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Electronic Comprehensive Validation Package (eCVP)

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COMPREHENSIVE VALIDATION PACKAGE

Modified TO-17 VI

INVENTORY SHEET

Work Order #: 1701454R1

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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 #: 1701454R1

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	B1315AA-012817	Modified TO-17 VI
02A	B13IA-1-012817	Modified TO-17 VI
03A	B13IA-3-012817	Modified TO-17 VI
04A	B13IA-2-012817	Modified TO-17 VI
05A	B13IA-2DUP-012817	Modified TO-17 VI
06A	B13SS-1-012917	Modified TO-17 VI
07A	B13SS-2-012917	Modified TO-17 VI
08A	B13SS-2DUP-012917	Modified TO-17 VI
09A	B13SS-3-012917	Modified TO-17 VI
10A	B15S-1-012917	Modified TO-17 VI
11A	B15SS-1DUP-012917	Modified TO-17 VI
12A	B15FB-012917	Modified TO-17 VI
13A	B15IA-1DUP-012817	Modified TO-17 VI
14A	B15IA-1-012817	Modified TO-17 VI
15A	Lab Blank	Modified TO-17 VI
16A	CCV	Modified TO-17 VI
17A	LCS	Modified TO-17 VI
17AA	LCSD	Modified TO-17 VI

CERTIFIED BY: Heidi Mayo

Technical Director

DATE: 03/24/17

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# 1701454R1

Fourteen 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 17.3 L was used to convert ng to ug/m3 for the associated Lab Blank and sample B15FB-012917.

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)	Date Analyzed	Sample Extract Holding Time (Days)	Sample Condition
B1315AA-012817	1701454R1-01A	1/29/2017	1/31/2017	NA	2	1/31/2017	NA	Good
B13IA-1-012817	1701454R1-02A	1/29/2017	1/31/2017	NA	2	1/31/2017	NA	Good
B13IA-3-012817	1701454R1-03A	1/29/2017	1/31/2017	NA	2	1/31/2017	NA	Good
B13IA-2-012817	1701454R1-04A	1/29/2017	1/31/2017	NA	2	1/31/2017	NA	Good
B13IA-2DUP-012817	1701454R1-05A	1/29/2017	1/31/2017	NA	2	1/31/2017	NA	Good
B13SS-1-012917	1701454R1-06A	1/29/2017	1/31/2017	NA	2	1/31/2017	NA	Good
B13SS-2-012917	1701454R1-07A	1/29/2017	1/31/2017	NA	2	1/31/2017	NA	Good
B13SS-2DUP-012917	1701454R1-08A	1/29/2017	1/31/2017	NA	2	1/31/2017	NA	Good
B13SS-3-012917	1701454R1-09A	1/29/2017	1/31/2017	NA	2	1/31/2017	NA	Good
B15S-1-012917	1701454R1-10A	1/29/2017	1/31/2017	NA	2	1/31/2017	NA	Good
B15SS-1DUP-012917	1701454R1-11A	1/29/2017	1/31/2017	NA	2	1/31/2017	NA	Good
B15FB-012917	1701454R1-12A	1/29/2017	1/31/2017	NA	2	1/31/2017	NA	Good
B15IA-1DUP-012817	1701454R1-13A	1/29/2017	1/31/2017	NA	2	1/31/2017	NA	Good
B15IA-1-012817	1701454R1-14A	1/29/2017	1/31/2017	NA	2	1/31/2017	NA	Good
Lab Blank	1701454R1-15A	NA	NA	NA	NA	1/31/2017	NA	Good
CCV	1701454R1-16A	NA	NA	NA	NA	1/31/2017	NA	Good
LCS	1701454R1-17A	NA	NA	NA	NA	1/31/2017	NA	Good
LCSD	1701454R1-17A	NA	NA	NA	NA	1/31/2017	NA	Good

Sample Results and Raw Data

Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B1315AA-012817

Lab ID#: 1701454R1-01A

No Detections Were Found.

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Client Sample ID: B1315AA-012817

Lab ID#: 1701454R1-01A

EPA METHOD TO-17

File Name:	**6013112R1**	**Date of Extraction: NA**	**Date of Collection: 1/29/17 12:15:00 AM**
Dil. Factor:	**1.00**		**Date of Analysis: 1/31/17 03:53 PM**

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

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

Surrogates	%Recovery	Method Limits
Naphthalene-d8	92	50-150

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EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31jan17.b/6013112R1.d
Lab Smp Id: 1701454R1-01A
Inj Date : 31-JAN-2017 15:53
Operator : su Inst ID: msd6.i
Smp Info : ;1701454R1-01A
Misc Info : G0147257
Comment :
Method : /chem/msd6.i/31jan17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:44 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 12
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	
12.109	12.101	(1.000)	174	495442	36.0000		80.00- 120.00	100.00
12.109	12.101	(1.000)	95	552388			81.24- 141.24	111.49
12.109	12.101	(1.000)	176	471463			64.86- 124.86	95.16
$ 97 Naphthalene-d8							CAS #: 1146-65-2	
16.328	16.313	(1.348)	136	515659	22.8828	22.883	80.00- 120.00	100.00
16.328	16.313	(1.348)	108	43358			0.00- 39.63	8.41

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INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6013112R1.d
Lab Smp Id: 1701454R1-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0147257

Calibration Date: 31-JAN-2017
Calibration Time: 07:26

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	424509	254705	594313	495442	16.71

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.10	11.77	12.43	12.11	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: 24-Mar-2017 13:13

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RECOVERY REPORT

Client Name: Client SDG: 31jan17
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701454R1-01A
Level: LOW Operator: su
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs60.5.spk Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0147257

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	22.883	91.53	50-150

Data File: /chem/msd6.i/31jan17.b/6013112R1.d

Date : 31-JAN-2017 15:53

Client ID:

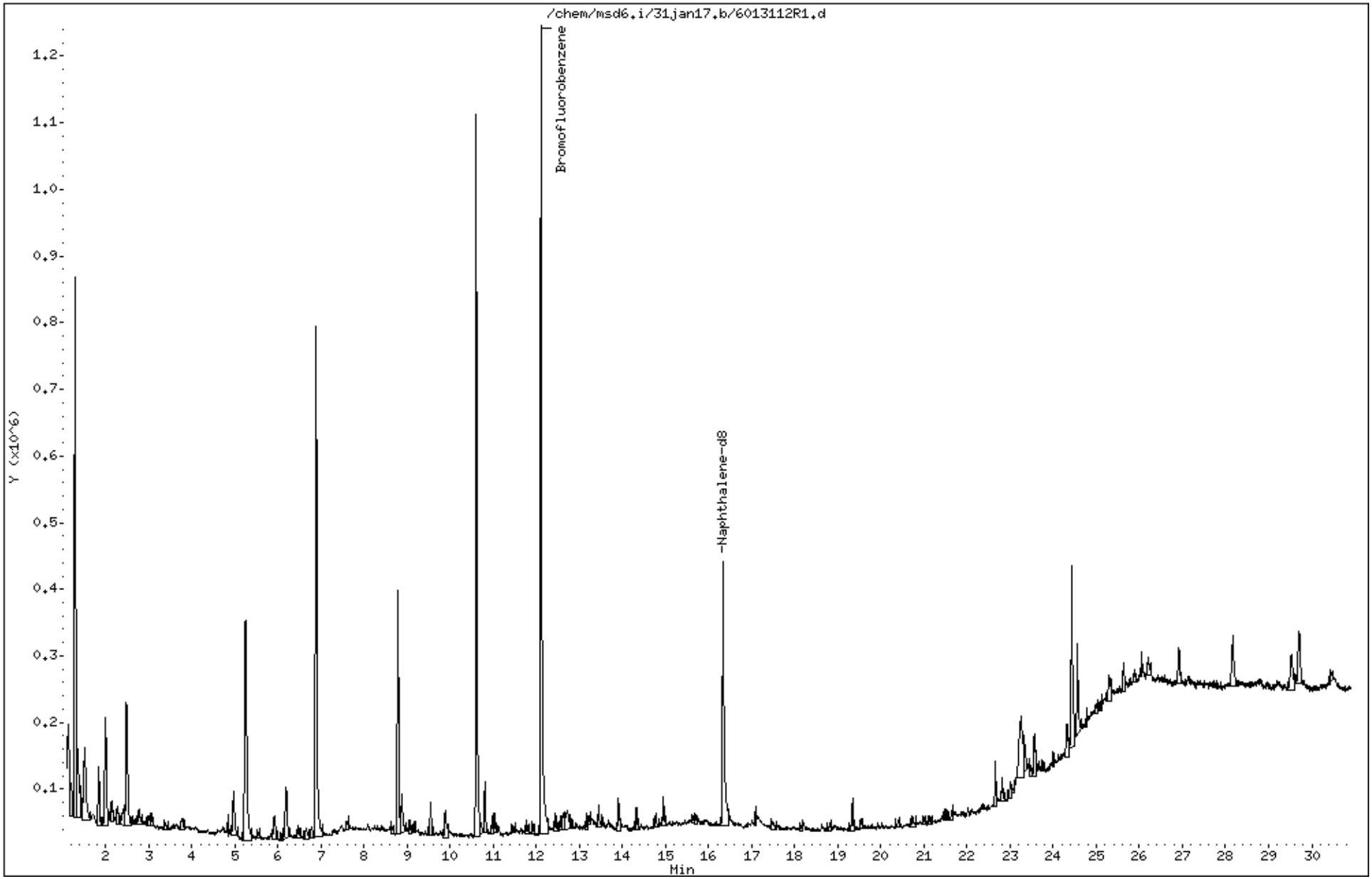
Sample Info: :1701454R1-01A

Column phase: RTx-624

Instrument: msd6.i

Operator: su

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B13IA-1-012817

Lab ID#: 1701454R1-02A

No Detections Were Found.

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Client Sample ID: B13IA-1-012817

Lab ID#: 1701454R1-02A

EPA METHOD TO-17

File Name:	**6013113R1**	**Date of Extraction: NA**	**Date of Collection: 1/29/17 2:45:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 1/31/17 04:33 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.061	Not Detected	Not Detected

Air Sample Volume(L): 16.3
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	92	50-150

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EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31jan17.b/6013113R1.d
Lab Smp Id: 1701454R1-02A
Inj Date : 31-JAN-2017 16:33
Operator : su Inst ID: msd6.i
Smp Info : ;1701454R1-02A
Misc Info : G0152217
Comment :
Method : /chem/msd6.i/31jan17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:44 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 13
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	
12.109	12.101	(1.000)	174	479148	36.0000		80.00- 120.00	100.00
12.101	12.101	(1.000)	95	551239			81.24- 141.24	115.05
12.109	12.101	(1.000)	176	471040			64.86- 124.86	98.31
$ 97 Naphthalene-d8							CAS #: 1146-65-2	
16.320	16.313	(1.348)	136	502069	23.0374	23.037	80.00- 120.00	100.00
16.320	16.313	(1.348)	108	41626			0.00- 39.63	8.29

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6013113R1.d
Lab Smp Id: 1701454R1-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0152217

Calibration Date: 31-JAN-2017
Calibration Time: 07:26

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	424509	254705	594313	479148	12.87

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.10	11.77	12.43	12.11	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: 24-Mar-2017 13:13

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RECOVERY REPORT

Client Name: Client SDG: 31jan17
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701454R1-02A
Level: LOW Operator: su
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs60.5.spk Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0152217

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	23.037	92.15	50-150

Data File: /chem/msd6.i/31jan17.b/6013113R1.d

Date : 31-JAN-2017 16:33

Client ID:

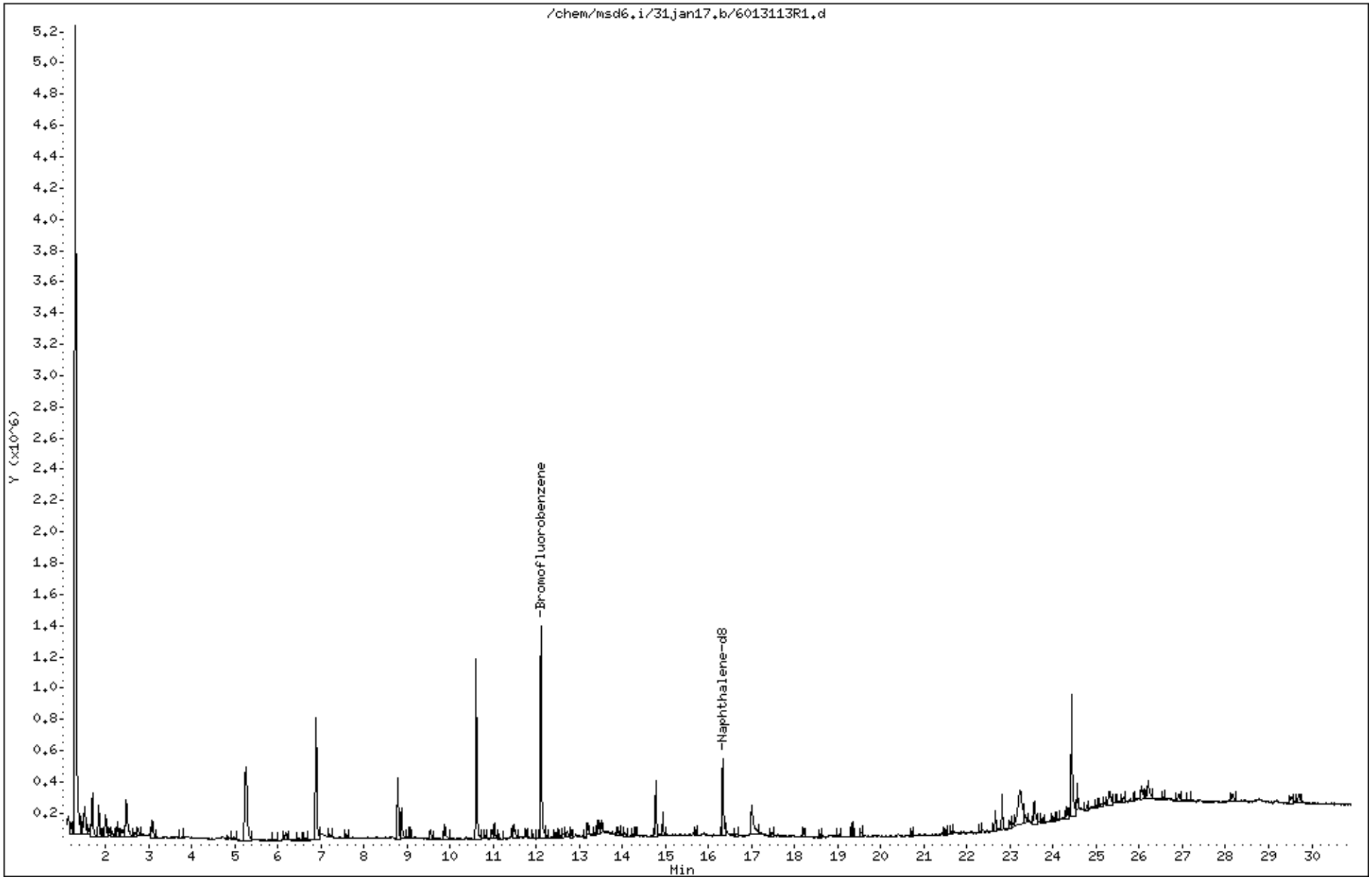
Instrument: msd6.i

Sample Info: ;1701454R1-02A

Operator: su

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B13IA-3-012817

Lab ID#: 1701454R1-03A

No Detections Were Found.

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Client Sample ID: B13IA-3-012817

Lab ID#: 1701454R1-03A

EPA METHOD TO-17

File Name:	**6013114R1**	**Date of Extraction: NA**	**Date of Collection: 1/29/17 2:52:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 1/31/17 05:13 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.059	Not Detected	Not Detected

Air Sample Volume(L): 17.0
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	95	50-150

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EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31jan17.b/6013114R1.d
Lab Smp Id: 1701454R1-03A
Inj Date : 31-JAN-2017 17:13
Operator : su Inst ID: msd6.i
Smp Info : ;1701454R1-03A
Misc Info : G0153670
Comment :
Method : /chem/msd6.i/31jan17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:44 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 14
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	12.101	(1.000)	174	492846	36.0000		80.00- 120.00	100.00
12.108	12.101	(1.000)	95	564795			81.24- 141.24	114.60
12.108	12.101	(1.000)	176	476629			64.86- 124.86	96.71
$ 97 Naphthalene-d8							CAS #: 1146-65-2	
16.320	16.313	(1.348)	136	534956	23.8642	23.864	80.00- 120.00	100.00
16.328	16.313	(1.348)	108	47673			0.00- 39.63	8.91

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INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6013114R1.d
Lab Smp Id: 1701454R1-03A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0153670

Calibration Date: 31-JAN-2017
Calibration Time: 07:26

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	424509	254705	594313	492846	16.10

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.10	11.77	12.43	12.11	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: 24-Mar-2017 13:13

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31jan17
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701454R1-03A
Level: LOW Operator: su
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs60.5.spk Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0153670

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	23.864	95.46	50-150

Data File: /chem/msd6.i/31jan17.b/6013114R1.d

Date : 31-JAN-2017 17:13

Client ID:

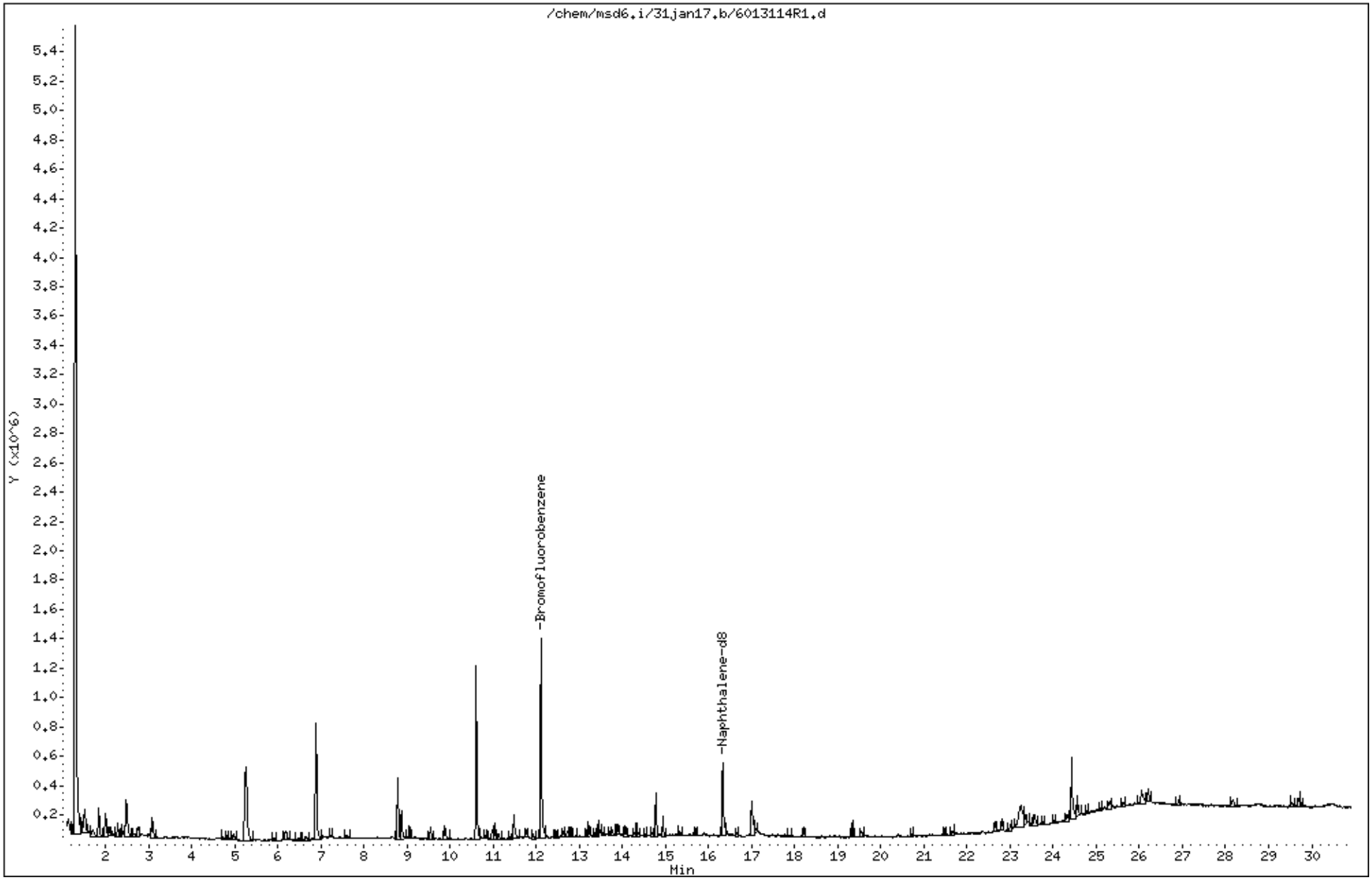
Instrument: msd6.i

Sample Info: ;1701454R1-03A

Operator: su

Column phase: RTx-624

Column diameter: 0.53



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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B13IA-2-012817

Lab ID#: 1701454R1-04A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.060	0.61 J	0.036 J

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Client Sample ID: B13IA-2-012817

Lab ID#: 1701454R1-04A

EPA METHOD TO-17

File Name:	**6013115R1**	**Date of Extraction: NA**	**Date of Collection: 1/29/17 3:08:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 1/31/17 05:53 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.060	0.61 J	0.036 J

Air Sample Volume(L): 16.8

J = Estimated value.

Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	92	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31jan17.b/6013115R1.d
Lab Smp Id: 1701454R1-04A
Inj Date : 31-JAN-2017 17:53
Operator : su Inst ID: msd6.i
Smp Info : ;1701454R1-04A
Misc Info : G0147082
Comment :
Method : /chem/msd6.i/31jan17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:44 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 15
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	12.101	(1.000)	174	497871	36.0000		80.00- 120.00	100.00
12.101	12.101	(1.000)	95	569947			81.24- 141.24	114.48
12.101	12.101	(1.000)	176	480180			64.86- 124.86	96.45
$ 97 Naphthalene-d8							CAS #: 1146-65-2	
16.320	16.313	(1.348)	136	518460	22.8949	22.895	80.00- 120.00	100.00
16.320	16.313	(1.348)	108	43833			0.00- 39.63	8.45
98 Naphthalene							CAS #: 91-20-3	
16.363	16.349	(1.351)	128	15008	0.60816	0.6082	80.00- 120.00	100.00(a)
16.363	16.349	(1.351)	127	2631			0.00- 42.83	17.53

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: 6013115R1.d
Lab Smp Id: 1701454R1-04A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0147082

Calibration Date: 31-JAN-2017
Calibration Time: 07:26

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	424509	254705	594313	497871	17.28

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.10	11.77	12.43	12.11	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: 24-Mar-2017 13:13

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31jan17
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701454R1-04A
Level: LOW Operator: su
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs60.5.spk Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0147082

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	22.895	91.58	50-150

Data File: /chem/msd6.i/31jan17.b/6013115R1.d

Date : 31-JAN-2017 17:53

Client ID:

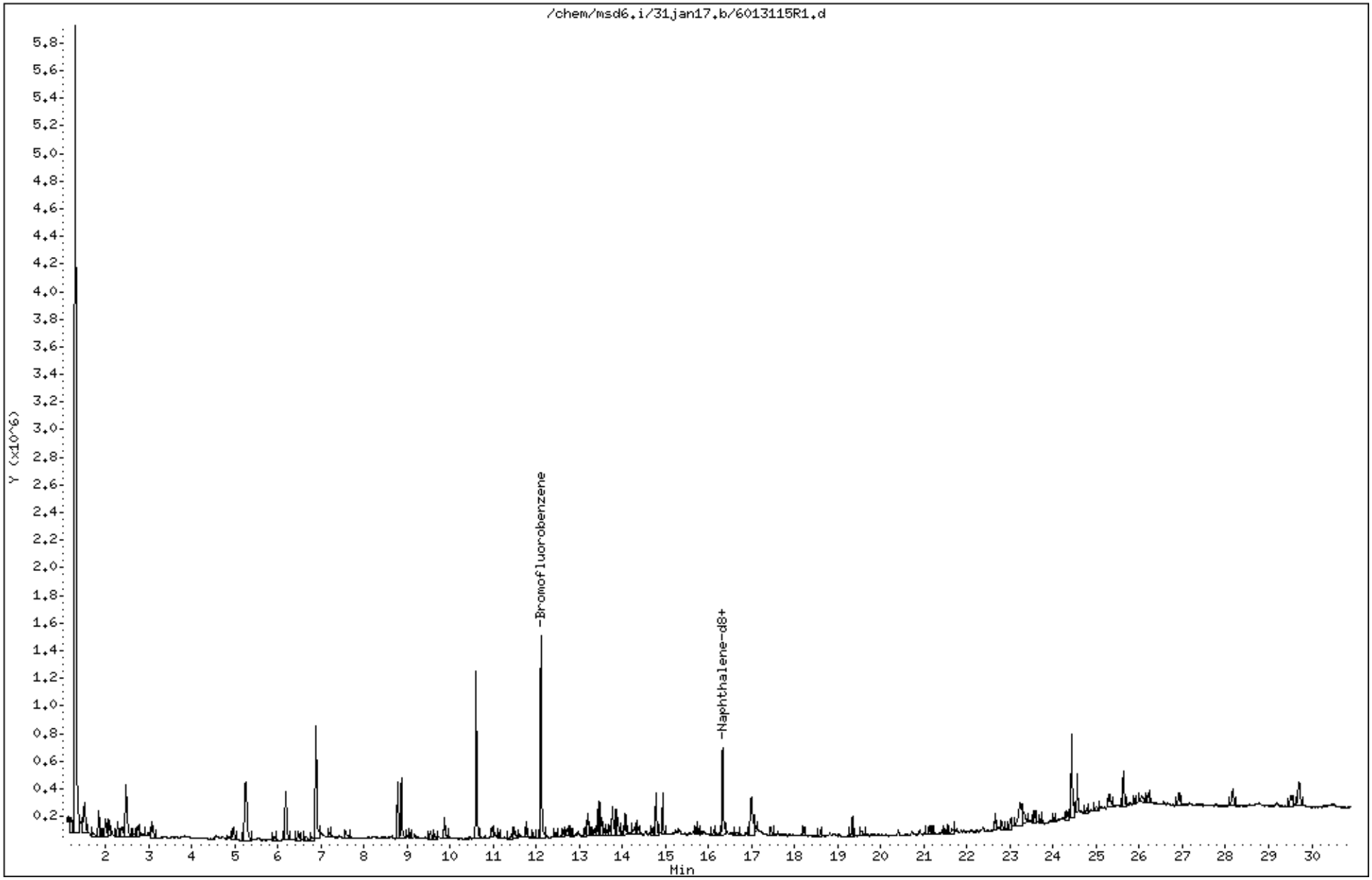
Instrument: msd6.i

Sample Info: ;1701454R1-04A

Operator: su

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/31jan17.b/6013115R1.d

Date : 31-JAN-2017 17:53

Client ID:

Instrument: msd6.i

Sample Info: ;1701454R1-04A

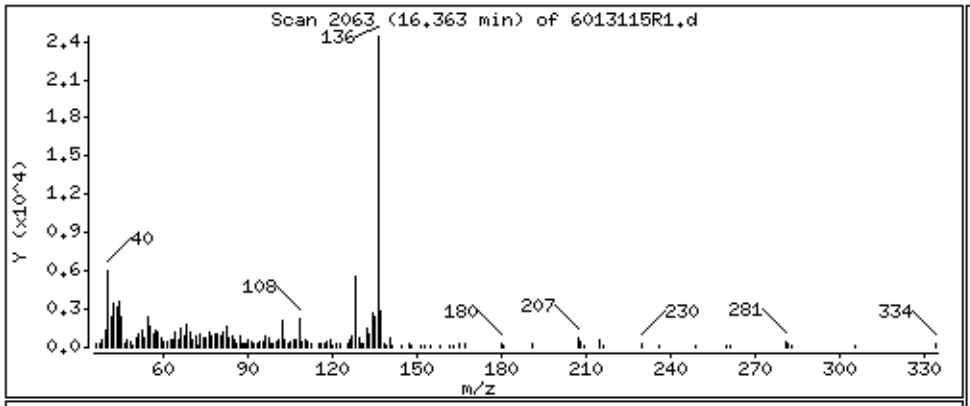
Operator: su

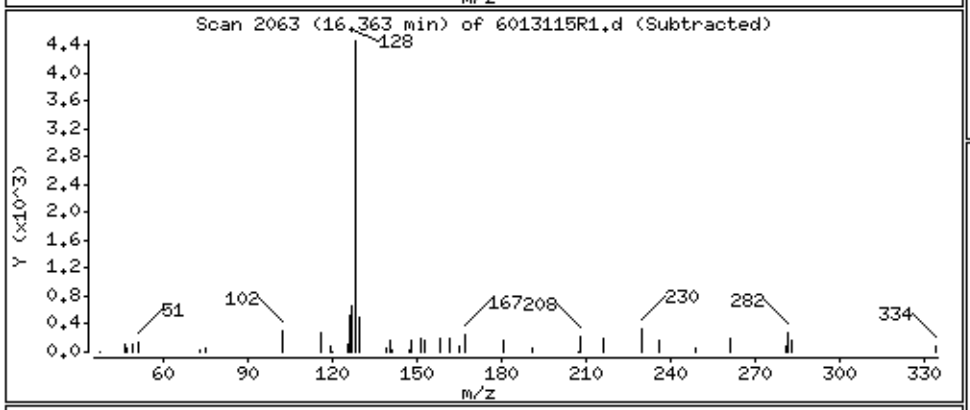
Column phase: RTx-624

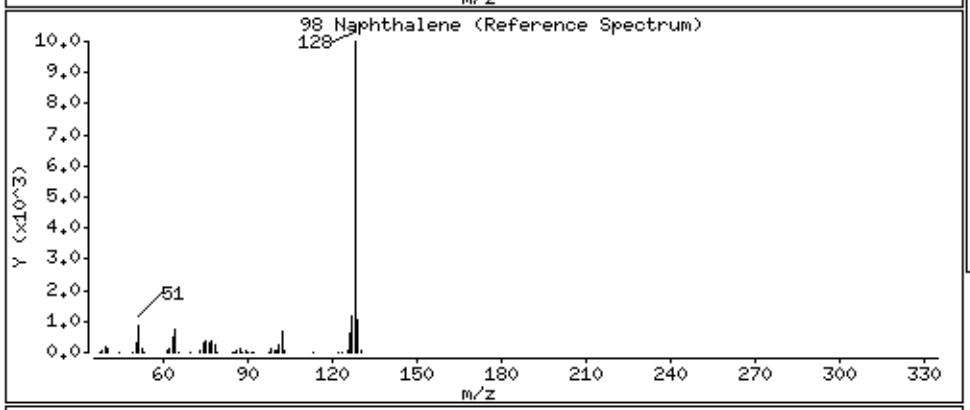
Column diameter: 0.53

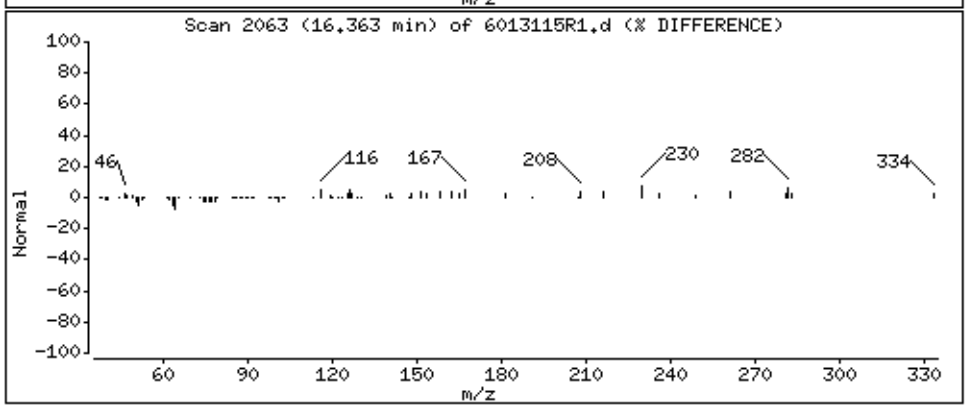
98 Naphthalene

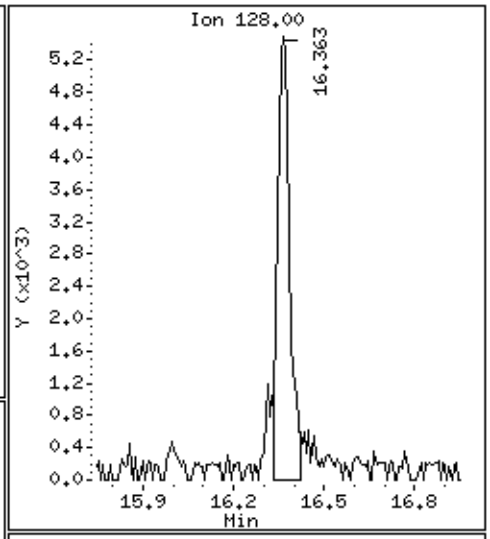
Concentration: 0.6082 NG

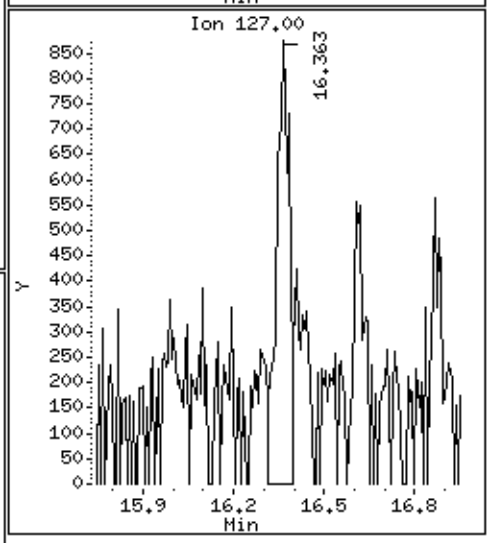












Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B13IA-2DUP-012817

Lab ID#: 1701454R1-05A

No Detections Were Found.

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Client Sample ID: B13IA-2DUP-012817

Lab ID#: 1701454R1-05A

EPA METHOD TO-17

File Name:	**6013116R1**	**Date of Extraction: NA**	**Date of Collection: 1/29/17 3:08:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 1/31/17 06:33 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.060	Not Detected	Not Detected

Air Sample Volume(L): 16.8
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	103	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31jan17.b/6013116R1.d
Lab Smp Id: 1701454R1-05A
Inj Date : 31-JAN-2017 18:33
Operator : su Inst ID: msd6.i
Smp Info : ;1701454R1-05A
Misc Info : G0144403
Comment :
Method : /chem/msd6.i/31jan17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:44 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 16
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	12.101	(1.000)	174	502844	36.0000		80.00- 120.00	100.00
12.101	12.101	(1.000)	95	573131			81.24- 141.24	113.98
12.101	12.101	(1.000)	176	489200			64.86- 124.86	97.29
$ 97 Naphthalene-d8							CAS #: 1146-65-2	
16.320	16.313	(1.349)	136	590517	25.8190	25.819	80.00- 120.00	100.00
16.320	16.313	(1.349)	108	50284			0.00- 39.63	8.52

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6013116R1.d
Lab Smp Id: 1701454R1-05A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0144403

Calibration Date: 31-JAN-2017
Calibration Time: 07:26

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	424509	254705	594313	502844	18.45

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.10	11.77	12.43	12.10	0.00

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

Report Date: 24-Mar-2017 13:13

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31jan17
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701454R1-05A
Level: LOW Operator: su
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs60.5.spk Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0144403

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	25.819	103.28	50-150

Data File: /chem/msd6.i/31jan17.b/6013116R1.d

Date : 31-JAN-2017 18:33

Client ID:

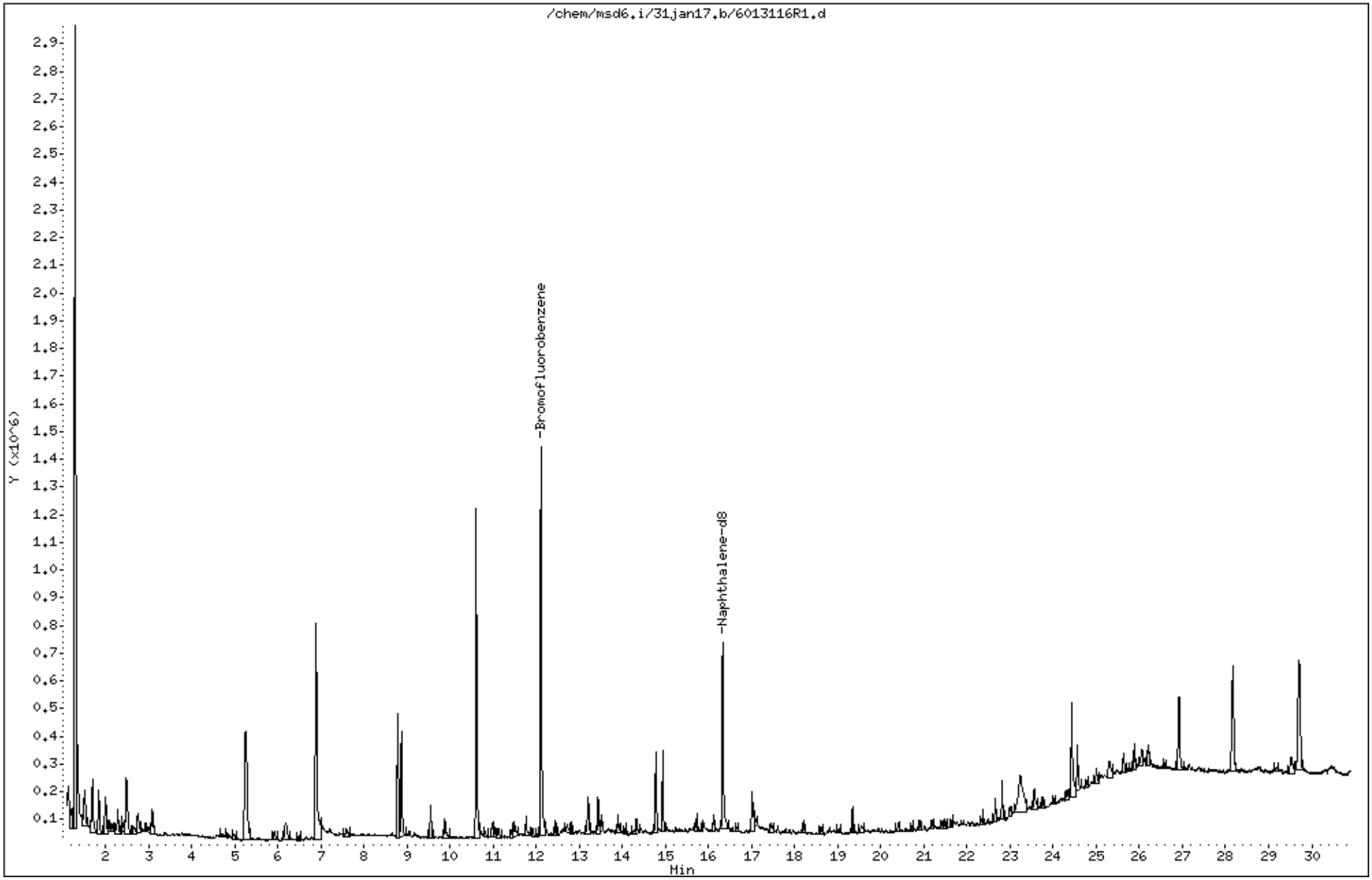
Instrument: msd6.i

Sample Info: ;1701454R1-05A

Operator: su

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B13SS-1-012917

Lab ID#: 1701454R1-06A

No Detections Were Found.

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Client Sample ID: B13SS-1-012917

Lab ID#: 1701454R1-06A

EPA METHOD TO-17

File Name:	**6013117R1**	**Date of Extraction: NA**	**Date of Collection: 1/29/17 3:17:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 1/31/17 07:13 PM**

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: 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/31jan17.b/6013117R1.d
Lab Smp Id: 1701454R1-06A
Inj Date : 31-JAN-2017 19:13
Operator : su Inst ID: msd6.i
Smp Info : ;1701454R1-06A
Misc Info : G0149600
Comment :
Method : /chem/msd6.i/31jan17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:44 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 17
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	12.101 (1.000)	174	498894	36.0000		80.00- 120.00	100.00
12.101	12.101 (1.000)	95	555174			81.24- 141.24	111.28
12.108	12.101 (1.000)	176	481250			64.86- 124.86	96.46
$ 97 Naphthalene-d8					CAS #: 1146-65-2		
16.320	16.313 (1.348)	136	545793	24.0524	24.052	80.00- 120.00	100.00
16.320	16.313 (1.348)	108	49145			0.00- 39.63	9.00

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6013117R1.d
Lab Smp Id: 1701454R1-06A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0149600

Calibration Date: 31-JAN-2017
Calibration Time: 07:26

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	424509	254705	594313	498894	17.52

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.10	11.77	12.43	12.11	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: 24-Mar-2017 13:13

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31jan17
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701454R1-06A
Level: LOW Operator: su
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs60.5.spk Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0149600

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	24.052	96.21	50-150

Data File: /chem/msd6.i/31jan17.b/6013117R1.d

Date : 31-JAN-2017 19:13

Client ID:

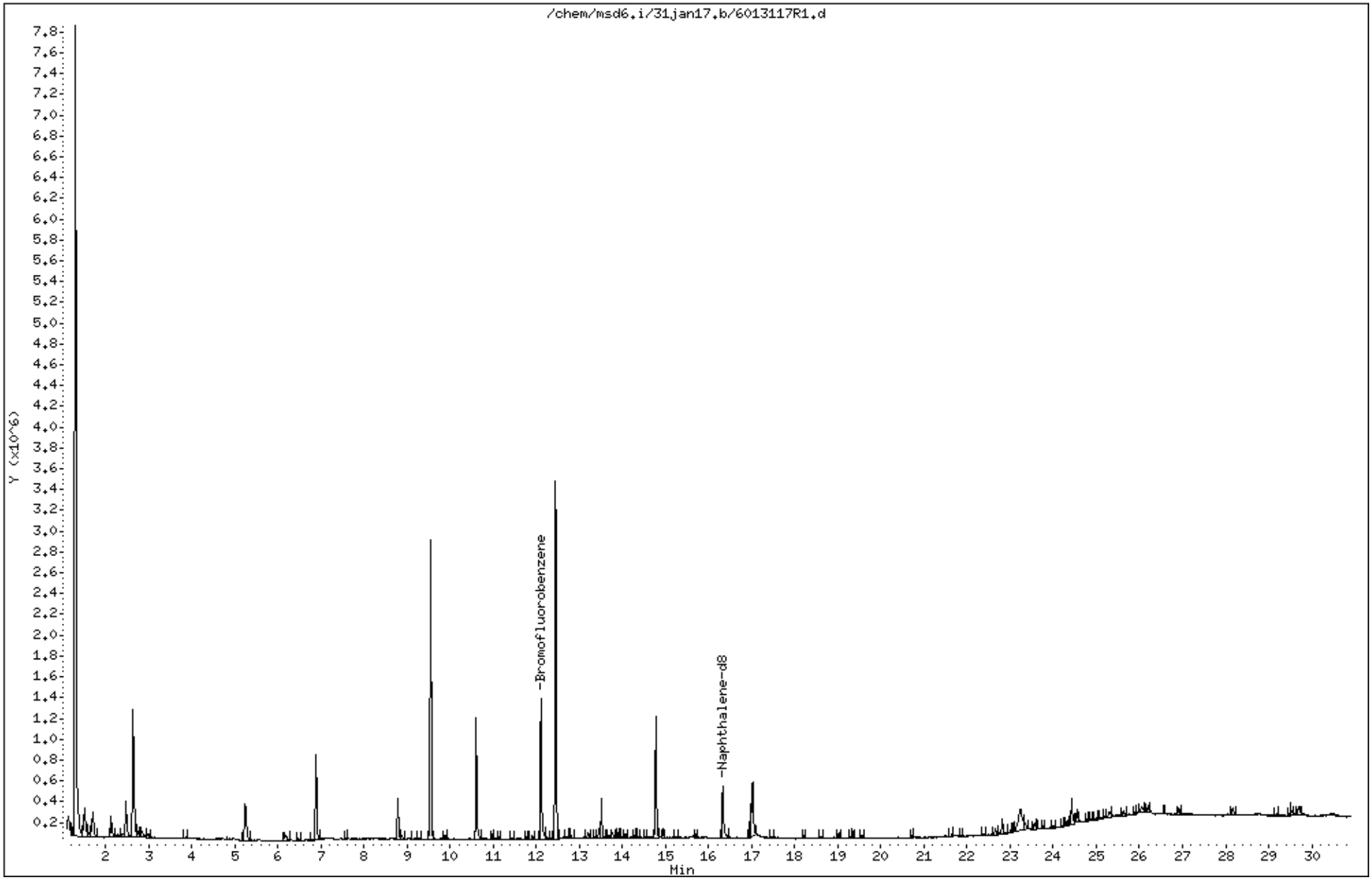
Instrument: msd6.i

Sample Info: ;1701454R1-06A

Operator: su

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B13SS-2-012917

Lab ID#: 1701454R1-07A

No Detections Were Found.

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Client Sample ID: B13SS-2-012917

Lab ID#: 1701454R1-07A

EPA METHOD TO-17

File Name:	**6013118R1**	**Date of Extraction: NA**	**Date of Collection: 1/29/17 4:05:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 1/31/17 07:52 PM**

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: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	93	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31jan17.b/6013118R1.d
Lab Smp Id: 1701454R1-07A
Inj Date : 31-JAN-2017 19:52
Operator : su Inst ID: msd6.i
Smp Info : ;1701454R1-07A
Misc Info : G0145582
Comment :
Method : /chem/msd6.i/31jan17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:44 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 18
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	12.101 (1.000)	174	500889	36.0000		80.00- 120.00	100.00
12.101	12.101 (1.000)	95	578684			81.24- 141.24	115.53
12.101	12.101 (1.000)	176	486185			64.86- 124.86	97.06
$ 97 Naphthalene-d8					CAS #: 1146-65-2		
16.320	16.313 (1.349)	136	527684	23.1618	23.162	80.00- 120.00	100.00
16.320	16.313 (1.349)	108	46316			0.00- 39.63	8.78

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6013118R1.d
Lab Smp Id: 1701454R1-07A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0145582

Calibration Date: 31-JAN-2017
Calibration Time: 07:26

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	424509	254705	594313	500889	17.99

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.10	11.77	12.43	12.10	0.00

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

Report Date: 24-Mar-2017 13:13

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31jan17
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701454R1-07A
Level: LOW Operator: su
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs60.5.spk Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0145582

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	23.162	92.65	50-150

Data File: /chem/msd6.i/31jan17.b/6013118R1.d

Date : 31-JAN-2017 19:52

Client ID:

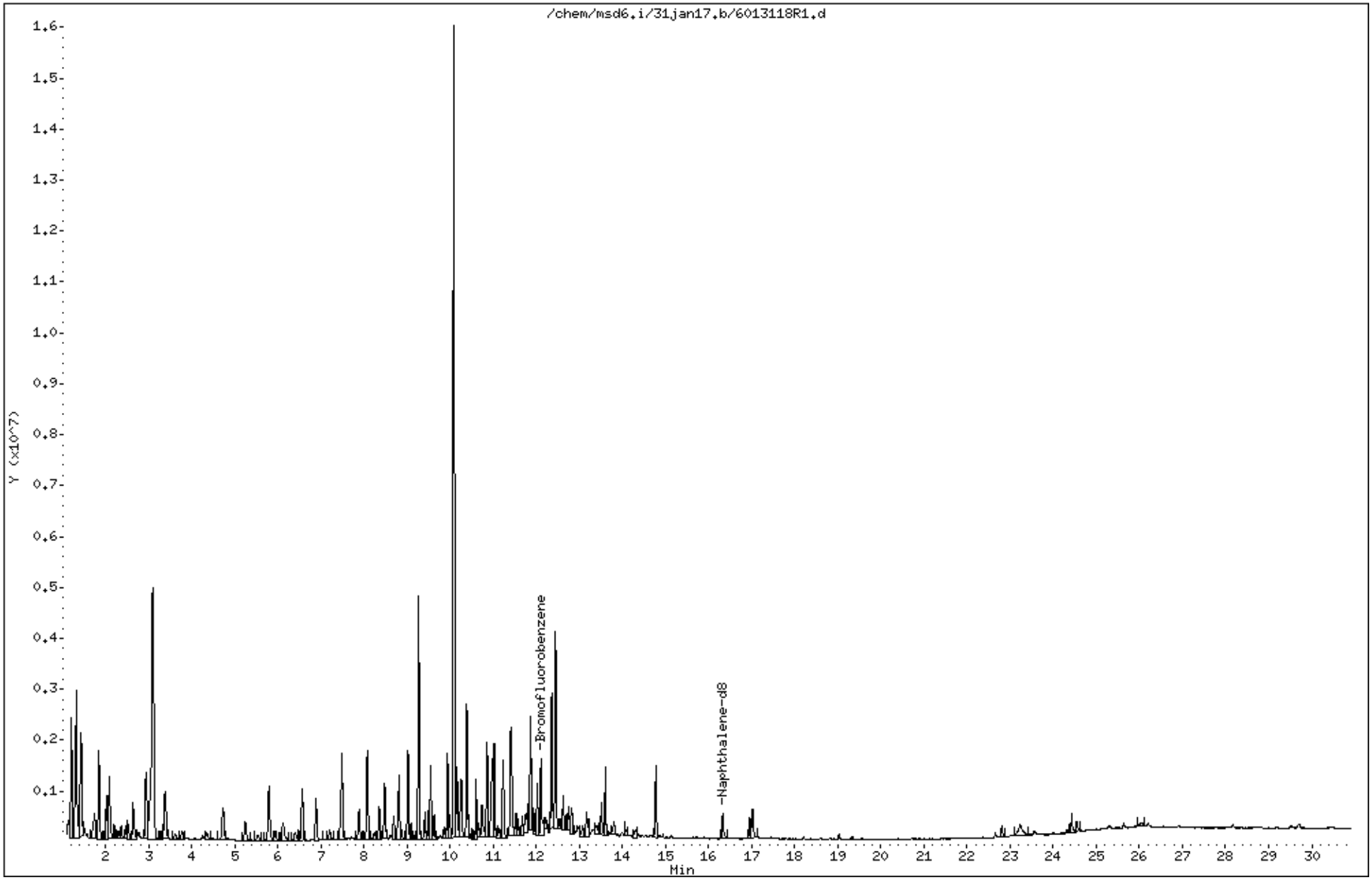
Instrument: msd6.i

Sample Info: ;1701454R1-07A

Operator: su

Column phase: RTx-624

Column diameter: 0.53



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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B13SS-2DUP-012917

Lab ID#: 1701454R1-08A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	2.5	0.86 J	2.2 J

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Client Sample ID: B13SS-2DUP-012917

Lab ID#: 1701454R1-08A

EPA METHOD TO-17

File Name:	**6013119R1**	**Date of Extraction: NA**	**Date of Collection: 1/29/17 4:01:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 1/31/17 08:32 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	2.5	0.86 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	104	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31jan17.b/6013119R1.d
Lab Smp Id: 1701454R1-08A
Inj Date : 31-JAN-2017 20:32
Operator : su Inst ID: msd6.i
Smp Info : ;1701454R1-08A
Misc Info : G0149756
Comment :
Method : /chem/msd6.i/31jan17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:44 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 19
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	
12.109	12.101	(1.000)	174	503464	36.0000		80.00- 120.00	100.00
12.101	12.101	(1.000)	95	601531			81.24- 141.24	119.48
12.109	12.101	(1.000)	176	487568			64.86- 124.86	96.84
$ 97 Naphthalene-d8							CAS #: 1146-65-2	
16.320	16.313	(1.348)	136	598714	26.1451	26.145	80.00- 120.00	100.00
16.320	16.313	(1.348)	108	52491			0.00- 39.63	8.77
98 Naphthalene							CAS #: 91-20-3	
16.363	16.349	(1.351)	128	21594	0.86533	0.8653	80.00- 120.00	100.00(a)
16.371	16.349	(1.352)	127	2678			0.00- 42.83	12.40

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: 6013119R1.d
Lab Smp Id: 1701454R1-08A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0149756

Calibration Date: 31-JAN-2017
Calibration Time: 07:26

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	424509	254705	594313	503464	18.60

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.10	11.77	12.43	12.11	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: 24-Mar-2017 13:13

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31jan17
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701454R1-08A
Level: LOW Operator: su
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs60.5.spk Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0149756

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	26.145	104.58	50-150

Data File: /chem/msd6.i/31jan17.b/6013119R1.d

Date : 31-JAN-2017 20:32

Client ID:

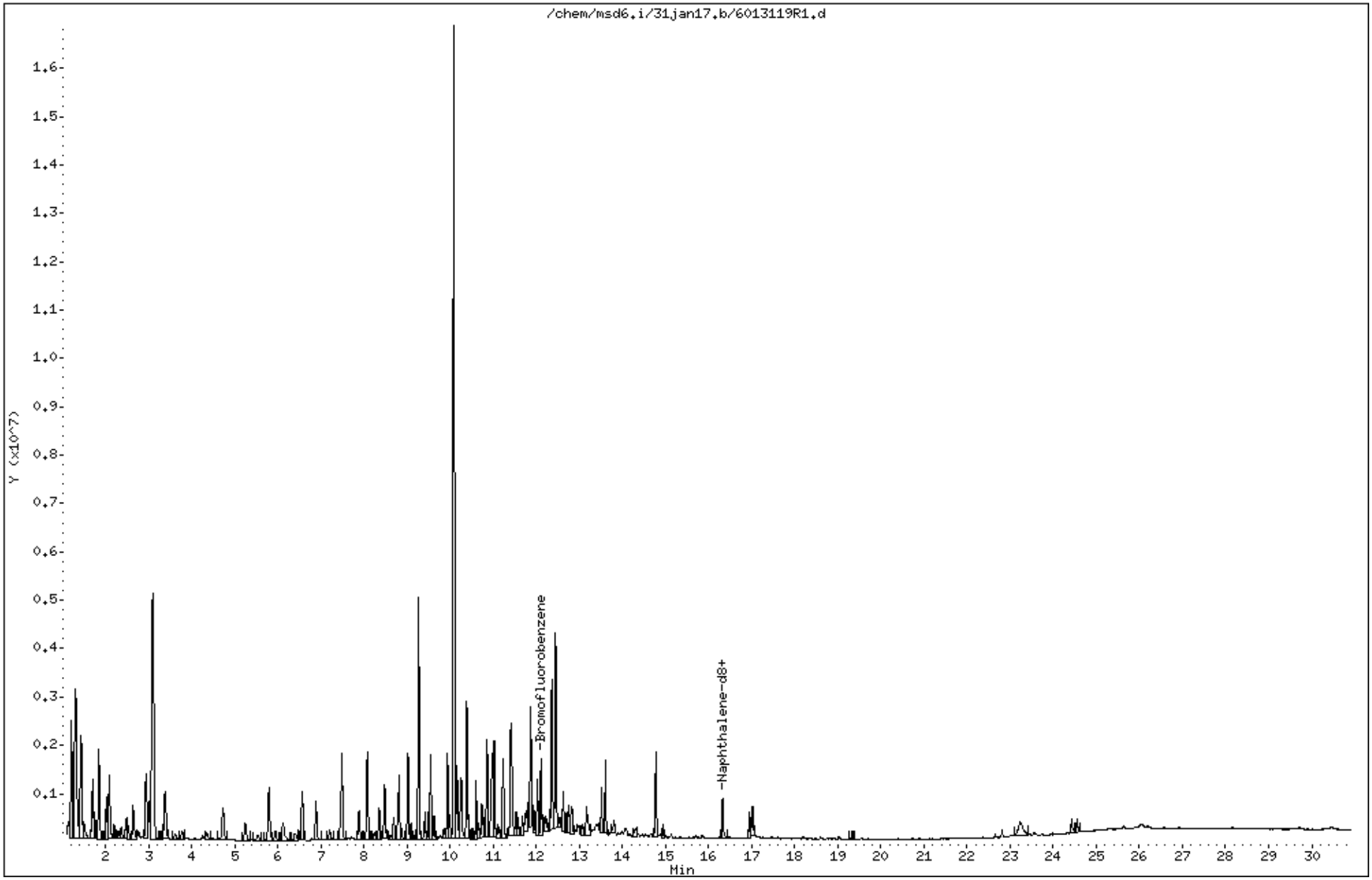
Instrument: msd6.i

Sample Info: ;1701454R1-08A

Operator: su

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/31jan17.b/6013119R1.d

Date : 31-JAN-2017 20:32

Client ID:

Instrument: msd6.i

Sample Info: ;1701454R1-08A

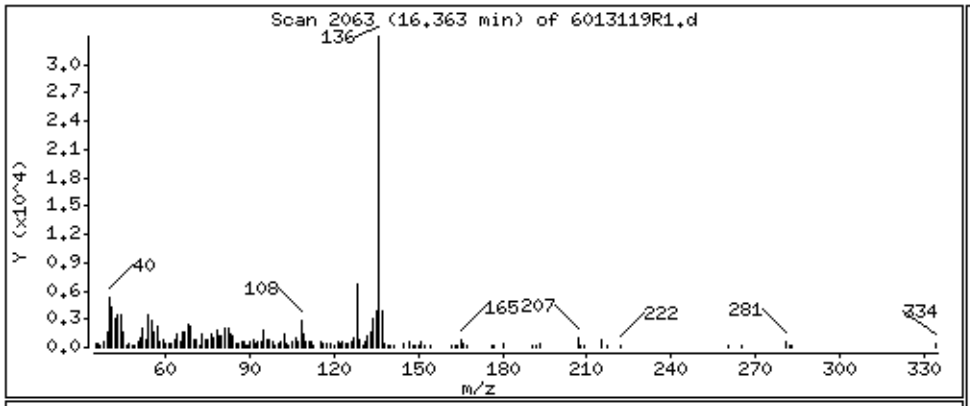
Operator: su

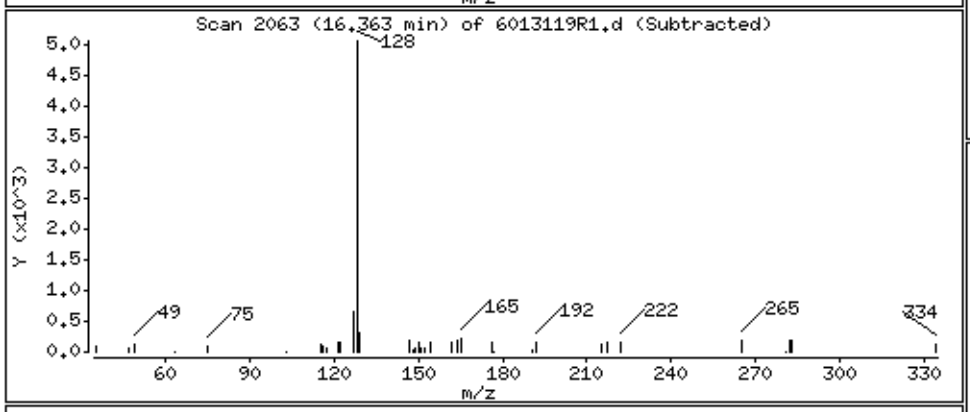
Column phase: RTx-624

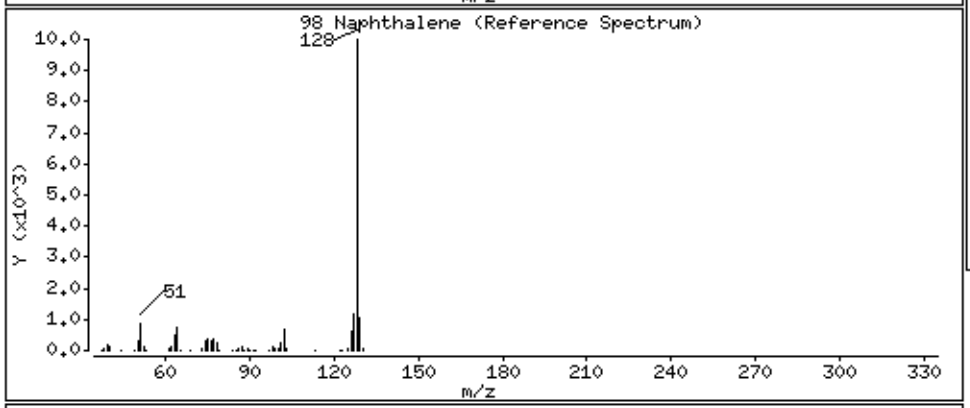
Column diameter: 0.53

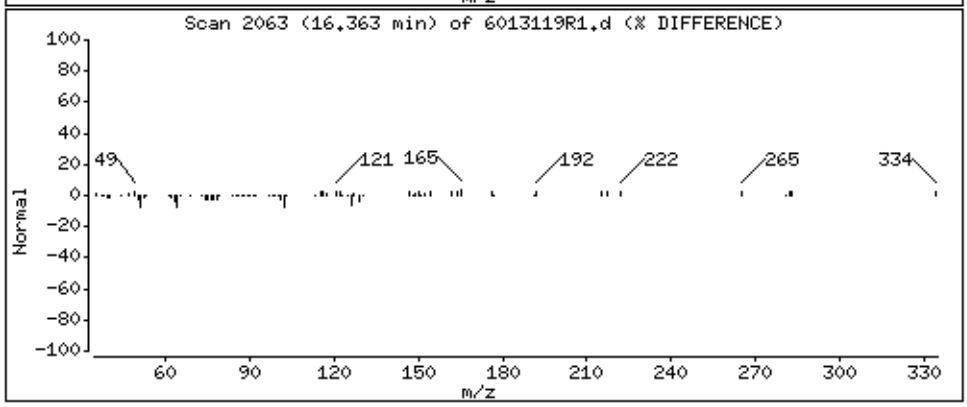
98 Naphthalene

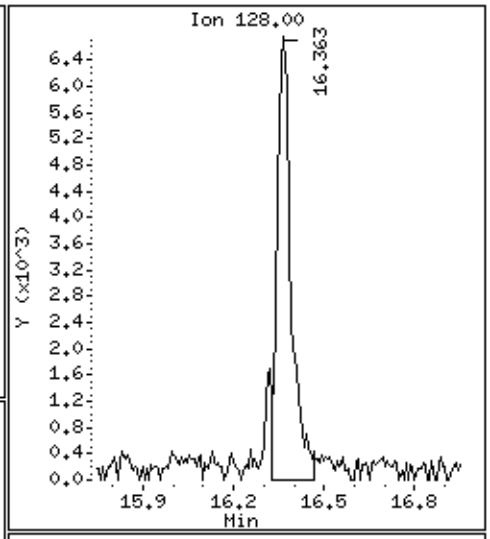
Concentration: 0.8653 NG

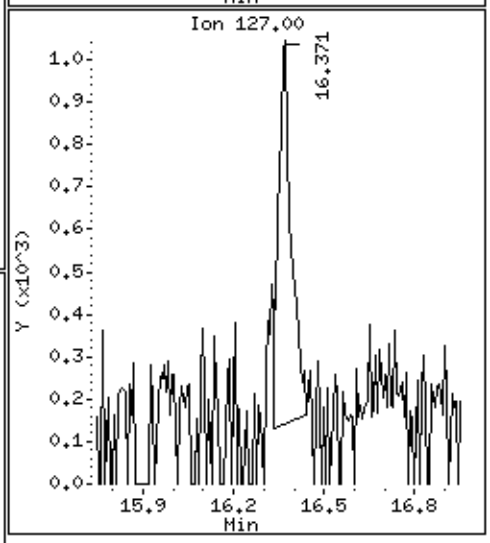












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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B13SS-3-012917

Lab ID#: 1701454R1-09A

No Detections Were Found.

