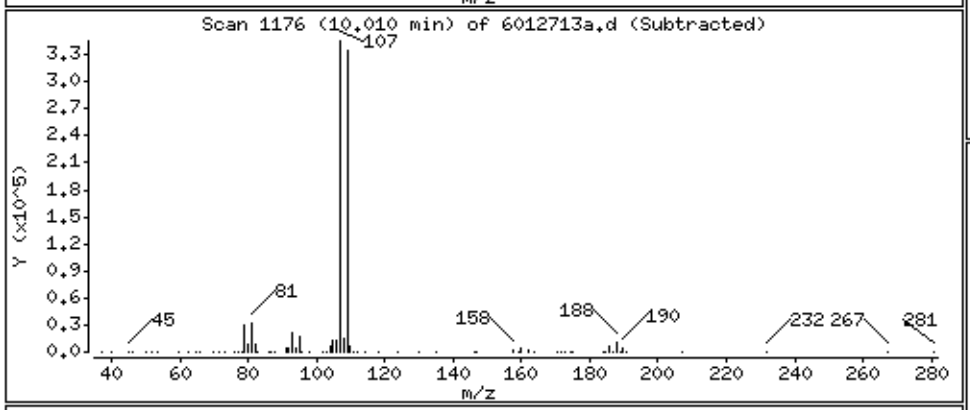
Column phase: RTx-624

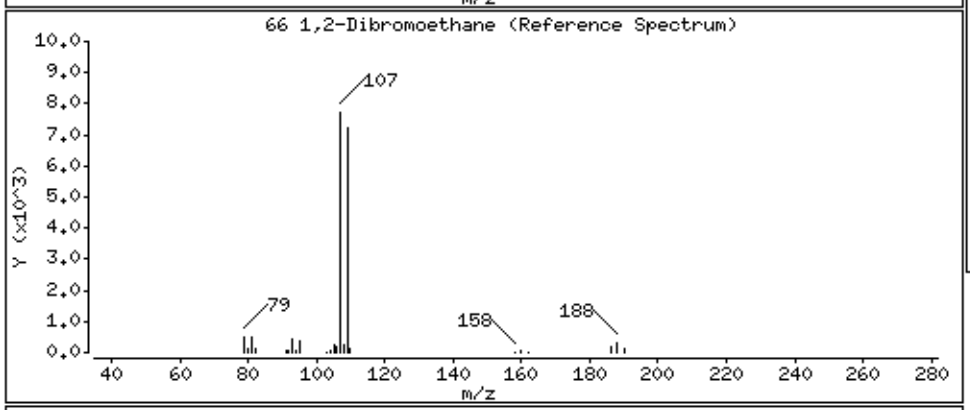
Column diameter: 0.53

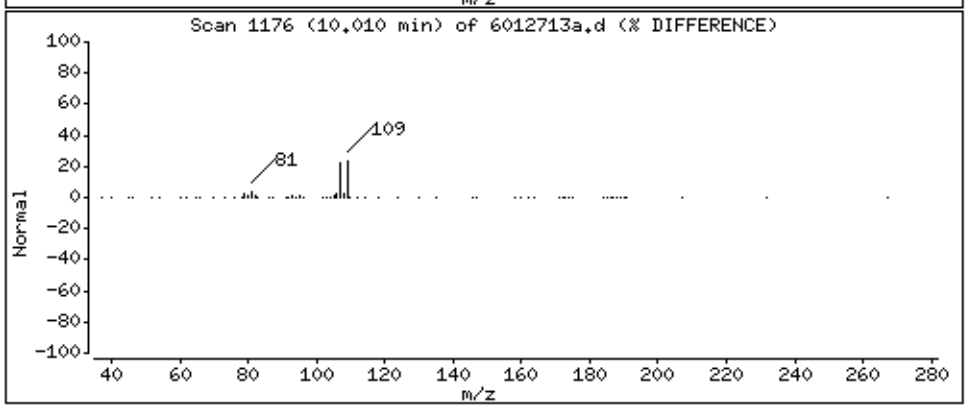
66 1,2-Dibromoethane

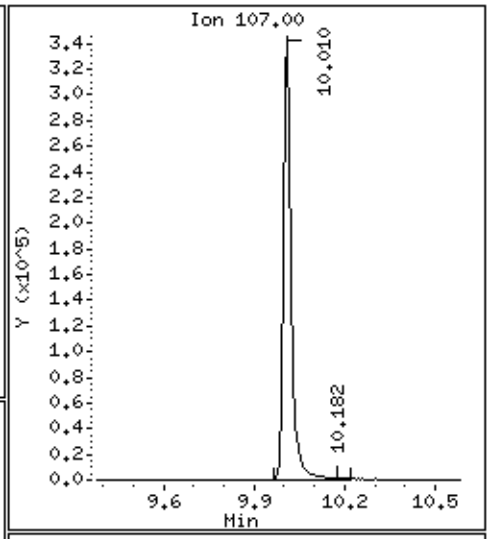
Concentration: 150.70 NG

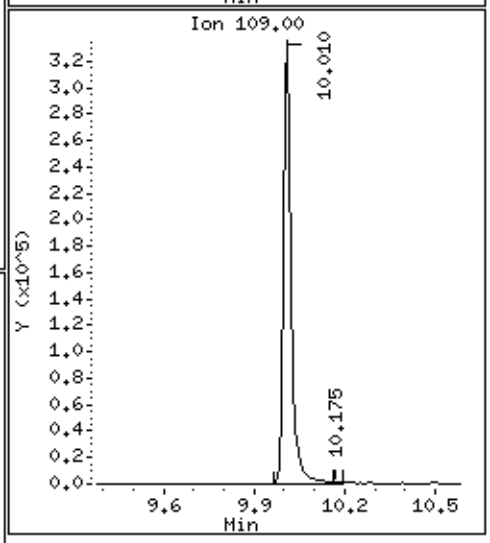












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

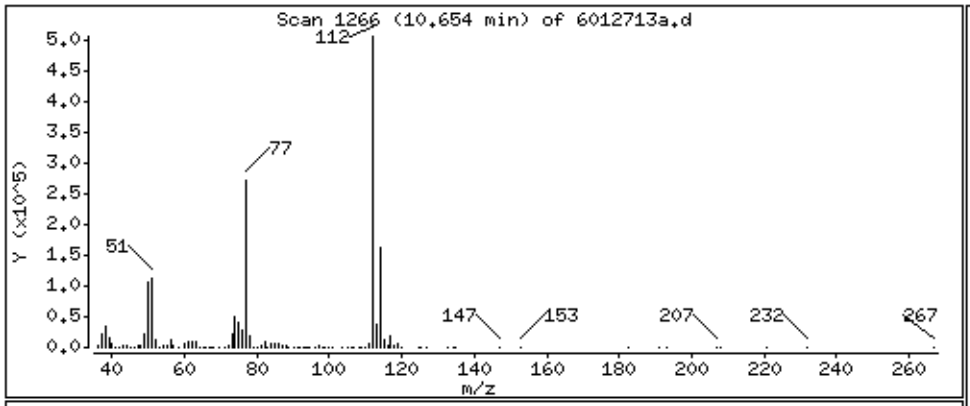
Operator: su

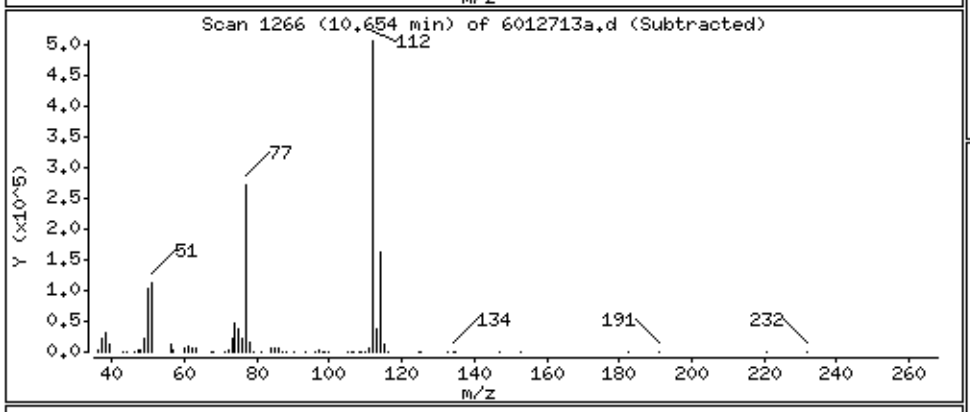
Column phase: RTx-624

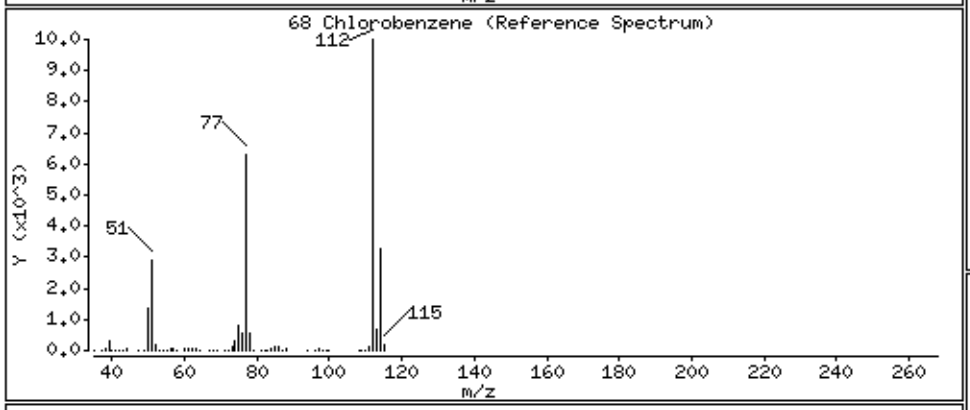
Column diameter: 0.53

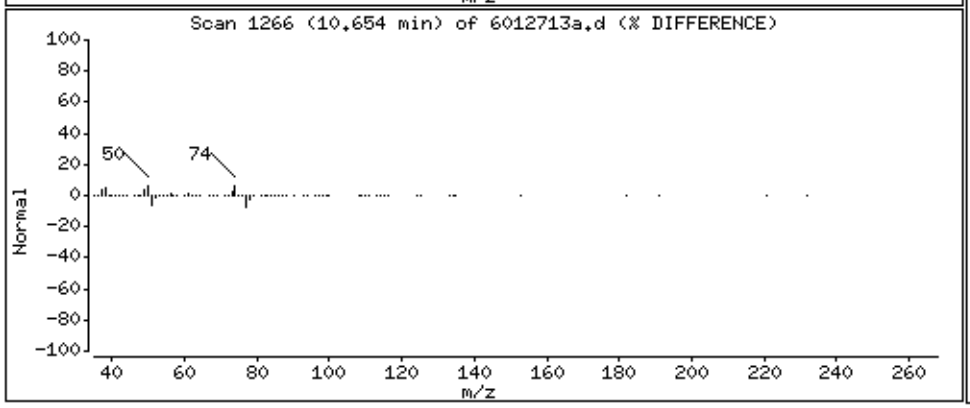
68 Chlorobenzene

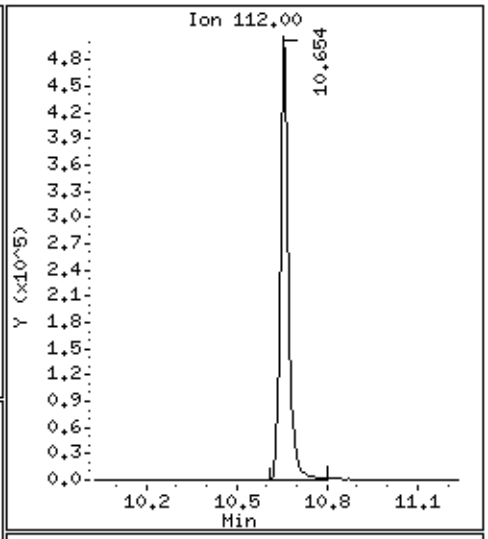
Concentration: 88.846 NG

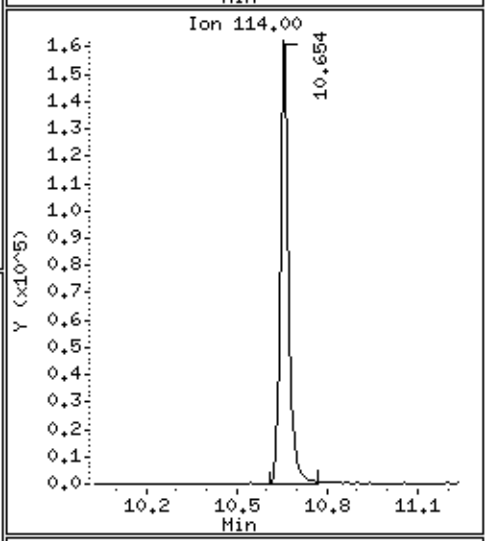


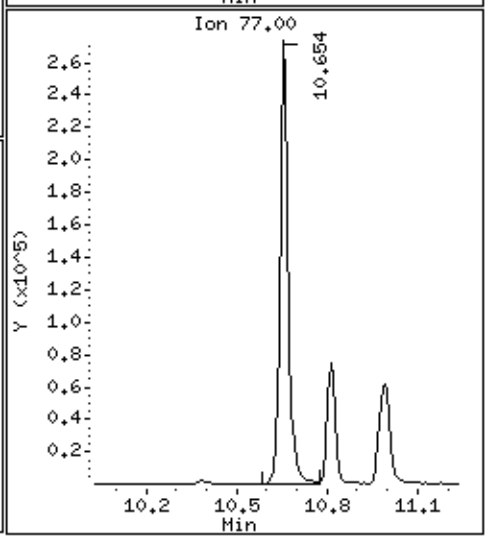












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

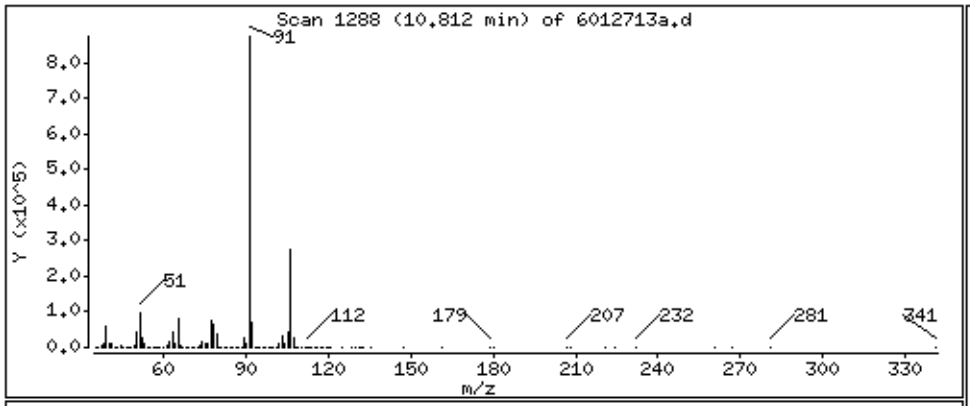
Operator: su

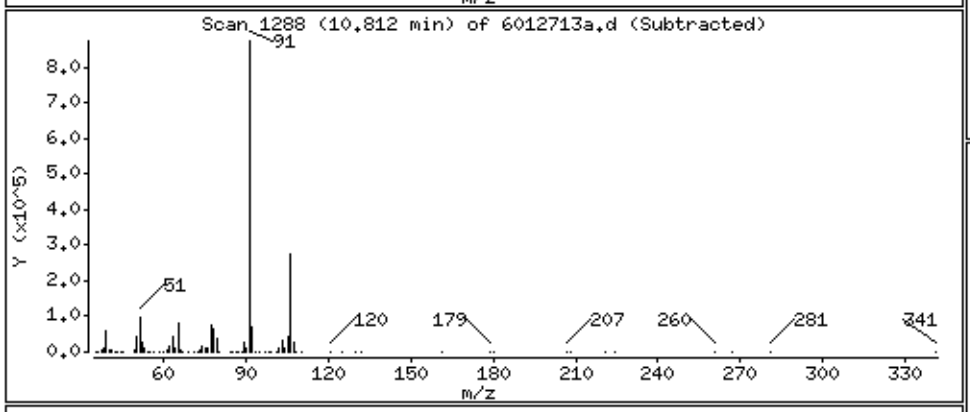
Column phase: RTx-624

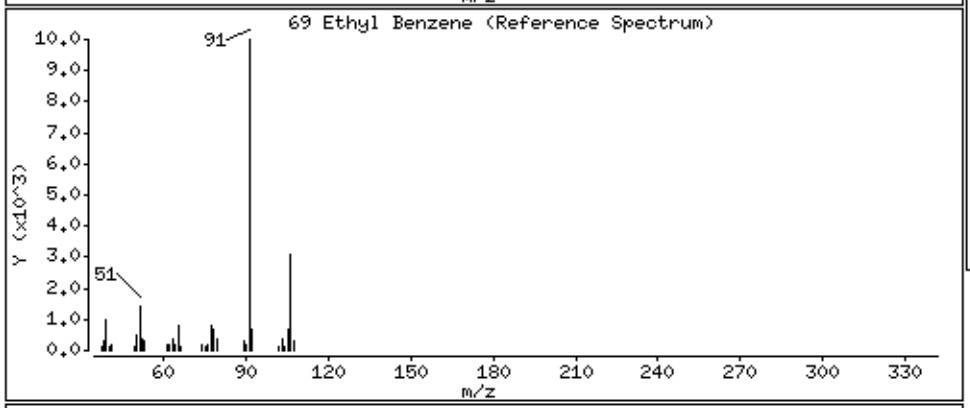
Column diameter: 0.53

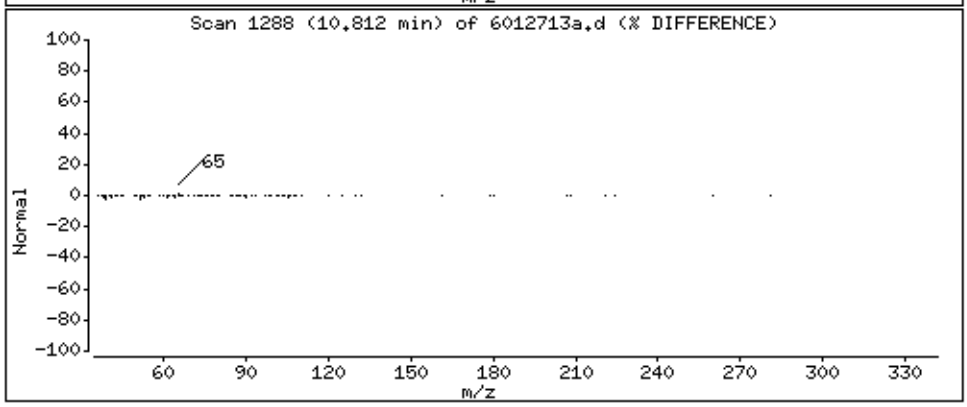
69 Ethyl Benzene

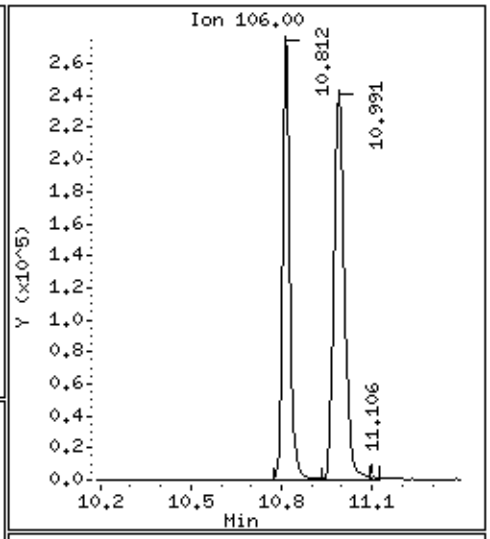
Concentration: 85.400 NG

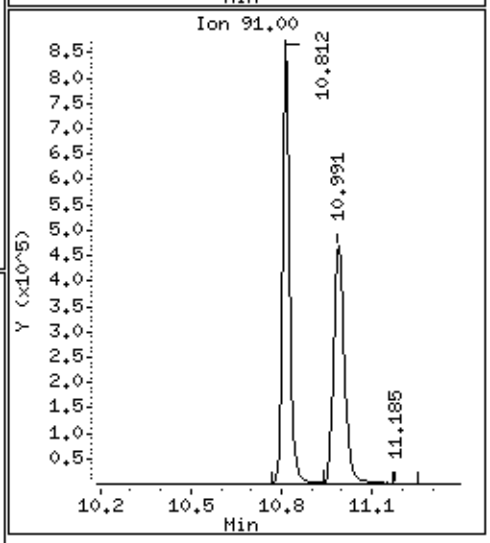












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

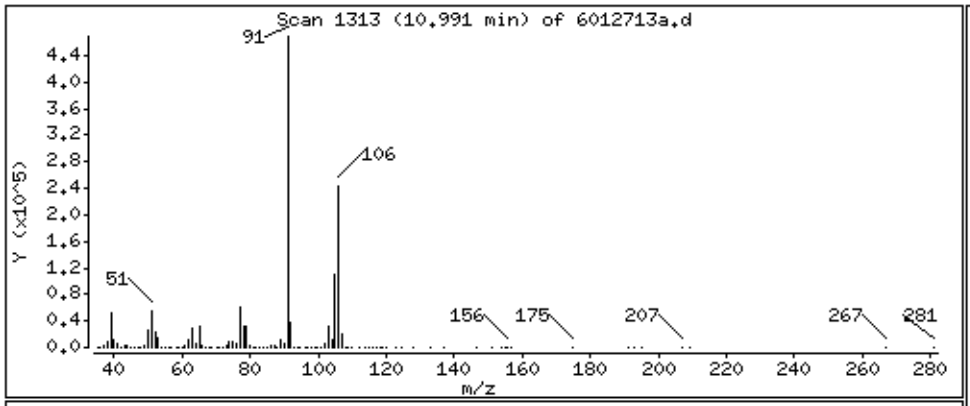
Operator: su

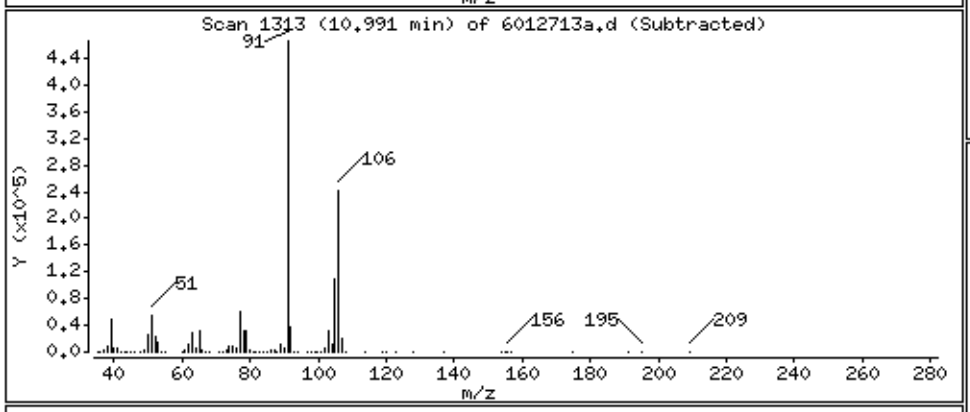
Column phase: RTx-624

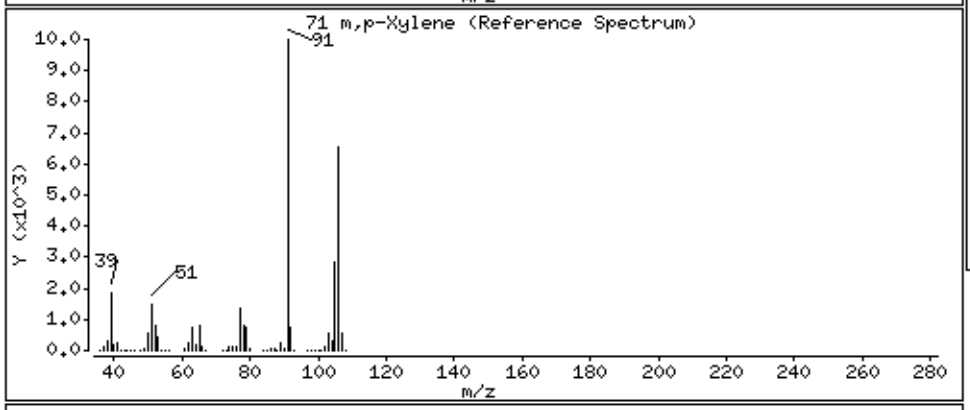
Column diameter: 0.53

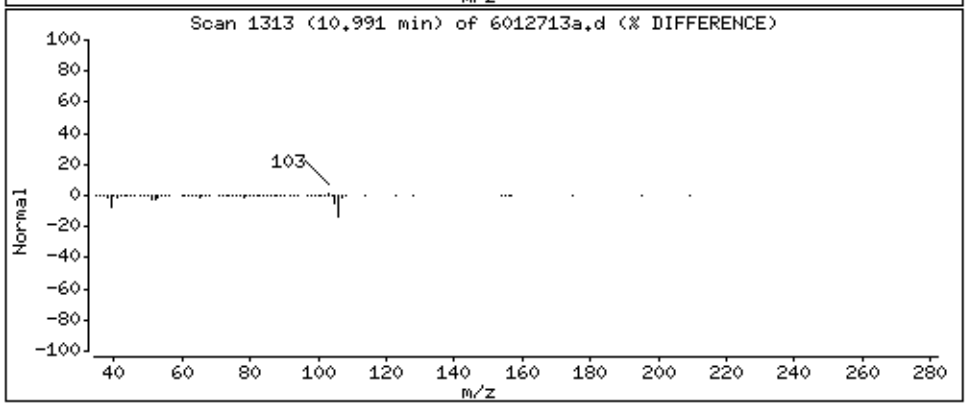
71 m,p-Xylene

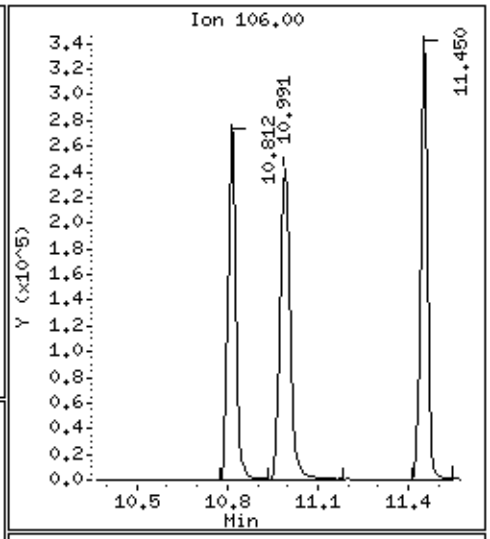
Concentration: 84.184 NG

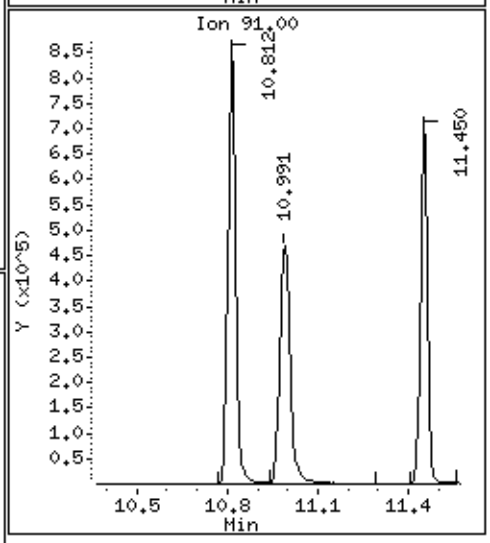












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

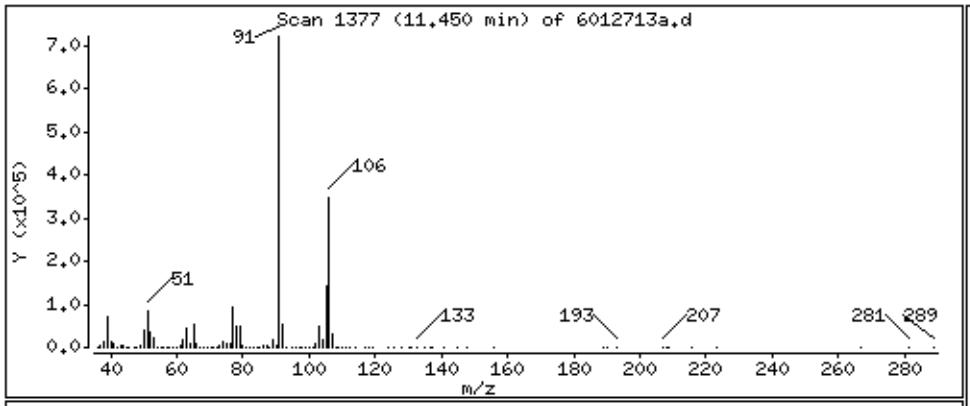
Operator: su

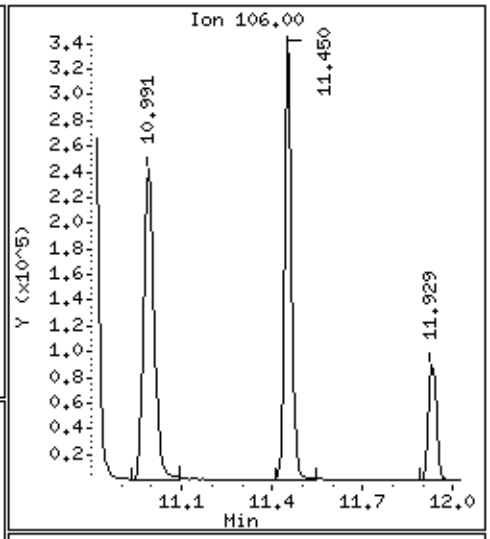
Column phase: RTx-624

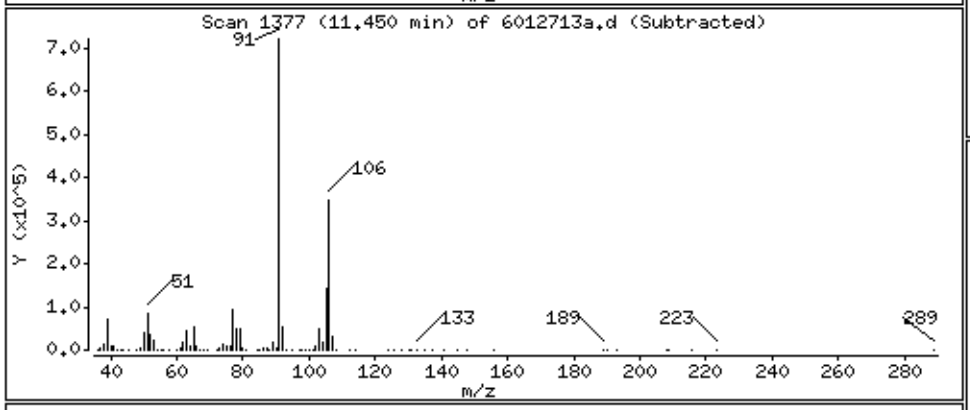
Column diameter: 0.53

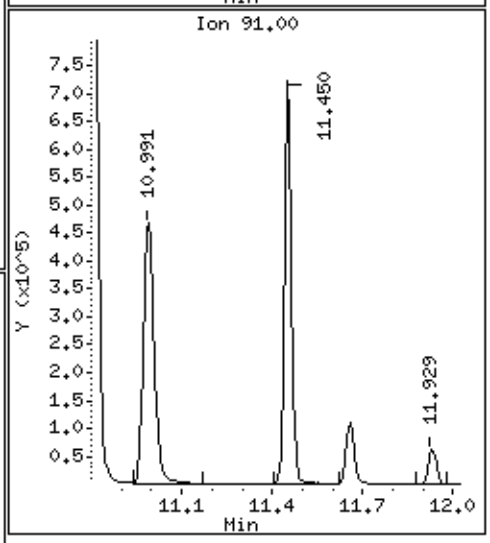
74 o-Xylene

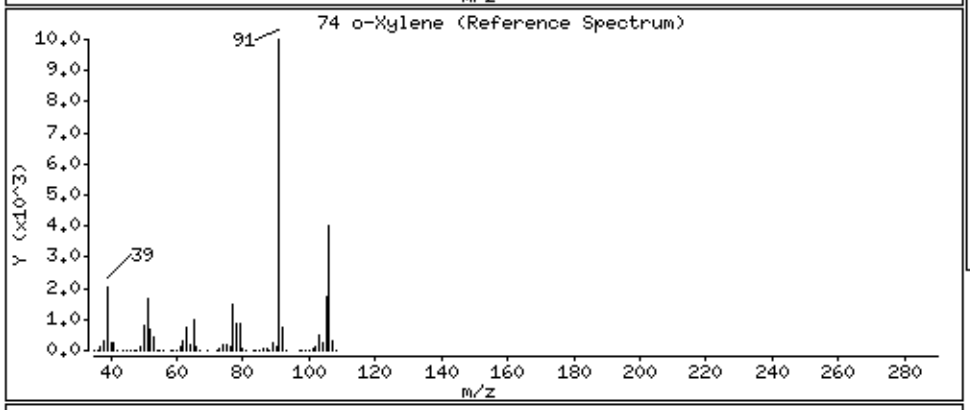
Concentration: 86.403 NG

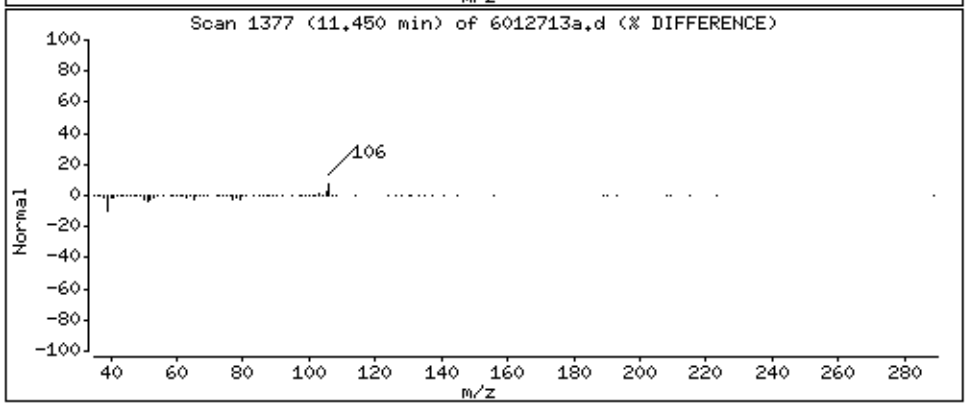












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

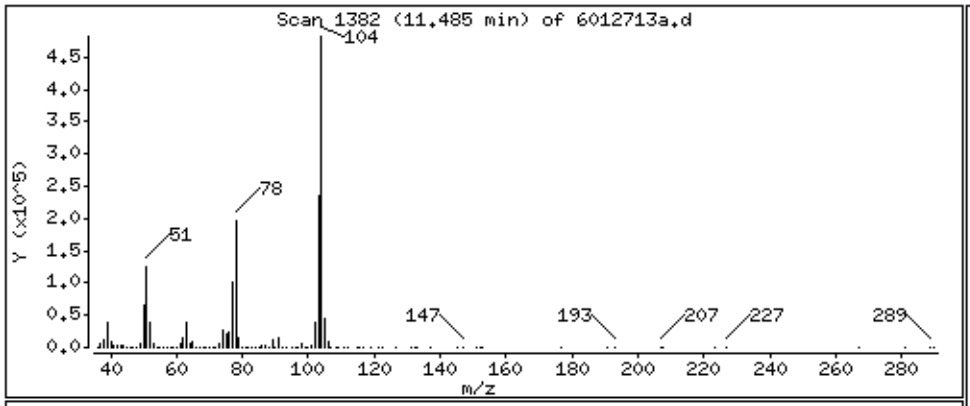
Operator: su

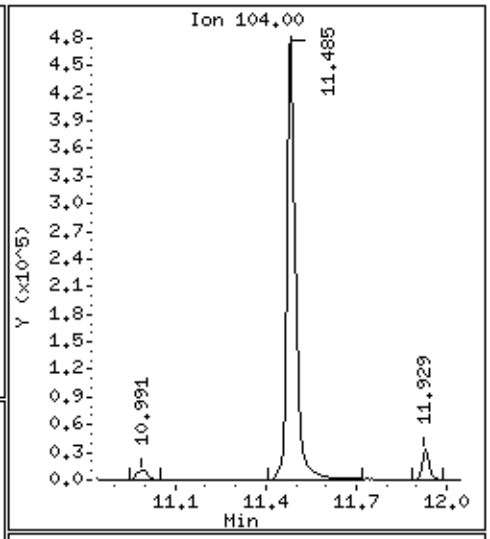
Column phase: RTx-624

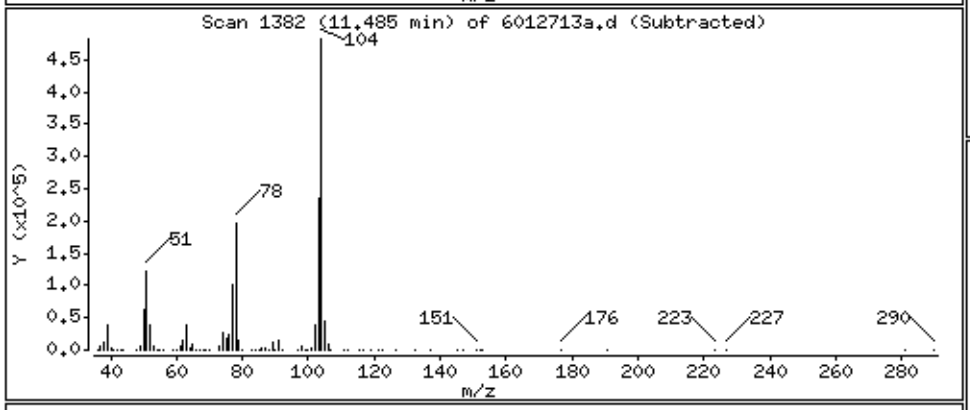
Column diameter: 0.53

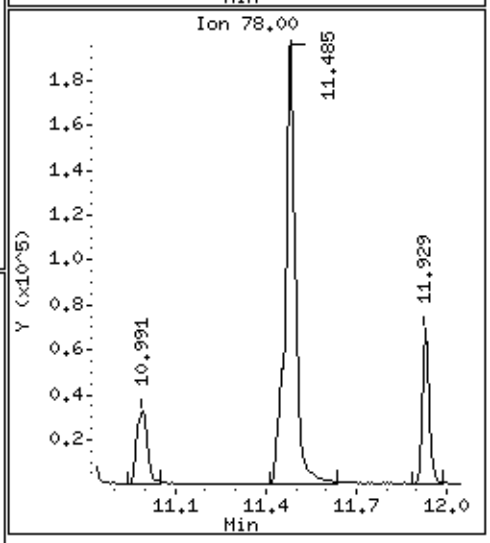
75 Styrene

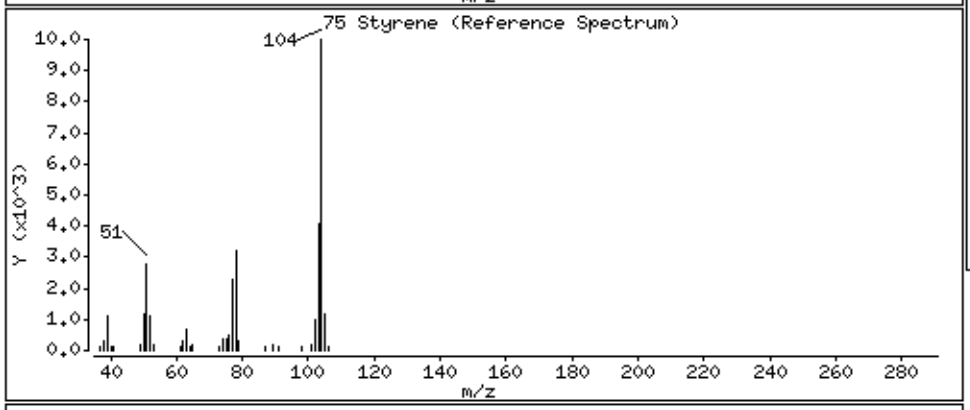
Concentration: 90.533 NG

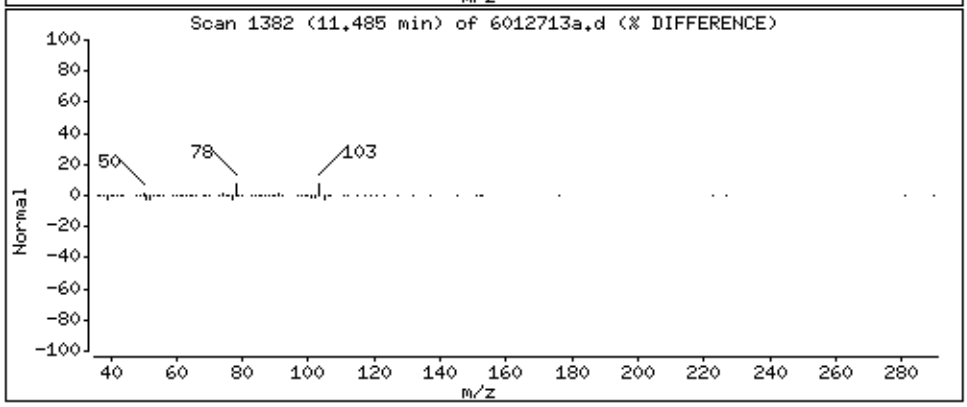












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

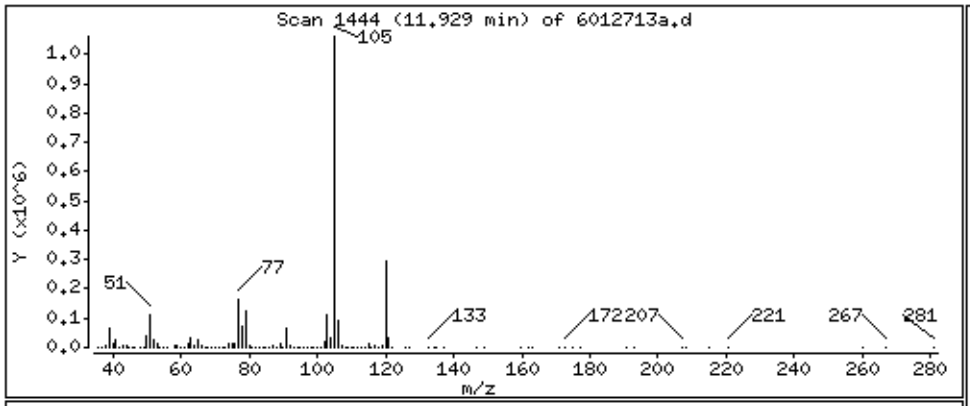
Operator: su

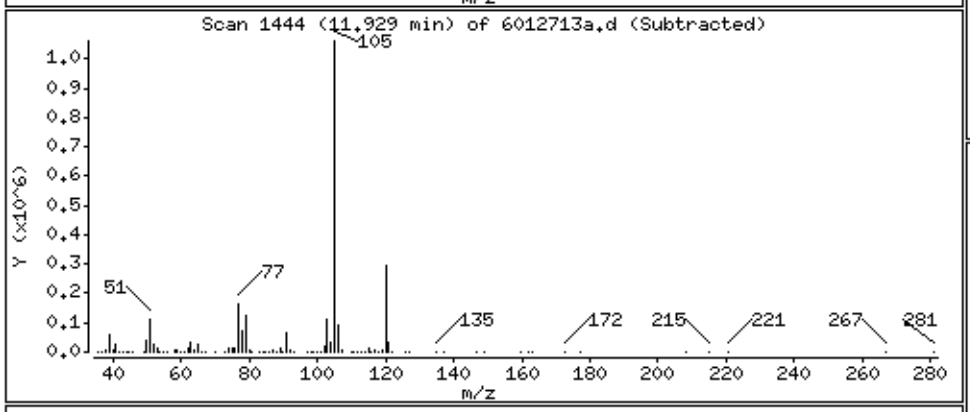
Column phase: RTx-624

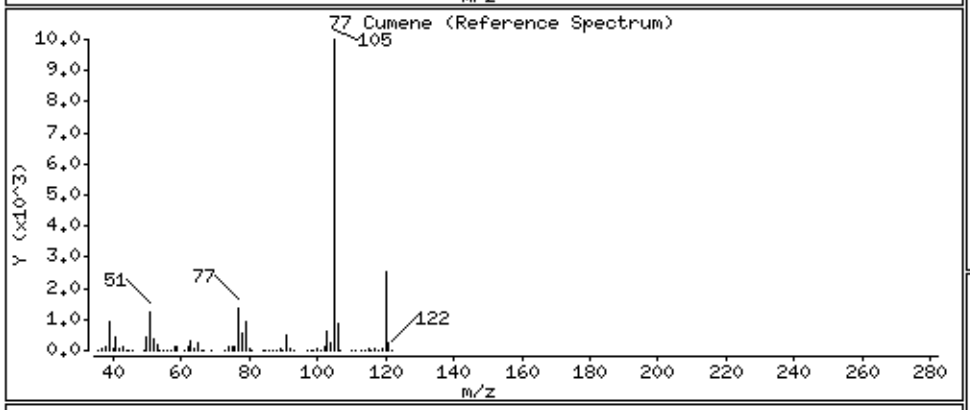
Column diameter: 0.53

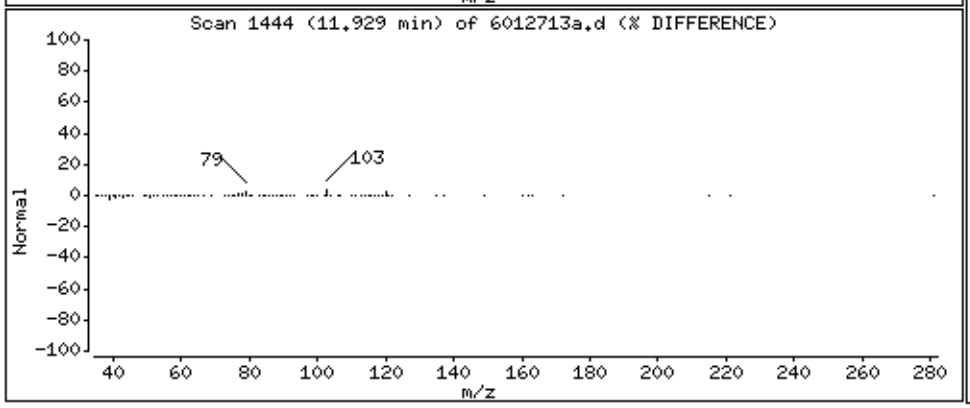
77 Cumene

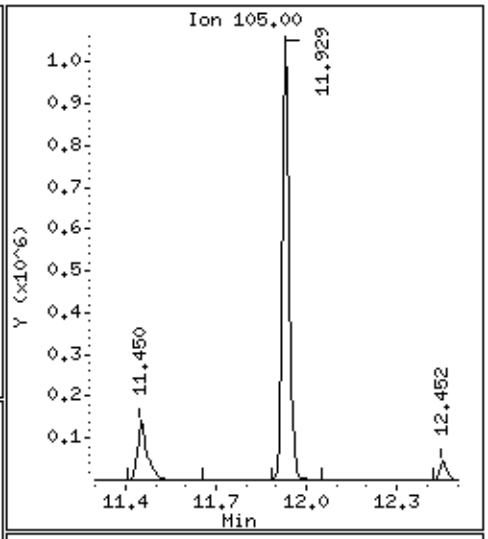
Concentration: 104.87 NG

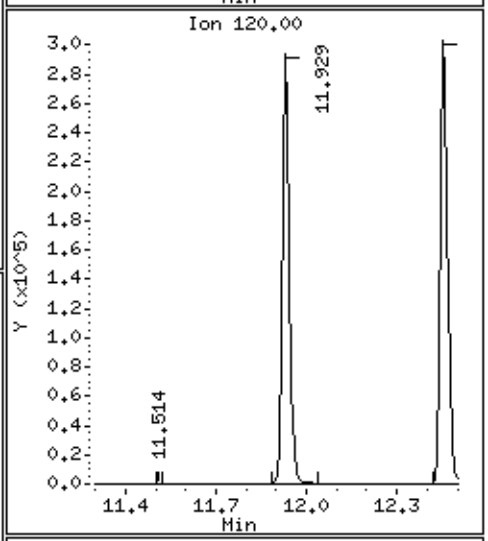


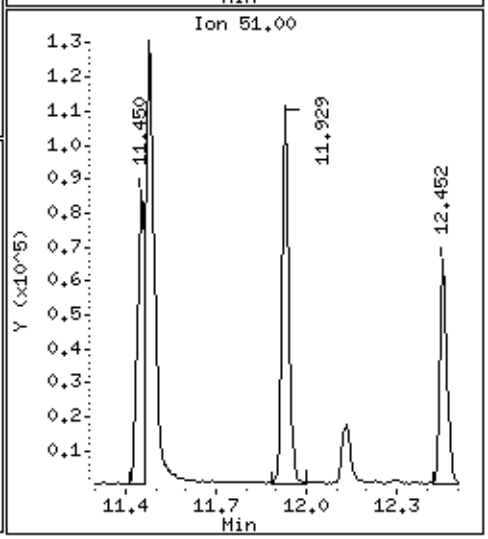












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

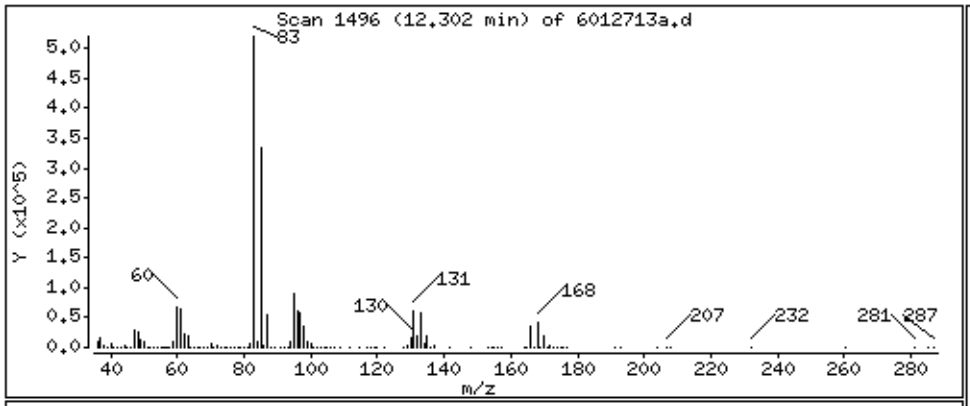
Operator: su

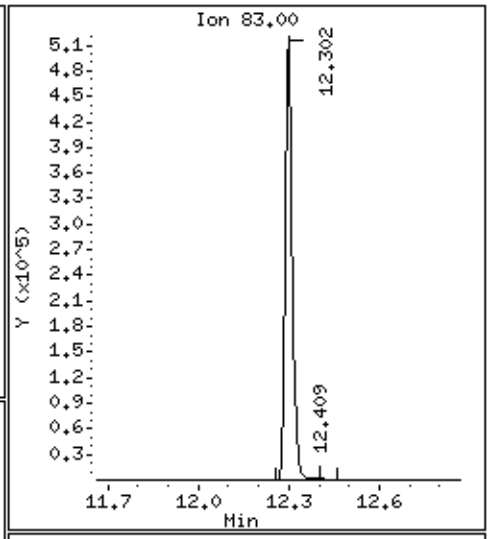
Column phase: RTx-624

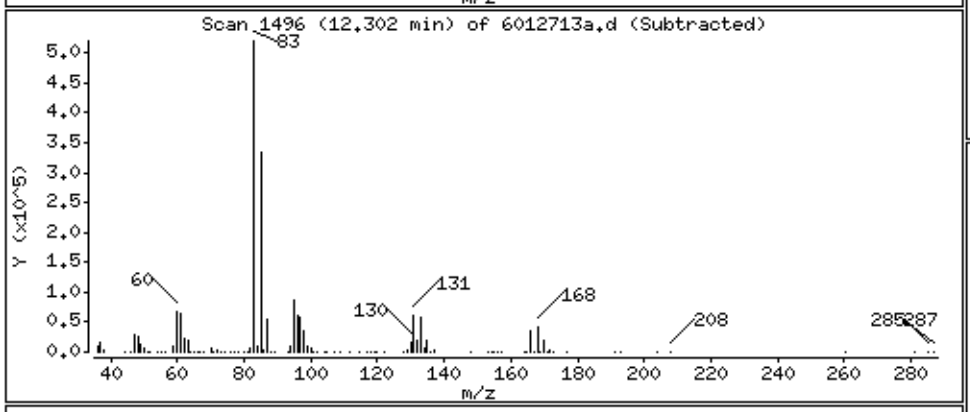
Column diameter: 0.53

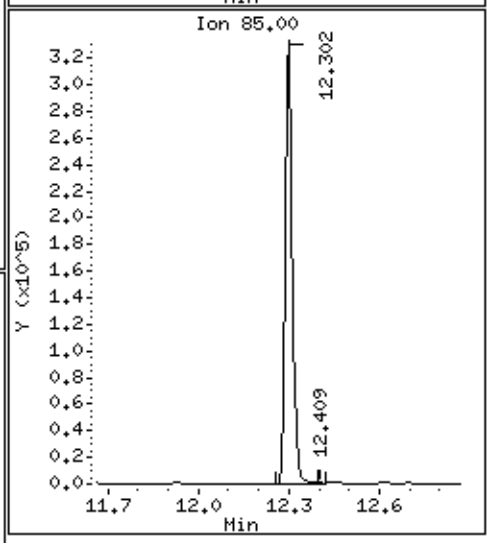
80 1,1,2,2-Tetrachloroethane

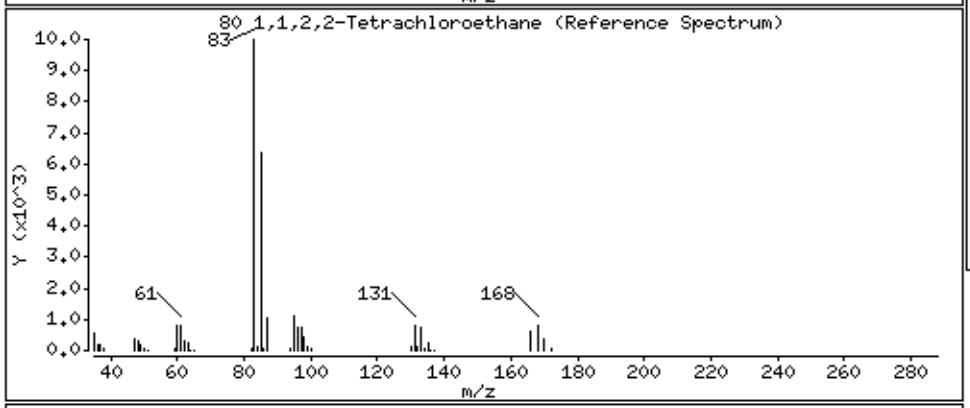
Concentration: 149.67 NG

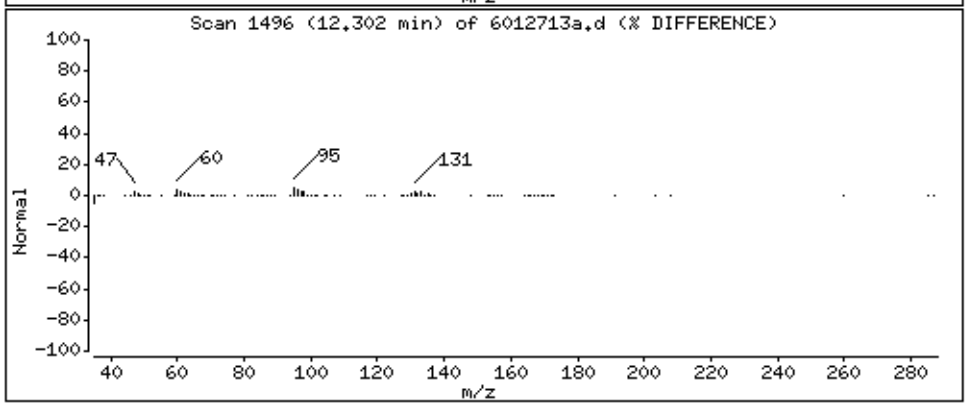












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

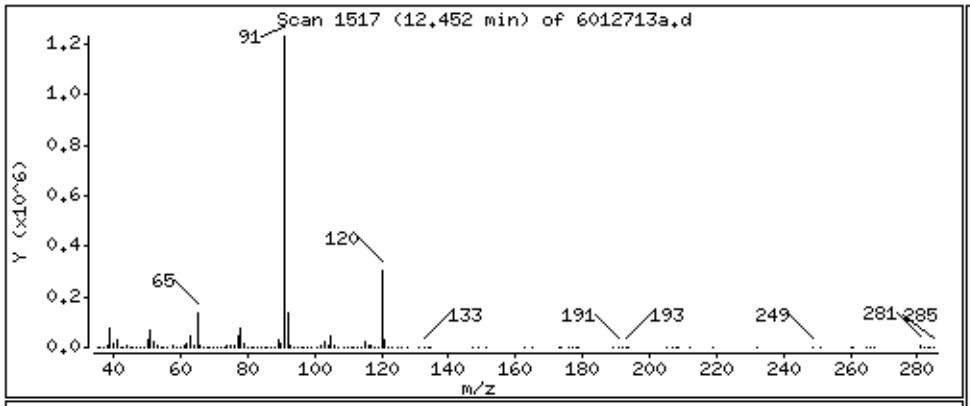
Operator: su

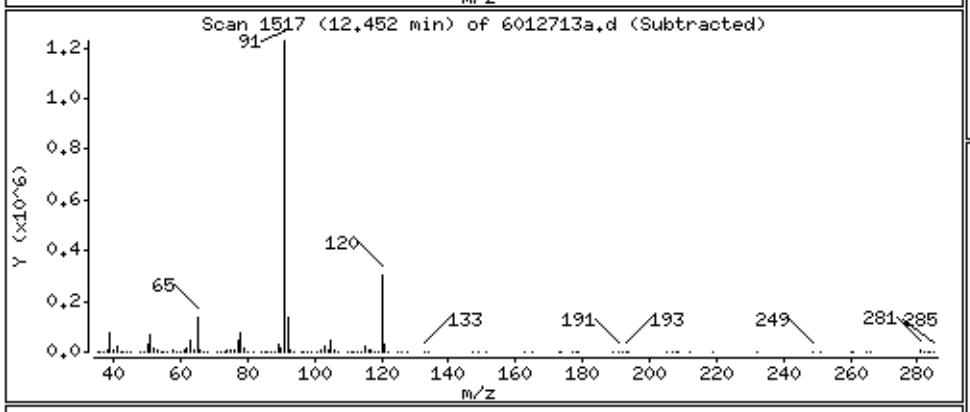
Column phase: RTx-624

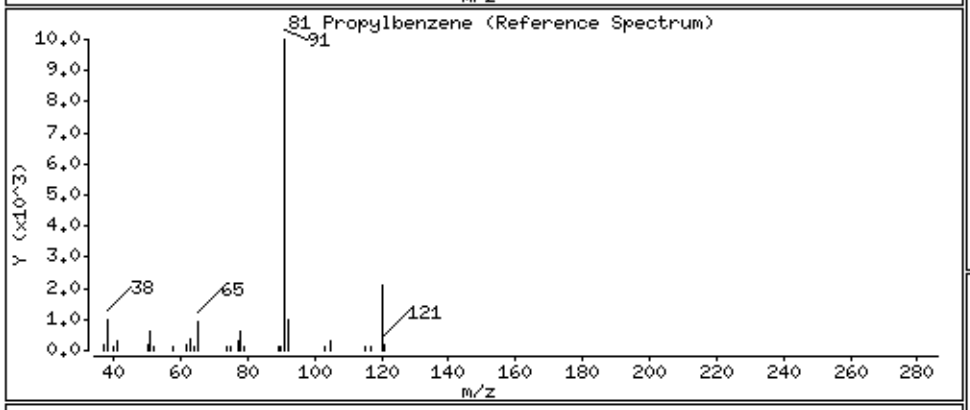
Column diameter: 0.53

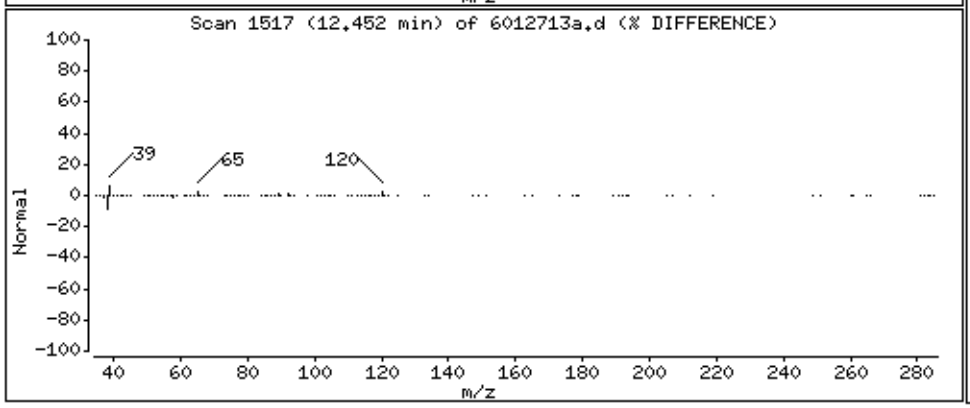
81 Propylbenzene

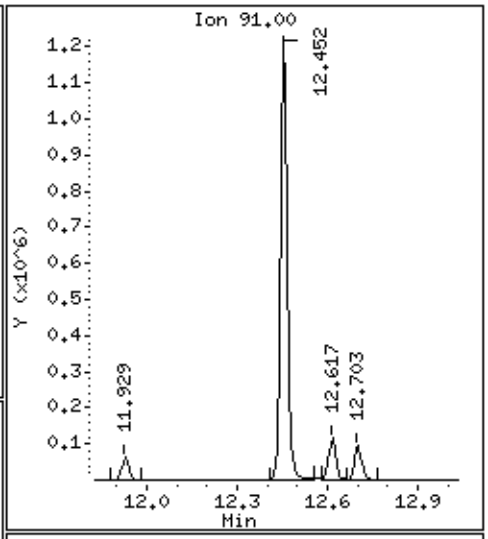
Concentration: 110.51 NG

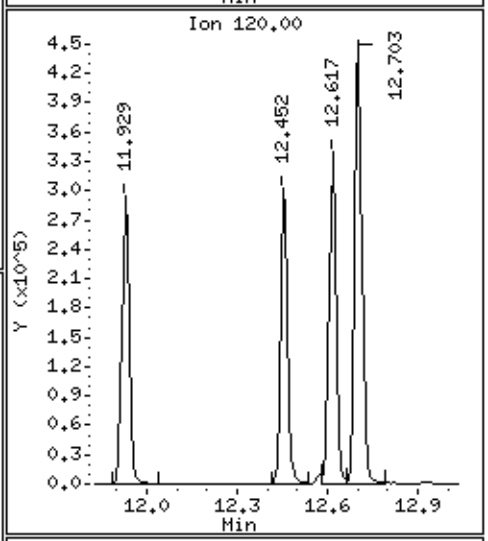


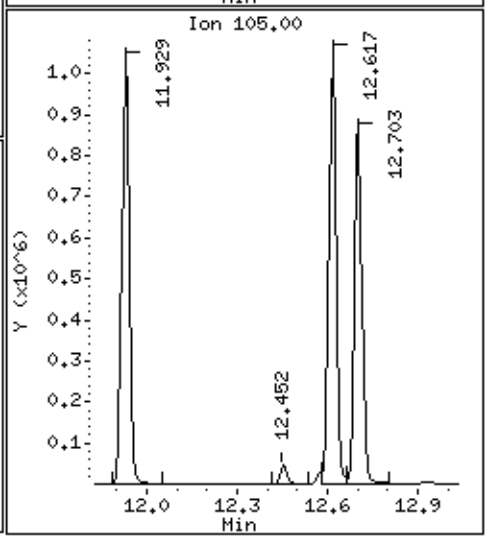












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

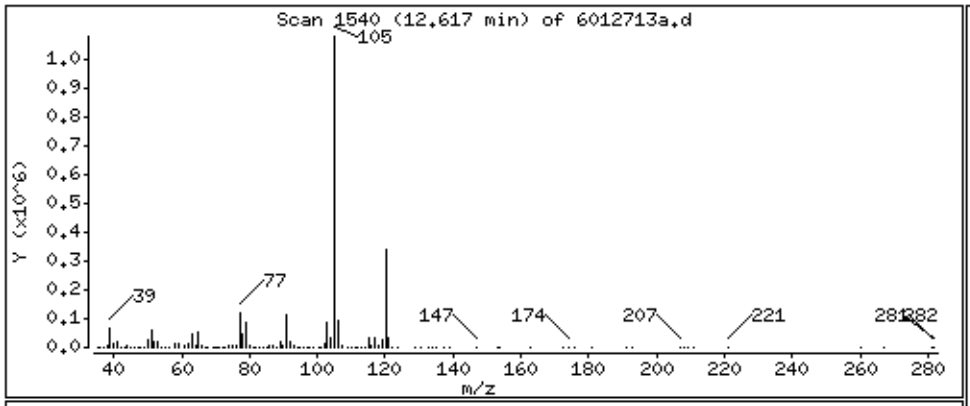
Operator: su

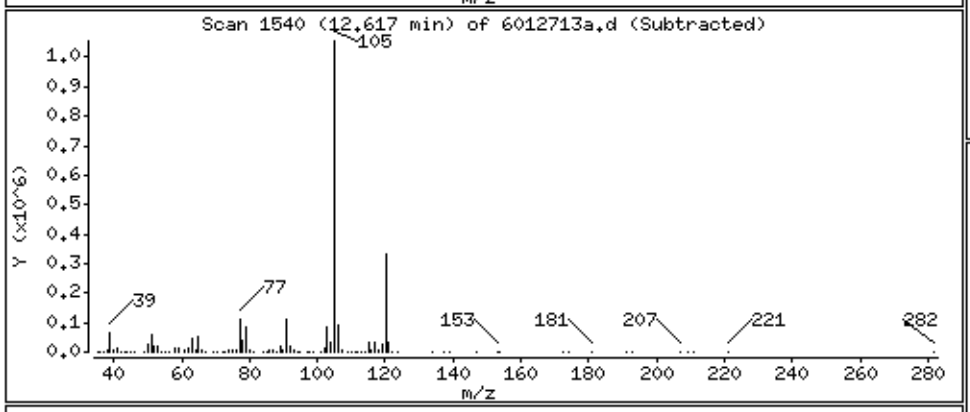
Column phase: RTx-624

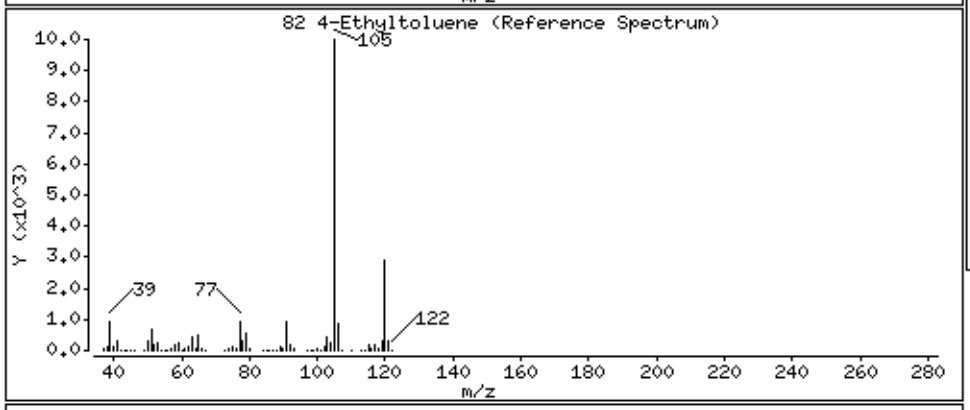
Column diameter: 0.53

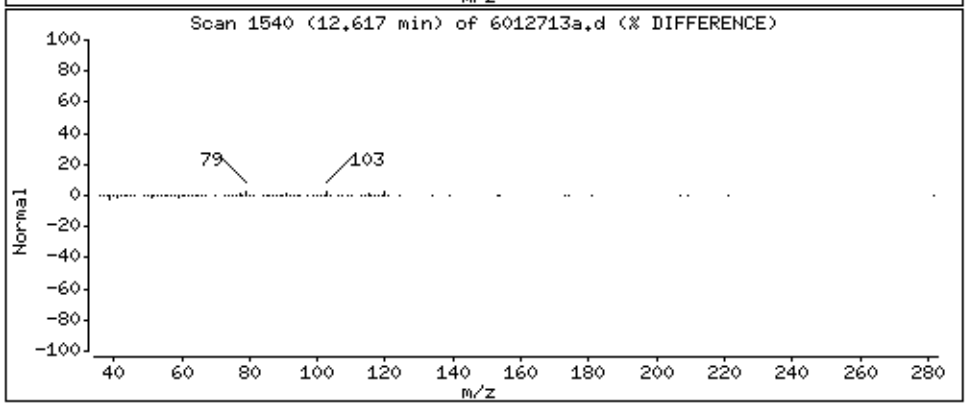
82 4-Ethyltoluene

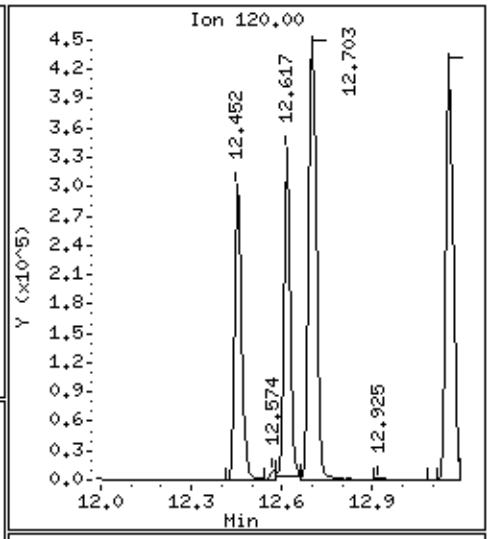
Concentration: 105.54 NG

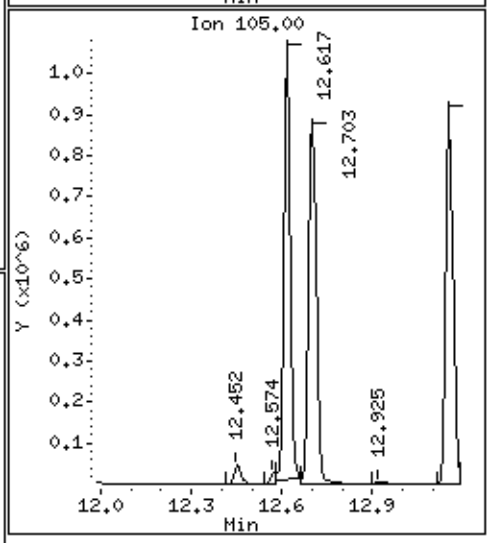












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

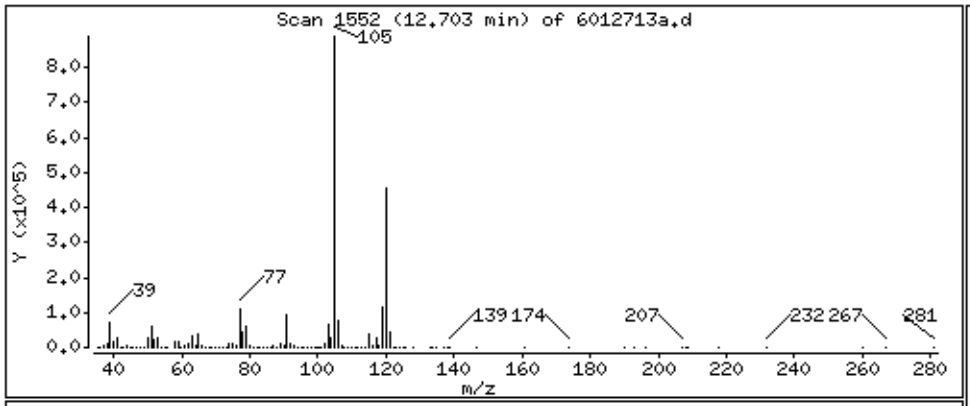
Operator: su

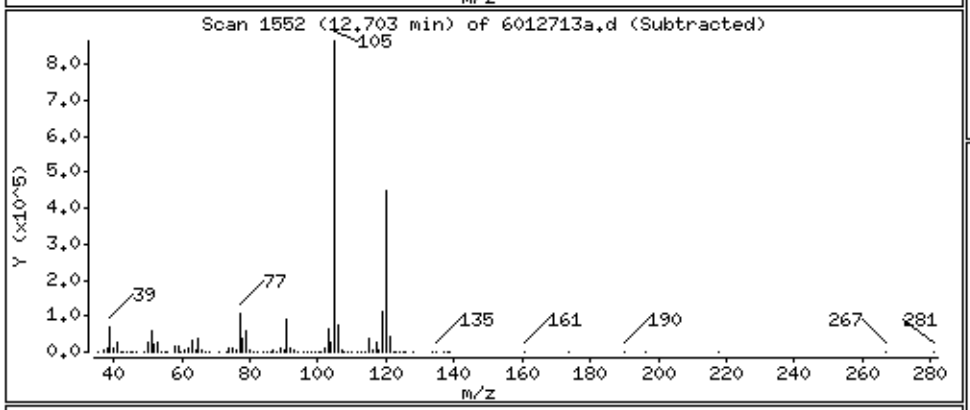
Column phase: RTx-624

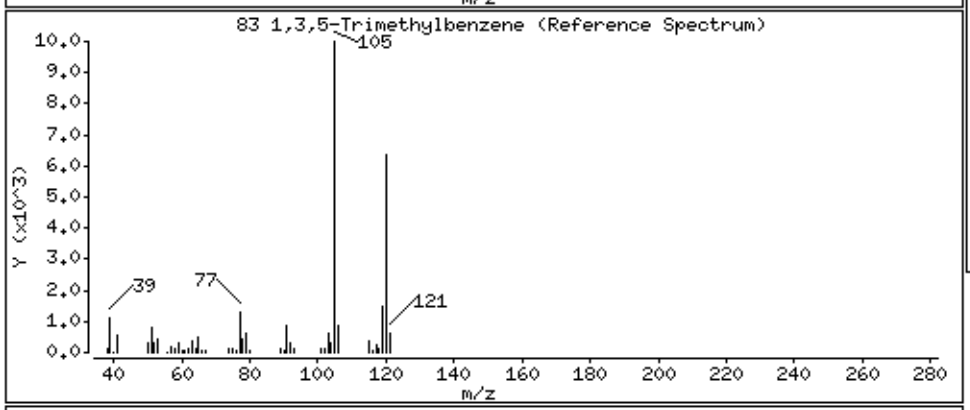
Column diameter: 0.53

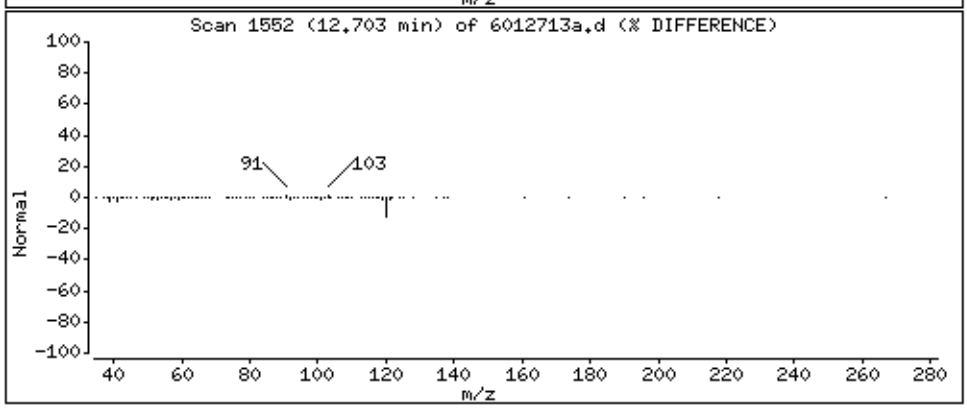
83 1,3,5-Trimethylbenzene

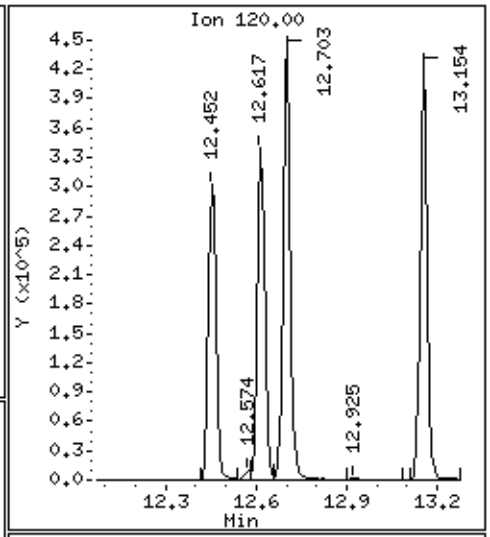
Concentration: 106.79 NG

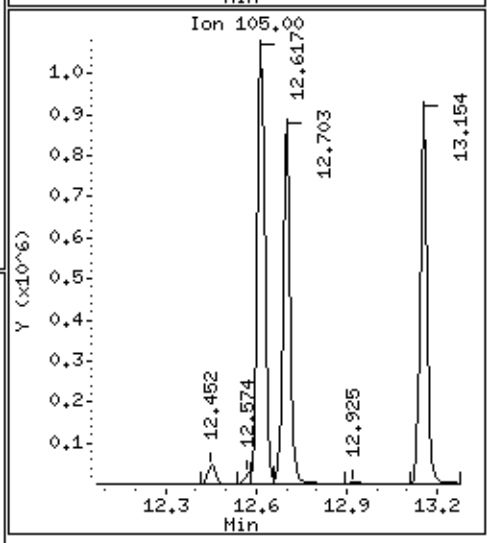












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

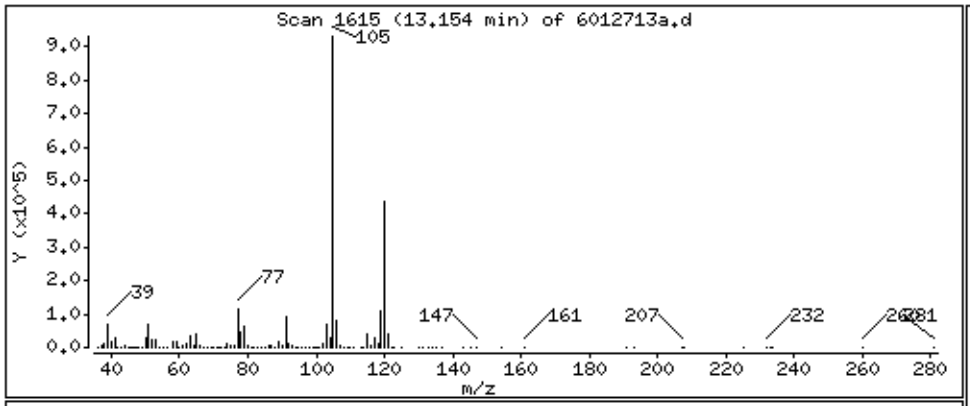
Operator: su

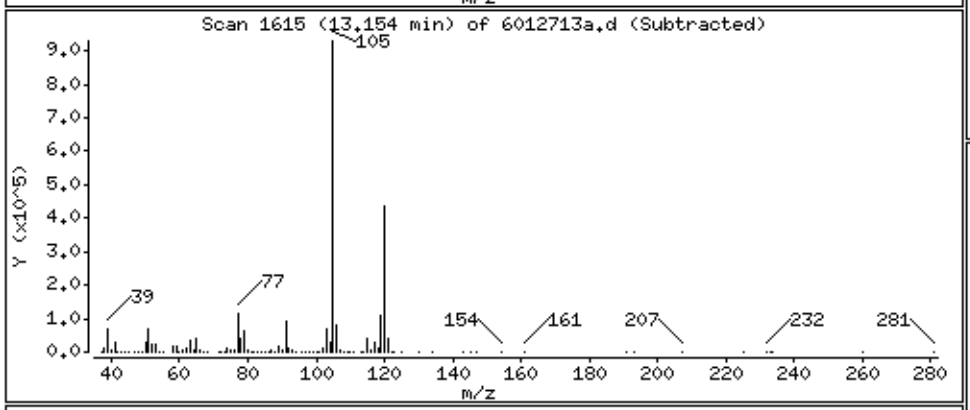
Column phase: RTx-624

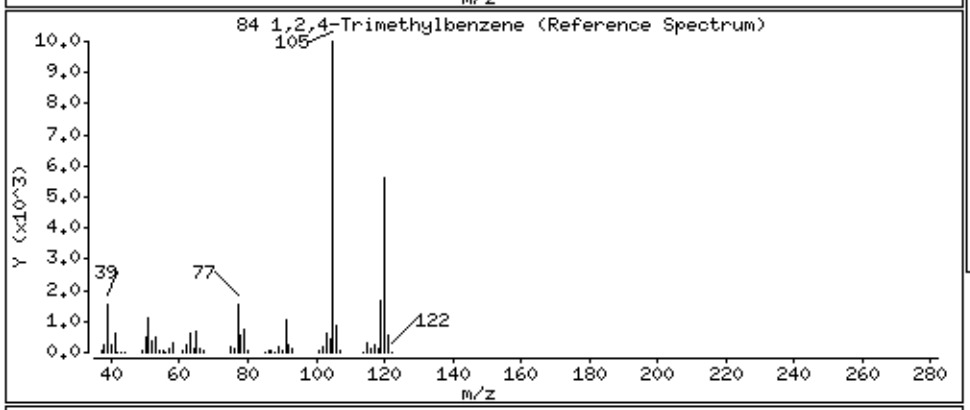
Column diameter: 0.53

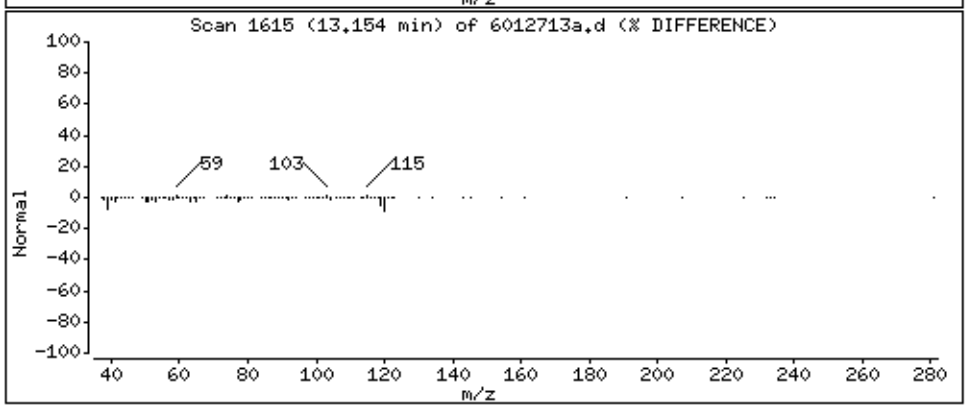
84 1,2,4-Trimethylbenzene

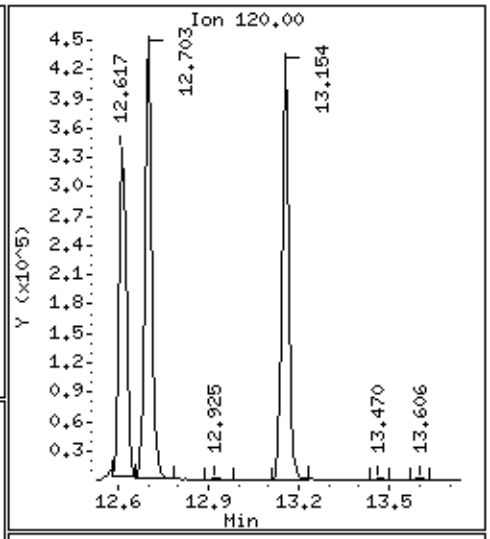
Concentration: 111.35 NG

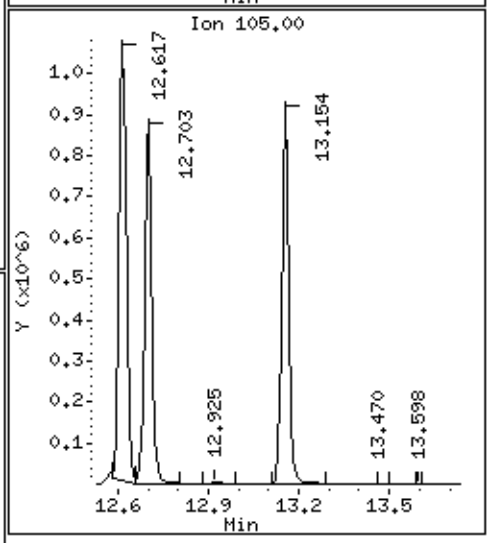












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

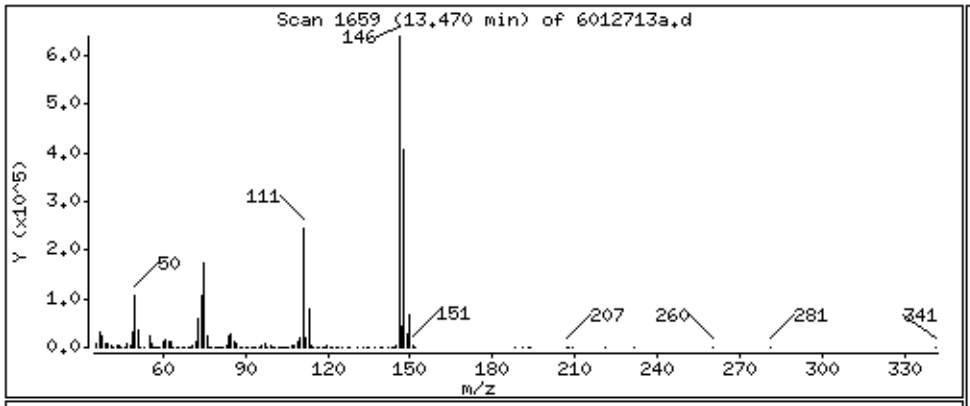
Operator: su

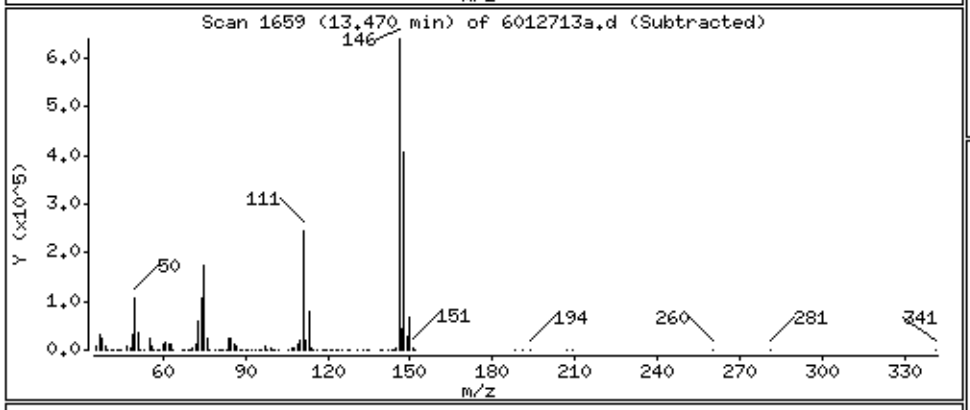