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Client Sample ID: B13SS-3-012917

Lab ID#: 1701454R1-09A

EPA METHOD TO-17

File Name:	**6013120R1**	**Date of Extraction: NA**	**Date of Collection: 1/29/17 3:41:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 1/31/17 09:11 PM**

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: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	94	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31jan17.b/6013120R1.d
Lab Smp Id: 1701454R1-09A
Inj Date : 31-JAN-2017 21:11
Operator : su Inst ID: msd6.i
Smp Info : ;1701454R1-09A
Misc Info : G0137150
Comment :
Method : /chem/msd6.i/31jan17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:44 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 20
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	12.101 (1.000)	174	504542	36.0000		80.00- 120.00	100.00
12.101	12.101 (1.000)	95	574761			81.24- 141.24	113.92
12.101	12.101 (1.000)	176	486540			64.86- 124.86	96.43
$ 97 Naphthalene-d8					CAS #: 1146-65-2		
16.327	16.313 (1.349)	136	541165	23.5815	23.582	80.00- 120.00	100.00
16.327	16.313 (1.349)	108	49846			0.00- 39.63	9.21

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6013120R1.d
Lab Smp Id: 1701454R1-09A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0137150

Calibration Date: 31-JAN-2017
Calibration Time: 07:26

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	424509	254705	594313	504542	18.85

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.10	11.77	12.43	12.10	0.00

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

Report Date: 24-Mar-2017 13:13

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 31jan17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701454R1-09A
Level: LOW
Operator: su
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: VOC+PAHlcs60.5.spk
Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0137150

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	23.582	94.33	50-150

Data File: /chem/msd6.i/31jan17.b/6013120R1.d

Date : 31-JAN-2017 21:11

Client ID:

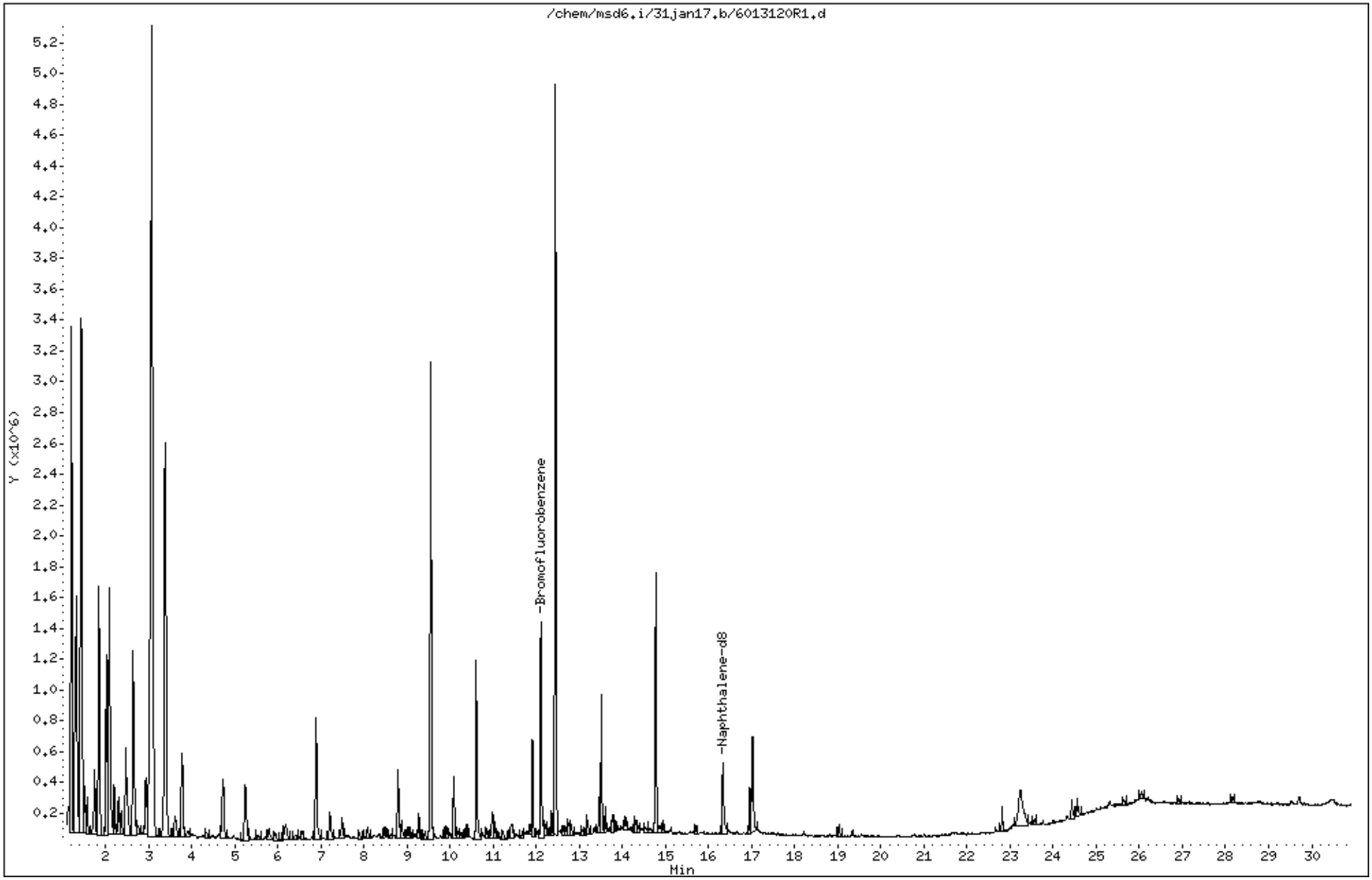
Instrument: msd6.i

Sample Info: ;1701454R1-09A

Operator: su

Column phase: RTx-624

Column diameter: 0.53



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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B15S-1-012917

Lab ID#: 1701454R1-10A

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: B15S-1-012917

Lab ID#: 1701454R1-10A

EPA METHOD TO-17

File Name:	**6013121R1**	**Date of Extraction: NA**	**Date of Collection: 1/29/17 5:37:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 1/31/17 09:51 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	96	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31jan17.b/6013121R1.d
Lab Smp Id: 1701454R1-10A
Inj Date : 31-JAN-2017 21:51
Operator : su Inst ID: msd6.i
Smp Info : ;1701454R1-10A
Misc Info : G0160540
Comment :
Method : /chem/msd6.i/31jan17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:44 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	
12.094	12.101	(1.000)	174	486416	36.0000		80.00- 120.00	100.00
12.094	12.101	(1.000)	95	552099			81.24- 141.24	113.50
12.094	12.101	(1.000)	176	468251			64.86- 124.86	96.27
$ 97 Naphthalene-d8							CAS #: 1146-65-2	
16.320	16.313	(1.349)	136	530788	23.9912	23.991	80.00- 120.00	100.00
16.320	16.313	(1.349)	108	46212			0.00- 39.63	8.71
98 Naphthalene							CAS #: 91-20-3	
16.356	16.349	(1.352)	128	20070	0.83244	0.8324	80.00- 120.00	100.00(a)
16.370	16.349	(1.354)	127	3552			0.00- 42.83	17.70

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: 6013121R1.d
Lab Smp Id: 1701454R1-10A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0160540

Calibration Date: 31-JAN-2017
Calibration Time: 07:26

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	424509	254705	594313	486416	14.58

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.10	11.77	12.43	12.09	-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: 24-Mar-2017 13:13

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31jan17
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701454R1-10A
Level: LOW Operator: su
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs60.5.spk Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0160540

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	23.991	95.96	50-150

Data File: /chem/msd6.i/31jan17.b/6013121R1.d

Date : 31-JAN-2017 21:51

Client ID:

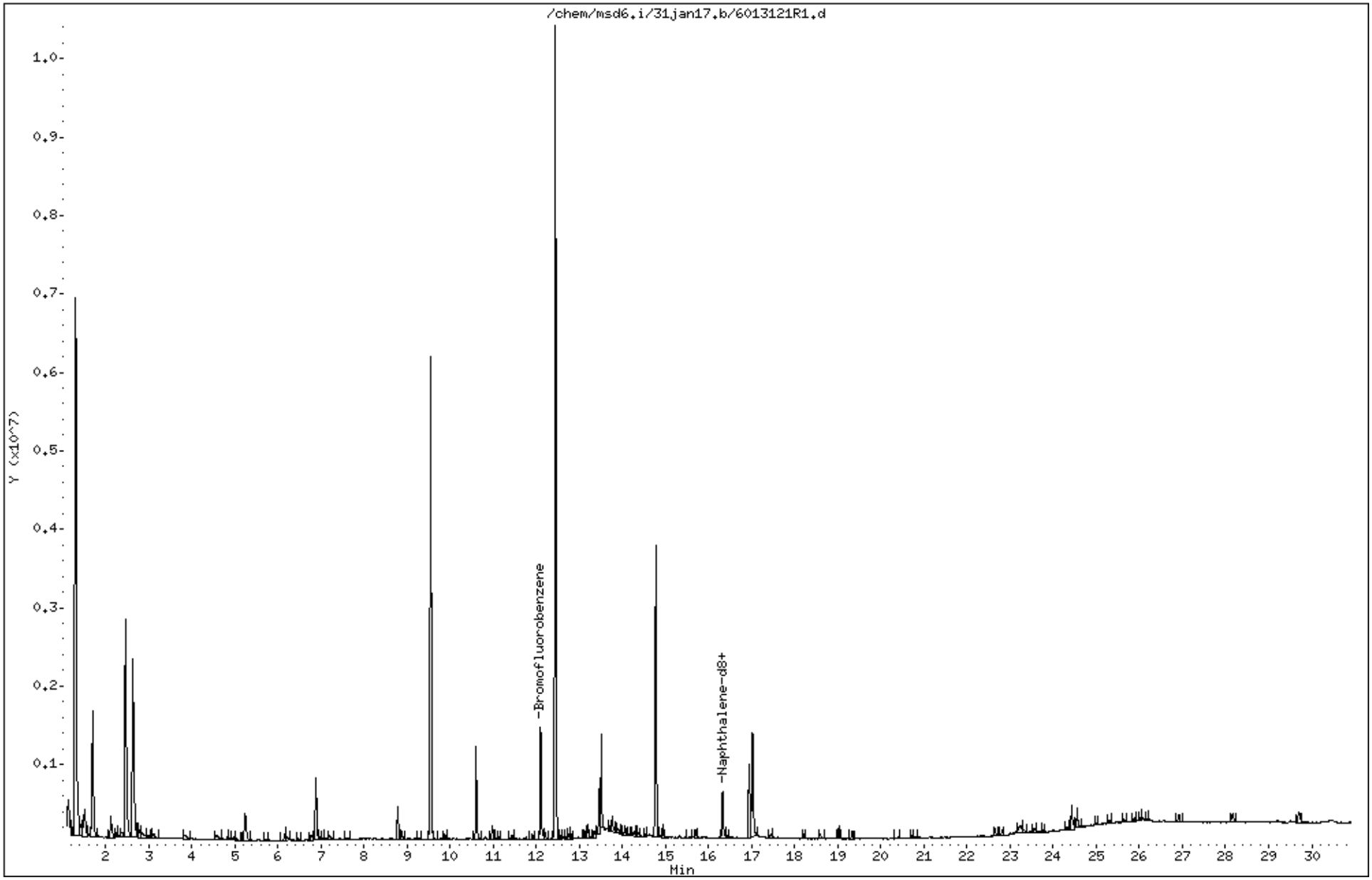
Sample Info: ;1701454R1-10A

Column phase: RTx-624

Instrument: msd6.i

Operator: su

Column diameter: 0.53



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Date : 31-JAN-2017 21:51

Client ID:

Instrument: msd6.i

Sample Info: ;1701454R1-10A

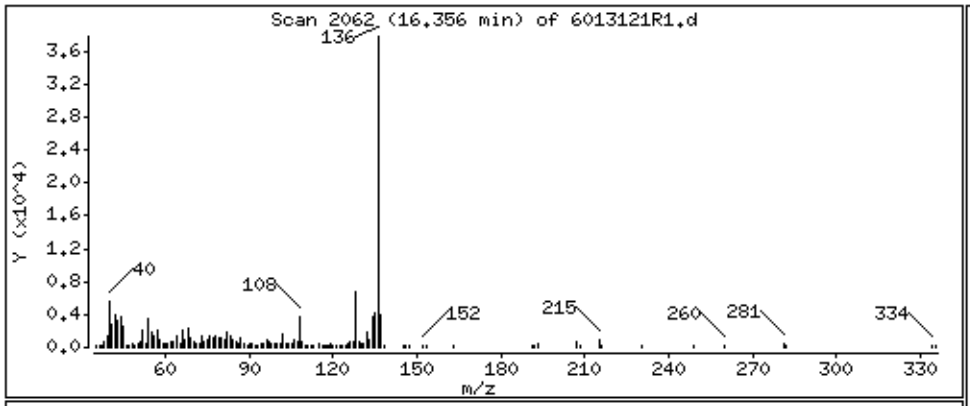
Operator: su

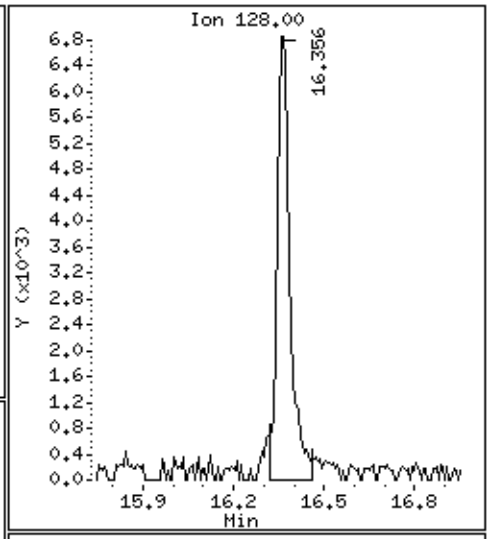
Column phase: RTx-624

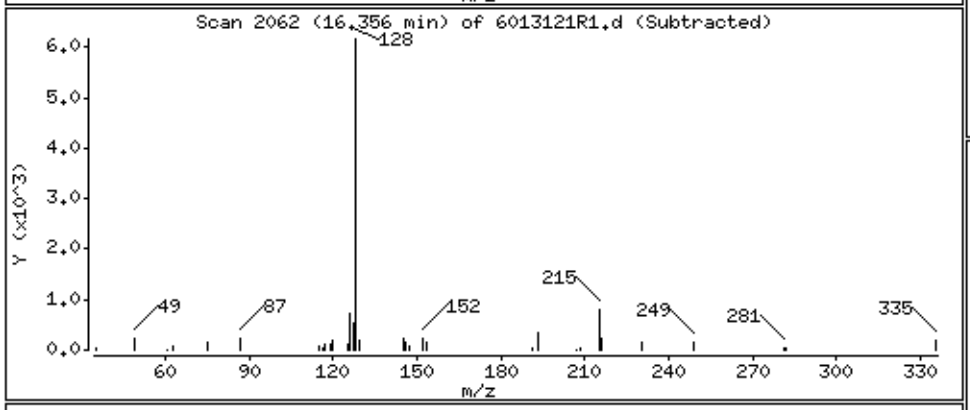
Column diameter: 0.53

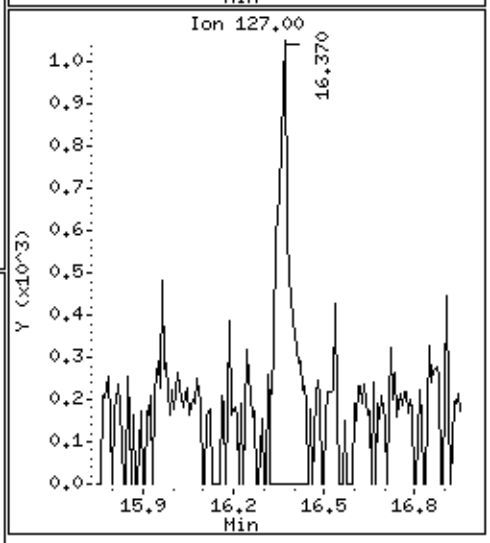
98 Naphthalene

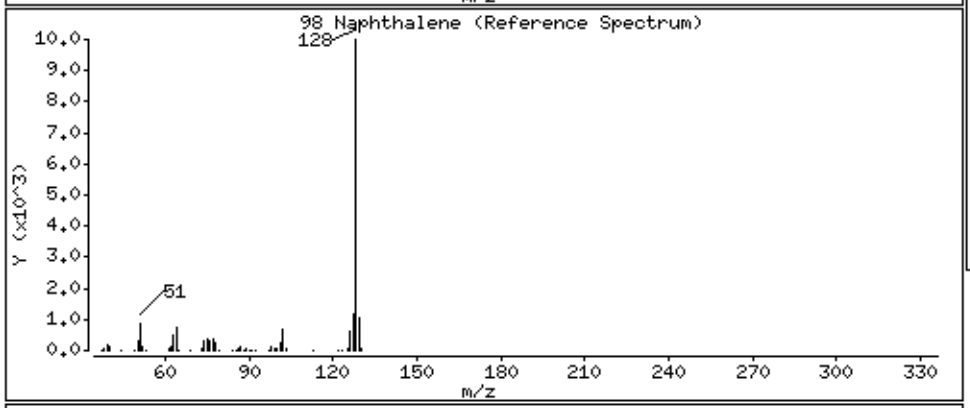
Concentration: 0.8324 NG

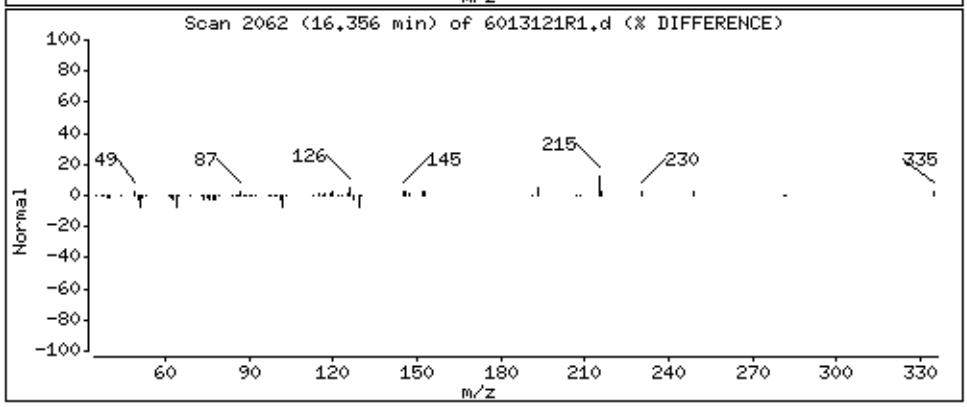












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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B15SS-1DUP-012917

Lab ID#: 1701454R1-11A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	2.5	0.47 J	1.2 J

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Client Sample ID: B15SS-1DUP-012917

Lab ID#: 1701454R1-11A

EPA METHOD TO-17

File Name:	**6013122R1**	**Date of Extraction: NA**	**Date of Collection: 1/29/17 5:43:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 1/31/17 10:31 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	2.5	0.47 J	1.2 J

Air Sample Volume(L): 0.400

J = Estimated value.

Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	92	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31jan17.b/6013122R1.d
Lab Smp Id: 1701454R1-11A
Inj Date : 31-JAN-2017 22:31
Operator : su Inst ID: msd6.i
Smp Info : ;1701454R1-11A
Misc Info : G0155282
Comment :
Method : /chem/msd6.i/31jan17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:44 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	12.101 (1.000)	174	492223	36.0000		80.00- 120.00	100.00
12.101	12.101 (1.000)	95	559536			81.24- 141.24	113.68
12.108	12.101 (1.000)	176	476983			64.86- 124.86	96.90
$ 97 Naphthalene-d8					CAS #: 1146-65-2		
16.320	16.313 (1.348)	136	513975	22.9572	22.957	80.00- 120.00	100.00
16.320	16.313 (1.348)	108	46311			0.00- 39.63	9.01
98 Naphthalene					CAS #: 91-20-3		
16.356	16.349 (1.351)	128	11382	0.46652	0.4665	80.00- 120.00	100.00(a)
16.356	16.349 (1.351)	127	1818			0.00- 42.83	15.97

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: 6013122R1.d
Lab Smp Id: 1701454R1-11A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0155282

Calibration Date: 31-JAN-2017
Calibration Time: 07:26

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	424509	254705	594313	492223	15.95

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.10	11.77	12.43	12.11	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: 24-Mar-2017 13:13

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31jan17
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701454R1-11A
Level: LOW Operator: su
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs60.5.spk Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0155282

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	22.957	91.83	50-150

Data File: /chem/msd6.i/31jan17.b/6013122R1.d

Date : 31-JAN-2017 22:31

Client ID:

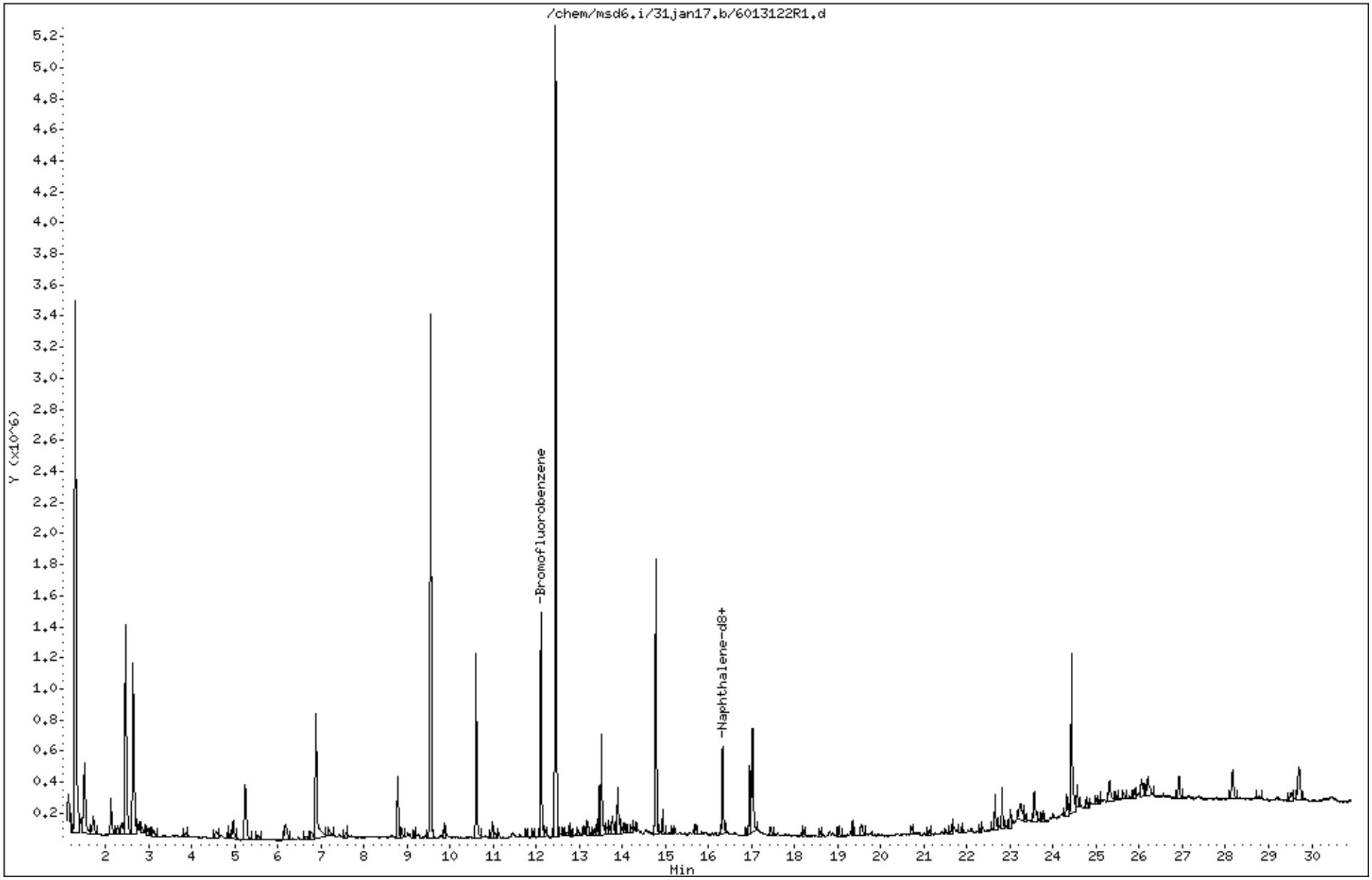
Instrument: msd6.i

Sample Info: ;1701454R1-11A

Operator: su

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/31jan17.b/6013122R1.d

Date : 31-JAN-2017 22:31

Client ID:

Instrument: msd6.i

Sample Info: ;1701454R1-11A

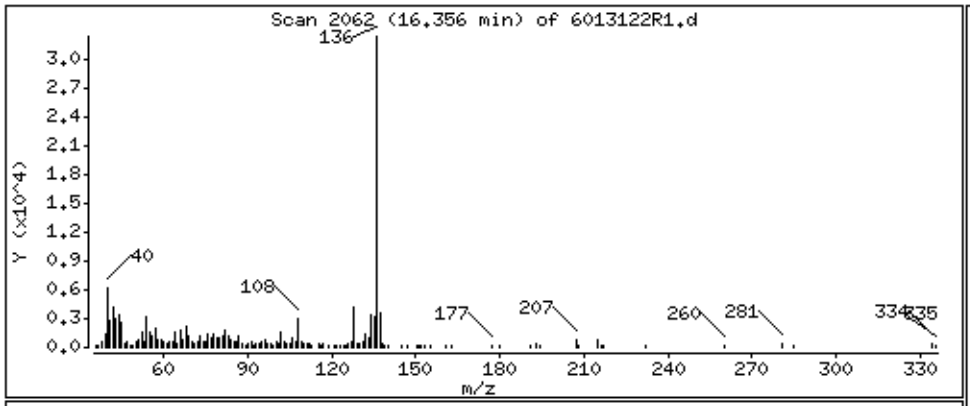
Operator: su

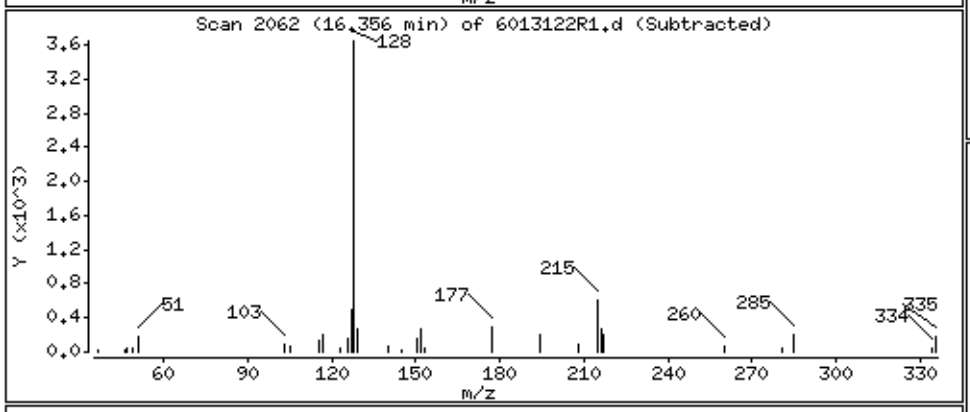
Column phase: RTx-624

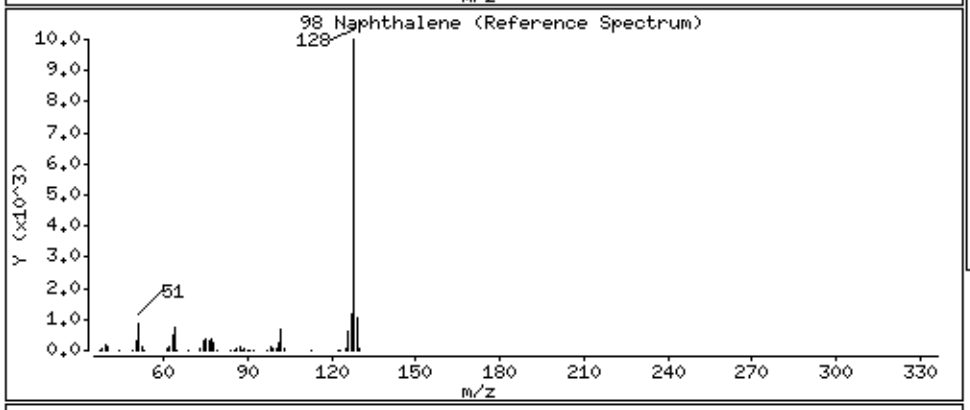
Column diameter: 0.53

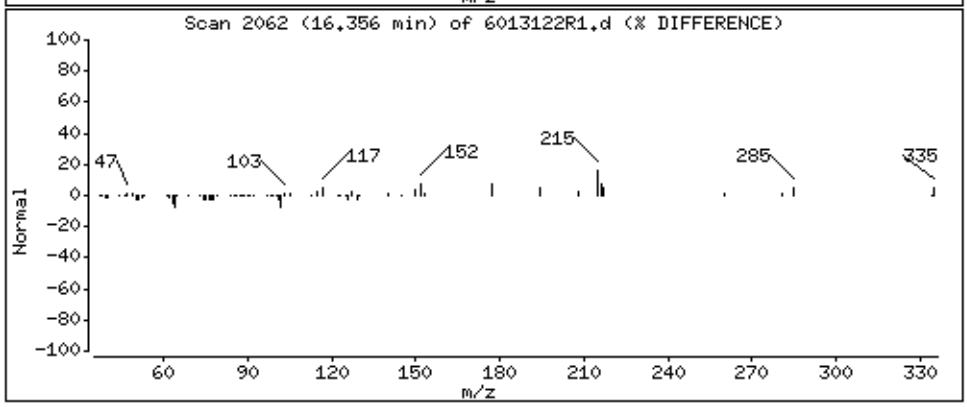
98 Naphthalene

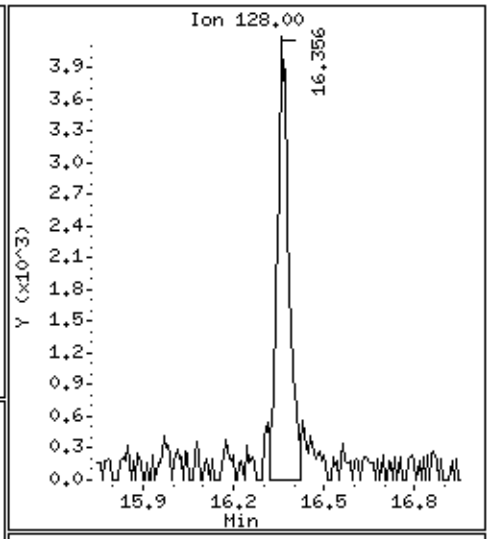
Concentration: 0.4665 NG

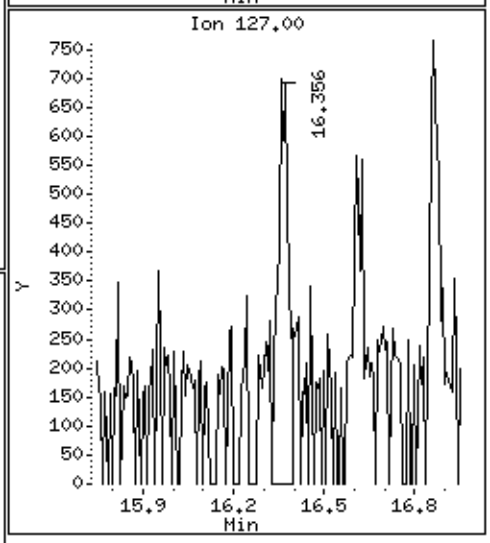












Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B15FB-012917

Lab ID#: 1701454R1-12A

No Detections Were Found.

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Client Sample ID: B15FB-012917

Lab ID#: 1701454R1-12A

EPA METHOD TO-17

File Name:	**6013111R1**	**Date of Extraction: NA**	**Date of Collection: 1/29/17 5:35:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 1/31/17 03:13 PM**

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

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

Surrogates	%Recovery	Method Limits
Naphthalene-d8	72	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31jan17.b/6013111R1.d
Lab Smp Id: 1701454R1-12A
Inj Date : 31-JAN-2017 15:13
Operator : su Inst ID: msd6.i
Smp Info : ;1701454R1-12A
Misc Info : G0143438
Comment :
Method : /chem/msd6.i/31jan17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:44 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 11
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	12.101 (1.000)	174	514580	36.0000		80.00- 120.00	100.00
12.108	12.101 (1.000)	95	592430			81.24- 141.24	115.13
12.108	12.101 (1.000)	176	503773			64.86- 124.86	97.90
$ 97 Naphthalene-d8					CAS #: 1146-65-2		
16.327	16.313 (1.348)	136	424194	18.1239	18.124	80.00- 120.00	100.00
16.327	16.313 (1.348)	108	38617			0.00- 39.63	9.10

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6013111R1.d
Lab Smp Id: 1701454R1-12A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0143438

Calibration Date: 31-JAN-2017
Calibration Time: 07:26

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	424509	254705	594313	514580	21.22

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.10	11.77	12.43	12.11	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: 24-Mar-2017 13:12

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31jan17
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701454R1-12A
Level: LOW Operator: su
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs60.5.spk Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0143438

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	18.124	72.50	50-150

Data File: /chem/msd6.i/31jan17.b/6013111R1.d

Date : 31-JAN-2017 15:13

Client ID:

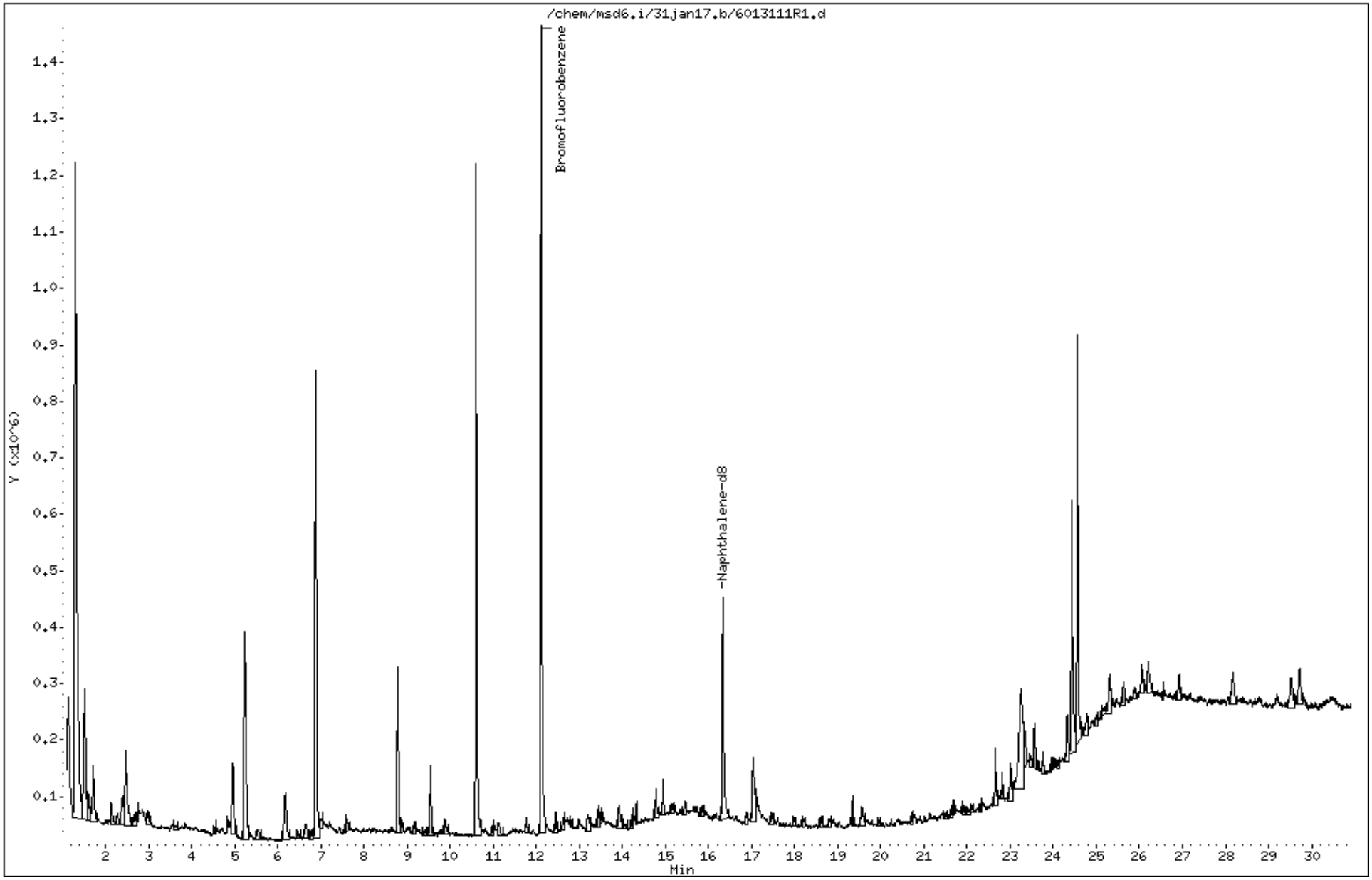
Sample Info: :1701454R1-12A

Column phase: RTx-624

Instrument: msd6.i

Operator: su

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B15IA-1DUP-012817

Lab ID#: 1701454R1-13A

No Detections Were Found.

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Client Sample ID: B15IA-1DUP-012817

Lab ID#: 1701454R1-13A

EPA METHOD TO-17

File Name:	**6013124R1**	**Date of Extraction: NA**	**Date of Collection: 1/29/17 3:50:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 1/31/17 11:10 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.059	Not Detected	Not Detected

Air Sample Volume(L): 17.0
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	101	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31jan17.b/6013124R1.d
Lab Smp Id: 1701454R1-13A
Inj Date : 31-JAN-2017 23:10
Operator : su Inst ID: msd6.i
Smp Info : ;1701454R1-13A
Misc Info : G0140142
Comment :
Method : /chem/msd6.i/31jan17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:44 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		
12.108	12.101 (1.000)	174	485153	36.0000		80.00- 120.00	100.00
12.108	12.101 (1.000)	95	553374			81.24- 141.24	114.06
12.108	12.101 (1.000)	176	481132			64.86- 124.86	99.17
$ 97 Naphthalene-d8					CAS #: 1146-65-2		
16.320	16.313 (1.348)	136	558644	25.3161	25.316	80.00- 120.00	100.00
16.320	16.313 (1.348)	108	47106			0.00- 39.63	8.43

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6013124R1.d
Lab Smp Id: 1701454R1-13A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0140142

Calibration Date: 31-JAN-2017
Calibration Time: 07:26

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	424509	254705	594313	485153	14.29

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.10	11.77	12.43	12.11	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: 24-Mar-2017 13:13

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31jan17
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701454R1-13A
Level: LOW Operator: su
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs60.5.spk Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0140142

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	25.316	101.26	50-150

Data File: /chem/msd6.i/31jan17.b/6013124R1.d

Date : 31-JAN-2017 23:10

Client ID:

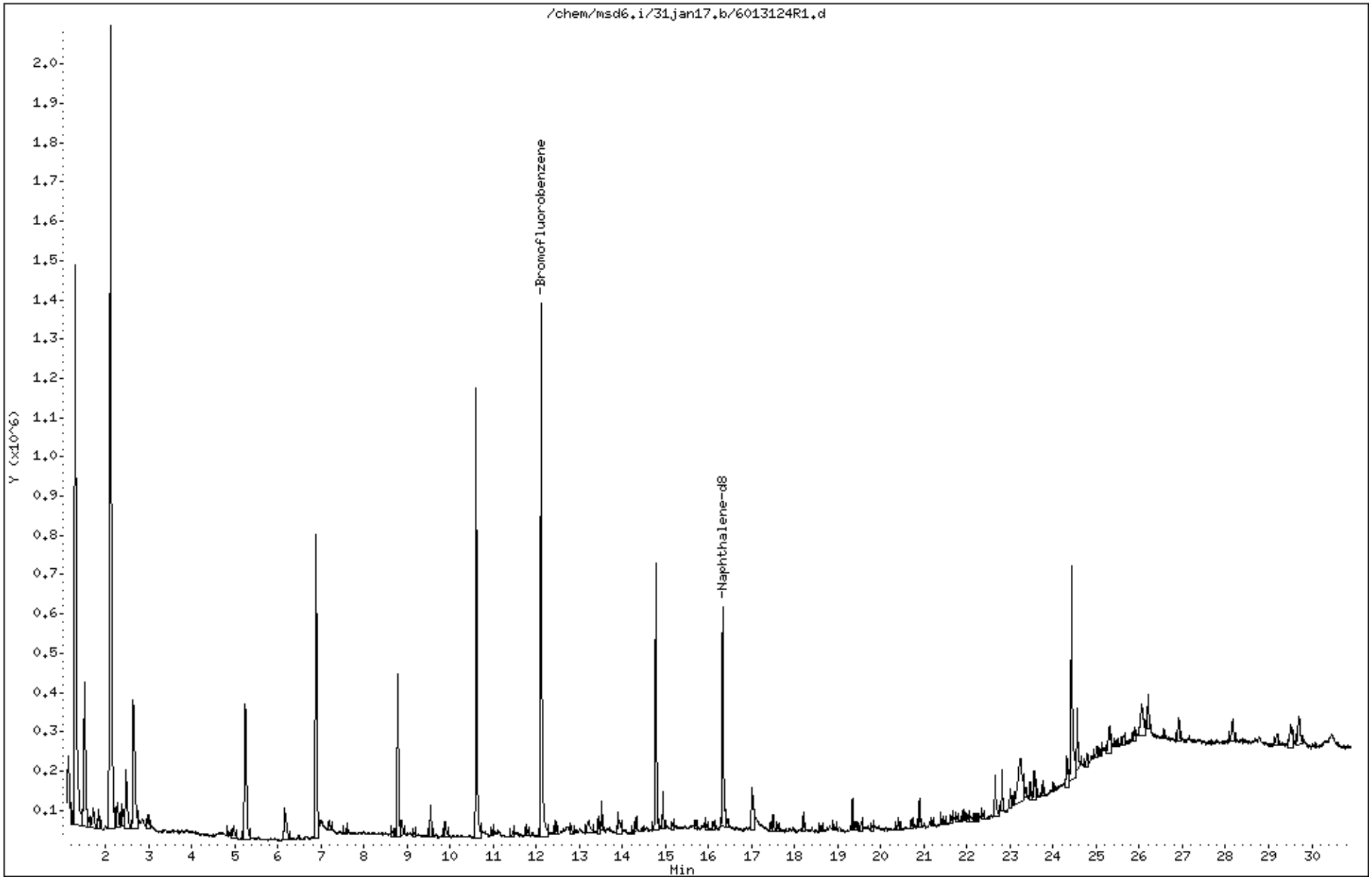
Instrument: msd6.i

Sample Info: ;1701454R1-13A

Operator: su

Column phase: RTx-624

Column diameter: 0.53



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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B15IA-1-012817

Lab ID#: 1701454R1-14A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.060	1.2	0.070

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Client Sample ID: B15IA-1-012817

Lab ID#: 1701454R1-14A

EPA METHOD TO-17

File Name:	**6013125R1**	**Date of Extraction: NA**	**Date of Collection: 1/29/17 3:50:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 1/31/17 11:50 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	0.060	1.2	0.070

Air Sample Volume(L): 16.8
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	89	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31jan17.b/6013125R1.d
Lab Smp Id: 1701454R1-14A
Inj Date : 31-JAN-2017 23:50
Operator : su Inst ID: msd6.i
Smp Info : ;1701454R1-14A
Misc Info : G0146189
Comment :
Method : /chem/msd6.i/31jan17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:44 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	12.101 (1.000)	174	503852	36.0000		80.00- 120.00	100.00
12.094	12.101 (1.000)	95	585216			81.24- 141.24	116.15
12.101	12.101 (1.000)	176	492116			64.86- 124.86	97.67
$ 97 Naphthalene-d8					CAS #: 1146-65-2		
16.313	16.313 (1.348)	136	511734	22.3296	22.330	80.00- 120.00	100.00
16.306	16.313 (1.347)	108	45840			0.00- 39.63	8.96
98 Naphthalene					CAS #: 91-20-3		
16.349	16.349 (1.351)	128	29177	1.16829	1.168	80.00- 120.00	100.00
16.356	16.349 (1.352)	127	4005			0.00- 42.83	13.73

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6013125R1.d
Lab Smp Id: 1701454R1-14A
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0146189

Calibration Date: 31-JAN-2017
Calibration Time: 07:26

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	424509	254705	594313	503852	18.69

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.10	11.77	12.43	12.10	0.00

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

Report Date: 24-Mar-2017 13:13

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31jan17
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701454R1-14A
Level: LOW Operator: su
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs60.5.spk Quant Type: ISTD
Sublist File: naph_MDL.sub
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0146189

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	22.330	89.32	50-150

Data File: /chem/msd6.i/31jan17.b/6013125R1.d

Page 1

Date : 31-JAN-2017 23:50

Client ID:

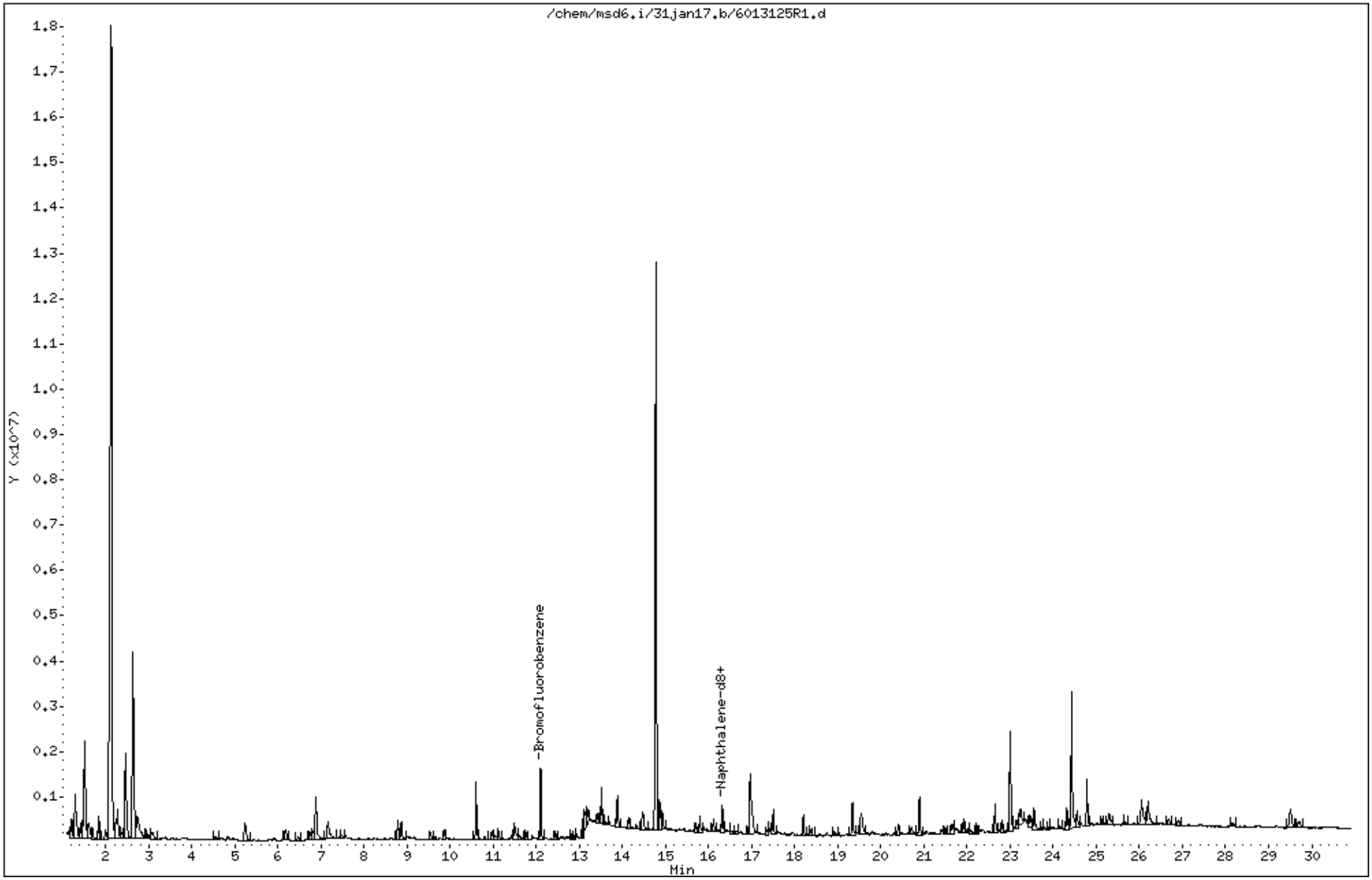
Instrument: msd6.i

Sample Info: ;1701454R1-14A

Operator: su

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/31jan17.b/6013125R1.d

Date : 31-JAN-2017 23:50

Client ID:

Instrument: msd6.i

Sample Info: ;1701454R1-14A

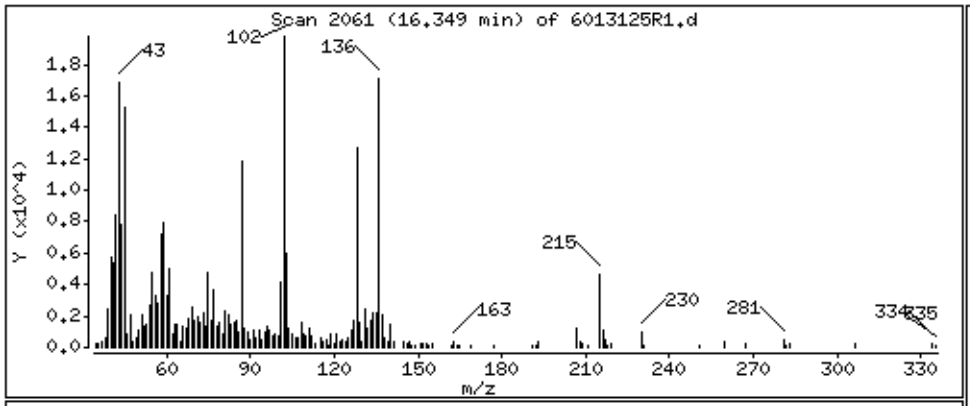
Operator: su

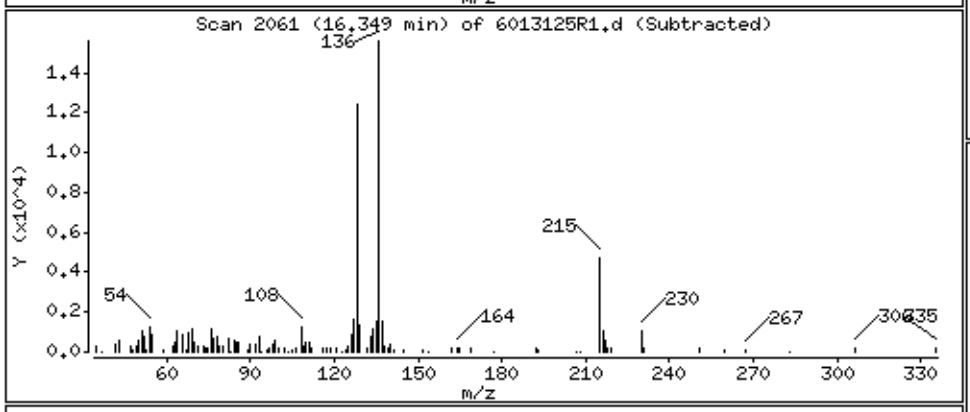
Column phase: RTx-624

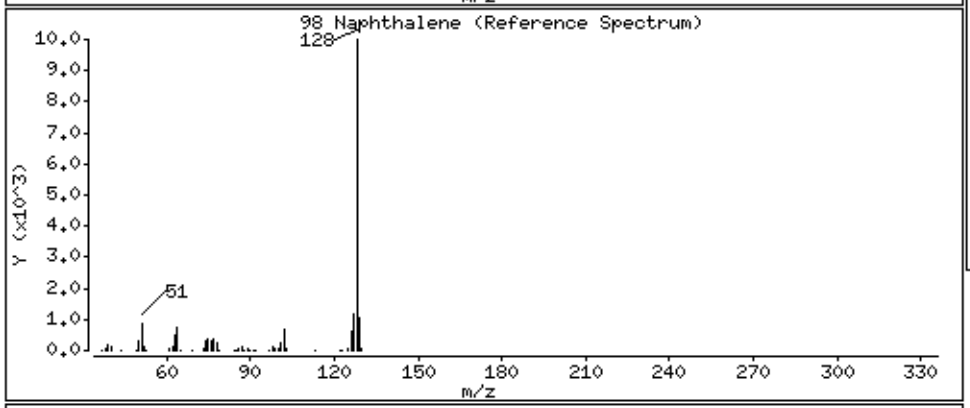
Column diameter: 0.53

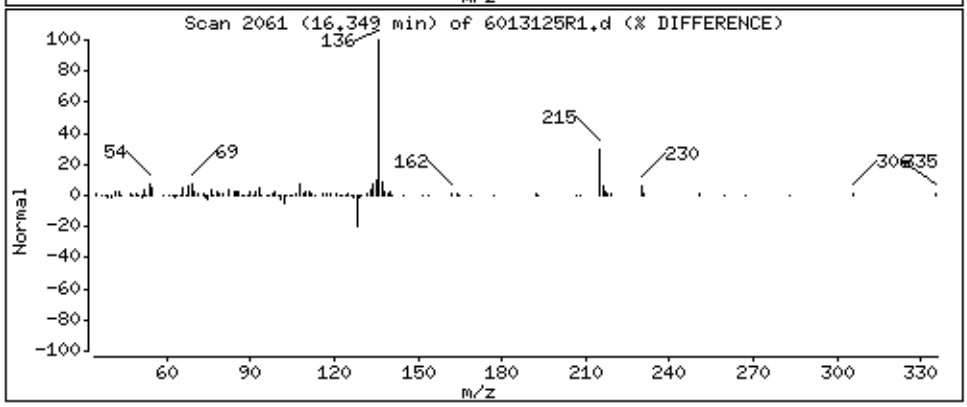
98 Naphthalene

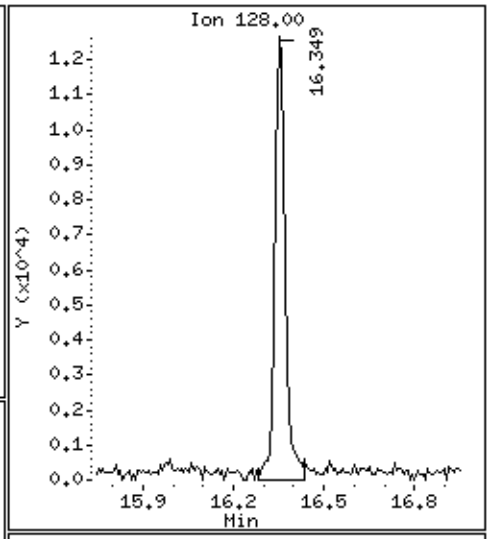
Concentration: 1.168 NG

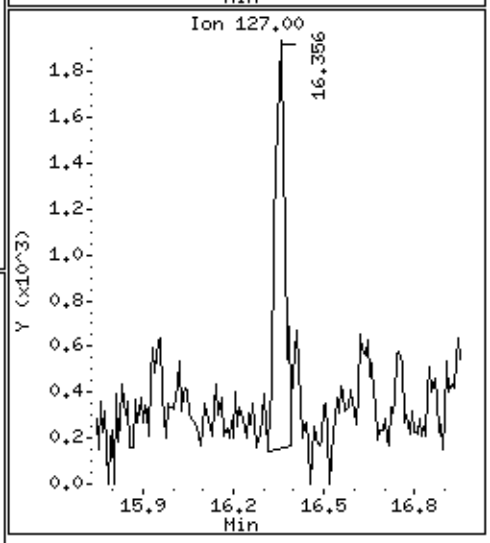












QC Results and Raw Data

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Client Sample ID: Lab Blank

Lab ID#: 1701454R1-15A

EPA METHOD TO-17

File Name:	**6013107dR1**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 1/31/17 10:44 AM**

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

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

Surrogates	%Recovery	Method Limits
Naphthalene-d8	103	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31jan17.b/6013107dR1.d
Lab Smp Id: DP Lab Blank Client Smp ID: Lab Blank
Inj Date : 31-JAN-2017 10:44
Operator : su Inst ID: msd6.i
Smp Info : ;DP Lab Blank;Lab Blank
Misc Info : G0153605
Comment :
Method : /chem/msd6.i/31jan17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:44 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	12.101	(1.000)	174	472332	36.0000		80.00- 120.00	100.00
12.130	12.101	(1.000)	95	538195			81.24- 141.24	113.94
12.130	12.101	(1.000)	176	456871			64.86- 124.86	96.73
$ 97 Naphthalene-d8							CAS #: 1146-65-2	
16.328	16.313	(1.346)	136	555630	25.8629	25.863	80.00- 120.00	100.00
16.320	16.313	(1.345)	108	49711			0.00- 39.63	8.95

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6013107dR1.d
Lab Smp Id: DP Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: G0153605

Calibration Date: 31-JAN-2017
Calibration Time: 07:26
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	424509	254705	594313	472332	11.27

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
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: 03-Mar-2017 15:47

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 31jan17
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/31jan17.b/617z0127via.m
Misc Info: G0153605

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	25.863	103.45	50-150

Data File: /chem/msd6.i/31jan17.b/6013107dR1.d

Date : 31-JAN-2017 10:44

Client ID: Lab Blank

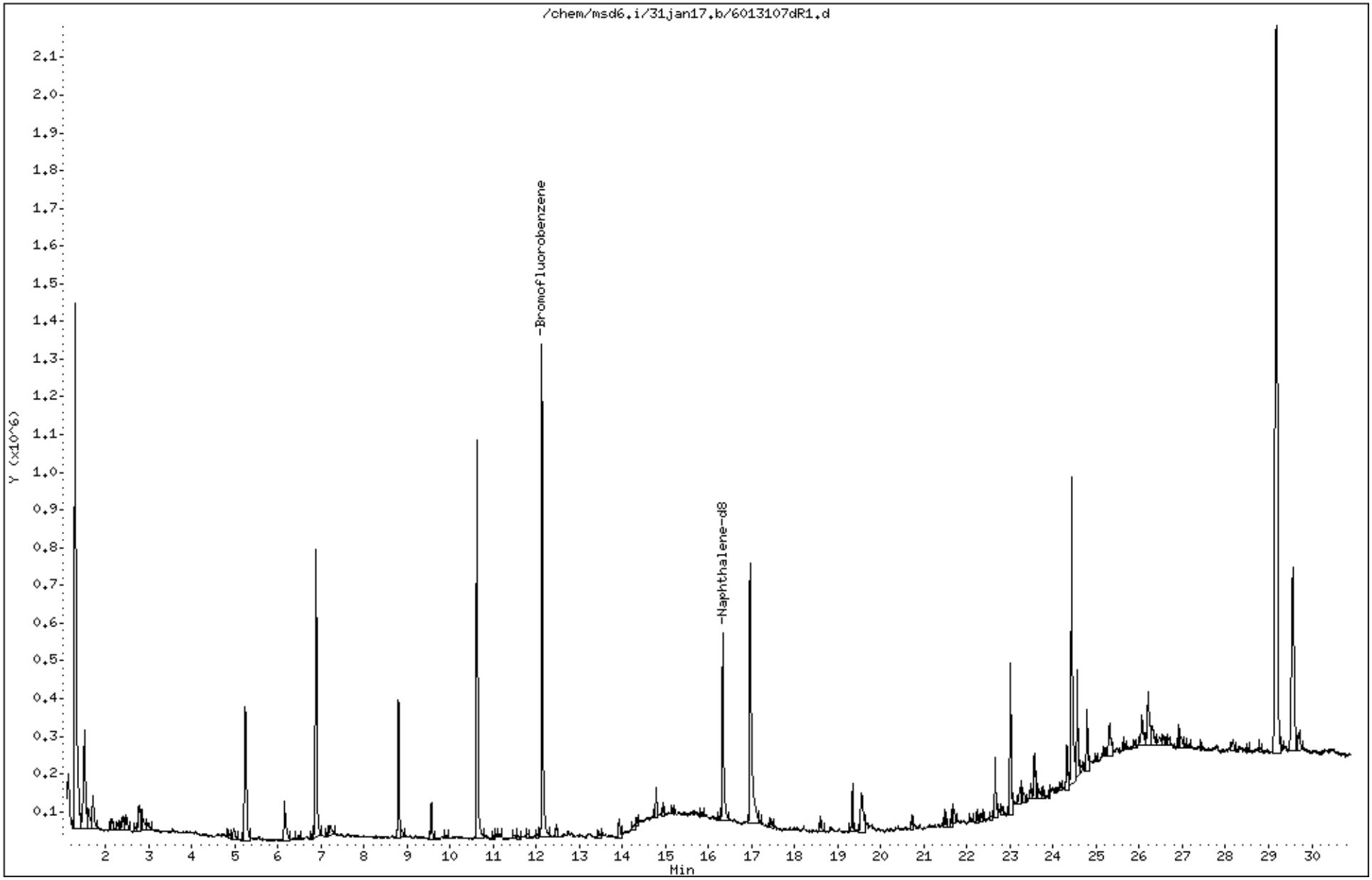
Instrument: msd6.i

Sample Info: ;DP Lab Blank;Lab Blank

Operator: su

Column phase: RTx-624

Column diameter: 0.53



LEVEL-IV VALIDATABLE

EPA METHOD TO-17

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1701454R1

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY								
		Naphthalene-d8	#		#		#		#	TOTAL OUT
01	B1315AA-012817	92								0
02	B13IA-1-012817	92								0
03	B13IA-3-012817	95								0
04	B13IA-2-012817	92								0
05	B13IA-2DUP-012817	103								0
06	B13SS-1-012917	96								0
07	B13SS-2-012917	93								0
08	B13SS-2DUP-012917	104								0
09	B13SS-3-012917	94								0
10	B15S-1-012917	96								0
11	B15SS-1DUP-012917	92								0
12	B15FB-012917	72								0
13	B15IA-1DUP-012817	101								0
14	B15IA-1-012817	89								0
15	Lab Blank	103								0
16	CCV	99								0
17	LCS	103								0
18	LCSD	100								0
19										0
20										0
21										0
22										0
23										0
24										0

Surrogate Recovery Limits

Naphthalene-d8 50 - 150

* Designates values outside of QC limits

LEVEL-IV VALIDATABLE

EPA Method TO-17

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AIR TOXICS, LTD

SDG No: 1701454R1

Lab File ID: 6013102R1.d

Date Analyzed: 01/31/2017

Instrument ID: msd6.i

Time Analyzed: 07:26 AM

		4-Bromofluorobenzene Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
	24-HOUR STD	424509		12.1									
	UPPER LIMIT	594313		12.43									
	LOWER LIMIT	254705		11.77									
	CLIENT SAMPLE NO												
01	B1315AA-012817	495442		12.11									
02	B13IA-1-012817	479148		12.11									
03	B13IA-3-012817	492846		12.11									
04	B13IA-2-012817	497871		12.11									
05	B13IA-2DUP-012817	502844		12.1									
06	B13SS-1-012917	498894		12.11									
07	B13SS-2-012917	500889		12.1									
08	B13SS-2DUP-012917	503464		12.11									
09	B13SS-3-012917	504542		12.1									
10	B15S-1-012917	486416		12.09									
11	B15SS-1DUP-012917	492223		12.11									
12	B15FB-012917	514580		12.11									
13	B15IA-1DUP-012817	485153		12.11									
14	B15IA-1-012817	503852		12.1									
15	Lab Blank	472332		12.13									
16	CCV	424509		12.1									
17	LCS	455068		12.13									
18	LCSD	411803		12.1									
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: 6013104R1.d & 6013103R1.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 1/31/17 & 1/31/17

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
91-20-3	Naphthalene	121		117		3.4	

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.

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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

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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

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End Cal Date : 27-JAN-2017 17:25
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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
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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

SU 1/30/17

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	
		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

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (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

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE (   ng)  (   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

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	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

		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	6.88	-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

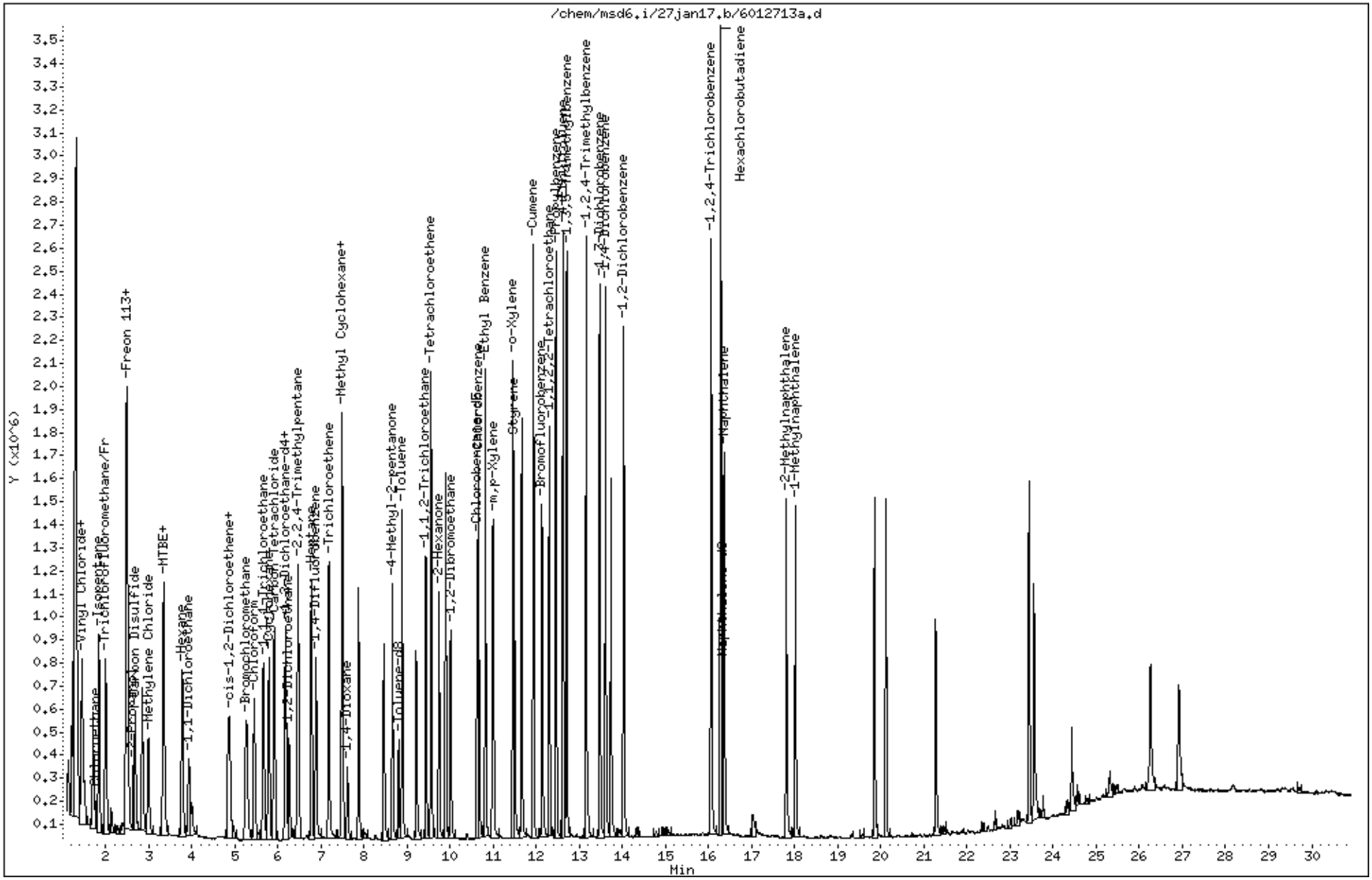
Sample Info: ;VI VOC+PAH ICV; LCS

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

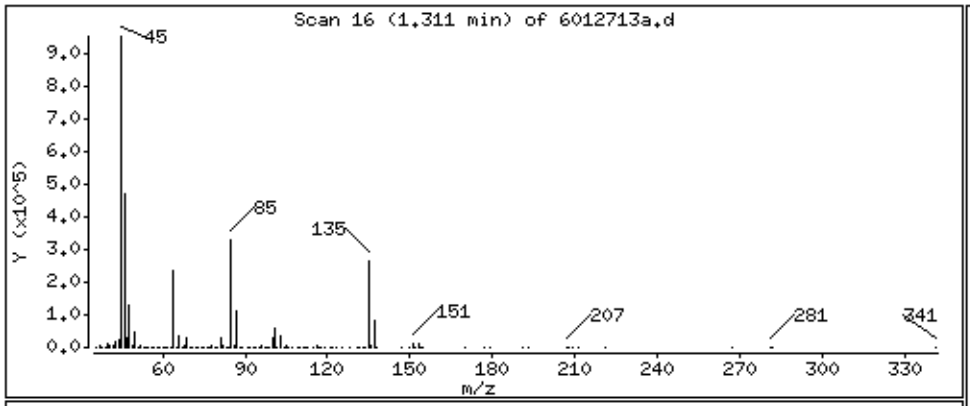
Operator: su

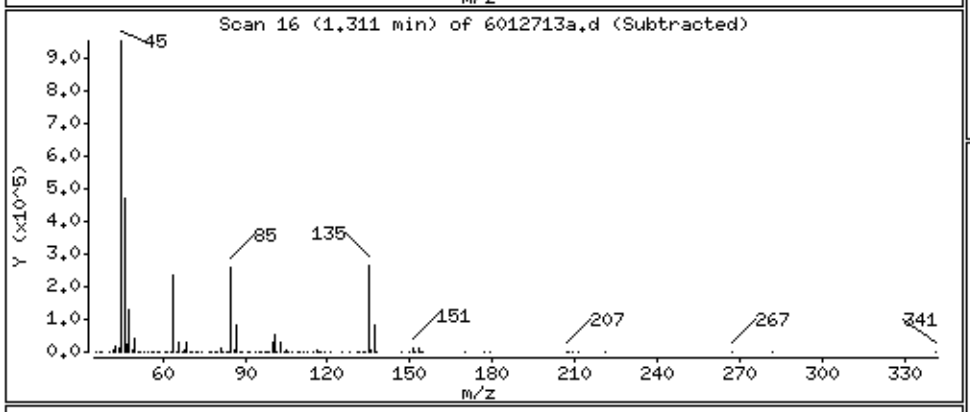
Column phase: RTx-624

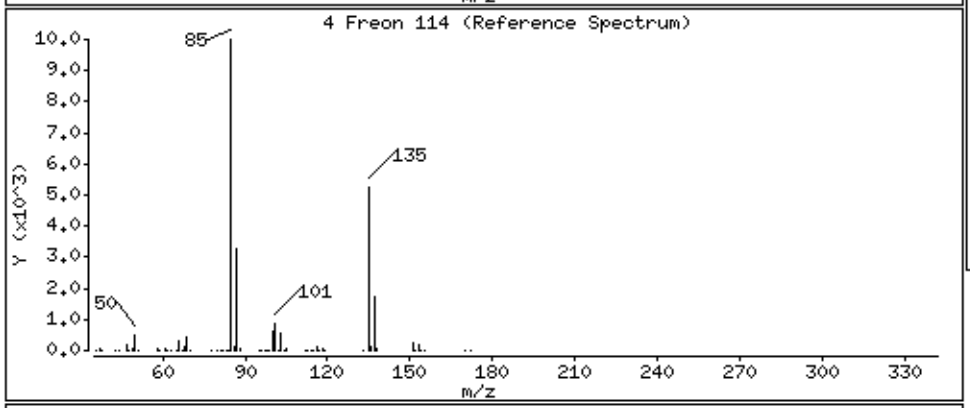
Column diameter: 0.53

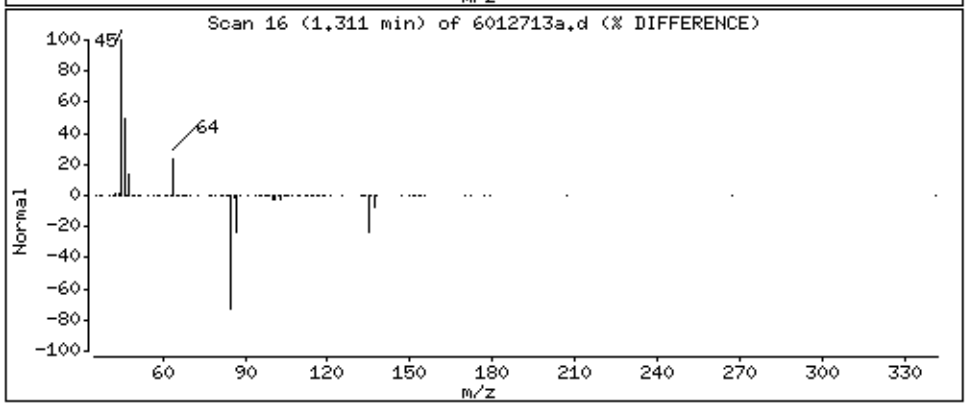
4 Freon 114

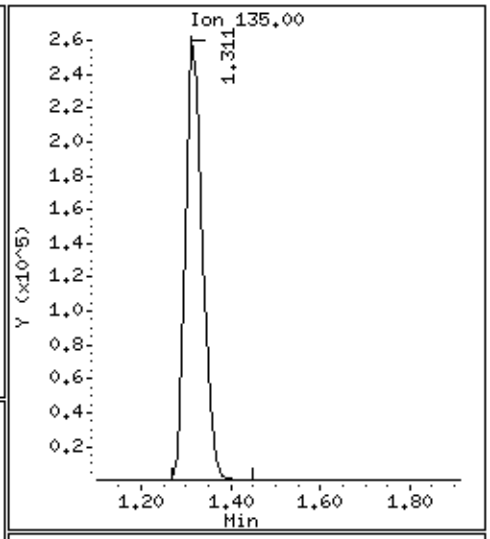
Concentration: 131.71 NG

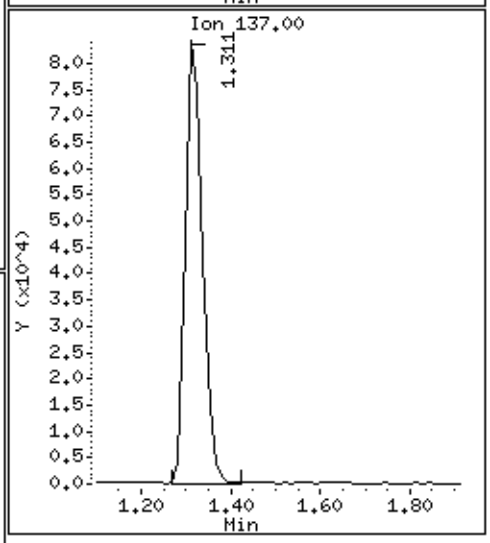












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

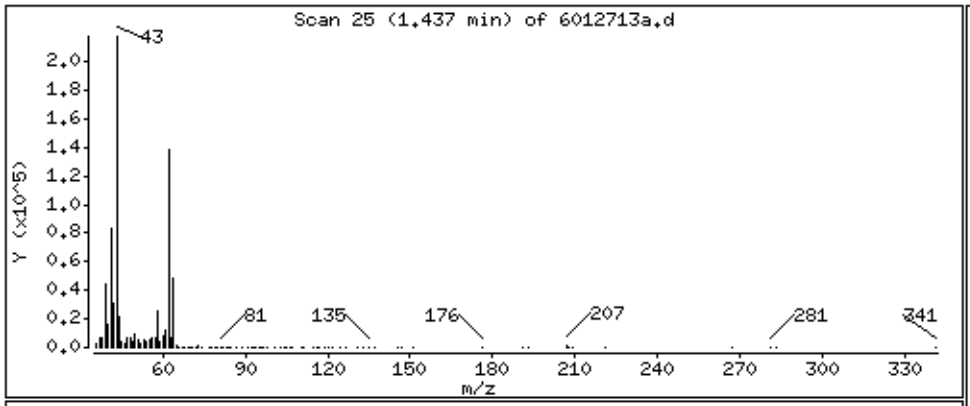
Operator: su

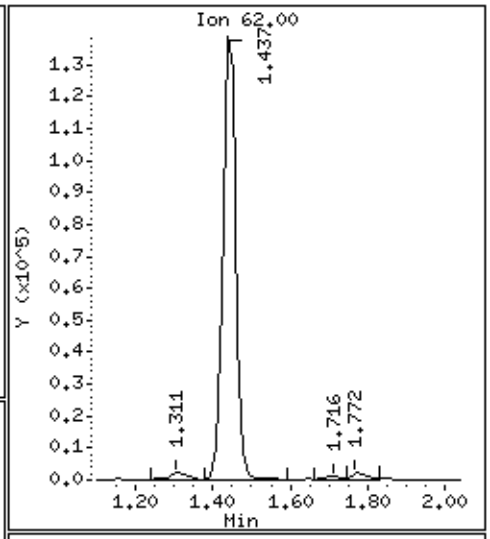
Column phase: RTx-624

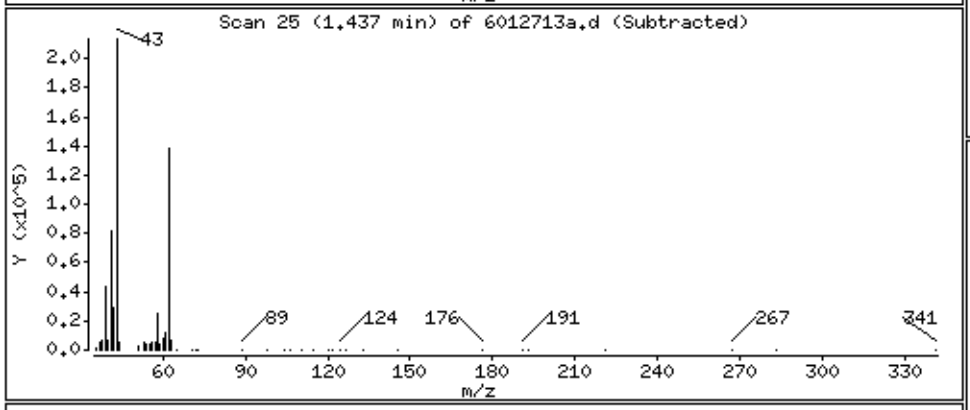
Column diameter: 0.53

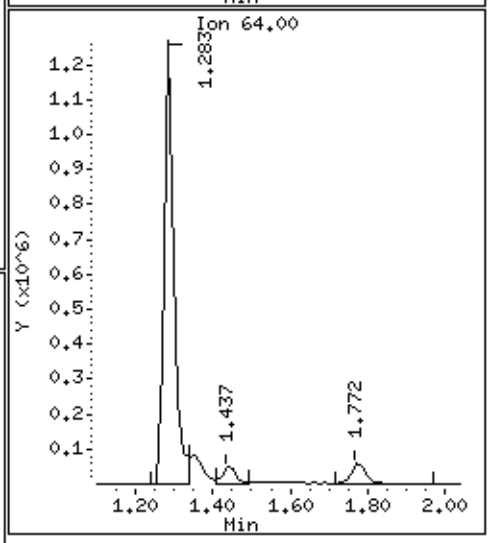
6 Vinyl Chloride

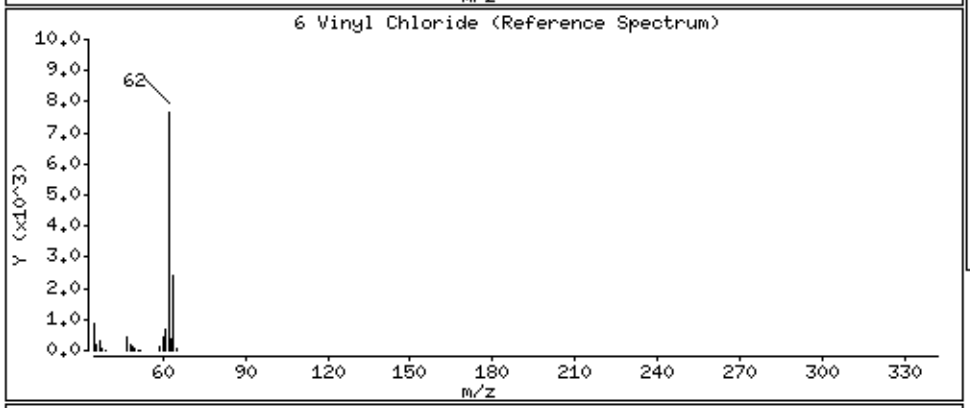
Concentration: 49.917 NG

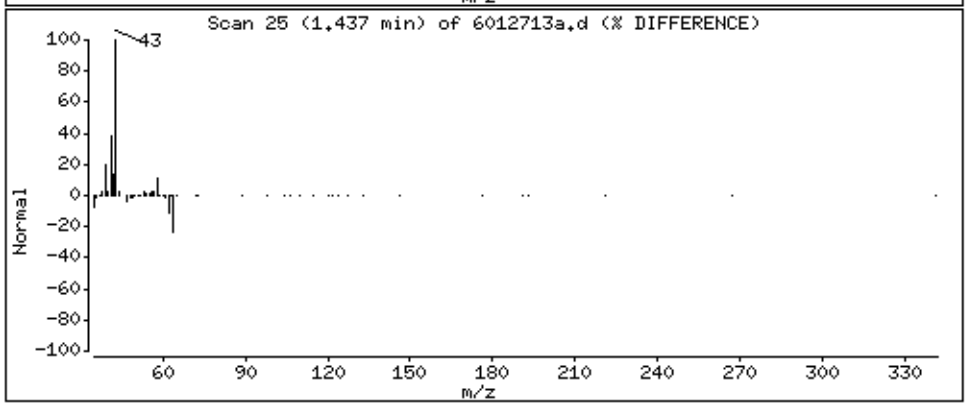












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Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