Column phase: RTx-624

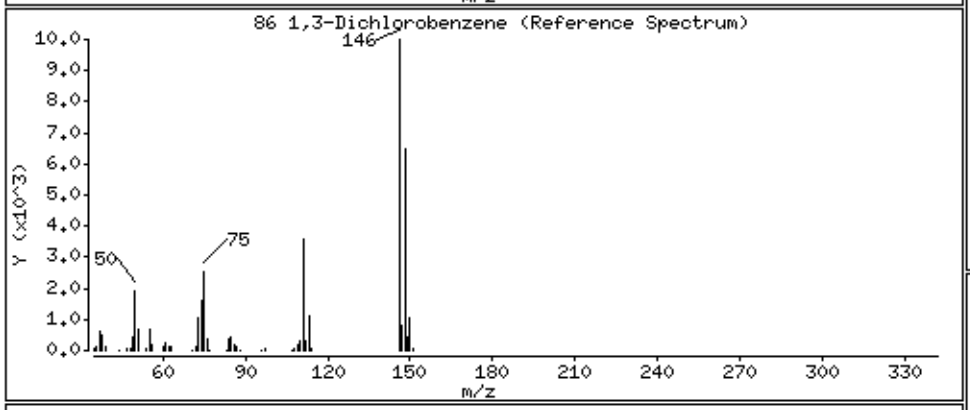
Column diameter: 0.53

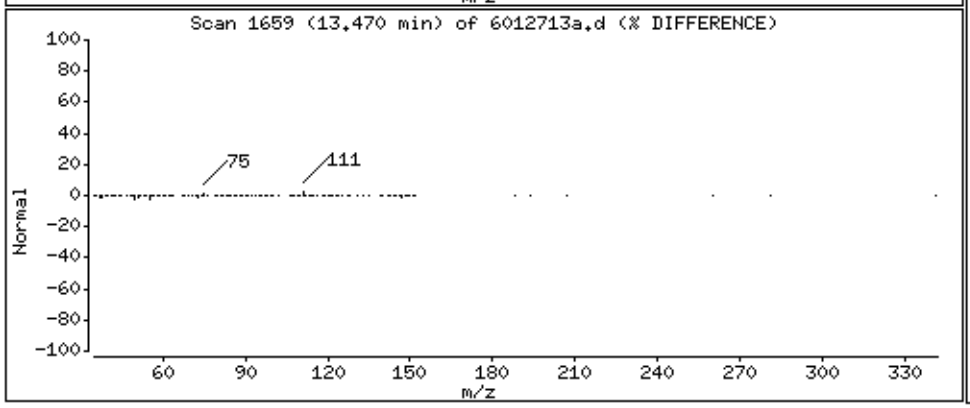
86 1,3-Dichlorobenzene

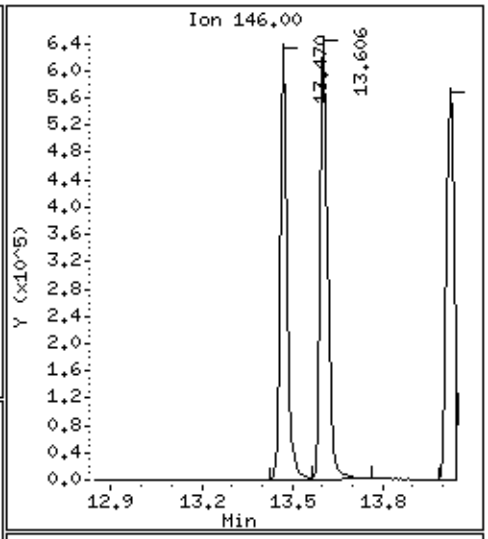
Concentration: 137.47 NG

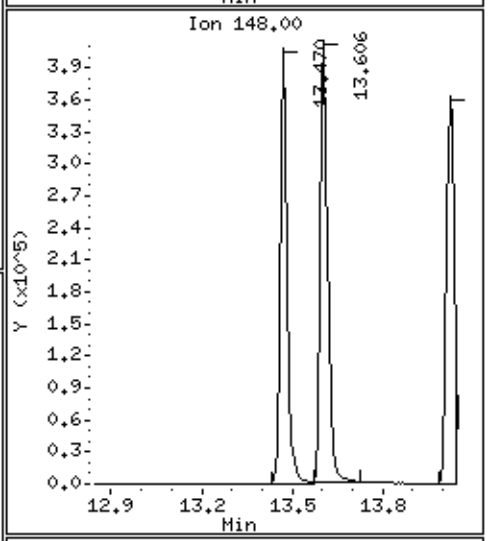


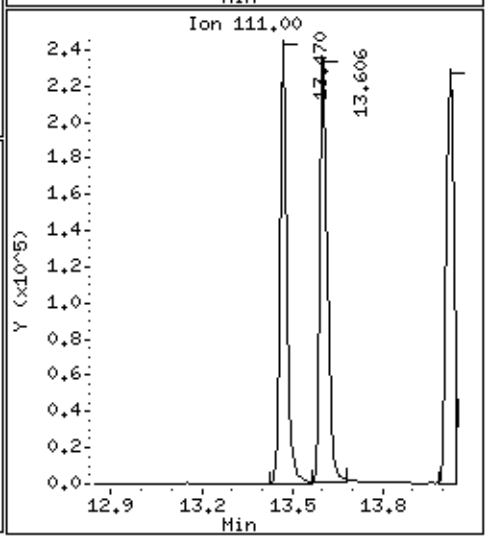












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

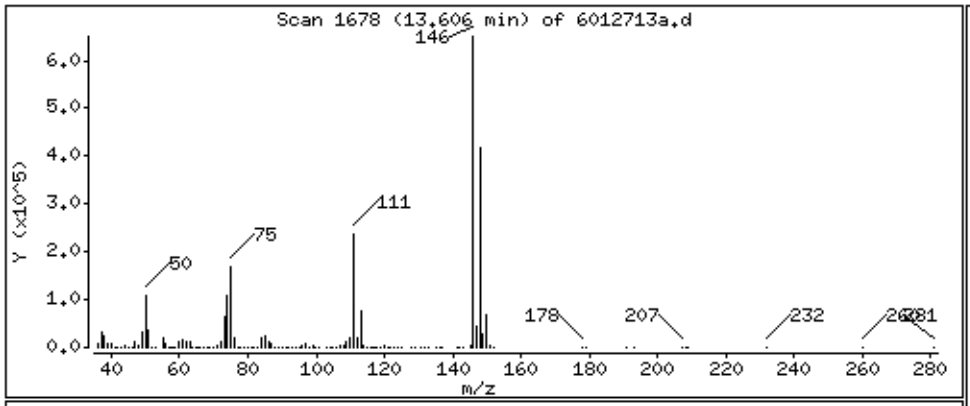
Operator: su

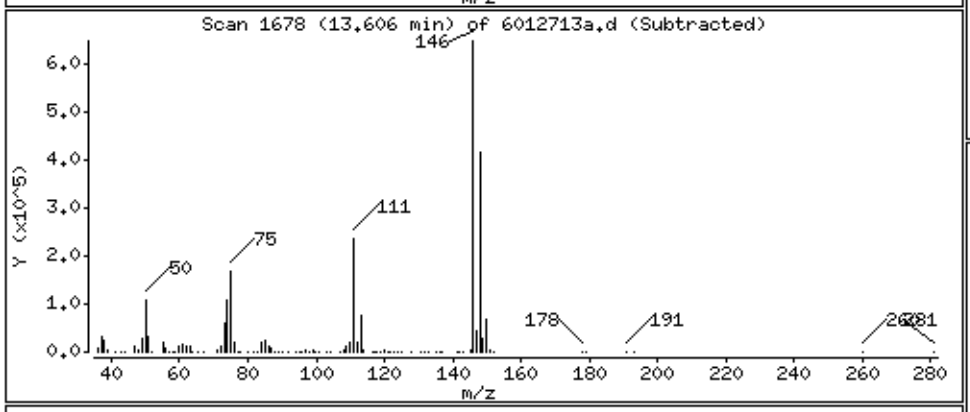
Column phase: RTx-624

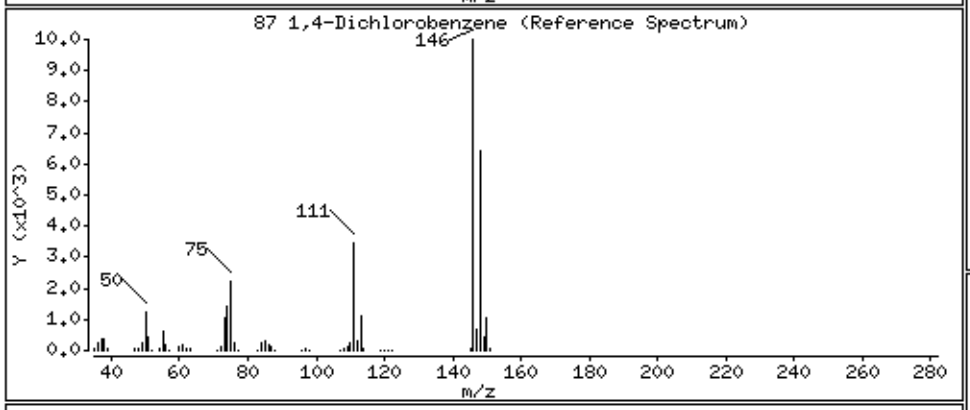
Column diameter: 0.53

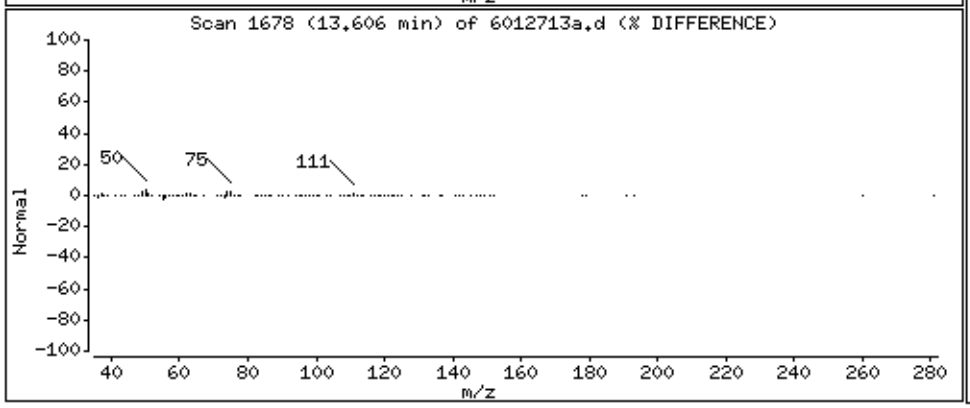
87 1,4-Dichlorobenzene

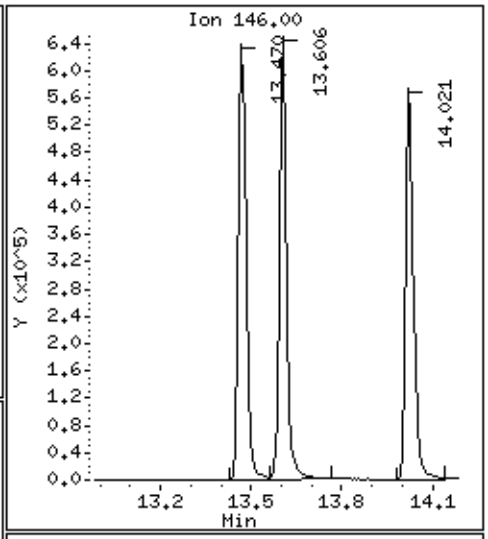
Concentration: 139.49 NG

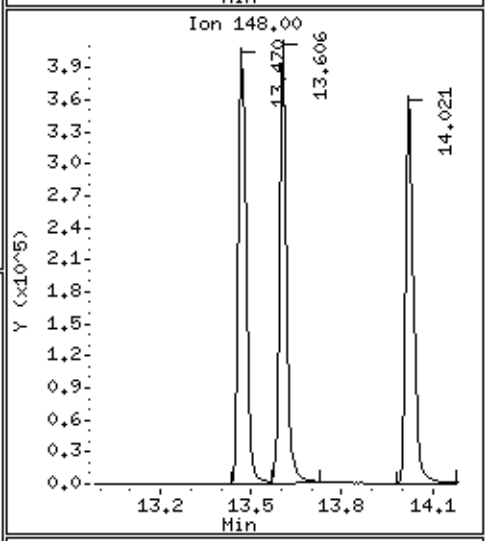


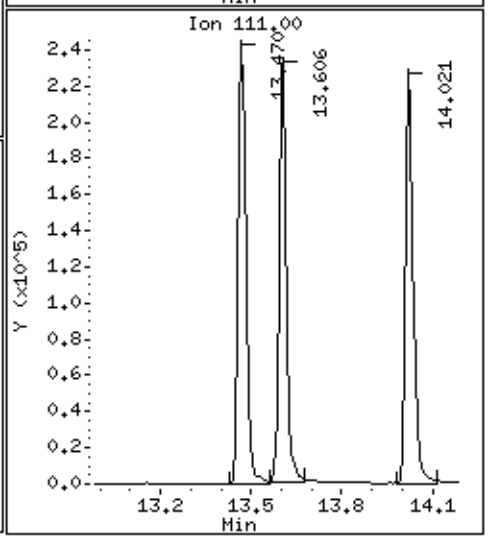












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

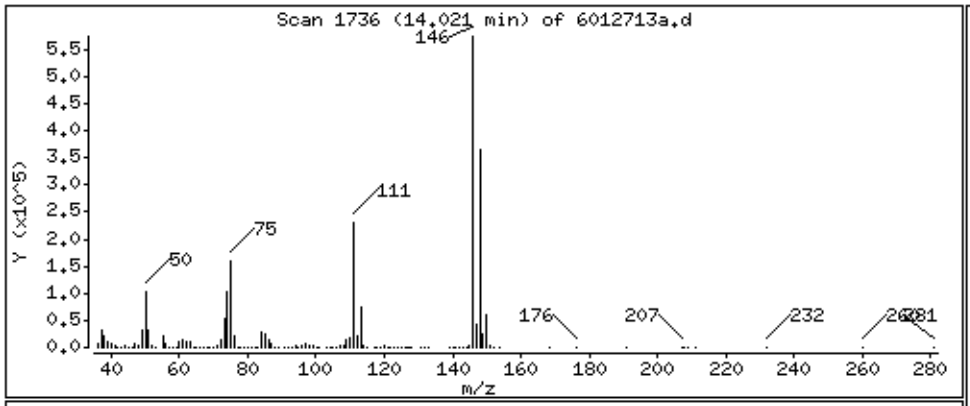
Operator: su

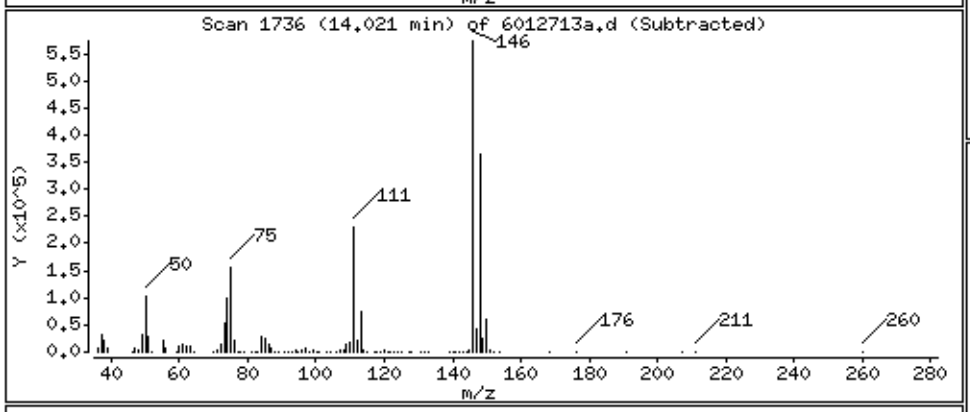
Column phase: RTx-624

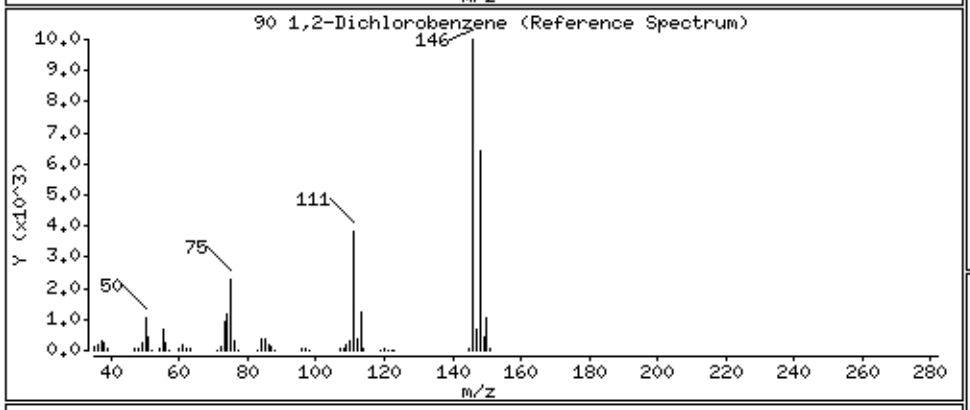
Column diameter: 0.53

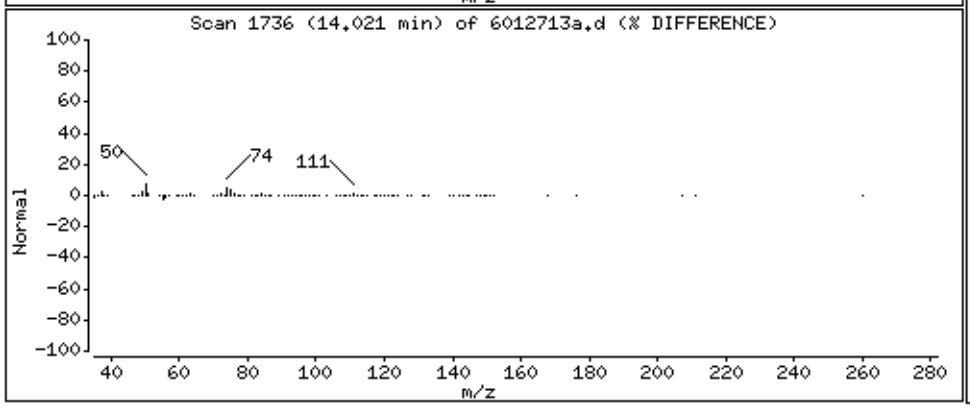
90 1,2-Dichlorobenzene

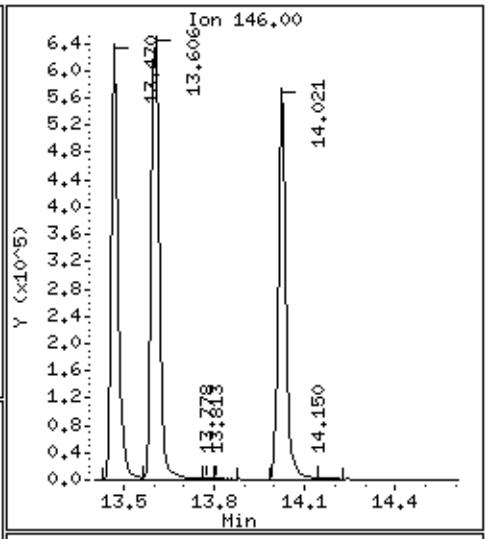
Concentration: 142.62 NG

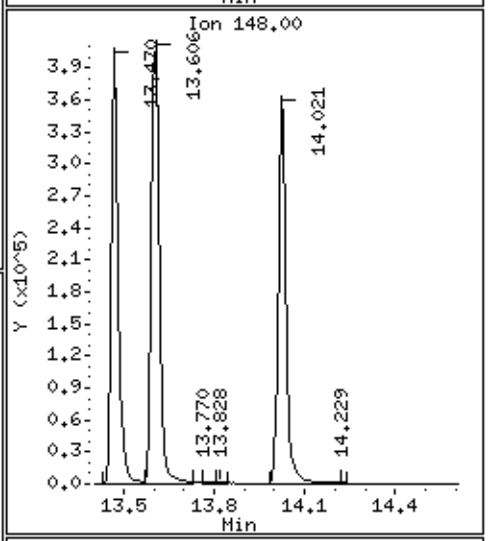


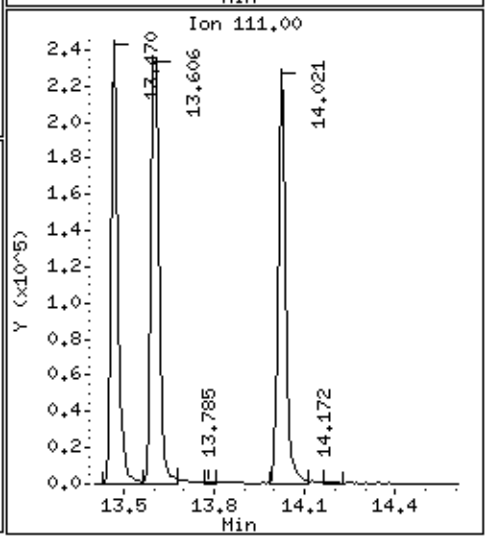












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

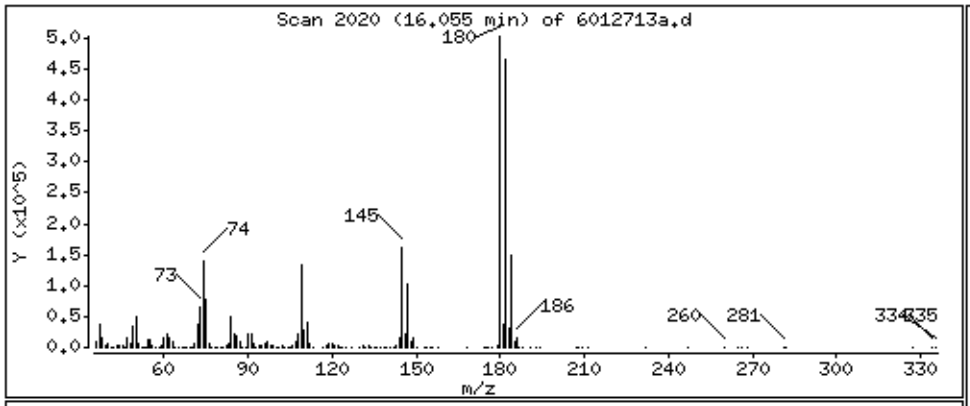
Operator: su

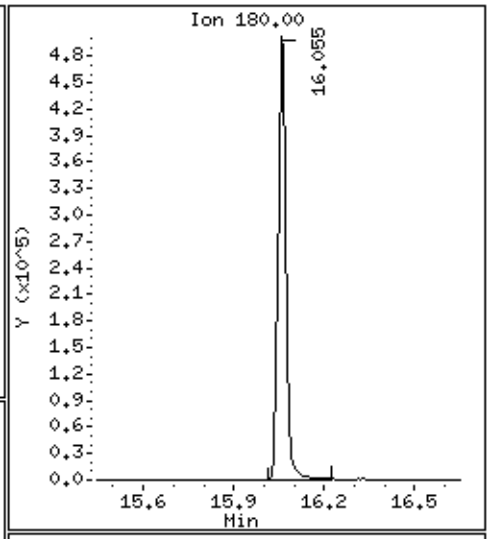
Column phase: RTx-624

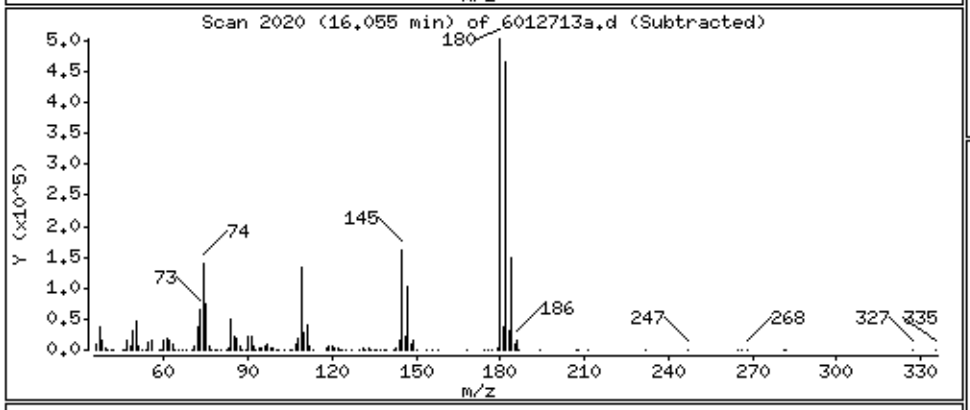
Column diameter: 0.53

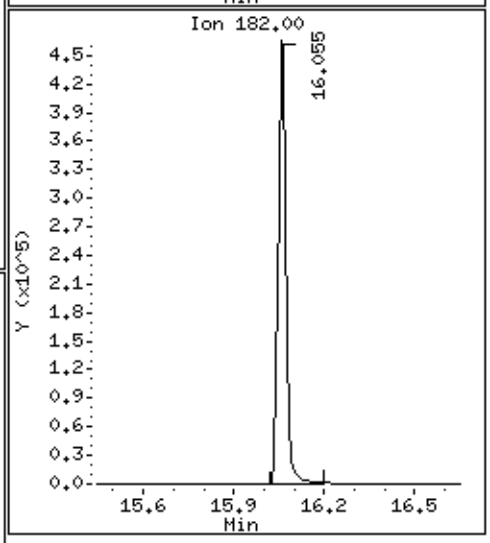
95 1,2,4-Trichlorobenzene

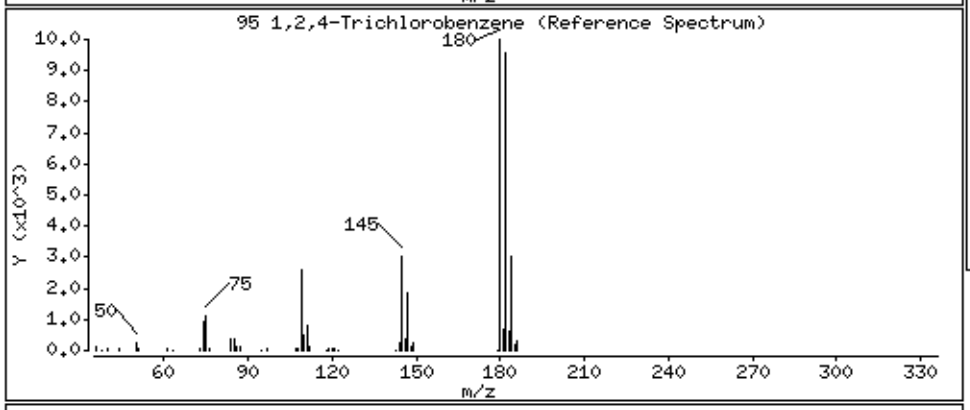
Concentration: 212.60 NG

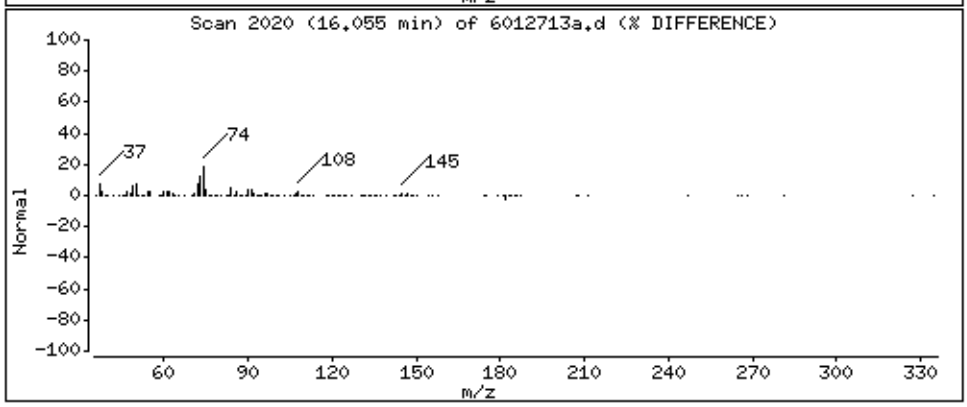












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

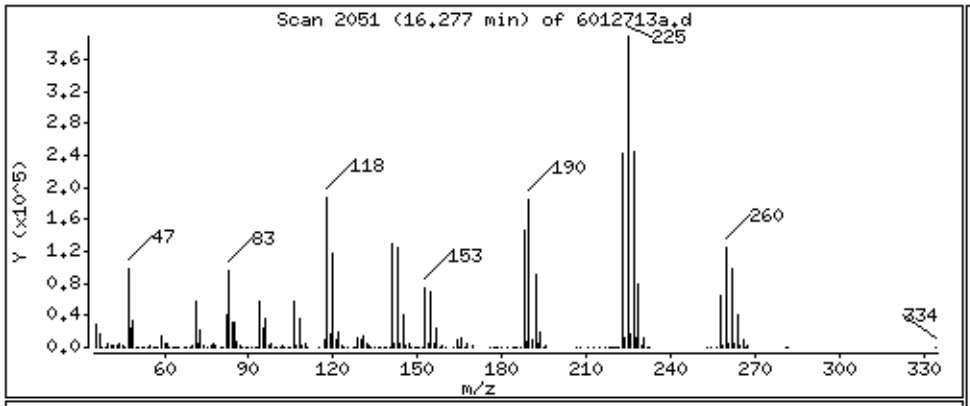
Operator: su

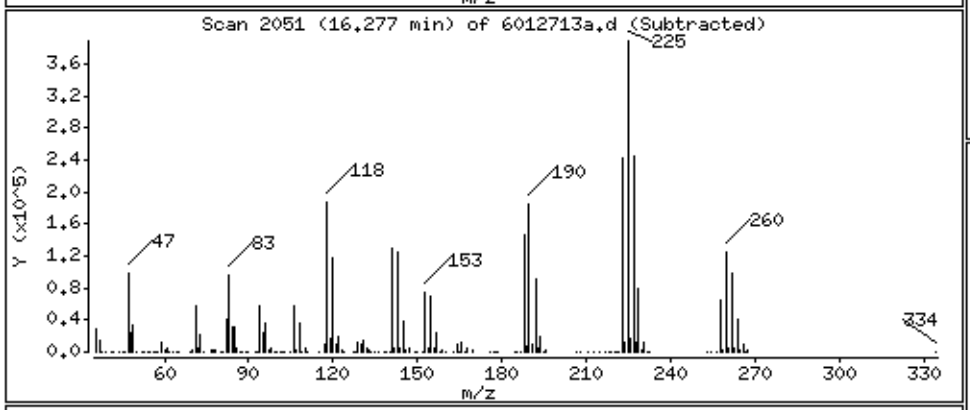
Column phase: RTx-624

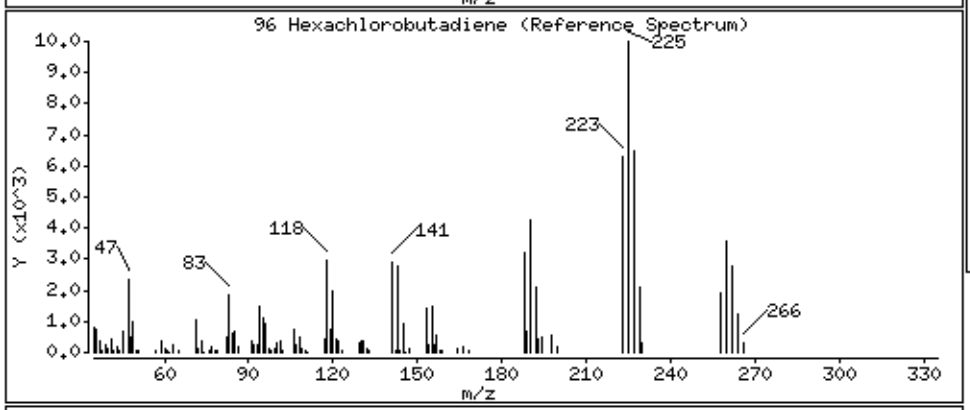
Column diameter: 0.53

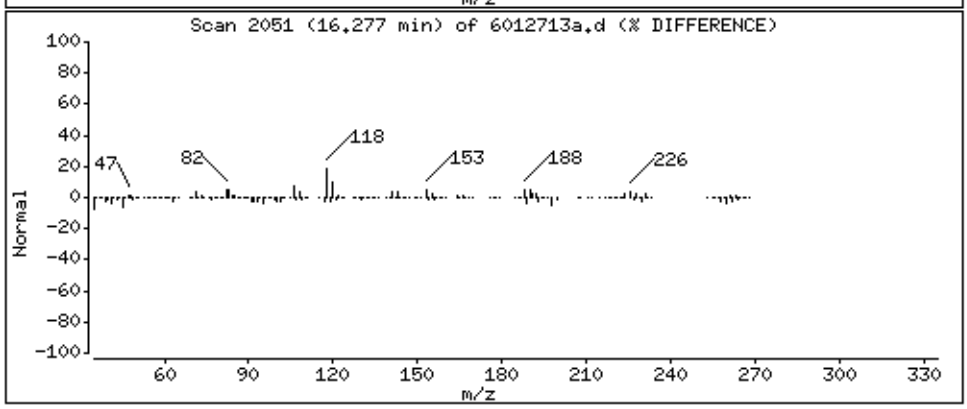
96 Hexachlorobutadiene

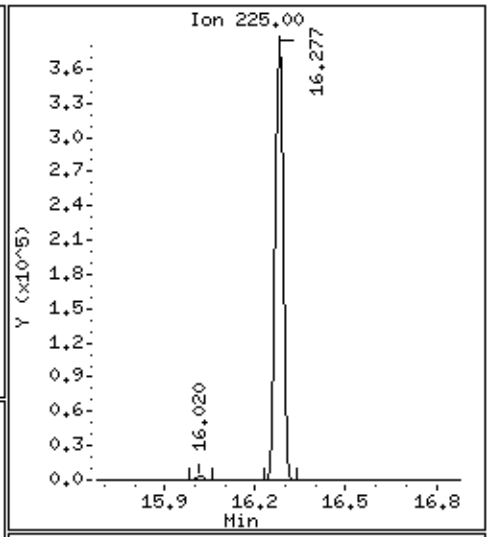
Concentration: 278.49 NG

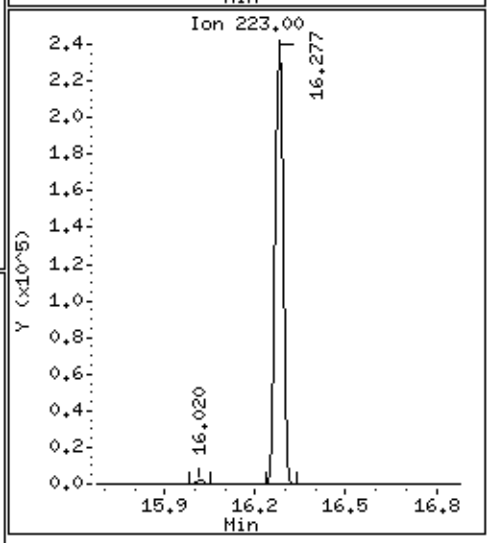












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Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

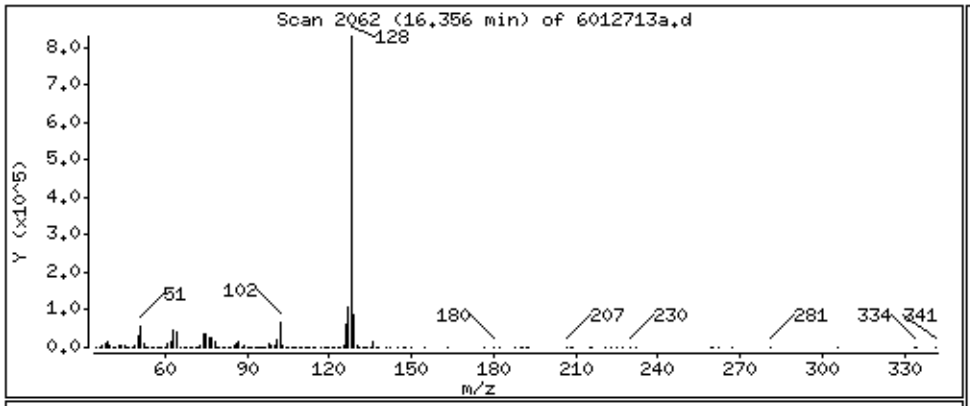
Operator: su

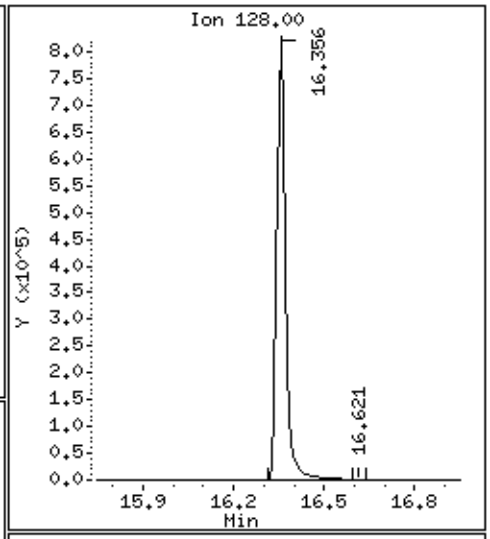
Column phase: RTx-624

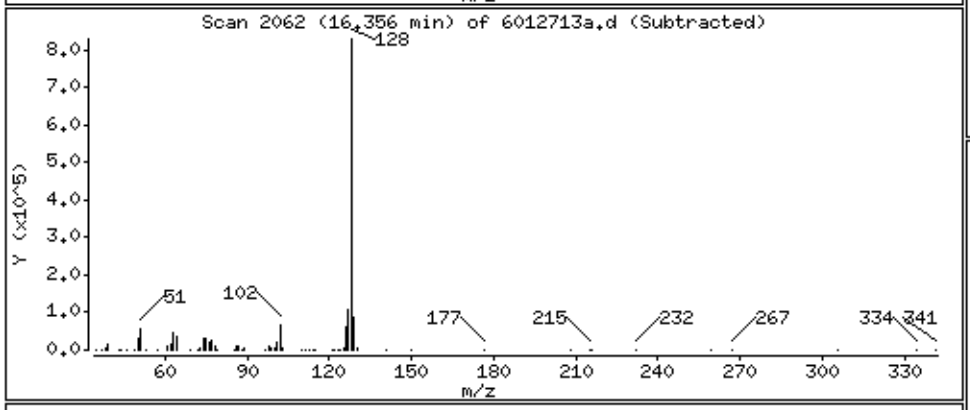
Column diameter: 0.53

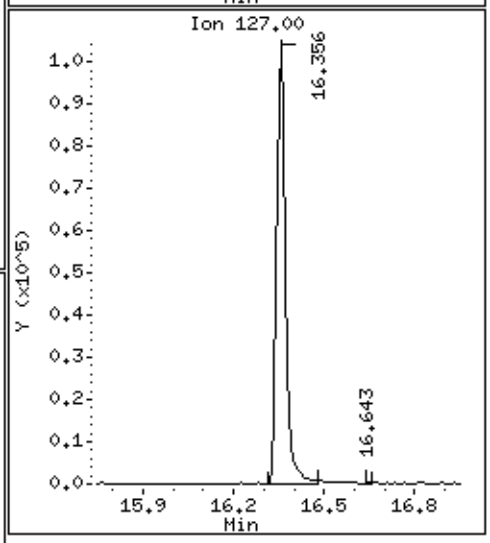
98 Naphthalene

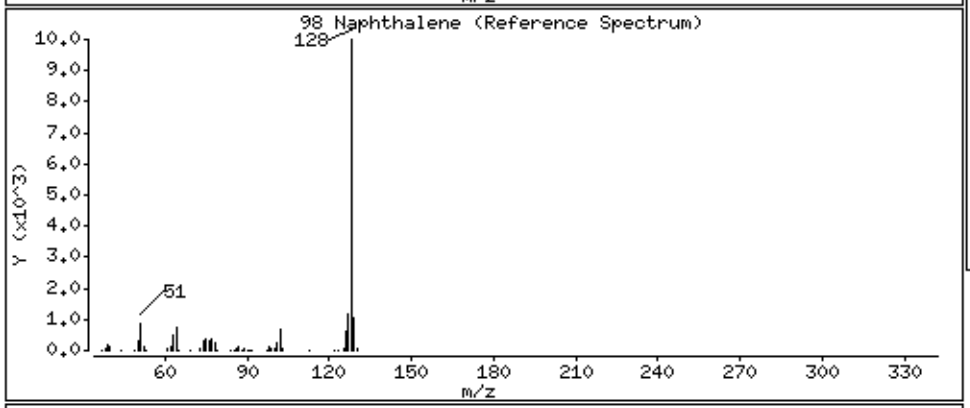
Concentration: 68.319 NG

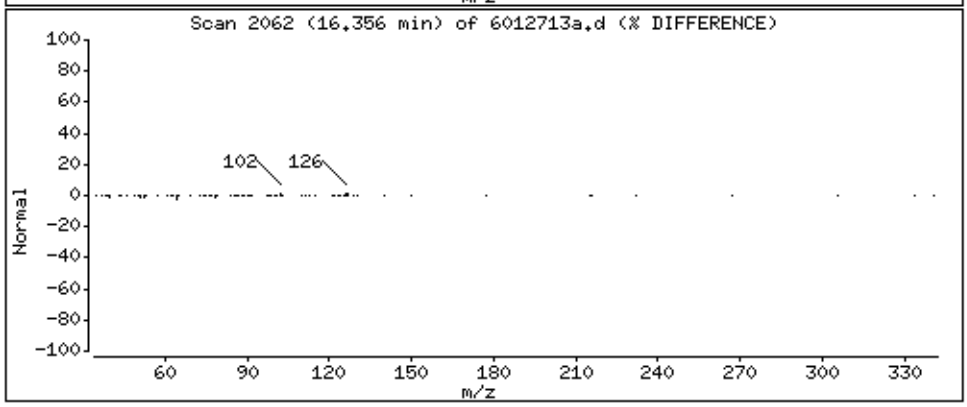












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

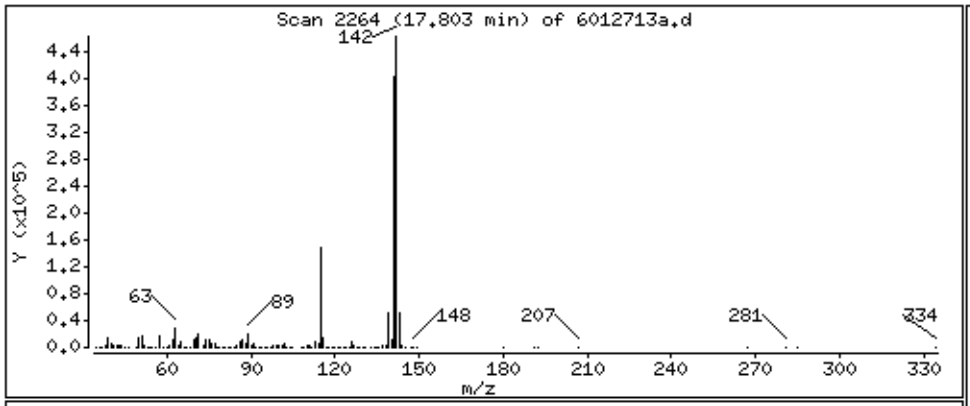
Operator: su

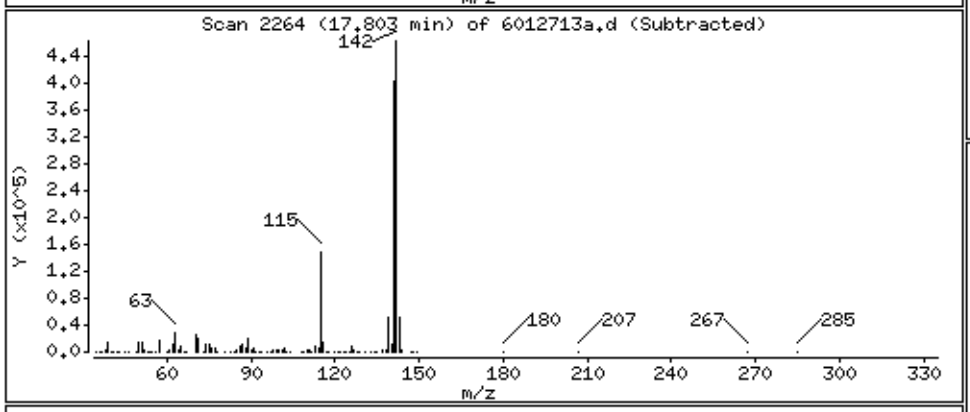
Column phase: RTx-624

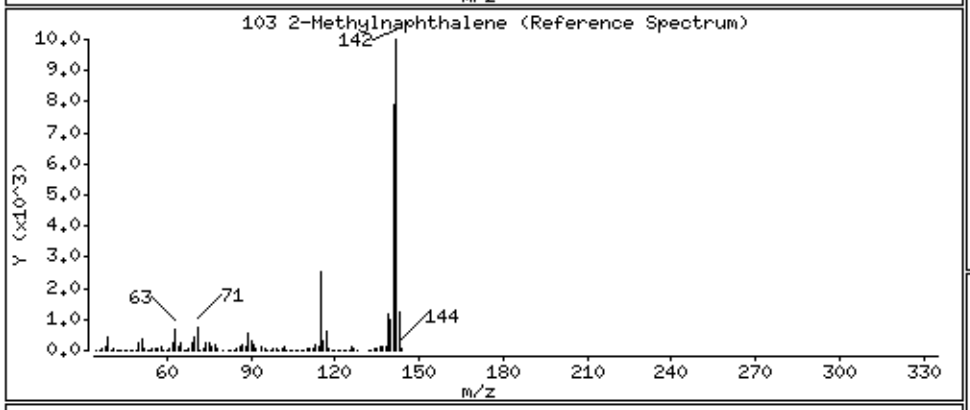
Column diameter: 0.53

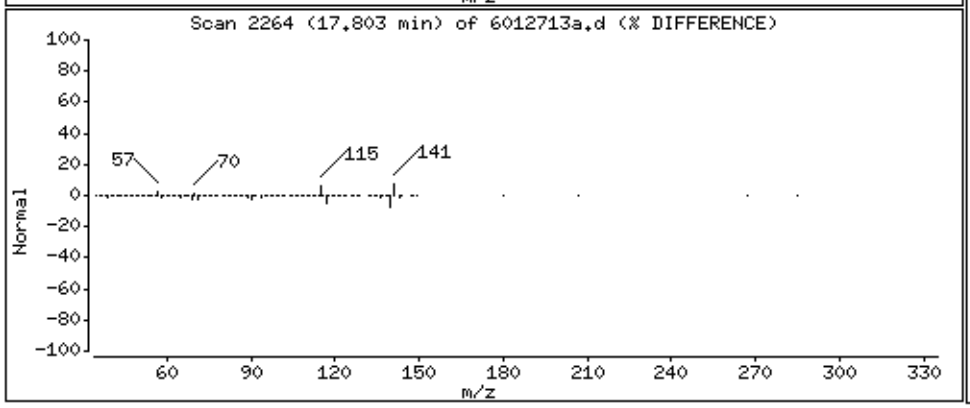
103 2-Methylnaphthalene

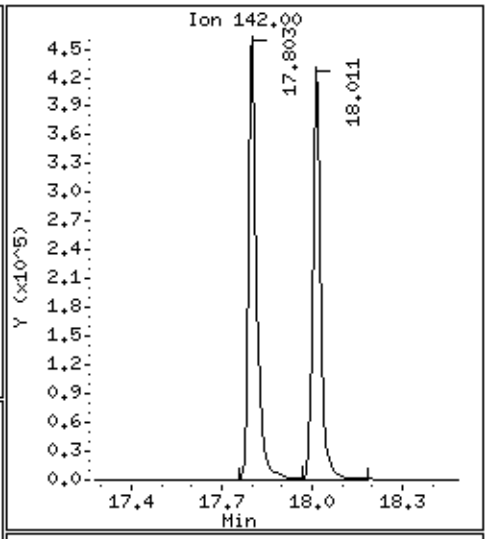
Concentration: 55.638 NG

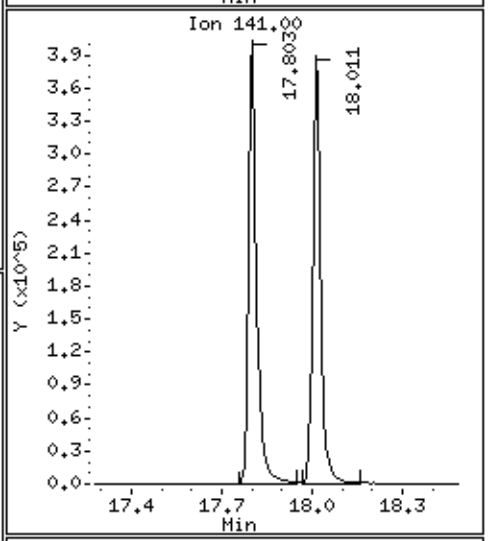


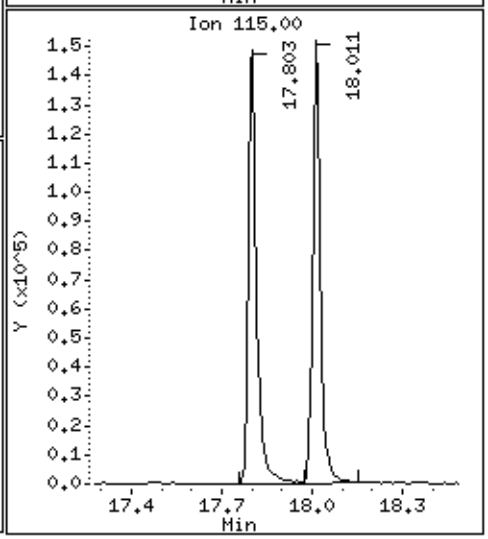












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

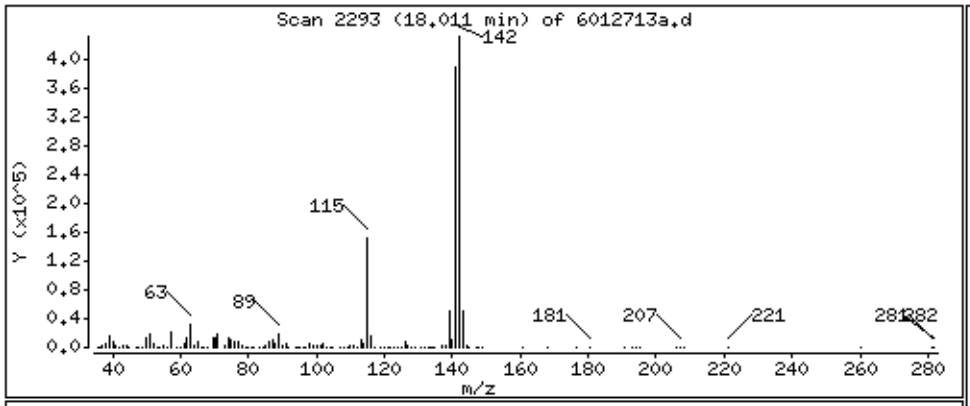
Operator: su

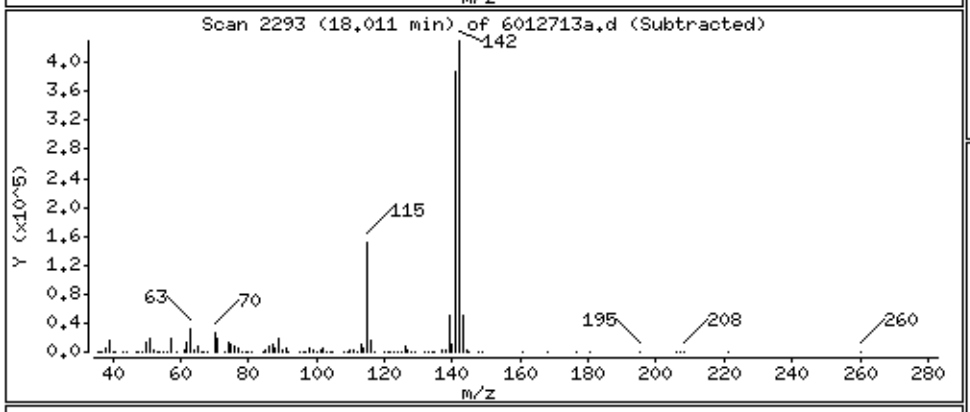
Column phase: RTx-624

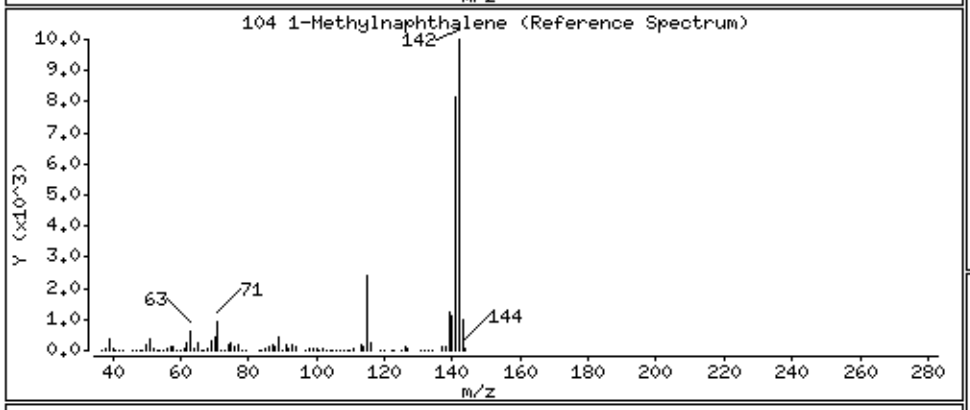
Column diameter: 0.53

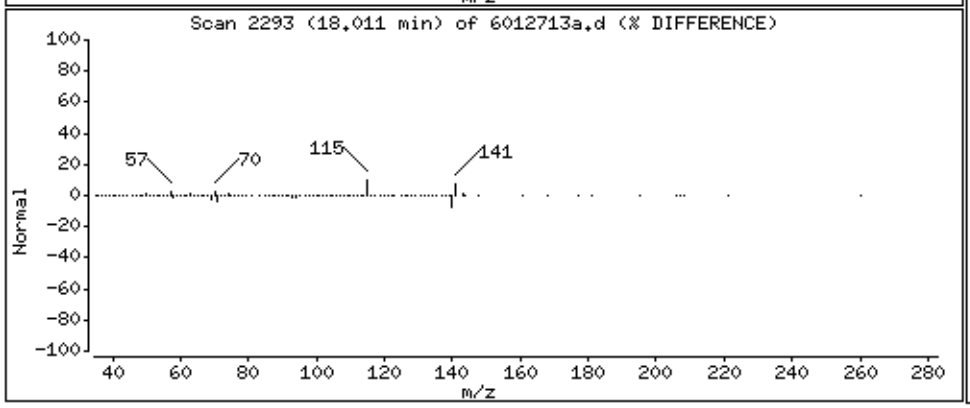
104 1-Methylnaphthalene

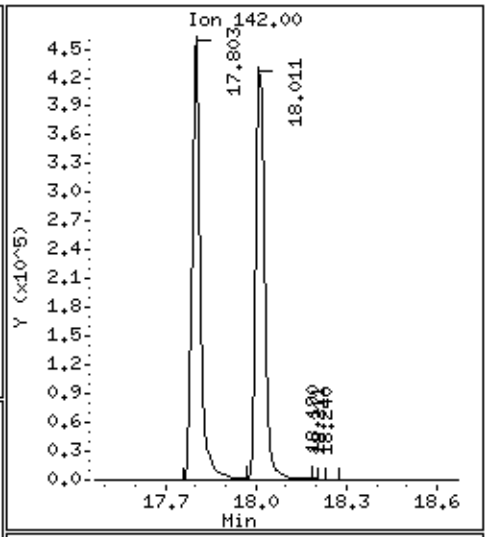
Concentration: 54.166 NG

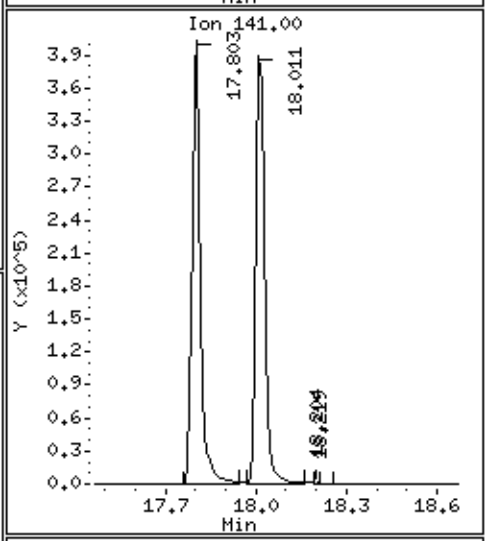


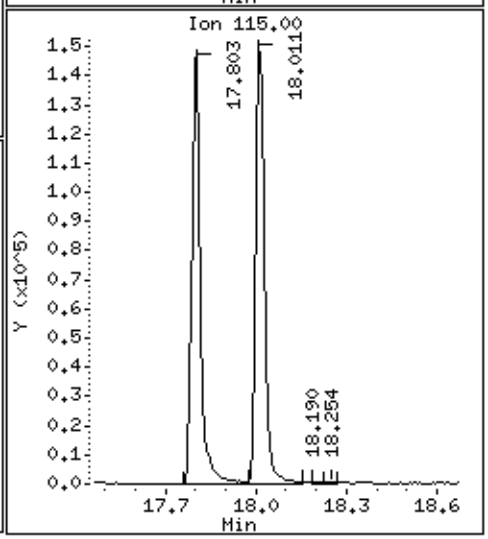












Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/27jan17.b/6012702.d
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Inj Date : 27-JAN-2017 12:05
Operator : su Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL 1; 1/1/1
Misc Info : ;2787-57-1000, 1ml (4/12/17), 2744-147-1.0, 1
Comment :
Method : /chem/msd6.i/27jan17.b/617z0127via.m
Meth Date : 16-Feb-2017 13:59 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 12:05 Cal File: 6012702.d
Als bottle: 11 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+naphs_noSS.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
* 32 Bromochloromethane					CAS #: 74-97-5		
5.239	5.239 (1.000)	130	202225	26.0000		80.00- 120.00	100.00
5.239	5.239 (1.000)	128	162741			49.56- 109.56	80.48
5.239	5.239 (1.000)	49	261244			92.63- 152.63	129.18
* 47 1,4-Difluorobenzene					CAS #: 540-36-3		
6.879	6.879 (1.000)	114	810885	23.0000		80.00- 120.00	100.00
6.879	6.879 (1.000)	88	125343			0.00- 45.38	15.46
* 67 Chlorobenzene-d5					CAS #: 3114-55-4		
10.604	10.604 (1.000)	117	721530	24.0000		80.00- 120.00	100.00
10.597	10.597 (1.000)	82	356120			19.82- 79.82	49.36
* 79 Bromofluorobenzene					CAS #: 460-00-4		
12.116	12.116 (1.000)	174	463026	36.0000		80.00- 120.00	100.00
12.108	12.108 (1.000)	95	520628			81.24- 141.24	112.44
12.116	12.116 (1.000)	176	449527			64.86- 124.86	97.08
4 Freon 114					CAS #: 76-14-2		
1.311	1.311 (0.250)	135	34955	6.99000	6.923	80.00- 120.00	100.00(a)

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

    4 Freon 114 (continued)
  1.311   1.311 (0.250)   137     12938                     1.96-  61.96    37.01
-------------------------------------------------------------------------------