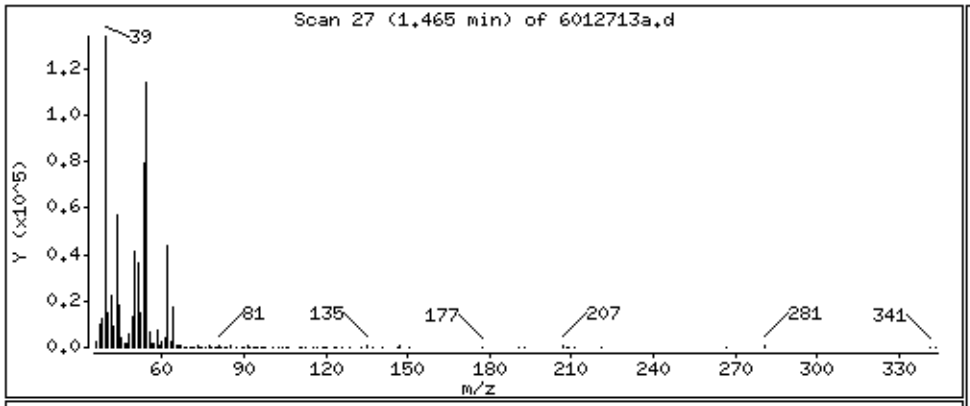
Operator: su

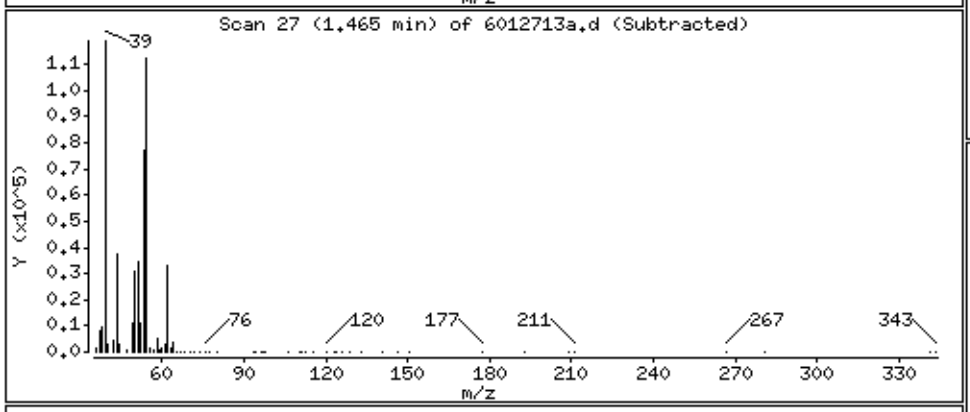
Column phase: RTx-624

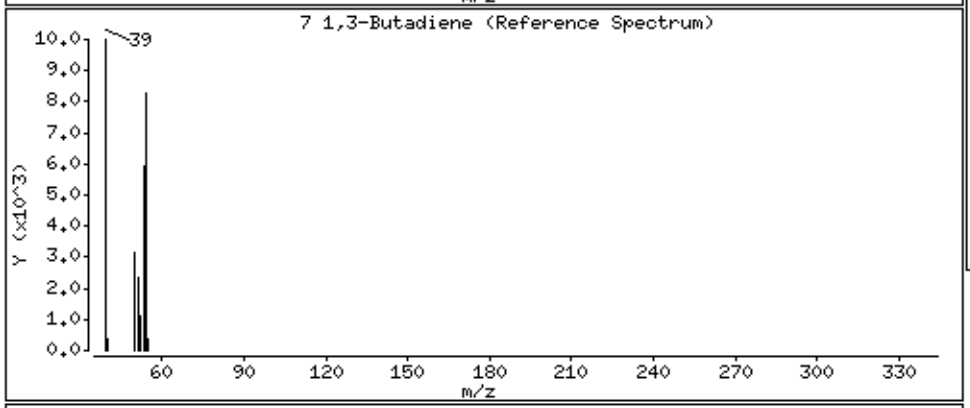
Column diameter: 0.53

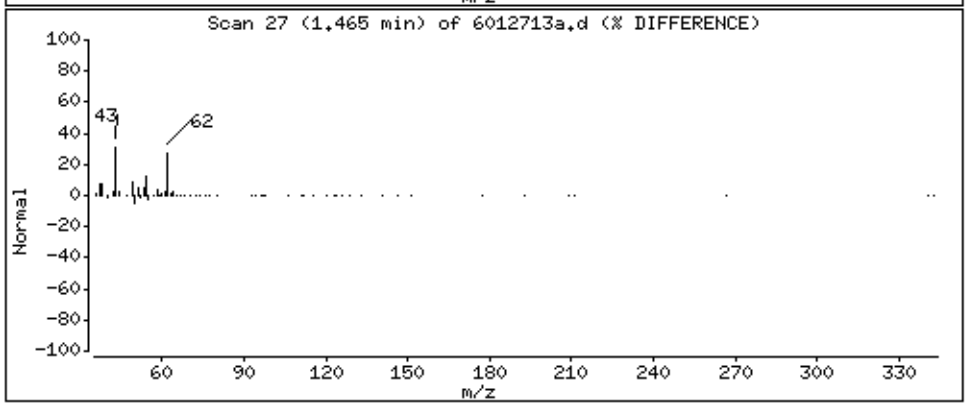
7 1,3-Butadiene

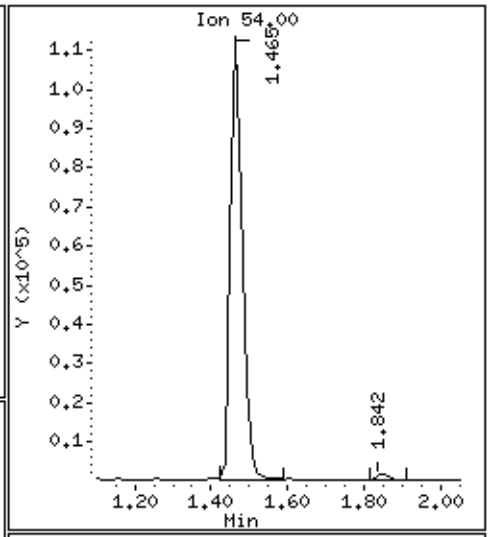
Concentration: 40.920 NG

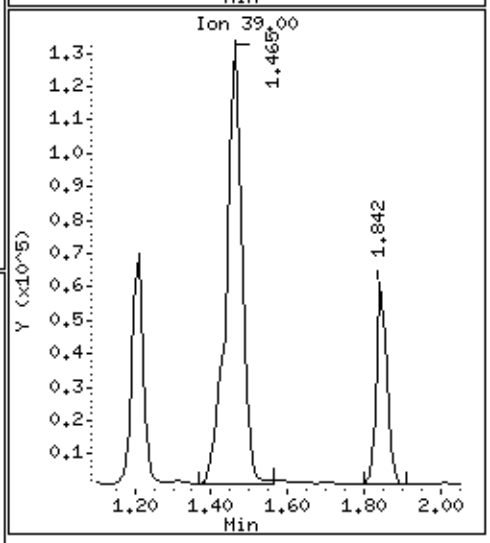












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

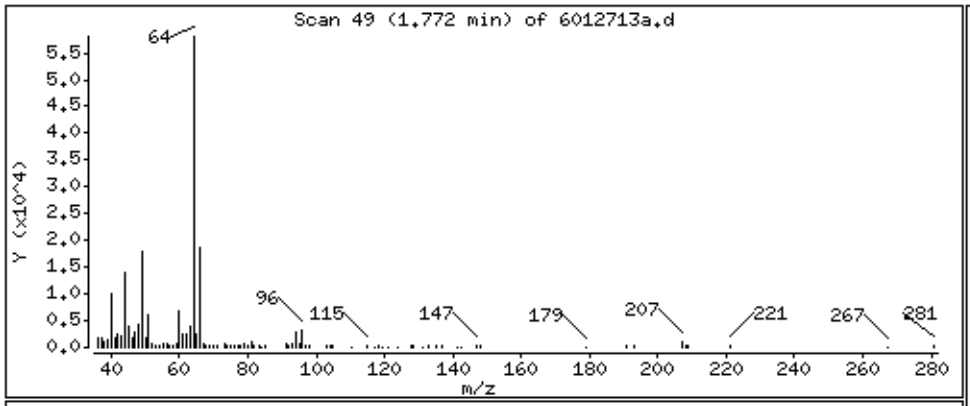
Operator: su

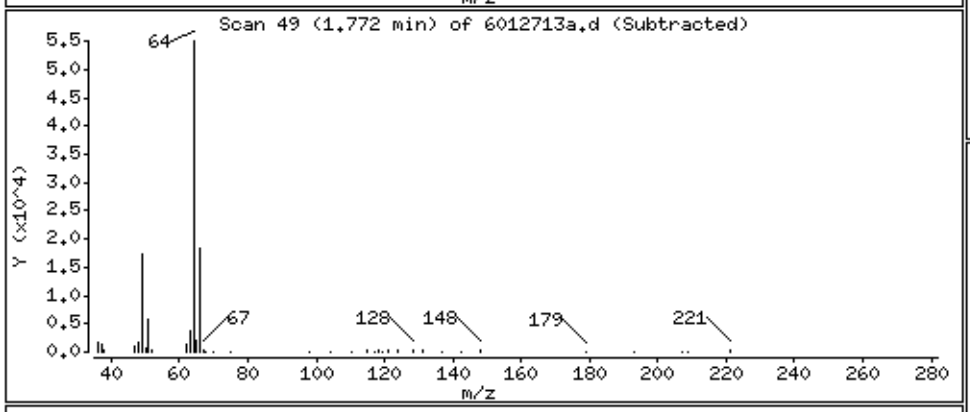
Column phase: RTx-624

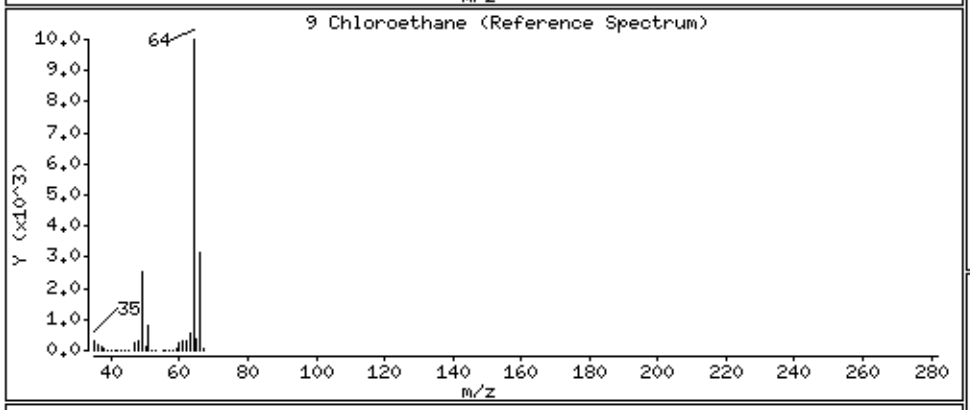
Column diameter: 0.53

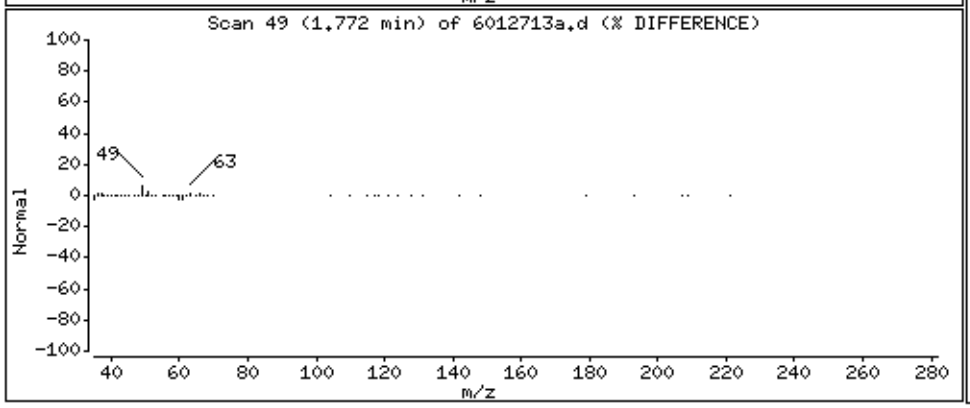
9 Chloroethane

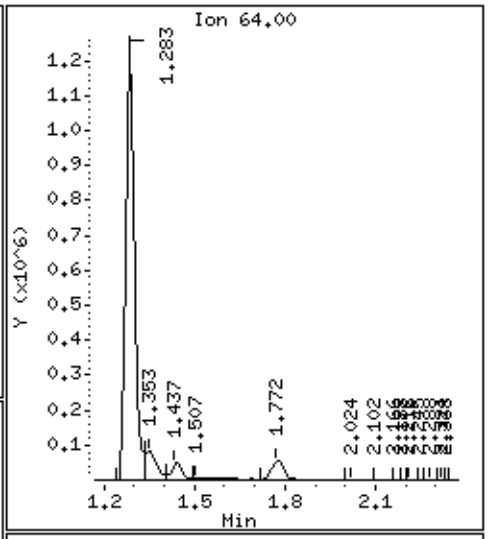
Concentration: 48.658 NG

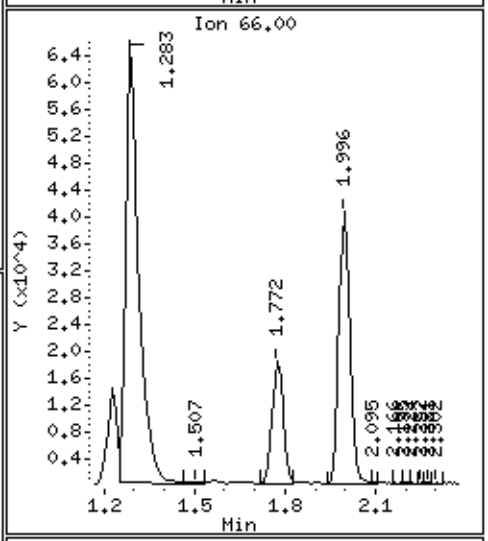


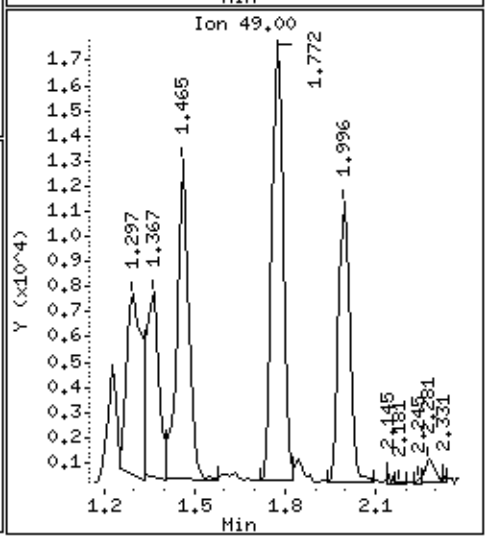












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

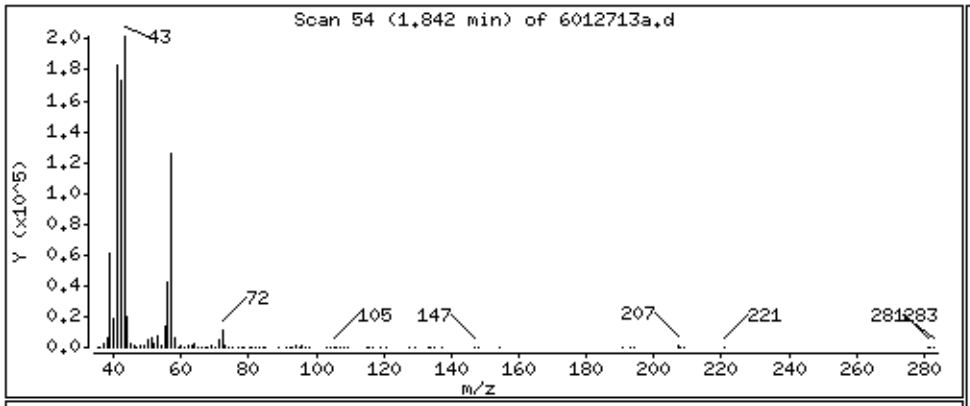
Operator: su

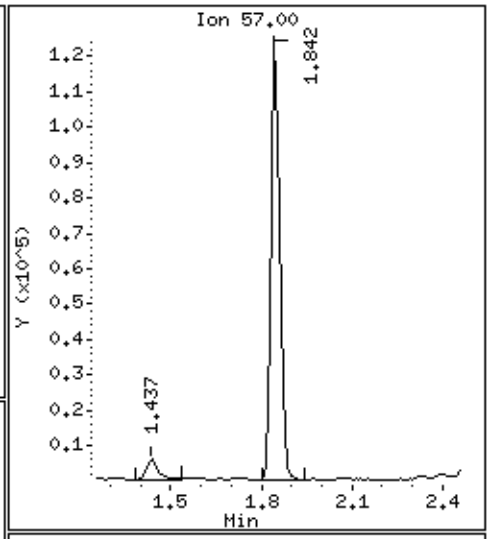
Column phase: RTx-624

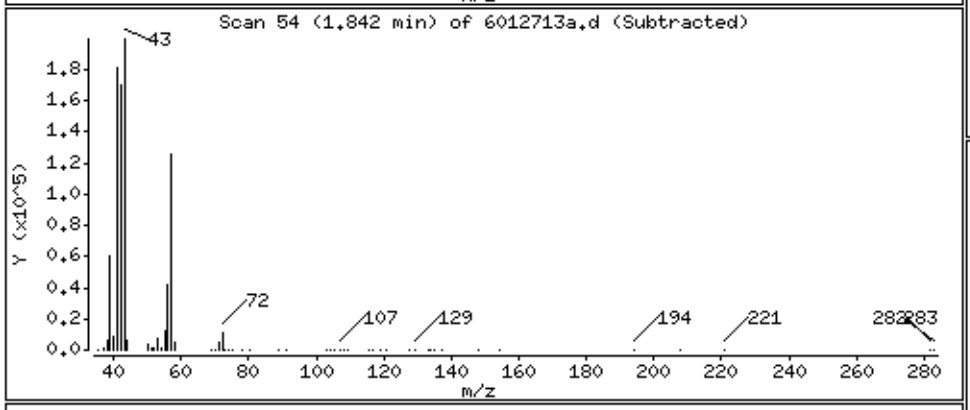
Column diameter: 0.53

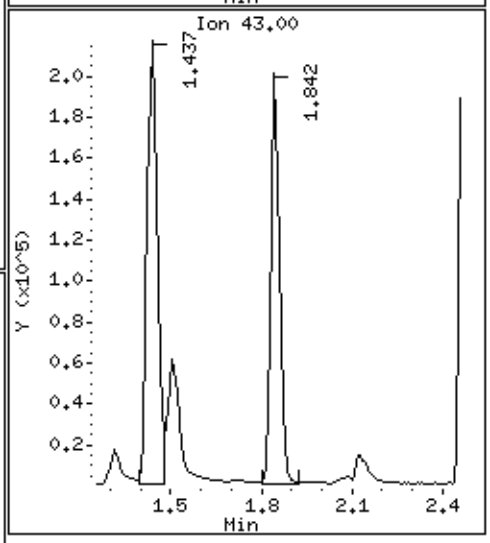
10 Isopentane

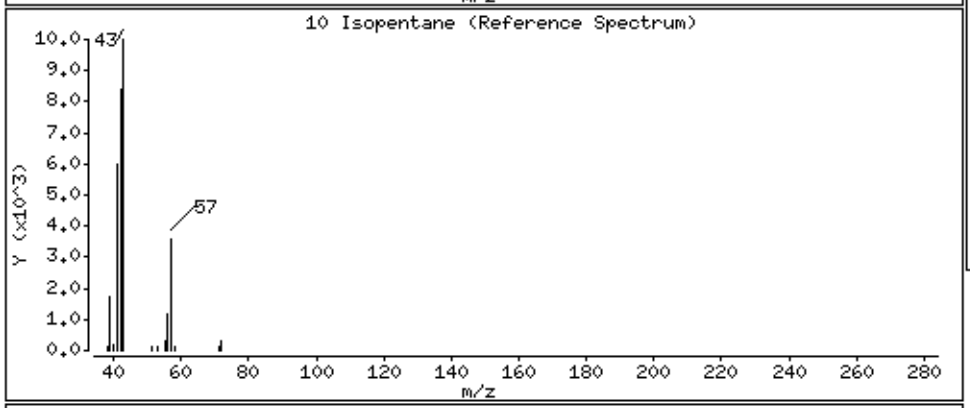
Concentration: 55.223 NG

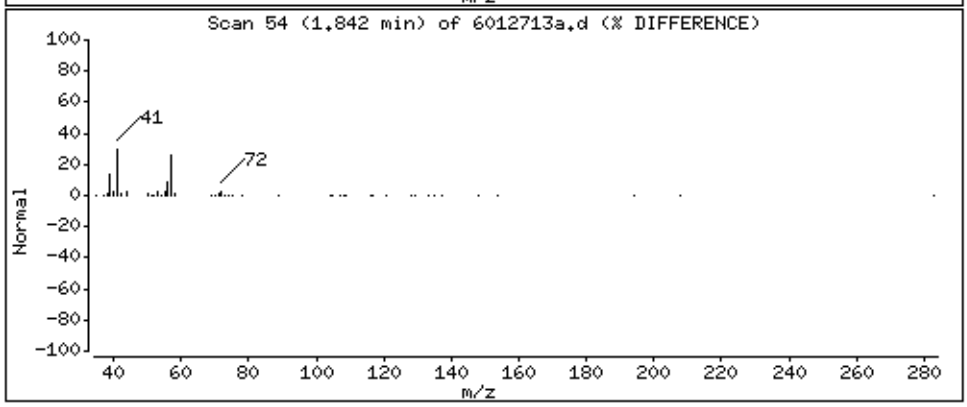












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

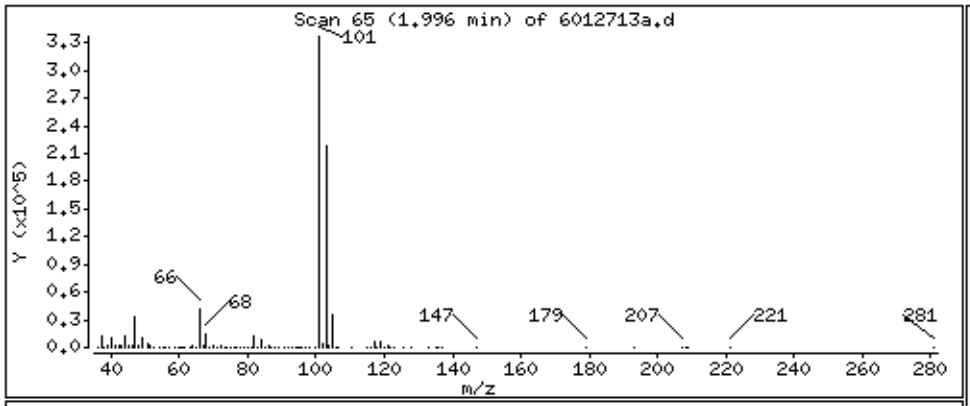
Operator: su

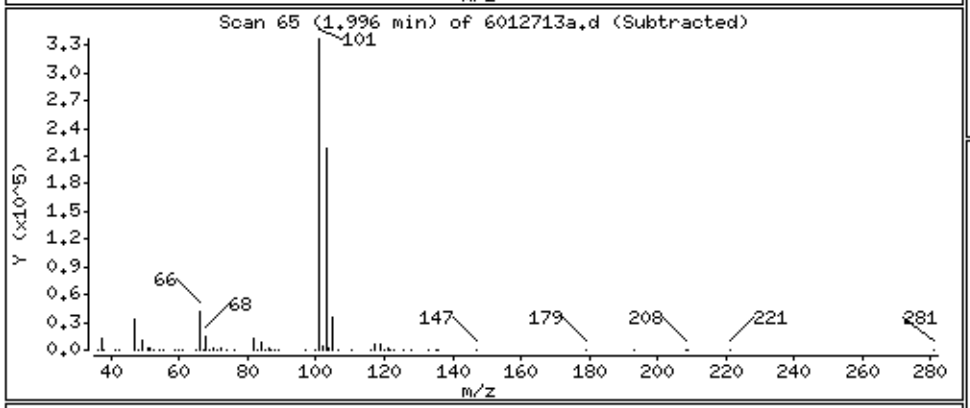
Column phase: RTx-624

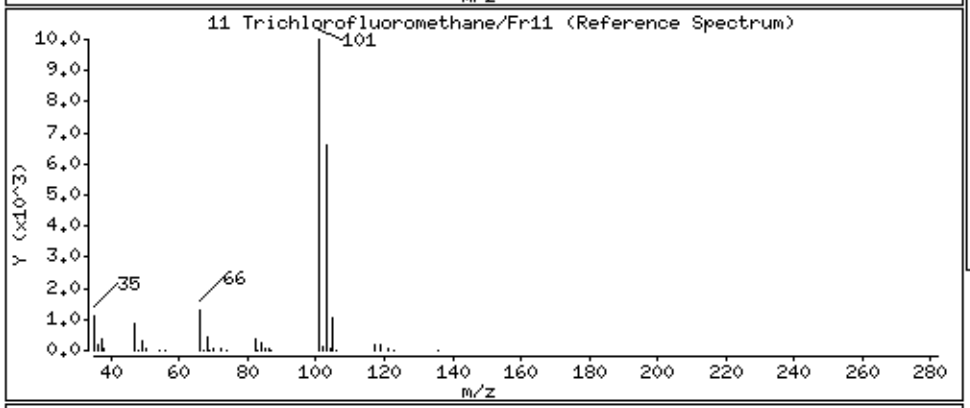
Column diameter: 0.53

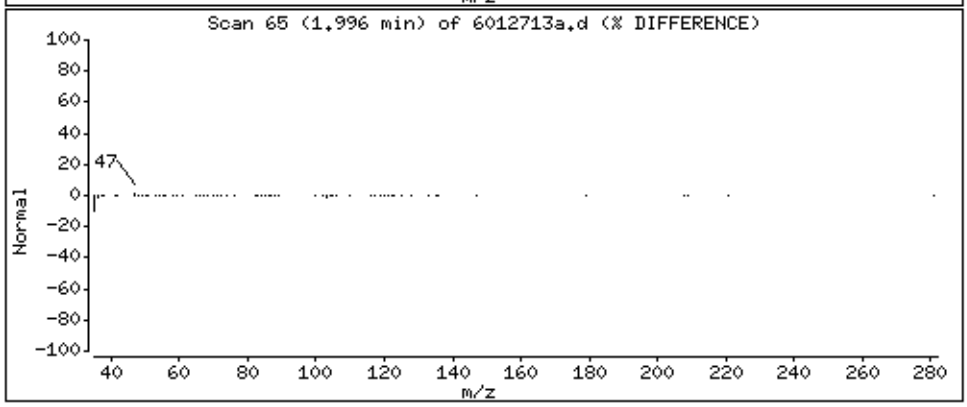
11 Trichlorofluoromethane/Fr11

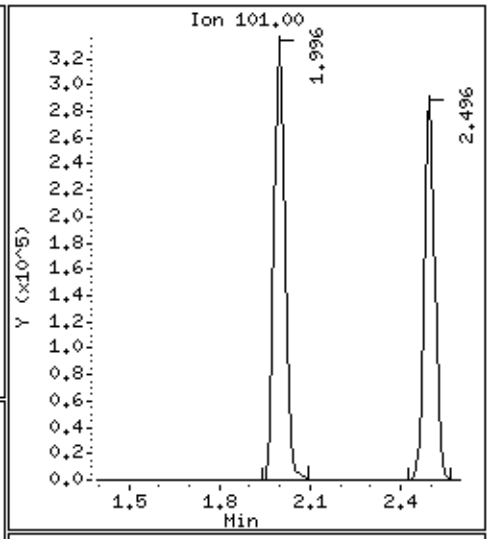
Concentration: 108.50 NG

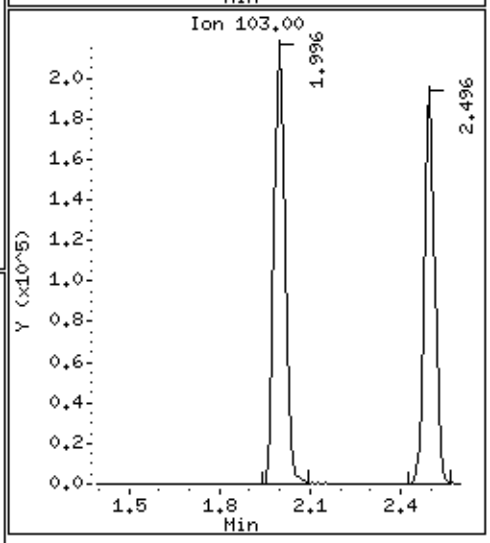












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

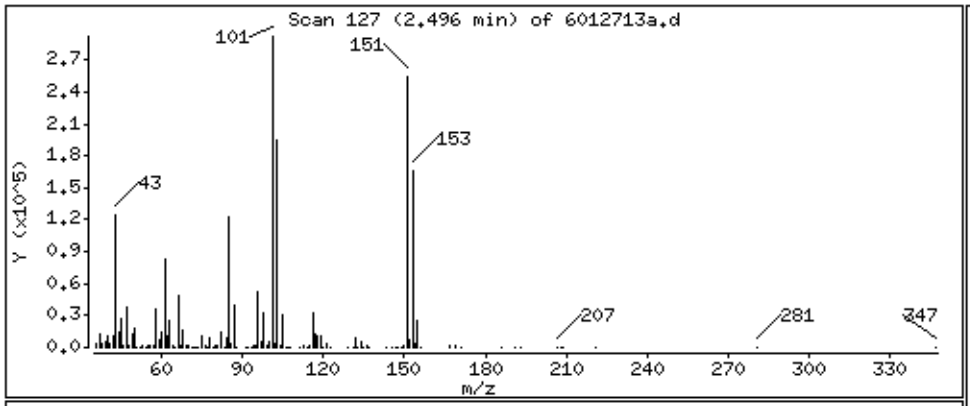
Operator: su

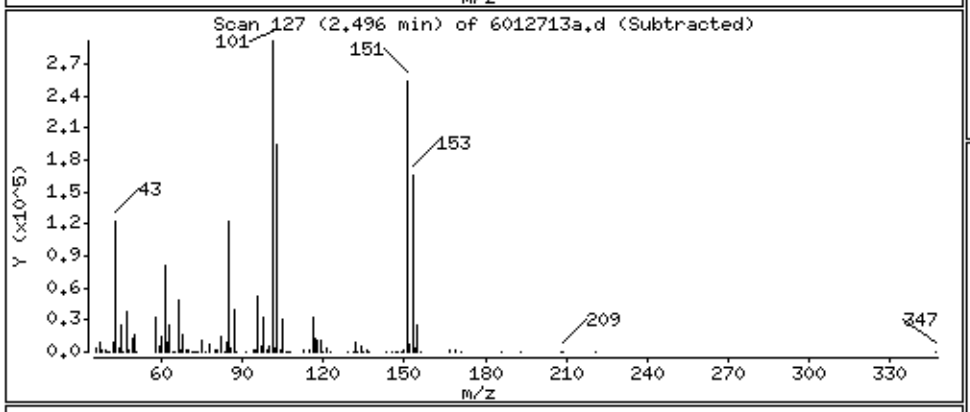
Column phase: RTx-624

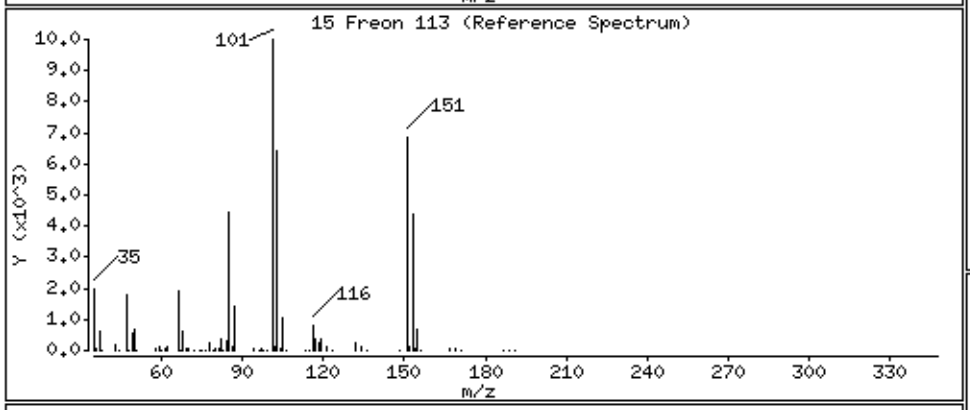
Column diameter: 0.53

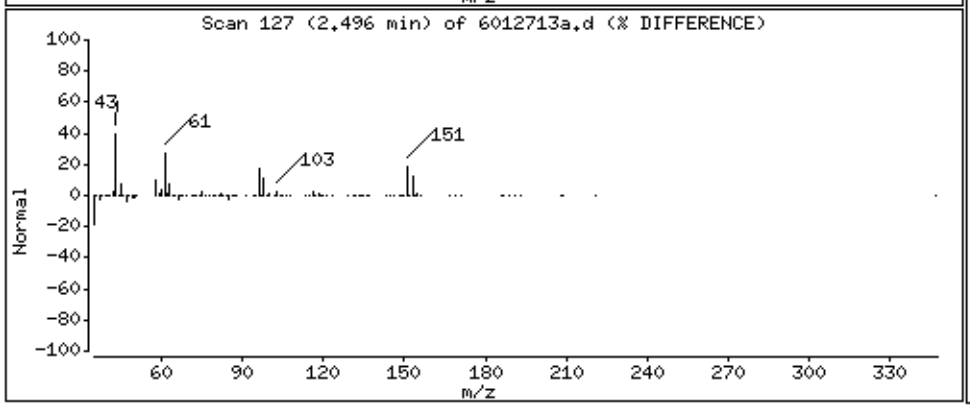
15 Freon 113

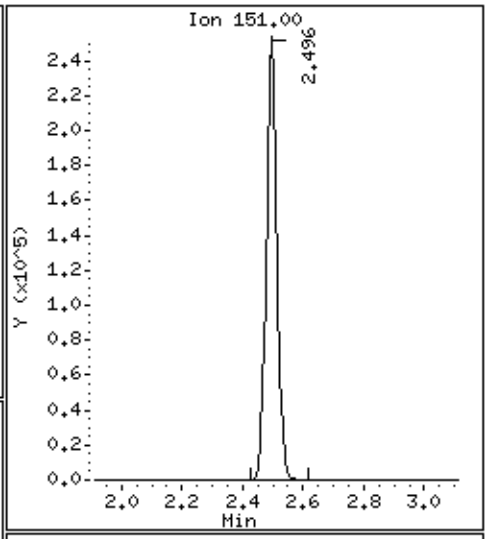
Concentration: 144.44 NG

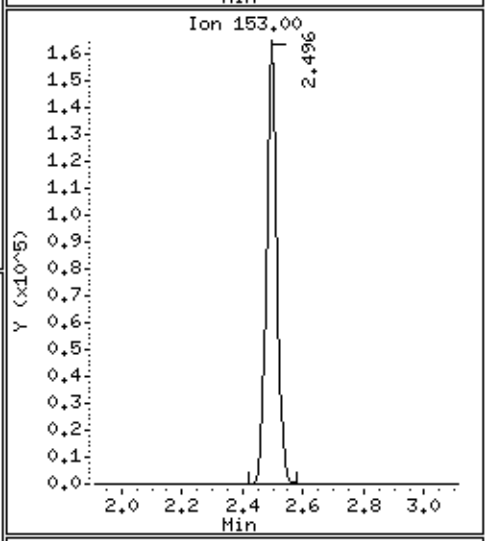


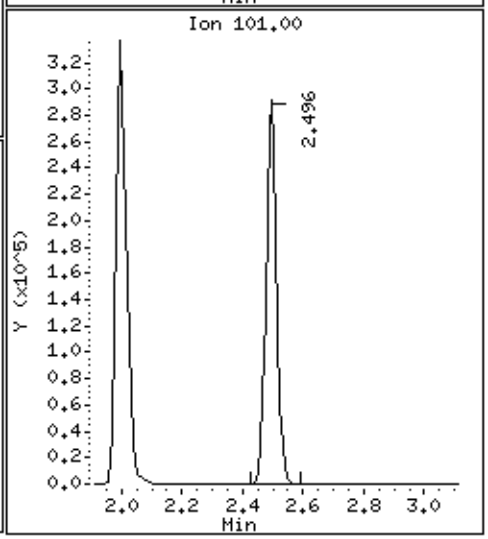












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

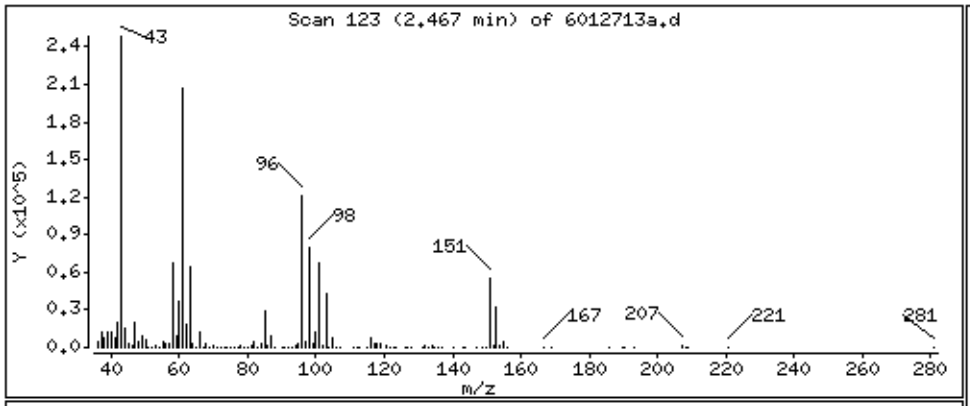
Operator: su

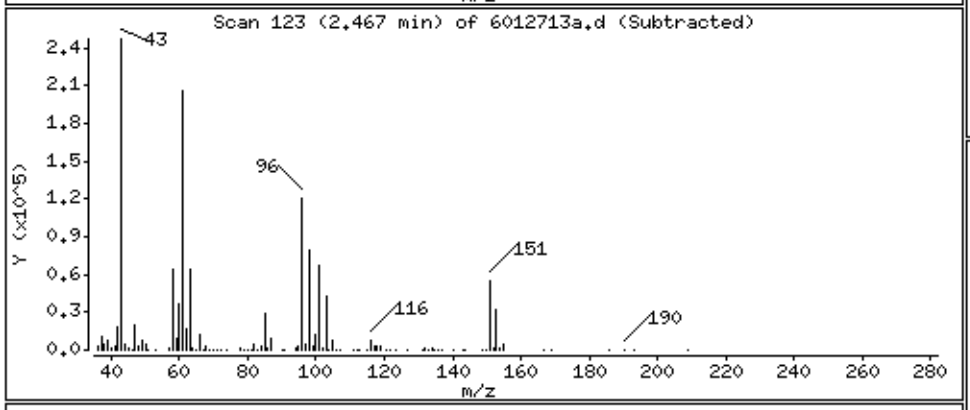
Column phase: RTx-624

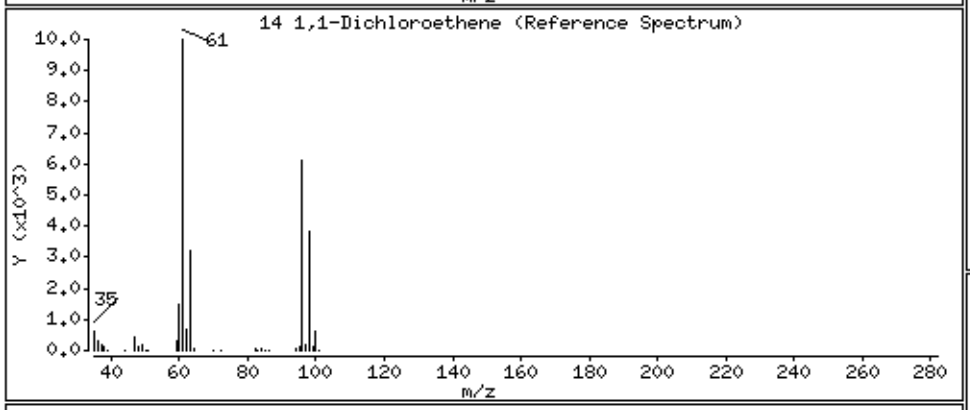
Column diameter: 0.53

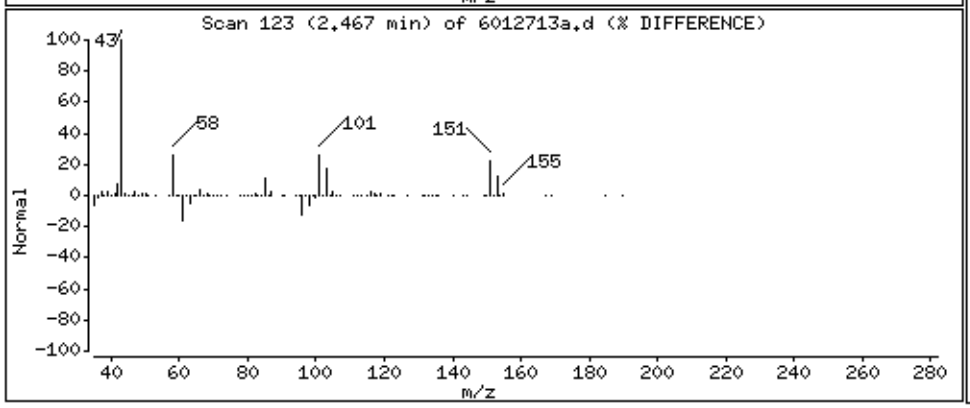
14 1,1-Dichloroethene

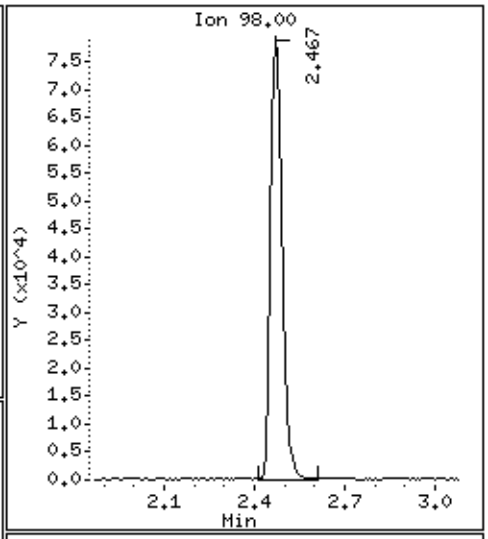
Concentration: 71.463 NG

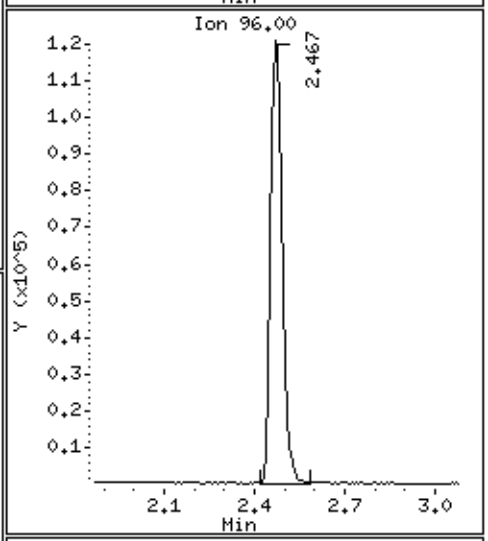


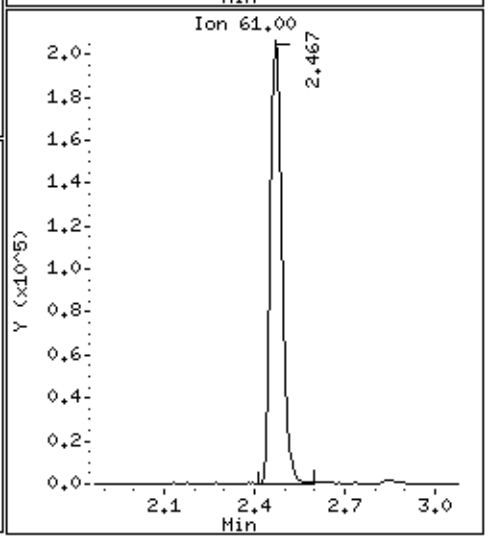












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

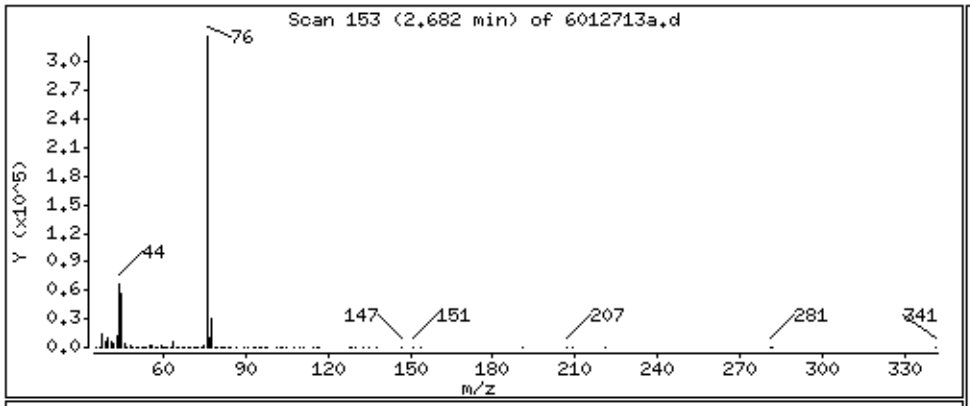
Operator: su

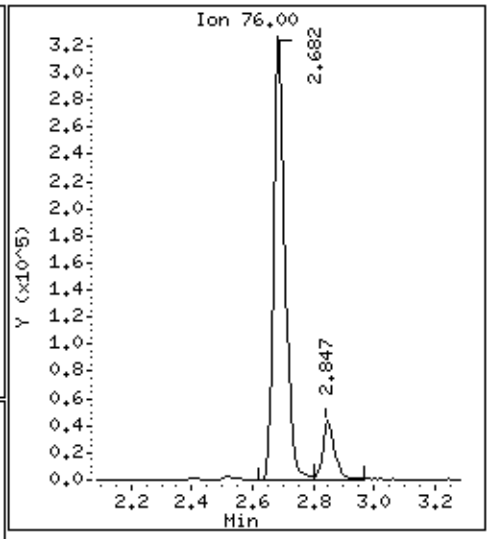
Column phase: RTx-624

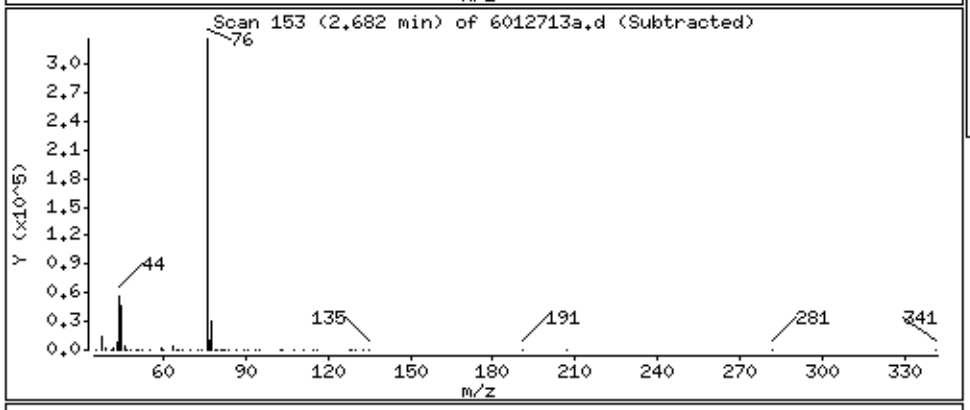
Column diameter: 0.53

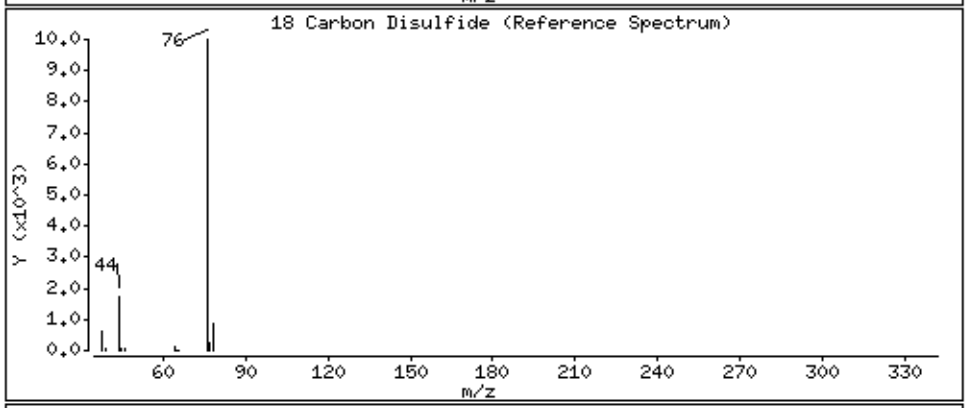
18 Carbon Disulfide

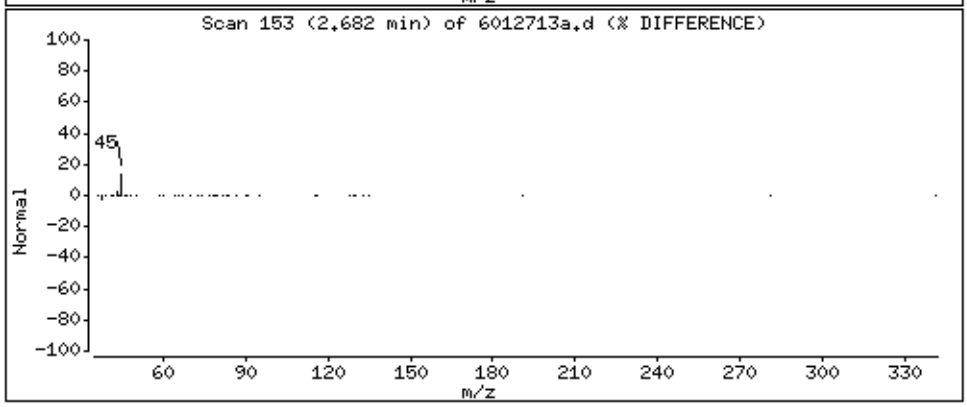
Concentration: 59.182 NG











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

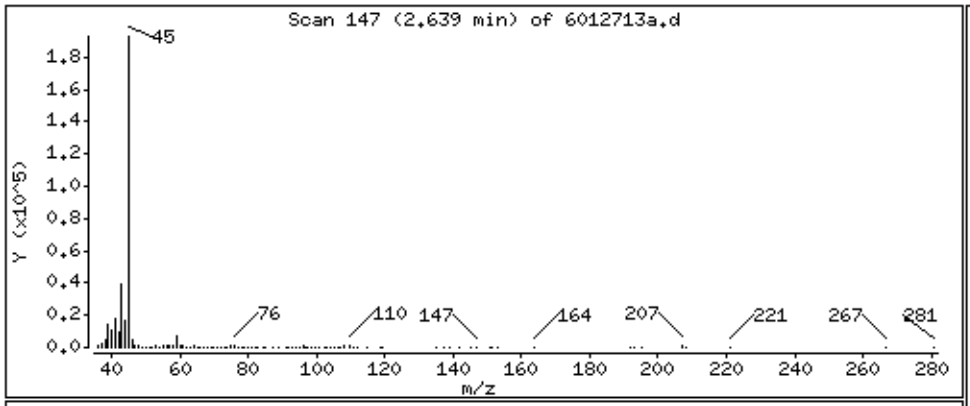
Operator: su

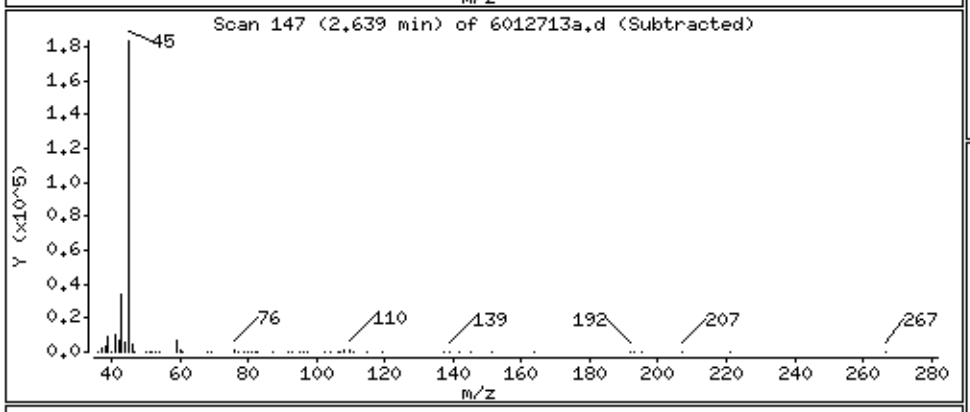
Column phase: RTx-624

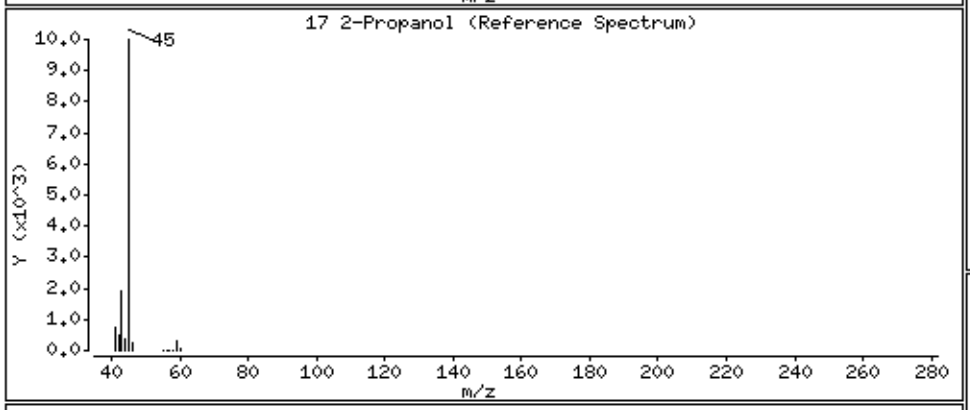
Column diameter: 0.53

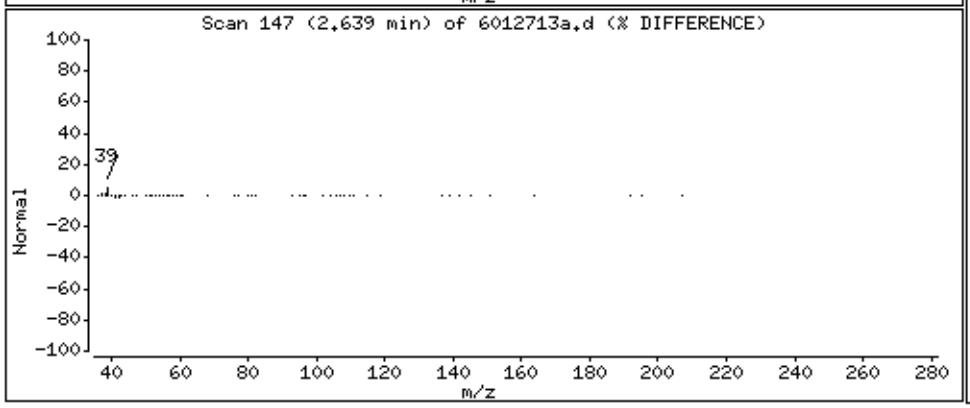
17 2-Propanol

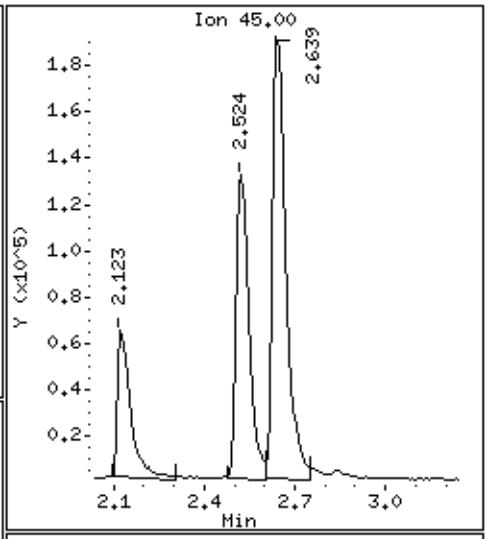
Concentration: 47.054 NG

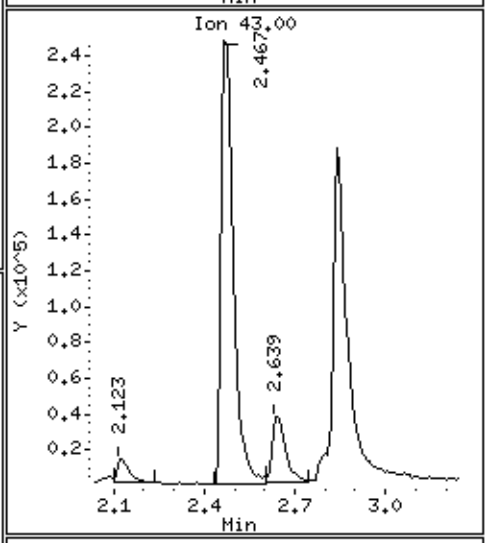


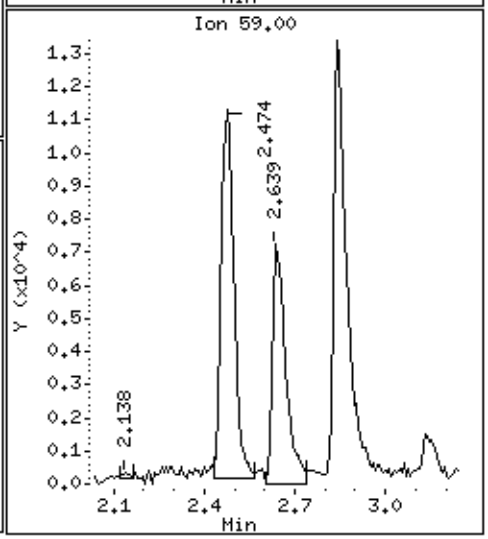












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

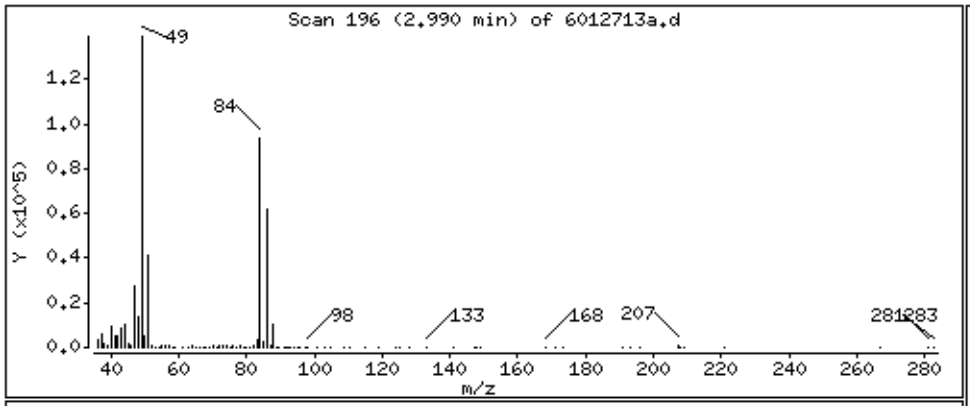
Operator: su

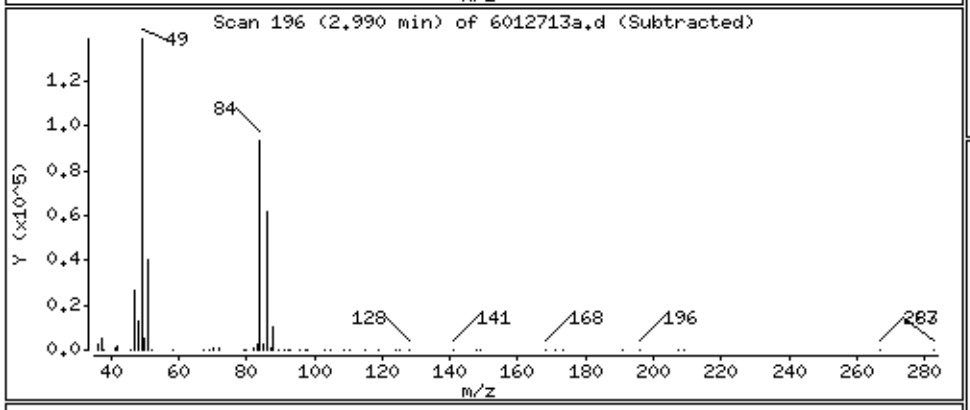
Column phase: RTx-624

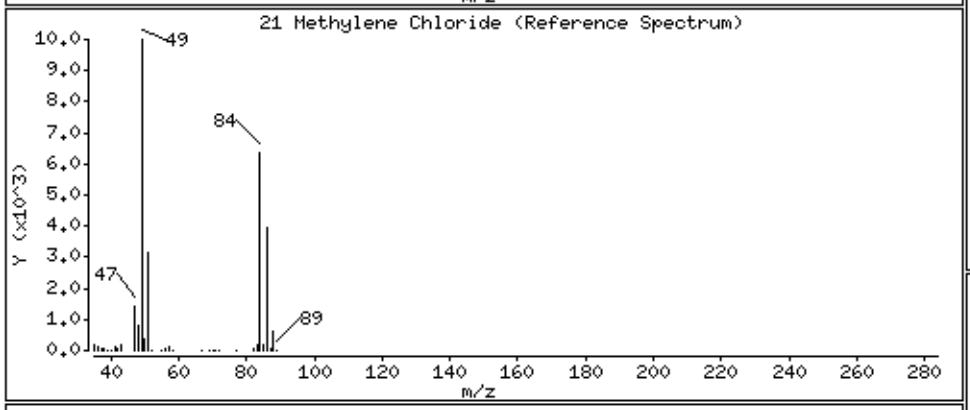
Column diameter: 0.53

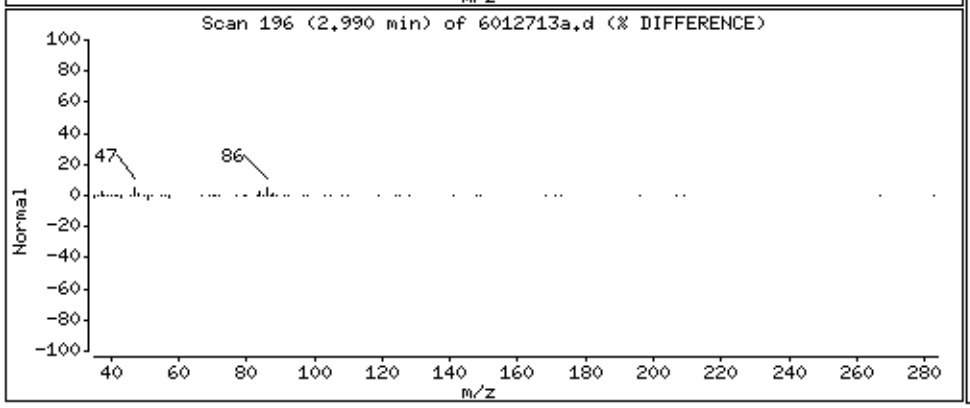
21 Methylene Chloride

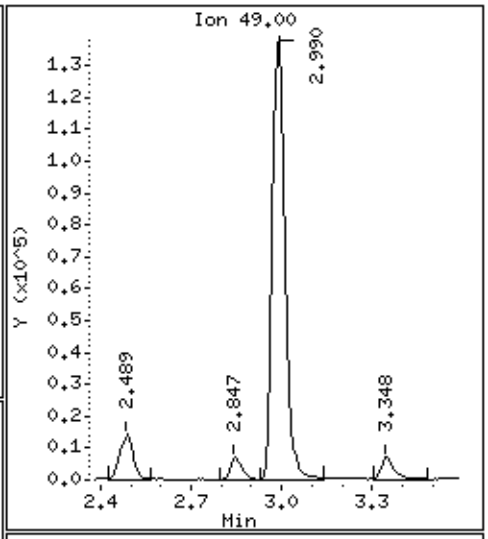
Concentration: 64.691 NG

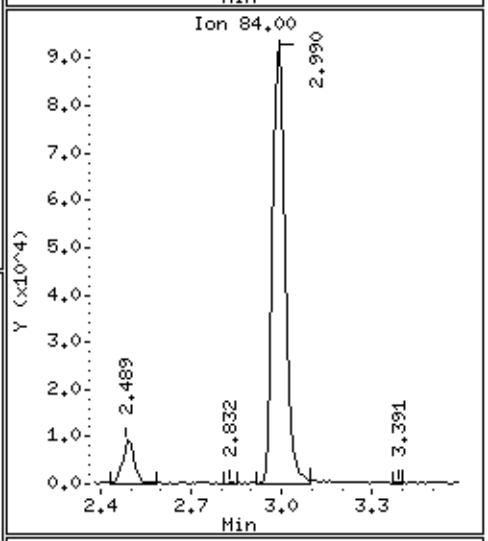


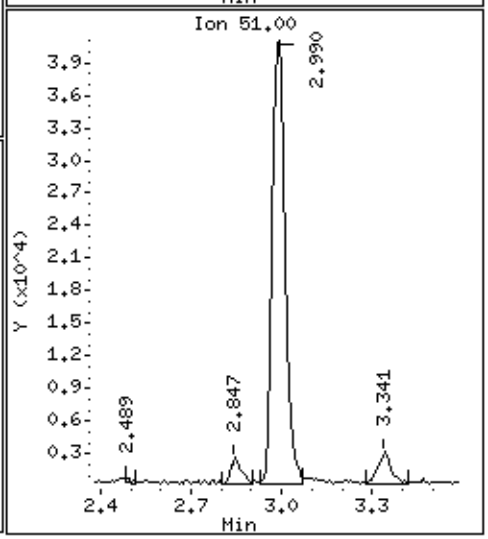












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

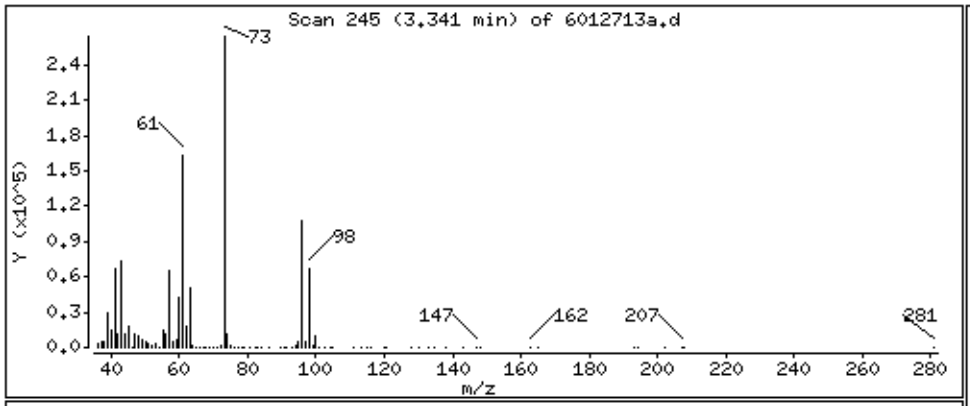
Operator: su

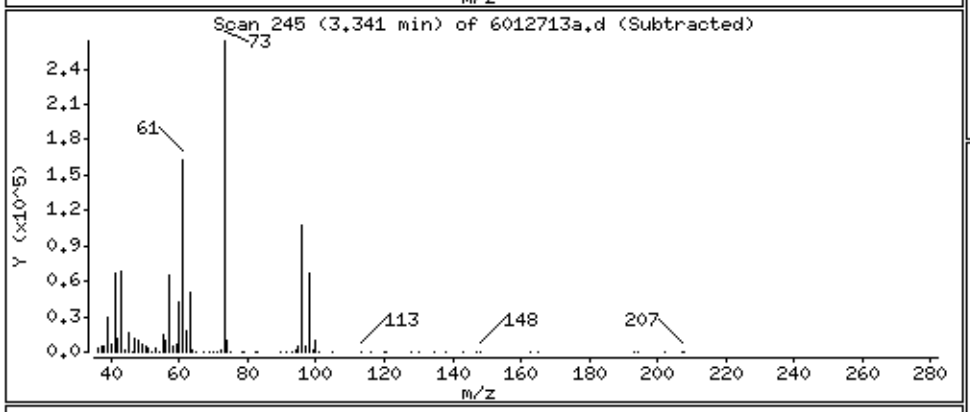
Column phase: RTx-624

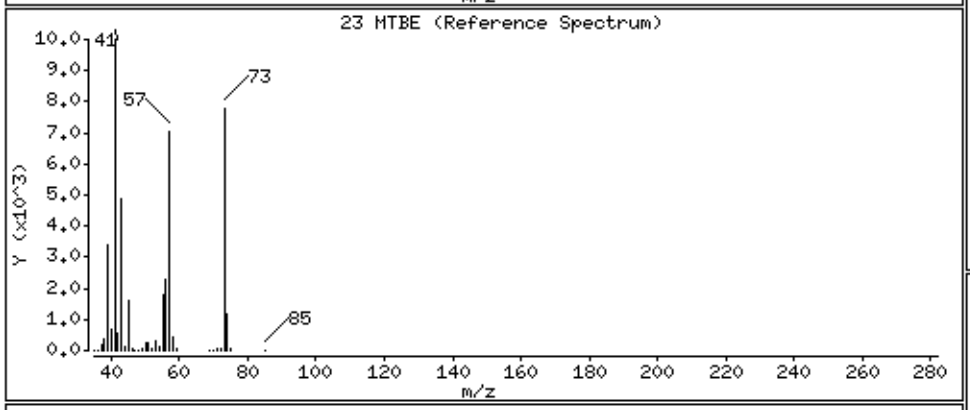
Column diameter: 0.53

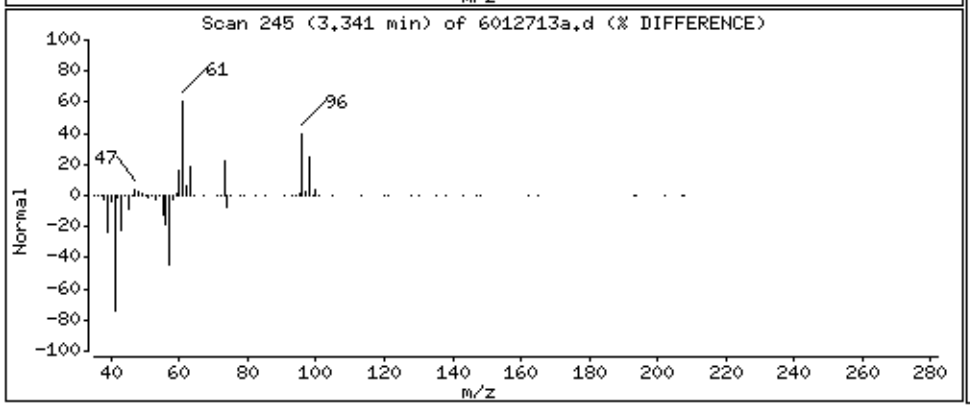
23 MTBE

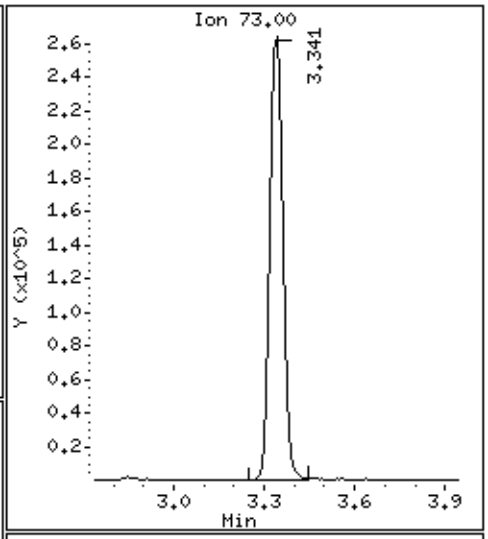
Concentration: 71.037 NG

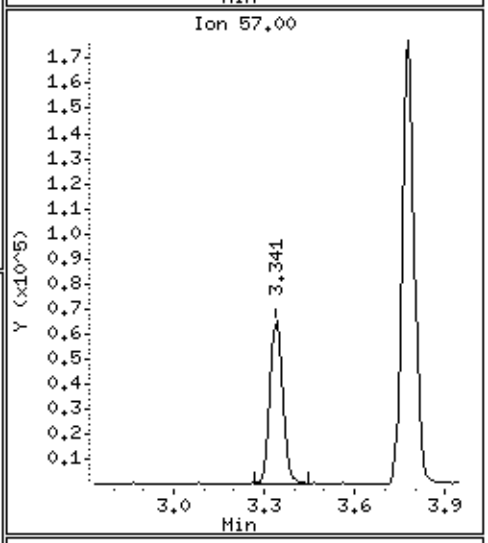


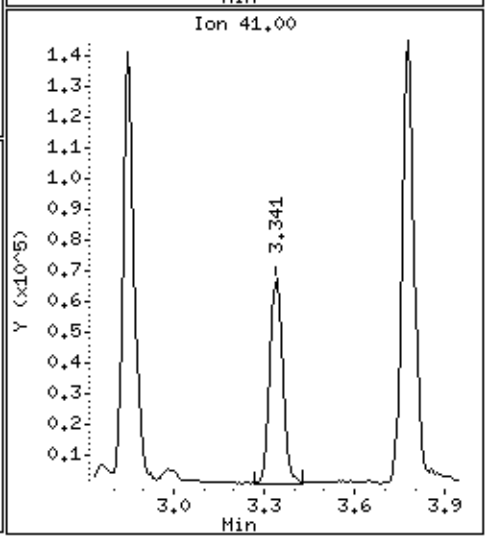












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

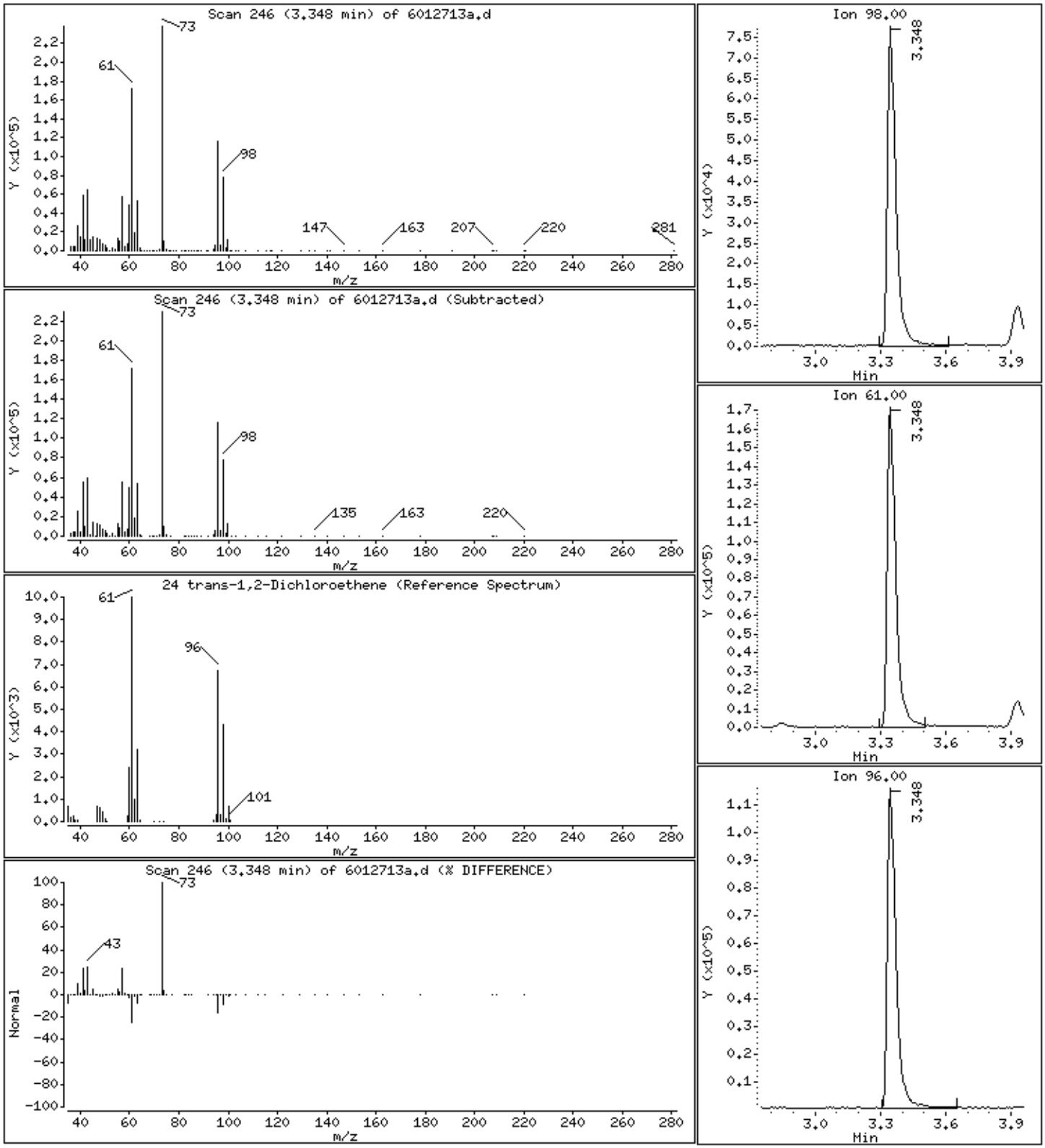
Operator: su

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

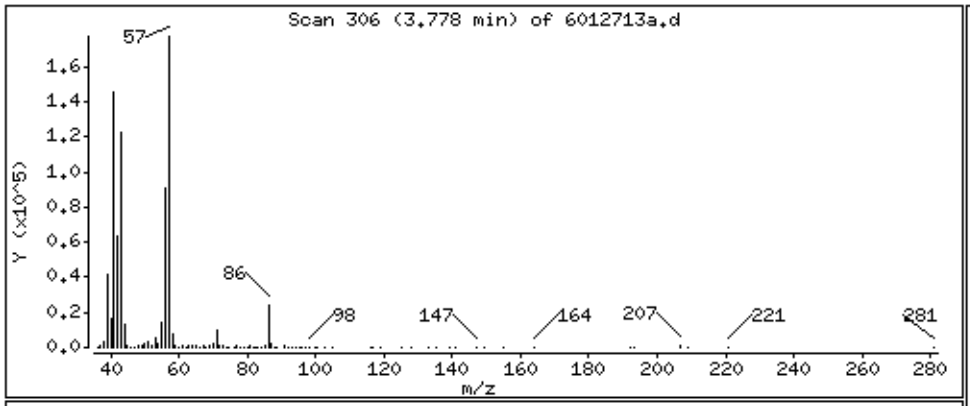
Operator: su

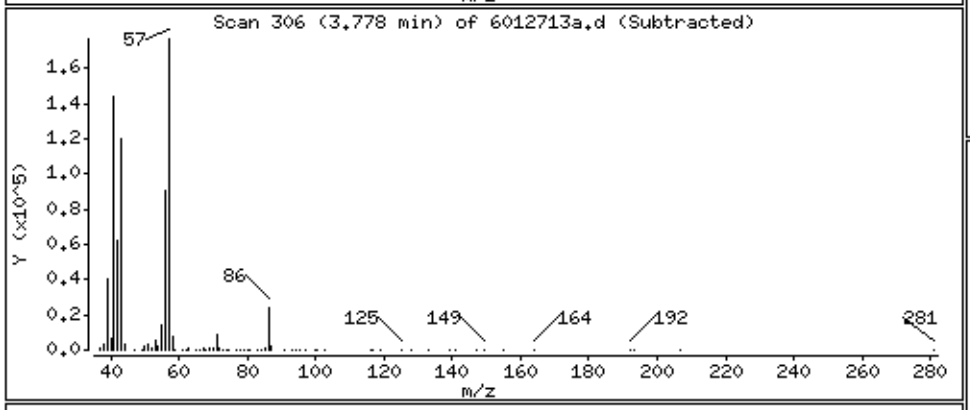
Column phase: RTx-624

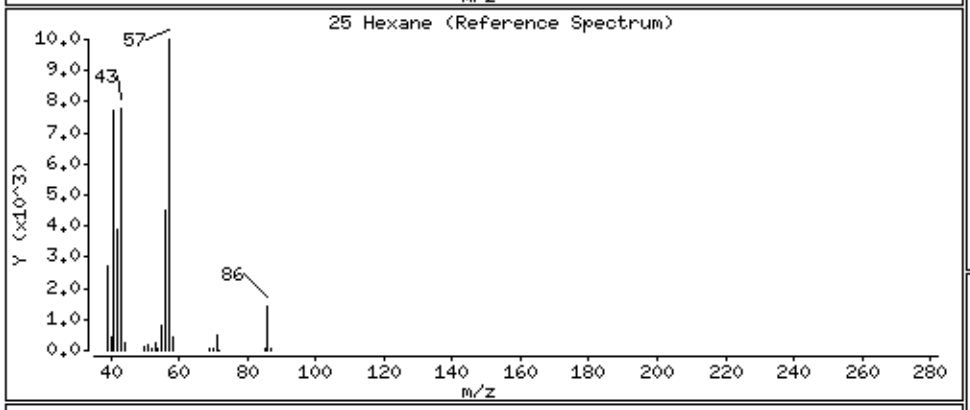
Column diameter: 0.53

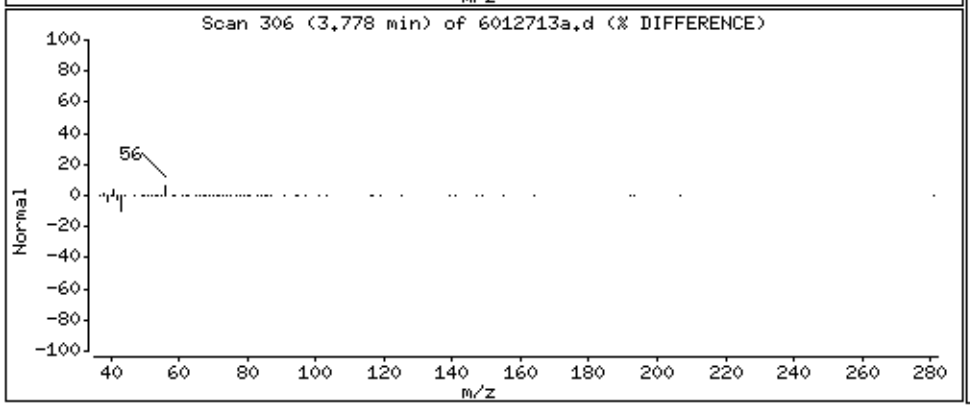
25 Hexane

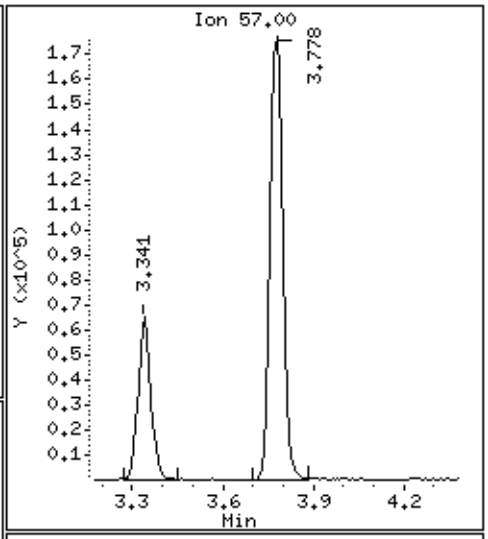
Concentration: 68.742 NG

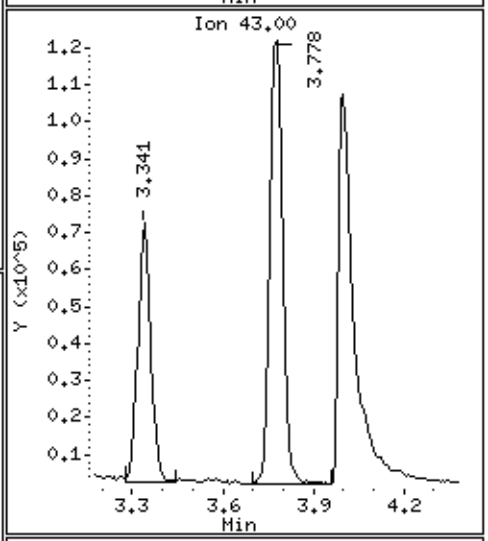


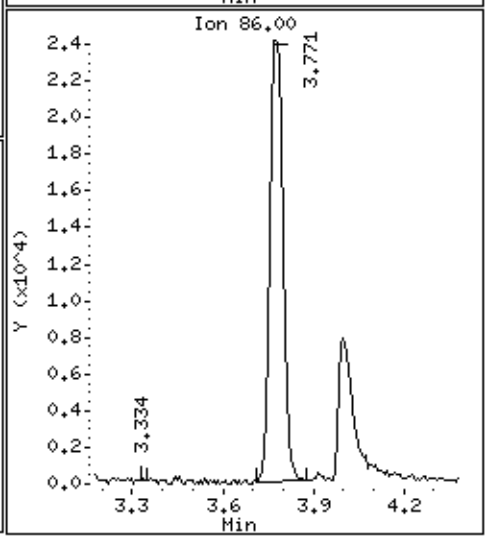












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

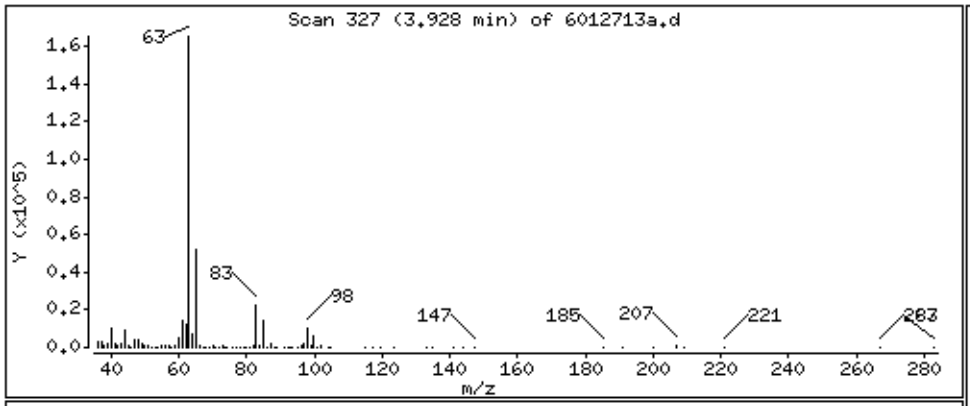
Operator: su

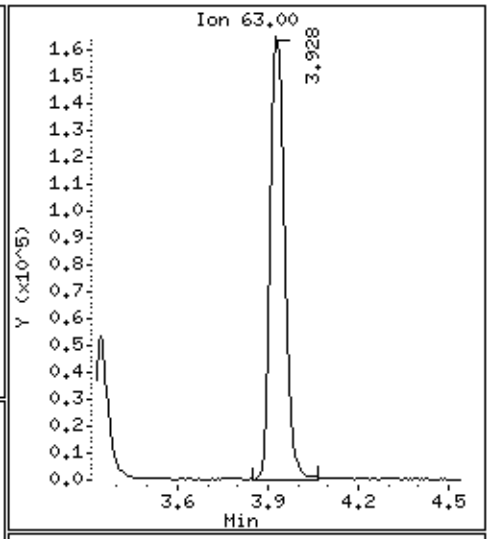
Column phase: RTx-624

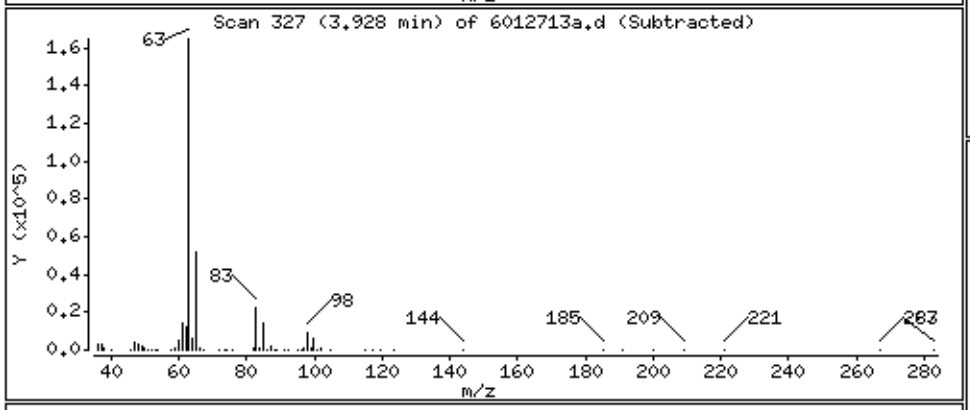
Column diameter: 0.53

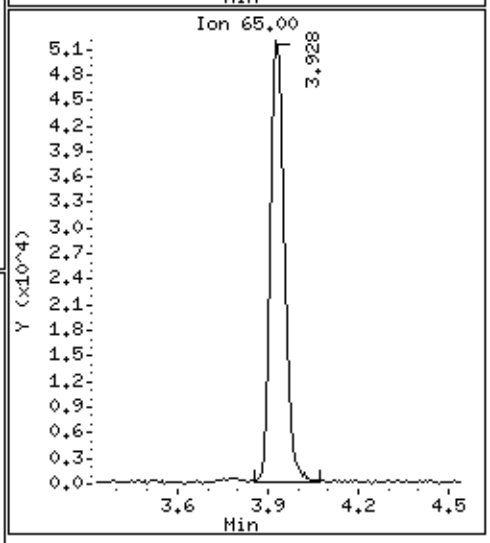
26 1,1-Dichloroethane

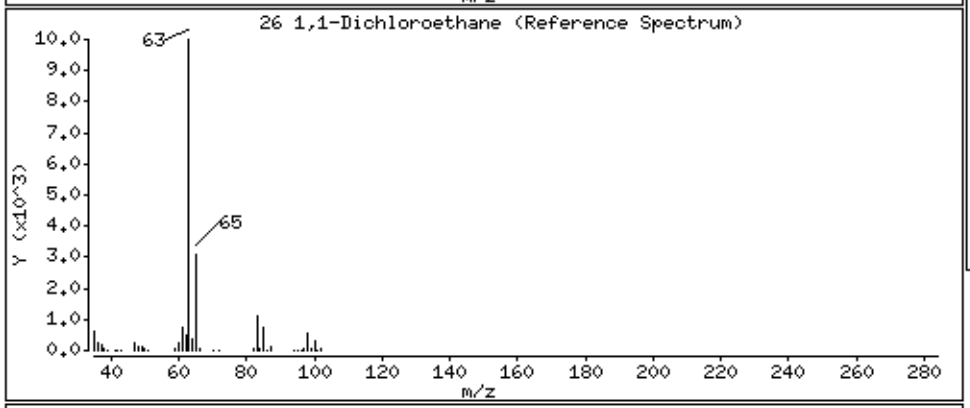
Concentration: 77.855 NG

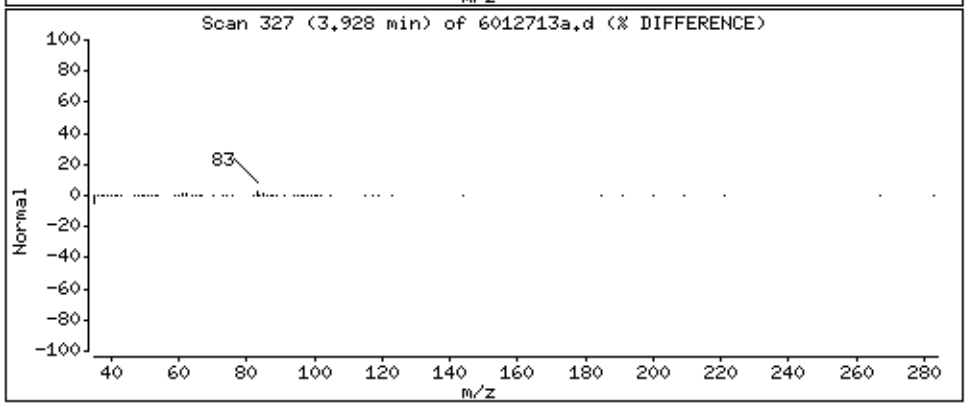












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

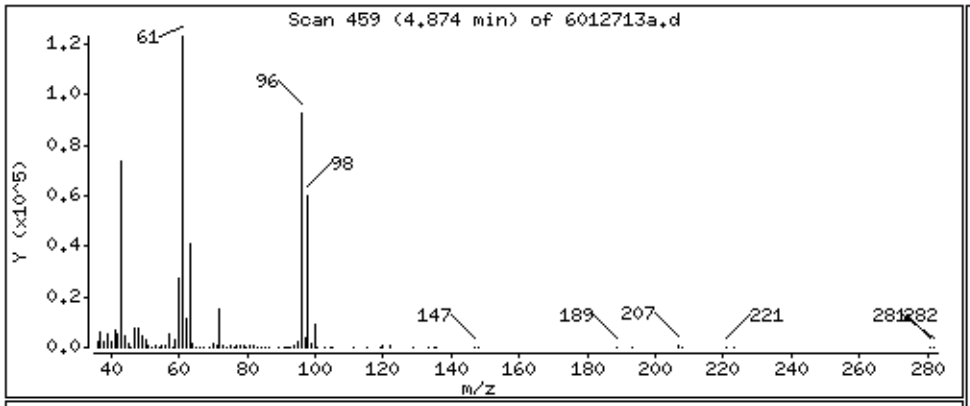
Operator: su

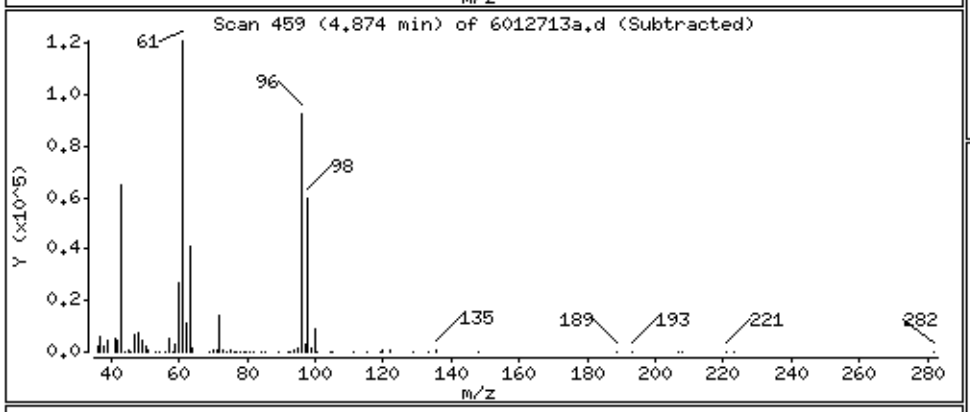
Column phase: RTx-624

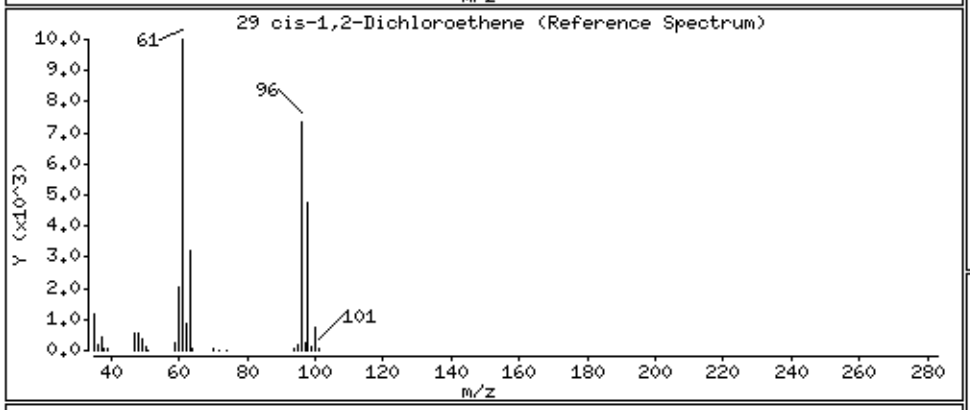
Column diameter: 0.53

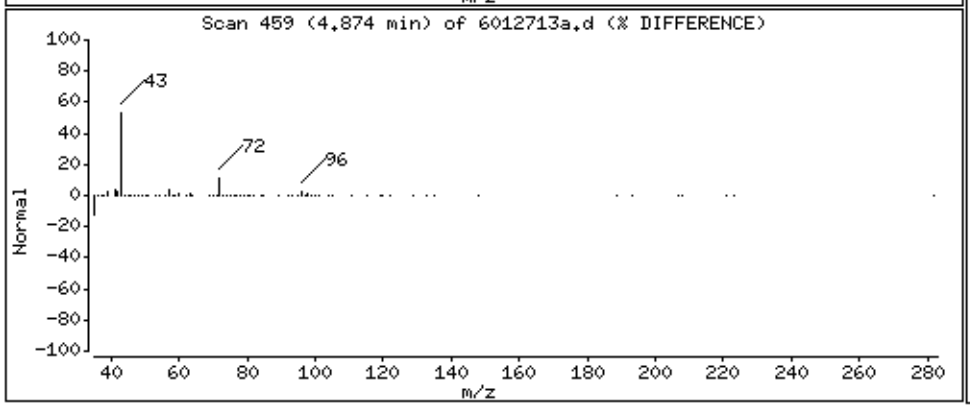
29 cis-1,2-Dichloroethene

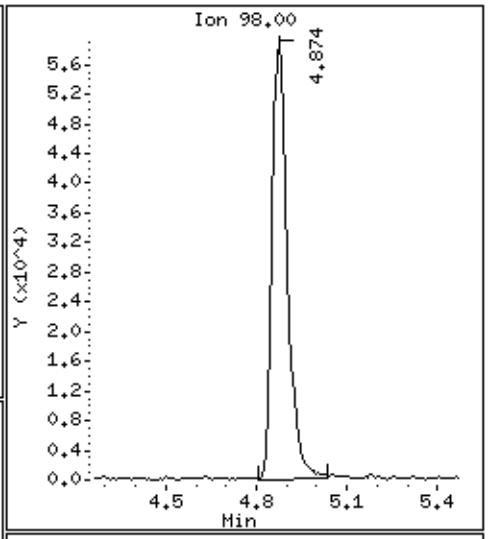
Concentration: 68.649 NG

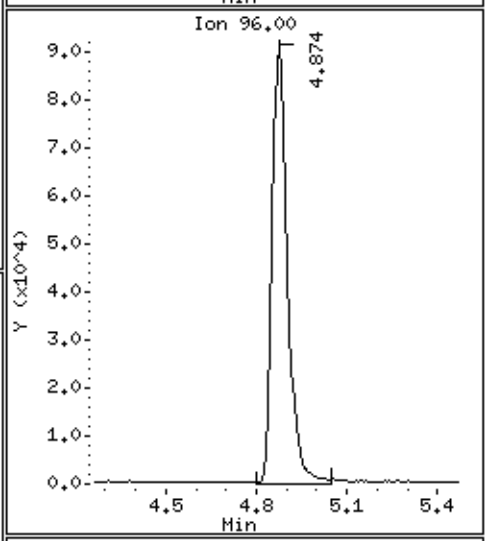


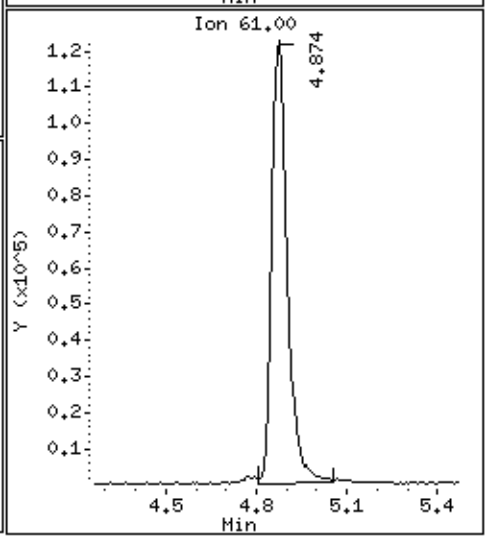












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

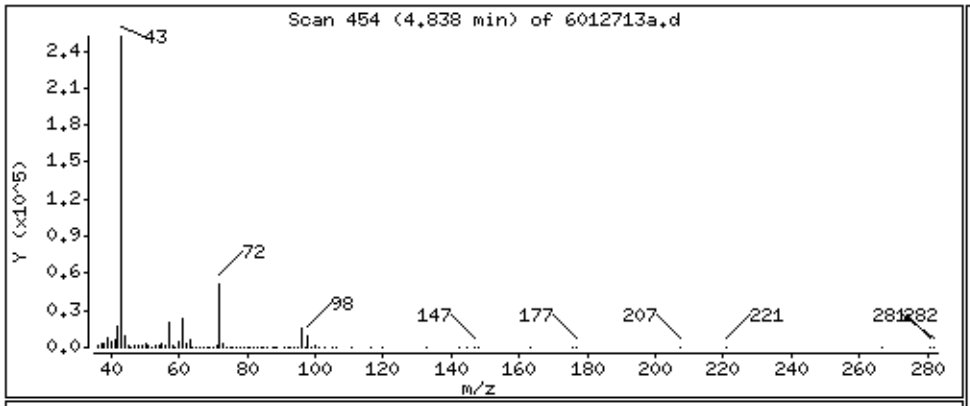
Operator: su

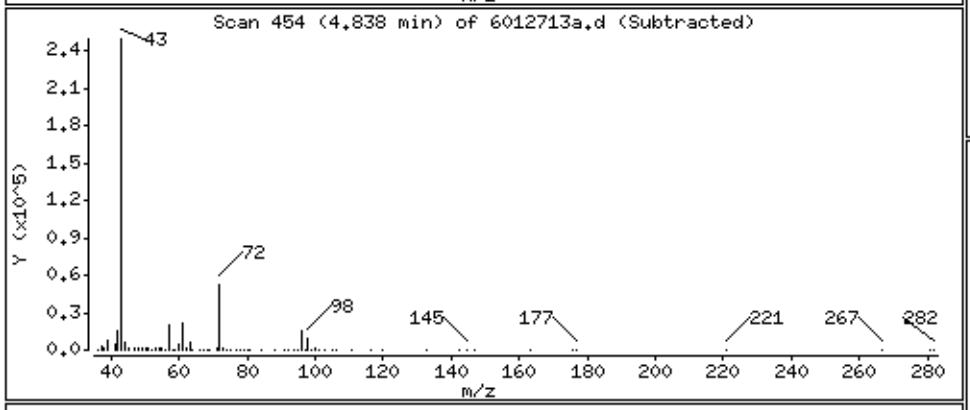
Column phase: RTx-624

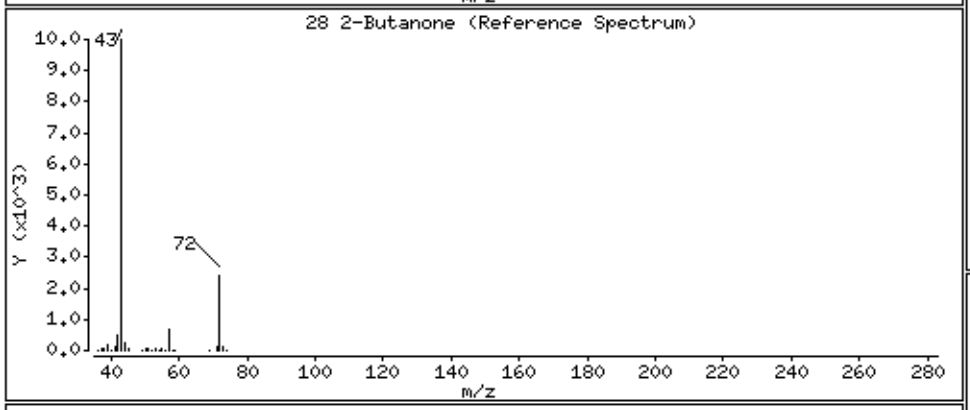
Column diameter: 0.53

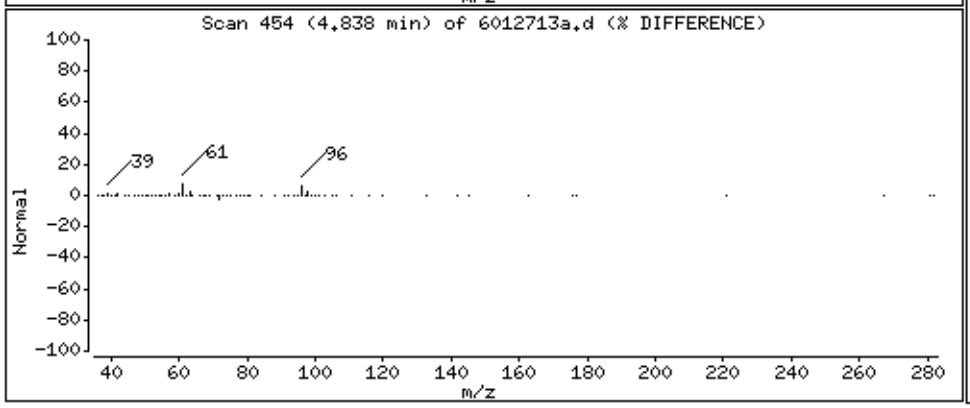
28 2-Butanone

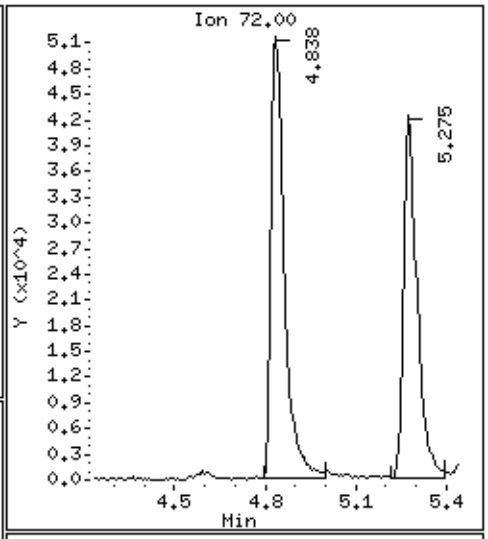
Concentration: 52.168 NG

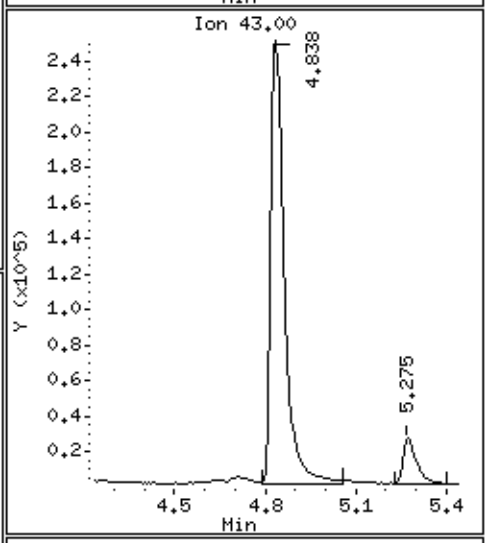


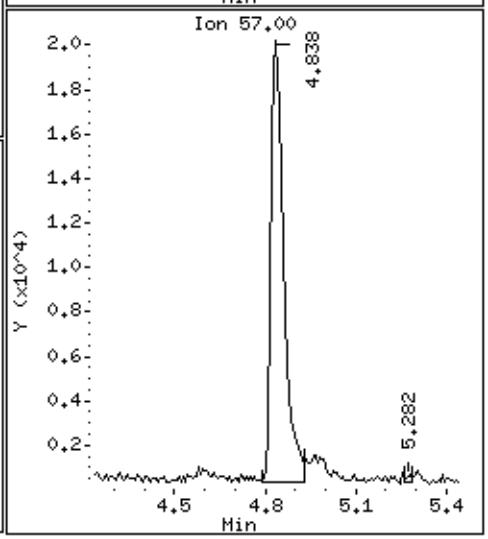












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

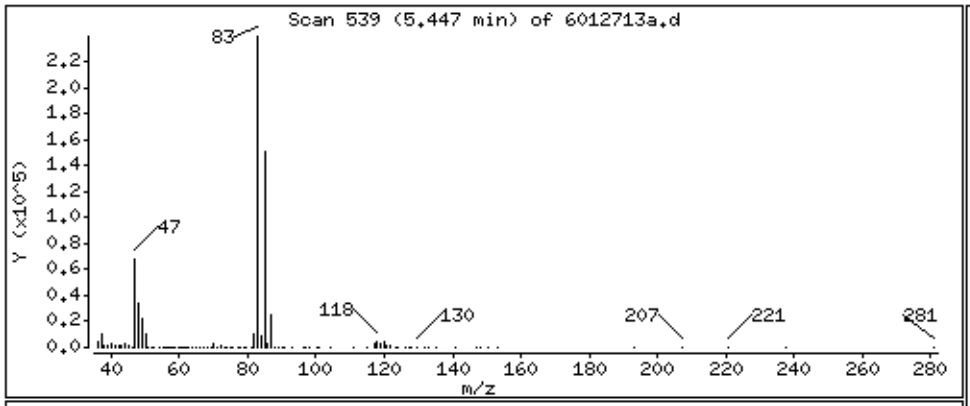
Operator: su

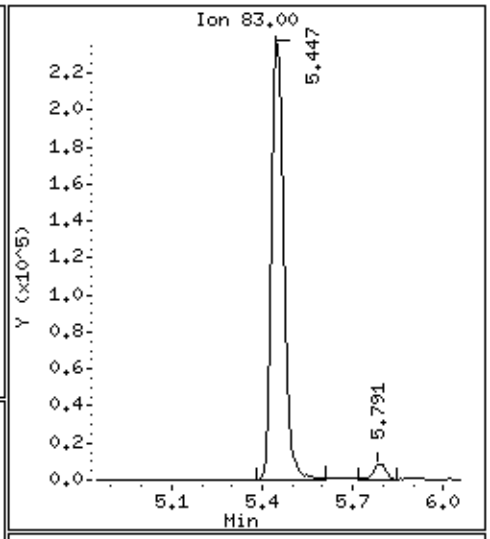
Column phase: RTx-624

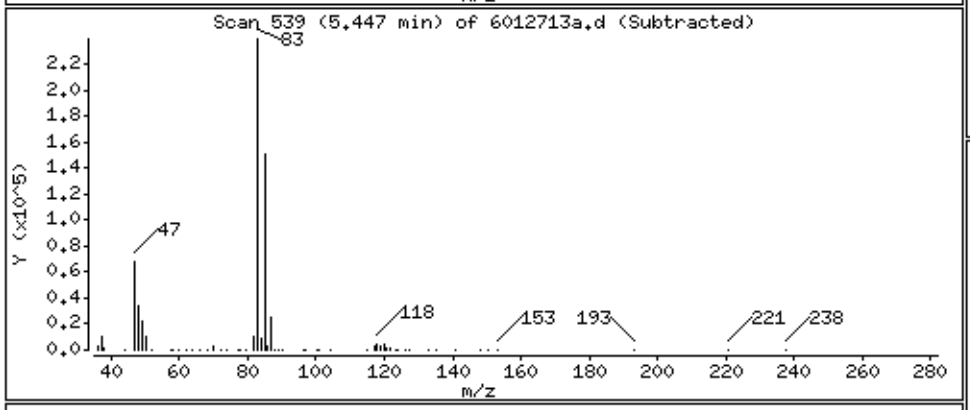
Column diameter: 0.53

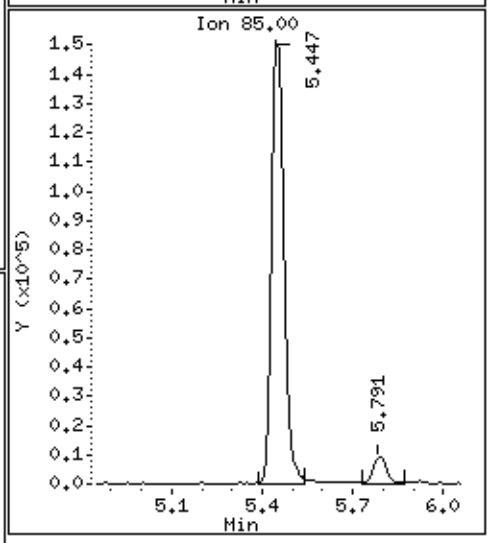
35 Chloroform

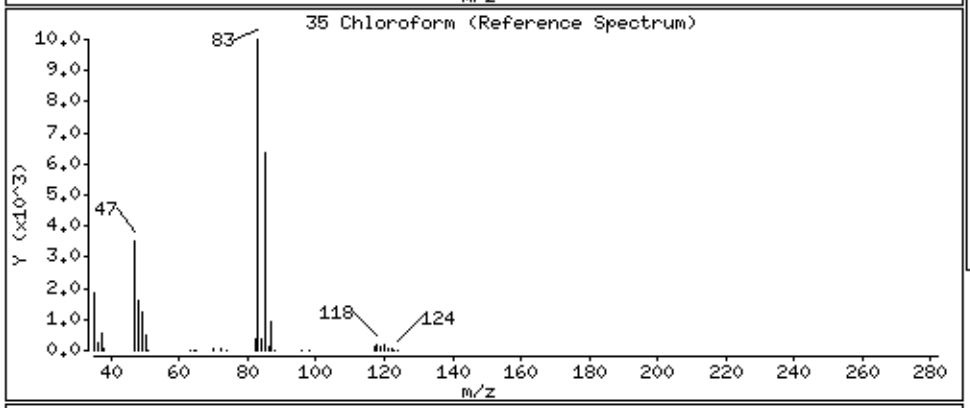
Concentration: 94.187 NG

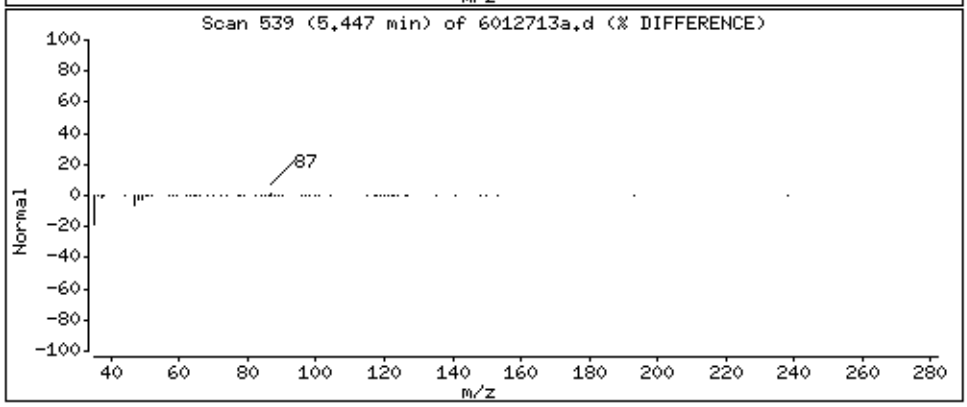












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

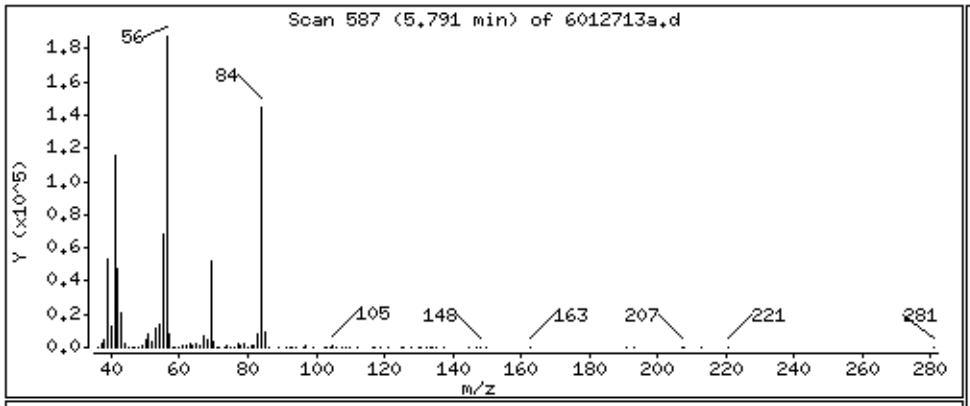
Operator: su

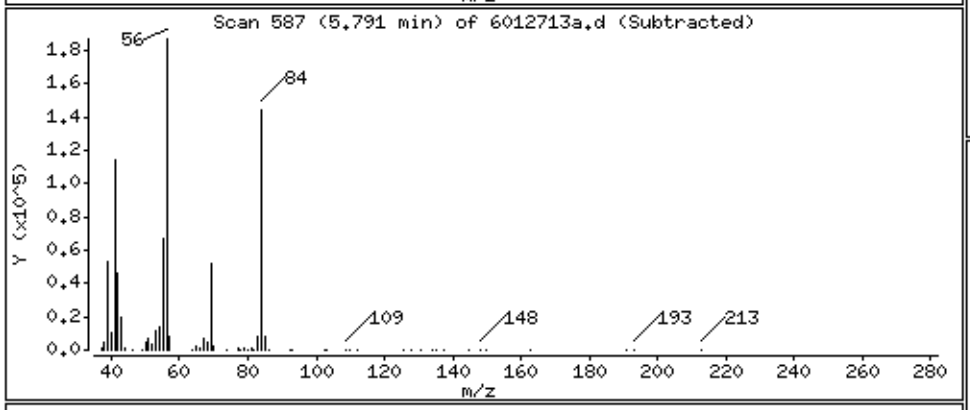
Column phase: RTx-624

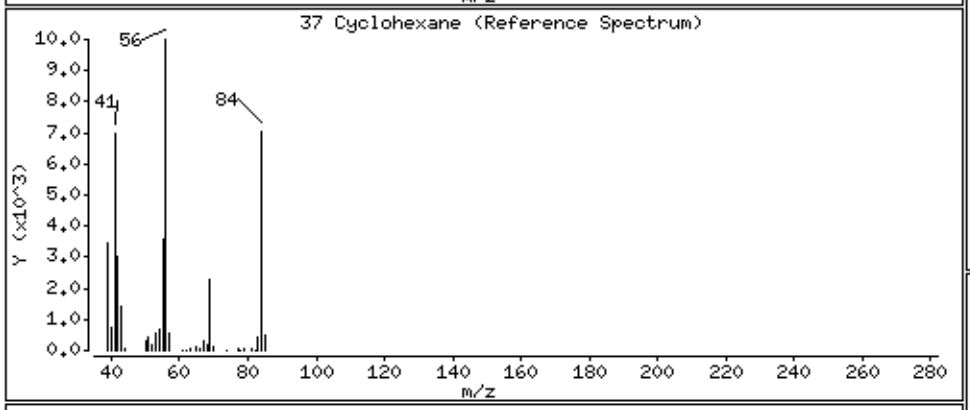
Column diameter: 0.53

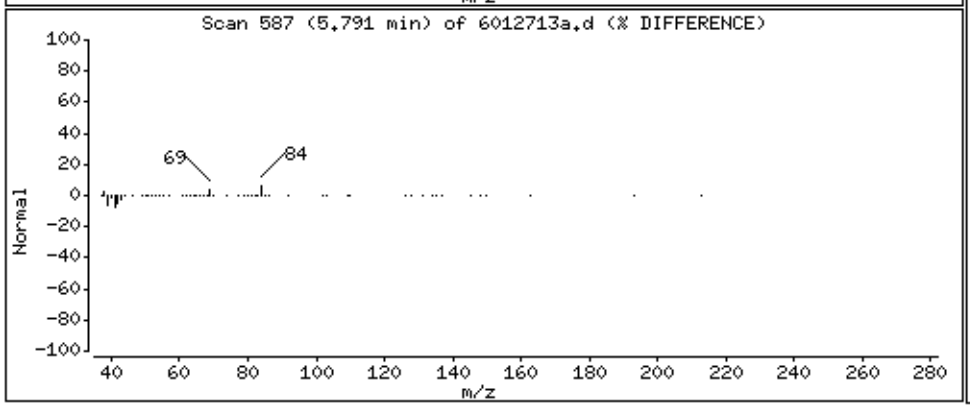
37 Cyclohexane

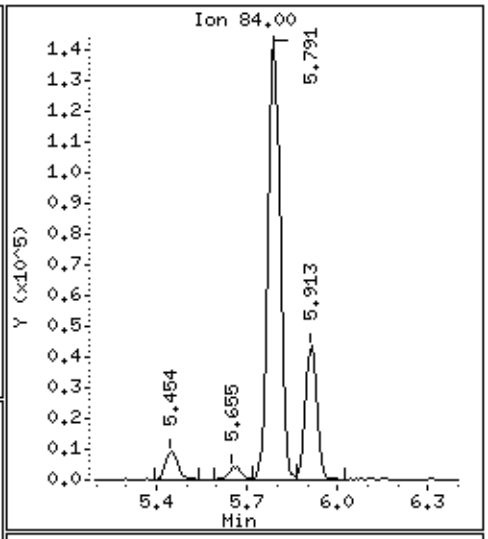
Concentration: 66.834 NG

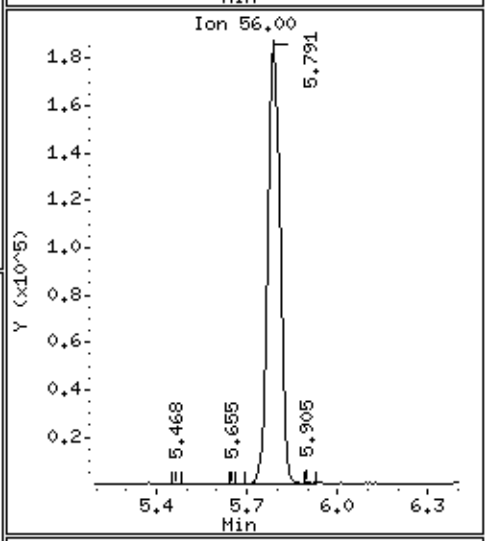


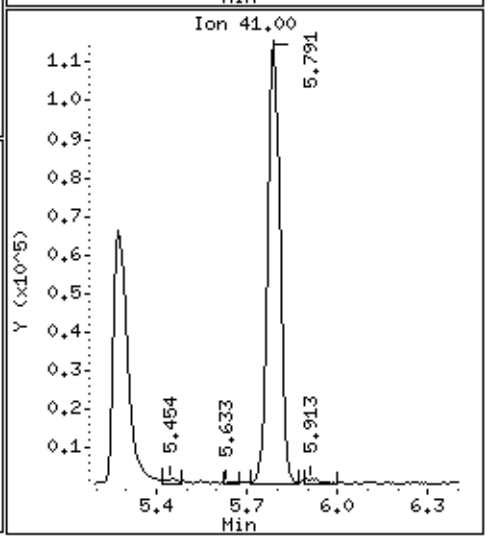












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

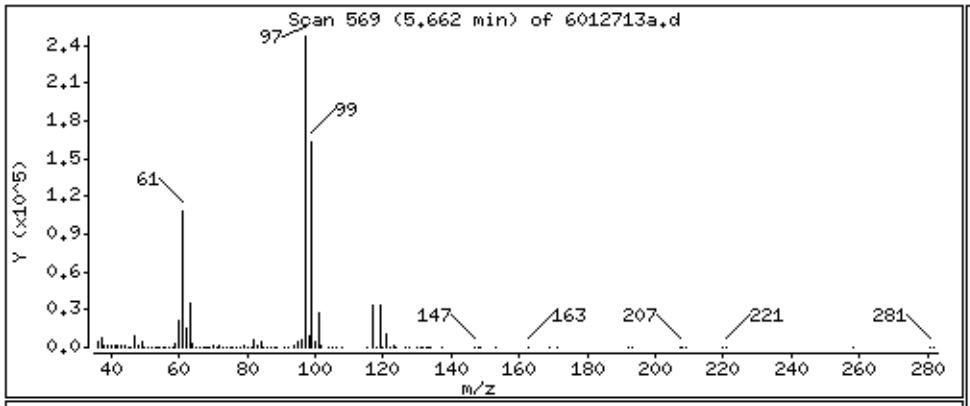
Operator: su

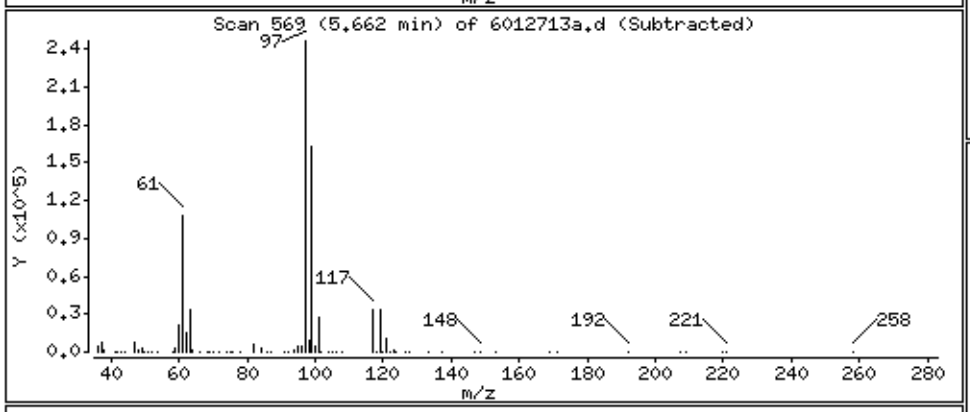
Column phase: RTx-624

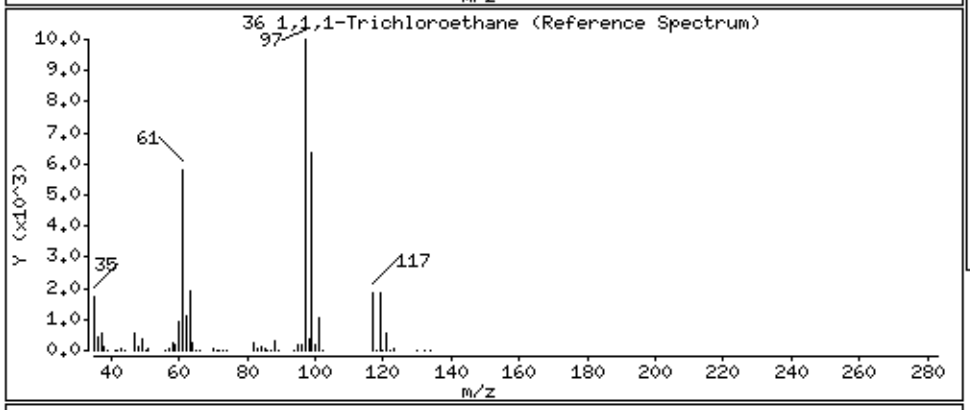
Column diameter: 0.53

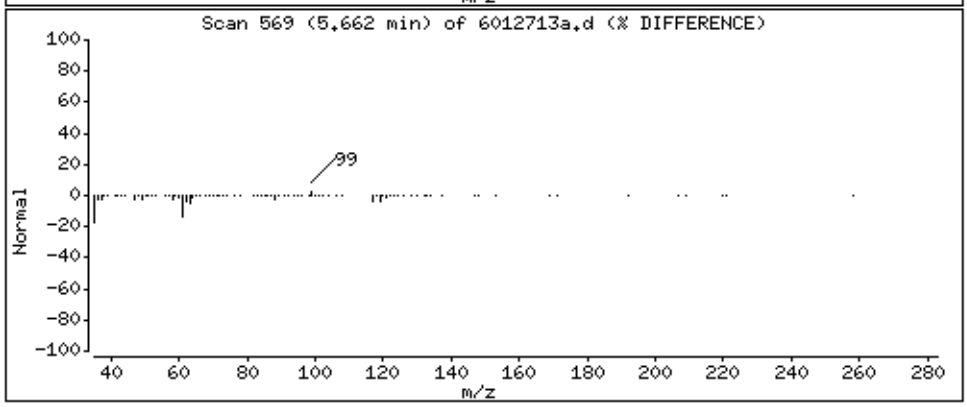
36 1,1,1-Trichloroethane

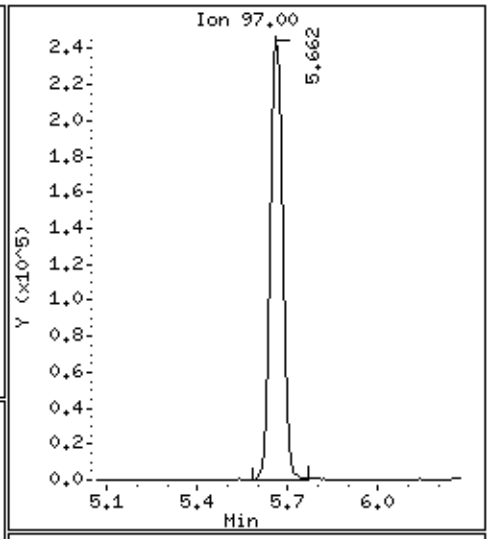
Concentration: 107.07 NG

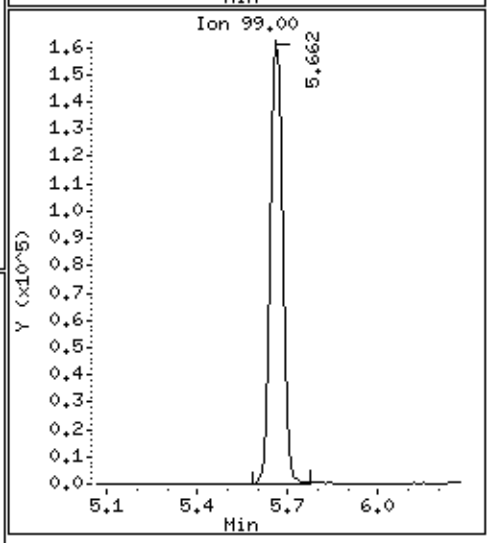












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

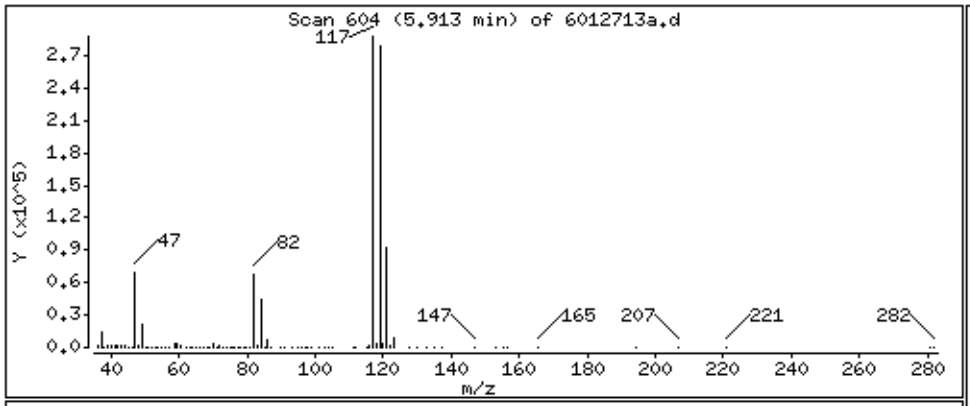
Operator: su

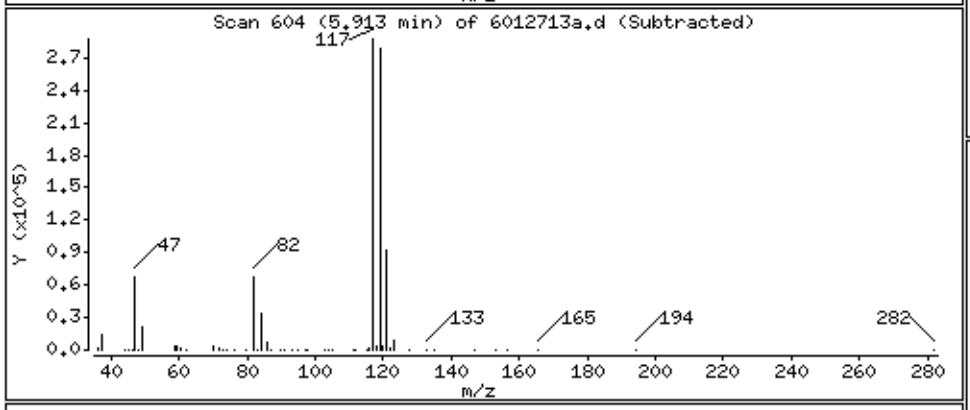
Column phase: RTx-624

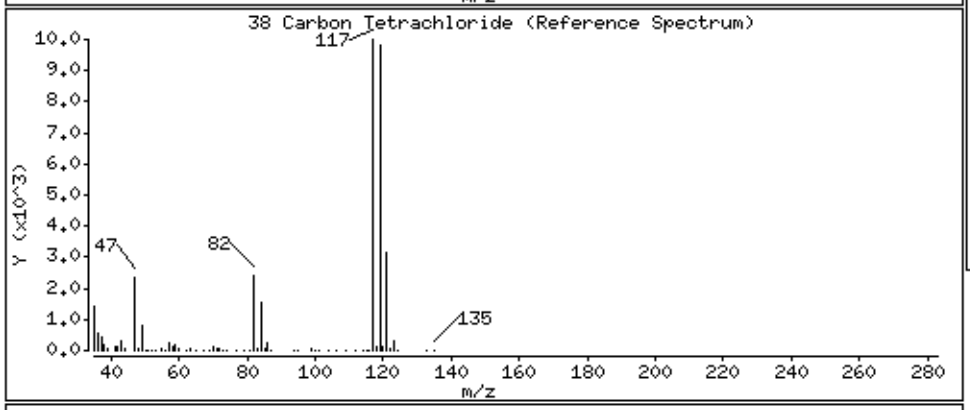
Column diameter: 0.53

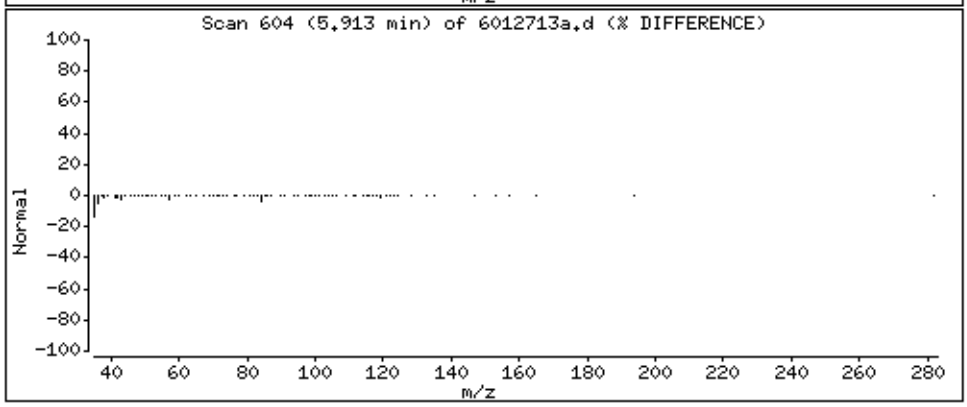
38 Carbon Tetrachloride

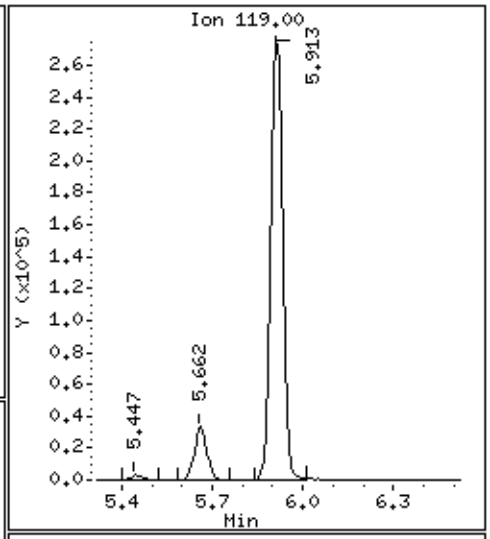
Concentration: 129.95 NG

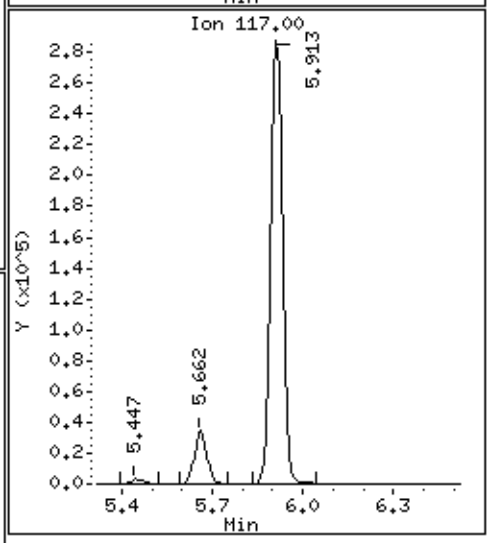












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

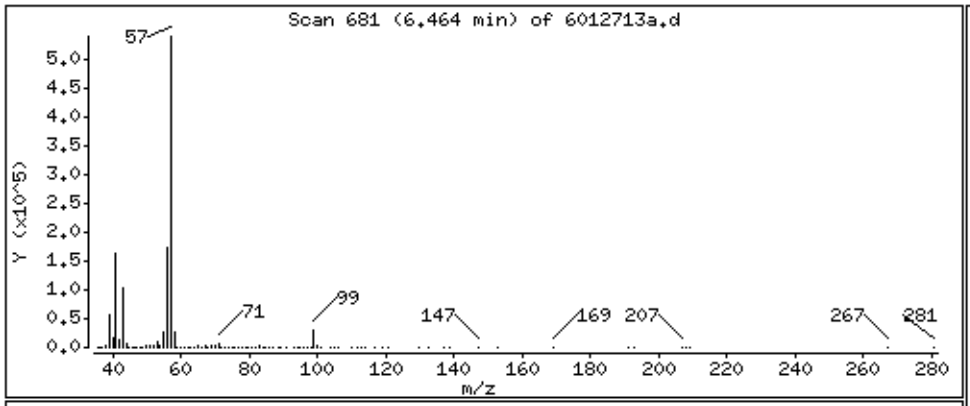
Operator: su

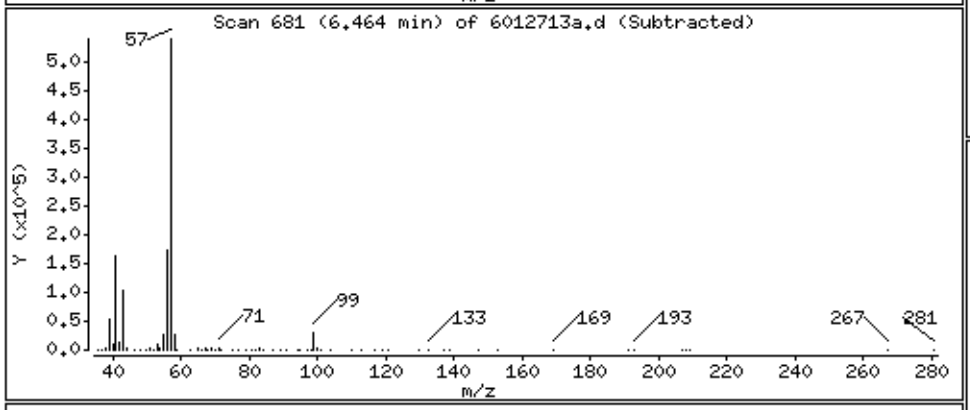
Column phase: RTx-624

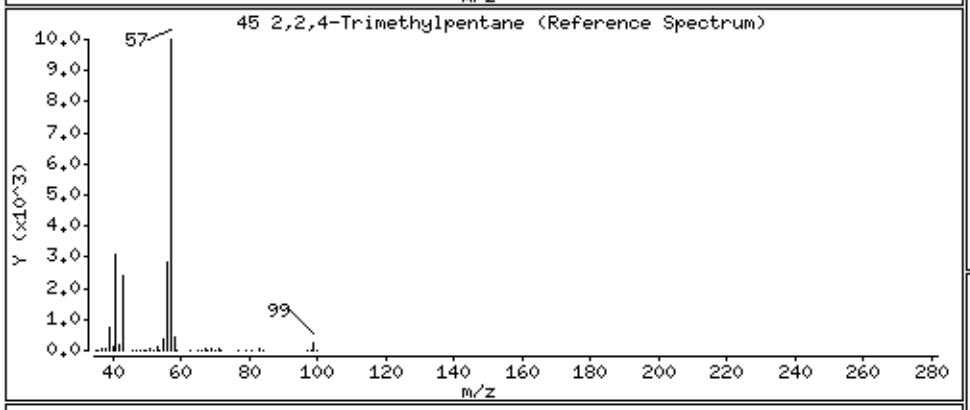
Column diameter: 0.53

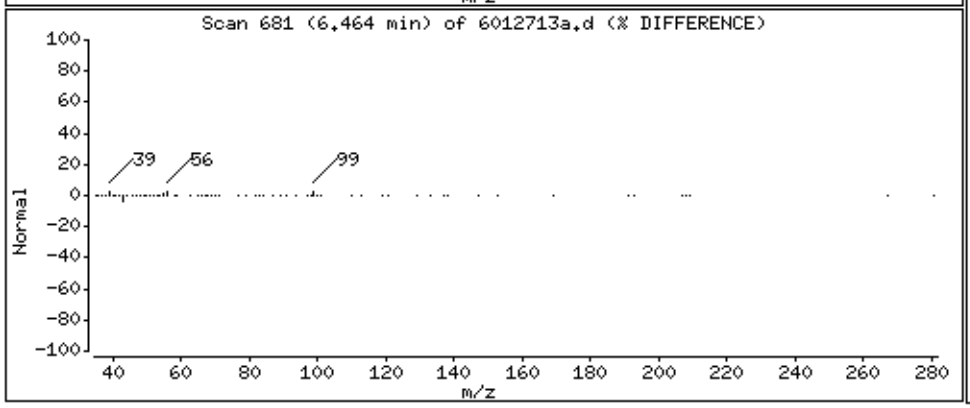
45 2,2,4-Trimethylpentane

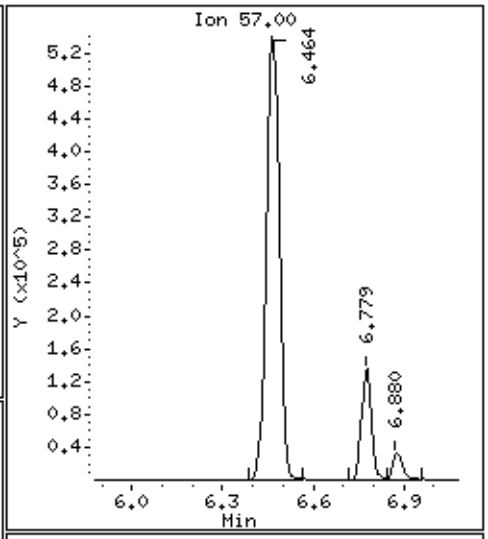
Concentration: 89.930 NG

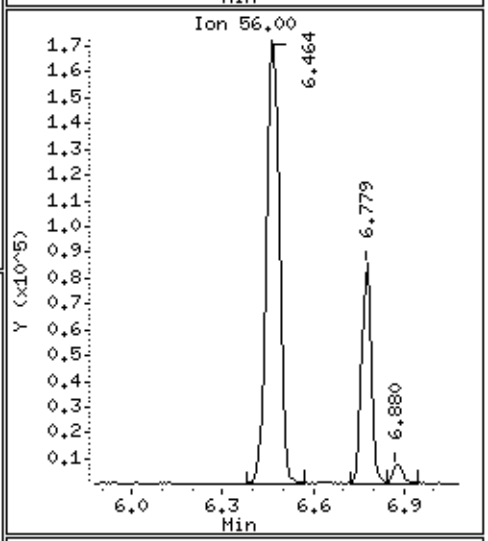