    6 Vinyl Chloride                                CAS #: 75-01-4
  1.437   1.437 (0.274)    62     17057 2.56000    2.763  80.00- 120.00   100.00
  1.353   1.353 (0.258)    64    226241                     7.91-  67.91  1326.38
-------------------------------------------------------------------------------
    7 1,3-Butadiene                                 CAS #: 106-99-0
  1.465   1.465 (0.280)    54     13917 2.21000    2.533  80.00- 120.00   100.00
  1.465   1.465 (0.280)    39     22299                   120.50- 180.50   160.23
-------------------------------------------------------------------------------
    9 Chloroethane                                  CAS #: 75-00-3
  1.772   1.772 (0.338)    64     12502 2.64000    4.196  80.00- 120.00   100.00(a)
  1.772   1.772 (0.338)    66      3098                     0.00-  59.86    24.78
  1.786   1.786 (0.341)    49      2147                     0.00-  58.91    17.17
-------------------------------------------------------------------------------
   10 Isopentane                                    CAS #: 78-78-4
  1.842   1.842 (0.352)    57     13515 2.95000    3.190  80.00- 120.00   100.00(a)
  1.842   1.842 (0.352)    43     21116                   125.84- 185.84   156.24
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                   CAS #: 75-69-4
  1.996   1.996 (0.381)   101     45762 5.62000    5.880  80.00- 120.00   100.00(a)
  1.996   1.996 (0.381)   103     28017                    35.51-  95.51    61.22
-------------------------------------------------------------------------------
   15 Freon 113                                     CAS #: 76-13-1
  2.489   2.489 (0.475)   151     31439 7.66000    7.640  80.00- 120.00   100.00(a)
  2.496   2.496 (0.476)   153     20776                    33.71-  93.71    66.08
  2.496   2.496 (0.476)   101     36914                    83.05- 143.05   117.41
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                            CAS #: 75-35-4
  2.474   2.474 (0.472)    98     11743 3.97000    4.296  80.00- 120.00   100.00
  2.467   2.467 (0.471)    96     18556                   122.40- 182.40   158.02
  2.467   2.467 (0.471)    61     27635                   227.99- 287.99   235.33
-------------------------------------------------------------------------------
   18 Carbon Disulfide                              CAS #: 75-15-0
  2.689   2.689 (0.513)    76     60119 3.11000    4.303  80.00- 120.00   100.00(a)
-------------------------------------------------------------------------------
   17 2-Propanol                                    CAS #: 67-63-0
  2.653   2.653 (0.506)    45     37119 2.46000    3.178  80.00- 120.00   100.00(a)
  2.660   2.660 (0.508)    43      3290                     0.00-  48.82     8.86
  2.653   2.653 (0.506)    59       477                     0.00-  33.57     1.29
-------------------------------------------------------------------------------
   21 Methylene Chloride                            CAS #: 75-09-2
  2.990   2.990 (0.571)    49     31513 3.47000    5.410  80.00- 120.00   100.00(a)
  2.990   2.990 (0.571)    84     20530                    38.40-  98.40    65.15
  2.990   2.990 (0.571)    51      9729                     0.20-  60.20    30.87
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
24 trans-1,2-Dichloroethene					CAS #: 156-60-5		
3.355	3.355 (0.640)	98	10062	3.96000	4.208	80.00- 120.00	100.00
3.355	3.355 (0.640)	61	18360			199.30- 259.30	182.47
3.370	3.370 (0.643)	96	14914			124.73- 184.73	148.22
23 MTBE					CAS #: 1634-04-4		
3.341	3.341 (0.638)	73	38925	3.61000	3.726	80.00- 120.00	100.00(a)
3.334	3.334 (0.636)	57	9798			0.00- 53.85	25.17
3.341	3.341 (0.638)	41	10177			0.00- 54.68	26.15
25 Hexane					CAS #: 110-54-3		
3.771	3.771 (0.720)	57	26150	3.52000	3.720	80.00- 120.00	100.00(a)
3.771	3.771 (0.720)	43	18987			38.59- 98.59	72.61
3.778	3.778 (0.721)	86	4662			0.00- 44.35	17.83
26 1,1-Dichloroethane					CAS #: 75-34-3		
3.928	3.928 (0.750)	63	26561	4.05000	4.006	80.00- 120.00	100.00
3.914	3.914 (0.747)	65	9350			0.70- 60.70	35.20
29 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.874	4.874 (0.930)	98	11006	3.96000	3.860	80.00- 120.00	100.00(a)
4.881	4.881 (0.932)	96	15987			123.29- 183.29	145.26
4.881	4.881 (0.932)	61	21755			178.61- 238.61	197.66
28 2-Butanone					CAS #: 78-93-3		
4.845	4.845 (0.925)	72	38572	2.95000	13.572	80.00- 120.00	100.00(a)
4.845	4.845 (0.925)	43	191710			466.78- 526.78	497.02
4.838	4.838 (0.923)	57	13359			5.92- 65.92	34.63
35 Chloroform					CAS #: 67-66-3		
5.447	5.447 (1.040)	83	31826	4.88000	4.830	80.00- 120.00	100.00(a)
5.447	5.447 (1.040)	85	21172			34.58- 94.58	66.52
37 Cyclohexane					CAS #: 110-82-7		
5.791	5.791 (0.842)	84	20539	3.44000	3.507	80.00- 120.00	100.00(a)
5.784	5.784 (0.841)	56	25620			97.51- 157.51	124.74
5.784	5.784 (0.841)	41	17702			49.37- 109.37	86.19
36 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.655	5.655 (0.822)	97	31966	5.46000	5.038	80.00- 120.00	100.00(a)
5.662	5.662 (0.823)	99	21060			36.78- 96.78	65.88
38 Carbon Tetrachloride					CAS #: 56-23-5		
5.912	5.912 (0.859)	119	31963	6.29000	5.723	80.00- 120.00	100.00(a)
5.912	5.912 (0.859)	117	33161			74.79- 134.79	103.75

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
45 2,2,4-Trimethylpentane					CAS #: 540-84-1		
6.464	6.464 (0.940)	57	77718	4.67000	4.448	80.00- 120.00	100.00(a)
6.471	6.471 (0.941)	56	25271			1.65- 61.65	32.52
6.464	6.464 (0.940)	41	26427			0.50- 60.50	34.00
41 Benzene					CAS #: 71-43-2		
6.185	6.185 (0.899)	78	153127	3.19000	9.158	80.00- 120.00	100.00
6.185	6.185 (0.899)	77	35582			0.00- 53.70	23.24
43 1,2-Dichloroethane					CAS #: 107-06-2		
6.285	6.285 (0.914)	62	21163	4.05000	3.755	80.00- 120.00	100.00(a)
6.278	6.278 (0.913)	64	6406			1.50- 61.50	30.27
46 Heptane					CAS #: 142-82-5		
6.779	6.779 (0.985)	71	16281	4.10000	4.170	80.00- 120.00	100.00(a)
6.779	6.779 (0.985)	43	31520			165.84- 225.84	193.60
6.779	6.779 (0.985)	57	16892			68.69- 128.69	103.75
48 Trichloroethene					CAS #: 79-01-6		
7.180	7.180 (1.044)	95	21881	5.37000	4.999	80.00- 120.00	100.00(a)
7.188	7.188 (1.045)	130	24745			79.94- 139.94	113.09
7.188	7.188 (1.045)	97	13873			34.22- 94.22	63.40
51 Methyl Cyclohexane					CAS #: 108-87-2		
7.488	7.488 (1.089)	83	28083	4.02000	3.885	80.00- 120.00	100.00(a)
7.488	7.488 (1.089)	98	13937			16.28- 76.28	49.63
7.481	7.481 (1.087)	55	25520			57.14- 117.14	90.87
52 1,2-Dichloropropane					CAS #: 78-87-5		
7.474	7.474 (1.086)	63	18960	4.62000	4.721	80.00- 120.00	100.00
7.474	7.474 (1.086)	62	12820			38.30- 98.30	67.62
7.481	7.481 (1.087)	41	28075			109.93- 169.93	148.07
53 1,4-Dioxane					CAS #: 123-91-1		
7.617	7.617 (1.107)	88	13571	3.60000	3.997	80.00- 120.00	100.00(a)
7.617	7.617 (1.107)	58	15022			41.68- 101.68	110.69
7.617	7.617 (1.107)	57	27817			5.91- 65.91	204.97
56 4-Methyl-2-pentanone					CAS #: 108-10-1		
8.649	8.649 (1.257)	58	12838	4.10000	3.560	80.00- 120.00	100.00(a)
8.649	8.649 (1.257)	43	41390			255.95- 315.95	322.40
8.649	8.649 (1.257)	85	5323			12.61- 72.61	41.46
58 Toluene					CAS #: 108-88-3		
8.878	8.878 (0.837)	91	58173	3.77000	3.732	80.00- 120.00	100.00(a)
8.878	8.878 (0.837)	92	34712			29.58- 89.58	59.67

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

   61 1,1,2-Trichloroethane                        CAS #: 79-00-5
  9.422   9.422 (1.370)    97     19136 5.46000    5.165  80.00- 120.00   100.00(a)
  9.422   9.422 (1.370)    99     12115                   34.45-  94.45    63.31
  9.422   9.422 (1.370)    83     16277                   55.36- 115.36    85.06
-------------------------------------------------------------------------------
   62 Tetrachloroethene                            CAS #: 127-18-4
  9.537   9.537 (0.899)   166     28542 6.78000    6.005  80.00- 120.00   100.00(a)
  9.537   9.537 (0.899)   129     23040                   46.89- 106.89    80.72
  9.537   9.537 (0.899)   131     20718                   44.31- 104.31    72.59
-------------------------------------------------------------------------------
   63 2-Hexanone                                   CAS #: 591-78-6
  9.738   9.738 (0.918)    58     16931 4.10000    3.723  80.00- 120.00   100.00(a)
  9.738   9.738 (0.918)    43     35429                  173.90- 233.90   209.26
  9.738   9.738 (0.918)   100      3220                    0.00-  48.87    19.02
-------------------------------------------------------------------------------
   66 1,2-Dibromoethane                            CAS #: 106-93-4
 10.003  10.003 (0.943)   107     26670 7.68000    6.148  80.00- 120.00   100.00(a)
 10.003  10.003 (0.943)   109     25448                   66.71- 126.71    95.42
-------------------------------------------------------------------------------
   68 Chlorobenzene                                CAS #: 108-90-7
 10.640  10.640 (1.003)   112     44947 4.60000    4.216  80.00- 120.00   100.00(a)
 10.647  10.647 (1.004)   114     15073                    1.97-  61.97    33.54
 10.640  10.640 (1.003)    77     26826                   23.53-  83.53    59.68
-------------------------------------------------------------------------------
   69 Ethyl Benzene                                CAS #: 100-41-4
 10.805  10.805 (1.019)   106     21625 4.34000    3.860  80.00- 120.00   100.00(a)
 10.805  10.805 (1.019)    91     59567                  275.71- 335.71   275.45
-------------------------------------------------------------------------------
   71 m,p-Xylene                                   CAS #: 108-38-3
 10.984  10.984 (1.036)   106     28665 4.34000    4.108  80.00- 120.00   100.00(a)
 10.977  10.977 (1.035)    91     54597                  166.96- 226.96   190.47
-------------------------------------------------------------------------------
   74 o-Xylene                                     CAS #: 95-47-6
 11.442  11.442 (0.944)   106     24409 4.34000    3.792  80.00- 120.00   100.00(a)
 11.442  11.442 (0.944)    91     46933                  177.81- 237.81   192.28
-------------------------------------------------------------------------------
   75 Styrene                                      CAS #: 100-42-5
 11.500  11.500 (0.949)   104     32344 4.26000    3.167  80.00- 120.00   100.00(aH)
 11.507  11.507 (0.950)    78     13104                   18.87-  78.87    40.51
-------------------------------------------------------------------------------
   77 Cumene                                       CAS #: 98-82-8
 11.915  11.915 (0.983)   105     67756 4.92000    4.141  80.00- 120.00   100.00(a)
 11.915  11.915 (0.983)   120     19279                    0.00-  58.24    28.45
 11.908  11.908 (0.983)    51      7153                    0.00-  40.40    10.56
-------------------------------------------------------------------------------
   80 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 12.295  12.295 (1.015)    83     28965 6.87000    5.091  80.00- 120.00   100.00(a)
```

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

   80 1,1,2,2-Tetrachloroethane (continued)
 12.288  12.288 (1.014)    85     19123                    34.09-  94.09    66.02
-------------------------------------------------------------------------------
   81 Propylbenzene                                CAS #: 103-65-1
 12.452  12.452 (1.028)    91     71894 4.92000    4.018  80.00- 120.00   100.00(a)
 12.452  12.452 (1.028)   120     19970                     0.00-  55.47    27.78
 12.452  12.452 (1.028)   105      3103                     0.00-  33.86     4.32
-------------------------------------------------------------------------------
   82 4-Ethyltoluene                               CAS #: 622-96-8
 12.617  12.617 (1.041)   120     19355 4.92000    4.048  80.00- 120.00   100.00(a)
 12.617  12.617 (1.041)   105     57689                   290.15- 350.15   298.06
-------------------------------------------------------------------------------
   83 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 12.696  12.696 (1.048)   120     28003 4.92000    4.080  80.00- 120.00   100.00(a)
 12.696  12.696 (1.048)   105     56110                   168.29- 228.29   200.37
-------------------------------------------------------------------------------
   84 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 13.161  13.161 (1.086)   120     22391 4.92000    3.680  80.00- 120.00   100.00(a)
 13.161  13.161 (1.086)   105     61956                   184.33- 244.33   276.70
-------------------------------------------------------------------------------
   86 1,3-Dichlorobenzene                          CAS #: 541-73-1
 13.491  13.491 (1.113)   146     34550 6.01000    4.534  80.00- 120.00   100.00(a)
 13.491  13.491 (1.113)   148     22143                    33.69-  93.69    64.09
 13.491  13.491 (1.113)   111     13614                     8.17-  68.17    39.40
-------------------------------------------------------------------------------
   87 1,4-Dichlorobenzene                          CAS #: 106-46-7
 13.620  13.620 (1.124)   146     37007 6.01000    4.769  80.00- 120.00   100.00(a)
 13.620  13.620 (1.124)   148     23061                    34.61-  94.61    62.32
 13.620  13.620 (1.124)   111     12074                     7.08-  67.08    32.63
-------------------------------------------------------------------------------
   90 1,2-Dichlorobenzene                          CAS #: 95-50-1
 14.043  14.043 (1.159)   146     32706 6.01000    4.617  80.00- 120.00   100.00(a)
 14.043  14.043 (1.159)   148     20371                    34.20-  94.20    62.29
 14.043  14.043 (1.159)   111     14527                     9.44-  69.44    44.42
-------------------------------------------------------------------------------
   95 1,2,4-Trichlorobenzene                       CAS #: 120-82-1
 16.084  16.084 (1.328)   180     25239 7.42000    6.106  80.00- 120.00   100.00(aH)
 16.084  16.084 (1.328)   182     21068                    62.01- 122.01    83.47
-------------------------------------------------------------------------------
   96 Hexachlorobutadiene                          CAS #: 87-68-3
 16.277  16.277 (1.343)   225     22030 10.7000    9.645  80.00- 120.00   100.00(a)
 16.277  16.277 (1.343)   223     14091                    32.95-  92.95    63.96
-------------------------------------------------------------------------------
   98 Naphthalene                                  CAS #: 91-20-3
 16.406  16.406 (1.354)   128     34619 1.52000    1.508  80.00- 120.00   100.00(H)
 16.406  16.406 (1.354)   127      3841                     0.00-  42.83    11.10
-------------------------------------------------------------------------------
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
103 2-Methylnaphthalene						CAS #: 91-57-6		
17.860	17.860	(1.474)	142	16639	1.00000	1.065	80.00- 120.00	100.00
17.875	17.875	(1.475)	141	14736			57.25- 117.25	88.56
17.875	17.875	(1.475)	115	5150			2.70- 62.70	30.95
104 1-Methylnaphthalene						CAS #: 90-12-0		
18.061	18.061	(1.491)	142	16370	1.00000	1.108	80.00- 120.00	100.00
18.061	18.061	(1.491)	141	14270			60.82- 120.82	87.17
18.061	18.061	(1.491)	115	5219			4.50- 64.50	31.88

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6012702.d
Lab Smp Id: VI VOC+PAH ICAL 1
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/27jan17.b/617z0127via.m
Misc Info: ;2787-57-1000, 1ml (4/12/17), 2744-147-1.0, 1

Calibration Date: 27-JAN-2017
Calibration Time: 14:44
Client Smp ID: 1/1/1
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Bromochloromethan	206046	123628	288464	202225	-1.85
47 1,4-Difluorobenze	822168	493301	1151035	810885	-1.37
67 Chlorobenzene-d5	727418	436451	1018385	721530	-0.81
79 Bromofluorobenzen	482287	289372	675202	463026	-3.99

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Bromochloromethan	5.25	4.92	5.58	5.24	-0.14
47 1,4-Difluorobenze	6.89	6.56	7.22	6.88	-0.11
67 Chlorobenzene-d5	10.62	10.29	10.95	10.60	-0.14
79 Bromofluorobenzen	12.13	11.80	12.46	12.12	-0.12

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/27jan17.b/6012702.d

Date : 27-JAN-2017 12:05

Client ID: 1/1/1

Sample Info: ;VI VOC+PAH ICAL 1; 1/1/1

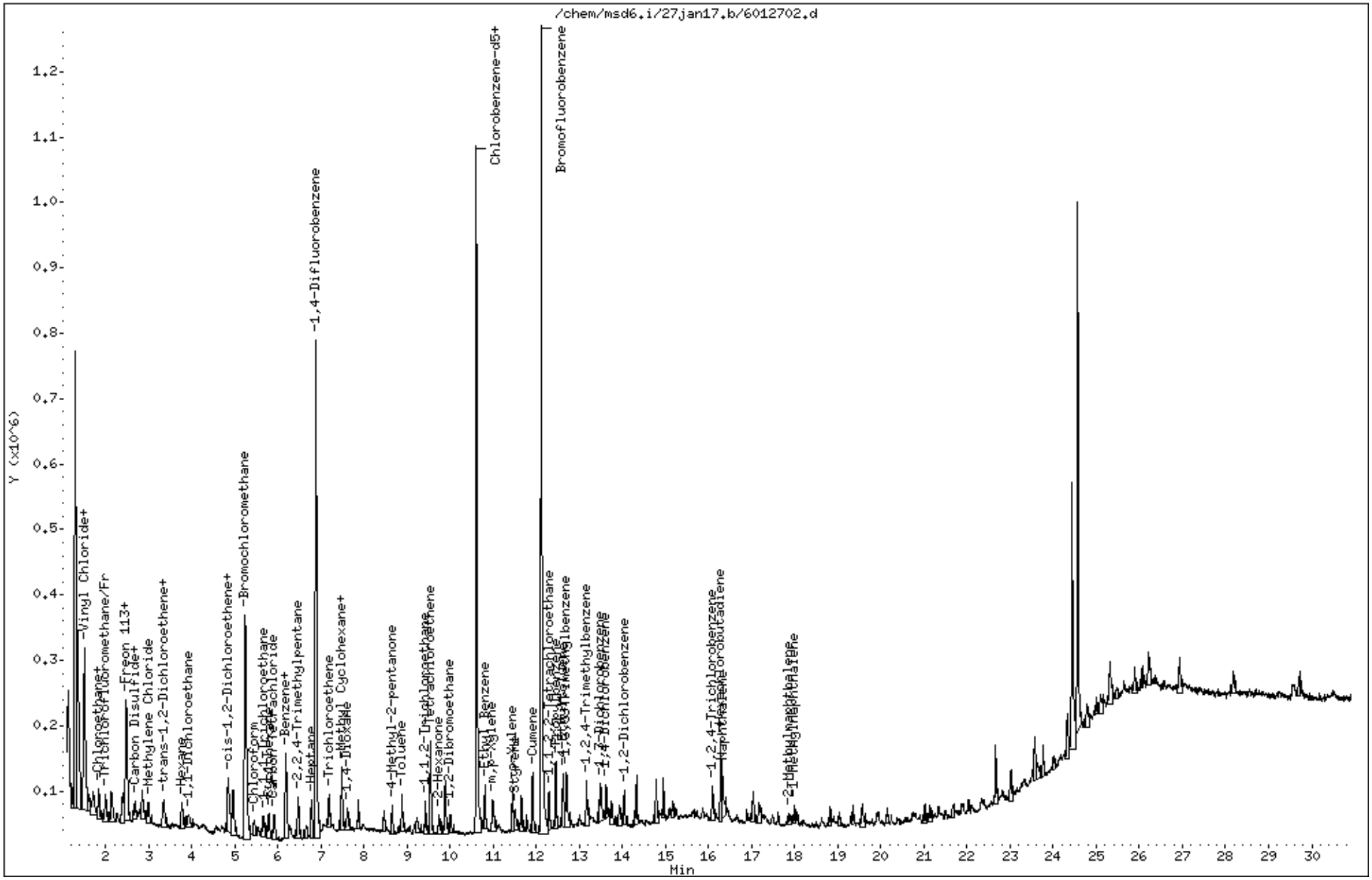
Column phase: RTx-624

Page 1

Instrument: msd6.i

Operator: su

Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/27jan17.b/6012703.d
Lab Smp Id: VI VOC+PAH ICAL 2 Client Smp ID: 2/2/5
Inj Date : 27-JAN-2017 12:45
Operator : su Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL 2; 2/2/5
Misc Info : ;2787-57-1000, 2ml (4/12/17), 2744-147-5.0, 1
Comment :
Method : /chem/msd6.i/27jan17.b/617z0127via.m
Meth Date : 16-Feb-2017 13:59 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 12:45 Cal File: 6012703.d
Als bottle: 12 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+naphs_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
* 32 Bromochloromethane					CAS #: 74-97-5		
5.246	5.246 (1.000)	130	197669	26.0000		80.00- 120.00	100.00
5.246	5.246 (1.000)	128	149978			49.56- 109.56	75.87
5.246	5.246 (1.000)	49	245093			92.63- 152.63	123.99
* 47 1,4-Difluorobenzene					CAS #: 540-36-3		
6.887	6.887 (1.000)	114	782394	23.0000		80.00- 120.00	100.00
6.887	6.887 (1.000)	88	118779			0.00- 45.38	15.18
* 67 Chlorobenzene-d5					CAS #: 3114-55-4		
10.604	10.604 (1.000)	117	698657	24.0000		80.00- 120.00	100.00
10.604	10.604 (1.000)	82	348358			19.82- 79.82	49.86
* 79 Bromofluorobenzene					CAS #: 460-00-4		
12.108	12.108 (1.000)	174	448177	36.0000		80.00- 120.00	100.00
12.108	12.108 (1.000)	95	500441			81.24- 141.24	111.66
12.108	12.108 (1.000)	176	439694			64.86- 124.86	98.11
$ 39 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
6.177	6.177 (0.897)	65	7236	2.00000	1.924	80.00- 120.00	100.00

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

$  39 1,2-Dichloroethane-d4 (continued)
  6.177   6.177 (0.897)    67      3733                    21.82-  81.82    51.59
-------------------------------------------------------------------------------
$  57 Toluene-d8                                   CAS #: 2037-26-5
  8.799   8.799 (0.830)    98     22385 2.00000    1.904  80.00- 120.00   100.00
  8.806   8.806 (0.830)    70      2441                     0.00-  40.85    10.90
  8.799   8.799 (0.830)   100     14921                    34.65-  94.65    66.66
-------------------------------------------------------------------------------
$  97 Naphthalene-d8                              CAS #: 1146-65-2
 16.342  16.342 (1.350)   136     43163 2.00000    2.117  80.00- 120.00   100.00
 16.342  16.342 (1.350)   108      3929                     0.00-  39.63     9.10
-------------------------------------------------------------------------------
    4 Freon 114                                   CAS #: 76-14-2
  1.311   1.311 (0.250)   135     66509 14.0000   13.476  80.00- 120.00   100.00
  1.311   1.311 (0.250)   137     22123                     1.96-  61.96    33.26
-------------------------------------------------------------------------------
    6 Vinyl Chloride                              CAS #: 75-01-4
  1.437   1.437 (0.274)    62     28473 5.11000    4.719  80.00- 120.00   100.00
  1.353   1.353 (0.258)    64    272458                     7.91-  67.91   956.90
-------------------------------------------------------------------------------
    7 1,3-Butadiene                               CAS #: 106-99-0
  1.465   1.465 (0.279)    54     20478 4.42000    3.813  80.00- 120.00   100.00
  1.465   1.465 (0.279)    39     40904                   120.50- 180.50   199.75
-------------------------------------------------------------------------------
    9 Chloroethane                                CAS #: 75-00-3
  1.772   1.772 (0.338)    64     15564 5.28000    5.345  80.00- 120.00   100.00
  1.772   1.772 (0.338)    66      3478                     0.00-  59.86    22.35
  1.772   1.772 (0.338)    49      4421                     0.00-  58.91    28.41
-------------------------------------------------------------------------------
   10 Isopentane                                  CAS #: 78-78-4
  1.842   1.842 (0.351)    57     24463 5.90000    5.907  80.00- 120.00   100.00
  1.842   1.842 (0.351)    43     42198                   125.84- 185.84   172.50
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                 CAS #: 75-69-4
  1.996   1.996 (0.380)   101     72002 11.2000    9.464  80.00- 120.00   100.00
  1.996   1.996 (0.380)   103     49081                    35.51-  95.51    68.17
-------------------------------------------------------------------------------
   15 Freon 113                                   CAS #: 76-13-1
  2.496   2.496 (0.476)   151     57052 15.3000   14.184  80.00- 120.00   100.00
  2.496   2.496 (0.476)   153     37108                    33.71-  93.71    65.04
  2.488   2.488 (0.474)   101     65353                    83.05- 143.05   114.55
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                          CAS #: 75-35-4
  2.467   2.467 (0.470)    98     19979 7.93000    7.478  80.00- 120.00   100.00
  2.474   2.474 (0.472)    96     29434                   122.40- 182.40   147.32
  2.467   2.467 (0.470)    61     49168                   227.99- 287.99   246.10
-------------------------------------------------------------------------------
```

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		
2.689	2.689 (0.513)	76	88844	6.23000	6.505	80.00- 120.00	100.00
17 2-Propanol					CAS #: 67-63-0		
2.660	2.660 (0.507)	45	58479	4.92000	5.122	80.00- 120.00	100.00
2.668	2.668 (0.508)	43	9017			0.00- 48.82	15.42
2.668	2.668 (0.508)	59	1189			0.00- 33.57	2.03
21 Methylene Chloride					CAS #: 75-09-2		
2.990	2.990 (0.570)	49	46001	6.95000	8.079	80.00- 120.00	100.00
2.990	2.990 (0.570)	84	32888			38.40- 98.40	71.49
2.990	2.990 (0.570)	51	14240			0.20- 60.20	30.96
23 MTBE					CAS #: 1634-04-4		
3.348	3.348 (0.638)	73	70643	7.21000	6.918	80.00- 120.00	100.00
3.341	3.341 (0.637)	57	17613			0.00- 53.85	24.93
3.341	3.341 (0.637)	41	20038			0.00- 54.68	28.37
24 trans-1,2-Dichloroethene					CAS #: 156-60-5		
3.355	3.355 (0.640)	98	17029	7.93000	7.286	80.00- 120.00	100.00
3.355	3.355 (0.640)	61	37144			199.30- 259.30	218.12
3.355	3.355 (0.640)	96	23107			124.73- 184.73	135.69
25 Hexane					CAS #: 110-54-3		
3.778	3.778 (0.720)	57	44827	7.05000	6.525	80.00- 120.00	100.00
3.778	3.778 (0.720)	43	32891			38.59- 98.59	73.37
3.785	3.785 (0.721)	86	7403			0.00- 44.35	16.51
26 1,1-Dichloroethane					CAS #: 75-34-3		
3.928	3.928 (0.749)	63	46631	8.10000	7.196	80.00- 120.00	100.00
3.921	3.921 (0.747)	65	14491			0.70- 60.70	31.08
29 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.881	4.881 (0.930)	98	20168	7.93000	7.236	80.00- 120.00	100.00
4.874	4.874 (0.929)	96	28870			123.29- 183.29	143.15
4.881	4.881 (0.930)	61	45347			178.61- 238.61	224.85
28 2-Butanone					CAS #: 78-93-3		
4.845	4.845 (0.924)	72	53816	5.90000	19.373	80.00- 120.00	100.00
4.845	4.845 (0.924)	43	276287			466.78- 526.78	513.39
4.845	4.845 (0.924)	57	19417			5.92- 65.92	36.08
35 Chloroform					CAS #: 67-66-3		
5.454	5.454 (1.040)	83	57303	9.77000	8.898	80.00- 120.00	100.00
5.454	5.454 (1.040)	85	37610			34.58- 94.58	65.63

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
37 Cyclohexane					CAS #: 110-82-7		
5.798	5.798 (0.842)	84	36045	6.88000	6.379	80.00- 120.00	100.00
5.798	5.798 (0.842)	56	45719			97.51- 157.51	126.84
5.791	5.791 (0.841)	41	29064			49.37- 109.37	80.63
36 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.669	5.669 (0.823)	97	58258	10.9000	9.517	80.00- 120.00	100.00
5.669	5.669 (0.823)	99	38626			36.78- 96.78	66.30
38 Carbon Tetrachloride					CAS #: 56-23-5		
5.920	5.920 (0.860)	119	61372	12.6000	11.389	80.00- 120.00	100.00
5.912	5.912 (0.859)	117	62686			74.79- 134.79	102.14
45 2,2,4-Trimethylpentane					CAS #: 540-84-1		
6.471	6.471 (0.940)	57	145320	9.34000	8.621	80.00- 120.00	100.00
6.471	6.471 (0.940)	56	44764			1.65- 61.65	30.80
6.478	6.478 (0.941)	41	46804			0.50- 60.50	32.21
41 Benzene					CAS #: 71-43-2		
6.199	6.199 (0.900)	78	115024	6.39000	7.129	80.00- 120.00	100.00
6.192	6.192 (0.899)	77	26483			0.00- 53.70	23.02
43 1,2-Dichloroethane					CAS #: 107-06-2		
6.278	6.278 (0.912)	62	35839	8.09000	6.591	80.00- 120.00	100.00
6.285	6.285 (0.913)	64	11166			1.50- 61.50	31.16
46 Heptane					CAS #: 142-82-5		
6.779	6.779 (0.984)	71	27311	8.20000	7.250	80.00- 120.00	100.00
6.786	6.786 (0.985)	43	55182			165.84- 225.84	202.05
6.786	6.786 (0.985)	57	29357			68.69- 128.69	107.49
48 Trichloroethene					CAS #: 79-01-6		
7.187	7.187 (1.044)	95	39248	10.8000	9.293	80.00- 120.00	100.00
7.187	7.187 (1.044)	130	44427			79.94- 139.94	113.20
7.187	7.187 (1.044)	97	26902			34.22- 94.22	68.54
51 Methyl Cyclohexane					CAS #: 108-87-2		
7.488	7.488 (1.087)	83	49538	8.03000	7.103	80.00- 120.00	100.00
7.488	7.488 (1.087)	98	22056			16.28- 76.28	44.52
7.488	7.488 (1.087)	55	45869			57.14- 117.14	92.59
52 1,2-Dichloropropane					CAS #: 78-87-5		
7.481	7.481 (1.086)	63	30948	9.24000	7.986	80.00- 120.00	100.00
7.481	7.481 (1.086)	62	21755			38.30- 98.30	70.30
7.488	7.488 (1.087)	41	48680			109.93- 169.93	157.30

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
53 1,4-Dioxane					CAS #: 123-91-1		
7.617	7.617 (1.106)	88	21845	7.21000	6.668	80.00- 120.00	100.00
7.617	7.617 (1.106)	58	18091			41.68- 101.68	82.82
7.624	7.624 (1.107)	57	35730			5.91- 65.91	163.56
56 4-Methyl-2-pentanone					CAS #: 108-10-1		
8.649	8.649 (1.256)	58	24805	8.19000	7.130	80.00- 120.00	100.00
8.649	8.649 (1.256)	43	70771			255.95- 315.95	285.31
8.656	8.656 (1.257)	85	10549			12.61- 72.61	42.53
58 Toluene					CAS #: 108-88-3		
8.878	8.878 (0.837)	91	98181	7.54000	6.504	80.00- 120.00	100.00
8.878	8.878 (0.837)	92	58857			29.58- 89.58	59.95
61 1,1,2-Trichloroethane					CAS #: 79-00-5		
9.422	9.422 (1.368)	97	33860	10.9000	9.471	80.00- 120.00	100.00
9.422	9.422 (1.368)	99	21457			34.45- 94.45	63.37
9.422	9.422 (1.368)	83	28995			55.36- 115.36	85.63
62 Tetrachloroethene					CAS #: 127-18-4		
9.537	9.537 (0.899)	166	54157	13.6000	11.767	80.00- 120.00	100.00
9.537	9.537 (0.899)	129	41320			46.89- 106.89	76.30
9.537	9.537 (0.899)	131	40074			44.31- 104.31	74.00
63 2-Hexanone					CAS #: 591-78-6		
9.730	9.730 (0.918)	58	30956	8.19000	7.030	80.00- 120.00	100.00
9.730	9.730 (0.918)	43	62097			173.90- 233.90	200.60
9.737	9.737 (0.918)	100	6133			0.00- 48.87	19.81
66 1,2-Dibromoethane					CAS #: 106-93-4		
10.002	10.002 (0.943)	107	55173	15.4000	13.134	80.00- 120.00	100.00
10.002	10.002 (0.943)	109	52950			66.71- 126.71	95.97
68 Chlorobenzene					CAS #: 108-90-7		
10.640	10.640 (1.003)	112	82099	9.21000	7.953	80.00- 120.00	100.00
10.640	10.640 (1.003)	114	26433			1.97- 61.97	32.20
10.640	10.640 (1.003)	77	48348			23.53- 83.53	58.89
69 Ethyl Benzene					CAS #: 100-41-4		
10.805	10.805 (1.019)	106	40942	8.68000	7.548	80.00- 120.00	100.00
10.798	10.798 (1.018)	91	122580			275.71- 335.71	299.40
71 m,p-Xylene					CAS #: 108-38-3		
10.984	10.984 (1.036)	106	51064	8.68000	7.557	80.00- 120.00	100.00
10.977	10.977 (1.035)	91	103142			166.96- 226.96	201.99

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

   74 o-Xylene                                        CAS #: 95-47-6
 11.435  11.435 (0.944)   106     48232 8.68000    7.742  80.00- 120.00   100.00
 11.435  11.435 (0.944)    91    100229                  177.81- 237.81   207.81
-------------------------------------------------------------------------------
   75 Styrene                                         CAS #: 100-42-5
 11.485  11.485 (0.949)   104     66231 8.52000    6.701  80.00- 120.00   100.00(H)
 11.478  11.478 (0.948)    78     28333                   18.87-  78.87    42.78
-------------------------------------------------------------------------------
   77 Cumene                                          CAS #: 98-82-8
 11.908  11.908 (0.983)   105    141104 9.83000    8.910  80.00- 120.00   100.00
 11.908  11.908 (0.983)   120     39885                    0.00-  58.24    28.27
 11.908  11.908 (0.983)    51     14744                    0.00-  40.40    10.45
-------------------------------------------------------------------------------
   80 1,1,2,2-Tetrachloroethane                       CAS #: 79-34-5
 12.280  12.280 (1.014)    83     65968 13.7000   11.978  80.00- 120.00   100.00
 12.280  12.280 (1.014)    85     42351                   34.09-  94.09    64.20
-------------------------------------------------------------------------------
   81 Propylbenzene                                   CAS #: 103-65-1
 12.438  12.438 (1.027)    91    152705 9.83000    8.818  80.00- 120.00   100.00
 12.438  12.438 (1.027)   120     40376                    0.00-  55.47    26.44
 12.445  12.445 (1.028)   105      6153                    0.00-  33.86     4.03
-------------------------------------------------------------------------------
   82 4-Ethyltoluene                                  CAS #: 622-96-8
 12.603  12.603 (1.041)   120     39768 9.83000    8.593  80.00- 120.00   100.00
 12.603  12.603 (1.041)   105    116915                  290.15- 350.15   293.99
-------------------------------------------------------------------------------
   83 1,3,5-Trimethylbenzene                          CAS #: 108-67-8
 12.689  12.689 (1.048)   120     56085 9.83000    8.442  80.00- 120.00   100.00
 12.689  12.689 (1.048)   105    117464                  168.29- 228.29   209.44
-------------------------------------------------------------------------------
   84 1,2,4-Trimethylbenzene                          CAS #: 95-63-6
 13.147  13.147 (1.086)   120     48301 9.83000    8.201  80.00- 120.00   100.00
 13.154  13.154 (1.086)   105    108633                  184.33- 244.33   224.91
-------------------------------------------------------------------------------
   86 1,3-Dichlorobenzene                             CAS #: 541-73-1
 13.477  13.477 (1.113)   146     70166 12.0000    9.512  80.00- 120.00   100.00
 13.484  13.484 (1.114)   148     47341                   33.69-  93.69    67.47
 13.477  13.477 (1.113)   111     29303                    8.17-  68.17    41.76
-------------------------------------------------------------------------------
   87 1,4-Dichlorobenzene                             CAS #: 106-46-7
 13.613  13.613 (1.124)   146     73227 12.0000    9.750  80.00- 120.00   100.00
 13.613  13.613 (1.124)   148     46718                   34.61-  94.61    63.80
 13.613  13.613 (1.124)   111     26751                    7.08-  67.08    36.53
-------------------------------------------------------------------------------
   90 1,2-Dichlorobenzene                             CAS #: 95-50-1
 14.028  14.028 (1.159)   146     68399 12.0000    9.976  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
90 1,2-Dichlorobenzene (continued)							
14.028	14.028 (1.159)	148	44423			34.20- 94.20	64.95
14.028	14.028 (1.159)	111	28562			9.44- 69.44	41.76
95 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
16.077	16.077 (1.328)	180	49998	14.8000	12.497	80.00- 120.00	100.00
16.077	16.077 (1.328)	182	45663			62.01- 122.01	91.33
96 Hexachlorobutadiene					CAS #: 87-68-3		
16.277	16.277 (1.344)	225	40913	21.3000	18.506	80.00- 120.00	100.00
16.277	16.277 (1.344)	223	24463			32.95- 92.95	59.79
98 Naphthalene					CAS #: 91-20-3		
16.378	16.378 (1.353)	128	127572	6.05000	5.743	80.00- 120.00	100.00
16.385	16.385 (1.353)	127	15567			0.00- 42.83	12.20
103 2-Methylnaphthalene					CAS #: 91-57-6		
17.839	17.839 (1.473)	142	69389	5.00000	4.588	80.00- 120.00	100.00
17.839	17.839 (1.473)	141	61175			57.25- 117.25	88.16
17.839	17.839 (1.473)	115	21449			2.70- 62.70	30.91
104 1-Methylnaphthalene					CAS #: 90-12-0		
18.039	18.039 (1.490)	142	67370	5.00000	4.712	80.00- 120.00	100.00
18.039	18.039 (1.490)	141	57622			60.82- 120.82	85.53
18.039	18.039 (1.490)	115	23264			4.50- 64.50	34.53

QC Flag Legend

H - Operator selected an alternate compound hit.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6012703.d
Lab Smp Id: VI VOC+PAH ICAL 2
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/27jan17.b/617z0127via.m
Misc Info: ;2787-57-1000, 2ml (4/12/17), 2744-147-5.0, 1

Calibration Date: 27-JAN-2017
Calibration Time: 14:44
Client Smp ID: 2/2/5
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Bromochloromethan	206046	123628	288464	197669	-4.07
47 1,4-Difluorobenze	822168	493301	1151035	782394	-4.84
67 Chlorobenzene-d5	727418	436451	1018385	698657	-3.95
79 Bromofluorobenzen	482287	289372	675202	448177	-7.07

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Bromochloromethan	5.25	4.92	5.58	5.25	0.00
47 1,4-Difluorobenze	6.89	6.56	7.22	6.89	0.00
67 Chlorobenzene-d5	10.62	10.29	10.95	10.60	-0.14
79 Bromofluorobenzen	12.13	11.80	12.46	12.11	-0.18

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/27jan17.b/6012703.d

Date : 27-JAN-2017 12:45

Client ID: 2/2/5

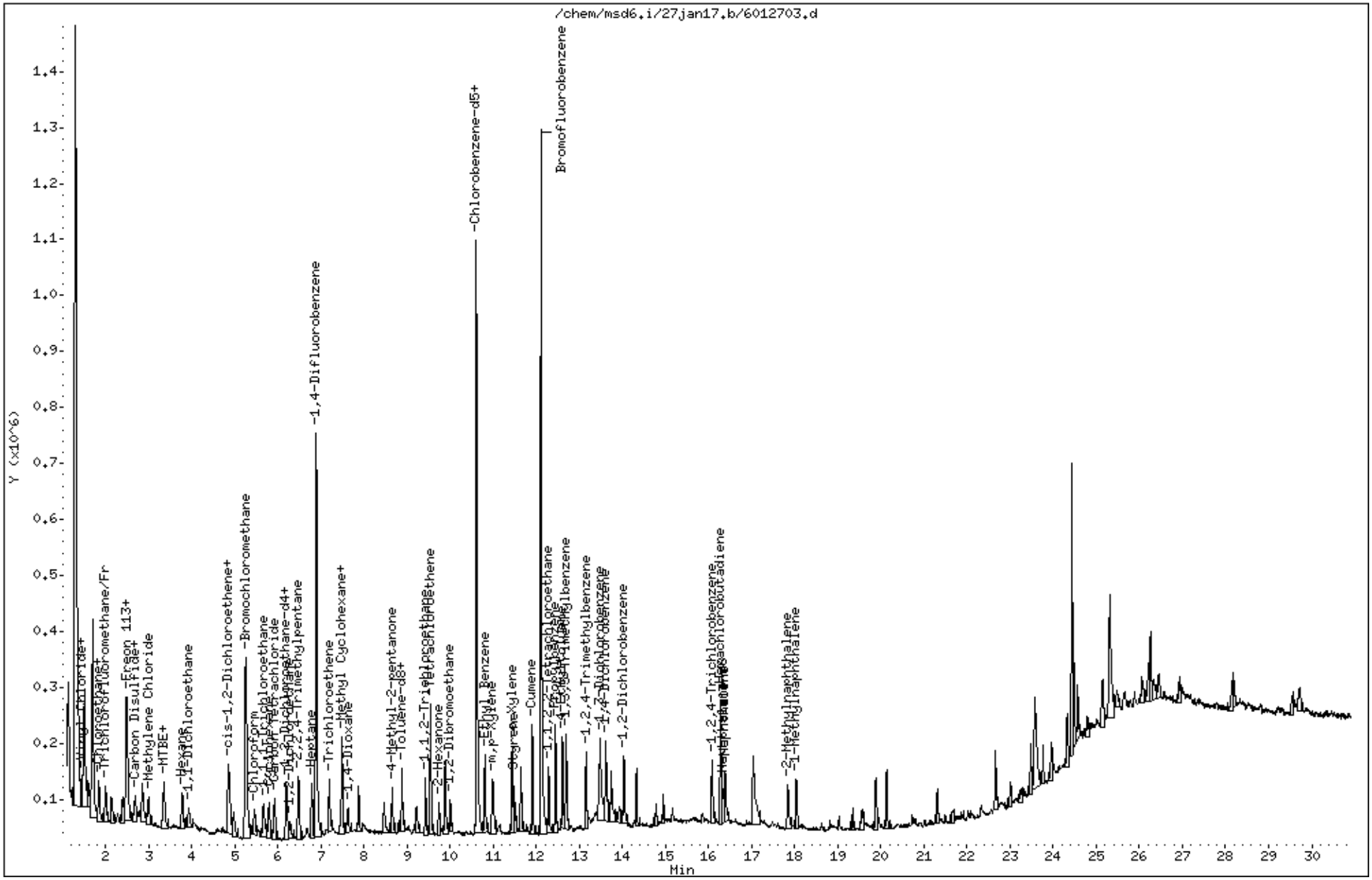
Sample Info: ;VI VOC+PAH ICAL 2; 2/2/5

Column phase: RTx-624

Instrument: msd6.i

Operator: su

Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/27jan17.b/6012704.d
Lab Smp Id: VI VOC+PAH ICAL 3 Client Smp ID: 3/5/10
Inj Date : 27-JAN-2017 13:24
Operator : su Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL 3; 3/5/10
Misc Info : ;2787-57-1000, 3ml (4/12/17), 2744-147-10.0,
Comment :
Method : /chem/msd6.i/27jan17.b/617z0127via.m
Meth Date : 16-Feb-2017 13:59 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 13:24 Cal File: 6012704.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+naphs_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
* 32 Bromochloromethane					CAS #: 74-97-5		
5.246	5.246 (1.000)	130	204103	26.0000		80.00- 120.00	100.00
5.246	5.246 (1.000)	128	154388			49.56- 109.56	75.64
5.246	5.246 (1.000)	49	249315			92.63- 152.63	122.15
* 47 1,4-Difluorobenzene					CAS #: 540-36-3		
6.887	6.887 (1.000)	114	796406	23.0000		80.00- 120.00	100.00
6.887	6.887 (1.000)	88	119036			0.00- 45.38	14.95
* 67 Chlorobenzene-d5					CAS #: 3114-55-4		
10.604	10.604 (1.000)	117	708057	24.0000		80.00- 120.00	100.00
10.604	10.604 (1.000)	82	351800			19.82- 79.82	49.69
* 79 Bromofluorobenzene					CAS #: 460-00-4		
12.109	12.109 (1.000)	174	451374	36.0000		80.00- 120.00	100.00
12.109	12.109 (1.000)	95	513862			81.24- 141.24	113.84
12.109	12.109 (1.000)	176	440366			64.86- 124.86	97.56
$ 39 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
6.163	6.163 (0.895)	65	17062	5.00000	4.456	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
$ 39 1,2-Dichloroethane-d4 (continued)							
6.170	6.170 (0.896)	67	8586			21.82- 81.82	50.32
$ 57 Toluene-d8					CAS #: 2037-26-5		
8.792	8.792 (0.829)	98	54370	5.00000	4.564	80.00- 120.00	100.00
8.792	8.792 (0.829)	70	6070			0.00- 40.85	11.16
8.792	8.792 (0.829)	100	36171			34.65- 94.65	66.53
$ 97 Naphthalene-d8					CAS #: 1146-65-2		
16.328	16.328 (1.348)	136	90777	5.00000	4.422	80.00- 120.00	100.00
16.328	16.328 (1.348)	108	9345			0.00- 39.63	10.29
4 Freon 114					CAS #: 76-14-2		
1.311	1.311 (0.250)	135	110745	21.0000	21.732	80.00- 120.00	100.00
1.311	1.311 (0.250)	137	36828			1.96- 61.96	33.25
6 Vinyl Chloride					CAS #: 75-01-4		
1.437	1.437 (0.274)	62	52323	7.67000	8.398	80.00- 120.00	100.00
1.437	1.437 (0.274)	64	26236			7.91- 67.91	50.14
7 1,3-Butadiene					CAS #: 106-99-0		
1.465	1.465 (0.279)	54	35755	6.64000	6.448	80.00- 120.00	100.00
1.465	1.465 (0.279)	39	69662			120.50- 180.50	194.83
9 Chloroethane					CAS #: 75-00-3		
1.772	1.772 (0.338)	64	30759	7.92000	10.230	80.00- 120.00	100.00
1.772	1.772 (0.338)	66	9621			0.00- 59.86	31.28
1.772	1.772 (0.338)	49	7679			0.00- 58.91	24.97
10 Isopentane					CAS #: 78-78-4		
1.842	1.842 (0.351)	57	38364	8.85000	8.972	80.00- 120.00	100.00
1.842	1.842 (0.351)	43	67390			125.84- 185.84	175.66
11 Trichlorofluoromethane/Fr11					CAS #: 75-69-4		
1.996	1.996 (0.381)	101	137998	16.9000	17.567	80.00- 120.00	100.00
1.996	1.996 (0.381)	103	84770			35.51- 95.51	61.43
15 Freon 113					CAS #: 76-13-1		
2.496	2.496 (0.476)	151	96787	23.0000	23.304	80.00- 120.00	100.00
2.496	2.496 (0.476)	153	62258			33.71- 93.71	64.32
2.496	2.496 (0.476)	101	109107			83.05- 143.05	112.73
14 1,1-Dichloroethene					CAS #: 75-35-4		
2.467	2.467 (0.470)	98	35596	11.9000	12.903	80.00- 120.00	100.00
2.467	2.467 (0.470)	96	55003			122.40- 182.40	154.52
2.467	2.467 (0.470)	61	91853			227.99- 287.99	258.04

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		
2.689	2.689 (0.513)	76	138404	9.34000	9.815	80.00- 120.00	100.00
17 2-Propanol					CAS #: 67-63-0		
2.653	2.653 (0.506)	45	92413	7.37000	7.839	80.00- 120.00	100.00
2.653	2.653 (0.506)	43	17981			0.00- 48.82	19.46
2.653	2.653 (0.506)	59	3397			0.00- 33.57	3.68
21 Methylene Chloride					CAS #: 75-09-2		
2.990	2.990 (0.570)	49	63829	10.4000	10.857	80.00- 120.00	100.00
2.990	2.990 (0.570)	84	44431			38.40- 98.40	69.61
2.990	2.990 (0.570)	51	19673			0.20- 60.20	30.82
23 MTBE					CAS #: 1634-04-4		
3.341	3.341 (0.637)	73	109828	10.8000	10.417	80.00- 120.00	100.00
3.341	3.341 (0.637)	57	29417			0.00- 53.85	26.78
3.341	3.341 (0.637)	41	28141			0.00- 54.68	25.62
24 trans-1,2-Dichloroethene					CAS #: 156-60-5		
3.355	3.355 (0.640)	98	29153	11.9000	12.080	80.00- 120.00	100.00
3.355	3.355 (0.640)	61	64264			199.30- 259.30	220.44
3.355	3.355 (0.640)	96	43686			124.73- 184.73	149.85
25 Hexane					CAS #: 110-54-3		
3.778	3.778 (0.720)	57	76171	10.6000	10.738	80.00- 120.00	100.00
3.778	3.778 (0.720)	43	54471			38.59- 98.59	71.51
3.778	3.778 (0.720)	86	11286			0.00- 44.35	14.82
26 1,1-Dichloroethane					CAS #: 75-34-3		
3.921	3.921 (0.747)	63	75230	12.1000	11.243	80.00- 120.00	100.00
3.928	3.928 (0.749)	65	21800			0.70- 60.70	28.98
29 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.874	4.874 (0.929)	98	36313	11.9000	12.617	80.00- 120.00	100.00
4.874	4.874 (0.929)	96	52762			123.29- 183.29	145.30
4.874	4.874 (0.929)	61	70680			178.61- 238.61	194.64
28 2-Butanone					CAS #: 78-93-3		
4.852	4.852 (0.925)	72	43880	8.85000	15.298	80.00- 120.00	100.00
4.852	4.852 (0.925)	43	224663			466.78- 526.78	511.99
4.845	4.845 (0.924)	57	14991			5.92- 65.92	34.16
35 Chloroform					CAS #: 67-66-3		
5.454	5.454 (1.040)	83	102599	14.6000	15.428	80.00- 120.00	100.00
5.454	5.454 (1.040)	85	67741			34.58- 94.58	66.03

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
37 Cyclohexane					CAS #: 110-82-7		
5.791	5.791 (0.841)	84	60383	10.3000	10.498	80.00- 120.00	100.00
5.798	5.798 (0.842)	56	77158			97.51- 157.51	127.78
5.798	5.798 (0.842)	41	49422			49.37- 109.37	81.85
36 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.662	5.662 (0.822)	97	90333	16.4000	14.497	80.00- 120.00	100.00
5.662	5.662 (0.822)	99	59138			36.78- 96.78	65.47
38 Carbon Tetrachloride					CAS #: 56-23-5		
5.927	5.927 (0.861)	119	59486	18.9000	10.844	80.00- 120.00	100.00
5.920	5.920 (0.860)	117	60670			74.79- 134.79	101.99
45 2,2,4-Trimethylpentane					CAS #: 540-84-1		
6.478	6.478 (0.941)	57	250629	14.0000	14.606	80.00- 120.00	100.00
6.478	6.478 (0.941)	56	77104			1.65- 61.65	30.76
6.478	6.478 (0.941)	41	77961			0.50- 60.50	31.11
41 Benzene					CAS #: 71-43-2		
6.192	6.192 (0.899)	78	209285	9.58000	12.744	80.00- 120.00	100.00
6.192	6.192 (0.899)	77	47797			0.00- 53.70	22.84
43 1,2-Dichloroethane					CAS #: 107-06-2		
6.278	6.278 (0.912)	62	64819	12.1000	11.711	80.00- 120.00	100.00
6.278	6.278 (0.912)	64	20450			1.50- 61.50	31.55
46 Heptane					CAS #: 142-82-5		
6.786	6.786 (0.985)	71	48846	12.3000	12.739	80.00- 120.00	100.00
6.786	6.786 (0.985)	43	97744			165.84- 225.84	200.11
6.786	6.786 (0.985)	57	47367			68.69- 128.69	96.97
48 Trichloroethene					CAS #: 79-01-6		
7.188	7.188 (1.044)	95	70268	16.1000	16.345	80.00- 120.00	100.00
7.188	7.188 (1.044)	130	76504			79.94- 139.94	108.87
7.188	7.188 (1.044)	97	44978			34.22- 94.22	64.01
51 Methyl Cyclohexane					CAS #: 108-87-2		
7.488	7.488 (1.087)	83	87602	12.0000	12.340	80.00- 120.00	100.00
7.488	7.488 (1.087)	98	39225			16.28- 76.28	44.78
7.488	7.488 (1.087)	55	76295			57.14- 117.14	87.09
52 1,2-Dichloropropane					CAS #: 78-87-5		
7.481	7.481 (1.086)	63	51165	13.9000	12.971	80.00- 120.00	100.00
7.481	7.481 (1.086)	62	36294			38.30- 98.30	70.94
7.488	7.488 (1.087)	41	79284			109.93- 169.93	154.96