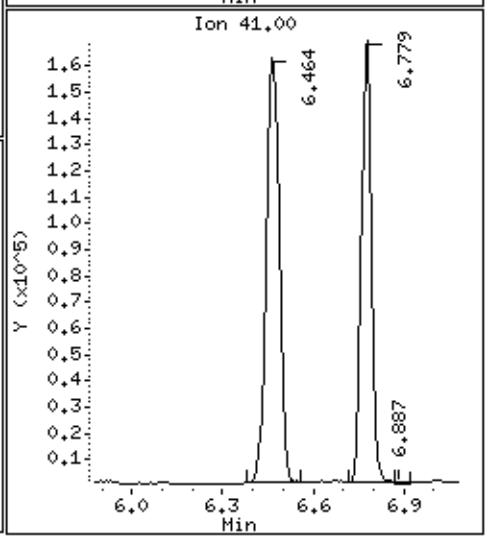












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

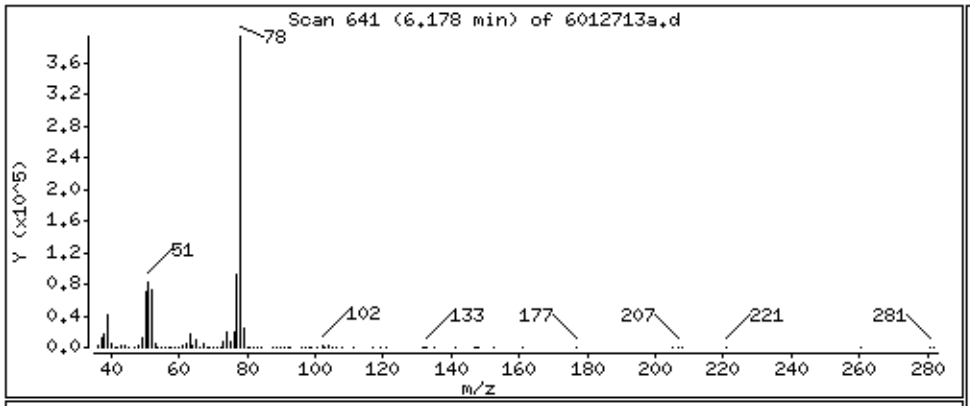
Operator: su

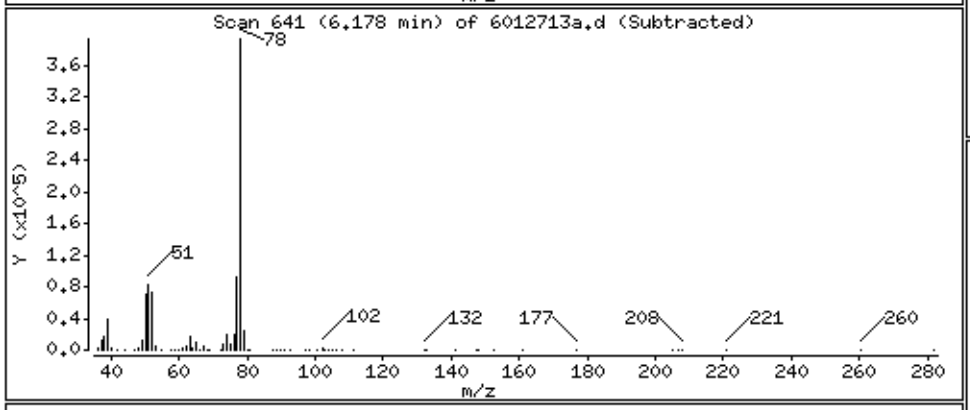
Column phase: RTx-624

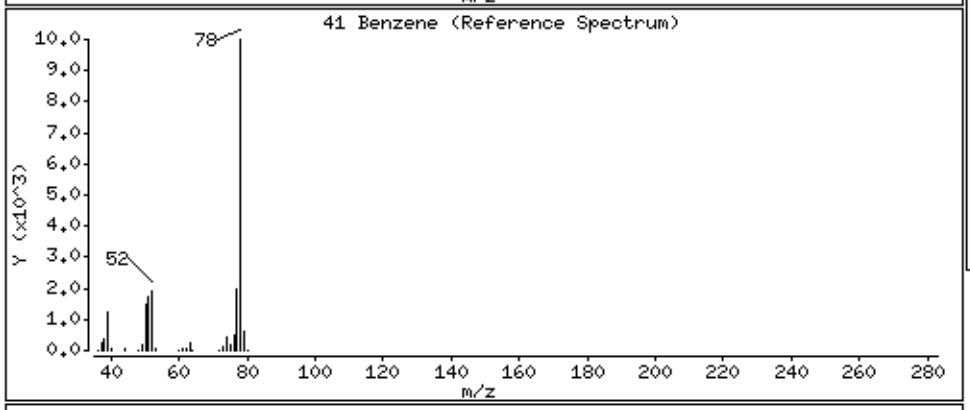
Column diameter: 0.53

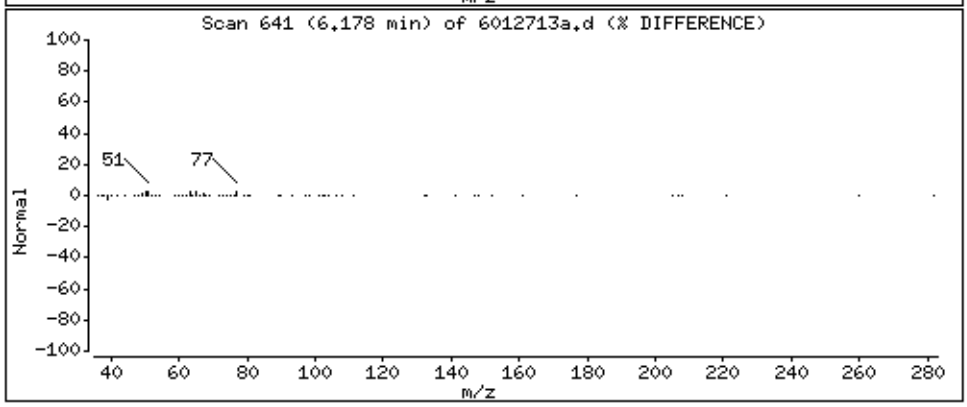
41 Benzene

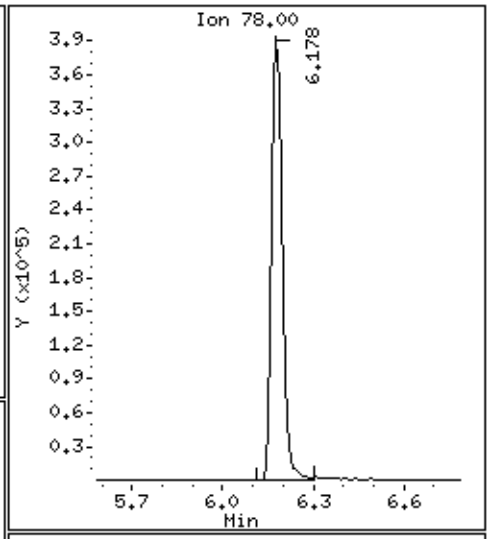
Concentration: 55.223 NG

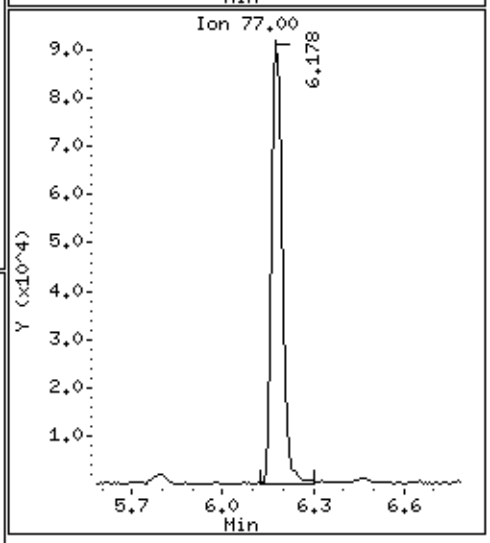












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

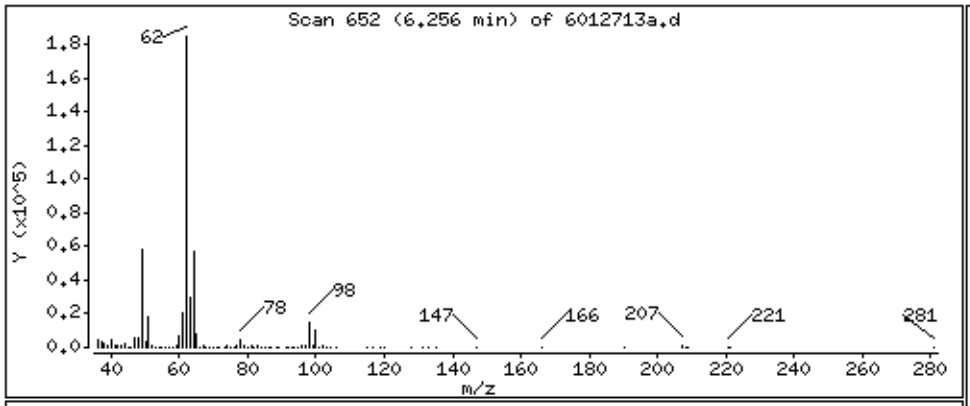
Operator: su

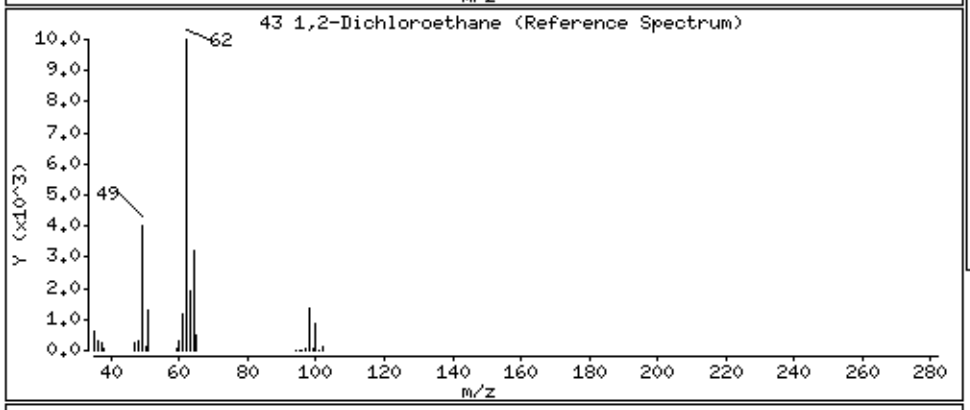
Column phase: RTx-624

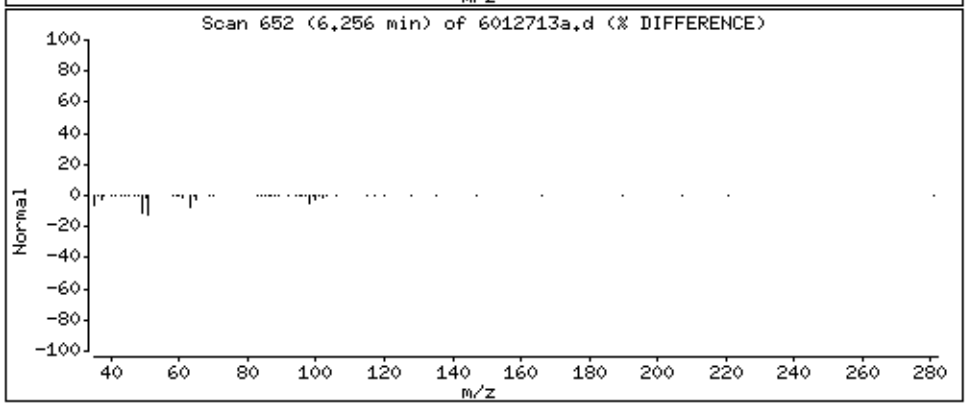
Column diameter: 0.53

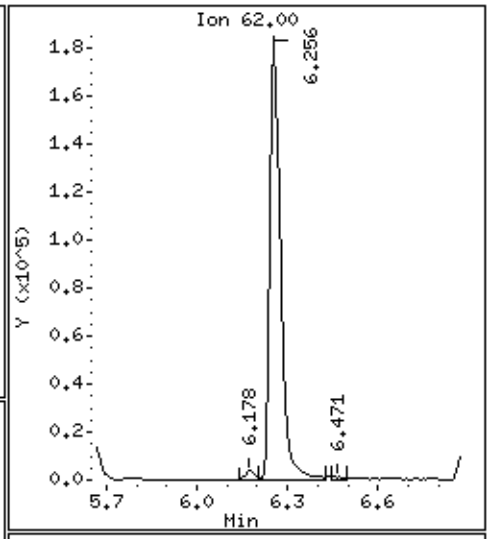
43 1,2-Dichloroethane

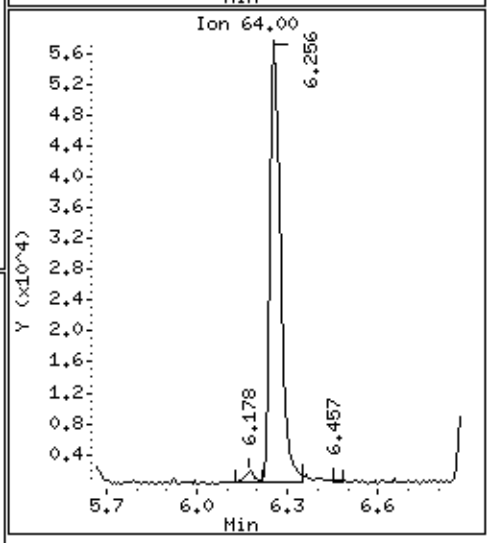
Concentration: 78.124 NG











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

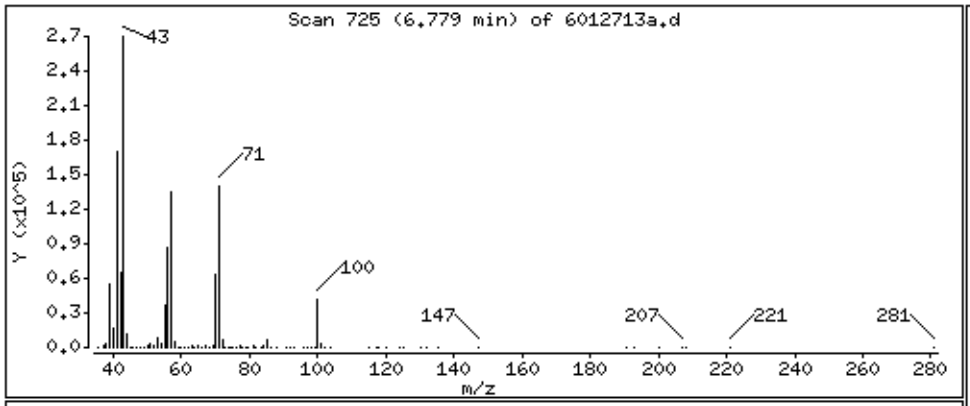
Operator: su

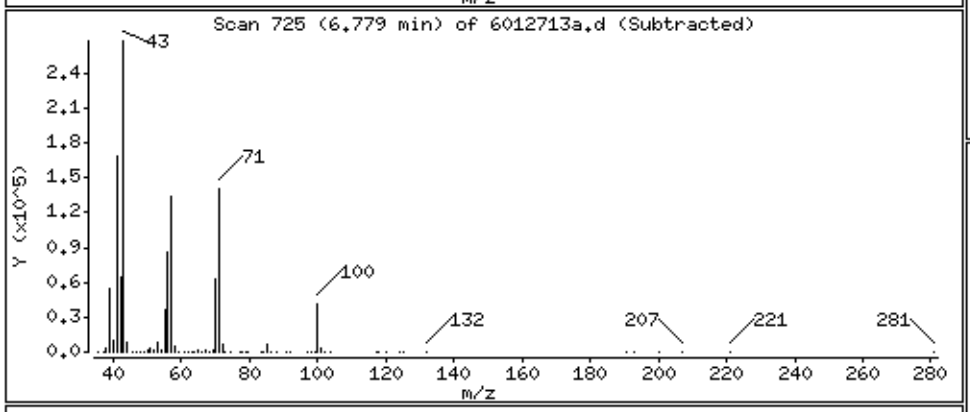
Column phase: RTx-624

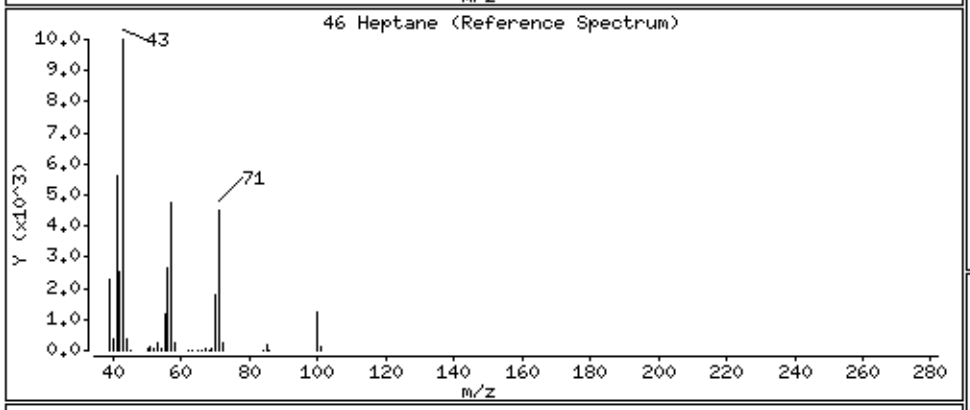
Column diameter: 0.53

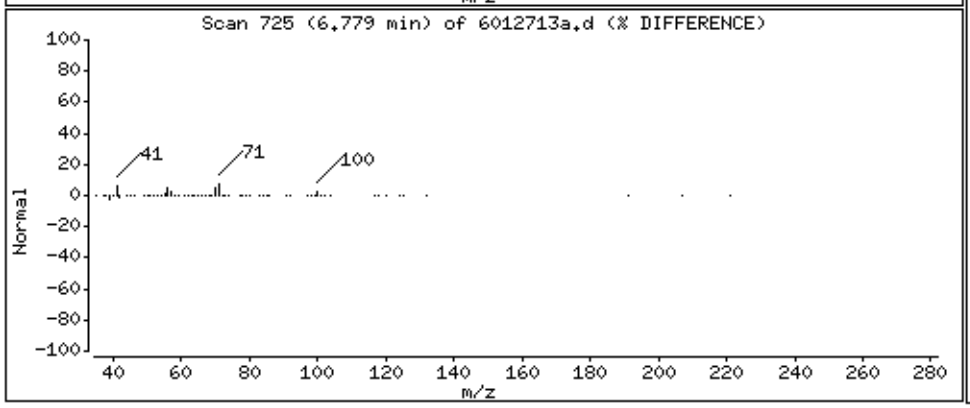
46 Heptane

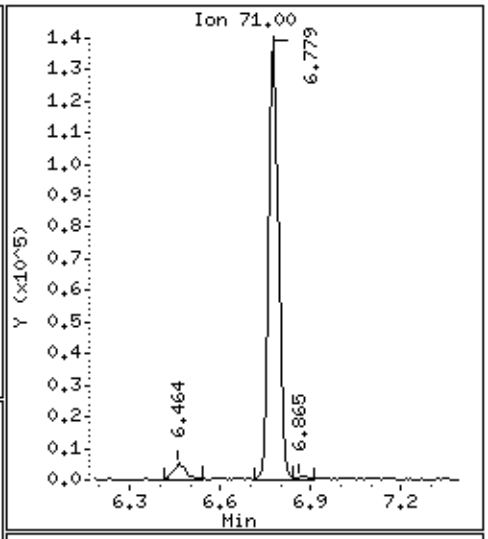
Concentration: 78.911 NG

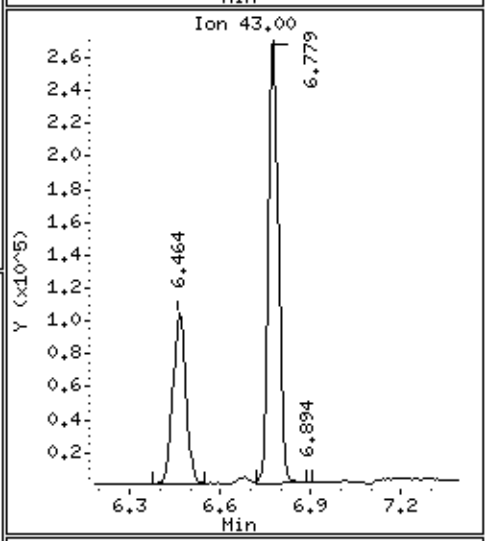


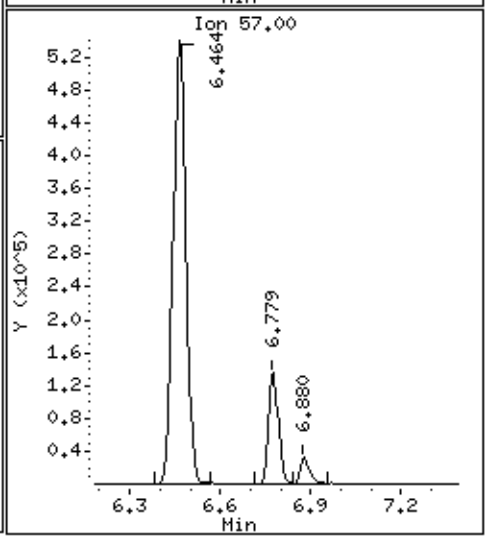












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

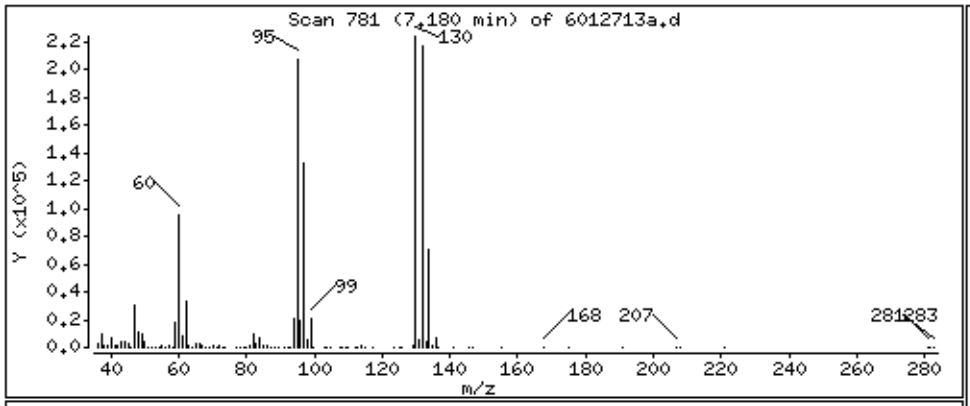
Operator: su

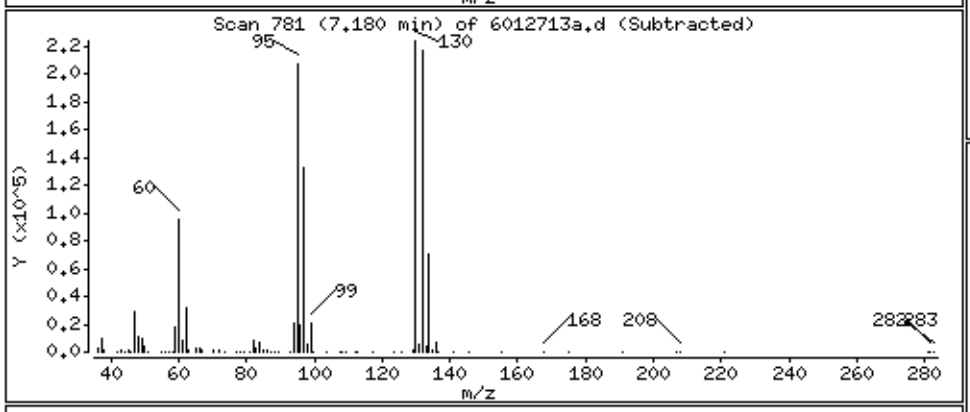
Column phase: RTx-624

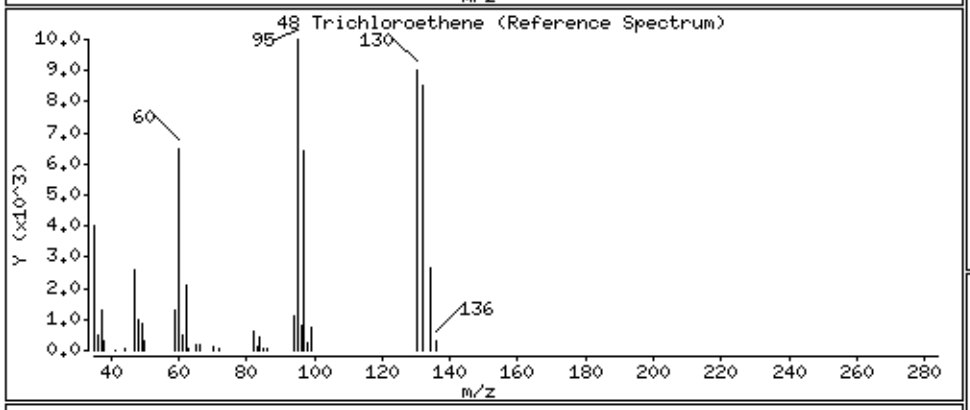
Column diameter: 0.53

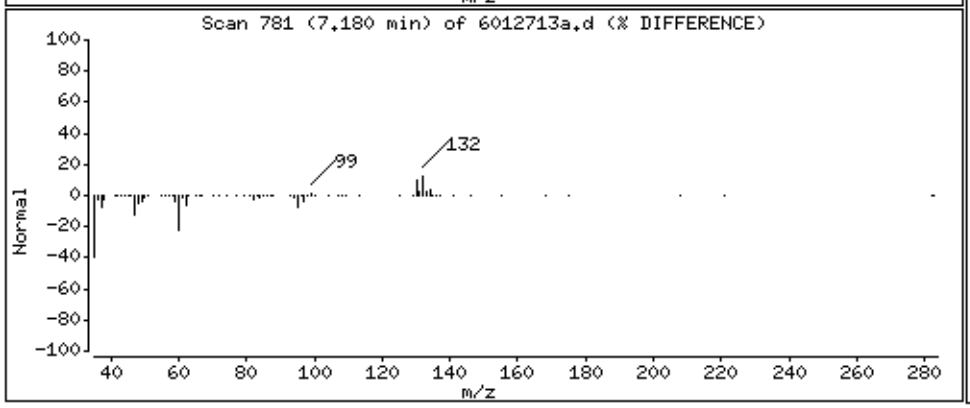
48 Trichloroethene

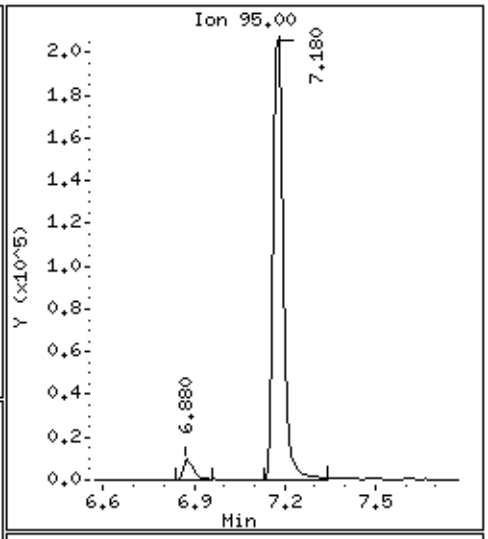
Concentration: 102.98 NG

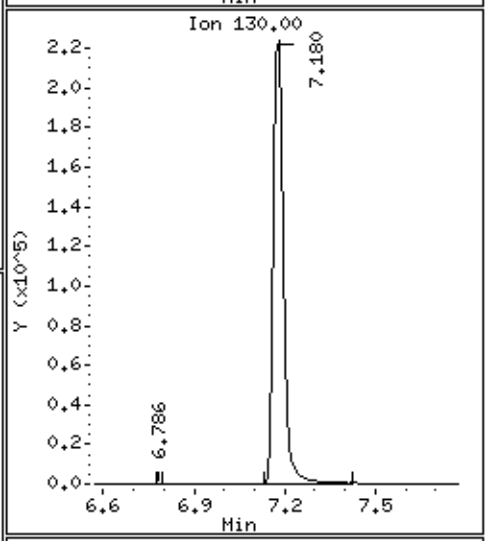


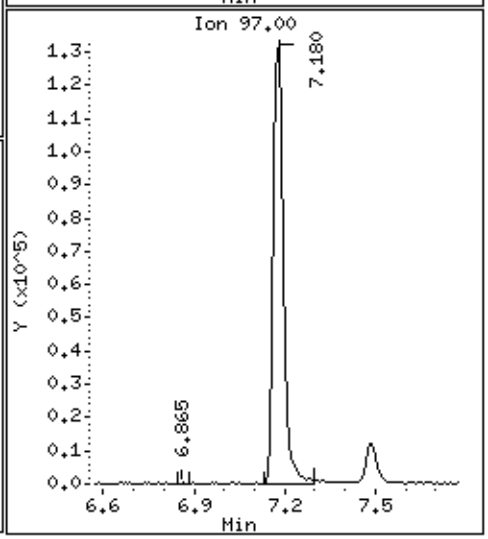












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

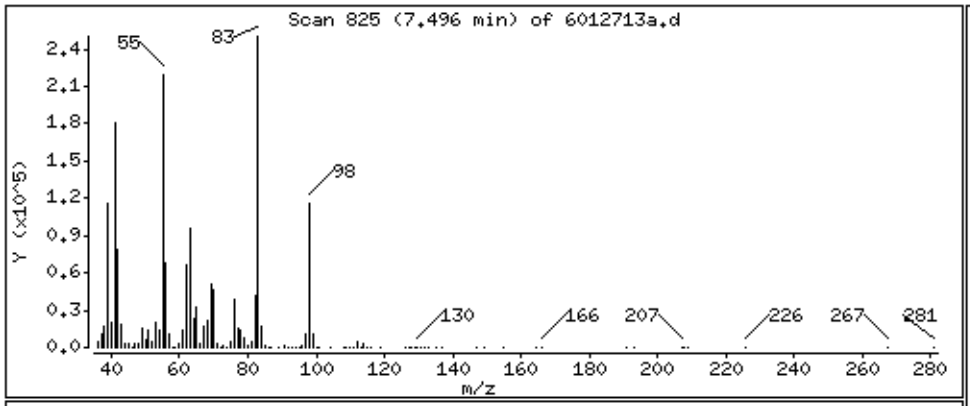
Operator: su

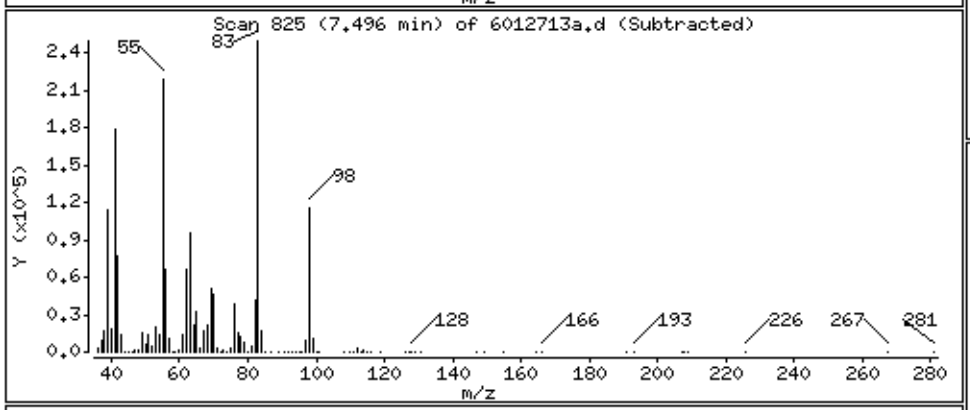
Column phase: RTx-624

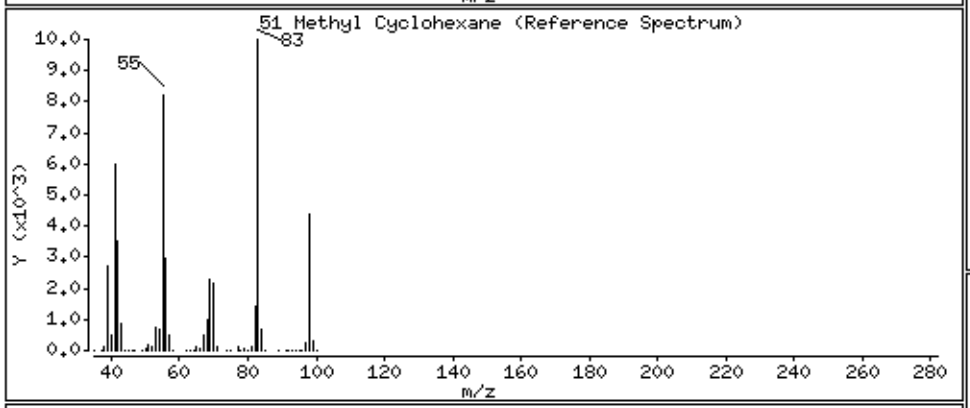
Column diameter: 0.53

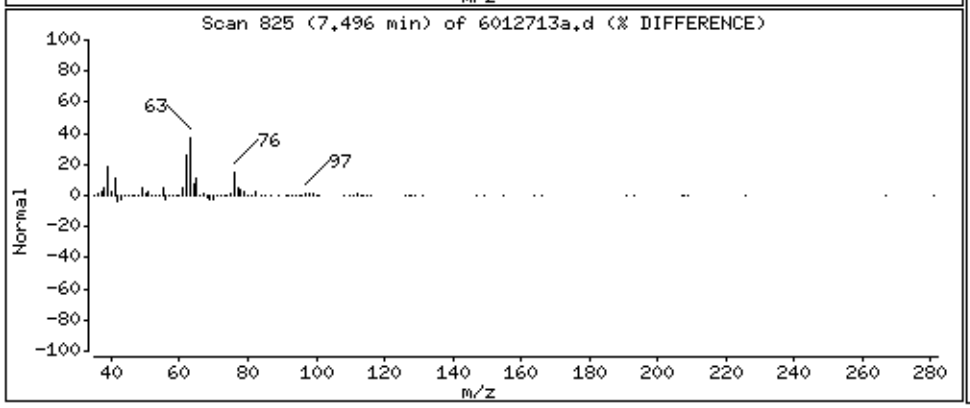
51 Methyl Cyclohexane

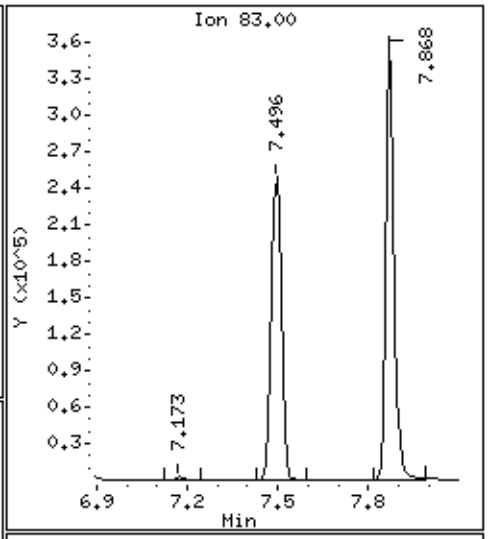
Concentration: 77.641 NG

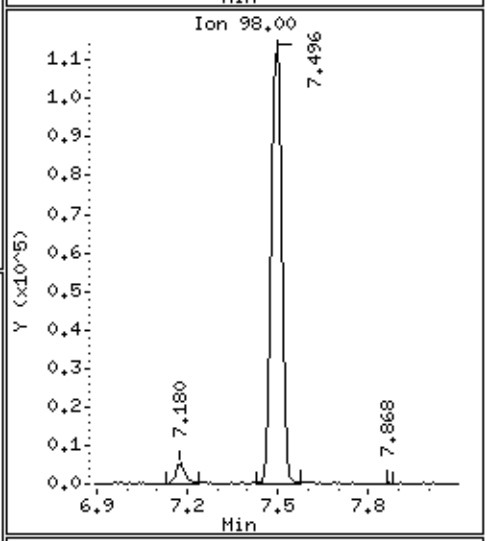


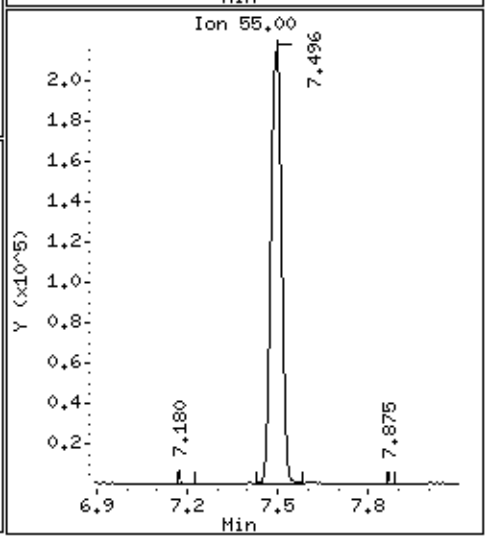












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

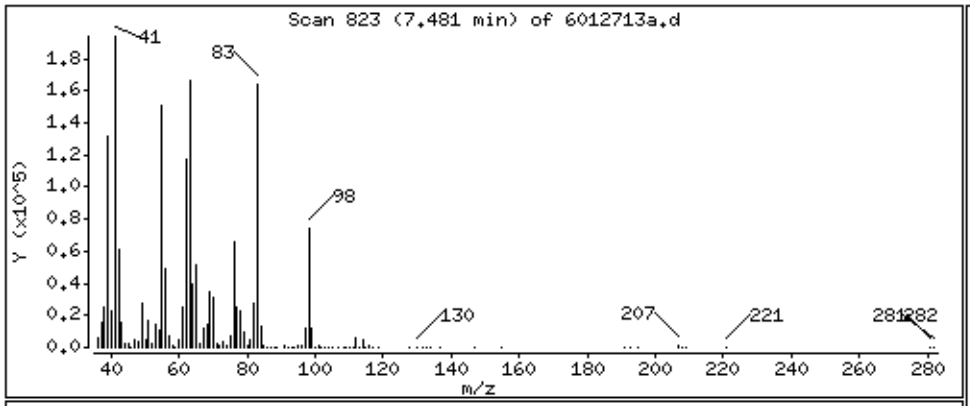
Operator: su

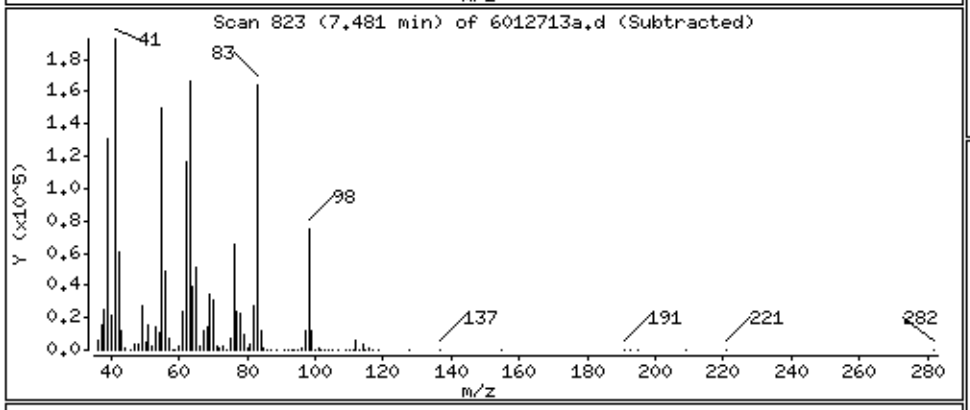
Column phase: RTx-624

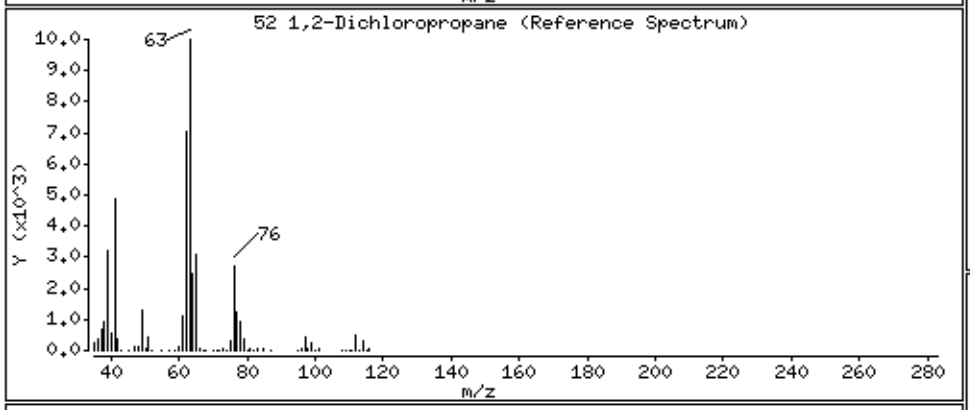
Column diameter: 0.53

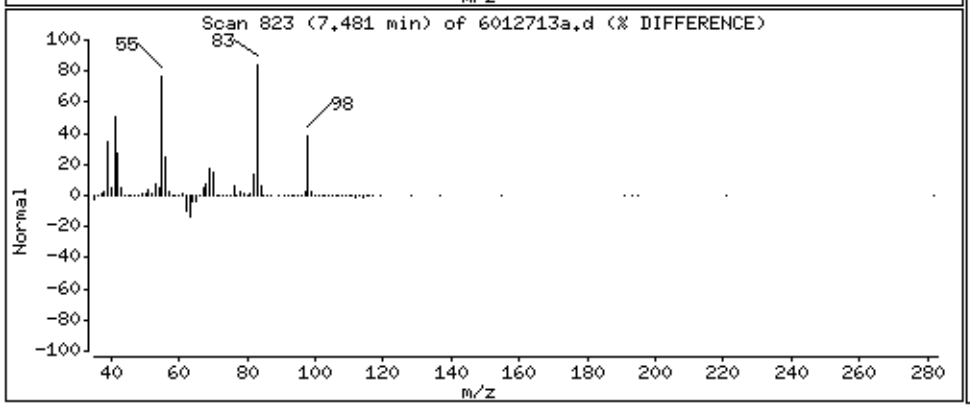
52 1,2-Dichloropropane

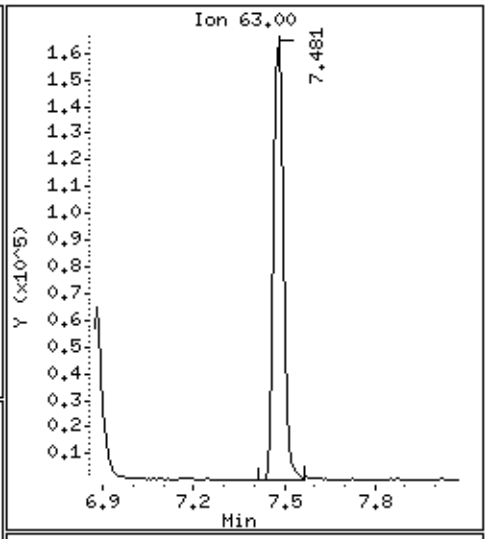
Concentration: 87.950 NG

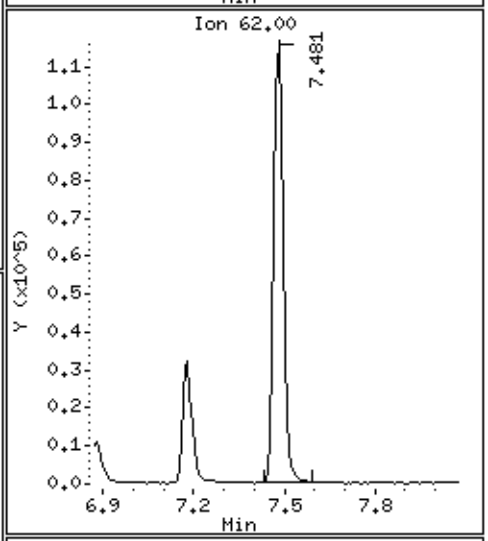


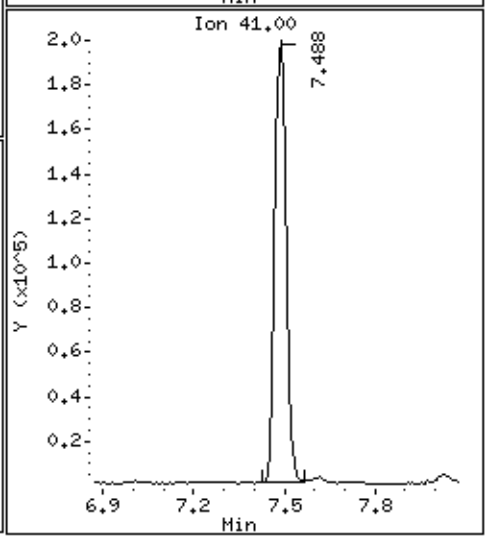












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

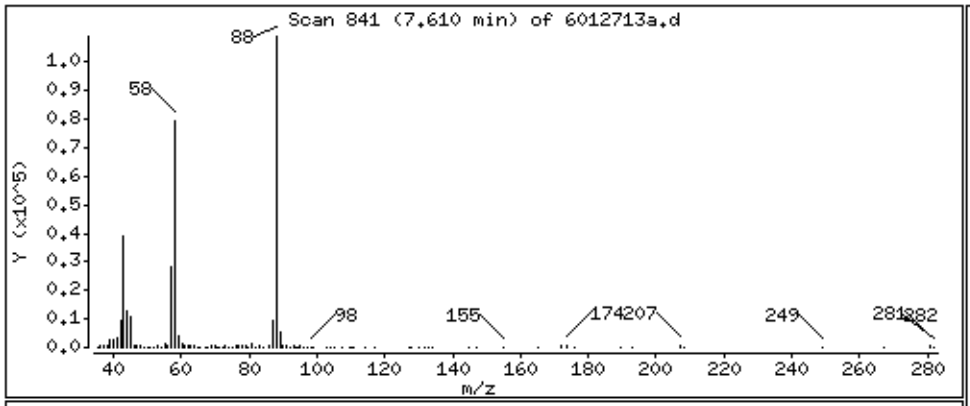
Operator: su

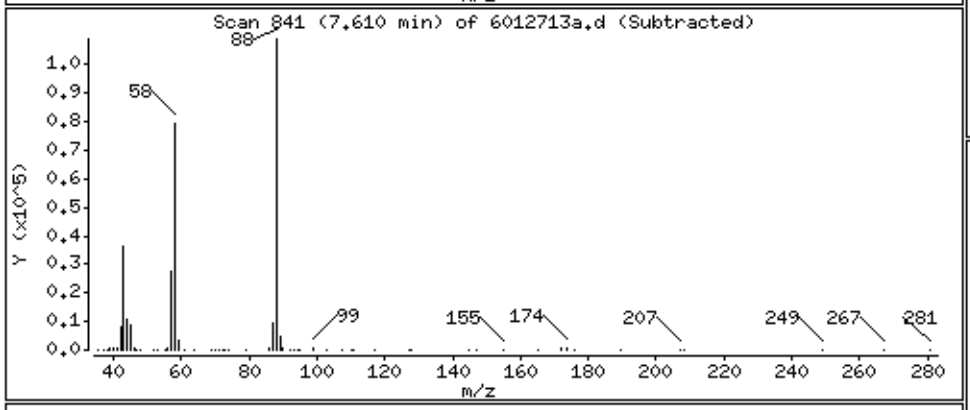
Column phase: RTx-624

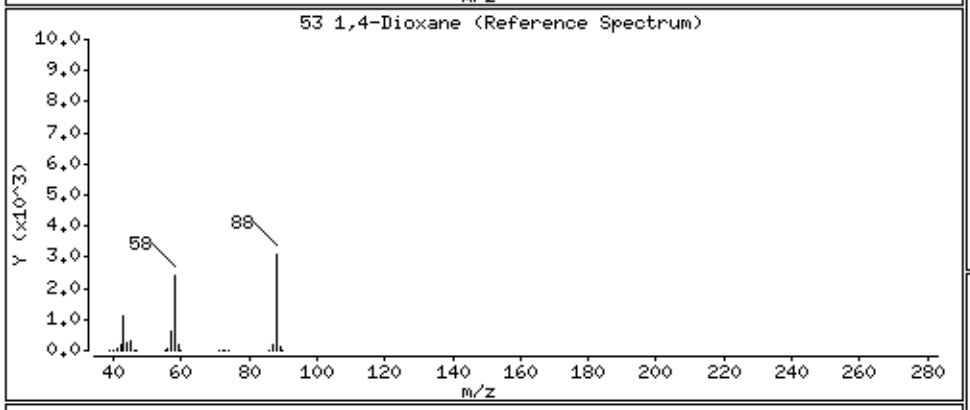
Column diameter: 0.53

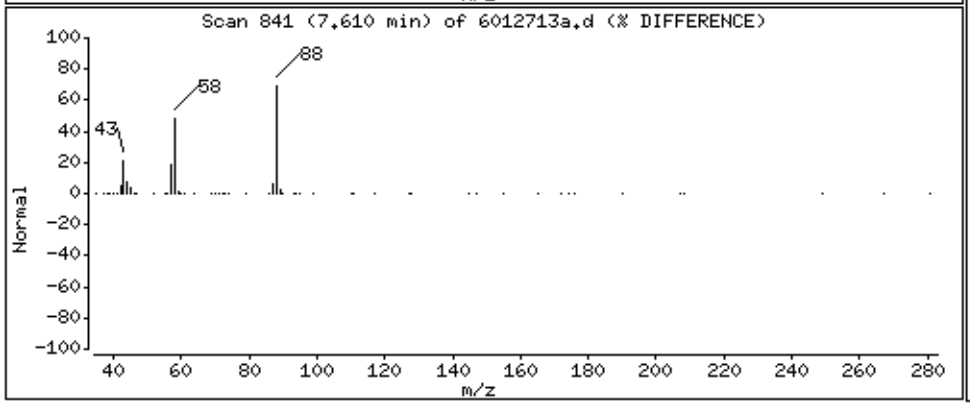
53 1,4-Dioxane

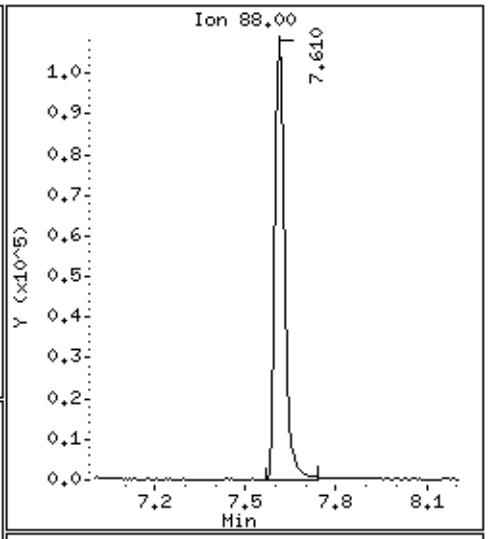
Concentration: 67.038 NG

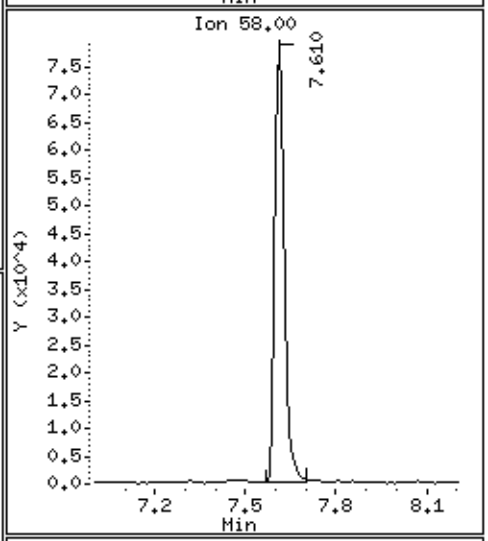


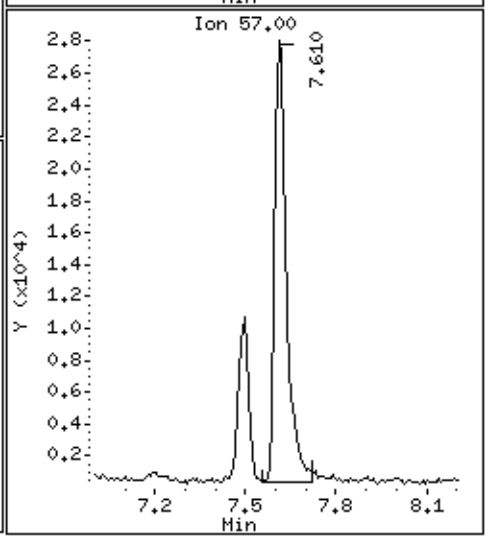












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

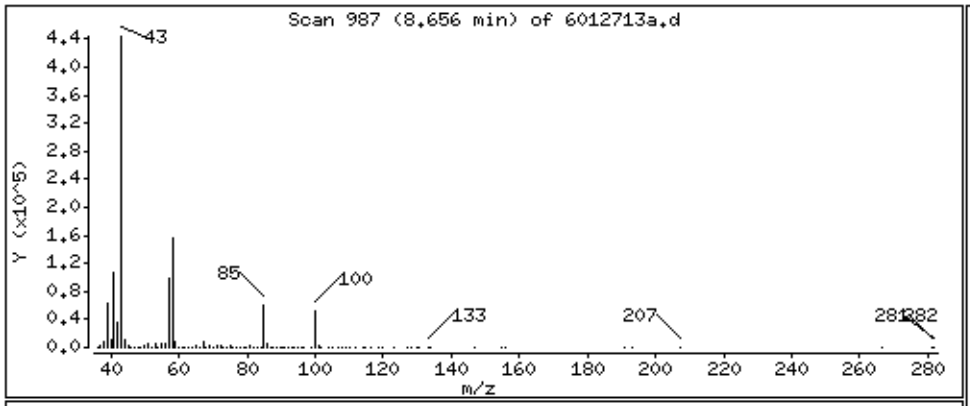
Operator: su

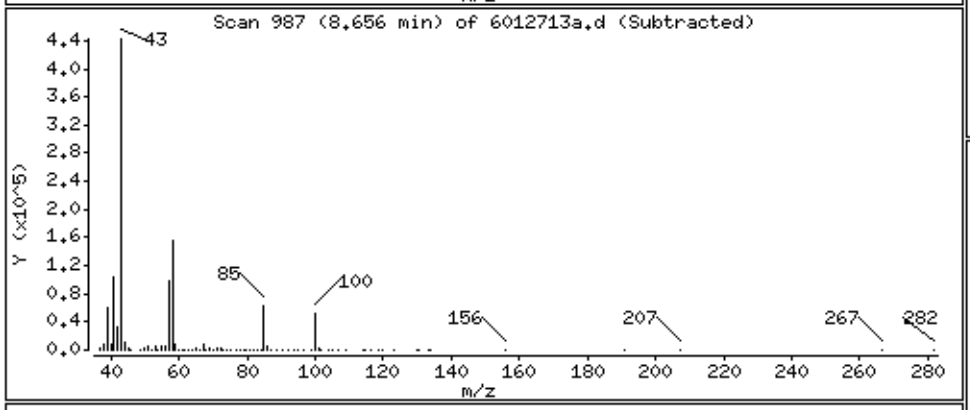
Column phase: RTx-624

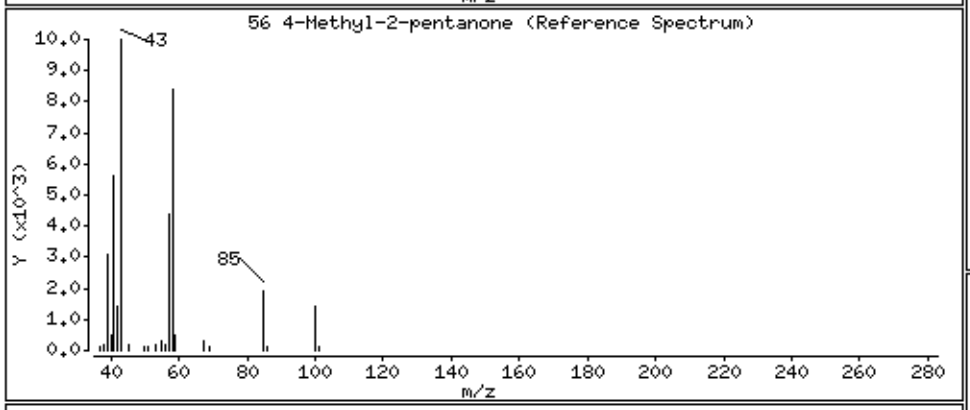
Column diameter: 0.53

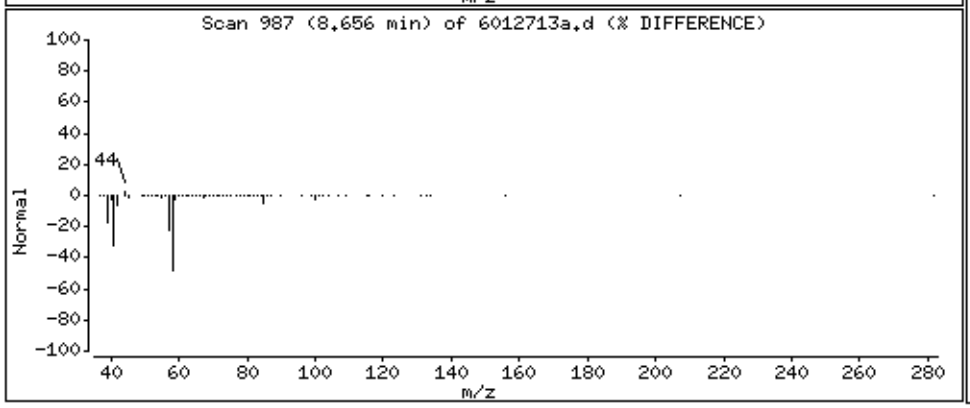
56 4-Methyl-2-pentanone

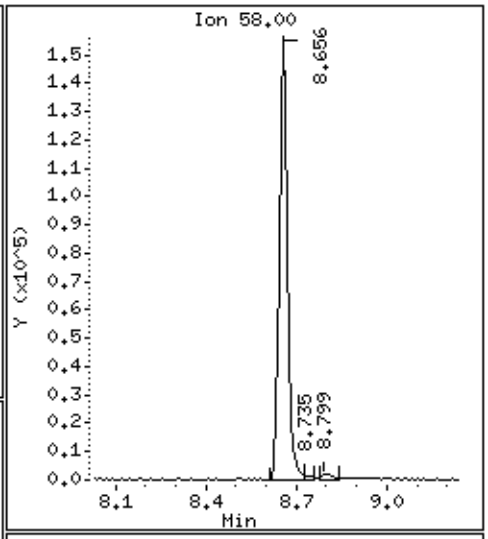
Concentration: 81.582 NG

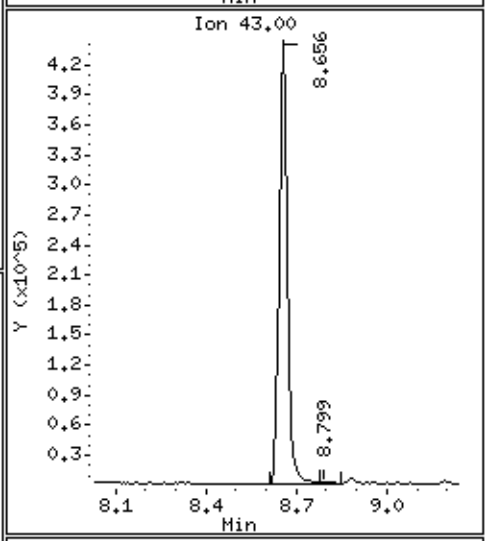


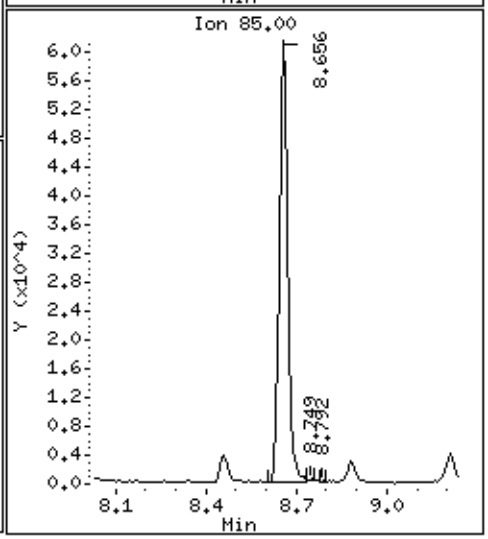












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

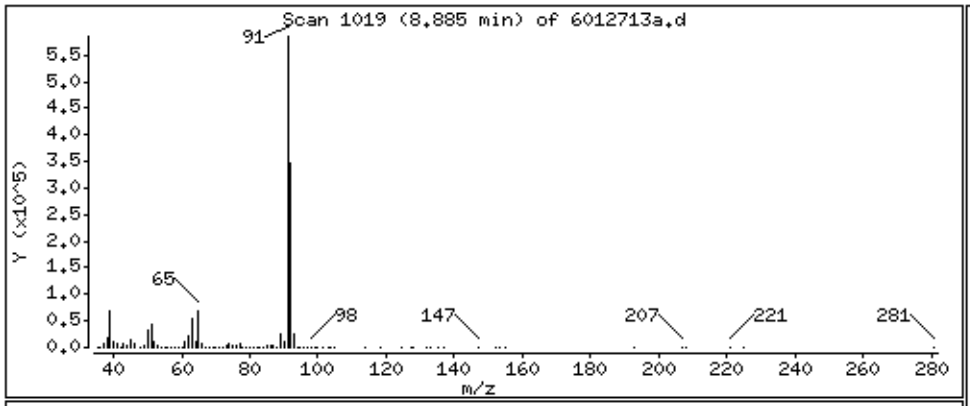
Operator: su

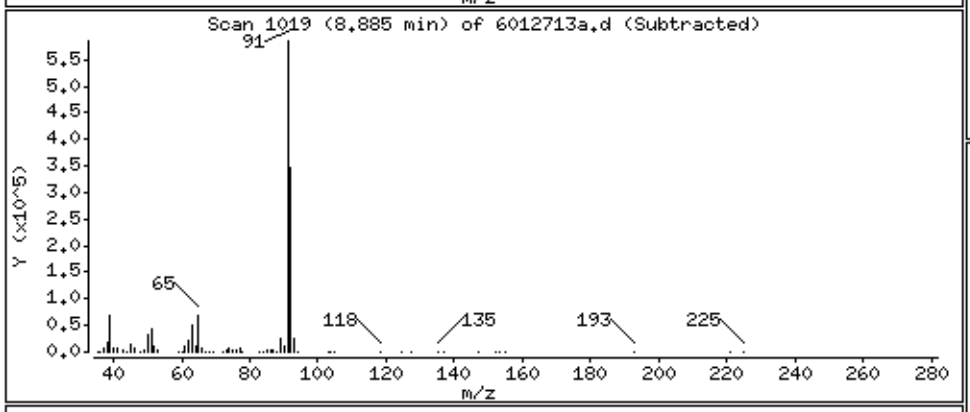
Column phase: RTx-624

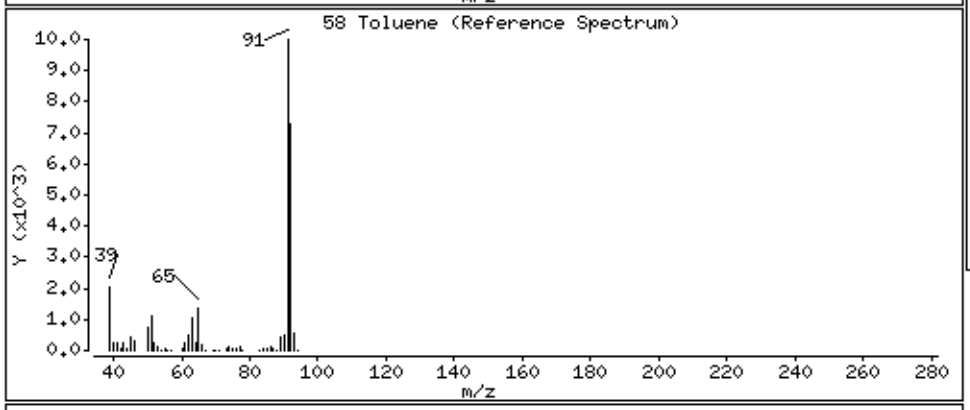
Column diameter: 0.53

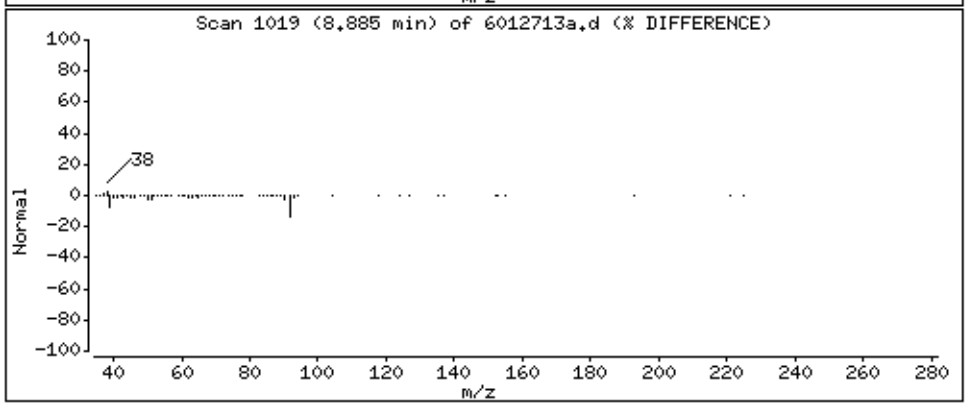
58 Toluene

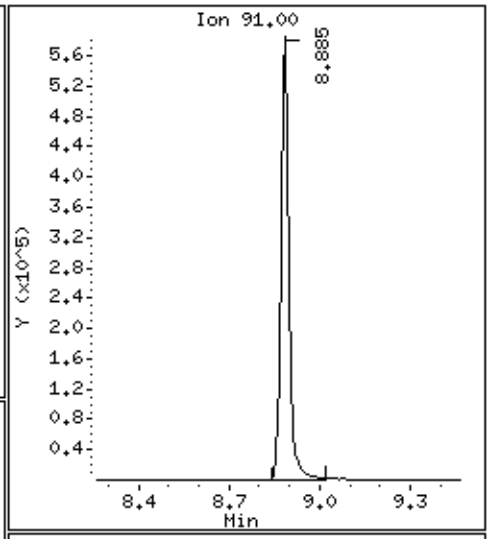
Concentration: 70.947 NG

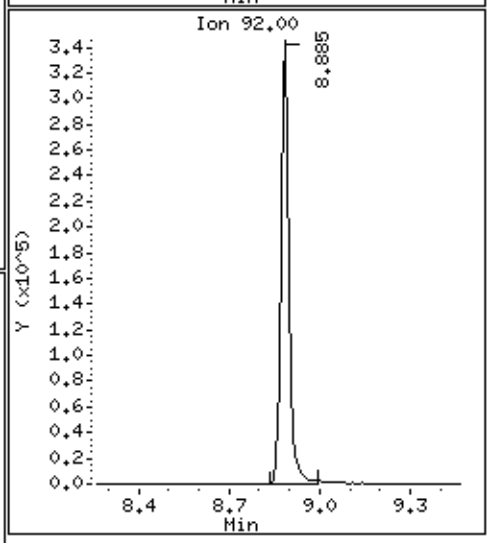












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

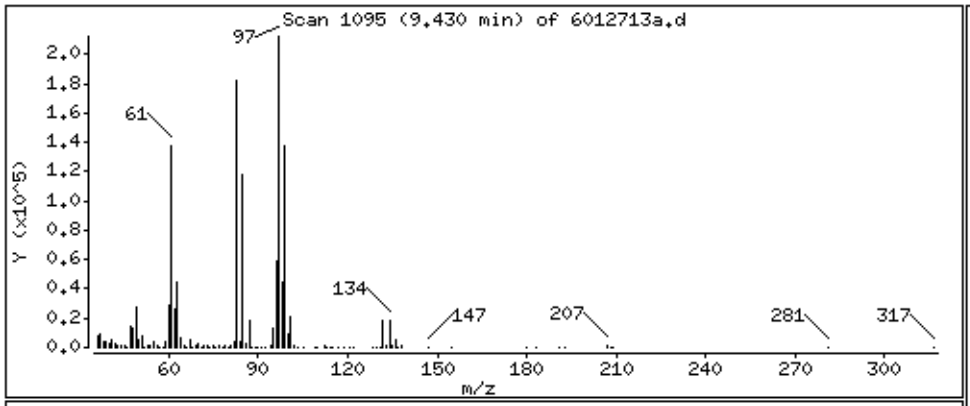
Operator: su

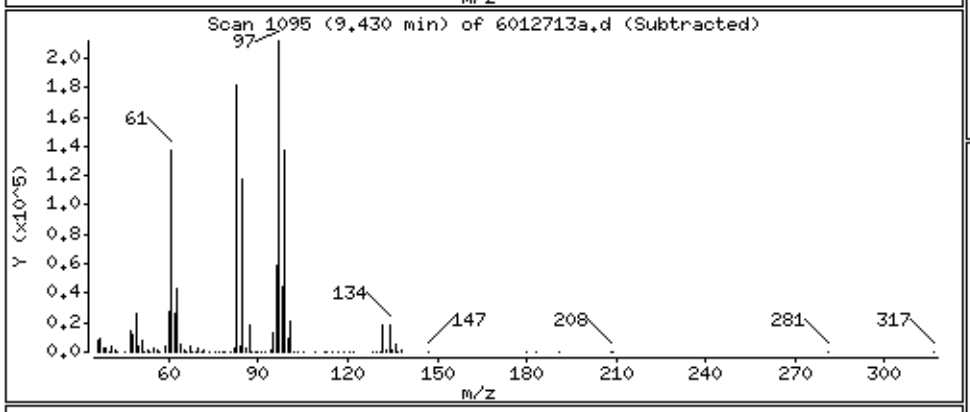
Column phase: RTx-624

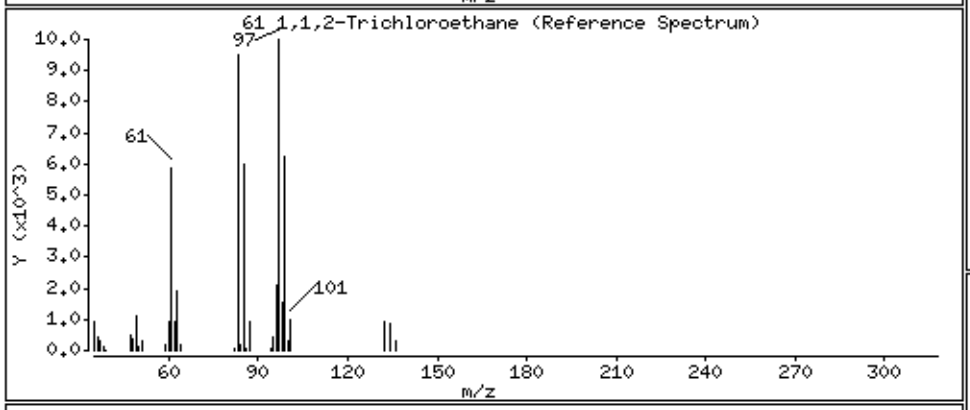
Column diameter: 0.53

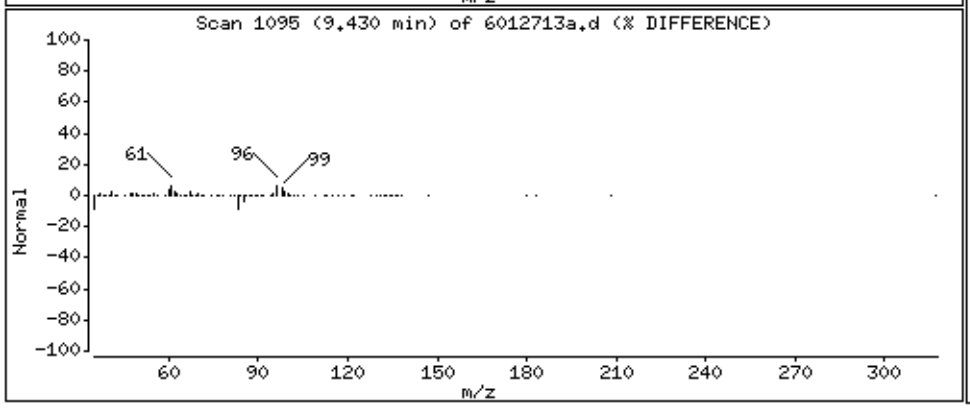
61 1,1,2-Trichloroethane

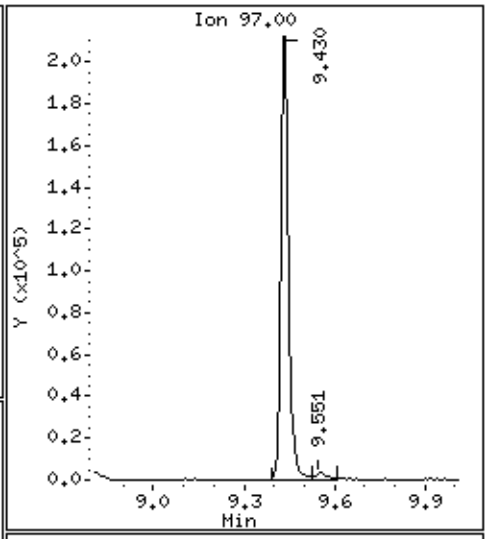
Concentration: 105.92 NG

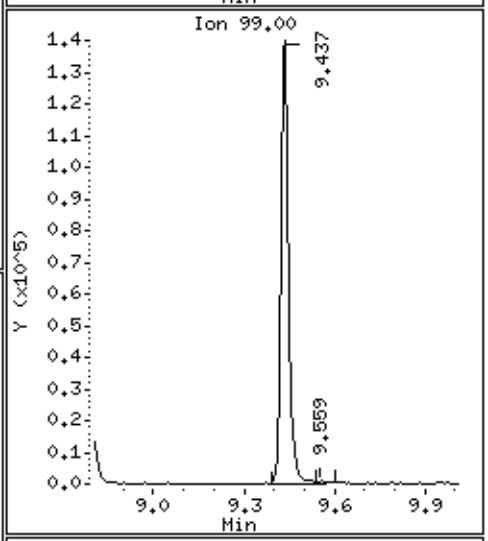


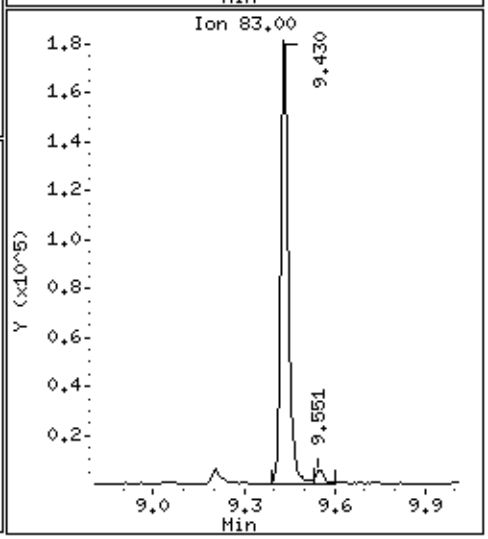












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

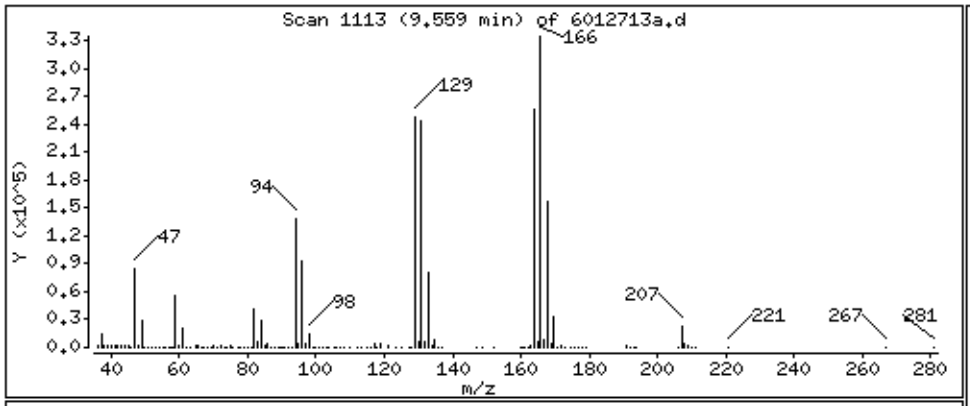
Operator: su

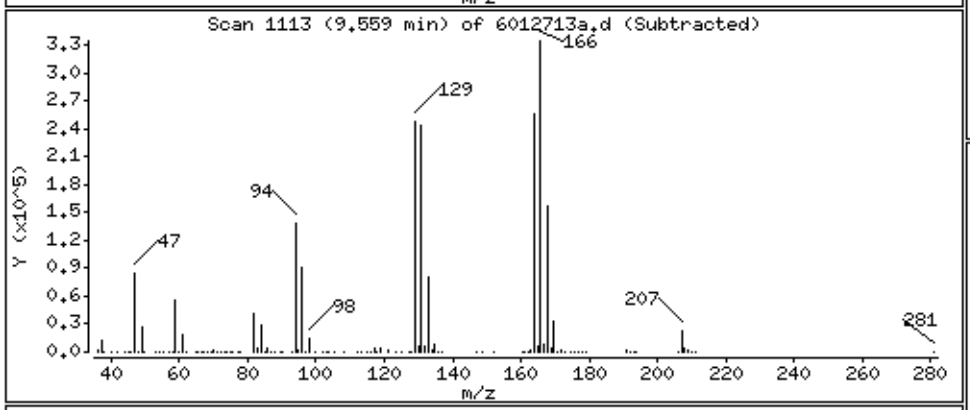
Column phase: RTx-624

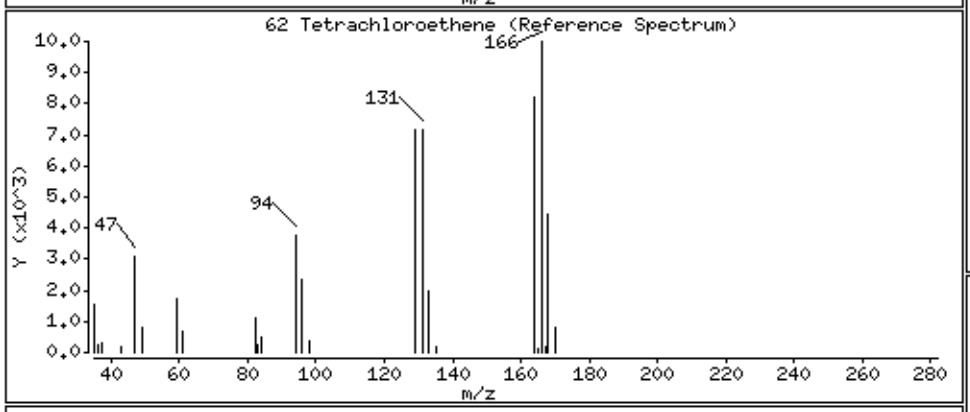
Column diameter: 0.53

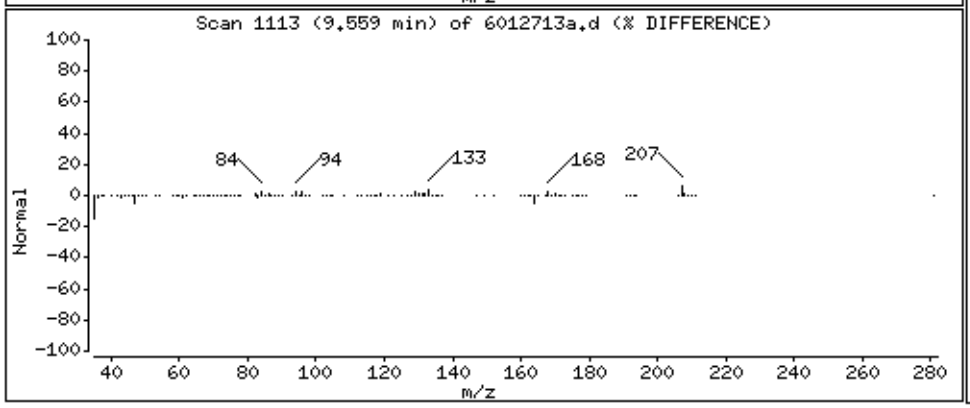
62 Tetrachloroethene

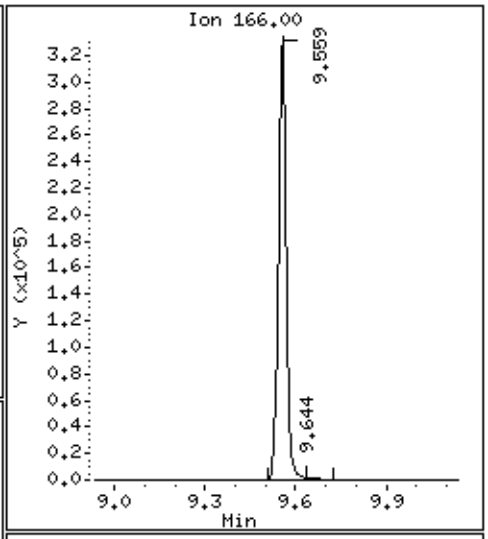
Concentration: 128.23 NG

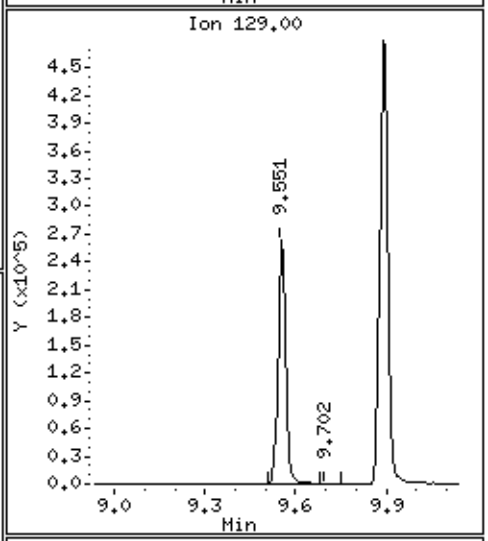


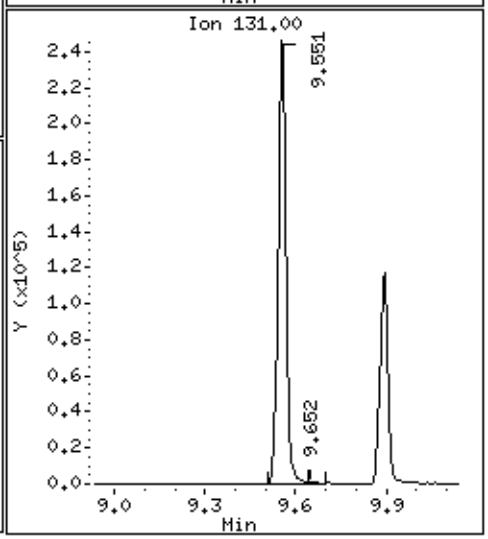












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

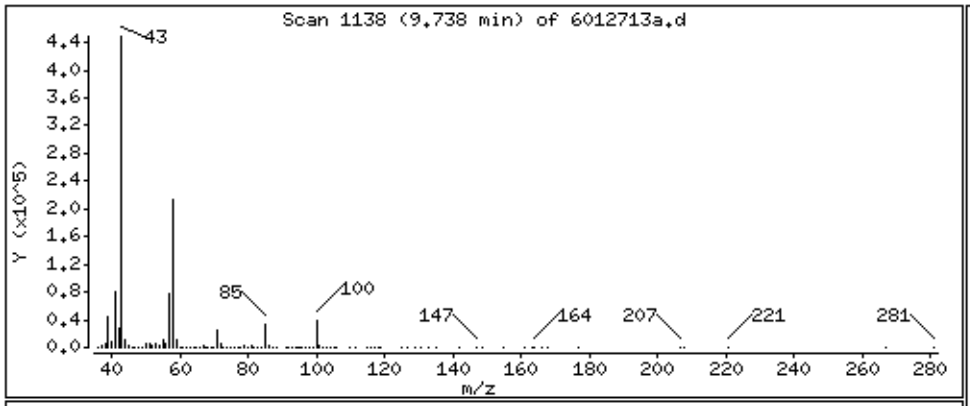
Operator: su

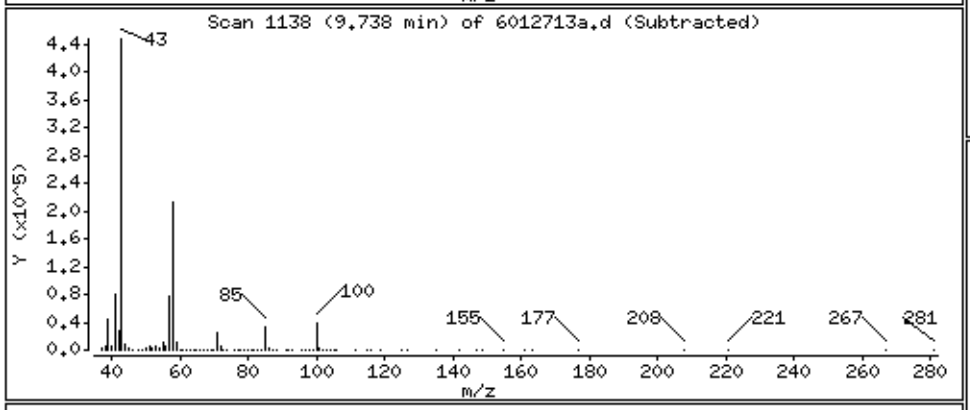
Column phase: RTx-624

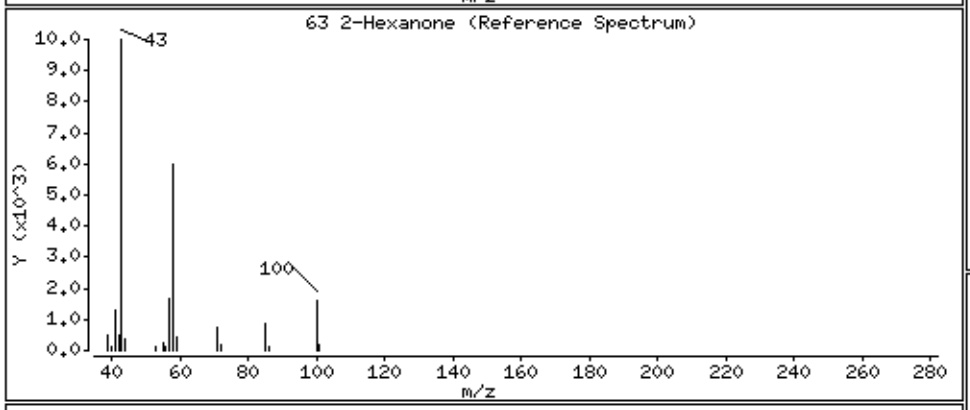
Column diameter: 0.53

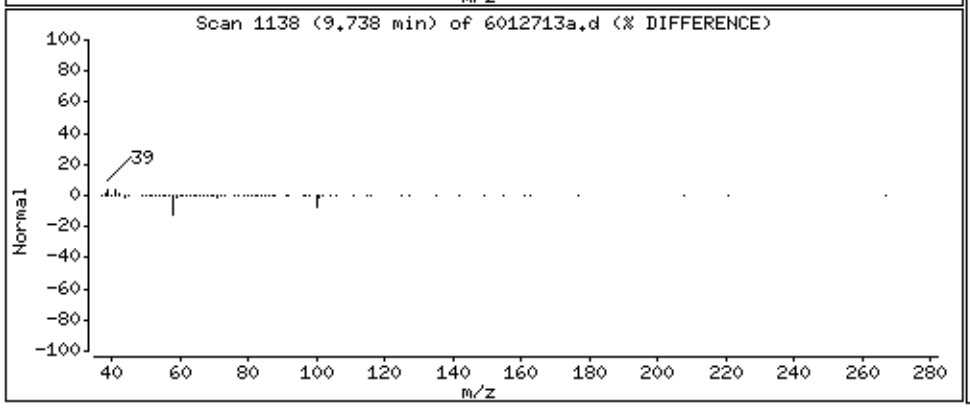
63 2-Hexanone

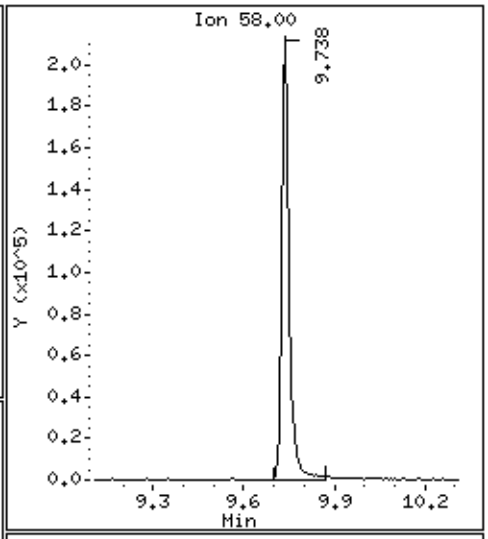
Concentration: 82.786 NG

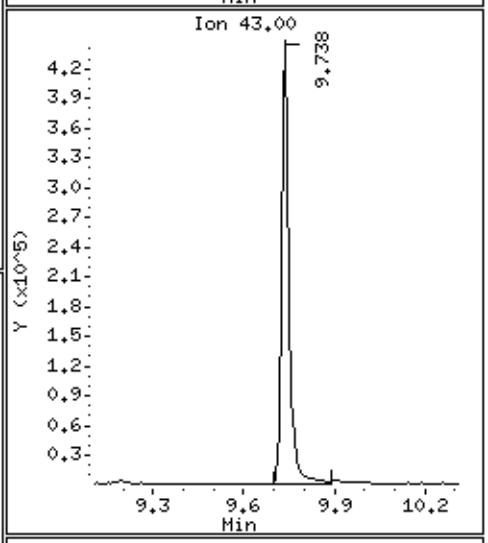


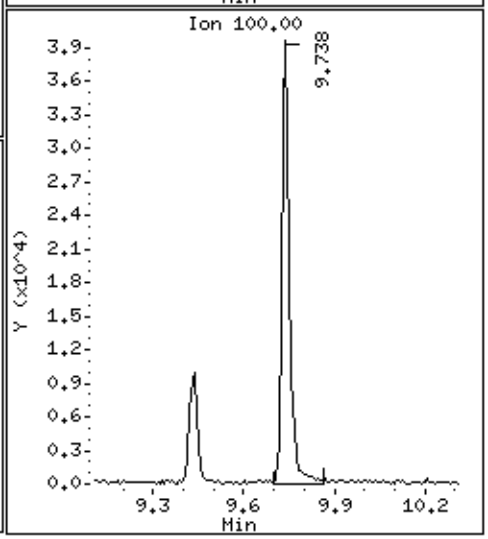












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

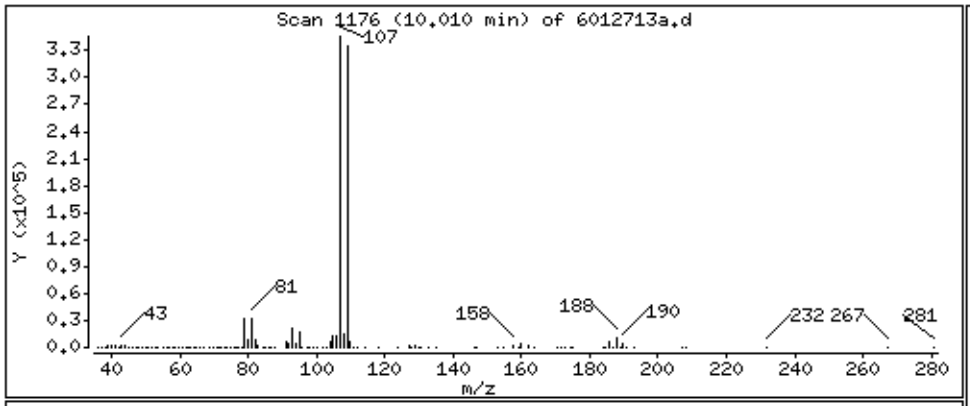
Operator: su

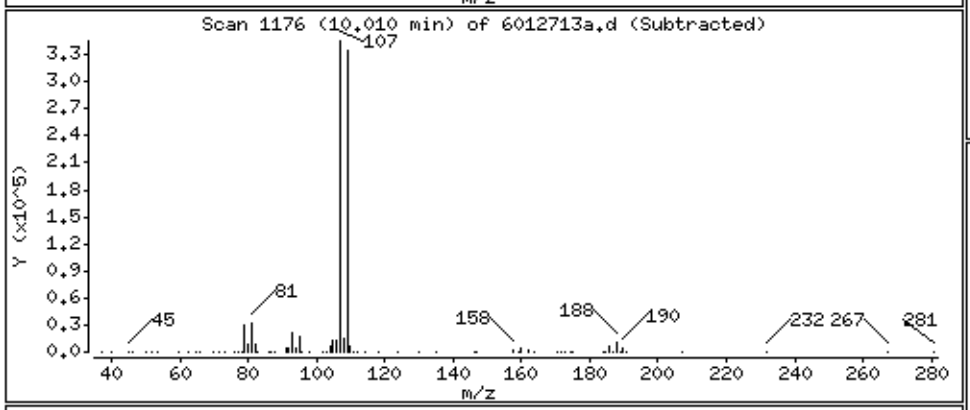
Column phase: RTx-624

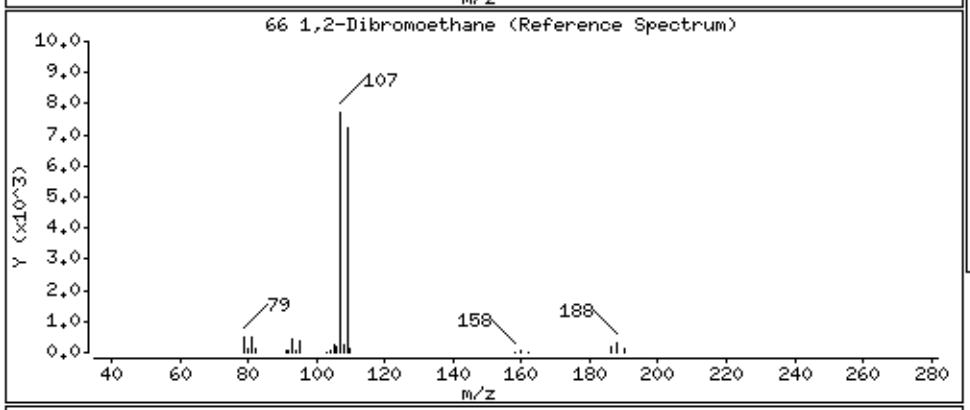
Column diameter: 0.53

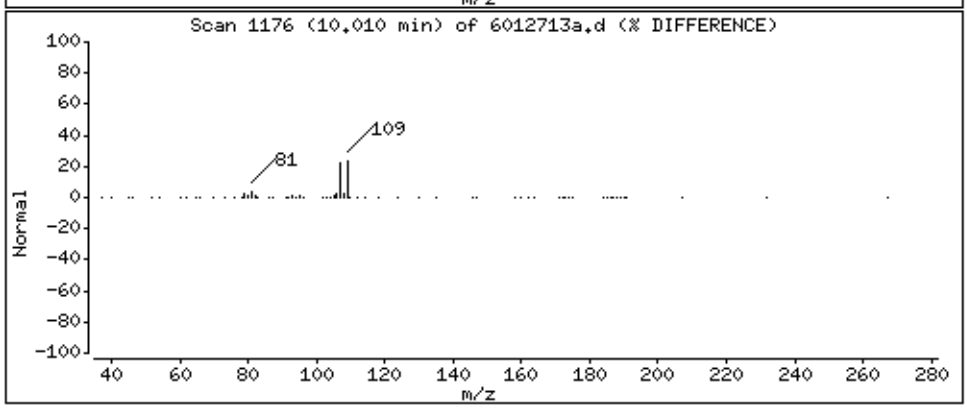
66 1,2-Dibromoethane

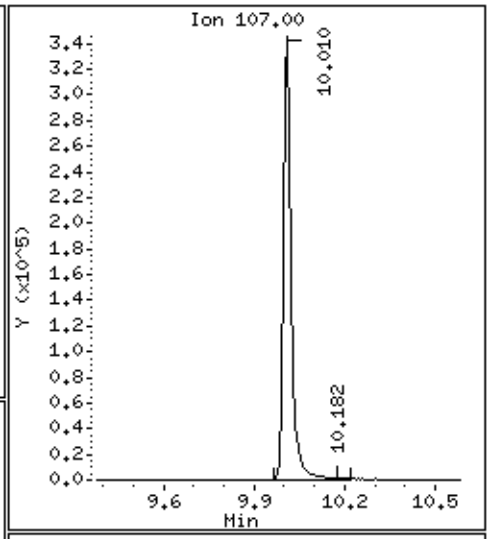
Concentration: 150.70 NG

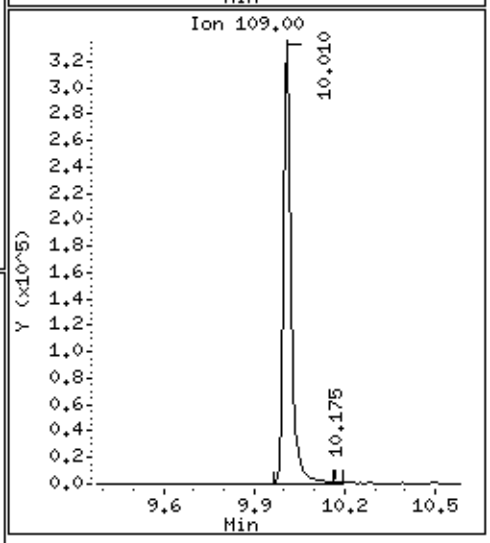












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

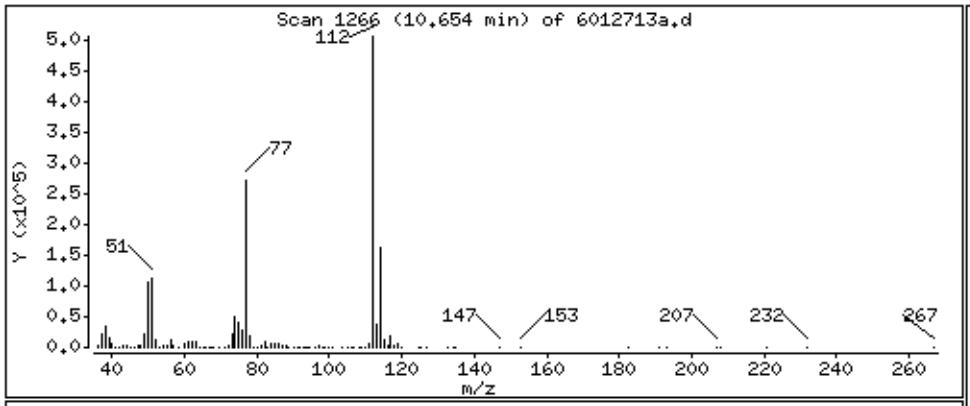
Operator: su

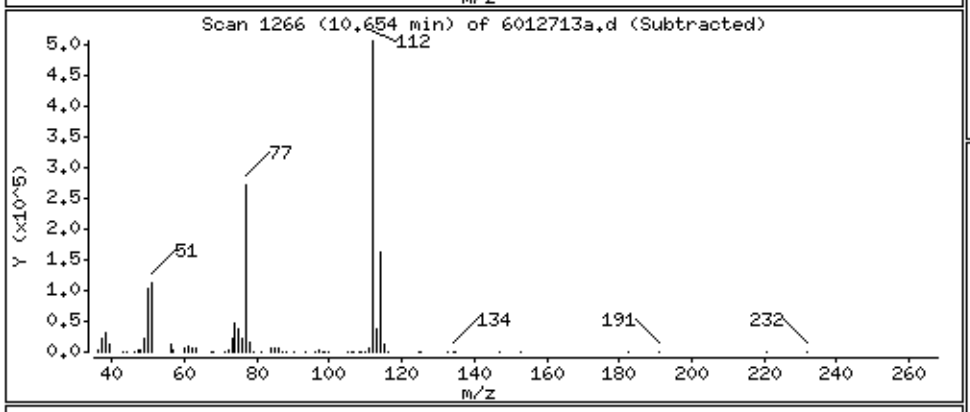
Column phase: RTx-624

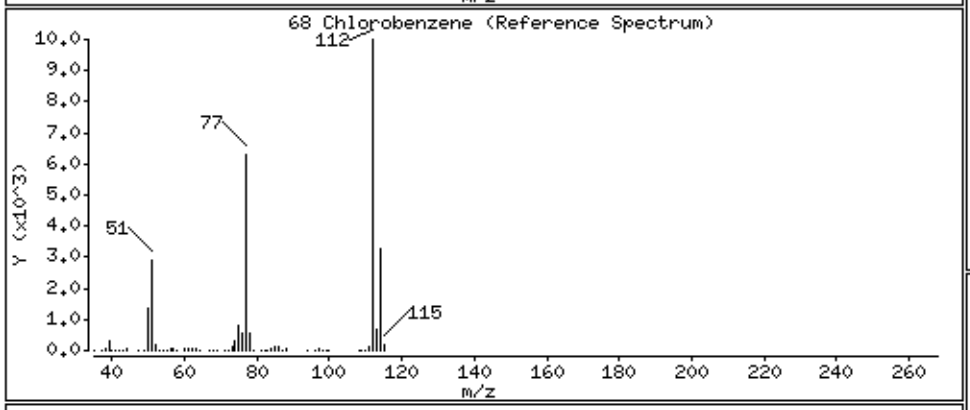
Column diameter: 0.53

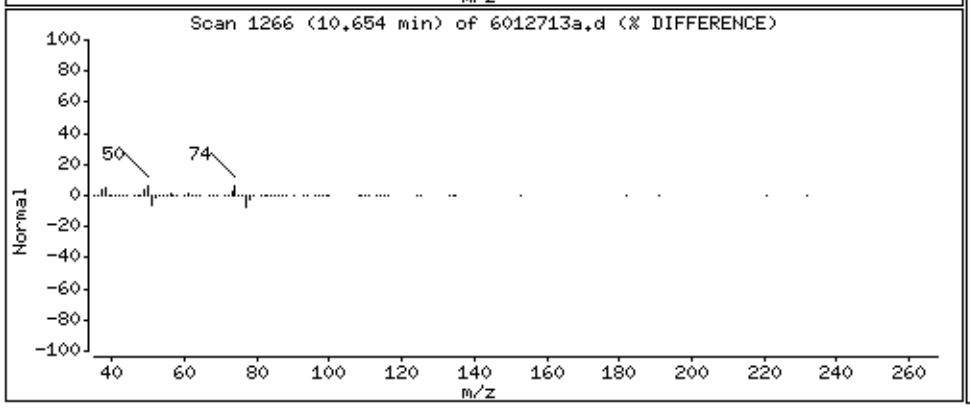
68 Chlorobenzene

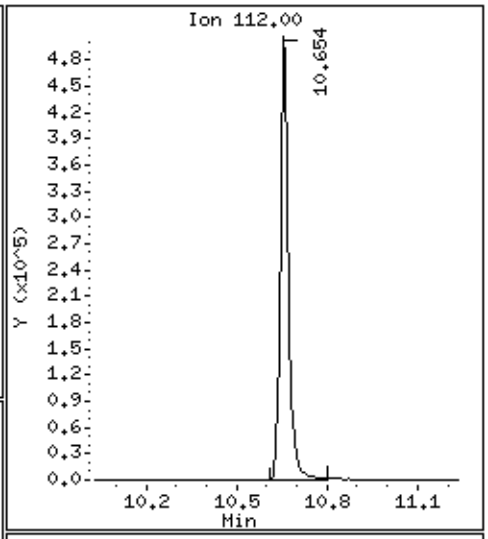
Concentration: 88.846 NG

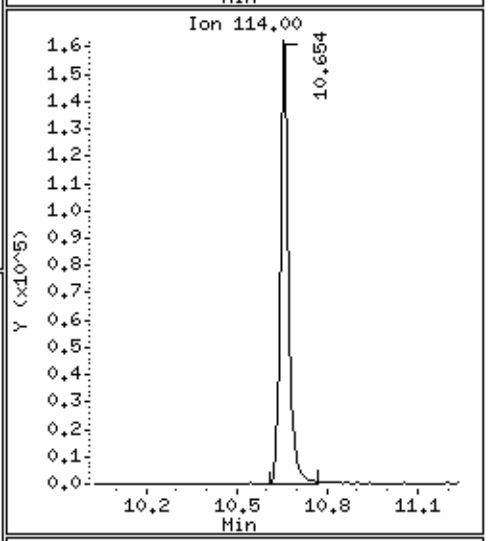


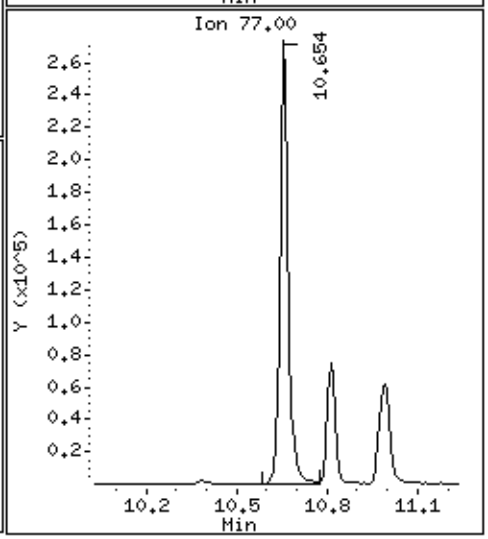












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

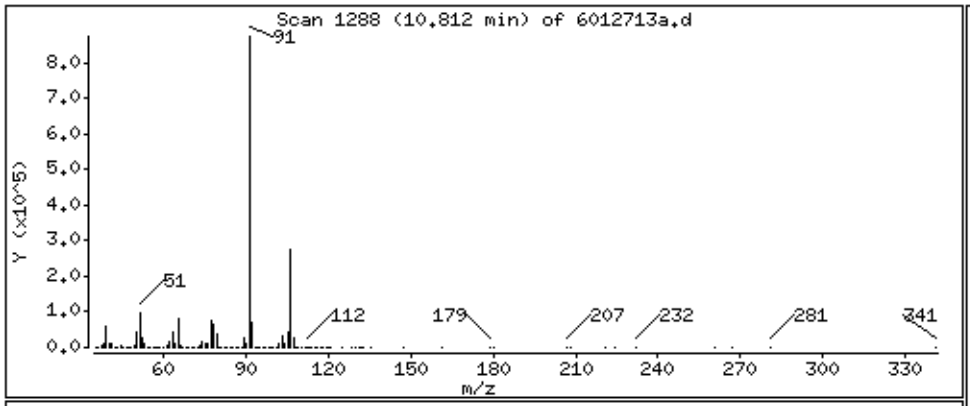
Operator: su

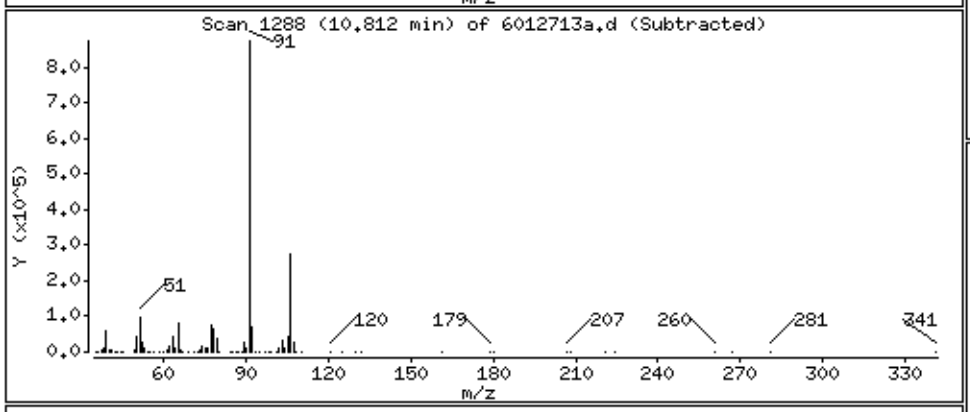
Column phase: RTx-624

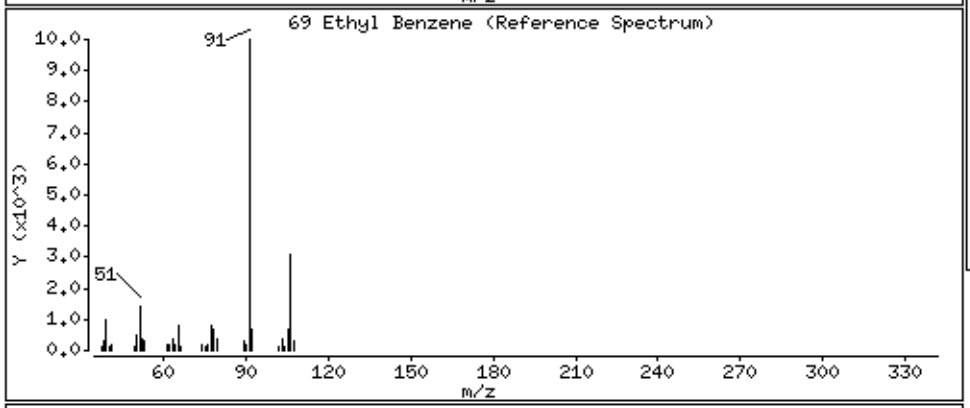
Column diameter: 0.53

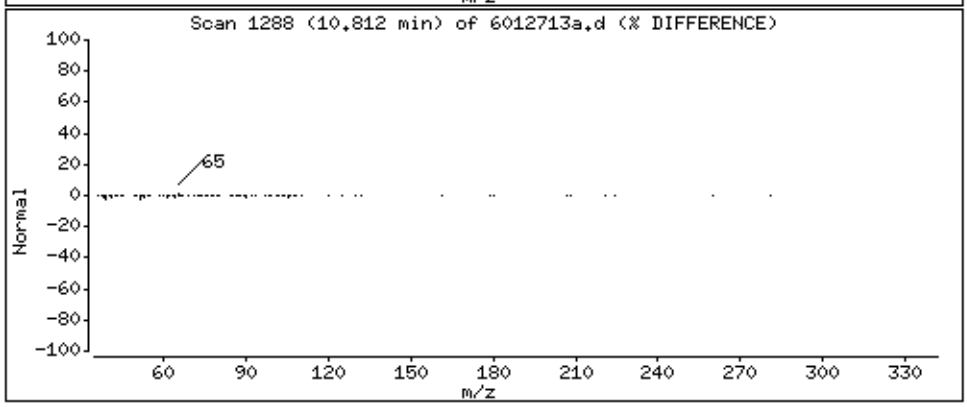
69 Ethyl Benzene

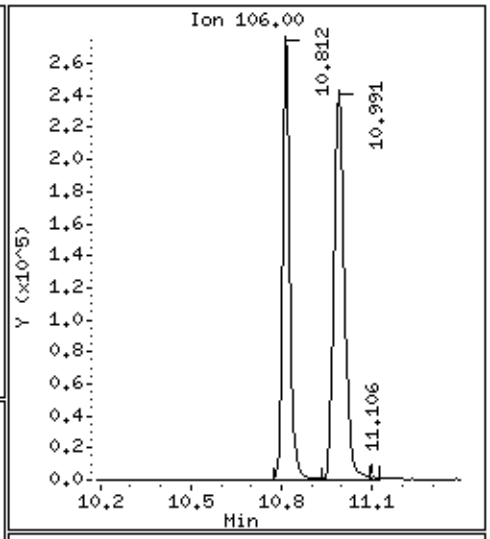
Concentration: 85.400 NG

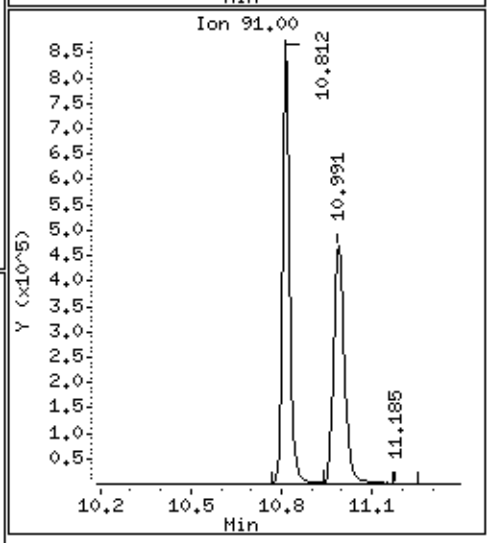












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

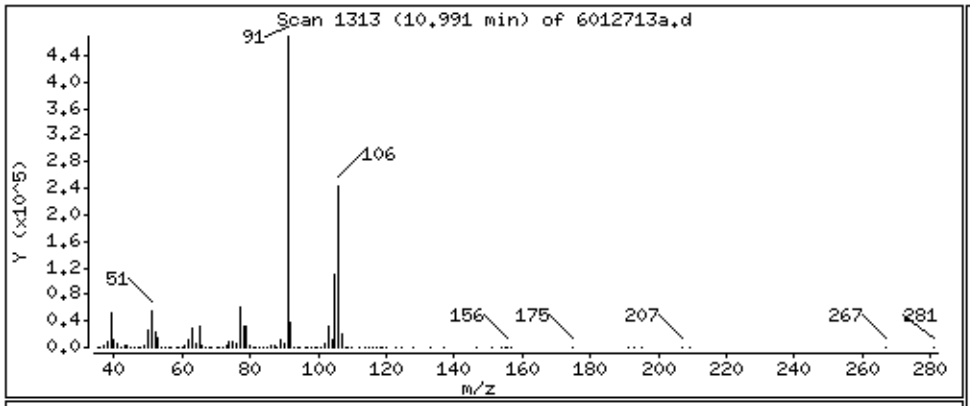
Operator: su

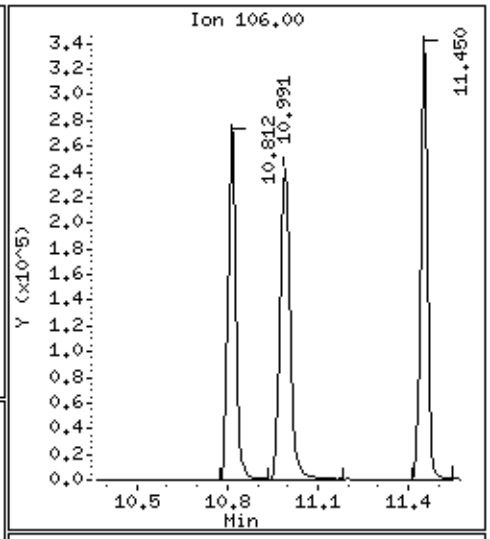
Column phase: RTx-624

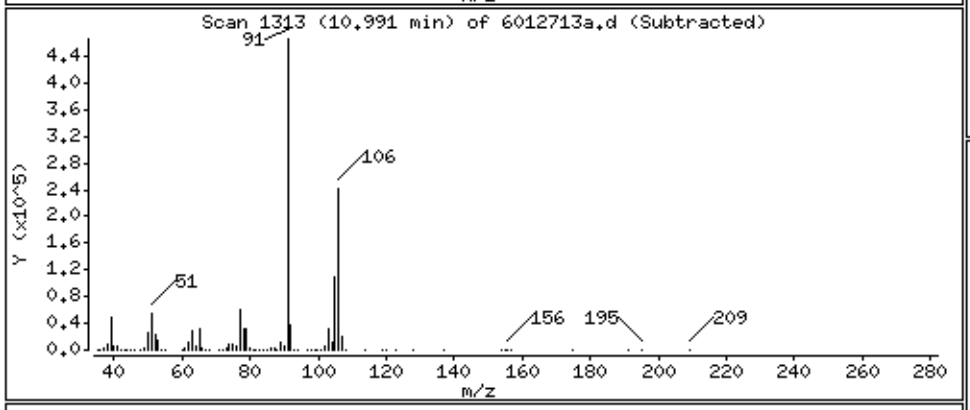
Column diameter: 0.53

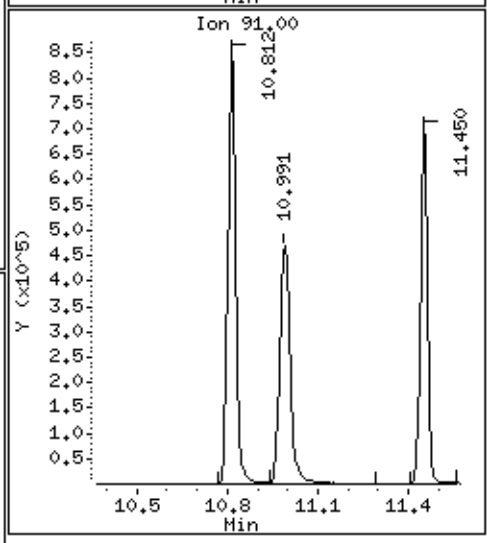
71 m,p-Xylene

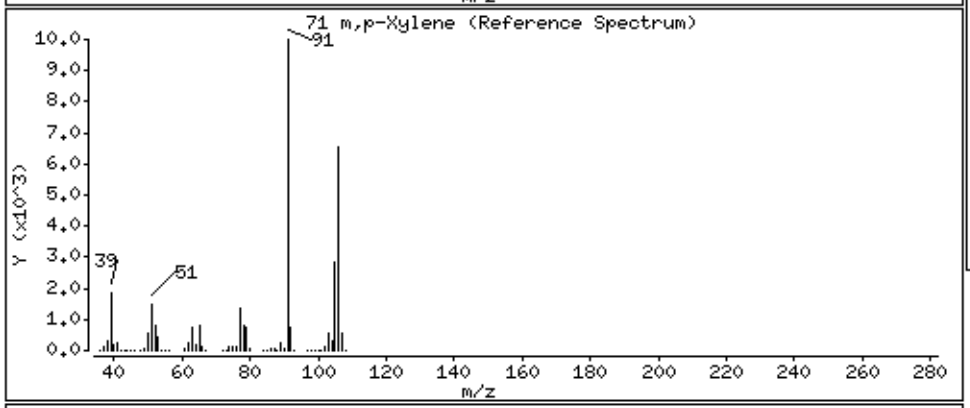
Concentration: 84.184 NG

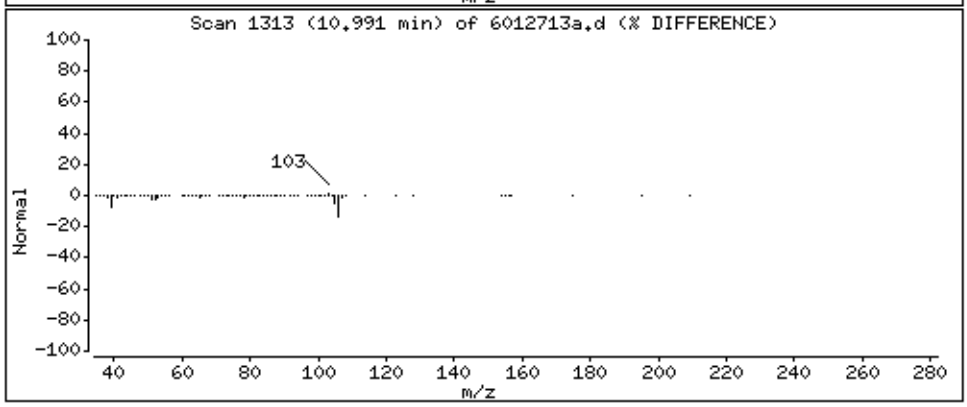












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

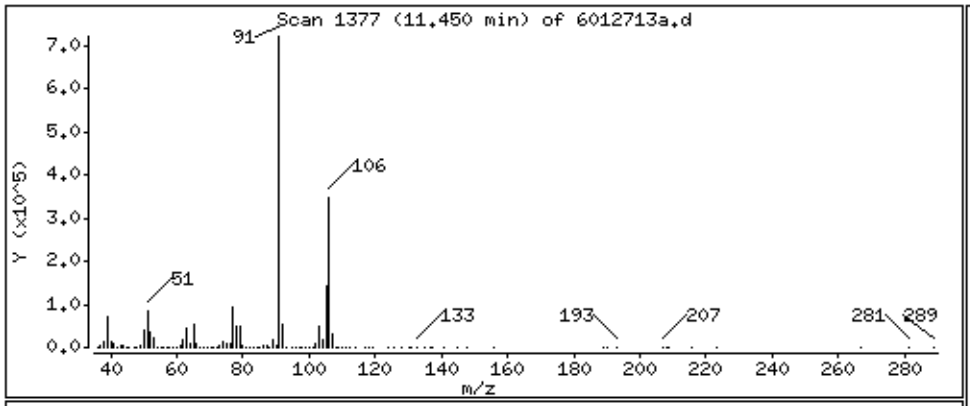
Operator: su

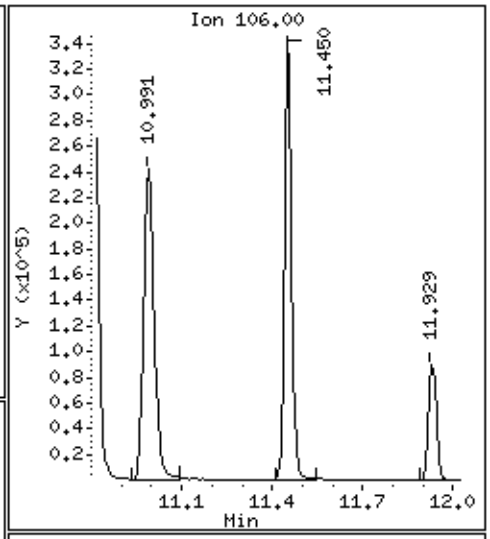
Column phase: RTx-624

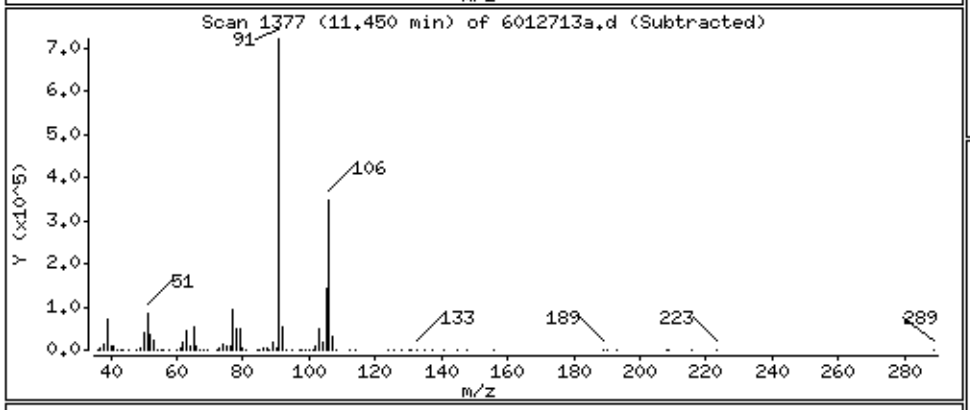
Column diameter: 0.53

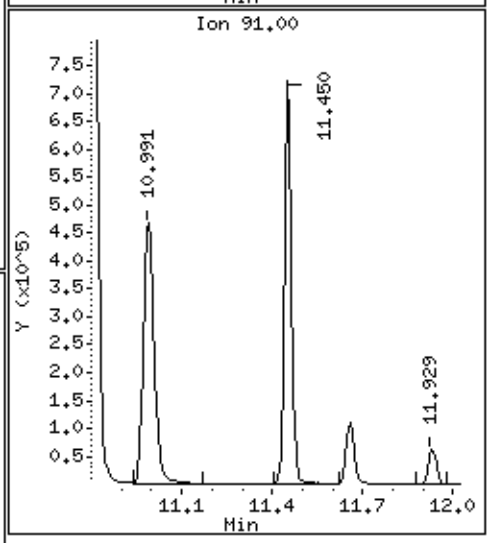
74 o-Xylene

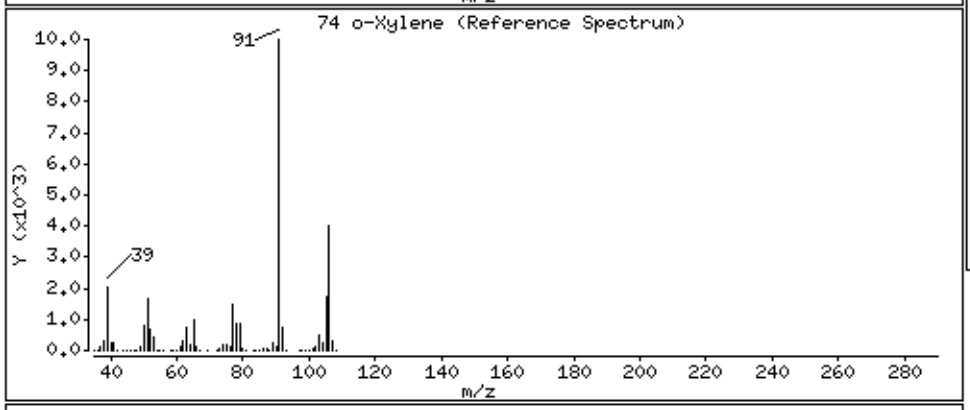
Concentration: 86.403 NG

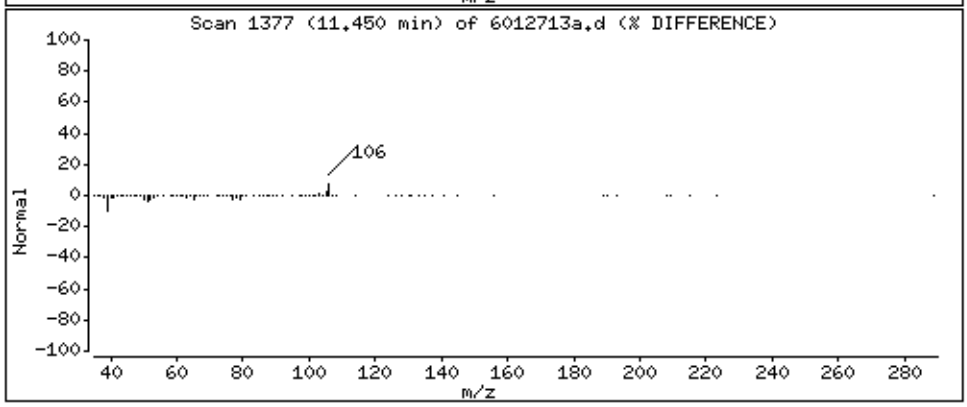












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

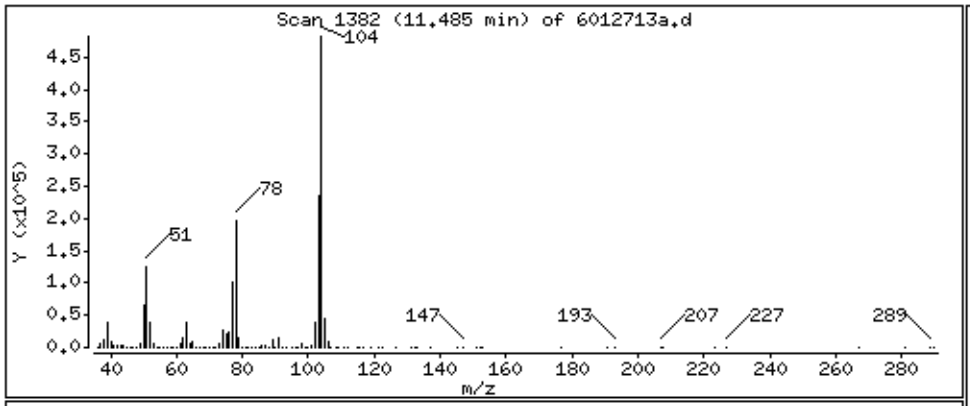
Operator: su

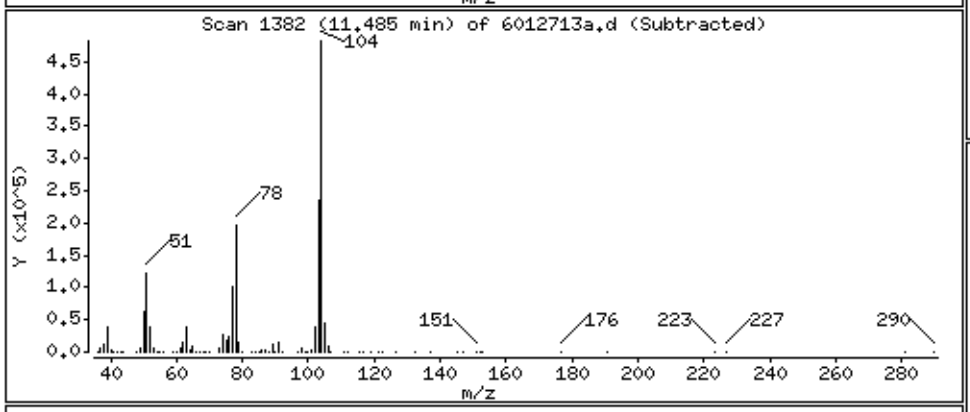
Column phase: RTx-624

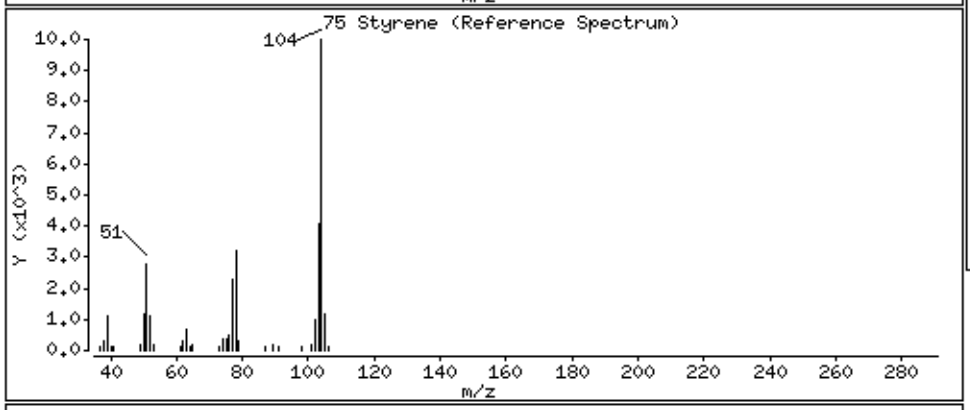
Column diameter: 0.53

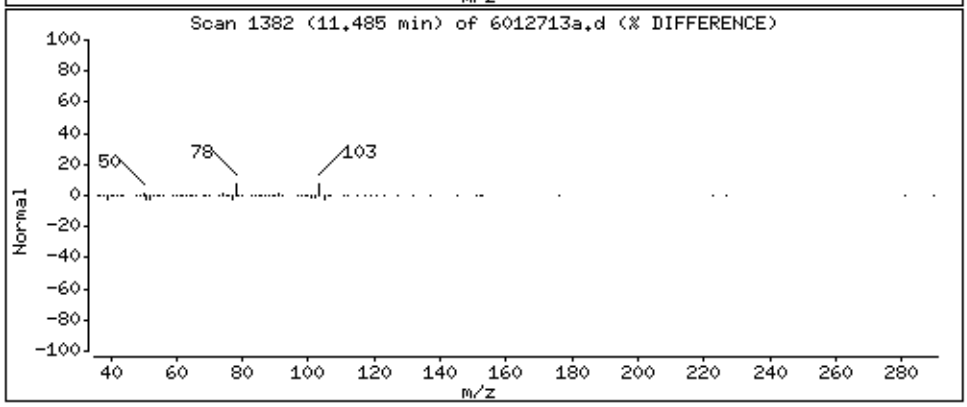
75 Styrene

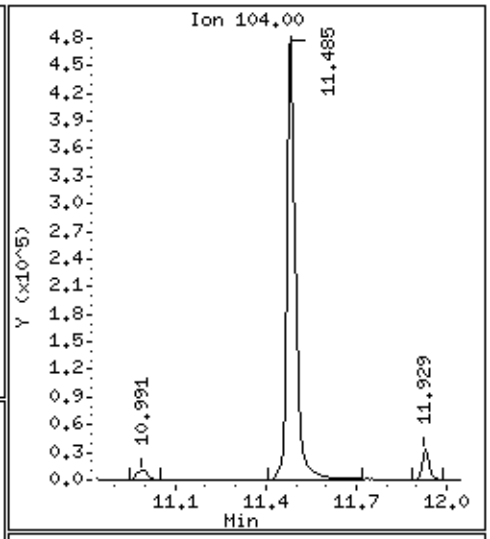
Concentration: 90.533 NG

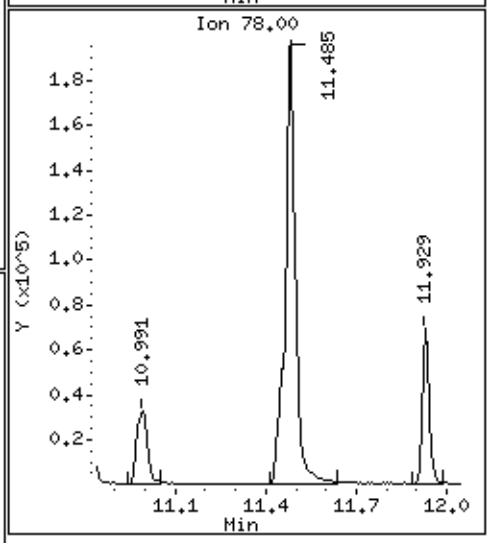












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

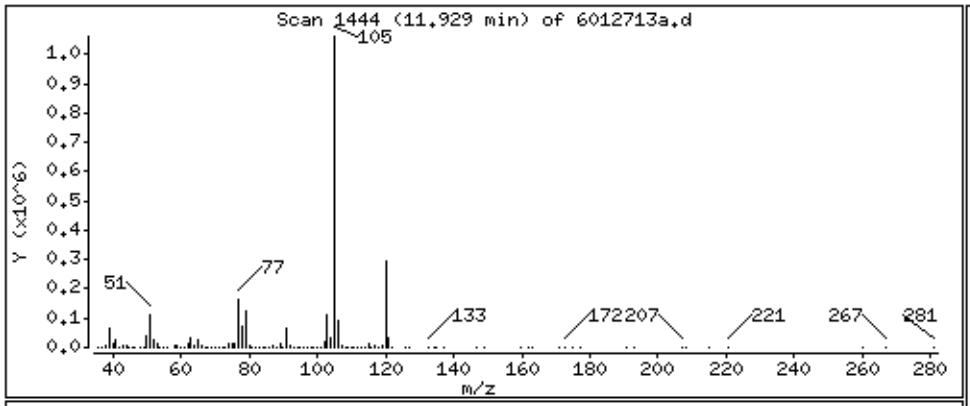
Operator: su

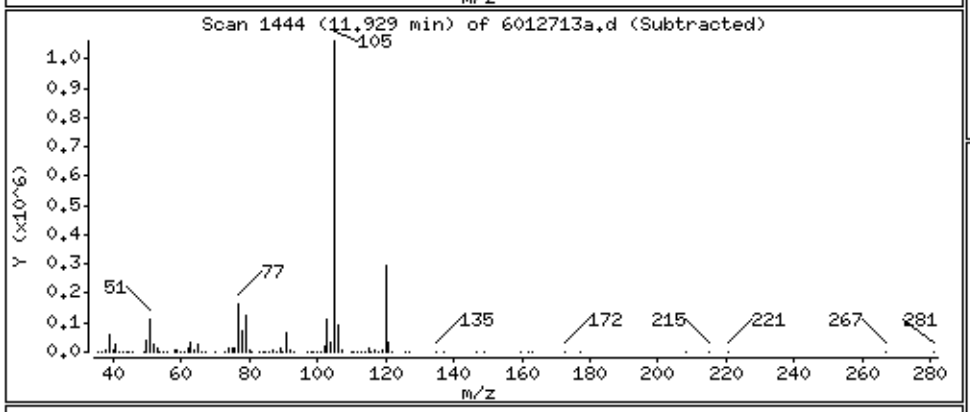
Column phase: RTx-624

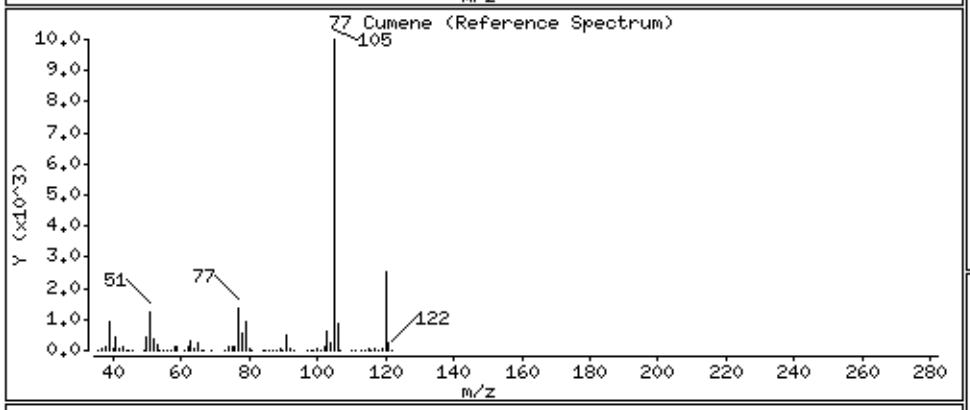
Column diameter: 0.53

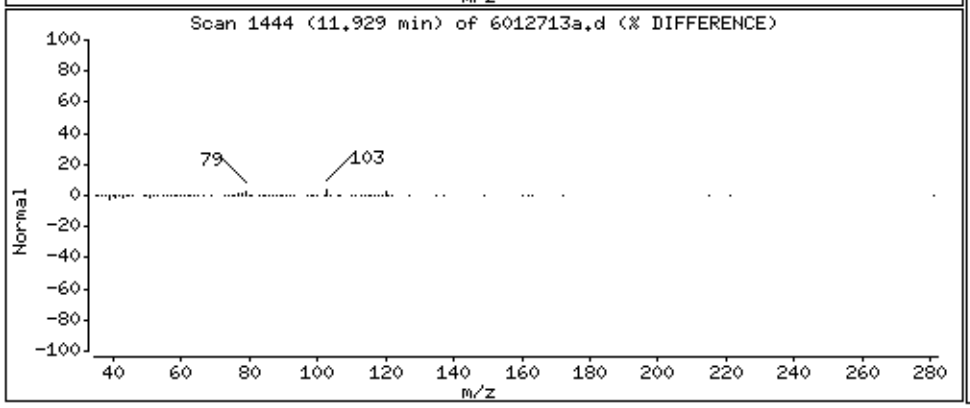
77 Cumene

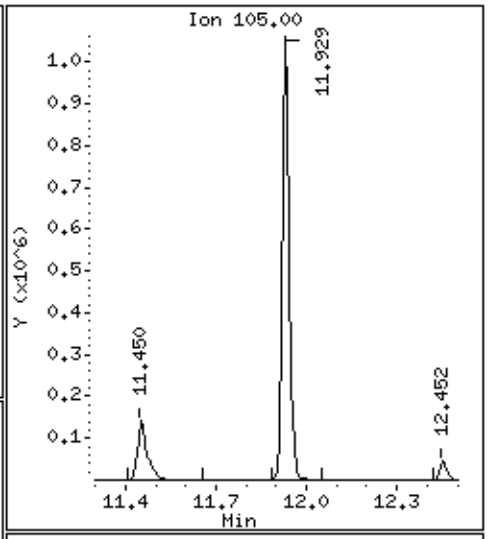
Concentration: 104.87 NG

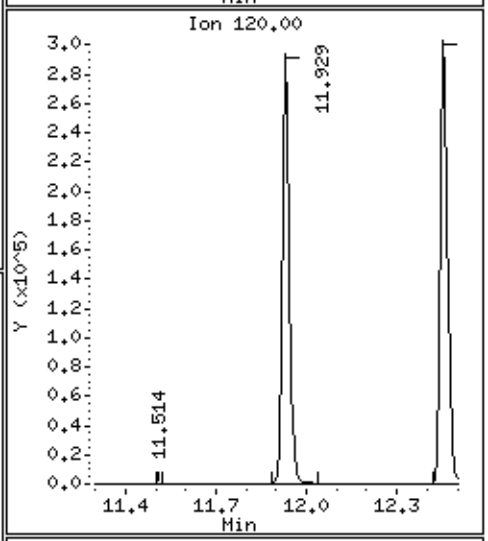


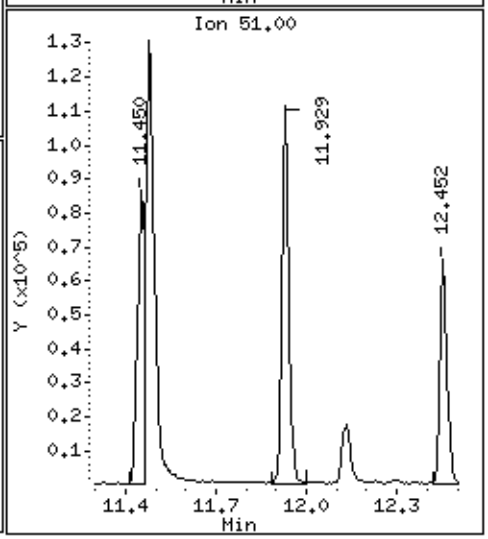