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
53 1,4-Dioxane					CAS #: 123-91-1		
7.617	7.617 (1.106)	88	39283	10.8000	11.779	80.00- 120.00	100.00
7.617	7.617 (1.106)	58	30795			41.68- 101.68	78.39
7.625	7.625 (1.107)	57	32115			5.91- 65.91	81.75
56 4-Methyl-2-pentanone					CAS #: 108-10-1		
8.649	8.649 (1.256)	58	42782	12.3000	12.081	80.00- 120.00	100.00
8.649	8.649 (1.256)	43	123795			255.95- 315.95	289.36
8.649	8.649 (1.256)	85	17344			12.61- 72.61	40.54
58 Toluene					CAS #: 108-88-3		
8.878	8.878 (0.837)	91	180267	11.3000	11.784	80.00- 120.00	100.00
8.871	8.871 (0.837)	92	101389			29.58- 89.58	56.24
61 1,1,2-Trichloroethane					CAS #: 79-00-5		
9.422	9.422 (1.368)	97	58778	16.4000	16.152	80.00- 120.00	100.00
9.422	9.422 (1.368)	99	38686			34.45- 94.45	65.82
9.422	9.422 (1.368)	83	50380			55.36- 115.36	85.71
62 Tetrachloroethene					CAS #: 127-18-4		
9.537	9.537 (0.899)	166	94131	20.4000	20.181	80.00- 120.00	100.00
9.537	9.537 (0.899)	129	73314			46.89- 106.89	77.89
9.537	9.537 (0.899)	131	70752			44.31- 104.31	75.16
63 2-Hexanone					CAS #: 591-78-6		
9.730	9.730 (0.918)	58	47101	12.3000	10.555	80.00- 120.00	100.00
9.730	9.730 (0.918)	43	104906			173.90- 233.90	222.73
9.730	9.730 (0.918)	100	9391			0.00- 48.87	19.94
66 1,2-Dibromoethane					CAS #: 106-93-4		
9.995	9.995 (0.943)	107	94500	23.0000	22.197	80.00- 120.00	100.00
9.995	9.995 (0.943)	109	92525			66.71- 126.71	97.91
68 Chlorobenzene					CAS #: 108-90-7		
10.640	10.640 (1.003)	112	143761	13.8000	13.742	80.00- 120.00	100.00
10.640	10.640 (1.003)	114	46567			1.97- 61.97	32.39
10.640	10.640 (1.003)	77	83209			23.53- 83.53	57.88
69 Ethyl Benzene					CAS #: 100-41-4		
10.798	10.798 (1.018)	106	68231	13.0000	12.412	80.00- 120.00	100.00
10.798	10.798 (1.018)	91	214000			275.71- 335.71	313.64
71 m,p-Xylene					CAS #: 108-38-3		
10.977	10.977 (1.035)	106	87319	13.0000	12.750	80.00- 120.00	100.00
10.977	10.977 (1.035)	91	172655			166.96- 226.96	197.73

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

   74 o-Xylene                                      CAS #: 95-47-6
 11.435  11.435 (0.944)   106     79034 13.0000   12.596  80.00- 120.00   100.00
 11.435  11.435 (0.944)    91    161513                  177.81- 237.81   204.36
-------------------------------------------------------------------------------
   75 Styrene                                       CAS #: 100-42-5
 11.478  11.478 (0.948)   104    117494 12.8000   11.803  80.00- 120.00   100.00(H)
 11.471  11.471 (0.947)    78     50757                   18.87-  78.87    43.20
-------------------------------------------------------------------------------
   77 Cumene                                        CAS #: 98-82-8
 11.908  11.908 (0.983)   105    219514 14.8000   13.763  80.00- 120.00   100.00
 11.908  11.908 (0.983)   120     61735                    0.00-  58.24    28.12
 11.908  11.908 (0.983)    51     24129                    0.00-  40.40    10.99
-------------------------------------------------------------------------------
   80 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 12.280  12.280 (1.014)    83     98331 20.6000   17.728  80.00- 120.00   100.00
 12.280  12.280 (1.014)    85     66052                   34.09-  94.09    67.17
-------------------------------------------------------------------------------
   81 Propylbenzene                                 CAS #: 103-65-1
 12.438  12.438 (1.027)    91    227862 14.8000   13.064  80.00- 120.00   100.00
 12.438  12.438 (1.027)   120     56902                    0.00-  55.47    24.97
 12.438  12.438 (1.027)   105      8250                    0.00-  33.86     3.62
-------------------------------------------------------------------------------
   82 4-Ethyltoluene                                CAS #: 622-96-8
 12.603  12.603 (1.041)   120     58340 14.8000   12.517  80.00- 120.00   100.00
 12.603  12.603 (1.041)   105    169912                  290.15- 350.15   291.24
-------------------------------------------------------------------------------
   83 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 12.689  12.689 (1.048)   120     79521 14.8000   11.885  80.00- 120.00   100.00
 12.689  12.689 (1.048)   105    161688                  168.29- 228.29   203.33
-------------------------------------------------------------------------------
   84 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 13.147  13.147 (1.086)   120     68241 14.8000   11.505  80.00- 120.00   100.00
 13.147  13.147 (1.086)   105    149685                  184.33- 244.33   219.35
-------------------------------------------------------------------------------
   86 1,3-Dichlorobenzene                           CAS #: 541-73-1
 13.477  13.477 (1.113)   146    100935 18.0000   13.587  80.00- 120.00   100.00
 13.477  13.477 (1.113)   148     65265                   33.69-  93.69    64.66
 13.470  13.470 (1.112)   111     37870                    8.17-  68.17    37.52
-------------------------------------------------------------------------------
   87 1,4-Dichlorobenzene                           CAS #: 106-46-7
 13.606  13.606 (1.124)   146    101924 18.0000   13.474  80.00- 120.00   100.00
 13.606  13.606 (1.124)   148     64164                   34.61-  94.61    62.95
 13.606  13.606 (1.124)   111     37489                    7.08-  67.08    36.78
-------------------------------------------------------------------------------
   90 1,2-Dichlorobenzene                           CAS #: 95-50-1
 14.028  14.028 (1.159)   146     89651 18.0000   12.983  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
90 1,2-Dichlorobenzene (continued)							
14.028	14.028 (1.159)	148	56821			34.20- 94.20	63.38
14.028	14.028 (1.159)	111	35126			9.44- 69.44	39.18
95 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
16.070	16.070 (1.327)	180	51853	22.3000	12.869	80.00- 120.00	100.00
16.070	16.070 (1.327)	182	45936			62.01- 122.01	88.59
96 Hexachlorobutadiene					CAS #: 87-68-3		
16.277	16.277 (1.344)	225	36863	32.0000	16.556	80.00- 120.00	100.00
16.277	16.277 (1.344)	223	22775			32.95- 92.95	61.78
98 Naphthalene					CAS #: 91-20-3		
16.371	16.371 (1.352)	128	263802	11.5700	11.791	80.00- 120.00	100.00
16.371	16.371 (1.352)	127	33172			0.00- 42.83	12.57
103 2-Methylnaphthalene					CAS #: 91-57-6		
17.818	17.818 (1.471)	142	153391	10.0000	10.072	80.00- 120.00	100.00
17.818	17.818 (1.471)	141	137762			57.25- 117.25	89.81
17.818	17.818 (1.471)	115	51070			2.70- 62.70	33.29
104 1-Methylnaphthalene					CAS #: 90-12-0		
18.025	18.025 (1.489)	142	148669	10.0000	10.326	80.00- 120.00	100.00
18.025	18.025 (1.489)	141	131236			60.82- 120.82	88.27
18.025	18.025 (1.489)	115	47759			4.50- 64.50	32.12

QC Flag Legend

H - Operator selected an alternate compound hit.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6012704.d
Lab Smp Id: VI VOC+PAH ICAL 3
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/27jan17.b/617z0127via.m
Misc Info: ;2787-57-1000, 3ml (4/12/17), 2744-147-10.0,

Calibration Date: 27-JAN-2017
Calibration Time: 14:44
Client Smp ID: 3/5/10
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Bromochloromethan	206046	123628	288464	204103	-0.94
47 1,4-Difluorobenze	822168	493301	1151035	796406	-3.13
67 Chlorobenzene-d5	727418	436451	1018385	708057	-2.66
79 Bromofluorobenzen	482287	289372	675202	451374	-6.41

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Bromochloromethan	5.25	4.92	5.58	5.25	0.00
47 1,4-Difluorobenze	6.89	6.56	7.22	6.89	0.00
67 Chlorobenzene-d5	10.62	10.29	10.95	10.60	-0.14
79 Bromofluorobenzen	12.13	11.80	12.46	12.11	-0.18

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/27jan17.b/6012704.d

Date : 27-JAN-2017 13:24

Client ID: 3/5/10

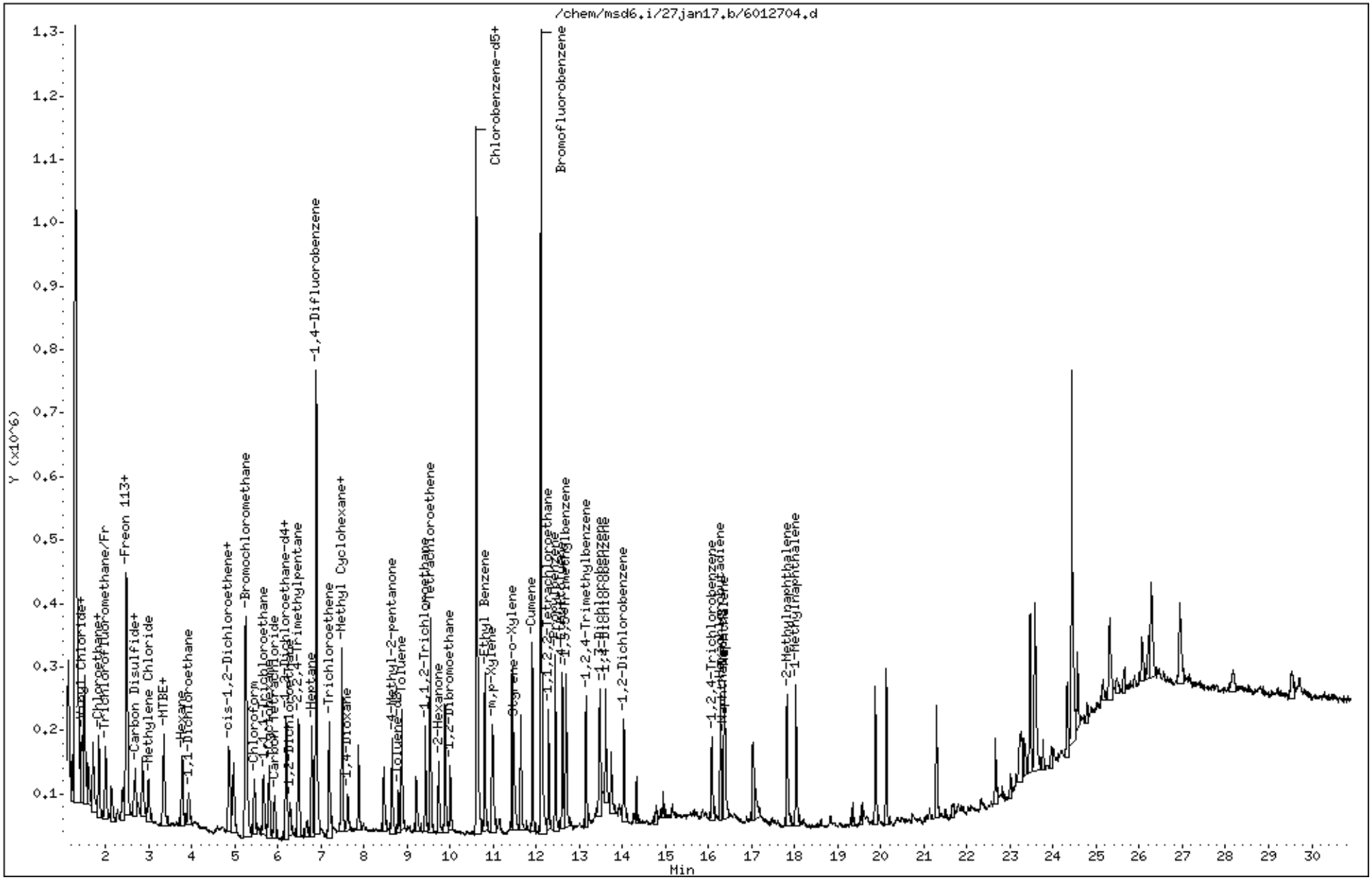
Sample Info: ;VI VOC+PAH ICAL 3; 3/5/10

Column phase: RTx-624

Instrument: msd6.i

Operator: su

Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/27jan17.b/6012705.d
Lab Smp Id: VI VOC+PAH ICAL 4 Client Smp ID: 6/10/25
Inj Date : 27-JAN-2017 14:04
Operator : su Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL 4; 6/10/25
Misc Info : ;2787-57-1000, 6ml (4/12/17), 2744-147-25.0,
Comment :
Method : /chem/msd6.i/27jan17.b/617z0127via.m
Meth Date : 16-Feb-2017 13:59 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:04 Cal File: 6012705.d
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+naphs_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
* 32 Bromochloromethane					CAS #: 74-97-5		
5.246	5.246 (1.000)	130	203908	26.0000		80.00- 120.00	100.00
5.246	5.246 (1.000)	128	161331			49.56- 109.56	79.12
5.246	5.246 (1.000)	49	261959			92.63- 152.63	128.47
* 47 1,4-Difluorobenzene					CAS #: 540-36-3		
6.887	6.887 (1.000)	114	807076	23.0000		80.00- 120.00	100.00
6.887	6.887 (1.000)	88	119110			0.00- 45.38	14.76
* 67 Chlorobenzene-d5					CAS #: 3114-55-4		
10.604	10.604 (1.000)	117	716209	24.0000		80.00- 120.00	100.00
10.604	10.604 (1.000)	82	355351			19.82- 79.82	49.62
* 79 Bromofluorobenzene					CAS #: 460-00-4		
12.109	12.109 (1.000)	174	464356	36.0000		80.00- 120.00	100.00
12.109	12.109 (1.000)	95	523805			81.24- 141.24	112.80
12.109	12.109 (1.000)	176	454218			64.86- 124.86	97.82
$ 39 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
6.163	6.163 (0.895)	65	38203	10.0000	9.845	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
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  39 1,2-Dichloroethane-d4 (continued)
  6.163   6.163 (0.895)    67     17982                    21.82-  81.82    47.07
-------------------------------------------------------------------------------
$  57 Toluene-d8                                   CAS #: 2037-26-5
  8.785   8.785 (0.828)    98    117779 10.0000    9.775  80.00- 120.00   100.00
  8.785   8.785 (0.828)    70     12463                     0.00-  40.85    10.58
  8.792   8.792 (0.829)   100     74188                    34.65-  94.65    62.99
-------------------------------------------------------------------------------
$  97 Naphthalene-d8                               CAS #: 1146-65-2
 16.320  16.320 (1.348)   136    198972 10.0000    9.421  80.00- 120.00   100.00
 16.320  16.320 (1.348)   108     17359                     0.00-  39.63     8.72
-------------------------------------------------------------------------------
    4 Freon 114                                   CAS #: 76-14-2
  1.311   1.311 (0.250)   135    218972 41.9000   43.012  80.00- 120.00   100.00
  1.311   1.311 (0.250)   137     71170                     1.96-  61.96    32.50
-------------------------------------------------------------------------------
    6 Vinyl Chloride                              CAS #: 75-01-4
  1.437   1.437 (0.274)    62     97467 15.3000   15.659  80.00- 120.00   100.00
  1.437   1.437 (0.274)    64     40188                     7.91-  67.91    41.23
-------------------------------------------------------------------------------
    7 1,3-Butadiene                               CAS #: 106-99-0
  1.465   1.465 (0.279)    54     73620 13.3000   13.288  80.00- 120.00   100.00
  1.465   1.465 (0.279)    39    119357                   120.50- 180.50   162.13
-------------------------------------------------------------------------------
    9 Chloroethane                                CAS #: 75-00-3
  1.772   1.772 (0.338)    64     47634 15.8000   15.857  80.00- 120.00   100.00
  1.772   1.772 (0.338)    66     13006                     0.00-  59.86    27.30
  1.772   1.772 (0.338)    49     15889                     0.00-  58.91    33.36
-------------------------------------------------------------------------------
   10 Isopentane                                  CAS #: 78-78-4
  1.842   1.842 (0.351)    57     77109 17.7000   18.051  80.00- 120.00   100.00
  1.842   1.842 (0.351)    43    121832                   125.84- 185.84   158.00
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                 CAS #: 75-69-4
  1.996   1.996 (0.381)   101    242566 33.7000   30.908  80.00- 120.00   100.00
  1.996   1.996 (0.381)   103    159973                    35.51-  95.51    65.95
-------------------------------------------------------------------------------
   15 Freon 113                                   CAS #: 76-13-1
  2.496   2.496 (0.476)   151    196587 46.0000   47.380  80.00- 120.00   100.00
  2.496   2.496 (0.476)   153    127718                    33.71-  93.71    64.97
  2.496   2.496 (0.476)   101    222246                    83.05- 143.05   113.05
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                          CAS #: 75-35-4
  2.467   2.467 (0.470)    98     66668 23.8000   24.189  80.00- 120.00   100.00
  2.467   2.467 (0.470)    96     97177                   122.40- 182.40   145.76
  2.474   2.474 (0.472)    61    163475                   227.99- 287.99   245.21
-------------------------------------------------------------------------------
```

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		
2.689	2.689 (0.513)	76	280213	18.7000	19.890	80.00- 120.00	100.00
17 2-Propanol					CAS #: 67-63-0		
2.653	2.653 (0.506)	45	179043	14.7000	15.202	80.00- 120.00	100.00
2.653	2.653 (0.506)	43	32361			0.00- 48.82	18.07
2.661	2.661 (0.507)	59	3934			0.00- 33.57	2.20
21 Methylene Chloride					CAS #: 75-09-2		
2.983	2.983 (0.569)	49	143365	20.8000	24.408	80.00- 120.00	100.00
2.990	2.990 (0.570)	84	95809			38.40- 98.40	66.83
2.990	2.990 (0.570)	51	41907			0.20- 60.20	29.23
23 MTBE					CAS #: 1634-04-4		
3.341	3.341 (0.637)	73	249453	21.6000	23.682	80.00- 120.00	100.00
3.341	3.341 (0.637)	57	61704			0.00- 53.85	24.74
3.334	3.334 (0.635)	41	62716			0.00- 54.68	25.14
24 trans-1,2-Dichloroethene					CAS #: 156-60-5		
3.348	3.348 (0.638)	98	56494	23.8000	23.431	80.00- 120.00	100.00
3.348	3.348 (0.638)	61	126679			199.30- 259.30	224.23
3.355	3.355 (0.640)	96	84088			124.73- 184.73	148.84
25 Hexane					CAS #: 110-54-3		
3.778	3.778 (0.720)	57	152373	21.1000	21.500	80.00- 120.00	100.00
3.778	3.778 (0.720)	43	105925			38.59- 98.59	69.52
3.785	3.785 (0.721)	86	23603			0.00- 44.35	15.49
26 1,1-Dichloroethane					CAS #: 75-34-3		
3.921	3.921 (0.747)	63	166378	24.3000	24.890	80.00- 120.00	100.00
3.921	3.921 (0.747)	65	53396			0.70- 60.70	32.09
29 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.874	4.874 (0.929)	98	67115	23.8000	23.342	80.00- 120.00	100.00
4.874	4.874 (0.929)	96	101875			123.29- 183.29	151.79
4.874	4.874 (0.929)	61	144670			178.61- 238.61	215.56
28 2-Butanone					CAS #: 78-93-3		
4.845	4.845 (0.924)	72	70975	17.7000	24.768	80.00- 120.00	100.00
4.838	4.838 (0.922)	43	363956			466.78- 526.78	512.79
4.838	4.838 (0.922)	57	26339			5.92- 65.92	37.11
35 Chloroform					CAS #: 67-66-3		
5.454	5.454 (1.040)	83	203995	29.3000	30.706	80.00- 120.00	100.00
5.454	5.454 (1.040)	85	130672			34.58- 94.58	64.06

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
37 Cyclohexane					CAS #: 110-82-7		
5.798	5.798 (0.842)	84	117586	20.7000	20.174	80.00- 120.00	100.00
5.791	5.791 (0.841)	56	152982			97.51- 157.51	130.10
5.791	5.791 (0.841)	41	96498			49.37- 109.37	82.07
36 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.662	5.662 (0.822)	97	209603	32.7000	33.194	80.00- 120.00	100.00
5.662	5.662 (0.822)	99	138831			36.78- 96.78	66.24
38 Carbon Tetrachloride					CAS #: 56-23-5		
5.920	5.920 (0.860)	119	221091	37.8000	39.773	80.00- 120.00	100.00
5.920	5.920 (0.860)	117	231860			74.79- 134.79	104.87
45 2,2,4-Trimethylpentane					CAS #: 540-84-1		
6.478	6.478 (0.941)	57	503328	28.0000	28.946	80.00- 120.00	100.00
6.478	6.478 (0.941)	56	157937			1.65- 61.65	31.38
6.478	6.478 (0.941)	41	163778			0.50- 60.50	32.54
41 Benzene					CAS #: 71-43-2		
6.192	6.192 (0.899)	78	302542	19.2000	18.178	80.00- 120.00	100.00
6.185	6.185 (0.898)	77	75556			0.00- 53.70	24.97
43 1,2-Dichloroethane					CAS #: 107-06-2		
6.271	6.271 (0.911)	62	141240	24.3000	25.181	80.00- 120.00	100.00
6.271	6.271 (0.911)	64	42093			1.50- 61.50	29.80
46 Heptane					CAS #: 142-82-5		
6.786	6.786 (0.985)	71	96981	24.6000	24.959	80.00- 120.00	100.00
6.786	6.786 (0.985)	43	185356			165.84- 225.84	191.13
6.779	6.779 (0.984)	57	94086			68.69- 128.69	97.01
48 Trichloroethene					CAS #: 79-01-6		
7.180	7.180 (1.043)	95	138995	32.2000	31.905	80.00- 120.00	100.00
7.180	7.180 (1.043)	130	154158			79.94- 139.94	110.91
7.180	7.180 (1.043)	97	89129			34.22- 94.22	64.12
51 Methyl Cyclohexane					CAS #: 108-87-2		
7.488	7.488 (1.087)	83	169657	24.1000	23.582	80.00- 120.00	100.00
7.488	7.488 (1.087)	98	80200			16.28- 76.28	47.27
7.488	7.488 (1.087)	55	151342			57.14- 117.14	89.20
52 1,2-Dichloropropane					CAS #: 78-87-5		
7.481	7.481 (1.086)	63	109752	27.7000	27.455	80.00- 120.00	100.00
7.481	7.481 (1.086)	62	75391			38.30- 98.30	68.69
7.481	7.481 (1.086)	41	155455			109.93- 169.93	141.64

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
53 1,4-Dioxane					CAS #: 123-91-1		
7.610	7.610 (1.105)	88	67123	21.6000	19.861	80.00- 120.00	100.00
7.610	7.610 (1.105)	58	52675			41.68- 101.68	78.48
7.617	7.617 (1.106)	57	40884			5.91- 65.91	60.91
56 4-Methyl-2-pentanone					CAS #: 108-10-1		
8.642	8.642 (1.255)	58	89844	24.6000	25.035	80.00- 120.00	100.00
8.642	8.642 (1.255)	43	259098			255.95- 315.95	288.39
8.649	8.649 (1.256)	85	36147			12.61- 72.61	40.23
58 Toluene					CAS #: 108-88-3		
8.871	8.871 (0.837)	91	348068	22.6000	22.493	80.00- 120.00	100.00
8.871	8.871 (0.837)	92	208928			29.58- 89.58	60.03
61 1,1,2-Trichloroethane					CAS #: 79-00-5		
9.415	9.415 (1.367)	97	120134	32.7000	32.576	80.00- 120.00	100.00
9.415	9.415 (1.367)	99	78762			34.45- 94.45	65.56
9.415	9.415 (1.367)	83	105156			55.36- 115.36	87.53
62 Tetrachloroethene					CAS #: 127-18-4		
9.537	9.537 (0.899)	166	194020	40.7000	41.122	80.00- 120.00	100.00
9.537	9.537 (0.899)	129	149097			46.89- 106.89	76.85
9.537	9.537 (0.899)	131	144336			44.31- 104.31	74.39
63 2-Hexanone					CAS #: 591-78-6		
9.723	9.723 (0.917)	58	112440	24.6000	24.911	80.00- 120.00	100.00
9.723	9.723 (0.917)	43	231842			173.90- 233.90	206.19
9.723	9.723 (0.917)	100	21732			0.00- 48.87	19.33
66 1,2-Dibromoethane					CAS #: 106-93-4		
9.988	9.988 (0.942)	107	205209	46.1000	47.653	80.00- 120.00	100.00
9.988	9.988 (0.942)	109	193345			66.71- 126.71	94.22
68 Chlorobenzene					CAS #: 108-90-7		
10.640	10.640 (1.003)	112	298404	27.6000	28.200	80.00- 120.00	100.00
10.640	10.640 (1.003)	114	97433			1.97- 61.97	32.65
10.640	10.640 (1.003)	77	160859			23.53- 83.53	53.91
69 Ethyl Benzene					CAS #: 100-41-4		
10.798	10.798 (1.018)	106	147268	26.1000	26.485	80.00- 120.00	100.00
10.798	10.798 (1.018)	91	455120			275.71- 335.71	309.04
71 m,p-Xylene					CAS #: 108-38-3		
10.977	10.977 (1.035)	106	183712	26.1000	26.520	80.00- 120.00	100.00
10.977	10.977 (1.035)	91	357158			166.96- 226.96	194.41

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
74 o-Xylene					CAS #: 95-47-6		
11.428	11.428 (0.944)	106	171681	26.1000	26.596	80.00- 120.00	100.00
11.428	11.428 (0.944)	91	359143			177.81- 237.81	209.19
75 Styrene					CAS #: 100-42-5		
11.464	11.464 (0.947)	104	272378	25.6000	26.597	80.00- 120.00	100.00
11.464	11.464 (0.947)	78	116888			18.87- 78.87	42.91
77 Cumene					CAS #: 98-82-8		
11.908	11.908 (0.983)	105	519592	29.5000	31.667	80.00- 120.00	100.00
11.908	11.908 (0.983)	120	143310			0.00- 58.24	27.58
11.908	11.908 (0.983)	51	54136			0.00- 40.40	10.42
80 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
12.280	12.280 (1.014)	83	249556	41.2000	43.735	80.00- 120.00	100.00
12.280	12.280 (1.014)	85	162224			34.09- 94.09	65.01
81 Propylbenzene					CAS #: 103-65-1		
12.438	12.438 (1.027)	91	565557	29.5000	31.519	80.00- 120.00	100.00
12.438	12.438 (1.027)	120	143741			0.00- 55.47	25.42
12.431	12.431 (1.027)	105	21671			0.00- 33.86	3.83
82 4-Ethyltoluene					CAS #: 622-96-8		
12.603	12.603 (1.041)	120	134576	29.5000	28.066	80.00- 120.00	100.00
12.603	12.603 (1.041)	105	433949			290.15- 350.15	322.46
83 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
12.689	12.689 (1.048)	120	203916	29.5000	29.624	80.00- 120.00	100.00
12.682	12.682 (1.047)	105	412198			168.29- 228.29	202.14
84 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
13.147	13.147 (1.086)	120	181910	29.5000	29.811	80.00- 120.00	100.00
13.147	13.147 (1.086)	105	391921			184.33- 244.33	215.45
86 1,3-Dichlorobenzene					CAS #: 541-73-1		
13.462	13.462 (1.112)	146	270913	36.1000	35.448	80.00- 120.00	100.00
13.462	13.462 (1.112)	148	173434			33.69- 93.69	64.02
13.462	13.462 (1.112)	111	104258			8.17- 68.17	38.48
87 1,4-Dichlorobenzene					CAS #: 106-46-7		
13.598	13.598 (1.123)	146	274063	36.1000	35.219	80.00- 120.00	100.00
13.598	13.598 (1.123)	148	175787			34.61- 94.61	64.14
13.598	13.598 (1.123)	111	102257			7.08- 67.08	37.31
90 1,2-Dichlorobenzene					CAS #: 95-50-1		
14.021	14.021 (1.158)	146	241903	36.1000	34.052	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
90 1,2-Dichlorobenzene (continued)							
14.021	14.021 (1.158)	148	154584			34.20- 94.20	63.90
14.014	14.014 (1.157)	111	93343			9.44- 69.44	38.59
95 1,2,4-Trichlorobenzene						CAS #: 120-82-1	
16.063	16.063 (1.327)	180	124734	44.5000	30.090	80.00- 120.00	100.00
16.063	16.063 (1.327)	182	113486			62.01- 122.01	90.98
96 Hexachlorobutadiene						CAS #: 87-68-3	
16.277	16.277 (1.344)	225	85175	64.0000	37.184	80.00- 120.00	100.00
16.277	16.277 (1.344)	223	53926			32.95- 92.95	63.31
98 Naphthalene						CAS #: 91-20-3	
16.356	16.356 (1.351)	128	653503	28.1400	28.393	80.00- 120.00	100.00
16.356	16.356 (1.351)	127	83471			0.00- 42.83	12.77
103 2-Methylnaphthalene						CAS #: 91-57-6	
17.803	17.803 (1.470)	142	392510	25.0000	25.052	80.00- 120.00	100.00
17.803	17.803 (1.470)	141	338661			57.25- 117.25	86.28
17.803	17.803 (1.470)	115	129070			2.70- 62.70	32.88
104 1-Methylnaphthalene						CAS #: 90-12-0	
18.018	18.018 (1.488)	142	368570	25.0000	24.883	80.00- 120.00	100.00
18.018	18.018 (1.488)	141	327608			60.82- 120.82	88.89
18.018	18.018 (1.488)	115	123993			4.50- 64.50	33.64

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6012705.d
Lab Smp Id: VI VOC+PAH ICAL 4
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/27jan17.b/617z0127via.m
Misc Info: ;2787-57-1000, 6ml (4/12/17), 2744-147-25.0,

Calibration Date: 27-JAN-2017
Calibration Time: 14:44
Client Smp ID: 6/10/25
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
32 Bromochloromethan	206046	123628	288464	203908	-1.04
47 1,4-Difluorobenze	822168	493301	1151035	807076	-1.84
67 Chlorobenzene-d5	727418	436451	1018385	716209	-1.54
79 Bromofluorobenzen	482287	289372	675202	464356	-3.72

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
32 Bromochloromethan	5.25	4.92	5.58	5.25	0.00
47 1,4-Difluorobenze	6.89	6.56	7.22	6.89	0.00
67 Chlorobenzene-d5	10.62	10.29	10.95	10.60	-0.14
79 Bromofluorobenzen	12.13	11.80	12.46	12.11	-0.18

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/27jan17.b/6012705.d

Date : 27-JAN-2017 14:04

Client ID: 6/10/25

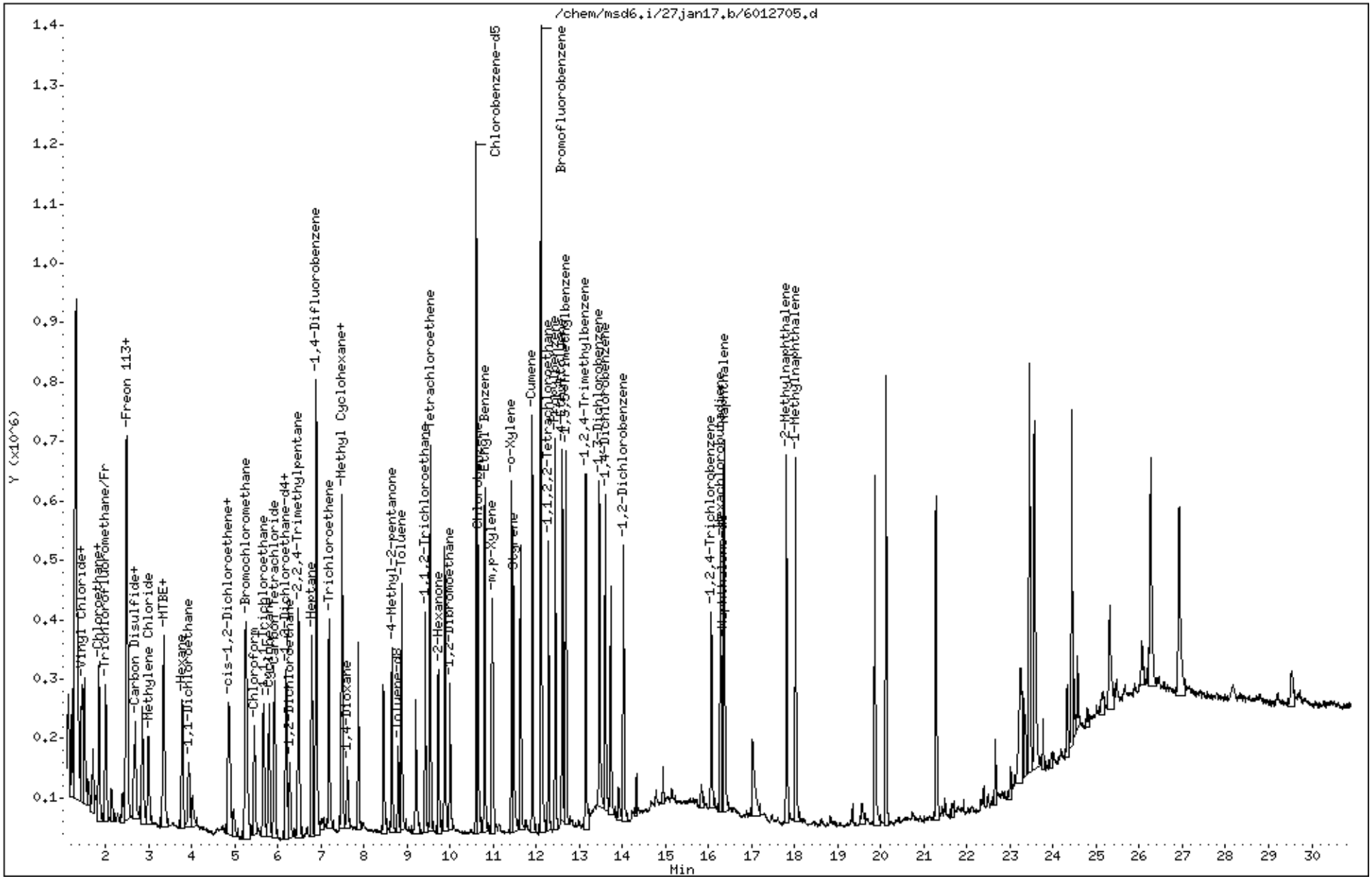
Sample Info: ;VI VOC+PAH ICAL 4; 6/10/25

Column phase: RTx-624

Instrument: msd6.i

Operator: su

Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/27jan17.b/6012706.d
Lab Smp Id: VI VOC+PAH ICAL 5 Client Smp ID: 20/25/50
Inj Date : 27-JAN-2017 14:44
Operator : su Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL 5; 20/25/50
Misc Info : ;2787-57-1000, 20ml (4/12/17), 2744-147-25.0,
Comment :
Method : /chem/msd6.i/27jan17.b/617z0127via.m
Meth Date : 16-Feb-2017 15:42 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+naphs_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
* 32 Bromochloromethane						CAS #: 74-97-5	
5.246	5.246 (1.000)	130	206046	26.0000		80.00- 120.00	100.00
5.246	5.246 (1.000)	128	163927			49.56- 109.56	79.56
5.246	5.246 (1.000)	49	252681			92.63- 152.63	122.63
* 47 1,4-Difluorobenzene						CAS #: 540-36-3	
6.887	6.887 (1.000)	114	822168	23.0000		80.00- 120.00	100.00
6.880	6.880 (1.000)	88	126489			0.00- 45.38	15.38
* 67 Chlorobenzene-d5						CAS #: 3114-55-4	
10.619	10.619 (1.000)	117	727418	24.0000		80.00- 120.00	100.00
10.619	10.619 (1.000)	82	362398			19.82- 79.82	49.82
* 79 Bromofluorobenzene						CAS #: 460-00-4	
12.130	12.130 (1.000)	174	482287	36.0000		80.00- 120.00	100.00
12.130	12.130 (1.000)	95	536480			81.24- 141.24	111.24
12.130	12.130 (1.000)	176	457489			64.86- 124.86	94.86
$ 39 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.149	6.149 (0.893)	65	103651	25.0000	26.221	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
$ 39 1,2-Dichloroethane-d4 (continued)							
6.156	6.156 (0.894)	67	53714			21.82- 81.82	51.82
$ 57 Toluene-d8						CAS #: 2037-26-5	
8.799	8.799 (0.829)	98	321045	25.0000	26.234	80.00- 120.00	100.00
8.792	8.792 (0.828)	70	34817			0.00- 40.85	10.84
8.799	8.799 (0.829)	100	207552			34.65- 94.65	64.65
$ 97 Naphthalene-d8						CAS #: 1146-65-2	
16.320	16.320 (1.345)	136	582981	25.0000	26.576	80.00- 120.00	100.00
16.320	16.320 (1.345)	108	56136			0.00- 39.63	9.63
4 Freon 114						CAS #: 76-14-2	
1.325	1.325 (0.252)	135	714606	140.000	138.91	80.00- 120.00	100.00
1.325	1.325 (0.252)	137	228369			1.96- 61.96	31.96
6 Vinyl Chloride						CAS #: 75-01-4	
1.437	1.437 (0.274)	62	312053	51.1000	49.613	80.00- 120.00	100.00
1.437	1.437 (0.274)	64	118314			7.91- 67.91	37.91
7 1,3-Butadiene						CAS #: 106-99-0	
1.465	1.465 (0.279)	54	249677	44.2000	44.599	80.00- 120.00	100.00
1.465	1.465 (0.279)	39	375769			120.50- 180.50	150.50
9 Chloroethane						CAS #: 75-00-3	
1.773	1.773 (0.338)	64	154329	52.8000	50.842	80.00- 120.00	100.00
1.773	1.773 (0.338)	66	46075			0.00- 59.86	29.86
1.773	1.773 (0.338)	49	44613			0.00- 58.91	28.91
10 Isopentane						CAS #: 78-78-4	
1.842	1.842 (0.351)	57	254104	59.0000	58.868	80.00- 120.00	100.00
1.842	1.842 (0.351)	43	396005			125.84- 185.84	155.84
11 Trichlorofluoromethane/Fr11						CAS #: 75-69-4	
1.996	1.996 (0.381)	101	858585	112.000	108.27	80.00- 120.00	100.00
1.996	1.996 (0.381)	103	562445			35.51- 95.51	65.51
15 Freon 113						CAS #: 76-13-1	
2.503	2.503 (0.477)	151	629605	153.000	150.17	80.00- 120.00	100.00
2.503	2.503 (0.477)	153	401126			33.71- 93.71	63.71
2.496	2.496 (0.476)	101	711768			83.05- 143.05	113.05
14 1,1-Dichloroethene						CAS #: 75-35-4	
2.474	2.474 (0.472)	98	215112	79.3000	77.239	80.00- 120.00	100.00
2.474	2.474 (0.472)	96	327836			122.40- 182.40	152.40
2.467	2.467 (0.470)	61	554957			227.99- 287.99	257.99

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		
2.689	2.689 (0.513)	76	877038	62.3000	61.608	80.00- 120.00	100.00
17 2-Propanol					CAS #: 67-63-0		
2.639	2.639 (0.503)	45	584745	49.2000	49.134	80.00- 120.00	100.00
2.639	2.639 (0.503)	43	110070			0.00- 48.82	18.82
2.639	2.639 (0.503)	59	20847			0.00- 33.57	3.57
21 Methylene Chloride					CAS #: 75-09-2		
2.990	2.990 (0.570)	49	408712	69.5000	68.863	80.00- 120.00	100.00
2.990	2.990 (0.570)	84	279549			38.40- 98.40	68.40
2.990	2.990 (0.570)	51	123416			0.20- 60.20	30.20
23 MTBE					CAS #: 1634-04-4		
3.341	3.341 (0.637)	73	867800	72.1000	81.531	80.00- 120.00	100.00
3.341	3.341 (0.637)	57	206952			0.00- 53.85	23.85
3.341	3.341 (0.637)	41	214132			0.00- 54.68	24.68
24 trans-1,2-Dichloroethene					CAS #: 156-60-5		
3.348	3.348 (0.638)	98	196043	79.3000	80.466	80.00- 120.00	100.00
3.348	3.348 (0.638)	61	449520			199.30- 259.30	229.30
3.348	3.348 (0.638)	96	303339			124.73- 184.73	154.73
25 Hexane					CAS #: 110-54-3		
3.778	3.778 (0.720)	57	517736	70.5000	72.296	80.00- 120.00	100.00
3.778	3.778 (0.720)	43	355107			38.59- 98.59	68.59
3.778	3.778 (0.720)	86	74317			0.00- 44.35	14.35
26 1,1-Dichloroethane					CAS #: 75-34-3		
3.928	3.928 (0.749)	63	582999	81.0000	86.310	80.00- 120.00	100.00
3.928	3.928 (0.749)	65	179007			0.70- 60.70	30.70
29 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.874	4.874 (0.929)	98	239235	79.3000	82.340	80.00- 120.00	100.00
4.867	4.867 (0.928)	96	366717			123.29- 183.29	153.29
4.867	4.867 (0.928)	61	499075			178.61- 238.61	208.61
28 2-Butanone					CAS #: 78-93-3		
4.831	4.831 (0.921)	72	182929	59.0000	63.174	80.00- 120.00	100.00
4.831	4.831 (0.921)	43	908758			466.78- 526.78	496.78
4.838	4.838 (0.922)	57	65711			5.92- 65.92	35.92
35 Chloroform					CAS #: 67-66-3		
5.447	5.447 (1.038)	83	689318	97.7000	102.68	80.00- 120.00	100.00
5.447	5.447 (1.038)	85	445184			34.58- 94.58	64.58

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
37 Cyclohexane					CAS #: 110-82-7		
5.791	5.791 (0.841)	84	409229	68.8000	68.921	80.00- 120.00	100.00
5.798	5.798 (0.842)	56	521815			97.51- 157.51	127.51
5.798	5.798 (0.842)	41	324785			49.37- 109.37	79.37
36 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.662	5.662 (0.822)	97	737856	109.000	114.71	80.00- 120.00	100.00
5.662	5.662 (0.822)	99	492740			36.78- 96.78	66.78
38 Carbon Tetrachloride					CAS #: 56-23-5		
5.920	5.920 (0.860)	119	774993	126.000	136.86	80.00- 120.00	100.00
5.913	5.913 (0.859)	117	812148			74.79- 134.79	104.79
45 2,2,4-Trimethylpentane					CAS #: 540-84-1		
6.471	6.471 (0.940)	57	1662582	93.4000	93.858	80.00- 120.00	100.00
6.471	6.471 (0.940)	56	526223			1.65- 61.65	31.65
6.471	6.471 (0.940)	41	507151			0.50- 60.50	30.50
41 Benzene					CAS #: 71-43-2		
6.185	6.185 (0.898)	78	992527	63.9000	58.542	80.00- 120.00	100.00
6.185	6.185 (0.898)	77	235261			0.00- 53.70	23.70
43 1,2-Dichloroethane					CAS #: 107-06-2		
6.264	6.264 (0.910)	62	485792	80.9000	85.019	80.00- 120.00	100.00
6.264	6.264 (0.910)	64	153034			1.50- 61.50	31.50
46 Heptane					CAS #: 142-82-5		
6.779	6.779 (0.984)	71	321529	82.0000	81.229	80.00- 120.00	100.00
6.779	6.779 (0.984)	43	629684			165.84- 225.84	195.84
6.779	6.779 (0.984)	57	317331			68.69- 128.69	98.69
48 Trichloroethene					CAS #: 79-01-6		
7.180	7.180 (1.043)	95	477091	108.000	107.50	80.00- 120.00	100.00
7.180	7.180 (1.043)	130	524522			79.94- 139.94	109.94
7.180	7.180 (1.043)	97	306386			34.22- 94.22	64.22
51 Methyl Cyclohexane					CAS #: 108-87-2		
7.496	7.496 (1.088)	83	589561	80.3000	80.444	80.00- 120.00	100.00
7.496	7.496 (1.088)	98	272842			16.28- 76.28	46.28
7.496	7.496 (1.088)	55	513733			57.14- 117.14	87.14
52 1,2-Dichloropropane					CAS #: 78-87-5		
7.481	7.481 (1.086)	63	382444	92.4000	93.915	80.00- 120.00	100.00
7.481	7.481 (1.086)	62	261226			38.30- 98.30	68.30
7.488	7.488 (1.087)	41	535147			109.93- 169.93	139.93

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
53 1,4-Dioxane					CAS #: 123-91-1		
7.610	7.610 (1.105)	88	241104	72.1000	70.031	80.00- 120.00	100.00
7.610	7.610 (1.105)	58	172824			41.68- 101.68	71.68
7.610	7.610 (1.105)	57	86584			5.91- 65.91	35.91
56 4-Methyl-2-pentanone					CAS #: 108-10-1		
8.656	8.656 (1.257)	58	307290	81.9000	84.055	80.00- 120.00	100.00
8.656	8.656 (1.257)	43	878696			255.95- 315.95	285.95
8.656	8.656 (1.257)	85	130923			12.61- 72.61	42.61
58 Toluene					CAS #: 108-88-3		
8.878	8.878 (0.836)	91	1204194	75.4000	76.620	80.00- 120.00	100.00
8.878	8.878 (0.836)	92	717470			29.58- 89.58	59.58
61 1,1,2-Trichloroethane					CAS #: 79-00-5		
9.430	9.430 (1.369)	97	421658	109.000	112.24	80.00- 120.00	100.00
9.430	9.430 (1.369)	99	271768			34.45- 94.45	64.45
9.430	9.430 (1.369)	83	359928			55.36- 115.36	85.36
62 Tetrachloroethene					CAS #: 127-18-4		
9.551	9.551 (0.899)	166	672258	136.000	140.29	80.00- 120.00	100.00
9.551	9.551 (0.899)	129	516929			46.89- 106.89	76.89
9.551	9.551 (0.899)	131	499537			44.31- 104.31	74.31
63 2-Hexanone					CAS #: 591-78-6		
9.730	9.730 (0.916)	58	401304	81.9000	87.538	80.00- 120.00	100.00
9.730	9.730 (0.916)	43	818252			173.90- 233.90	203.90
9.730	9.730 (0.916)	100	75724			0.00- 48.87	18.87
66 1,2-Dibromoethane					CAS #: 106-93-4		
10.003	10.003 (0.942)	107	720741	154.000	164.79	80.00- 120.00	100.00
10.003	10.003 (0.942)	109	696994			66.71- 126.71	96.71
68 Chlorobenzene					CAS #: 108-90-7		
10.655	10.655 (1.003)	112	1033384	92.1000	96.151	80.00- 120.00	100.00
10.655	10.655 (1.003)	114	330420			1.97- 61.97	31.97
10.655	10.655 (1.003)	77	553152			23.53- 83.53	53.53
69 Ethyl Benzene					CAS #: 100-41-4		
10.812	10.812 (1.018)	106	511565	86.8000	90.583	80.00- 120.00	100.00
10.812	10.812 (1.018)	91	1563905			275.71- 335.71	305.71
71 m,p-Xylene					CAS #: 108-38-3		
10.984	10.984 (1.034)	106	632660	86.8000	89.922	80.00- 120.00	100.00
10.984	10.984 (1.034)	91	1246064			166.96- 226.96	196.96

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
74 o-Xylene					CAS #: 95-47-6		
11.450	11.450 (0.944)	106	597306	86.8000	89.093	80.00- 120.00	100.00
11.450	11.450 (0.944)	91	1241254			177.81- 237.81	207.81
75 Styrene					CAS #: 100-42-5		
11.478	11.478 (0.946)	104	970057	85.2000	91.202	80.00- 120.00	100.00
11.478	11.478 (0.946)	78	474054			18.87- 78.87	48.87
77 Cumene					CAS #: 98-82-8		
11.930	11.930 (0.983)	105	1832126	98.3000	107.51	80.00- 120.00	100.00(A)
11.930	11.930 (0.983)	120	517314			0.00- 58.24	28.24
11.930	11.930 (0.983)	51	190570			0.00- 40.40	10.40
80 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
12.302	12.302 (1.014)	83	923564	137.000	155.84	80.00- 120.00	100.00
12.302	12.302 (1.014)	85	591895			34.09- 94.09	64.09
81 Propylbenzene					CAS #: 103-65-1		
12.452	12.452 (1.027)	91	2085488	98.3000	111.90	80.00- 120.00	100.00(A)
12.452	12.452 (1.027)	120	531266			0.00- 55.47	25.47
12.452	12.452 (1.027)	105	80439			0.00- 33.86	3.86
82 4-Ethyltoluene					CAS #: 622-96-8		
12.617	12.617 (1.040)	120	535085	98.3000	107.44	80.00- 120.00	100.00
12.617	12.617 (1.040)	105	1713074			290.15- 350.15	320.15
83 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
12.703	12.703 (1.047)	120	776918	98.3000	108.67	80.00- 120.00	100.00
12.703	12.703 (1.047)	105	1540588			168.29- 228.29	198.29
84 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
13.154	13.154 (1.084)	120	713095	98.3000	112.52	80.00- 120.00	100.00
13.154	13.154 (1.084)	105	1528391			184.33- 244.33	214.33
86 1,3-Dichlorobenzene					CAS #: 541-73-1		
13.470	13.470 (1.110)	146	1107919	120.000	139.58	80.00- 120.00	100.00
13.470	13.470 (1.110)	148	705599			33.69- 93.69	63.69
13.470	13.470 (1.110)	111	422902			8.17- 68.17	38.17
87 1,4-Dichlorobenzene					CAS #: 106-46-7		
13.606	13.606 (1.122)	146	1117586	120.000	138.28	80.00- 120.00	100.00
13.606	13.606 (1.122)	148	722044			34.61- 94.61	64.61
13.606	13.606 (1.122)	111	414346			7.08- 67.08	37.08
90 1,2-Dichlorobenzene					CAS #: 95-50-1		
14.021	14.021 (1.156)	146	1057482	120.000	143.32	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
90 1,2-Dichlorobenzene (continued)							
14.021	14.021 (1.156)	148	678917			34.20- 94.20	64.20
14.021	14.021 (1.156)	111	417038			9.44- 69.44	39.44
95 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
16.063	16.063 (1.324)	180	853660	148.000	198.28	80.00- 120.00	100.00
16.063	16.063 (1.324)	182	785424			62.01- 122.01	92.01
96 Hexachlorobutadiene					CAS #: 87-68-3		
16.285	16.285 (1.342)	225	618124	213.000	259.82	80.00- 120.00	100.00(A)
16.285	16.285 (1.342)	223	389104			32.95- 92.95	62.95
98 Naphthalene					CAS #: 91-20-3		
16.356	16.356 (1.348)	128	1478681	60.4700	61.856	80.00- 120.00	100.00
16.356	16.356 (1.348)	127	189782			0.00- 42.83	12.83
103 2-Methylnaphthalene					CAS #: 91-57-6		
17.803	17.803 (1.468)	142	800392	50.0000	49.185	80.00- 120.00	100.00
17.803	17.803 (1.468)	141	698350			57.25- 117.25	87.25
17.803	17.803 (1.468)	115	261704			2.70- 62.70	32.70
104 1-Methylnaphthalene					CAS #: 90-12-0		
18.018	18.018 (1.485)	142	739776	50.0000	48.088	80.00- 120.00	100.00
18.018	18.018 (1.485)	141	671890			60.82- 120.82	90.82
18.018	18.018 (1.485)	115	255237			4.50- 64.50	34.50

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: 6012706.d
Lab Smp Id: VI VOC+PAH ICAL 5
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/27jan17.b/617z0127via.m
Misc Info: ;2787-57-1000, 20ml (4/12/17), 2744-147-25.0,

Calibration Date: 27-JAN-2017
Calibration Time: 14:44
Client Smp ID: 20/25/50
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Bromochloromethan	206046	123628	288464	206046	0.00
47 1,4-Difluorobenze	822168	493301	1151035	822168	0.00
67 Chlorobenzene-d5	727418	436451	1018385	727418	0.00
79 Bromofluorobenzen	482287	289372	675202	482287	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Bromochloromethan	5.25	4.92	5.58	5.25	0.00
47 1,4-Difluorobenze	6.89	6.56	7.22	6.89	0.00
67 Chlorobenzene-d5	10.62	10.29	10.95	10.62	0.00
79 Bromofluorobenzen	12.13	11.80	12.46	12.13	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/27jan17.b/6012706.d

Date : 27-JAN-2017 14:44

Client ID: 20/25/50

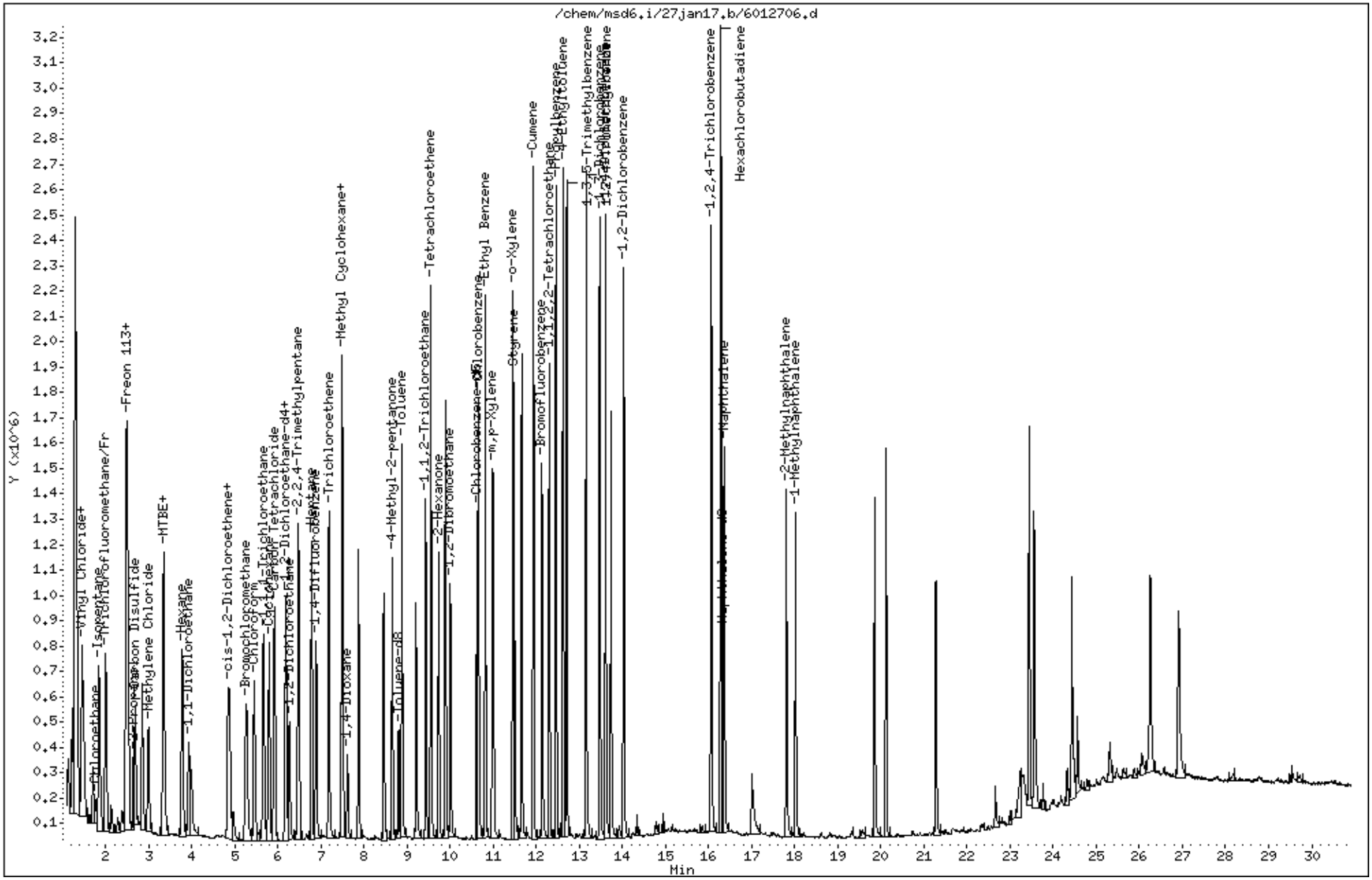
Sample Info: ;VI VOC+PAH ICAL 5; 20/25/50

Column phase: RTx-624

Instrument: msd6.i

Operator: su

Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/27jan17.b/6012707.d
Lab Smp Id: VI VOC+PAH ICAL 6 Client Smp ID: 50/50/100
Inj Date : 27-JAN-2017 16:05
Operator : su Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL 6; 50/50/100
Misc Info : ;2787-57-1000, 50ml (4/12/17), 2744-147-100.0
Comment :
Method : /chem/msd6.i/27jan17.b/617z0127via.m
Meth Date : 16-Feb-2017 13:59 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 16:05 Cal File: 6012707.d
Als bottle: 16 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+naphs_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
* 32 Bromochloromethane						CAS #: 74-97-5	
5.239	5.239 (1.000)	130	223219	26.0000		80.00- 120.00	100.00
5.239	5.239 (1.000)	128	173805			49.56- 109.56	77.86
5.232	5.232 (1.000)	49	273630			92.63- 152.63	122.58
* 47 1,4-Difluorobenzene						CAS #: 540-36-3	
6.879	6.879 (1.000)	114	860757	23.0000		80.00- 120.00	100.00
6.879	6.879 (1.000)	88	127226			0.00- 45.38	14.78
* 67 Chlorobenzene-d5						CAS #: 3114-55-4	
10.597	10.597 (1.000)	117	756921	24.0000		80.00- 120.00	100.00
10.597	10.597 (1.000)	82	377437			19.82- 79.82	49.86
* 79 Bromofluorobenzene						CAS #: 460-00-4	
12.101	12.101 (1.000)	174	501922	36.0000		80.00- 120.00	100.00
12.101	12.101 (1.000)	95	567178			81.24- 141.24	113.00
12.101	12.101 (1.000)	176	492686			64.86- 124.86	98.16
$ 39 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.149	6.149 (0.894)	65	220907	50.0000	53.379	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
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  39 1,2-Dichloroethane-d4 (continued)
  6.149   6.149 (0.894)    67    112684                    21.82-  81.82    51.01
-------------------------------------------------------------------------------
$  57 Toluene-d8                                   CAS #: 2037-26-5
  8.778   8.778 (0.828)    98    679430 50.0000   53.356  80.00- 120.00   100.00
  8.778   8.778 (0.828)    70     73899                     0.00-  40.85    10.88
  8.778   8.778 (0.828)   100    433847                    34.65-  94.65    63.85
-------------------------------------------------------------------------------
$  97 Naphthalene-d8                               CAS #: 1146-65-2
 16.313  16.313 (1.348)   136   1186516 50.0000   51.973  80.00- 120.00   100.00
 16.313  16.313 (1.348)   108    119200                     0.00-  39.63    10.05
-------------------------------------------------------------------------------
    4 Freon 114                                    CAS #: 76-14-2
  1.325   1.325 (0.253)   135   1950089 350.000   349.91  80.00- 120.00   100.00(A)
  1.311   1.311 (0.250)   137    624343                     1.96-  61.96    32.02
-------------------------------------------------------------------------------
    6 Vinyl Chloride                               CAS #: 75-01-4
  1.451   1.451 (0.277)    62    849984 128.000   124.74  80.00- 120.00   100.00
  1.451   1.451 (0.277)    64    286591                     7.91-  67.91    33.72
-------------------------------------------------------------------------------
    7 1,3-Butadiene                                CAS #: 106-99-0
  1.465   1.465 (0.280)    54    683549 111.000   112.71  80.00- 120.00   100.00
  1.465   1.465 (0.280)    39   1016648                   120.50- 180.50   148.73
-------------------------------------------------------------------------------
    9 Chloroethane                                 CAS #: 75-00-3
  1.786   1.786 (0.341)    64    398882 132.000   121.30  80.00- 120.00   100.00
  1.786   1.786 (0.341)    66    120647                     0.00-  59.86    30.25
  1.772   1.772 (0.338)    49    117503                     0.00-  58.91    29.46
-------------------------------------------------------------------------------
   10 Isopentane                                   CAS #: 78-78-4
  1.856   1.856 (0.354)    57    675455 148.000   144.44  80.00- 120.00   100.00
  1.842   1.842 (0.352)    43   1055578                   125.84- 185.84   156.28
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                  CAS #: 75-69-4
  1.996   1.996 (0.381)   101   2530390 281.000   294.53  80.00- 120.00   100.00(A)
  1.996   1.996 (0.381)   103   1763900                    35.51-  95.51    69.71
-------------------------------------------------------------------------------
   15 Freon 113                                    CAS #: 76-13-1
  2.496   2.496 (0.476)   151   1777055 383.000   391.24  80.00- 120.00   100.00(A)
  2.496   2.496 (0.476)   153   1140630                    33.71-  93.71    64.19
  2.496   2.496 (0.476)   101   2001747                    83.05- 143.05   112.64
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                           CAS #: 75-35-4
  2.467   2.467 (0.471)    98    577859 198.000   191.52  80.00- 120.00   100.00
  2.467   2.467 (0.471)    96    876994                   122.40- 182.40   151.77
  2.467   2.467 (0.471)    61   1474846                   227.99- 287.99   255.23
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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		
2.682	2.682 (0.512)	76	2314869	156.000	150.10	80.00- 120.00	100.00
17 2-Propanol					CAS #: 67-63-0		
2.632	2.632 (0.502)	45	1541642	123.000	119.57	80.00- 120.00	100.00
2.632	2.632 (0.502)	43	297768			0.00- 48.82	19.31
2.632	2.632 (0.502)	59	53846			0.00- 33.57	3.49
21 Methylene Chloride					CAS #: 75-09-2		
2.983	2.983 (0.569)	49	1073389	174.000	166.94	80.00- 120.00	100.00
2.983	2.983 (0.569)	84	725337			38.40- 98.40	67.57
2.983	2.983 (0.569)	51	324237			0.20- 60.20	30.21
23 MTBE					CAS #: 1634-04-4		
3.341	3.341 (0.638)	73	2235586	180.000	193.88	80.00- 120.00	100.00
3.334	3.334 (0.636)	57	534800			0.00- 53.85	23.92
3.334	3.334 (0.636)	41	548991			0.00- 54.68	24.56
24 trans-1,2-Dichloroethene					CAS #: 156-60-5		
3.355	3.355 (0.640)	98	524006	198.000	198.53	80.00- 120.00	100.00
3.348	3.348 (0.639)	61	1177412			199.30- 259.30	224.69
3.348	3.348 (0.639)	96	791434			124.73- 184.73	151.04
25 Hexane					CAS #: 110-54-3		
3.771	3.771 (0.720)	57	1356326	176.000	174.82	80.00- 120.00	100.00
3.771	3.771 (0.720)	43	926293			38.59- 98.59	68.29
3.771	3.771 (0.720)	86	194704			0.00- 44.35	14.36
26 1,1-Dichloroethane					CAS #: 75-34-3		
3.928	3.928 (0.750)	63	1538793	202.000	210.28	80.00- 120.00	100.00(A)
3.928	3.928 (0.750)	65	476135			0.70- 60.70	30.94
29 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.867	4.867 (0.929)	98	627318	198.000	199.30	80.00- 120.00	100.00
4.867	4.867 (0.929)	96	961144			123.29- 183.29	153.21
4.867	4.867 (0.929)	61	1295893			178.61- 238.61	206.58
28 2-Butanone					CAS #: 78-93-3		
4.824	4.824 (0.921)	72	409966	147.000	130.69	80.00- 120.00	100.00
4.824	4.824 (0.921)	43	1979085			466.78- 526.78	482.74
4.824	4.824 (0.921)	57	147024			5.92- 65.92	35.86
35 Chloroform					CAS #: 67-66-3		
5.447	5.447 (1.040)	83	1707258	244.000	234.75	80.00- 120.00	100.00(A)
5.447	5.447 (1.040)	85	1105329			34.58- 94.58	64.74

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
37 Cyclohexane					CAS #: 110-82-7		
5.791	5.791 (0.842)	84	1068371	172.000	171.86	80.00- 120.00	100.00
5.791	5.791 (0.842)	56	1359369			97.51- 157.51	127.24
5.791	5.791 (0.842)	41	844971			49.37- 109.37	79.09
36 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.662	5.662 (0.823)	97	1969758	273.000	292.49	80.00- 120.00	100.00(A)
5.662	5.662 (0.823)	99	1295747			36.78- 96.78	65.78
38 Carbon Tetrachloride					CAS #: 56-23-5		
5.912	5.912 (0.859)	119	2119916	315.000	357.58	80.00- 120.00	100.00(A)
5.912	5.912 (0.859)	117	2193679			74.79- 134.79	103.48
45 2,2,4-Trimethylpentane					CAS #: 540-84-1		
6.471	6.471 (0.941)	57	4341434	234.000	234.10	80.00- 120.00	100.00(A)
6.471	6.471 (0.941)	56	1367859			1.65- 61.65	31.51
6.471	6.471 (0.941)	41	1314735			0.50- 60.50	30.28
41 Benzene					CAS #: 71-43-2		
6.178	6.178 (0.898)	78	2517732	160.000	141.85	80.00- 120.00	100.00
6.178	6.178 (0.898)	77	585662			0.00- 53.70	23.26
43 1,2-Dichloroethane					CAS #: 107-06-2		
6.256	6.256 (0.909)	62	1276329	202.000	213.36	80.00- 120.00	100.00(A)
6.256	6.256 (0.909)	64	400777			1.50- 61.50	31.40
46 Heptane					CAS #: 142-82-5		
6.772	6.772 (0.984)	71	844877	205.000	203.88	80.00- 120.00	100.00(A)
6.779	6.779 (0.985)	43	1664055			165.84- 225.84	196.96
6.772	6.772 (0.984)	57	832782			68.69- 128.69	98.57
48 Trichloroethene					CAS #: 79-01-6		
7.166	7.166 (1.042)	95	1249867	269.000	269.00	80.00- 120.00	100.00(A)
7.166	7.166 (1.042)	130	1369513			79.94- 139.94	109.57
7.166	7.166 (1.042)	97	804101			34.22- 94.22	64.33
51 Methyl Cyclohexane					CAS #: 108-87-2		
7.488	7.488 (1.089)	83	1556371	201.000	202.84	80.00- 120.00	100.00(A)
7.488	7.488 (1.089)	98	721945			16.28- 76.28	46.39
7.488	7.488 (1.089)	55	1355658			57.14- 117.14	87.10
52 1,2-Dichloropropane					CAS #: 78-87-5		
7.467	7.467 (1.085)	63	1003356	231.000	235.34	80.00- 120.00	100.00(A)
7.467	7.467 (1.085)	62	692807			38.30- 98.30	69.05
7.474	7.474 (1.086)	41	1382502			109.93- 169.93	137.79

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
53 1,4-Dioxane					CAS #: 123-91-1		
7.596	7.596 (1.104)	88	624689	180.000	173.31	80.00- 120.00	100.00
7.596	7.596 (1.104)	58	442447			41.68- 101.68	70.83
7.596	7.596 (1.104)	57	174486			5.91- 65.91	27.93
56 4-Methyl-2-pentanone					CAS #: 108-10-1		
8.634	8.634 (1.255)	58	814223	205.000	212.73	80.00- 120.00	100.00(A)
8.634	8.634 (1.255)	43	2294007			255.95- 315.95	281.74
8.634	8.634 (1.255)	85	338711			12.61- 72.61	41.60
58 Toluene					CAS #: 108-88-3		
8.856	8.856 (0.836)	91	3113446	188.000	190.38	80.00- 120.00	100.00
8.856	8.856 (0.836)	92	1828519			29.58- 89.58	58.73
61 1,1,2-Trichloroethane					CAS #: 79-00-5		
9.408	9.408 (1.368)	97	1082593	273.000	275.25	80.00- 120.00	100.00(A)
9.408	9.408 (1.368)	99	698538			34.45- 94.45	64.52
9.408	9.408 (1.368)	83	925955			55.36- 115.36	85.53
62 Tetrachloroethene					CAS #: 127-18-4		
9.530	9.530 (0.899)	166	1719539	339.000	344.85	80.00- 120.00	100.00(A)
9.530	9.530 (0.899)	129	1331622			46.89- 106.89	77.44
9.530	9.530 (0.899)	131	1290290			44.31- 104.31	75.04
63 2-Hexanone					CAS #: 591-78-6		
9.709	9.709 (0.916)	58	1033116	205.000	216.57	80.00- 120.00	100.00(A)
9.709	9.709 (0.916)	43	2135580			173.90- 233.90	206.71
9.709	9.709 (0.916)	100	190626			0.00- 48.87	18.45
66 1,2-Dibromoethane					CAS #: 106-93-4		
9.981	9.981 (0.942)	107	1871043	384.000	411.12	80.00- 120.00	100.00(A)
9.981	9.981 (0.942)	109	1807455			66.71- 126.71	96.60
68 Chlorobenzene					CAS #: 108-90-7		
10.633	10.633 (1.003)	112	2583022	230.000	230.97	80.00- 120.00	100.00(A)
10.633	10.633 (1.003)	114	837190			1.97- 61.97	32.41
10.633	10.633 (1.003)	77	1374651			23.53- 83.53	53.22
69 Ethyl Benzene					CAS #: 100-41-4		
10.790	10.790 (1.018)	106	1287831	217.000	219.15	80.00- 120.00	100.00(A)
10.790	10.790 (1.018)	91	3938275			275.71- 335.71	305.81
71 m,p-Xylene					CAS #: 108-38-3		
10.962	10.962 (1.034)	106	1571733	217.000	214.69	80.00- 120.00	100.00(A)
10.962	10.962 (1.034)	91	3098729			166.96- 226.96	197.15

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

   74 o-Xylene                                      CAS #: 95-47-6
 11.414  11.414 (0.943)   106   1495478 217.000   214.34  80.00- 120.00   100.00(A)
 11.414  11.414 (0.943)    91   3105216                  177.81- 237.81   207.64
-------------------------------------------------------------------------------
   75 Styrene                                       CAS #: 100-42-5
 11.442  11.442 (0.946)   104   2460423 213.000   222.27  80.00- 120.00   100.00(A)
 11.442  11.442 (0.946)    78   1211411                   18.87-  78.87    49.24
-------------------------------------------------------------------------------
   77 Cumene                                        CAS #: 98-82-8
 11.901  11.901 (0.983)   105   4480104 246.000   252.61  80.00- 120.00   100.00(A)
 11.901  11.901 (0.983)   120   1252233                    0.00-  58.24    27.95
 11.894  11.894 (0.983)    51    465893                    0.00-  40.40    10.40
-------------------------------------------------------------------------------
   80 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 12.273  12.273 (1.014)    83   2185037 343.000   354.27  80.00- 120.00   100.00(A)
 12.273  12.273 (1.014)    85   1411965                   34.09-  94.09    64.62
-------------------------------------------------------------------------------
   81 Propylbenzene                                 CAS #: 103-65-1
 12.424  12.424 (1.027)    91   4939411 246.000   254.68  80.00- 120.00   100.00(A)
 12.431  12.431 (1.027)   120   1255217                    0.00-  55.47    25.41
 12.424  12.424 (1.027)   105    191165                    0.00-  33.86     3.87
-------------------------------------------------------------------------------
   82 4-Ethyltoluene                                CAS #: 622-96-8
 12.588  12.588 (1.040)   120   1264372 246.000   243.95  80.00- 120.00   100.00(A)
 12.588  12.588 (1.040)   105   4014389                  290.15- 350.15   317.50
-------------------------------------------------------------------------------
   83 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 12.674  12.674 (1.047)   120   1810875 246.000   243.39  80.00- 120.00   100.00(A)
 12.674  12.674 (1.047)   105   3589618                  168.29- 228.29   198.23
-------------------------------------------------------------------------------
   84 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 13.133  13.133 (1.085)   120   1622832 246.000   246.04  80.00- 120.00   100.00(A)
 13.133  13.133 (1.085)   105   3438042                  184.33- 244.33   211.85
-------------------------------------------------------------------------------
   86 1,3-Dichlorobenzene                           CAS #: 541-73-1
 13.448  13.448 (1.111)   146   2544109 301.000   307.98  80.00- 120.00   100.00(A)
 13.448  13.448 (1.111)   148   1635507                   33.69-  93.69    64.29
 13.448  13.448 (1.111)   111    997401                    8.17-  68.17    39.20
-------------------------------------------------------------------------------
   87 1,4-Dichlorobenzene                           CAS #: 106-46-7
 13.584  13.584 (1.123)   146   2519295 301.000   299.52  80.00- 120.00   100.00(A)
 13.584  13.584 (1.123)   148   1619042                   34.61-  94.61    64.27
 13.584  13.584 (1.123)   111    948764                    7.08-  67.08    37.66
-------------------------------------------------------------------------------
   90 1,2-Dichlorobenzene                           CAS #: 95-50-1
 14.007  14.007 (1.157)   146   2296954 301.000   299.14  80.00- 120.00   100.00(A)
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
90 1,2-Dichlorobenzene (continued)							
14.007	14.007 (1.157)	148	1474818			34.20- 94.20	64.21
14.007	14.007 (1.157)	111	913289			9.44- 69.44	39.76
95 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
16.055	16.055 (1.327)	180	1457571	371.000	325.30	80.00- 120.00	100.00(A)
16.055	16.055 (1.327)	182	1351694			62.01- 122.01	92.74
96 Hexachlorobutadiene					CAS #: 87-68-3		
16.277	16.277 (1.345)	225	1251357	533.000	505.41	80.00- 120.00	100.00(A)
16.277	16.277 (1.345)	223	786717			32.95- 92.95	62.87
98 Naphthalene					CAS #: 91-20-3		
16.349	16.349 (1.351)	128	3045892	126.180	122.43	80.00- 120.00	100.00
16.349	16.349 (1.351)	127	388555			0.00- 42.83	12.76
103 2-Methylnaphthalene					CAS #: 91-57-6		
17.796	17.796 (1.471)	142	1716398	100.000	101.35	80.00- 120.00	100.00
17.796	17.796 (1.471)	141	1495767			57.25- 117.25	87.15
17.796	17.796 (1.471)	115	560608			2.70- 62.70	32.66
104 1-Methylnaphthalene					CAS #: 90-12-0		
18.011	18.011 (1.488)	142	1571928	100.000	98.183	80.00- 120.00	100.00
18.011	18.011 (1.488)	141	1420448			60.82- 120.82	90.36
18.011	18.011 (1.488)	115	546967			4.50- 64.50	34.80

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: 6012707.d
Lab Smp Id: VI VOC+PAH ICAL 6
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/27jan17.b/617z0127via.m
Misc Info: ;2787-57-1000, 50ml (4/12/17), 2744-147-100.0

Calibration Date: 27-JAN-2017
Calibration Time: 14:44
Client Smp ID: 50/50/100
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Bromochloromethan	206046	123628	288464	223219	8.33
47 1,4-Difluorobenze	822168	493301	1151035	860757	4.69
67 Chlorobenzene-d5	727418	436451	1018385	756921	4.06
79 Bromofluorobenzen	482287	289372	675202	501922	4.07

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Bromochloromethan	5.25	4.92	5.58	5.24	-0.14
47 1,4-Difluorobenze	6.89	6.56	7.22	6.88	-0.11
67 Chlorobenzene-d5	10.62	10.29	10.95	10.60	-0.20
79 Bromofluorobenzen	12.13	11.80	12.46	12.10	-0.24

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/27jan17.b/6012707.d

Date : 27-JAN-2017 16:05

Client ID: 50/50/100

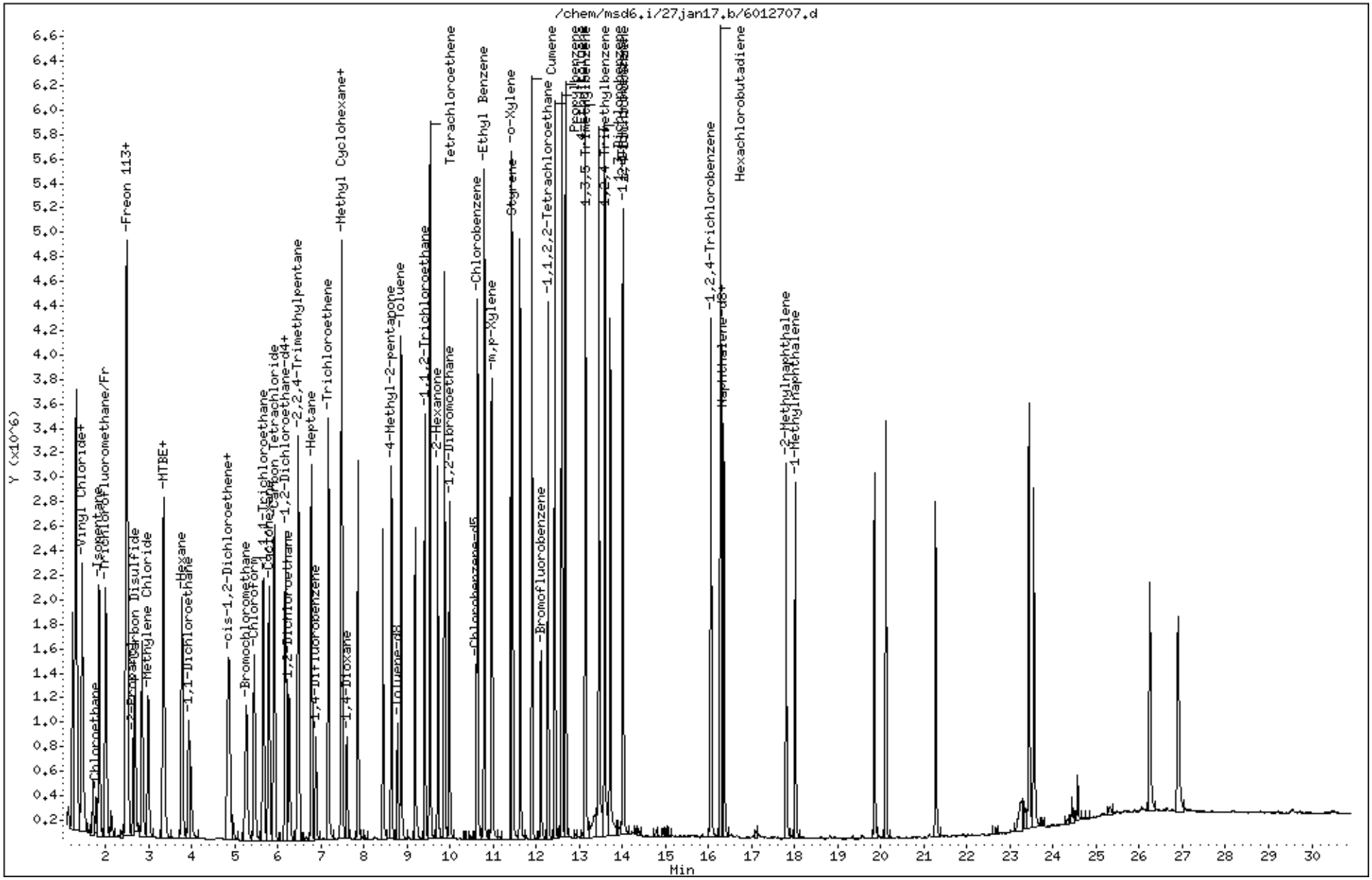
Sample Info: ;VI VOC+PAH ICAL 6; 50/50/100

Column phase: RTx-624

Instrument: msd6.i

Operator: su

Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/27jan17.b/6012708.d
Lab Smp Id: VI VOC+PAH ICAL 7 Client Smp ID: 100/100/250
Inj Date : 27-JAN-2017 16:45
Operator : su Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL 7; 100/100/250
Misc Info : ;2787-57-1000, 100ml (4/12/17), 2744-147-200.
Comment :
Method : /chem/msd6.i/27jan17.b/617z0127via.m
Meth Date : 16-Feb-2017 13:59 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 16:45 Cal File: 6012708.d
Als bottle: 17 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+naphs_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
* 32 Bromochloromethane						CAS #: 74-97-5	
5.239	5.239 (1.000)	130	224985	26.0000		80.00- 120.00	100.00
5.239	5.239 (1.000)	128	177073			49.56- 109.56	78.70
5.239	5.239 (1.000)	49	277524			92.63- 152.63	123.35
* 47 1,4-Difluorobenzene						CAS #: 540-36-3	
6.880	6.880 (1.000)	114	848162	23.0000		80.00- 120.00	100.00
6.880	6.880 (1.000)	88	126690			0.00- 45.38	14.94
* 67 Chlorobenzene-d5						CAS #: 3114-55-4	
10.597	10.597 (1.000)	117	761324	24.0000		80.00- 120.00	100.00
10.597	10.597 (1.000)	82	381545			19.82- 79.82	50.12
* 79 Bromofluorobenzene						CAS #: 460-00-4	
12.109	12.109 (1.000)	174	503631	36.0000		80.00- 120.00	100.00
12.109	12.109 (1.000)	95	569153			81.24- 141.24	113.01
12.109	12.109 (1.000)	176	495861			64.86- 124.86	98.46
$ 39 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.156	6.156 (0.895)	65	426576	100.000	104.61	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
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  39 1,2-Dichloroethane-d4 (continued)
  6.156   6.156 (0.895)    67    212715                    21.82-  81.82    49.87
-------------------------------------------------------------------------------
$  57 Toluene-d8                                   CAS #: 2037-26-5
  8.778   8.778 (0.828)    98   1333146 100.000   104.09  80.00- 120.00   100.00
  8.778   8.778 (0.828)    70    143125                     0.00-  40.85    10.74
  8.778   8.778 (0.828)   100    854866                    34.65-  94.65    64.12
-------------------------------------------------------------------------------
$  97 Naphthalene-d8                               CAS #: 1146-65-2
 16.306  16.306 (1.347)   136   2319186 100.000   101.24  80.00- 120.00   100.00
 16.306  16.306 (1.347)   108    243710                     0.00-  39.63    10.51
-------------------------------------------------------------------------------
    4 Freon 114                                   CAS #: 76-14-2
  1.325   1.325 (0.253)   135   3905391 699.000   695.26  80.00- 120.00   100.00(A)
  1.325   1.325 (0.253)   137   1244692                     1.96-  61.96    31.87
-------------------------------------------------------------------------------
    6 Vinyl Chloride                              CAS #: 75-01-4
  1.451   1.451 (0.277)    62   1695100 256.000   246.82  80.00- 120.00   100.00(A)
  1.451   1.451 (0.277)    64    558835                     7.91-  67.91    32.97
-------------------------------------------------------------------------------
    7 1,3-Butadiene                               CAS #: 106-99-0
  1.465   1.465 (0.280)    54   1347546 221.000   220.45  80.00- 120.00   100.00(A)
  1.465   1.465 (0.280)    39   2093489                   120.50- 180.50   155.36
-------------------------------------------------------------------------------
    9 Chloroethane                                CAS #: 75-00-3
  1.772   1.772 (0.338)    64    787142 264.000   237.48  80.00- 120.00   100.00
  1.772   1.772 (0.338)    66    246096                     0.00-  59.86    31.26
  1.772   1.772 (0.338)    49    241843                     0.00-  58.91    30.72
-------------------------------------------------------------------------------
   10 Isopentane                                  CAS #: 78-78-4
  1.856   1.856 (0.354)    57   1346805 295.000   285.74  80.00- 120.00   100.00(A)
  1.856   1.856 (0.354)    43   2064082                   125.84- 185.84   153.26
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                 CAS #: 75-69-4
  1.996   1.996 (0.381)   101   5189941 562.000   599.36  80.00- 120.00   100.00(A)
  1.996   1.996 (0.381)   103   3401626                    35.51-  95.51    65.54
-------------------------------------------------------------------------------
   15 Freon 113                                   CAS #: 76-13-1
  2.503   2.503 (0.478)   151   3581300 766.000   782.27  80.00- 120.00   100.00(A)
  2.503   2.503 (0.478)   153   2301614                    33.71-  93.71    64.27
  2.496   2.496 (0.476)   101   4036822                    83.05- 143.05   112.72
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                          CAS #: 75-35-4
  2.467   2.467 (0.471)    98   1169562 397.000   384.60  80.00- 120.00   100.00(A)
  2.467   2.467 (0.471)    96   1788234                   122.40- 182.40   152.90
  2.467   2.467 (0.471)    61   2972904                   227.99- 287.99   254.19
-------------------------------------------------------------------------------
```

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		
2.682	2.682 (0.512)	76	4591382	311.000	295.38	80.00- 120.00	100.00(A)
17 2-Propanol					CAS #: 67-63-0		
2.632	2.632 (0.502)	45	3168236	246.000	243.80	80.00- 120.00	100.00(A)
2.632	2.632 (0.502)	43	607623			0.00- 48.82	19.18
2.632	2.632 (0.502)	59	110057			0.00- 33.57	3.47
21 Methylene Chloride					CAS #: 75-09-2		
2.983	2.983 (0.569)	49	2126456	347.000	328.12	80.00- 120.00	100.00(A)
2.983	2.983 (0.569)	84	1458693			38.40- 98.40	68.60
2.983	2.983 (0.569)	51	641193			0.20- 60.20	30.15
23 MTBE					CAS #: 1634-04-4		
3.341	3.341 (0.638)	73	4101725	361.000	352.92	80.00- 120.00	100.00(A)
3.341	3.341 (0.638)	57	995780			0.00- 53.85	24.28
3.341	3.341 (0.638)	41	998730			0.00- 54.68	24.35
24 trans-1,2-Dichloroethene					CAS #: 156-60-5		
3.355	3.355 (0.640)	98	1054342	396.000	396.33	80.00- 120.00	100.00(A)
3.355	3.355 (0.640)	61	2379411			199.30- 259.30	225.68
3.355	3.355 (0.640)	96	1615820			124.73- 184.73	153.25
25 Hexane					CAS #: 110-54-3		
3.778	3.778 (0.721)	57	2716480	352.000	347.40	80.00- 120.00	100.00(A)
3.778	3.778 (0.721)	43	1851248			38.59- 98.59	68.15
3.778	3.778 (0.721)	86	384969			0.00- 44.35	14.17
26 1,1-Dichloroethane					CAS #: 75-34-3		
3.928	3.928 (0.750)	63	3098621	405.000	420.12	80.00- 120.00	100.00(A)
3.928	3.928 (0.750)	65	954722			0.70- 60.70	30.81
29 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.867	4.867 (0.929)	98	1276206	396.000	402.27	80.00- 120.00	100.00(A)
4.867	4.867 (0.929)	96	1945581			123.29- 183.29	152.45
4.867	4.867 (0.929)	61	2591529			178.61- 238.61	203.07
28 2-Butanone					CAS #: 78-93-3		
4.824	4.824 (0.921)	72	793671	295.000	251.02	80.00- 120.00	100.00(A)
4.824	4.824 (0.921)	43	3777368			466.78- 526.78	475.94
4.824	4.824 (0.921)	57	275238			5.92- 65.92	34.68
35 Chloroform					CAS #: 67-66-3		
5.454	5.454 (1.041)	83	3555131	488.000	484.99	80.00- 120.00	100.00(A)
5.454	5.454 (1.041)	85	2308811			34.58- 94.58	64.94

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
37 Cyclohexane					CAS #: 110-82-7		
5.798	5.798 (0.843)	84	2172215	344.000	354.63	80.00- 120.00	100.00(A)
5.798	5.798 (0.843)	56	2759568			97.51- 157.51	127.04
5.798	5.798 (0.843)	41	1697205			49.37- 109.37	78.13
36 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.662	5.662 (0.823)	97	3947570	546.000	594.88	80.00- 120.00	100.00(A)
5.662	5.662 (0.823)	99	2600636			36.78- 96.78	65.88
38 Carbon Tetrachloride					CAS #: 56-23-5		
5.920	5.920 (0.860)	119	4335838	629.000	742.20	80.00- 120.00	100.00(A)
5.920	5.920 (0.860)	117	4528862			74.79- 134.79	104.45
45 2,2,4-Trimethylpentane					CAS #: 540-84-1		
6.478	6.478 (0.942)	57	8831709	467.000	483.30	80.00- 120.00	100.00(A)
6.478	6.478 (0.942)	56	2783044			1.65- 61.65	31.51
6.478	6.478 (0.942)	41	2627089			0.50- 60.50	29.75
41 Benzene					CAS #: 71-43-2		
6.178	6.178 (0.898)	78	5062341	319.000	289.44	80.00- 120.00	100.00(A)
6.178	6.178 (0.898)	77	1183256			0.00- 53.70	23.37
43 1,2-Dichloroethane					CAS #: 107-06-2		
6.263	6.263 (0.910)	62	2568935	405.000	435.81	80.00- 120.00	100.00(A)
6.263	6.263 (0.910)	64	820915			1.50- 61.50	31.96
46 Heptane					CAS #: 142-82-5		
6.779	6.779 (0.985)	71	1712238	410.000	419.31	80.00- 120.00	100.00(A)
6.779	6.779 (0.985)	43	3333321			165.84- 225.84	194.68
6.779	6.779 (0.985)	57	1691572			68.69- 128.69	98.79
48 Trichloroethene					CAS #: 79-01-6		
7.173	7.173 (1.043)	95	2632497	537.000	574.99	80.00- 120.00	100.00(A)
7.173	7.173 (1.043)	130	2874277			79.94- 139.94	109.18
7.173	7.173 (1.043)	97	1694150			34.22- 94.22	64.36
51 Methyl Cyclohexane					CAS #: 108-87-2		
7.488	7.488 (1.089)	83	3204151	402.000	423.80	80.00- 120.00	100.00(A)
7.488	7.488 (1.089)	98	1487551			16.28- 76.28	46.43
7.488	7.488 (1.089)	55	2779539			57.14- 117.14	86.75
52 1,2-Dichloropropane					CAS #: 78-87-5		
7.474	7.474 (1.086)	63	2077345	462.000	494.49	80.00- 120.00	100.00(A)
7.474	7.474 (1.086)	62	1428307			38.30- 98.30	68.76
7.481	7.481 (1.087)	41	2779223			109.93- 169.93	133.79

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
53 1,4-Dioxane					CAS #: 123-91-1		
7.603	7.603 (1.105)	88	1298026	360.000	365.47	80.00- 120.00	100.00(A)
7.596	7.596 (1.104)	58	909080			41.68- 101.68	70.04
7.596	7.596 (1.104)	57	330971			5.91- 65.91	25.50
56 4-Methyl-2-pentanone					CAS #: 108-10-1		
8.634	8.634 (1.255)	58	1687175	410.000	447.36	80.00- 120.00	100.00(A)
8.634	8.634 (1.255)	43	4738430			255.95- 315.95	280.85
8.634	8.634 (1.255)	85	711765			12.61- 72.61	42.19
58 Toluene					CAS #: 108-88-3		
8.864	8.864 (0.836)	91	6492875	377.000	394.72	80.00- 120.00	100.00(A)
8.864	8.864 (0.836)	92	3869938			29.58- 89.58	59.60
61 1,1,2-Trichloroethane					CAS #: 79-00-5		
9.408	9.408 (1.368)	97	2277721	546.000	587.72	80.00- 120.00	100.00(A)
9.408	9.408 (1.368)	99	1471062			34.45- 94.45	64.58
9.408	9.408 (1.368)	83	1957343			55.36- 115.36	85.93
62 Tetrachloroethene					CAS #: 127-18-4		
9.530	9.530 (0.899)	166	3690266	678.000	735.80	80.00- 120.00	100.00(A)
9.530	9.530 (0.899)	129	2862733			46.89- 106.89	77.58
9.530	9.530 (0.899)	131	2770133			44.31- 104.31	75.07
63 2-Hexanone					CAS #: 591-78-6		
9.709	9.709 (0.916)	58	2186520	410.000	455.71	80.00- 120.00	100.00(A)
9.709	9.709 (0.916)	43	4466356			173.90- 233.90	204.27
9.709	9.709 (0.916)	100	407860			0.00- 48.87	18.65
66 1,2-Dibromoethane					CAS #: 106-93-4		
9.981	9.981 (0.942)	107	3871073	768.000	845.66	80.00- 120.00	100.00(A)
9.981	9.981 (0.942)	109	3739660			66.71- 126.71	96.61
68 Chlorobenzene					CAS #: 108-90-7		
10.633	10.633 (1.003)	112	5548513	460.000	493.27	80.00- 120.00	100.00(A)
10.633	10.633 (1.003)	114	1795180			1.97- 61.97	32.35
10.633	10.633 (1.003)	77	2962991			23.53- 83.53	53.40
69 Ethyl Benzene					CAS #: 100-41-4		
10.791	10.791 (1.018)	106	2798709	434.000	473.50	80.00- 120.00	100.00(A)
10.791	10.791 (1.018)	91	8489209			275.71- 335.71	303.33
71 m,p-Xylene					CAS #: 108-38-3		
10.962	10.962 (1.034)	106	3399890	434.000	461.72	80.00- 120.00	100.00(A)
10.962	10.962 (1.034)	91	6723638			166.96- 226.96	197.76

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

   74 o-Xylene                                      CAS #: 95-47-6
 11.428  11.428 (0.944)   106   3319739 434.000   474.18  80.00- 120.00   100.00(A)
 11.421  11.421 (0.943)    91   6864121                  177.81- 237.81   206.77
-------------------------------------------------------------------------------
   75 Styrene                                       CAS #: 100-42-5
 11.450  11.450 (0.946)   104   5565867 426.000   501.11  80.00- 120.00   100.00(A)
 11.450  11.450 (0.946)    78   2709588                   18.87-  78.87    48.68
-------------------------------------------------------------------------------
   77 Cumene                                        CAS #: 98-82-8
 11.901  11.901 (0.983)   105   9874681 492.000   554.89  80.00- 120.00   100.00(A)
 11.901  11.901 (0.983)   120   2798965                    0.00-  58.24    28.34
 11.901  11.901 (0.983)    51   1015826                    0.00-  40.40    10.29
-------------------------------------------------------------------------------
   80 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 12.273  12.273 (1.014)    83   4902053 687.000   792.10  80.00- 120.00   100.00(A)
 12.273  12.273 (1.014)    85   3161150                   34.09-  94.09    64.49
-------------------------------------------------------------------------------
   81 Propylbenzene                                 CAS #: 103-65-1
 12.431  12.431 (1.027)    91  11120402 492.000   571.42  80.00- 120.00   100.00(A)
 12.431  12.431 (1.027)   120   2871250                    0.00-  55.47    25.82
 12.431  12.431 (1.027)   105    436058                    0.00-  33.86     3.92
-------------------------------------------------------------------------------
   82 4-Ethyltoluene                                CAS #: 622-96-8
 12.596  12.596 (1.040)   120   2980436 492.000   573.10  80.00- 120.00   100.00(A)
 12.596  12.596 (1.040)   105   9202521                  290.15- 350.15   308.76
-------------------------------------------------------------------------------
   83 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 12.682  12.682 (1.047)   120   4268299 492.000   571.73  80.00- 120.00   100.00(A)
 12.682  12.682 (1.047)   105   8404633                  168.29- 228.29   196.91
-------------------------------------------------------------------------------
   84 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 13.140  13.140 (1.085)   120   3883199 492.000   586.75  80.00- 120.00   100.00(A)
 13.140  13.140 (1.085)   105   8179112                  184.33- 244.33   210.63
-------------------------------------------------------------------------------
   86 1,3-Dichlorobenzene                           CAS #: 541-73-1
 13.455  13.455 (1.111)   146   6052377 601.000   730.18  80.00- 120.00   100.00(A)
 13.455  13.455 (1.111)   148   3906567                   33.69-  93.69    64.55
 13.455  13.455 (1.111)   111   2366964                    8.17-  68.17    39.11
-------------------------------------------------------------------------------
   87 1,4-Dichlorobenzene                           CAS #: 106-46-7
 13.584  13.584 (1.122)   146   6129889 601.000   726.30  80.00- 120.00   100.00(A)
 13.584  13.584 (1.122)   148   3941790                   34.61-  94.61    64.30
 13.584  13.584 (1.122)   111   2322927                    7.08-  67.08    37.90
-------------------------------------------------------------------------------
   90 1,2-Dichlorobenzene                           CAS #: 95-50-1
 14.007  14.007 (1.157)   146   5672305 601.000   736.20  80.00- 120.00   100.00(A)
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
90 1,2-Dichlorobenzene (continued)							
14.007	14.007 (1.157)	148	3647436			34.20- 94.20	64.30
14.007	14.007 (1.157)	111	2290088			9.44- 69.44	40.37
95 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
16.055	16.055 (1.326)	180	4371644	742.000	972.36	80.00- 120.00	100.00(A)
16.055	16.055 (1.326)	182	4035824			62.01- 122.01	92.32
96 Hexachlorobutadiene					CAS #: 87-68-3		
16.277	16.277 (1.344)	225	3568498	1070.00	1436.4	80.00- 120.00	100.00(A)
16.277	16.277 (1.344)	223	2242958			32.95- 92.95	62.85
98 Naphthalene					CAS #: 91-20-3		
16.349	16.349 (1.350)	128	7827425	302.350	313.56	80.00- 120.00	100.00(A)
16.349	16.349 (1.350)	127	1017290			0.00- 42.83	13.00
103 2-Methylnaphthalene					CAS #: 91-57-6		
17.789	17.789 (1.469)	142	4294484	250.000	252.72	80.00- 120.00	100.00(A)
17.789	17.789 (1.469)	141	3736674			57.25- 117.25	87.01
17.789	17.789 (1.469)	115	1434931			2.70- 62.70	33.41
104 1-Methylnaphthalene					CAS #: 90-12-0		
18.004	18.004 (1.487)	142	3926387	250.000	244.41	80.00- 120.00	100.00
18.004	18.004 (1.487)	141	3553895			60.82- 120.82	90.51
18.004	18.004 (1.487)	115	1384392			4.50- 64.50	35.26

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: 6012708.d
Lab Smp Id: VI VOC+PAH ICAL 7
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/27jan17.b/617z0127via.m
Misc Info: ;2787-57-1000, 100ml (4/12/17), 2744-147-200.

Calibration Date: 27-JAN-2017
Calibration Time: 14:44
Client Smp ID: 100/100/250
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Bromochloromethan	206046	123628	288464	224985	9.19
47 1,4-Difluorobenze	822168	493301	1151035	848162	3.16
67 Chlorobenzene-d5	727418	436451	1018385	761324	4.66
79 Bromofluorobenzen	482287	289372	675202	503631	4.43

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Bromochloromethan	5.25	4.92	5.58	5.24	-0.14
47 1,4-Difluorobenze	6.89	6.56	7.22	6.88	-0.10
67 Chlorobenzene-d5	10.62	10.29	10.95	10.60	-0.20
79 Bromofluorobenzen	12.13	11.80	12.46	12.11	-0.18

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/27jan17.b/6012708.d

Date : 27-JAN-2017 16:45

Client ID: 100/100/250

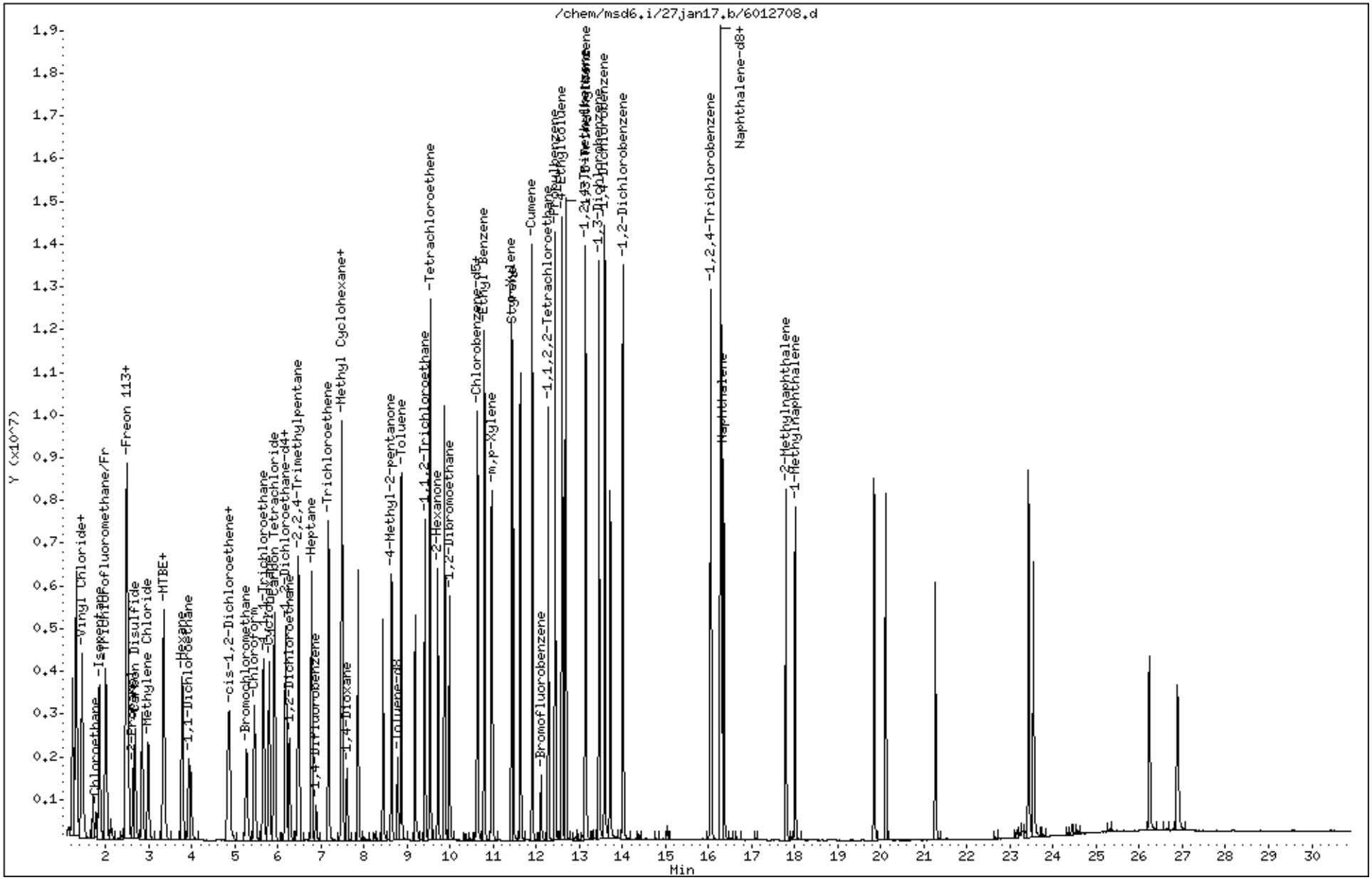
Sample Info: ;VI VOC+PAH ICAL 7; 100/100/250

Column phase: RTx-624

Instrument: msd6.i

Operator: su

Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/27jan17.b/6012709.d
Lab Smp Id: VI VOC+PAH ICAL 8 Client Smp ID: 200/NA/NA
Inj Date : 27-JAN-2017 17:25
Operator : su Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL 8; 200/NA/NA
Misc Info : ;2787-57-1000, 200ml (4/12/17)
Comment :
Method : /chem/msd6.i/27jan17.b/617z0127via.m
Meth Date : 16-Feb-2017 13:59 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 17:25 Cal File: 6012709.d
Als bottle: 18 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
* 32 Bromochloromethane						CAS #: 74-97-5	
5.246	5.246 (1.000)	130	229294	26.0000		80.00- 120.00	100.00
5.239	5.239 (1.000)	128	179583			49.56- 109.56	78.32
5.239	5.239 (1.000)	49	284730			92.63- 152.63	124.18
* 47 1,4-Difluorobenzene						CAS #: 540-36-3	
6.887	6.887 (1.000)	114	861527	23.0000		80.00- 120.00	100.00
6.880	6.880 (1.000)	88	129667			0.00- 45.38	15.05
* 67 Chlorobenzene-d5						CAS #: 3114-55-4	
10.597	10.597 (1.000)	117	772550	24.0000		80.00- 120.00	100.00
10.597	10.597 (1.000)	82	382813			19.82- 79.82	49.55
* 79 Bromofluorobenzene						CAS #: 460-00-4	
12.101	12.101 (1.000)	174	506546	36.0000		80.00- 120.00	100.00
12.094	12.094 (1.000)	95	576040			81.24- 141.24	113.72
12.101	12.101 (1.000)	176	496105			64.86- 124.86	97.94
4 Freon 114						CAS #: 76-14-2	
1.311	1.311 (0.250)	135	8005734	1400.00	1398.4	80.00- 120.00	100.00(A)

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
4 Freon 114 (continued)							
1.311	1.311 (0.250)	137	2576238			1.96- 61.96	32.18
6 Vinyl Chloride					CAS #: 75-01-4		
1.437	1.437 (0.274)	62	3466804	511.000	495.30	80.00- 120.00	100.00(A)
1.437	1.437 (0.274)	64	1128207			7.91- 67.91	32.54
7 1,3-Butadiene					CAS #: 106-99-0		
1.465	1.465 (0.279)	54	2751182	442.000	441.61	80.00- 120.00	100.00(A)
1.465	1.465 (0.279)	39	4643724			120.50- 180.50	168.79
9 Chloroethane					CAS #: 75-00-3		
1.773	1.773 (0.338)	64	1625059	528.000	481.08	80.00- 120.00	100.00
1.773	1.773 (0.338)	66	512731			0.00- 59.86	31.55
1.773	1.773 (0.338)	49	508381			0.00- 58.91	31.28
10 Isopentane					CAS #: 78-78-4		
1.856	1.856 (0.354)	57	2667863	590.000	555.39	80.00- 120.00	100.00(A)
1.856	1.856 (0.354)	43	4090942			125.84- 185.84	153.34
11 Trichlorofluoromethane/Fr11					CAS #: 75-69-4		
1.996	1.996 (0.381)	101	10584639	1120.00	1199.4	80.00- 120.00	100.00(A)
1.996	1.996 (0.381)	103	6989201			35.51- 95.51	66.03
15 Freon 113					CAS #: 76-13-1		
2.510	2.510 (0.478)	151	7196193	1530.00	1542.3	80.00- 120.00	100.00(A)
2.510	2.510 (0.478)	153	4626653			33.71- 93.71	64.29
2.510	2.510 (0.478)	101	8075989			83.05- 143.05	112.23
14 1,1-Dichloroethene					CAS #: 75-35-4		
2.474	2.474 (0.472)	98	2369691	793.000	764.60	80.00- 120.00	100.00(A)
2.474	2.474 (0.472)	96	3634227			122.40- 182.40	153.36
2.467	2.467 (0.470)	61	5997545			227.99- 287.99	253.09
18 Carbon Disulfide					CAS #: 75-15-0		
2.682	2.682 (0.511)	76	9281697	623.000	585.90	80.00- 120.00	100.00(A)
17 2-Propanol					CAS #: 67-63-0		
2.639	2.639 (0.503)	45	6127093	492.000	462.64	80.00- 120.00	100.00(A)
2.632	2.632 (0.502)	43	1191896			0.00- 48.82	19.45
2.639	2.639 (0.503)	59	220811			0.00- 33.57	3.60
21 Methylene Chloride					CAS #: 75-09-2		
2.983	2.983 (0.569)	49	4272044	695.000	646.81	80.00- 120.00	100.00(A)
2.983	2.983 (0.569)	84	2937580			38.40- 98.40	68.76
2.983	2.983 (0.569)	51	1292275			0.20- 60.20	30.25

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

   23 MTBE                                          CAS #: 1634-04-4
  3.341   3.341 (0.637)    73   6505882 721.000   549.27  80.00- 120.00   100.00(A)
  3.341   3.341 (0.637)    57   1573127                     0.00-  53.85    24.18
  3.341   3.341 (0.637)    41   1562879                     0.00-  54.68    24.02
-------------------------------------------------------------------------------
   24 trans-1,2-Dichloroethene                      CAS #: 156-60-5
  3.355   3.355 (0.640)    98   2151670 793.000   793.61  80.00- 120.00   100.00(A)
  3.355   3.355 (0.640)    61   4811238                   199.30- 259.30   223.60
  3.355   3.355 (0.640)    96   3290519                   124.73- 184.73   152.93
-------------------------------------------------------------------------------
   25 Hexane                                        CAS #: 110-54-3
  3.778   3.778 (0.720)    57   5504945 705.000   690.77  80.00- 120.00   100.00(A)
  3.778   3.778 (0.720)    43   3700828                    38.59-  98.59    67.23
  3.778   3.778 (0.720)    86    798580                     0.00-  44.35    14.51
-------------------------------------------------------------------------------
   26 1,1-Dichloroethane                            CAS #: 75-34-3
  3.936   3.936 (0.750)    63   6240575 810.000   830.21  80.00- 120.00   100.00(A)
  3.928   3.928 (0.749)    65   1941420                     0.70-  60.70    31.11
-------------------------------------------------------------------------------
   29 cis-1,2-Dichloroethene                        CAS #: 156-59-2
  4.867   4.867 (0.928)    98   2592556 793.000   801.84  80.00- 120.00   100.00(A)
  4.867   4.867 (0.928)    96   3955113                   123.29- 183.29   152.56
  4.867   4.867 (0.928)    61   5222755                   178.61- 238.61   201.45
-------------------------------------------------------------------------------
   28 2-Butanone                                    CAS #: 78-93-3
  4.838   4.838 (0.922)    72   1501861 590.000   466.08  80.00- 120.00   100.00(A)
  4.831   4.831 (0.921)    43   7071469                   466.78- 526.78   470.85
  4.838   4.838 (0.922)    57    535799                     5.92-  65.92    35.68
-------------------------------------------------------------------------------
   35 Chloroform                                    CAS #: 67-66-3
  5.454   5.454 (1.040)    83   7210334 977.000   965.15  80.00- 120.00   100.00(A)
  5.454   5.454 (1.040)    85   4707394                    34.58-  94.58    65.29
-------------------------------------------------------------------------------
   37 Cyclohexane                                   CAS #: 110-82-7
  5.798   5.798 (0.842)    84   4398384 688.000   706.92  80.00- 120.00   100.00(A)
  5.798   5.798 (0.842)    56   5585841                    97.51- 157.51   127.00
  5.798   5.798 (0.842)    41   3391505                    49.37- 109.37    77.11
-------------------------------------------------------------------------------
   36 1,1,1-Trichloroethane                         CAS #: 71-55-6
  5.669   5.669 (0.823)    97   8028365 1091.00   1191.1  80.00- 120.00   100.00(A)
  5.669   5.669 (0.823)    99   5308962                    36.78-  96.78    66.13
-------------------------------------------------------------------------------
   38 Carbon Tetrachloride                          CAS #: 56-23-5
  5.920   5.920 (0.860)   119   8665585 1260.00   1460.4  80.00- 120.00   100.00(A)
  5.920   5.920 (0.860)   117   9014160                    74.79- 134.79   104.02
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
45 2,2,4-Trimethylpentane					CAS #: 540-84-1		
6.478	6.478 (0.941)	57	17460081	934.000	940.64	80.00- 120.00	100.00(A)
6.478	6.478 (0.941)	56	5539683			1.65- 61.65	31.73
6.478	6.478 (0.941)	41	5154396			0.50- 60.50	29.52
41 Benzene					CAS #: 71-43-2		
6.185	6.185 (0.898)	78	10185576	639.000	573.33	80.00- 120.00	100.00(A)
6.185	6.185 (0.898)	77	2381497			0.00- 53.70	23.38
43 1,2-Dichloroethane					CAS #: 107-06-2		
6.271	6.271 (0.911)	62	5186335	809.000	866.20	80.00- 120.00	100.00(A)
6.271	6.271 (0.911)	64	1658689			1.50- 61.50	31.98
46 Heptane					CAS #: 142-82-5		
6.786	6.786 (0.985)	71	3539010	820.000	853.23	80.00- 120.00	100.00(A)
6.786	6.786 (0.985)	43	6795062			165.84- 225.84	192.00
6.786	6.786 (0.985)	57	3488602			68.69- 128.69	98.58
48 Trichloroethene					CAS #: 79-01-6		
7.173	7.173 (1.042)	95	5707820	1080.00	1227.4	80.00- 120.00	100.00(A)
7.173	7.173 (1.042)	130	6251692			79.94- 139.94	109.53
7.173	7.173 (1.042)	97	3699347			34.22- 94.22	64.81
51 Methyl Cyclohexane					CAS #: 108-87-2		
7.496	7.496 (1.088)	83	6641296	803.000	864.79	80.00- 120.00	100.00(A)
7.496	7.496 (1.088)	98	3067509			16.28- 76.28	46.19
7.496	7.496 (1.088)	55	5654544			57.14- 117.14	85.14
52 1,2-Dichloropropane					CAS #: 78-87-5		
7.474	7.474 (1.085)	63	4274246	924.000	1001.6	80.00- 120.00	100.00(A)
7.474	7.474 (1.085)	62	2935325			38.30- 98.30	68.67
7.481	7.481 (1.086)	41	5442075			109.93- 169.93	127.32
53 1,4-Dioxane					CAS #: 123-91-1		
7.603	7.603 (1.104)	88	2615446	721.000	724.98	80.00- 120.00	100.00(A)
7.603	7.603 (1.104)	58	1822409			41.68- 101.68	69.68
7.603	7.603 (1.104)	57	626812			5.91- 65.91	23.97
56 4-Methyl-2-pentanone					CAS #: 108-10-1		
8.635	8.635 (1.254)	58	3469905	819.000	905.78	80.00- 120.00	100.00(A)
8.635	8.635 (1.254)	43	9439290			255.95- 315.95	272.03
8.642	8.642 (1.255)	85	1465224			12.61- 72.61	42.23
58 Toluene					CAS #: 108-88-3		
8.864	8.864 (0.836)	91	13008967	754.000	779.37	80.00- 120.00	100.00(A)
8.864	8.864 (0.836)	92	7824678			29.58- 89.58	60.15

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

   61 1,1,2-Trichloroethane                        CAS #: 79-00-5
  9.408   9.408 (1.366)    97   4675870 1090.00   1187.8  80.00- 120.00   100.00(A)
  9.408   9.408 (1.366)    99   3032386                   34.45-  94.45    64.85
  9.408   9.408 (1.366)    83   4042688                   55.36- 115.36    86.46
-------------------------------------------------------------------------------
   62 Tetrachloroethene                            CAS #: 127-18-4
  9.537   9.537 (0.900)   166   7720128 1360.00   1517.0  80.00- 120.00   100.00(A)
  9.530   9.530 (0.899)   129   6011628                   46.89- 106.89    77.87
  9.530   9.530 (0.899)   131   5799198                   44.31- 104.31    75.12
-------------------------------------------------------------------------------
   63 2-Hexanone                                   CAS #: 591-78-6
  9.709   9.709 (0.916)    58   4489553 819.000   922.11  80.00- 120.00   100.00(A)
  9.709   9.709 (0.916)    43   8891359                  173.90- 233.90   198.05
  9.716   9.716 (0.917)   100    839878                    0.00-  48.87    18.71
-------------------------------------------------------------------------------
   66 1,2-Dibromoethane                            CAS #: 106-93-4
  9.981   9.981 (0.942)   107   7912580 1540.00   1703.4  80.00- 120.00   100.00(A)
  9.981   9.981 (0.942)   109   7582947                   66.71- 126.71    95.83
-------------------------------------------------------------------------------
   68 Chlorobenzene                                CAS #: 108-90-7
 10.633  10.633 (1.003)   112  11372746 921.000   996.36  80.00- 120.00   100.00(A)
 10.633  10.633 (1.003)   114   3755913                    1.97-  61.97    33.03
 10.633  10.633 (1.003)    77   6146786                   23.53-  83.53    54.05
-------------------------------------------------------------------------------
   69 Ethyl Benzene                                CAS #: 100-41-4
 10.791  10.791 (1.018)   106   5866802 868.000   978.15  80.00- 120.00   100.00(A)
 10.791  10.791 (1.018)    91  16267909                  275.71- 335.71   277.29
-------------------------------------------------------------------------------
   71 m,p-Xylene                                   CAS #: 108-38-3
 10.970  10.970 (1.035)   106   7114167 868.000   952.09  80.00- 120.00   100.00(A)
 10.970  10.970 (1.035)    91  13979026                  166.96- 226.96   196.50
-------------------------------------------------------------------------------
   74 o-Xylene                                     CAS #: 95-47-6
 11.421  11.421 (0.944)   106   6965417 868.000   989.19  80.00- 120.00   100.00(A)
 11.421  11.421 (0.944)    91  13779664                  177.81- 237.81   197.83
-------------------------------------------------------------------------------
   75 Styrene                                      CAS #: 100-42-5
 11.442  11.442 (0.946)   104  11598823 852.000   1038.3  80.00- 120.00   100.00(A)
 11.442  11.442 (0.946)    78   5581674                   18.87-  78.87    48.12
-------------------------------------------------------------------------------
   80 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 12.266  12.266 (1.014)    83   9714508 1370.00   1560.7  80.00- 120.00   100.00(A)
 12.266  12.266 (1.014)    85   6314332                   34.09-  94.09    65.00
-------------------------------------------------------------------------------
   82 4-Ethyltoluene                               CAS #: 622-96-8
 12.589  12.589 (1.040)   120   6460260 983.000   1235.1  80.00- 120.00   100.00(A)
```

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

   82 4-Ethyltoluene (continued)
 12.581  12.581 (1.040)   105  16759489                  290.15- 350.15   259.42
-------------------------------------------------------------------------------
   83 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 12.674  12.674 (1.047)   120   9210058 983.000   1226.6  80.00- 120.00   100.00(A)
 12.674  12.674 (1.047)   105  16183576                  168.29- 228.29   175.72
-------------------------------------------------------------------------------
   84 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 13.133  13.133 (1.085)   120   8456556 983.000   1270.4  80.00- 120.00   100.00(A)
 13.126  13.126 (1.085)   105  16206402                  184.33- 244.33   191.64
-------------------------------------------------------------------------------
   86 1,3-Dichlorobenzene                           CAS #: 541-73-1
 13.448  13.448 (1.111)   146  13153773 1200.00   1577.8  80.00- 120.00   100.00(A)
 13.448  13.448 (1.111)   148   8580669                   33.69-  93.69    65.23
 13.448  13.448 (1.111)   111   5266173                    8.17-  68.17    40.04
-------------------------------------------------------------------------------
   87 1,4-Dichlorobenzene                           CAS #: 106-46-7
 13.584  13.584 (1.123)   146  13384102 1200.00   1576.7  80.00- 120.00   100.00(A)
 13.584  13.584 (1.123)   148   8702206                   34.61-  94.61    65.02
 13.584  13.584 (1.123)   111   5127349                    7.08-  67.08    38.31
-------------------------------------------------------------------------------
   90 1,2-Dichlorobenzene                           CAS #: 95-50-1
 14.007  14.007 (1.157)   146  12300647 1200.00   1587.3  80.00- 120.00   100.00(A)
 14.007  14.007 (1.157)   148   7984428                   34.20-  94.20    64.91
 14.007  14.007 (1.157)   111   5065797                    9.44-  69.44    41.18
-------------------------------------------------------------------------------
   95 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 16.048  16.048 (1.326)   180  10389658 1480.00   2297.6  80.00- 120.00   100.00(A)
 16.048  16.048 (1.326)   182   9650235                   62.01- 122.01    92.88
-------------------------------------------------------------------------------
   96 Hexachlorobutadiene                           CAS #: 87-68-3
 16.277  16.277 (1.345)   225   8627038 2130.00   3452.6  80.00- 120.00   100.00(AH)
 16.277  16.277 (1.345)   223   5508199                   32.95-  92.95    63.85
-------------------------------------------------------------------------------
```

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
H - Operator selected an alternate compound hit.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6012709.d
Lab Smp Id: VI VOC+PAH ICAL 8
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/27jan17.b/617z0127via.m
Misc Info: ;2787-57-1000, 200ml (4/12/17)

Calibration Date: 27-JAN-2017
Calibration Time: 14:44
Client Smp ID: 200/NA/NA
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Bromochloromethan	206046	123628	288464	229294	11.28
47 1,4-Difluorobenze	822168	493301	1151035	861527	4.79
67 Chlorobenzene-d5	727418	436451	1018385	772550	6.20
79 Bromofluorobenzen	482287	289372	675202	506546	5.03

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
32 Bromochloromethan	5.25	4.92	5.58	5.25	0.00
47 1,4-Difluorobenze	6.89	6.56	7.22	6.89	0.00
67 Chlorobenzene-d5	10.62	10.29	10.95	10.60	-0.20
79 Bromofluorobenzen	12.13	11.80	12.46	12.10	-0.24

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.

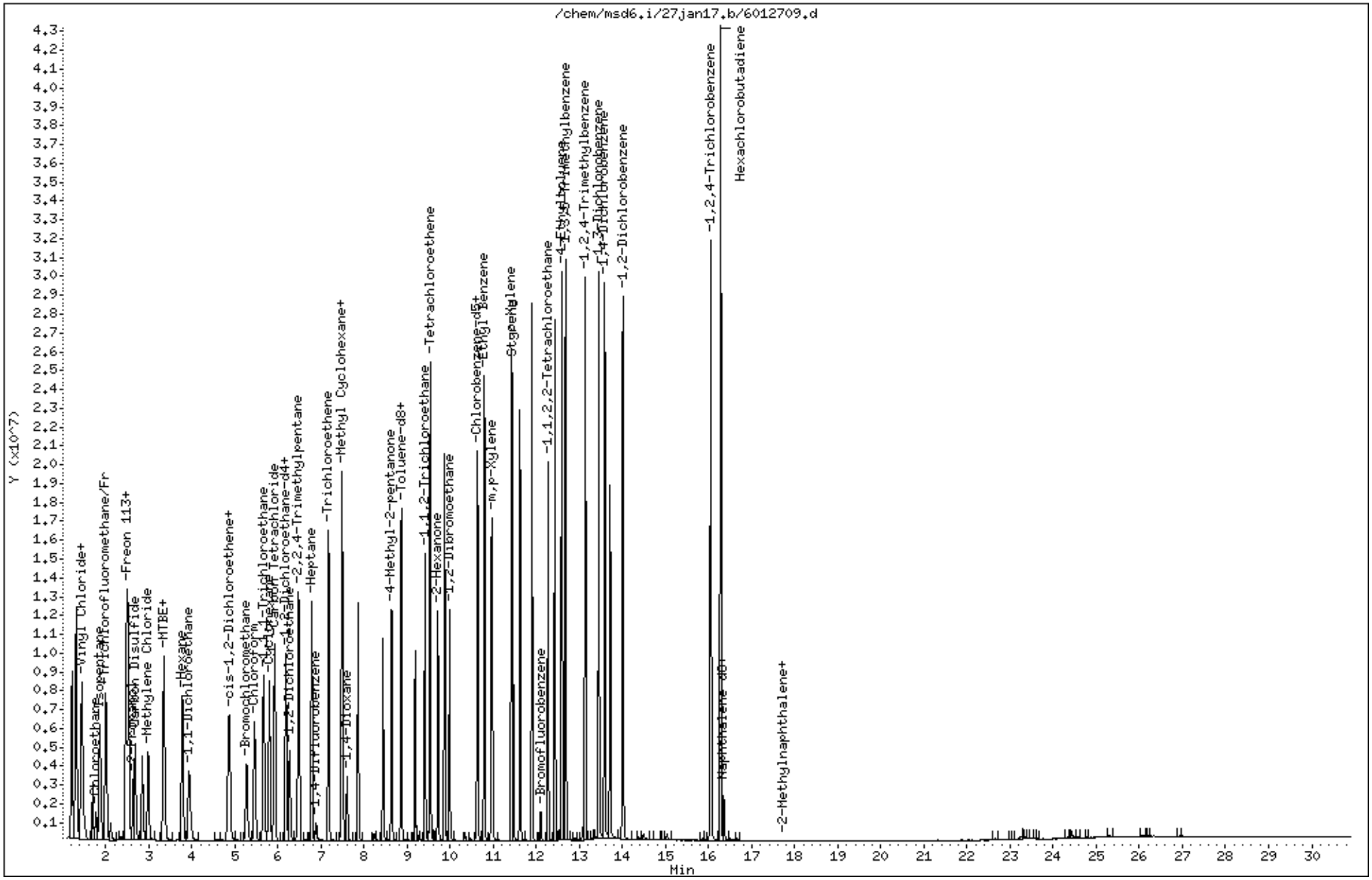
Data File: /chem/msd6.i/27jan17.b/6012709.d
Date : 27-JAN-2017 17:25
Client ID: 200/NA/NA
Sample Info: ;VI VOC+PAH ICAL 8; 200/NA/NA

Instrument: msd6.i

Operator: su

Column phase: RTx-624

Column diameter: 0.53



MSD-6 VI VOC + Naphs MDL L1

Report Date : 04-Apr-2016 11:55

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

VOC std id: 2516-231-1000ppbv
VOC amt spiked: 1.0mL
(naphthalene, 2-mn, 1-mn
spiked using 1st source std.
PAH std id: 2744-32-1.0m
PAH amt spiked: 1.0uL

Method File: /chem/msd6.i/01apr16.b/616z0331vi.m
Batch File: /chem/msd6.i/01apr16.b
Inst ID: msd6.i

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	6040105	6040106	6040107	6040109	6040110	6040111	6040112	6040113
INJ.DATE:	01-APR-2016	01-APR-2016	01-APR-2016	01-APR-2016	01-APR-2016	01-APR-2016	01-APR-2016	01-APR-2016
INJ.TIME:	10:48	11:28	12:07	13:48	14:28	15:07	15:48	16:27

Compound units in ng	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL	amt spk
1 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
2 Dichlorodifluoromethan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
3 Freon 114	7.90	7.90	7.72	8.21	8.00	7.87	7.72	7.75	7.88	0.17	0.50	14	7.0
4 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
5 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
~~6 Vinyl Chloride~~	~~2.74~~	~~2.75~~	~~2.76~~	~~2.77~~	~~2.69~~	~~2.64~~	~~2.67~~	~~2.79~~	~~2.73~~	~~0.05~~	~~0.16~~	LA 4/12/16	
7 1,3-Butadiene	2.84	2.69	2.41	2.82	2.85	2.53	2.97	2.48	2.70	0.20	0.61	2.2	2.2
8 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
9 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
10 Isopentane	4.58	3.20	3.60	3.90	3.28	3.20	3.52	3.42	3.59	0.46	1.39	5.9	3.0
11 Trichlorofluoromethane	5.10	5.18	4.80	4.83	5.09	4.93	5.28	5.39	5.08	0.21	0.63	11	5.6
12 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
13 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
14 1,1-Dichloroethene	4.25	4.02	3.57	3.89	4.25	3.71	4.02	3.82	3.94	0.24	0.73	4.0	4.0
15 Freon 113	7.48	7.24	6.73	7.22	7.13	6.86	7.21	7.50	7.17	0.27	0.80	7.7	7.7
16 Acetone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
17 Freon123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		

Reviewer 1 Lynette Antonucelli Date: 4/4/16
Reviewer 2 Date:

* Vinyl chloride was not included at the RL level due to poor performance of the secondary ion.

** 1,4-Dioxane did not meet the 1 and 20 mean recovered conc / MDL value.

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd6.i/01apr16.b/616z0331vi.m
Batch File: /chem/msd6.i/01apr16.b
Inst ID: msd6.i

Compound units in ng	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL	amt spk
18 Carbon Disulfide	4.76	3.52	3.48	4.60	3.86	3.36	3.90	4.43	3.99	0.54	1.63	6.2	3.1
19 2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
20 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
21 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
22 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
23 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
24 tert-Butyl-Alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
25 trans-1,2-Dichloroethe	3.52	3.31	3.02	3.25	3.26	2.92	3.06	3.50	3.23	0.22	0.66	4.0	4.0
26 MTBE	4.24	3.27	3.55	3.95	3.43	3.42	3.48	3.88	3.65	0.33	0.99	22	3.6
27 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
28 Hexane	4.14	3.85	3.35	3.69	3.87	3.31	3.63	3.77	3.70	0.27	0.82	35	3.5
29 1,1-Dichloroethane	3.98	3.78	3.59	3.77	3.96	3.58	3.96	4.24	3.86	0.22	0.66	4.0	4.0
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	4.25	4.16	3.84	3.99	4.25	3.58	3.90	4.36	4.04	0.26	0.78	4.0	4.0
38 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
39 2-Chloroethyl vinyl et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd6.i/01apr16.b/616z0331vi.m
Batch File: /chem/msd6.i/01apr16.b
Inst ID: msd6.i

Compound units in ng	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL	amt spk
* 40 Bromochloromethane	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	0.00	0.00		
41 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
42 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
43 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
44 Chloroform	4.82	4.55	4.14	4.36	4.68	4.15	4.41	4.80	4.49	0.27	0.80	4.9	4.9
45 1,1,1-Trichloroethane	5.36	4.52	4.28	4.84	4.69	4.31	4.71	5.39	4.76	0.43	1.27	5.4	5.5
46 Cyclohexane	3.55	3.11	2.69	3.27	3.05	2.78	3.05	3.42	3.11	0.29	0.88	6.9	3.4
47 Carbon Tetrachloride	5.88	4.86	4.40	5.30	5.09	4.40	3.82	5.88	4.95	0.73	2.20	6.3	6.3
48 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
$ 49 1,2-Dichloroethane-d4	2.14	1.93	2.10	2.02	2.27	2.12	1.99	2.18	2.09	0.11	0.33	2.0	2.0
50 1,2-Dichloroethane	3.90	3.54	3.18	3.38	3.63	3.16	3.60	3.99	3.55	0.30	0.91	4.0	4.0
51 2,2,4-Trimethylpentane	5.00	4.64	3.69	4.14	4.36	3.73	4.03	4.32	4.24	0.44	1.33	9.4	4.7
52 tert-amyl-Methyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
53 Heptane	4.45	4.30	3.41	3.64	4.06	3.23	3.91	4.41	3.93	0.46	1.39	8.2	4.1
* 54 1,4-Difluorobenzene	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	0.00	0.00		
55 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
56 Trichloroethene	5.33	4.72	3.94	4.75	4.72	3.81	4.59	5.54	4.67	0.59	1.78	5.4	5.4
57 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
58 Methyl Cyclohexane	3.83	3.45	3.00	3.17	3.36	2.87	3.12	3.67	3.31	0.33	0.98	8.0	4.0
59 1,2-Dichloropropane	4.59	3.87	3.65	3.95	4.00	3.56	3.81	4.66	4.01	0.41	1.22	4.6	4.6
60 1,4-Dioxane	4.25	4.58	2.70	3.49	3.94	2.61	4.10	7.05	4.09	1.39	4.17	11	3.6
61 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
62 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
63 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd6.i/01apr16.b/616z0331vi.m
Batch File: /chem/msd6.i/01apr16.b
Inst ID: msd6.i

	Compound units in ng	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL	amt spk
	64 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	65 4-Methyl-2-pentanone	3.89	3.56	3.13	3.22	3.52	2.87	3.26	3.27	3.34	0.31	0.93	8.2	4.1
$	66 Toluene-d8	1.89	1.90	1.90	1.86	2.20	1.85	1.91	1.92	1.93	0.11	0.34	2.0	2.0
	67 Toluene	4.06	3.51	2.78	3.25	3.26	2.57	2.99	4.45	3.36	0.63	1.90	7.5	3.8
	68 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	69 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	70 1,1,2-Trichloroethane	4.77	4.45	3.91	4.25	4.42	3.73	4.06	5.11	4.34	0.45	1.36	5.4	5.4
	71 Tetrachloroethene	5.73	5.22	4.62	4.94	5.10	3.98	4.61	5.59	4.97	0.57	1.71	6.8	6.8
	72 2-Hexanone	3.65	3.57	2.91	3.01	3.29	2.62	2.98	3.48	3.19	0.36	1.09	8.2	4.1
	73 Dibromochloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	74 1,2-Dibromoethane	6.10	5.84	5.08	5.08	5.82	4.57	4.95	6.73	5.52	0.72	2.15	7.7	7.7
	75 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	76 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	77 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	78 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
*	79 Chlorobenzene-d5	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	0.00	0.00		
	80 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	81 Chlorobenzene	4.09	3.81	3.09	3.37	3.66	2.81	3.33	4.19	3.54	0.48	1.44	4.6	4.6
	82 Ethyl Benzene	3.66	3.41	2.84	3.10	3.22	2.59	2.90	3.86	3.20	0.43	1.28	4.3	4.3
	83 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	84 m,p-Xylene	3.86	3.54	2.83	3.21	3.22	2.50	2.83	4.92	3.36	0.76	2.28	8.7	4.3
	85 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	86 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd6.i/01apr16.b/616z0331vi.m
Batch File: /chem/msd6.i/01apr16.b
Inst ID: msd6.i

Compound units in ng	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL	amt spk
87 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
88 o-Xylene	3.80	3.69	2.89	3.27	3.44	2.79	3.02	4.42	3.42	0.54	1.63	8.7	4.3
89 Styrene	3.64	3.17	2.65	3.15	3.04	2.42	2.76	3.63	3.06	0.44	1.31	8.5	4.3
90 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
91 Cumene	4.00	3.84	3.25	3.66	3.72	3.06	3.21	4.26	3.63	0.42	1.26	9.8	4.9
* 92 Bromofluorobenzene	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	0.00	0.00		
93 1,2-Dibromo-3-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
94 1,1,2,2-Tetrachloroeth	4.88	5.03	4.46	4.49	5.03	4.03	4.18	5.26	4.67	0.44	1.33	6.9	6.9
95 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
96 Propylbenzene	3.97	3.89	3.31	3.72	3.79	3.02	3.28	4.31	3.66	0.43	1.28	9.8	4.9
97 4-Ethyltoluene	3.52	3.52	3.10	3.38	3.32	2.79	2.90	4.00	3.31	0.39	1.16	9.8	
98 1,3,5-Trimethylbenzene	3.59	3.60	3.05	3.42	3.50	2.78	2.99	4.00	3.37	0.40	1.20	9.8	
99 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
100 1,2,4-Trimethylbenzene	3.57	3.59	2.94	3.43	3.37	2.71	2.84	3.92	3.30	0.42	1.27	29	
101 1,3-Dichlorobenzene	4.05	4.08	3.52	4.11	3.96	3.30	3.40	4.64	3.88	0.45	1.34	6.0	6.0
102 1,4-Dichlorobenzene	3.89	3.91	3.46	4.16	4.02	3.16	3.37	4.44	3.80	0.44	1.30	6.0	6.0
103 Phenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
217 2-Methylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
218 3-Methylphenol/4-Methy	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
104 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
105 1,2-Dichlorobenzene	3.90	3.94	3.37	4.18	3.94	3.20	3.33	4.52	3.80	0.46	1.38	6.0	6.0
106 1,2,4-Trichlorobenzene	4.05	4.05	3.21	4.99	4.64	3.23	3.24	5.28	4.09	0.83	2.47	15	7.4
107 Hexachlorobutadiene	7.15	6.68	5.25	7.98	7.61	5.38	5.01	8.92	6.75	1.43	4.28	21	11
$ 108 Naphthalene-d8	1.85	1.78	1.90	1.85	2.10	1.80	1.89	1.89	1.88	0.10	0.29	2.0	2.0

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd6.i/01apr16.b/616z0331vi.m
Batch File: /chem/msd6.i/01apr16.b
Inst ID: msd6.i

Compound units in ng	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL	amt spk
109 Naphthalene	1.22	0.96	0.98	1.35	0.91	0.97	1.07	1.09	1.07	0.15	0.45	1.00	1.00
110 2-Methylnaphthalene	1.28	0.99	0.96	0.90	0.89	0.92	0.90	0.91	0.97	0.13	0.40		
111 1-Methylnaphthalene	1.10	0.93	0.96	0.91	0.87	0.92	0.91	0.91	0.94	0.07	0.21		
112 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
113 Acenaphthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
114 Fluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
115 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
116 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
117 Fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
118 Pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		

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Client Sample ID: CCV
Lab ID#: 1701478R1-08A
EPA METHOD TO-17

File Name:	**6020102R1**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 2/1/17 02:28 AM**

Compound	**%Recovery**
Naphthalene	110

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

Surrogates	**%Recovery**	**Method Limits**
Naphthalene-d8	109	50-150

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd6.i Injection Date: 01-FEB-2017 02:28
Lab File ID: 6020102R1.d Init. Cal. Date(s): 27-JAN-2017 27-JAN-2017
Analysis Type: AIR Init. Cal. Times: 12:05 17:25
Lab Sample ID: VI VOC+PAH CCV Quant Type: ISTD
Method: /chem/msd6.i/01feb17.b/617z0127via.m

COMPOUND	RRF / AMOUNT	RF25	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 97 Naphthalene-d8	1.63743	1.77972	0.010	-8.69004	30.00000	Averaged
98 Naphthalene	1.78438	1.95778	0.010	-9.71745	30.00000	Averaged

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01feb17.b/6020102R1.d
Lab Smp Id: VI VOC+PAH CCV Client Smp ID: CCV
Inj Date : 01-FEB-2017 02:28
Operator : su Inst ID: msd6.i
Smp Info : ;VI VOC+PAH CCV;CCV
Misc Info : 2787-57, 20mL (4/12/17);2744-147-50, 1.0uL
Comment :
Method : /chem/msd6.i/01feb17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:54 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: naph.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
* 79 Bromofluorobenzene						CAS #: 460-00-4	
12.123	12.123 (1.000)	174	478728	36.0000		80.00- 120.00	100.00
12.123	12.123 (1.000)	95	549429			81.24- 141.24	114.77
12.123	12.123 (1.000)	176	472252			64.86- 124.86	98.65
$ 97 Naphthalene-d8						CAS #: 1146-65-2	
16.313	16.313 (1.346)	136	591669	25.0000	27.172	80.00- 120.00	100.00
16.313	16.313 (1.346)	108	57061			0.00- 39.63	9.64
98 Naphthalene						CAS #: 91-20-3	
16.349	16.349 (1.349)	128	1574310	60.4700	66.346	80.00- 120.00	100.00
16.349	16.349 (1.349)	127	197864			0.00- 42.83	12.57

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6020102R1.d
Lab Smp Id: VI VOC+PAH CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/01feb17.b/617z0127via.m
Misc Info: 2787-57, 20mL (4/12/17);2744-147-50, 1.0uL

Calibration Date: 01-FEB-2017
Calibration Time: 02:28
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	478728	287237	670219	478728	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.12	11.79	12.45	12.12	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/01feb17.b/6020102R1.d

Date : 01-FEB-2017 02:28

Client ID: CCV

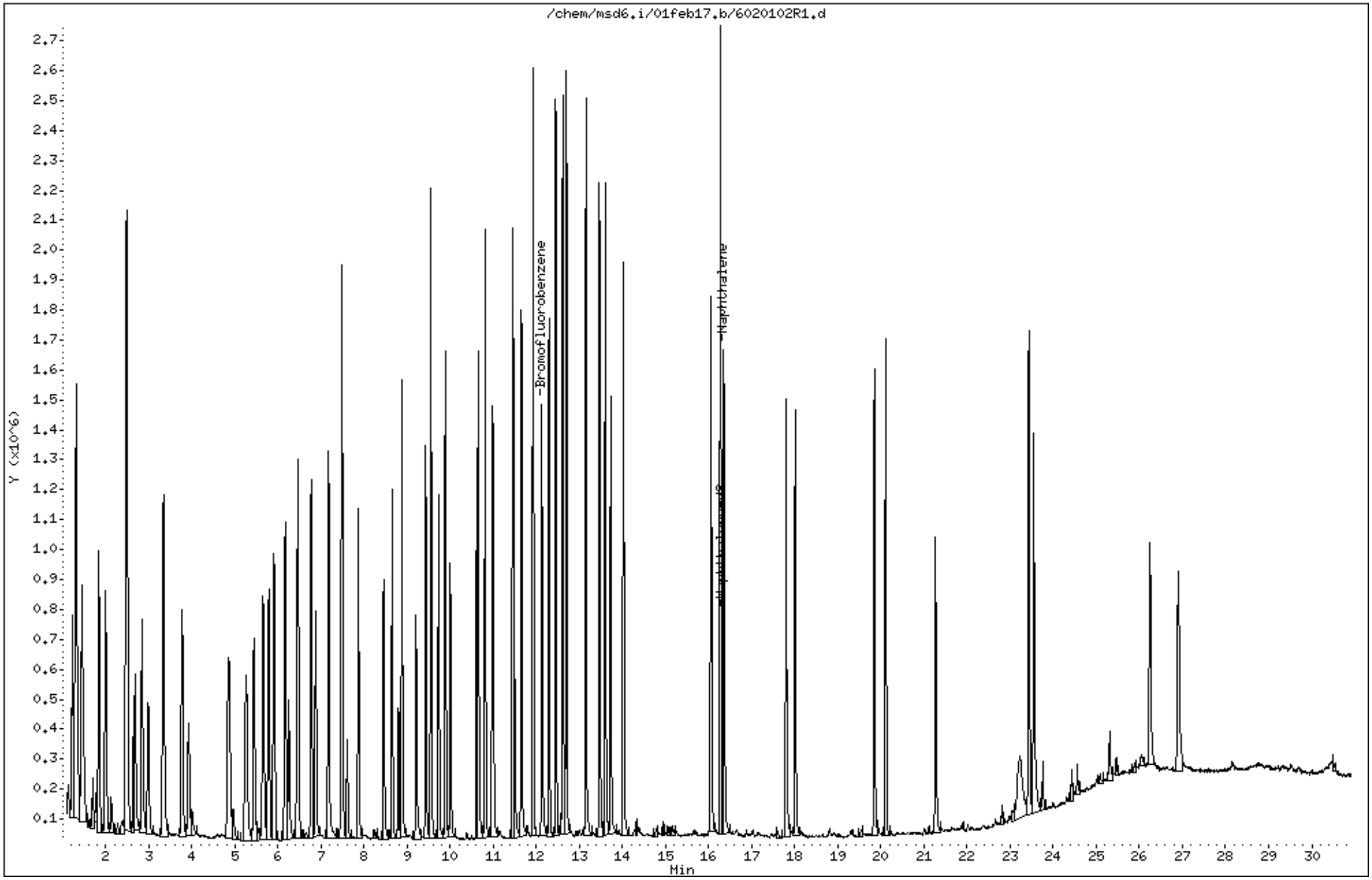
Instrument: msd6.i

Sample Info: ;VI VOC+PAH CCV;CCV

Operator: su

Column phase: RTx-624

Column diameter: 0.53



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Client Sample ID: LCS
Lab ID#: 1701478R1-09A
EPA METHOD TO-17

File Name:	**6020104R1**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 2/1/17 03:47 AM**

Compound	**%Recovery**	**Method Limits**
Naphthalene	115	70-130

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

Surrogates	**%Recovery**	**Method Limits**
Naphthalene-d8	110	50-150

Report Date: 03-Mar-2017 15:57

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 01feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: VI VOC+PAH LCS
Client Smp ID: LCS
Level: LOW
Operator: su
Data Type: MS DATA
SampleType: LCS
SpikeList File: naph.spk
Quant Type: ISTD
Sublist File: naph.sub
Method File: /chem/msd6.i/01feb17.b/617z0127via.m
Misc Info: 2787-58, 20mL (4/12/17);2744-158-50, 1.0uL

SPIKE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
98 Naphthalene	60.500	69.686	115.18	70-130

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	27.578	110.31	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01feb17.b/6020104R1.d
Lab Smp Id: VI VOC+PAH LCS Client Smp ID: LCS
Inj Date : 01-FEB-2017 03:47
Operator : su Inst ID: msd6.i
Smp Info : ;VI VOC+PAH LCS;LCS
Misc Info : 2787-58, 20mL (4/12/17);2744-158-50, 1.0uL
Comment :
Method : /chem/msd6.i/01feb17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:54 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: naph.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
* 79 Bromofluorobenzene					CAS #: 460-00-4		
12.130	12.123 (1.000)	174	481209	36.0000		80.00- 120.00	100.00
12.123	12.123 (1.000)	95	545882			81.24- 141.24	113.44
12.130	12.123 (1.000)	176	463302			64.86- 124.86	96.28
$ 97 Naphthalene-d8					CAS #: 1146-65-2		
16.313	16.313 (1.345)	136	603611	27.5780	27.578	80.00- 120.00	100.00
16.313	16.313 (1.345)	108	54170			0.00- 39.63	8.97
98 Naphthalene					CAS #: 91-20-3		
16.349	16.349 (1.348)	128	1662144	69.6866	69.686	80.00- 120.00	100.00
16.349	16.349 (1.348)	127	212995			0.00- 42.83	12.81

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6020104R1.d
Lab Smp Id: VI VOC+PAH LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/01feb17.b/617z0127via.m
Misc Info: 2787-58, 20mL (4/12/17);2744-158-50, 1.0uL

Calibration Date: 01-FEB-2017
Calibration Time: 02:28
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	478728	287237	670219	481209	0.52

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.12	11.79	12.45	12.13	0.06

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/01feb17.b/6020104R1.d

Date : 01-FEB-2017 03:47

Client ID: LCS

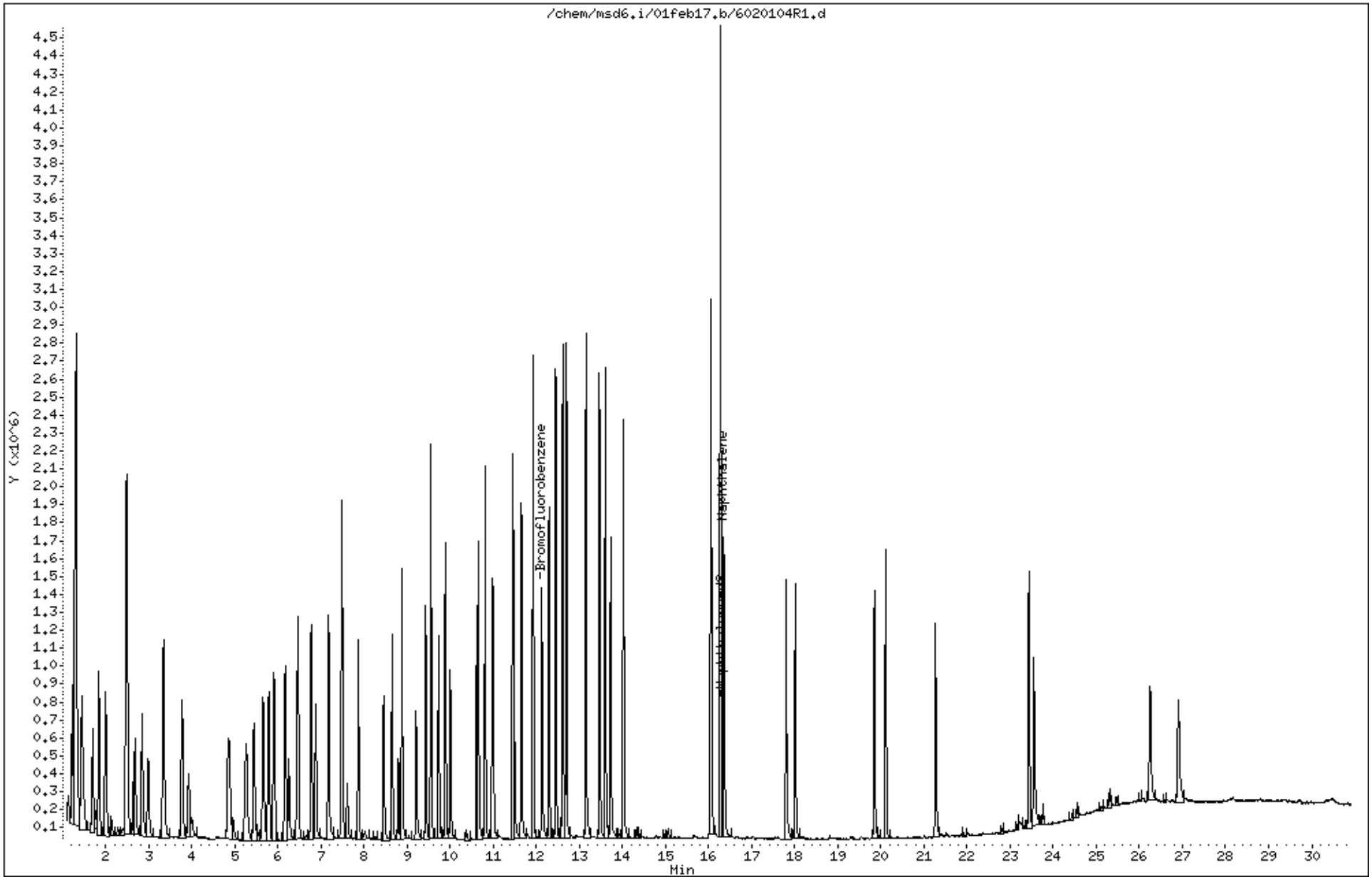
Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

Operator: su

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/01feb17.b/6020104R1.d

Date : 01-FEB-2017 03:47

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

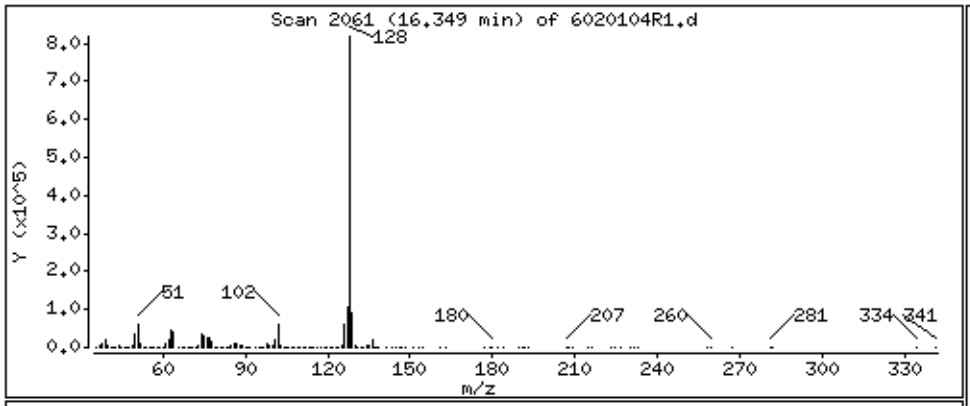
Operator: su

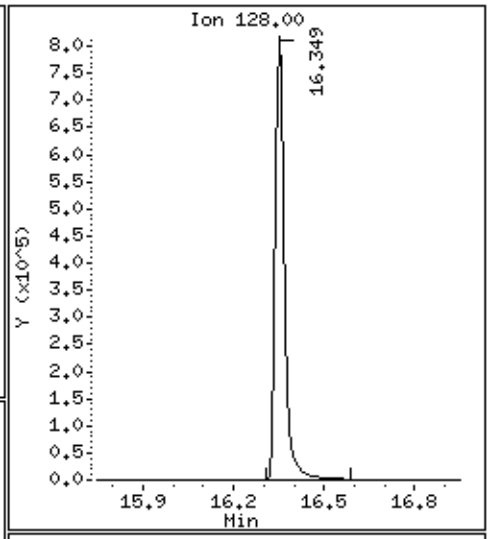
Column phase: RTx-624

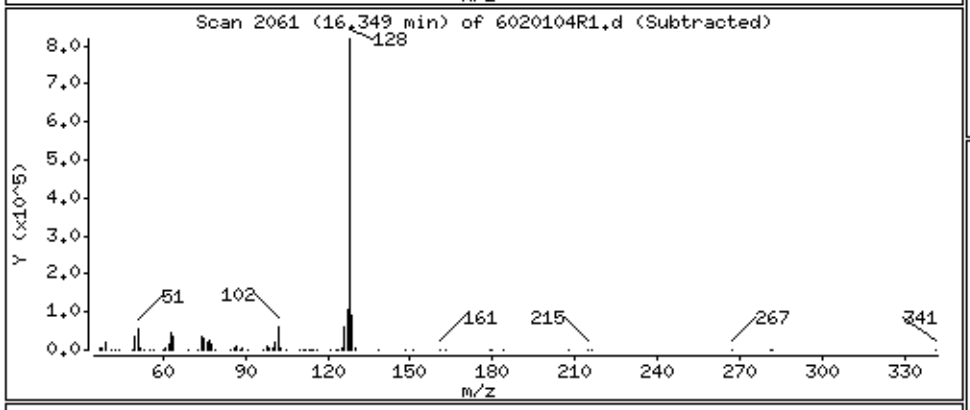
Column diameter: 0.53

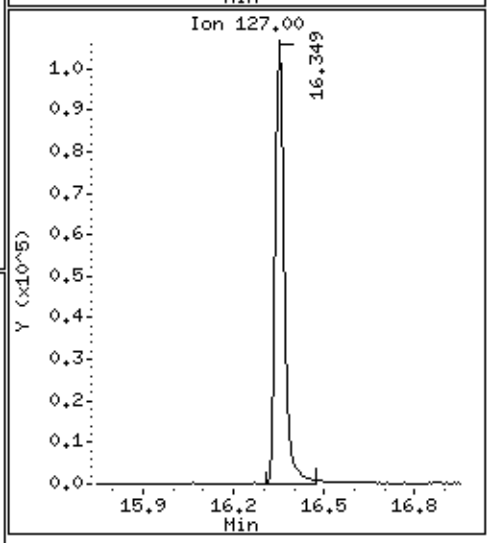
98 Naphthalene

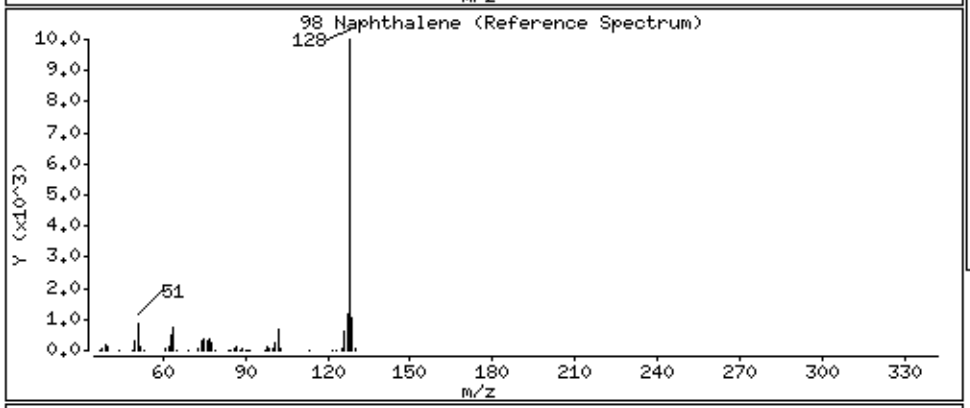
Concentration: 69.686 NG

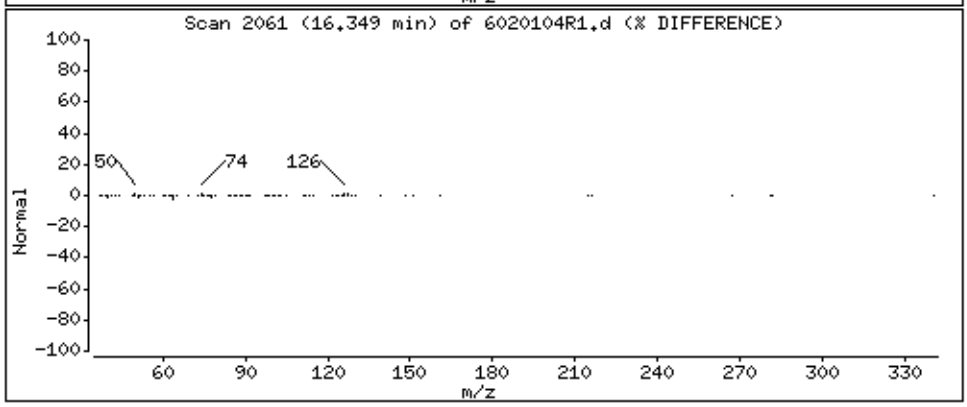












eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1701478R1-09AA

EPA METHOD TO-17

File Name:	**6020105R1**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 2/1/17 04:26 AM**

Compound	**%Recovery**	**Method Limits**
Naphthalene	115	70-130

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

Surrogates	**%Recovery**	**Method Limits**
Naphthalene-d8	108	50-150

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 01feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: VI VOC+PAH LCSD
Client Smp ID: LCSD
Level: LOW
Operator: su
Data Type: MS DATA
SampleType: LCSD
SpikeList File: naph.spk
Quant Type: ISTD
Sublist File: naph.sub
Method File: /chem/msd6.i/01feb17.b/617z0127via.m
Misc Info: 2744-169-10,000, 2.0uL (7/3/17)

SPIKE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
98 Naphthalene	60.500	69.346	114.62	70-130

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	27.002	108.01	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/01feb17.b/6020105R1.d
Lab Smp Id: VI VOC+PAH LCSD Client Smp ID: LCSD
Inj Date : 01-FEB-2017 04:26
Operator : su Inst ID: msd6.i
Smp Info : ;VI VOC+PAH LCSD; LCSD
Misc Info : 2744-169-10,000, 2.0uL (7/3/17)
Comment :
Method : /chem/msd6.i/01feb17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:54 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 4 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: naph.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
* 79 Bromofluorobenzene					CAS #: 460-00-4		
12.101	12.123 (1.000)	174	437030	36.0000		80.00- 120.00	100.00
12.101	12.123 (1.000)	95	495412			81.24- 141.24	113.36
12.101	12.123 (1.000)	176	425719			64.86- 124.86	97.41
$ 97 Naphthalene-d8					CAS #: 1146-65-2		
16.313	16.313 (1.348)	136	536755	27.0026	27.002	80.00- 120.00	100.00
16.313	16.313 (1.348)	108	50646			0.00- 39.63	9.44
98 Naphthalene					CAS #: 91-20-3		
16.349	16.349 (1.351)	128	1502164	69.3459	69.346	80.00- 120.00	100.00
16.349	16.349 (1.351)	127	188830			0.00- 42.83	12.57

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6020105R1.d
Lab Smp Id: VI VOC+PAH LCSD
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/01feb17.b/617z0127via.m
Misc Info: 2744-169-10,000, 2.0uL (7/3/17)

Calibration Date: 01-FEB-2017
Calibration Time: 02:28
Client Smp ID: LCSD
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	478728	287237	670219	437030	-8.71

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.12	11.79	12.45	12.10	-0.18

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/01feb17.b/6020105R1.d

Date : 01-FEB-2017 04:26

Client ID: LCSD

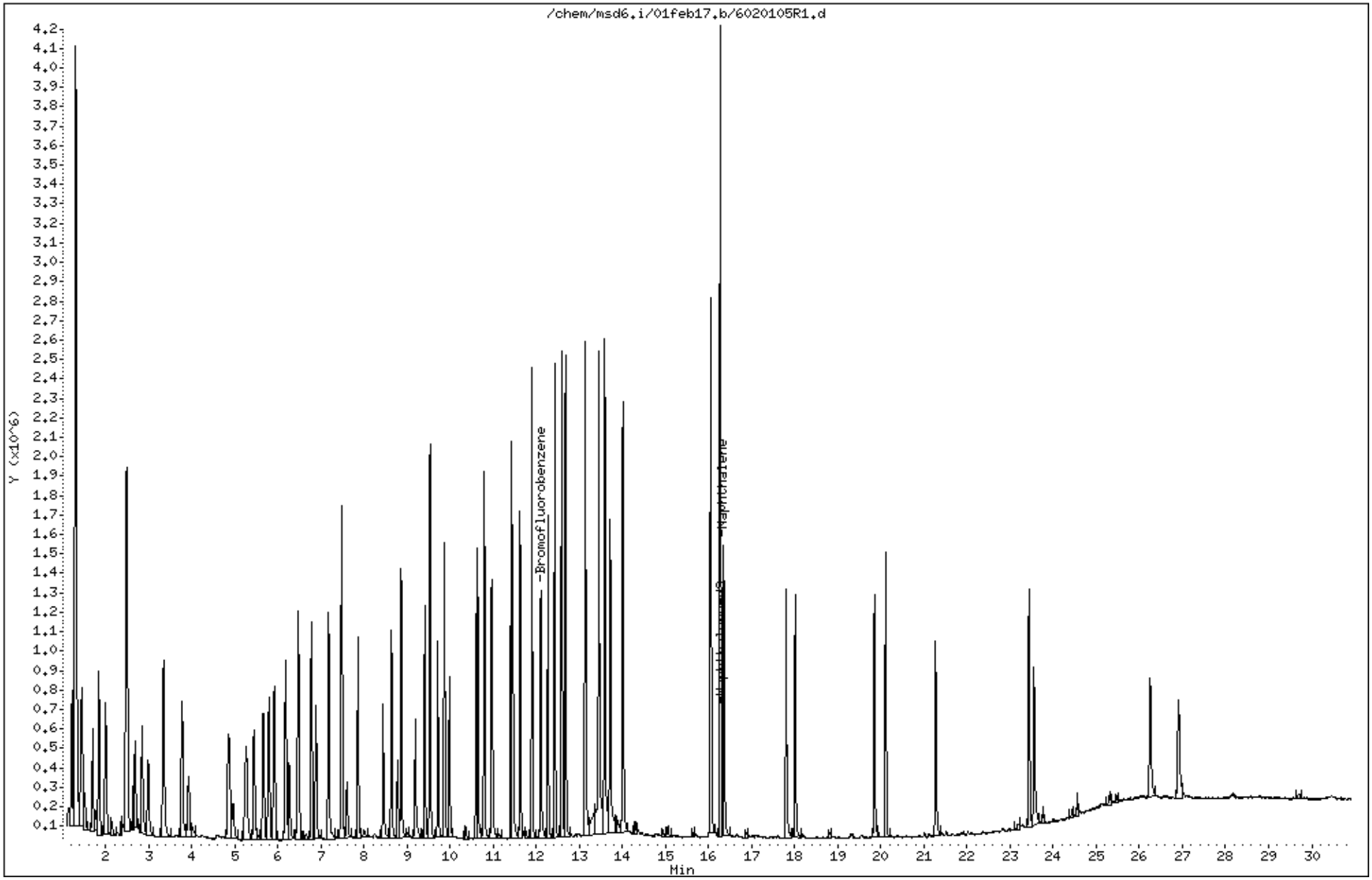
Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD; LCSD

Operator: su

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/01feb17.b/6020105R1.d

Date : 01-FEB-2017 04:26

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD; LCSD

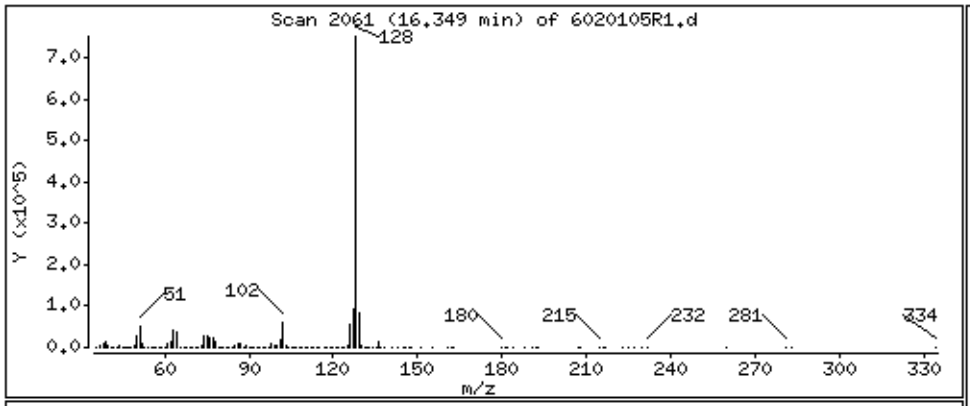
Operator: su

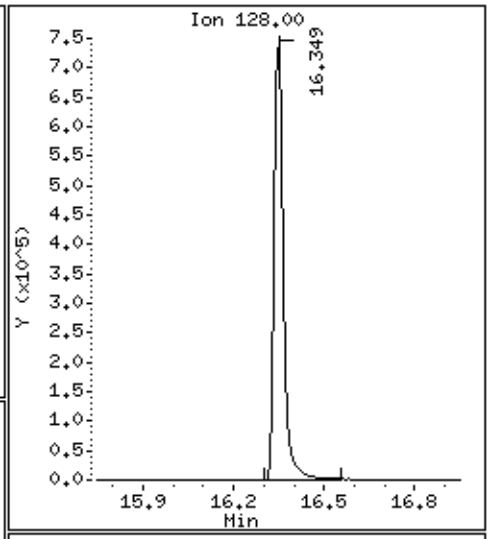
Column phase: RTx-624

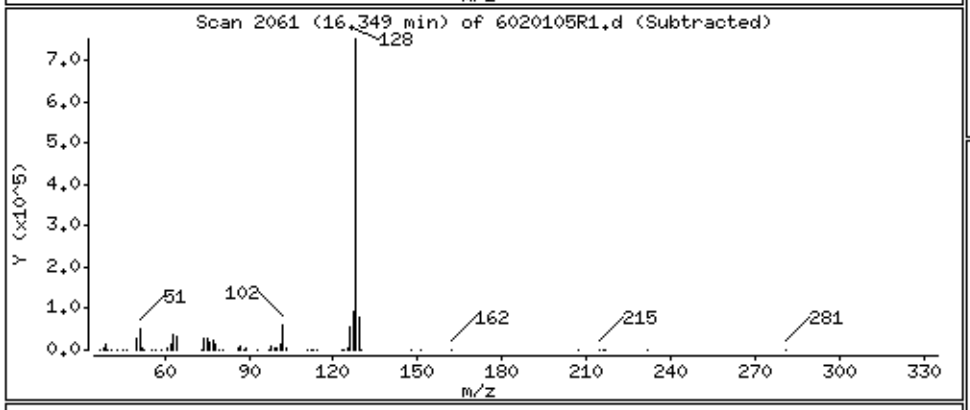
Column diameter: 0.53

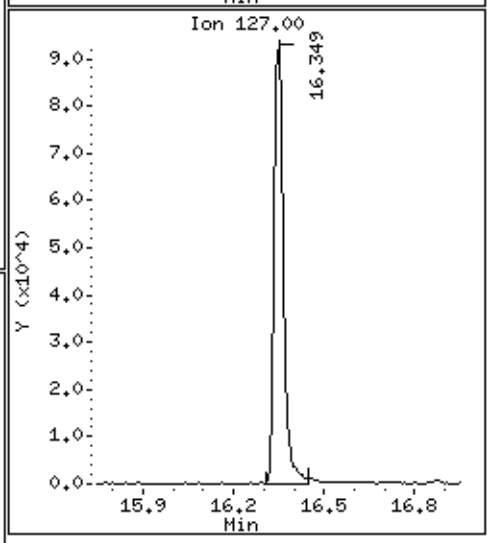
98 Naphthalene

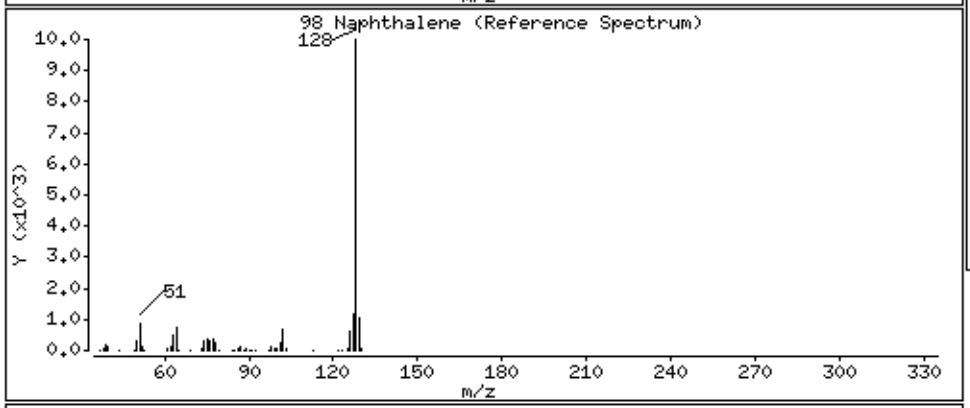
Concentration: 69.346 NG

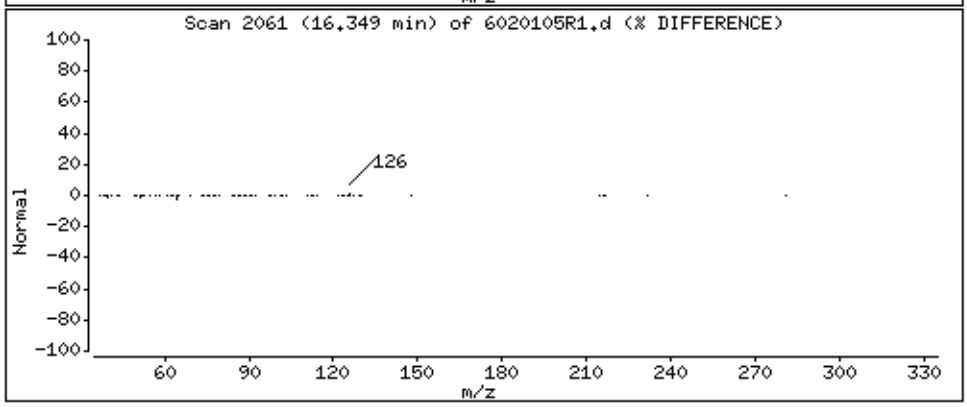












@ Air Toxics Ltd. Run Log for MSD-6 Method TO14 & TO15
BFB verification of 176/174 Ratio: (124280/126312)x100=98.39%
Standard ID 1476-2872 Exp. date 5/4/18
Bromochloromethane 208010 File ID: 6020102.d
1,4-Difluorobenzene 816538 Compound: Benzene
Chlorobenzene-d5 749710 InitialIS: SU
Bromofluorobenzene 478728
Verification CCV IS vs ICAL mid-point (-40%)
Calculation Check:

$$\text{ppbv of compound} = \frac{\text{Area of sample}}{\text{Area of IS}} * \frac{\text{Concentration of IS}}{\text{RRF}} = \frac{(1082213)}{(816538)} * \frac{(23)}{(0.47429)} = 64.272$$

Method: 617z0127vim/617h0125vim/617g0125vie.m

Data Directory: C:\msdchem\1\DATA\01FEB17.B\

Use	SampleName		Port pos.	Injection Time	Init.
20) ✓	6020101.D Comments				
;BFB; BFB		1476-2872, 36ng (5/4/18)	1	1 Feb 2017 1:48	SU/LA
21) ✓	6020102.D Comments	ϕ-out			
;VI VOC+PAH CCV;CCV		2787-57, 20mL (4/12/17);2	2	1 Feb 2017 2:28	
22) ✓	6020103.D Comments	2-out			
;VI VOC+PAH CCV;CCV 4:1 HS		2787-57, 20mL (4/12/17);2	3	1 Feb 2017 3:07	
23) ✓	6020104.D Comments	2-out			
;VI VOC+PAH LCS;LCS		2787-58, 20mL (4/12/17);2	3	1 Feb 2017 3:47	
24) ✓	6020105.D Comments	2-out			
;VI VOC+PAH LCSD;LCSD		2787-58, 20mL (4/12/17);2	4	1 Feb 2017 4:26	
25) ✓	6020106.D Comments				
;VI Diesel CCV;CCV		2744-169-10,000, 2.0uL (7	5	1 Feb 2017 5:06	
26) ✓	6020107.D Comments				
;VI Gasoline CCV;CCV		2744-56A-10,000, 2.0uL (4	6	1 Feb 2017 5:45	
27) ✓	6020108.D Comments				
;DP Lab Blank;Lab Blank		G0152855	6	1 Feb 2017 7:21	
1) ✓	6020109.D Comments				
;1701441-01A		G0144312, 4XnoIS reanalys	11	1 Feb 2017 9:17	
2) ✓	6020110.D Comments				
;System Blank; System Blank			1	1 Feb 2017 9:57	
3) ✓	6020111.D Comments				
;1701478-01A		G0151852	21	1 Feb 2017 12:46	
4) ✓	6020112.D Comments				
;1701478-02A		G0150050	22	1 Feb 2017 13:26	
5) ✓	6020113.D Comments				
;1701478-03A		G0149970	23	1 Feb 2017 14:06	
6) ✓	6020114.D Comments				
;1701478-04A		G0135660	24	1 Feb 2017 14:46	
7) ✓	6020115.D Comments				
;1701478-05A		G0150515	25	1 Feb 2017 15:26	
8) ✓	6020116.D Comments				
;1701478-06A		G0143614	26	1 Feb 2017 16:18	
9) ✓	6020117.D Comments				

Eurofins Air Toxics Inc.

Data file : /chem/msd6.i/27jan17.b/6012701.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 27-JAN-2017 08:26
Operator : su Inst ID: msd6.i
Smp Info : ;BFB; BFB
Misc Info : 1476-2872, 36ng (5/4/18)
Comment :
Method : /chem/msd6.i/27jan17.b/bfb.m
Meth Date : 06-Jan-2017 05:19 atoyama Quant Type: ESTD
Cal Date : 11-OCT-2009 15:24 Cal File: l101104.d
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

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

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

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
12.137	12.144	-0.007	95	186687		100.00	100.00	100.00
12.137	12.144	-0.007	50	38247		8.00	40.00	20.49
12.137	12.144	-0.007	75	89557		30.00	66.00	47.97
12.137	12.144	-0.007	96	12775		5.00	9.00	6.84
12.137	12.144	-0.007	173	1427		0.00	1.99	0.87
12.137	12.144	-0.007	174	164458		50.00	120.00	88.09
12.137	12.144	-0.007	175	12281		4.00	9.00	7.47
12.137	12.144	-0.007	176	161933		93.00	101.00	98.46
12.137	12.144	-0.007	177	10440		5.00	9.00	6.45

Data File: /chem/msd6.i/27jan17.b/6012701.d

Date : 27-JAN-2017 08:26

Client ID: BFB

Instrument: msd6.i

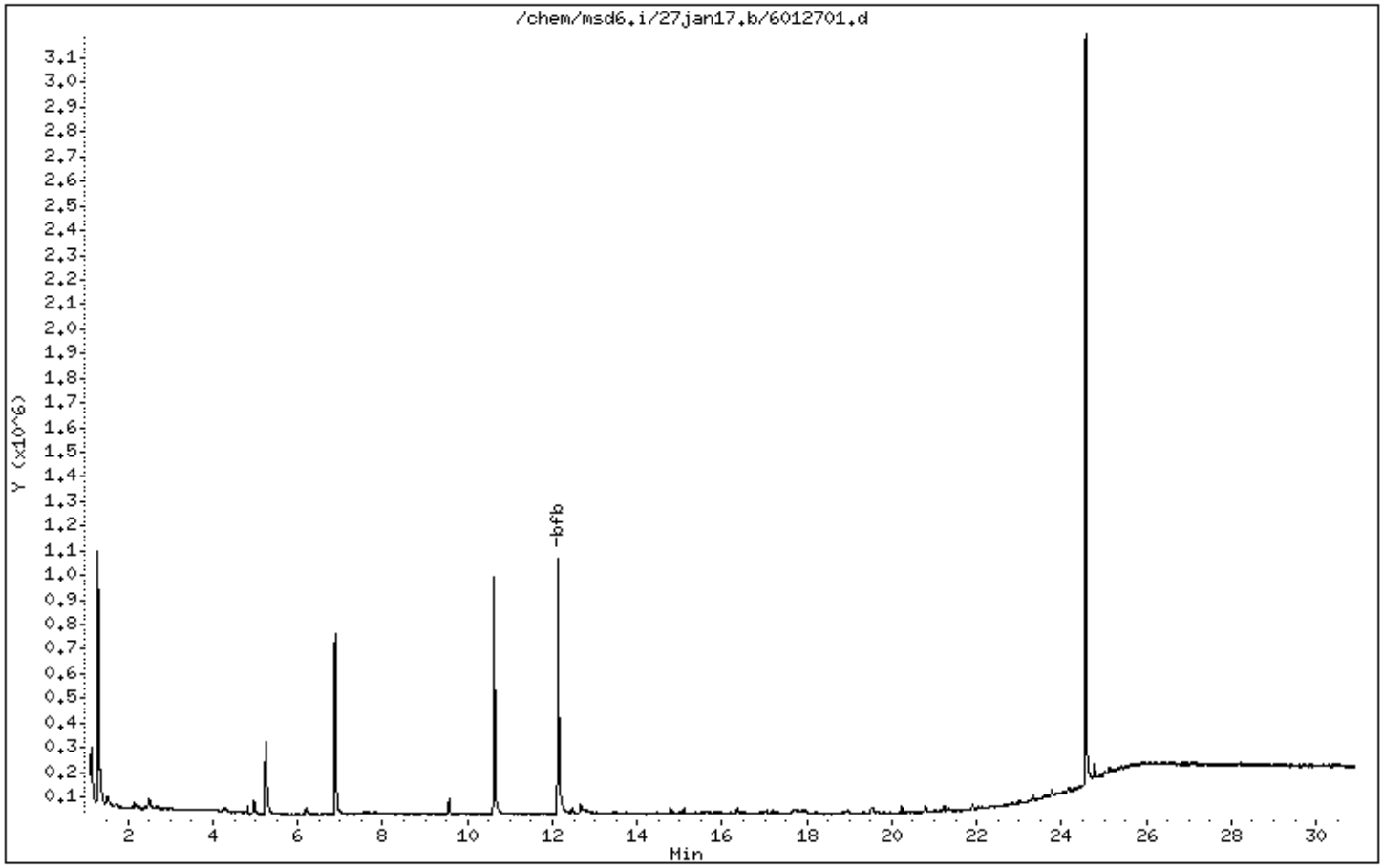
Sample Info: ;BFB; BFB

Volume Injected (uL): 1.0

Operator: su

Column phase:

Column diameter: 2.00



Data File: /chem/msd6.i/27jan17.b/6012701.d

Date : 27-JAN-2017 08:26

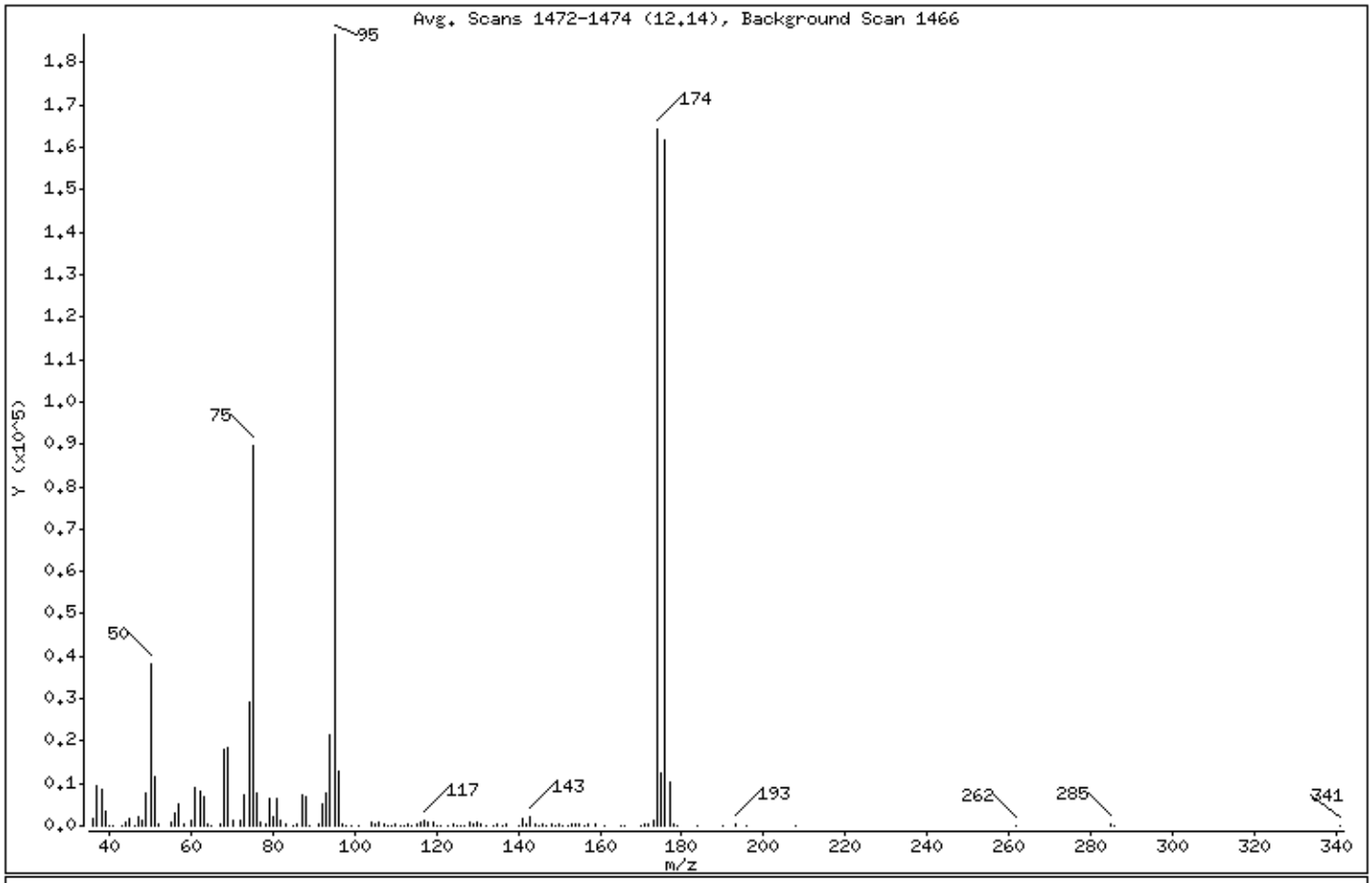
Client ID: BFB | Instrument: msd6.i

Sample Info: ;BFB; BFB

Volume Injected (uL): 1.0 | Operator: su

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	20.49
75	30.00 - 66.00% of mass 95	47.97
96	5.00 - 9.00% of mass 95	6.84
173	Less than 1.99% of mass 174	0.76 (0.87)
174	50.00 - 120.00% of mass 95	88.09
175	4.00 - 9.00% of mass 174	6.58 (7.47)
176	93.00 - 101.00% of mass 174	86.74 (98.46)
177	5.00 - 9.00% of mass 176	5.59 (6.45)

Data File: /chem/msd6.i/27jan17.b/6012701.d

Date : 27-JAN-2017 08:26

Client ID: BFB

Instrument: msd6.i

Sample Info: ;BFB; BFB

Volume Injected (uL): 1.0

Operator: su

Column phase:

Column diameter: 2.00

Data File: 6012701.d
Spectrum: Avg. Scans 1472-1474 (12,14), Background Scan 1466
Location of Maximum: 95.00
Number of points: 130

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1661	75.00	89552	113.00	312	150.00	340
37.00	9569	76.00	7667	114.00	52	151.00	143
38.00	8401	77.00	774	115.00	337	152.00	120
39.00	3365	78.00	428	116.00	838	153.00	302
40.00	140	79.00	6361	117.00	1195	154.00	238
41.00	57	80.00	2000	118.00	788	155.00	364
43.00	130	81.00	6487	119.00	943	156.00	68
44.00	1069	82.00	1404	120.00	57	157.00	399
45.00	1628	83.00	244	121.00	52	159.00	234
46.00	158	85.00	19	123.00	181	161.00	114
47.00	2310	86.00	246	124.00	260	165.00	161
48.00	1096	87.00	7094	125.00	120	166.00	65
49.00	7882	88.00	7025	126.00	182	170.00	162
50.00	38240	89.00	165	127.00	54	171.00	284
51.00	11613	91.00	598	128.00	848	172.00	313
52.00	374	92.00	5001	129.00	430	173.00	1427
55.00	747	93.00	7929	130.00	892	174.00	164416
56.00	3080	94.00	21584	131.00	332	175.00	12281
57.00	5290	95.00	186624	132.00	66	176.00	161920
58.00	220	96.00	12775	134.00	153	177.00	10440
60.00	1398	97.00	359	135.00	531	178.00	341
61.00	8899	98.00	53	136.00	202	179.00	50
62.00	8089	99.00	175	137.00	412	184.00	61
63.00	6674	101.00	52	140.00	192	190.00	63
64.00	477	104.00	915	141.00	1806	193.00	284
65.00	152	105.00	248	142.00	377	196.00	55
67.00	397	106.00	946	143.00	1936	208.00	145
68.00	18152	107.00	392	144.00	294	262.00	54
69.00	18456	108.00	104	145.00	129	285.00	544
70.00	1472	109.00	107	146.00	386	286.00	54
72.00	1116	110.00	258	147.00	53	341.00	68
73.00	7298	111.00	175	148.00	551		
74.00	29168	112.00	155	149.00	154		

Eurofins Air Toxics Inc.

Data file : /chem/msd6.i/01feb17.b/6020101.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 01-FEB-2017 01:48
Operator : LA Inst ID: msd6.i
Smp Info : ;BFB; BFB
Misc Info : 1476-2872, 36ng (5/4/18)
Comment :
Method : /chem/msd6.i/01feb17.b/bfb.m
Meth Date : 06-Jan-2017 05:19 atoyama Quant Type: ESTD
Cal Date : 11-OCT-2009 15:24 Cal File: l101104.d
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

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

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

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
12.108	12.144	-0.036	95	146488			100.00- 100.00	100.00
12.108	12.144	-0.036	50	30464			8.00- 40.00	20.80
12.108	12.144	-0.036	75	70385			30.00- 66.00	48.05
12.108	12.144	-0.036	96	9669			5.00- 9.00	6.60
12.108	12.144	-0.036	173	1272			0.00- 1.99	1.01
12.108	12.144	-0.036	174	126312			50.00- 120.00	86.23
12.108	12.144	-0.036	175	9075			4.00- 9.00	7.18
12.108	12.144	-0.036	176	124280			93.00- 101.00	98.39
12.108	12.144	-0.036	177	7996			5.00- 9.00	6.43

Data File: /chem/msd6.i/01feb17.b/6020101.d

Date : 01-FEB-2017 01:48

Client ID: BFB

Instrument: msd6.i

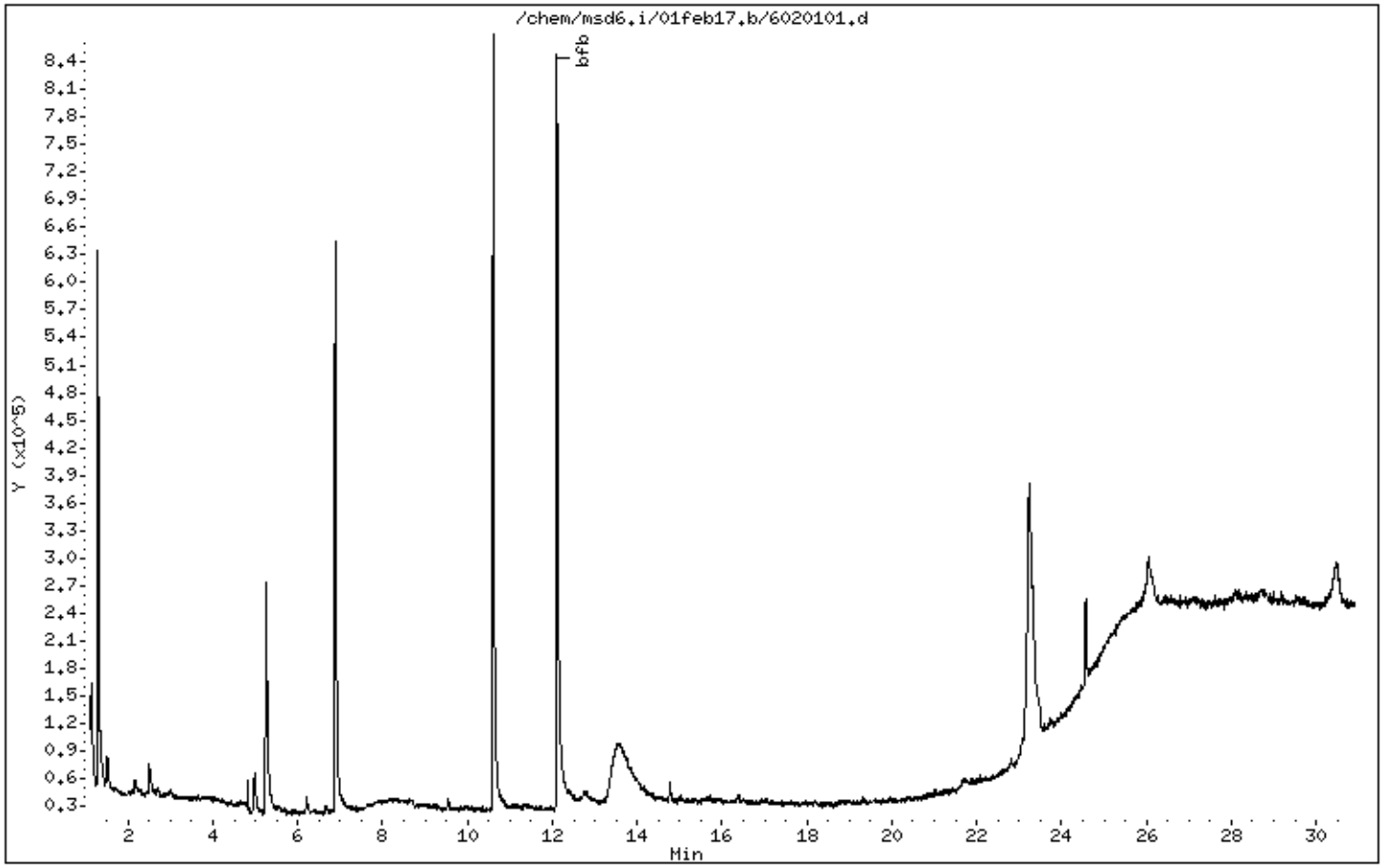
Sample Info: ;BFB; BFB

Volume Injected (uL): 1.0

Operator: LA

Column phase:

Column diameter: 2.00



Data File: /chem/msd6.i/01feb17.b/6020101.d

Date : 01-FEB-2017 01:48

Client ID: BFB

Instrument: msd6.i

Sample Info: ;BFB; BFB

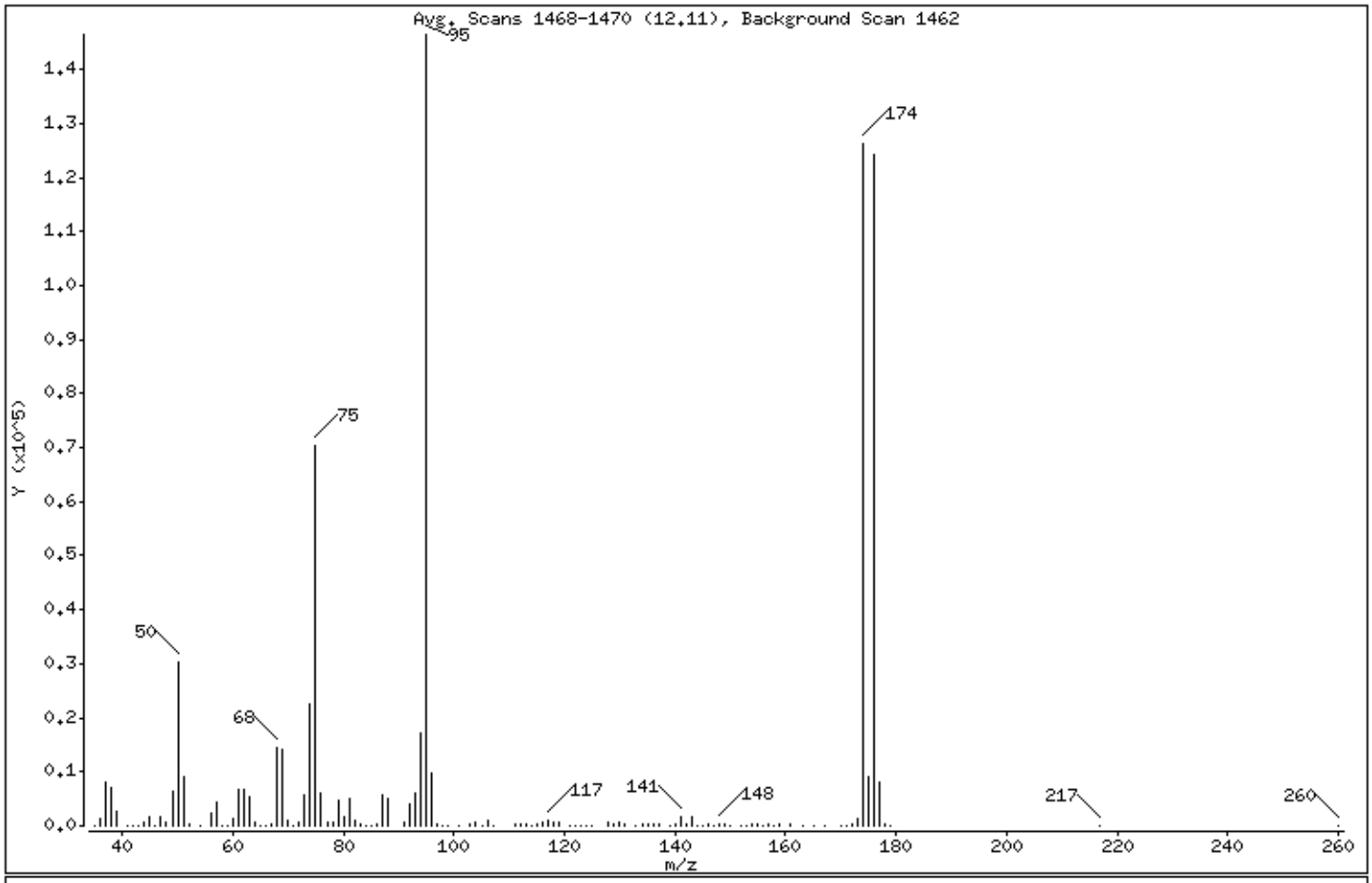
Volume Injected (uL): 1.0

Operator: LA

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	20.80
75	30.00 - 66.00% of mass 95	48.05
96	5.00 - 9.00% of mass 95	6.60
173	Less than 1.99% of mass 174	0.87 (1.01)
174	50.00 - 120.00% of mass 95	86.23
175	4.00 - 9.00% of mass 174	6.20 (7.18)
176	93.00 - 101.00% of mass 174	84.84 (98.39)
177	5.00 - 9.00% of mass 176	5.46 (6.43)

Data File: /chem/msd6.i/01feb17.b/6020101.d

Date : 01-FEB-2017 01:48

Client ID: BFB

Instrument: msd6.i

Sample Info: ;BFB; BFB

Volume Injected (uL): 1.0

Operator: LA

Column phase:

Column diameter: 2.00

Data File: 6020101.d
Spectrum: Avg. Scans 1468-1470 (12.11), Background Scan 1462
Location of Maximum: 95.00
Number of points: 125

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	137	70.00	1107	106.00	842	146.00	253
36.00	1319	71.00	38	107.00	116	147.00	137
37.00	8017	72.00	779	111.00	292	148.00	502
38.00	6948	73.00	5758	112.00	225	149.00	196
39.00	2756	74.00	22704	113.00	213	150.00	166
41.00	60	75.00	70384	114.00	104	152.00	66
42.00	78	76.00	5898	115.00	302	153.00	145
43.00	4	77.00	630	116.00	668	154.00	172
44.00	831	78.00	533	117.00	926	155.00	398
45.00	1600	79.00	4706	118.00	571	156.00	57
46.00	168	80.00	1574	119.00	816	157.00	406
47.00	1606	81.00	5118	121.00	106	158.00	58
48.00	643	82.00	1080	122.00	128	159.00	249
49.00	6318	83.00	178	123.00	50	161.00	331
50.00	30464	84.00	61	124.00	142	163.00	135
51.00	9123	85.00	61	125.00	134	165.00	64
52.00	314	86.00	258	128.00	523	167.00	112
54.00	9	87.00	5562	129.00	310	170.00	50
56.00	2360	88.00	5182	130.00	760	171.00	72
57.00	4458	91.00	618	131.00	306	172.00	245
58.00	134	92.00	3933	133.00	92	173.00	1272
59.00	18	93.00	6180	134.00	176	174.00	126312
60.00	1338	94.00	17056	135.00	211	175.00	9075
61.00	6664	95.00	146432	136.00	191	176.00	124280
62.00	6861	96.00	9669	137.00	431	177.00	7996
63.00	5416	97.00	346	139.00	78	178.00	315
64.00	579	98.00	63	140.00	200	179.00	50
65.00	155	99.00	68	141.00	1811	217.00	56
66.00	101	101.00	124	142.00	257	260.00	82
67.00	460	103.00	209	143.00	1571		
68.00	14614	104.00	581	144.00	66		
69.00	14143	105.00	154	145.00	134		

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

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. Relinquished signature also indicated 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.

AIR TOXICS LTD.
180 BLUE RAVINE RD. SUITE B
FOLSOM, CA 95630-1020
916-985-1000 main line
916-985-1020 fax line

TO-17

Project Manager: Terry Taylor
Company: Anderson Mulholland & Associates, Inc.
Address: 2700 Winchester, Suite 41 City: Purchase State: NY Zip: 10577
Phone: 914-251-0400, ext. 309 FAX:
Collected By (print and sign): David Lindstrand

Project Information:
P.O. #
Project #
Project Name BMS VI Invest. Buildings 8, 13, 15, 18, and 30

Turn Around Time: [X] Normal [ ] Rush Specify

Reporting Units: [ ] ppmv [ ] ppbv [X] ug/m3 [ ] mg/m3

Lab I.D.	Field Sample I.D.	Tube/ Cartridge	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
01A	B18SS-1DUP-012617	151852	1/26/17	1740	1743	3 min	0.40	Naphthalene
02A	B18SS-1-012617	150050	1/26/17	1734	1737	3 min	0.40	Naphthalene
03A	B18SS-2-012617	149970	1/26/17	1840	1843	3 min	0.40	Naphthalene
04A	B18SS-3-012617	135660	1/26/17	1820	1823	3 min	0.40	Naphthalene
05A	B18SS-4-012617	150515	1/26/17	1710	1713	3 min	0.40	Naphthalene
06A	B18SS-5-012617	143614	1/26/17	1800	1803	3 min	0.40	Naphthalene.

Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time 30 Jan 17 1700 Fed Ex
Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time 1/31/17 1020
Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time

Pump Calibration Information
Pre-test Flow Rate:
Post-test Flow Rate:
Average Flow Rate:

Notes:

Lab Use Only	Shipper Name	Air Bill #	Opened By	Temp ©	Condition	Custody Seals	Work Order #
	Fed Ex		AB	AA 2/1/17 NA 12.9°C	Good SDR	Yes No None	1701478

eurofins | Air Toxics

SAMPLE RECEIPT SUMMARY

WORKORDER 1701478R1

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: 03/24/17
Date Completed: 3/24/17
Date Received: 1/31/17
PO#:
Project#: BMS VI Invest. Buildings 8, 13, 15, 18,

Total $: $ 0.00
Logged By: AB

Fraction	Sample #	Analysis	Collected	Amount$
01A	B18SS-1DUP-012617	Modified TO-17 VI	1/26/2017	$0.00
02A	B18SS-1-012617	Modified TO-17 VI	1/26/2017	$0.00
03A	B18SS-2-012617	Modified TO-17 VI	1/26/2017	$0.00
04A	B18SS-3-012617	Modified TO-17 VI	1/26/2017	$0.00
05A	B18SS-4-012617	Modified TO-17 VI	1/26/2017	$0.00
06A	B18SS-5-012617	Modified TO-17 VI	1/26/2017	$0.00
07A	Lab Blank	Modified TO-17 VI	NA	$0.00
08A	CCV	Modified TO-17 VI	NA	$0.00
09A	LCS	Modified TO-17 VI	NA	$0.00
09AA	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:** 2/1/2017 **Discrepancy Type:** ☐ **1.** ☒ **2.** ☐ **3.**

Workorder(s) affected:1701478 **Sample(s) affected:** All

1. Sample Receipt Discrepancies

Narration Not Required:

1.1. ☐ Sample container (cartridge/tube) 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.

1.4. ☐ Sampling year not documented on COC but noted on sample tag.

1.5. ☐ Sorbent Sample received outside method required temperature of 2°C to 6°C but less than 6°C.

Notify Lab for further determination:

1.6. ☐ Tedlar bag received with minimal volume.

Initials: _____Date:_____

Narration Required in Lab Narrative and Sample Confirmation:

1.7. ☐ COC was not filled out in ink.

1.8. ☐ COC improperly relinquished / received.

☐Signature missing ☐date missing ☐time missing.

1.9. ☐ Sample ID on tags do not match the COC.

1.10. ☐ Can numbers do not match the COC.

1.11. ☐ Sampling date discrepancy.

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

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

1.14. ☐ 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 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. ☐ Sorbent samples -sampling volume was not provided.

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

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

☐ Canister valve was open.
☐ Brass nut was loose/not present.
☐ Sample can be analyzed.
☐ Sample cannot be analyzed.

2.13. ☐ Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. and the final recorded vac. on the COC.

☐ Canister passed leak check in lab <2psi, no evidence sample was compromised.

☐ Canister failed lab leak check, canister found to be leaking. Canister sample compromised.

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

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

2.16. ☒ 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).

2.17. ☐ Other (describe below).

Initials: **AA** **Date:** **2/1/2017** **Notify Receiving:** ☐ **Notify PM:** ☒

Describe the Discrepancy: 2.16, All

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. ☐ Samples received with insufficient time to analyze prior to expiration.

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

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

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

3.7. ☐ Reporting Limit was raised.

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

3.9. ☐ 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: 2/1/2017

☐ 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 # 1701478	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:** SU 2/1/17 MSD-6	**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: 51. ∅ out in CCV, 2 out in LCS/LCSD 1,2,4-TCB, Hexachlorobutadiene >150%

A1	A2	A3	A4	D	***Section 2* – Sample Analysis**				
					Initials/Date	**A1:** SU 2/2/17	**A2:**	**A3:**	**A4:**
✓				✓	IS/Surr Recoveries, Dilution Factors, Load Volumes, leg(s) of instrument, Initial/Final Pressures, and Canister #s Verified				
NA				W	**a)** Tedlar Bag IDs verified against COC **b)** Tedlar Bag ID confirmed with loading sequence/leg(s) of instrument				
NA				W	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: All samples 01A-06A good runs.

D1	D2	D3	D4	T	3T	***Section 3* – Target Data Reduction**	**Technical Review Needed? Circle one: Yes/No**		**T:** MSD-6 LA 2/9/17	
						Initials/Instrument/ Date	**D1:**	**D2:**	**D3:**	**D4:**
					■	CAR # *(if applicable)*				
					■	Spectra Verified *(documentation of spectral defense included if applicable)*				
					■	TICs resemble reference spectra/ TICs between sample dups. are consistent *(if applicable)*				
					✓	Lab Narrative is correct				
					■	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:	**3rd Tier:** *(needed only for DOD or per client request)* LA 2/9/17.	
	✓	Sample Discrepancy Report (SDR) complete and approved *(if applicable)*		
	✓	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

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

Workorder #:	**Reason for Reissue:** to correct peak results for all compounds using correct ICAL.
1701478R1	

W	T	3T	Q	
✓			✓	Reissue Request form Present
NA			NA	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 - # H2NB4A1543
✓			✓	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)
LA 3/24/17			ML 03/24/17

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