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

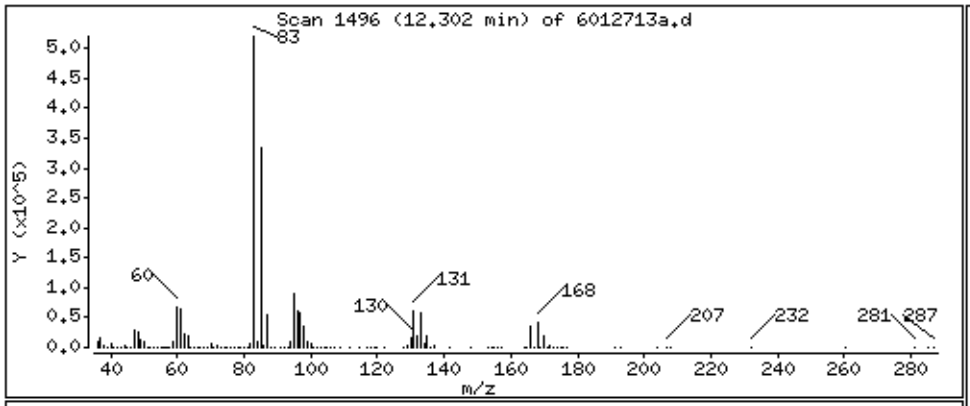
Operator: su

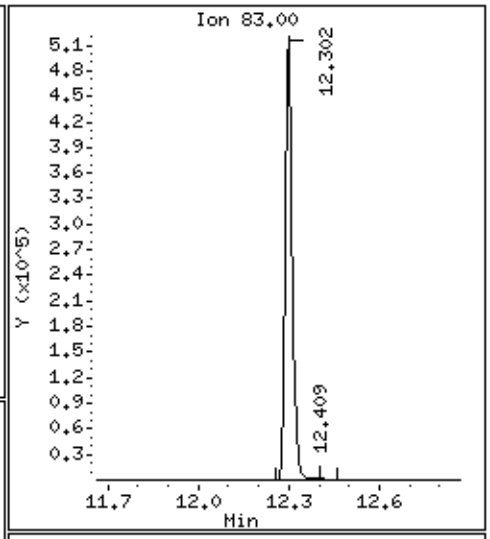
Column phase: RTx-624

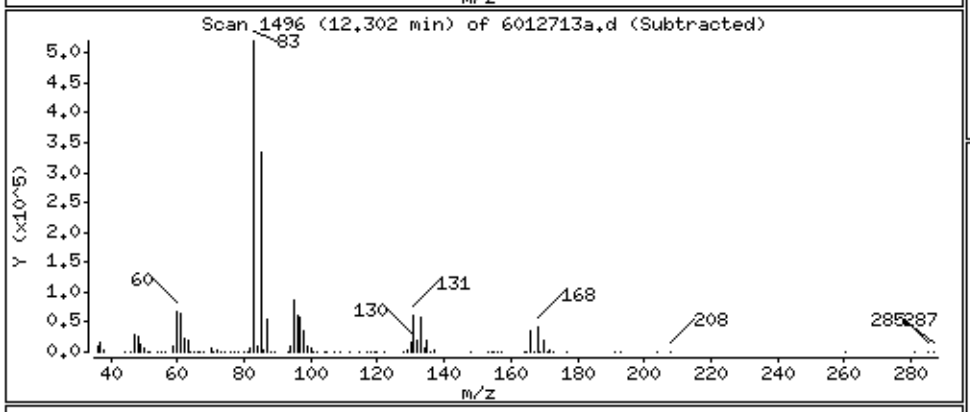
Column diameter: 0.53

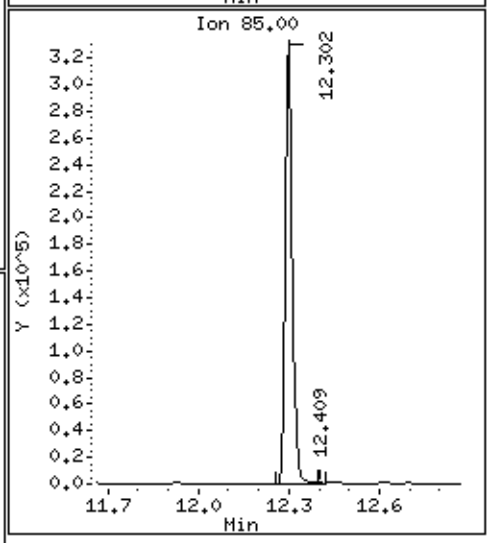
80 1,1,2,2-Tetrachloroethane

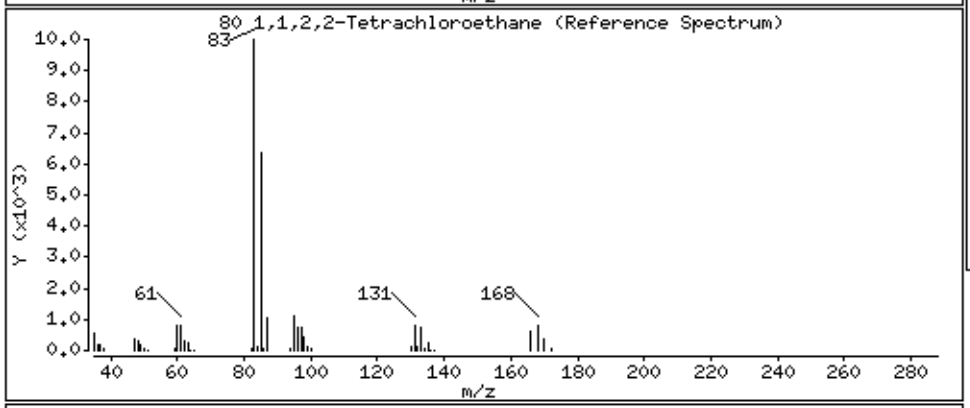
Concentration: 149.67 NG

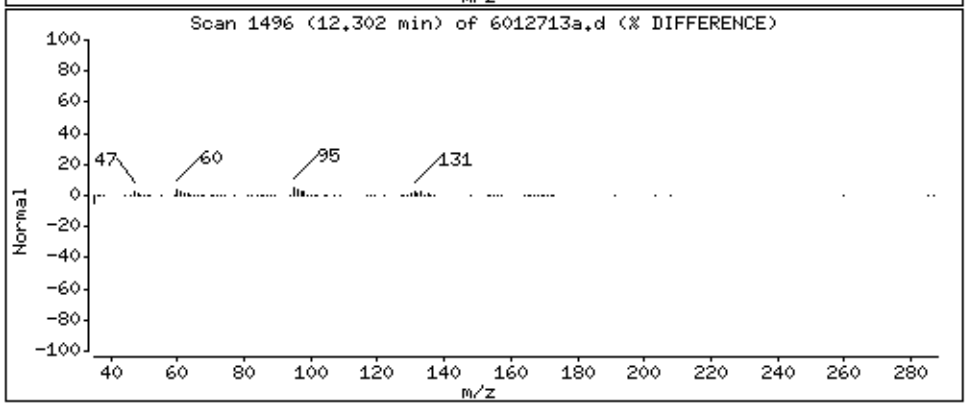












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

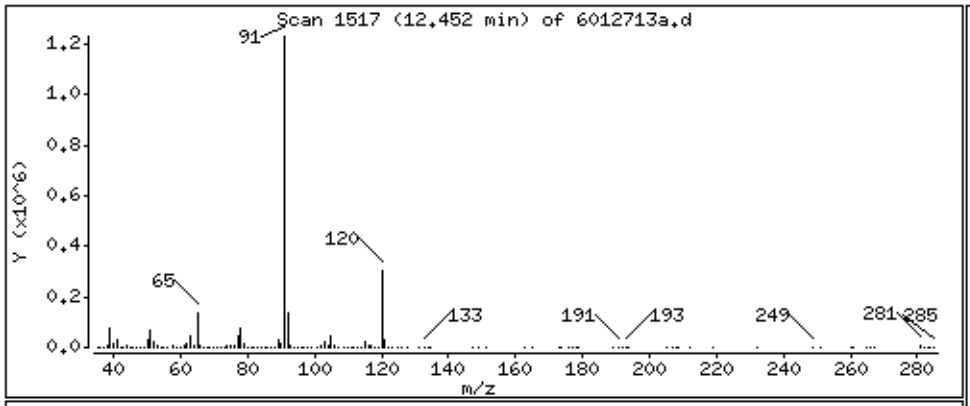
Operator: su

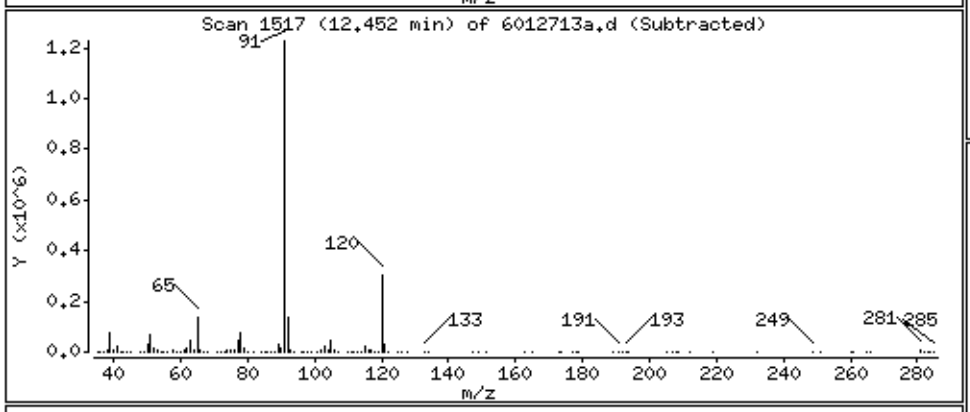
Column phase: RTx-624

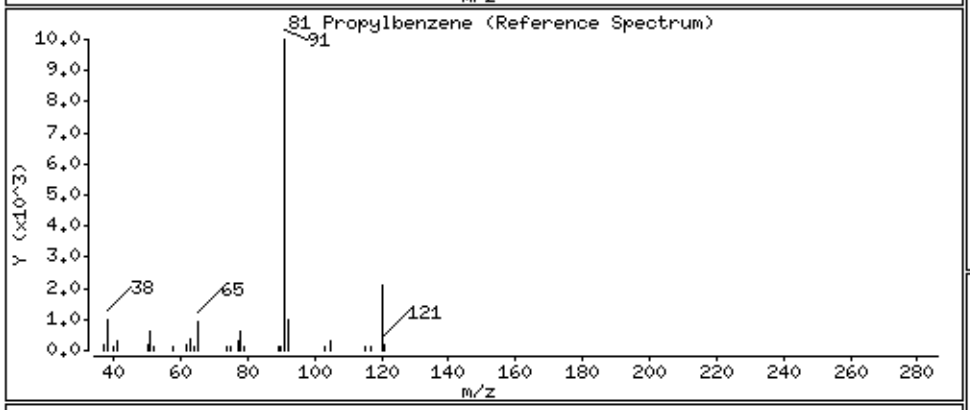
Column diameter: 0.53

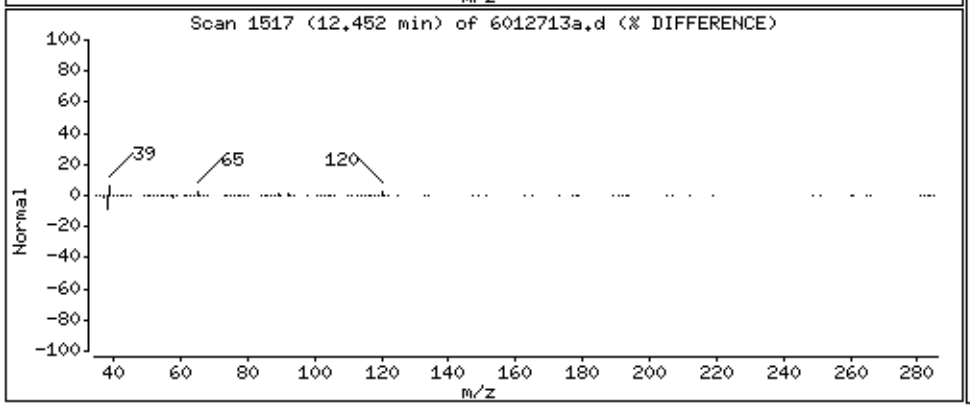
81 Propylbenzene

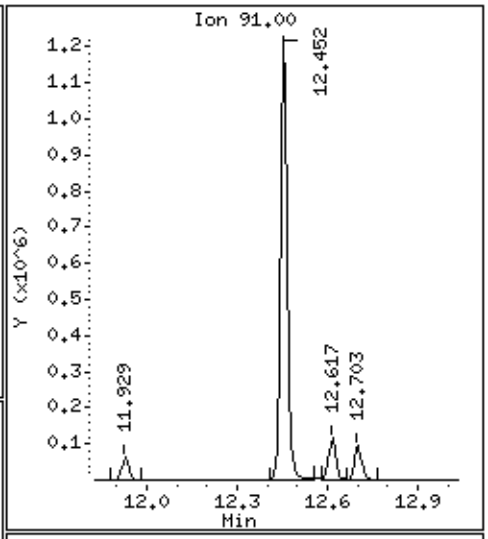
Concentration: 110.51 NG

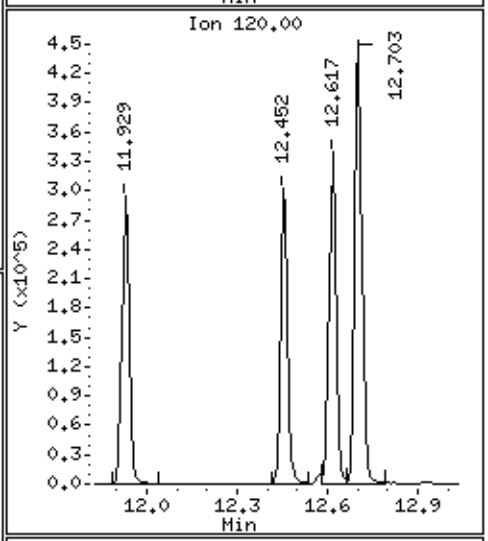


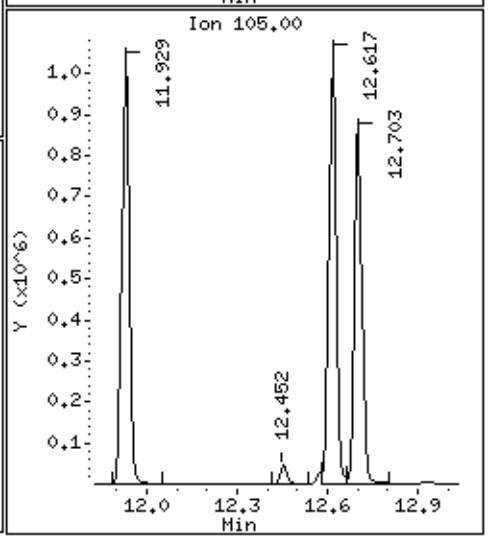












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

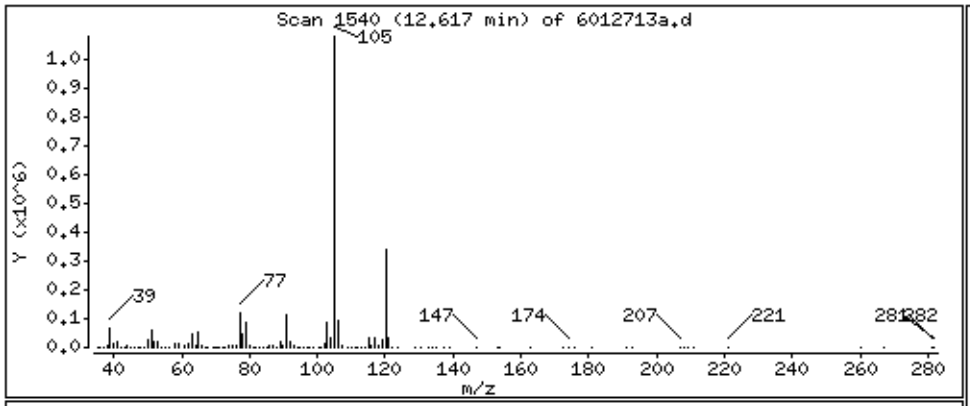
Operator: su

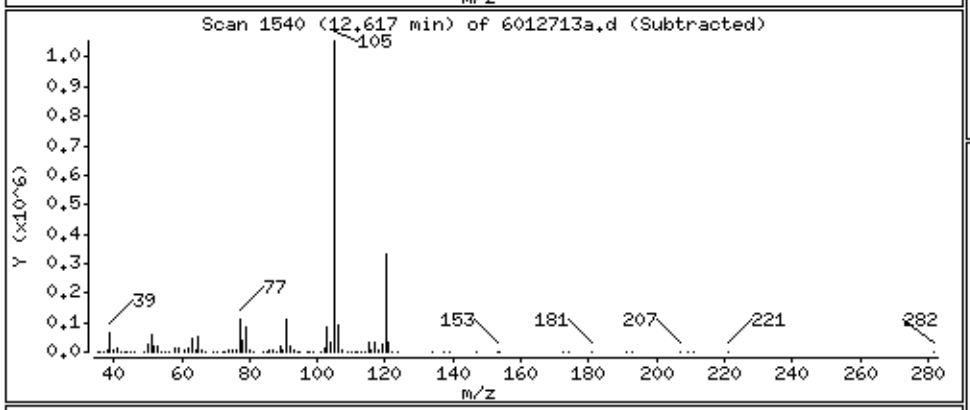
Column phase: RTx-624

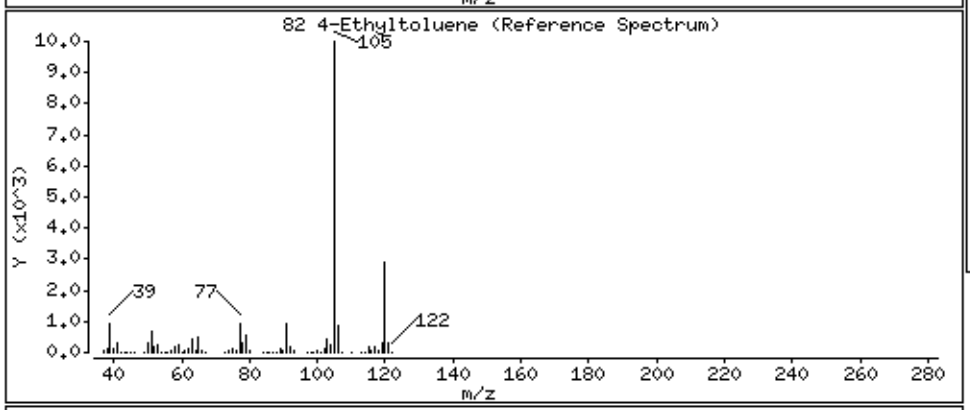
Column diameter: 0.53

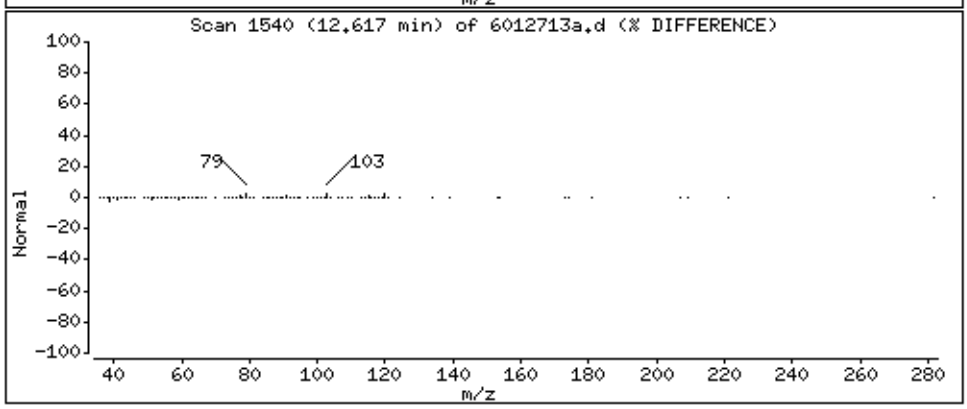
82 4-Ethyltoluene

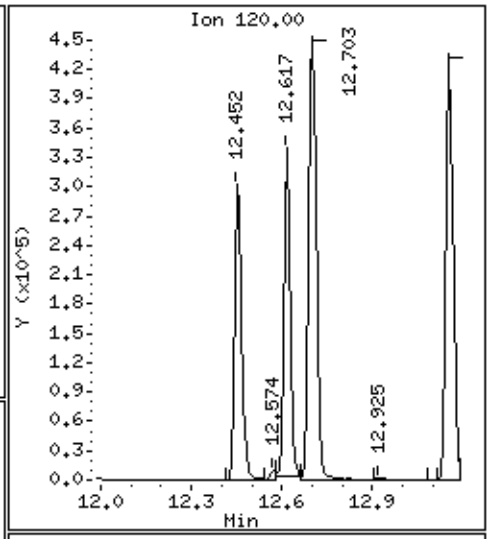
Concentration: 105.54 NG

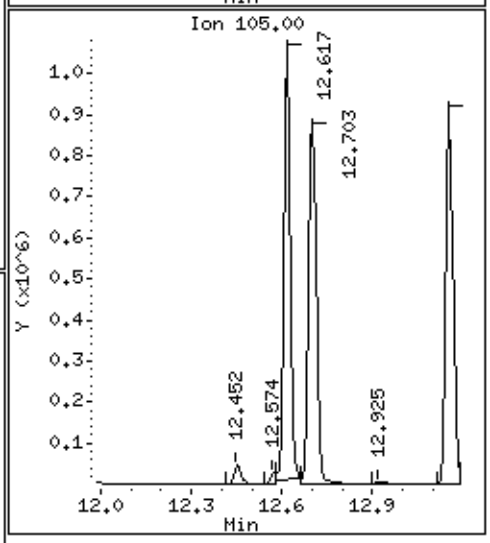












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

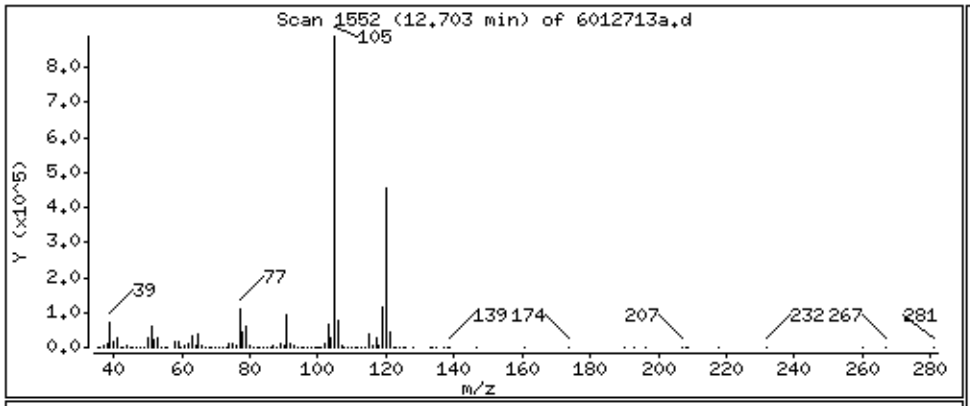
Operator: su

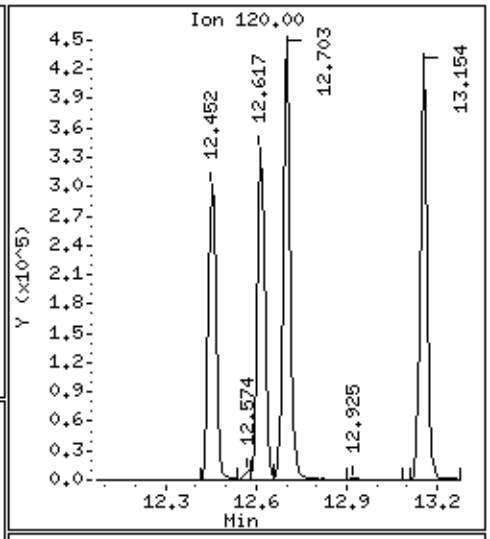
Column phase: RTx-624

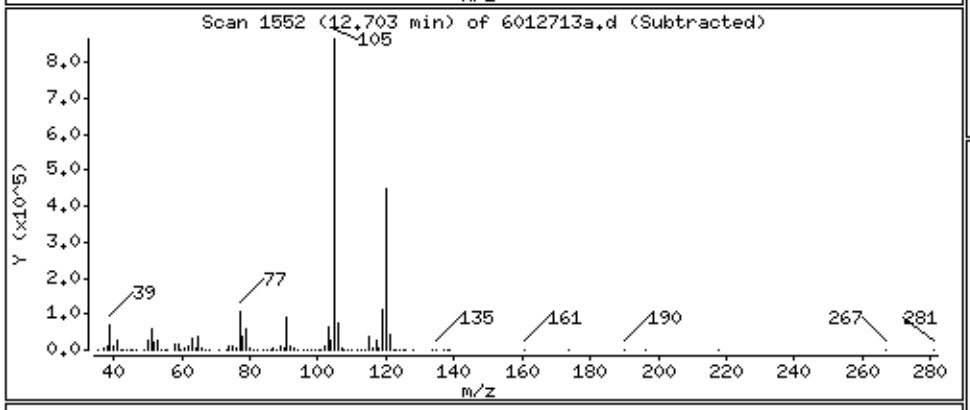
Column diameter: 0.53

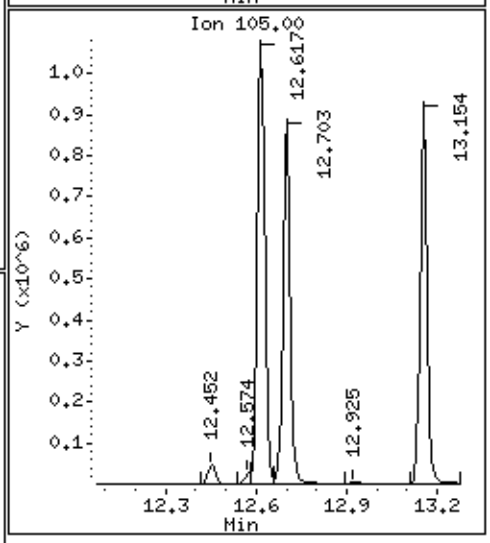
83 1,3,5-Trimethylbenzene

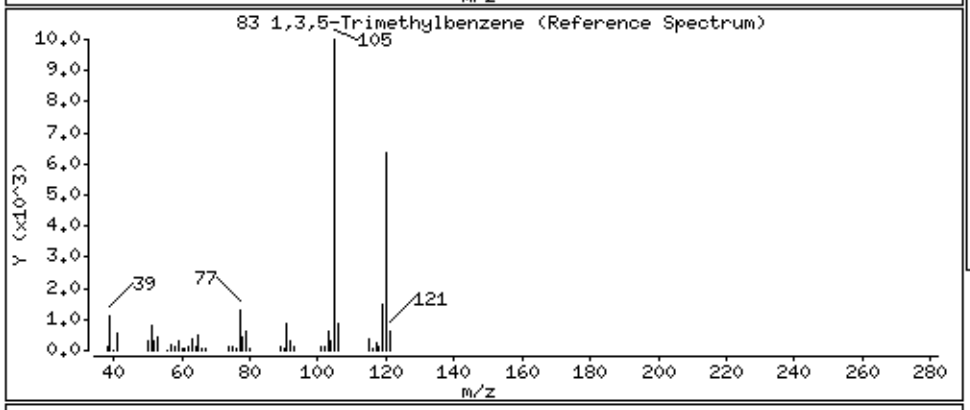
Concentration: 106.79 NG

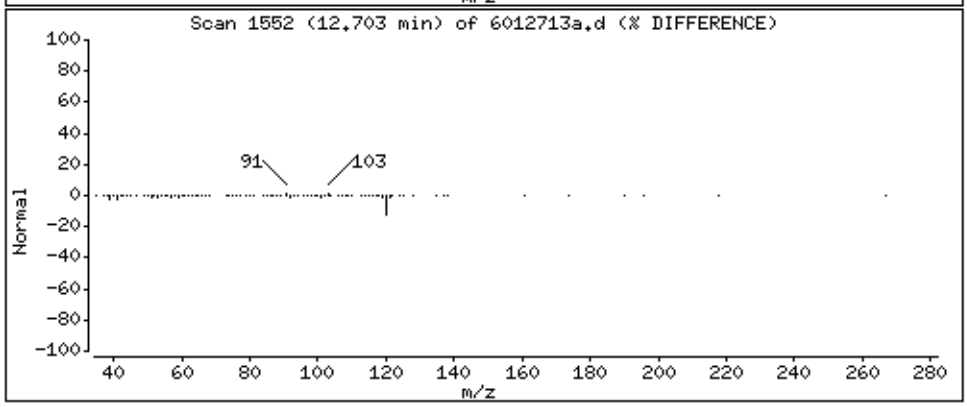












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

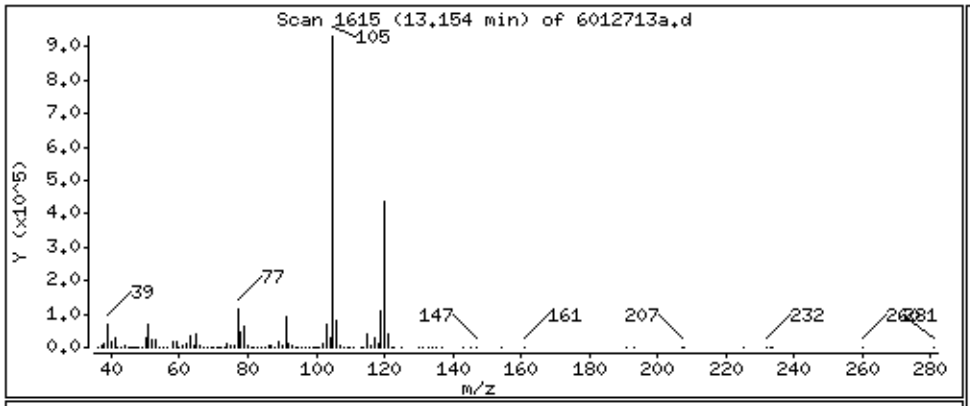
Operator: su

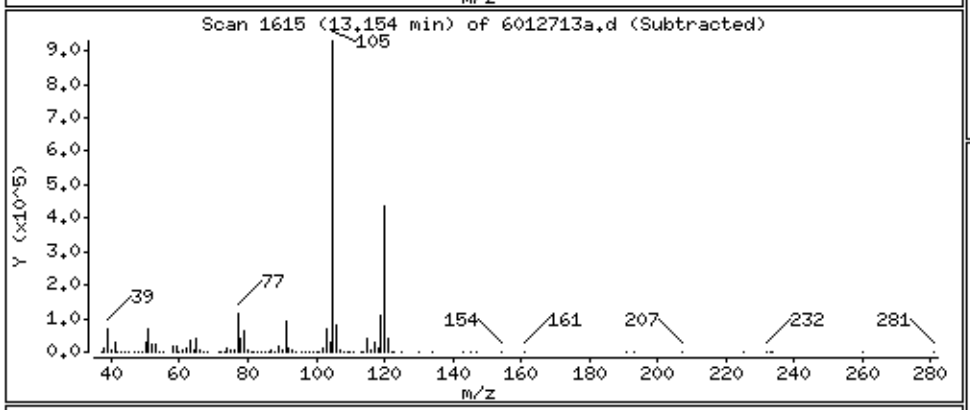
Column phase: RTx-624

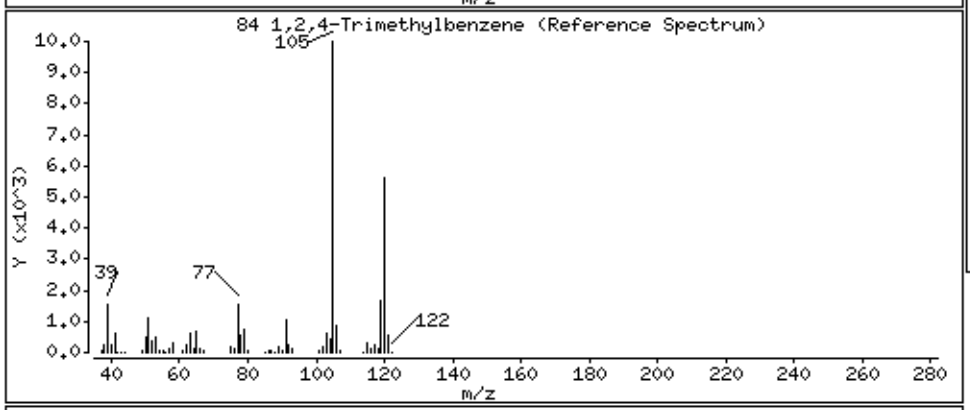
Column diameter: 0.53

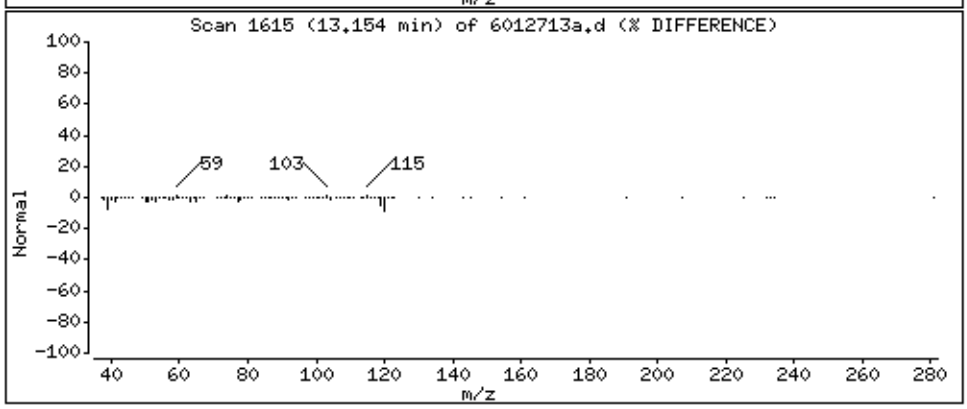
84 1,2,4-Trimethylbenzene

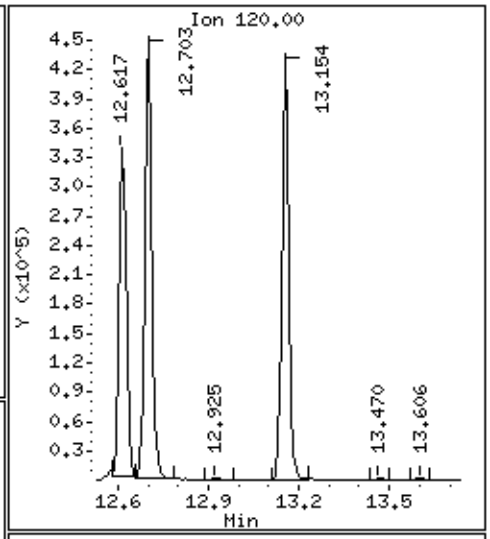
Concentration: 111.35 NG

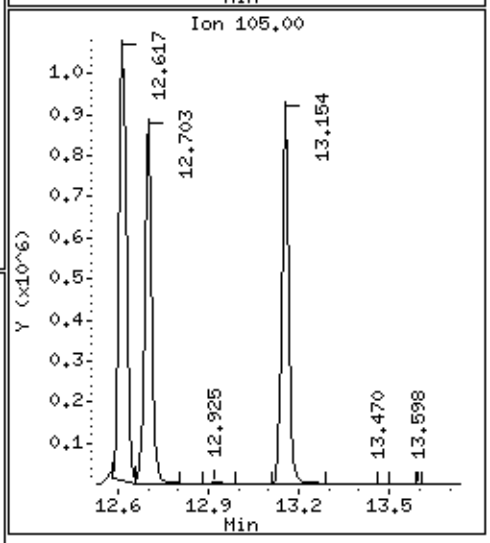












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

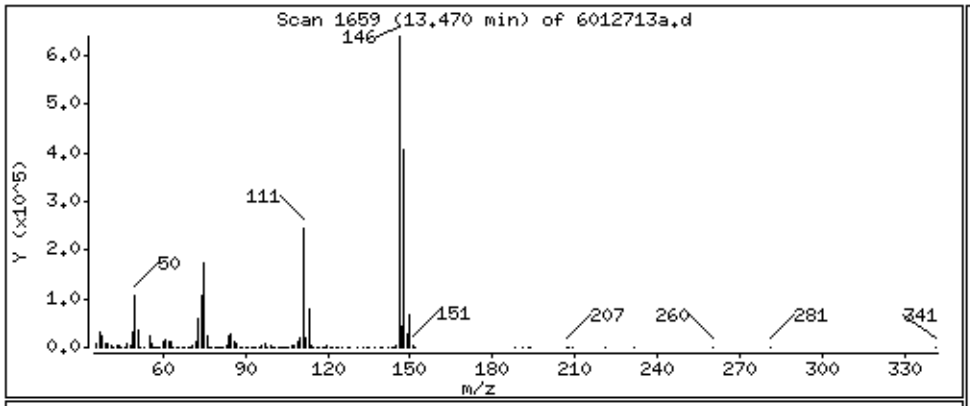
Operator: su

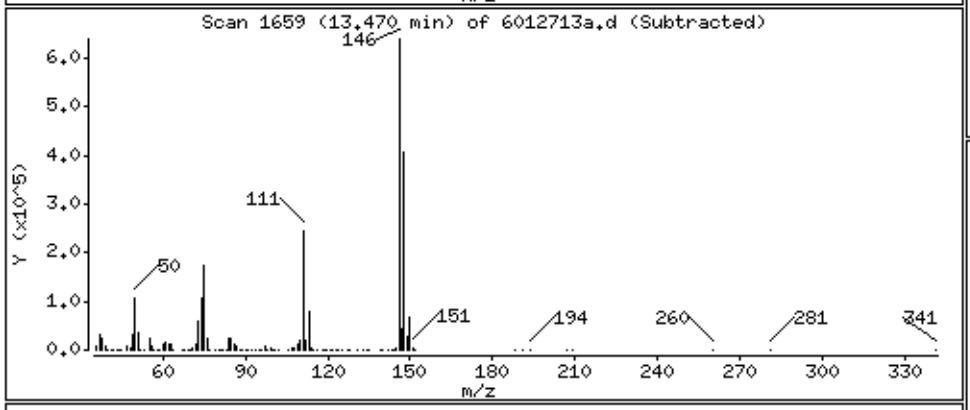
Column phase: RTx-624

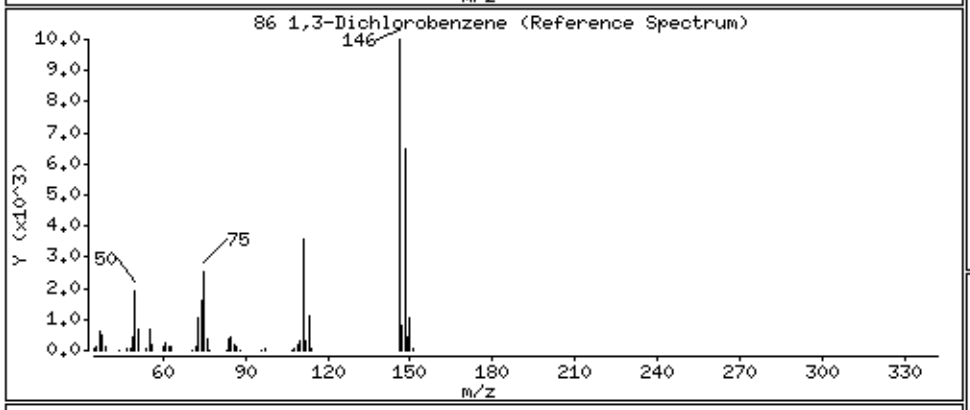
Column diameter: 0.53

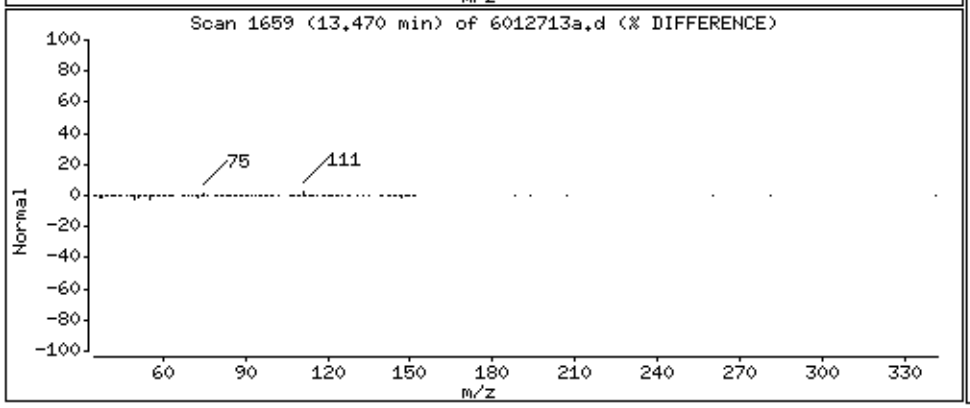
86 1,3-Dichlorobenzene

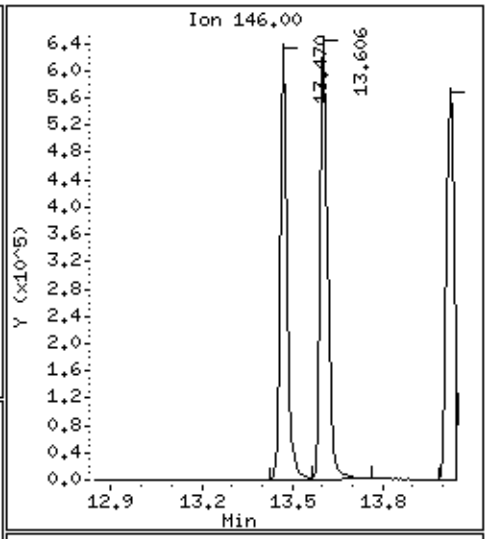
Concentration: 137.47 NG

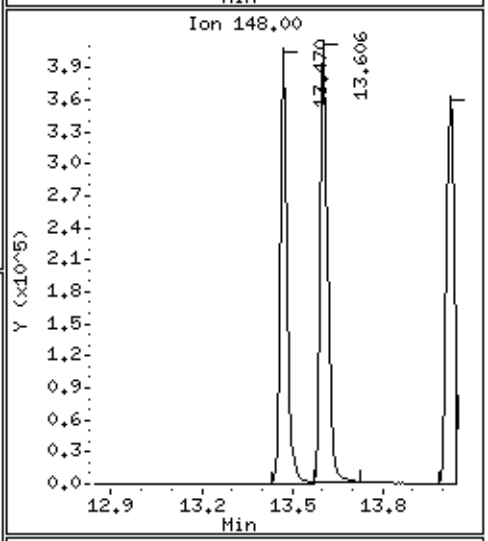


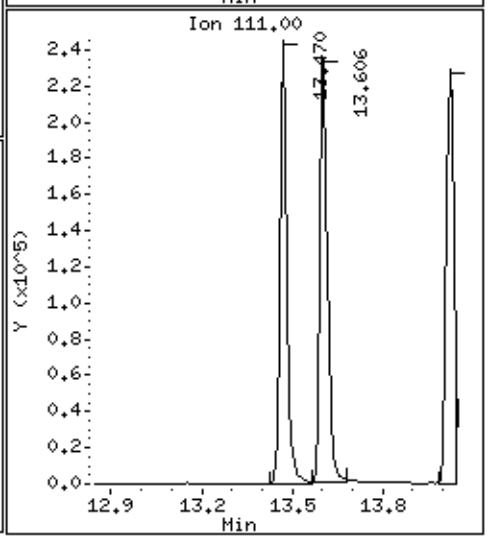












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

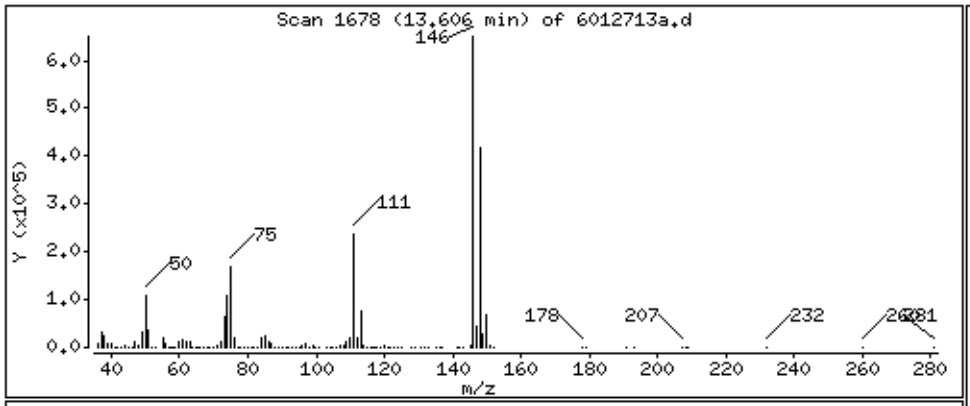
Operator: su

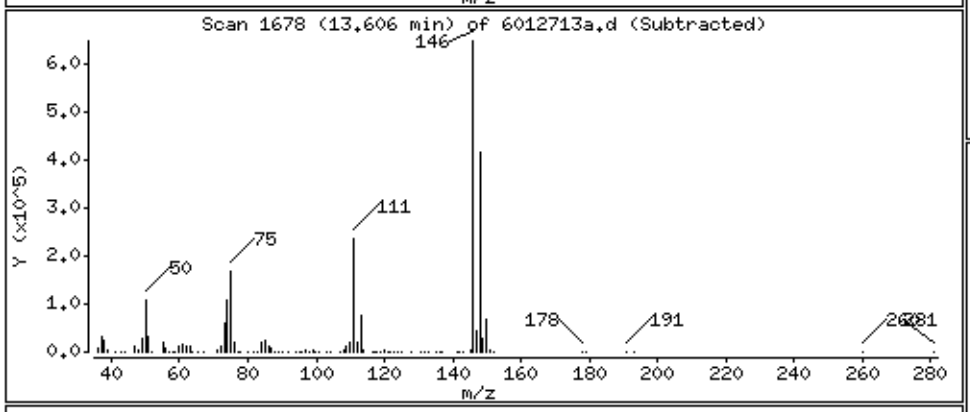
Column phase: RTx-624

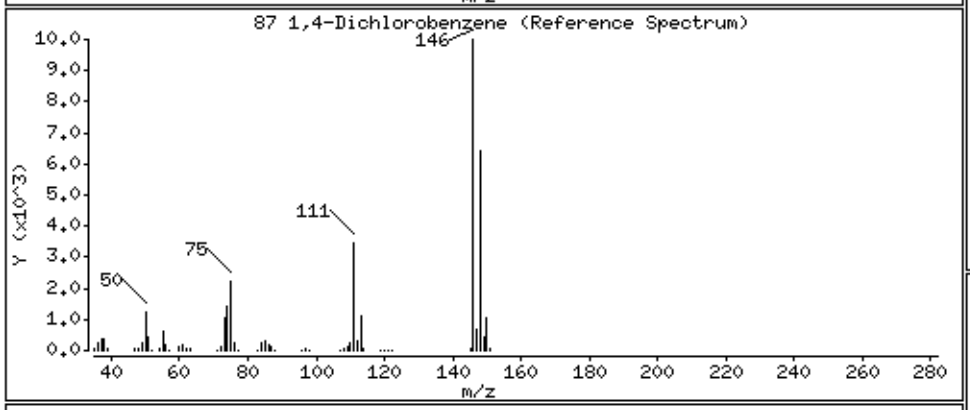
Column diameter: 0.53

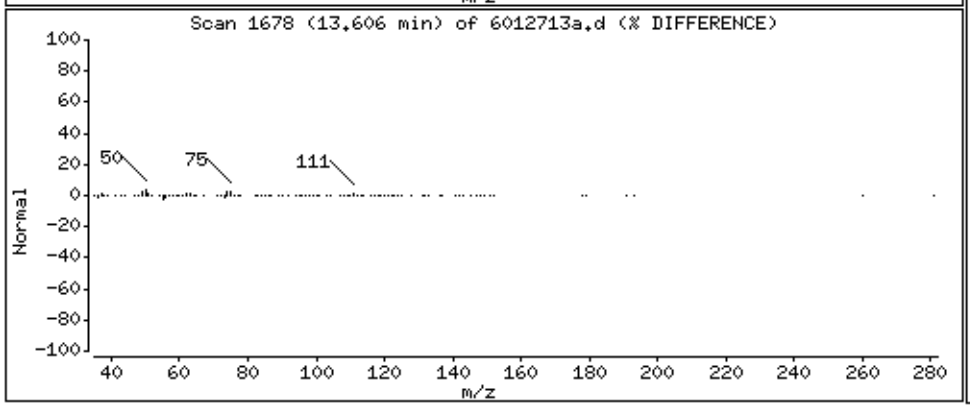
87 1,4-Dichlorobenzene

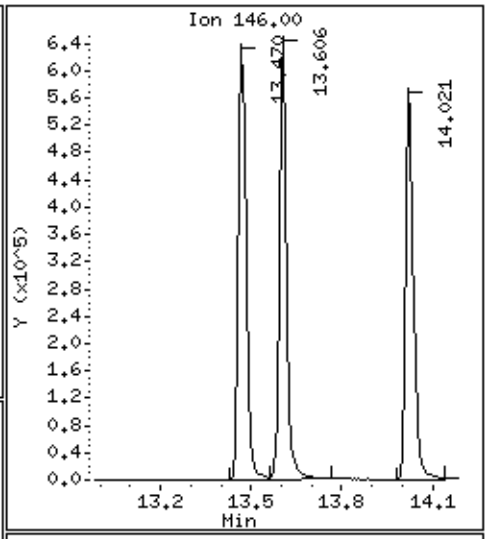
Concentration: 139.49 NG

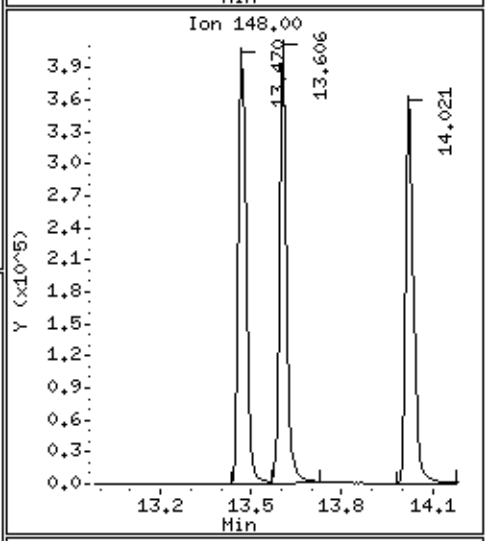


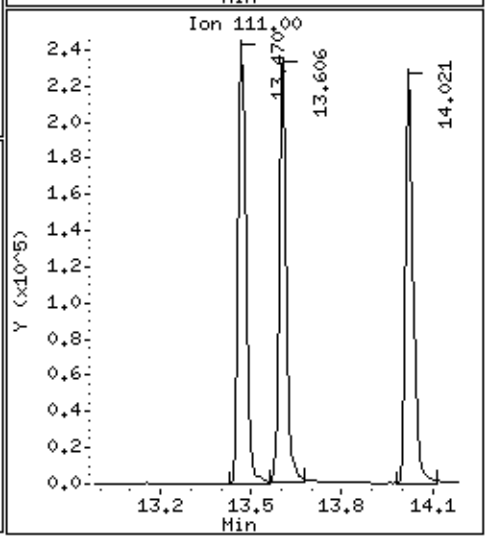












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

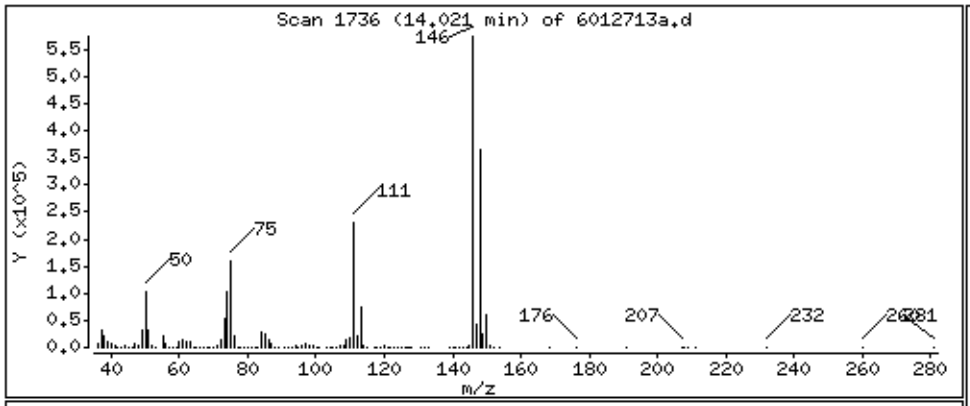
Operator: su

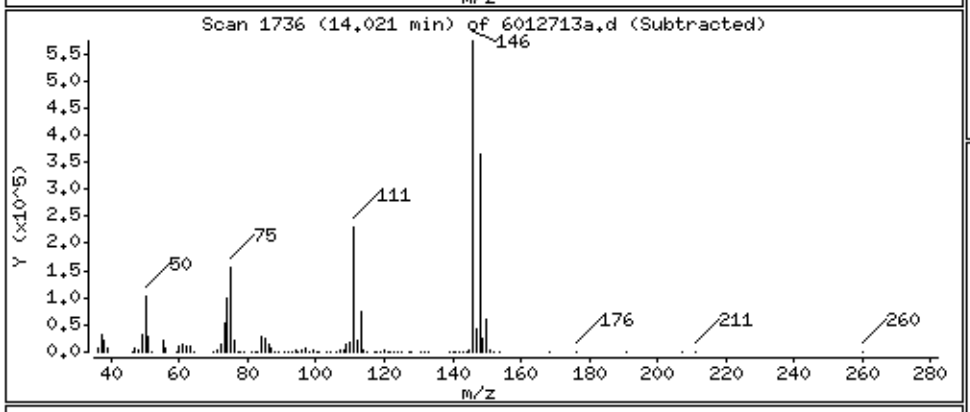
Column phase: RTx-624

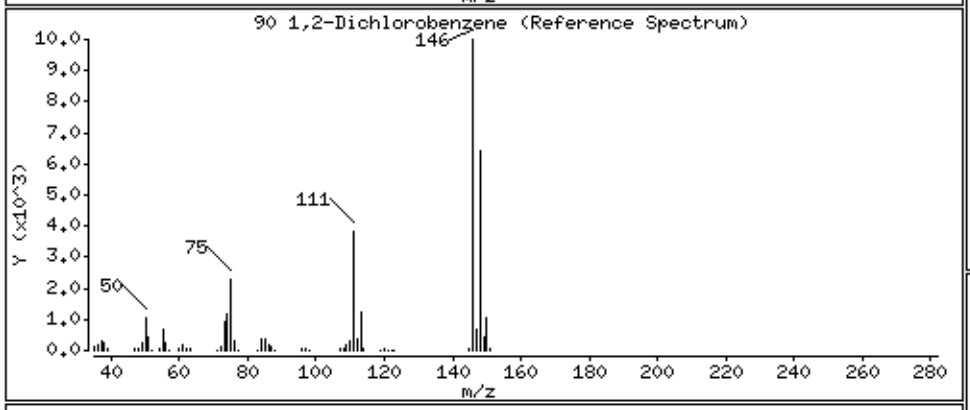
Column diameter: 0.53

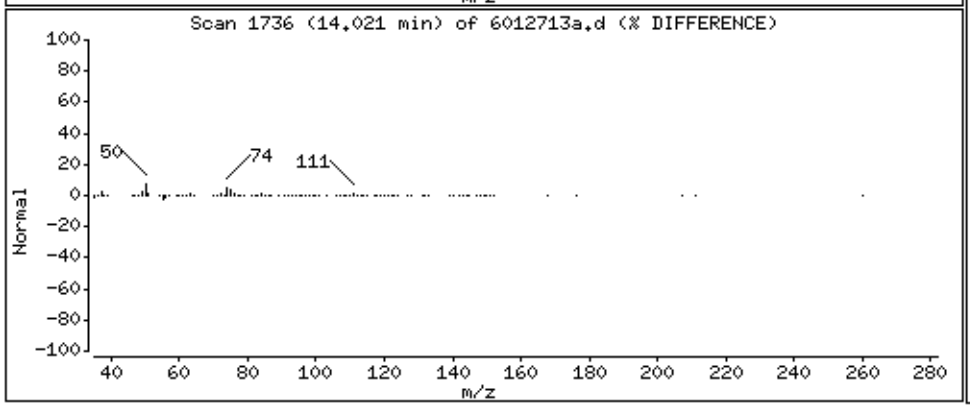
90 1,2-Dichlorobenzene

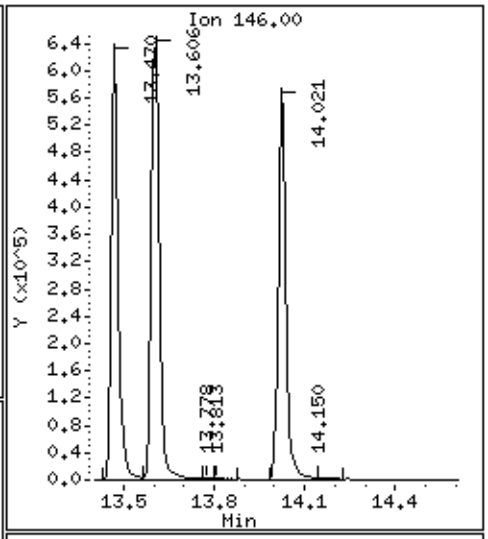
Concentration: 142.62 NG

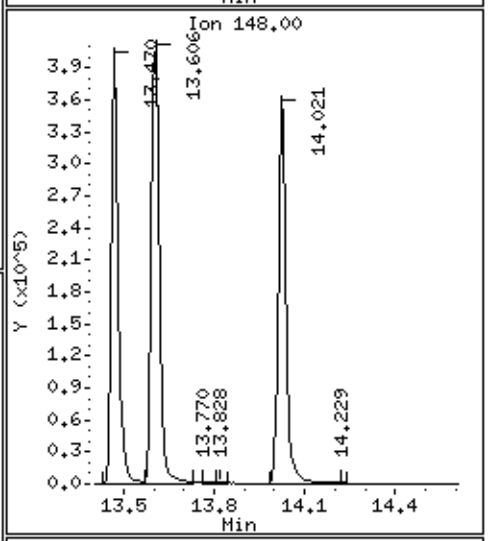


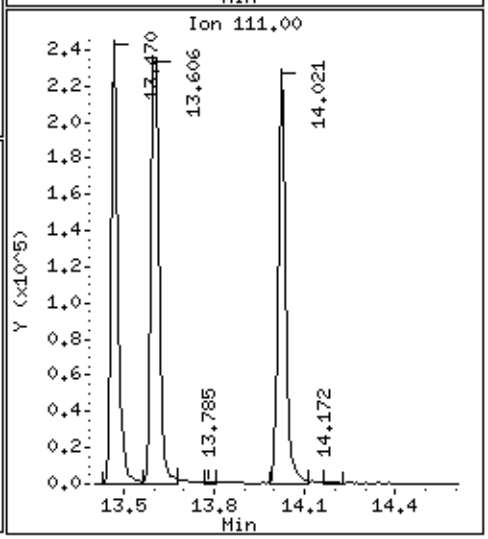












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

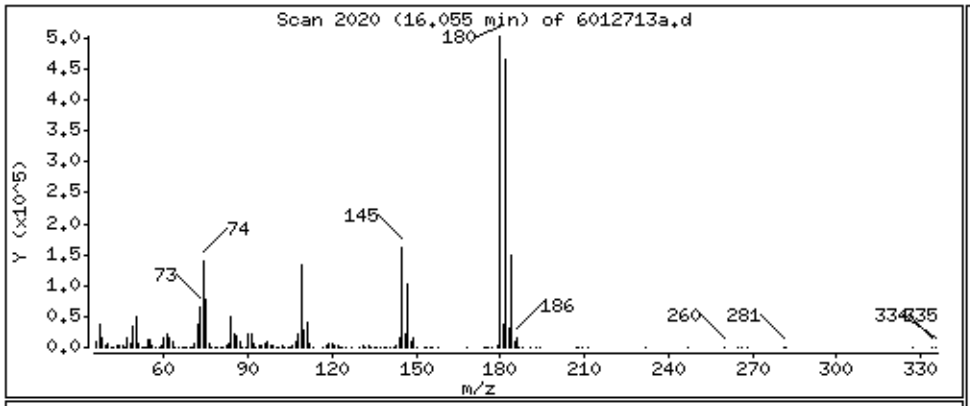
Operator: su

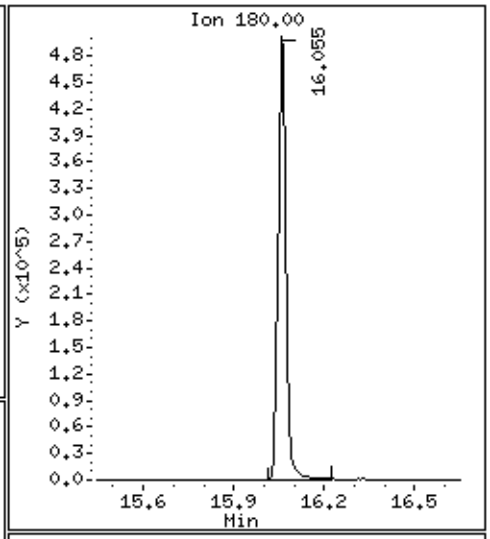
Column phase: RTx-624

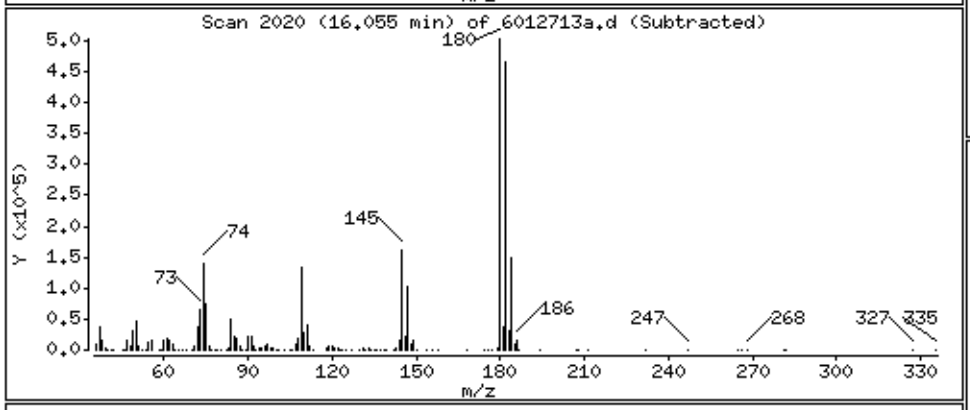
Column diameter: 0.53

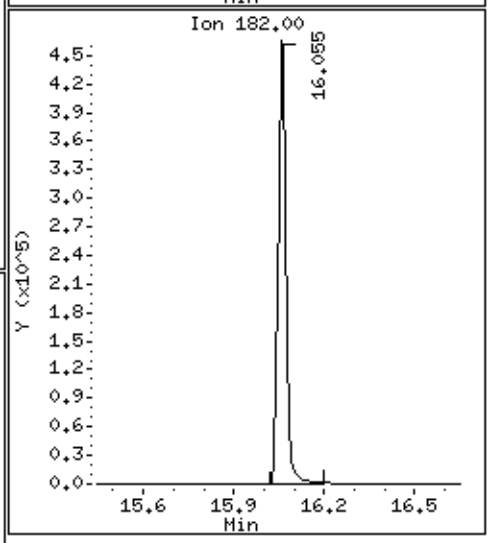
95 1,2,4-Trichlorobenzene

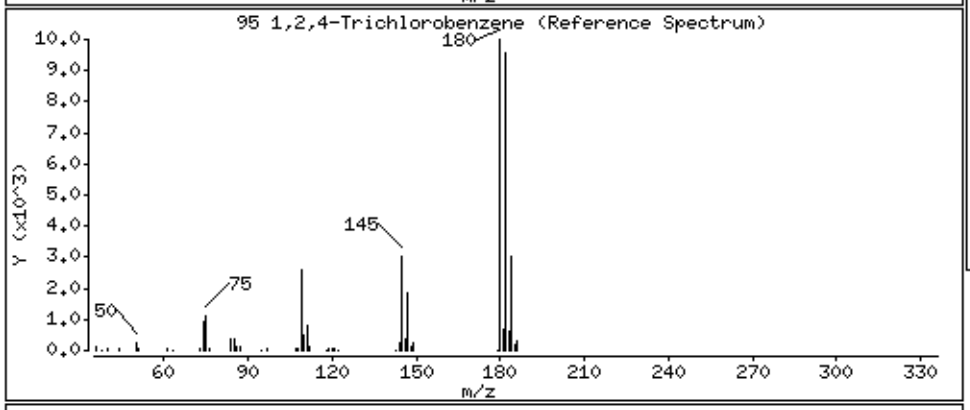
Concentration: 212.60 NG

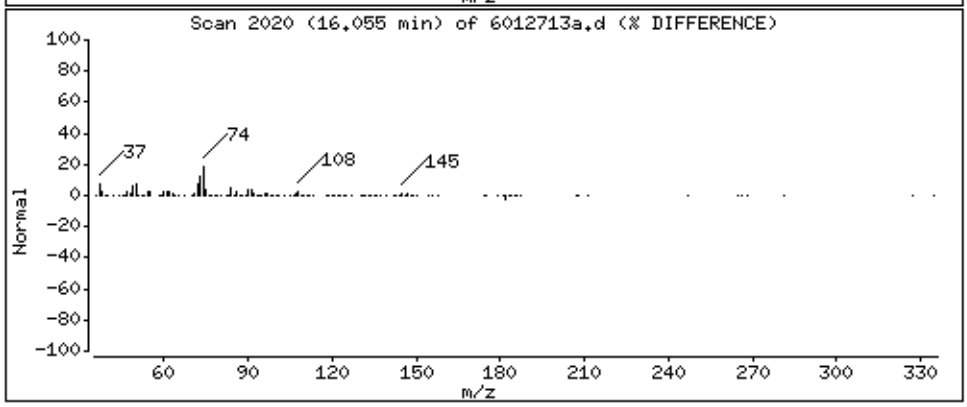












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

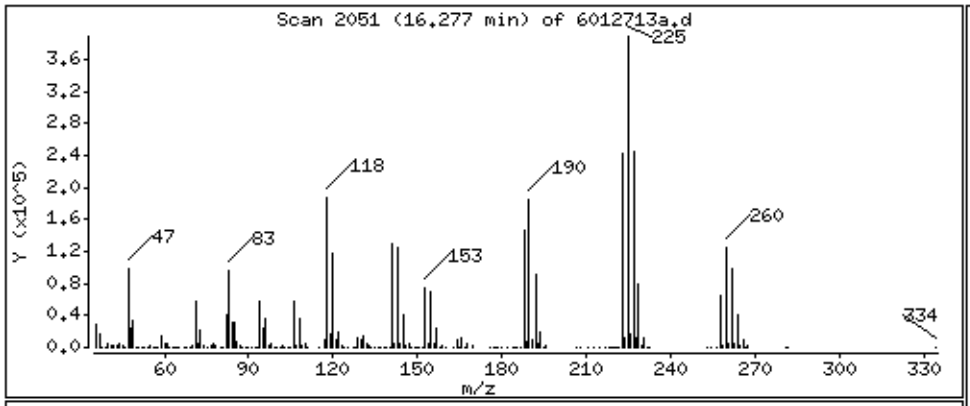
Operator: su

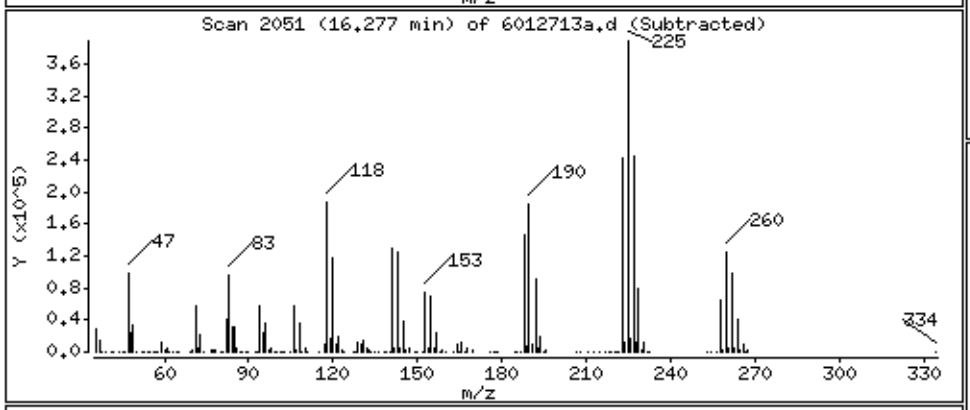
Column phase: RTx-624

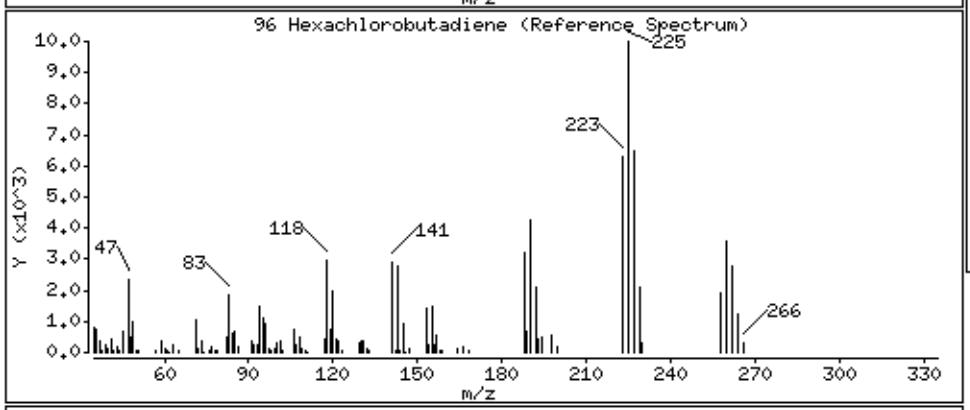
Column diameter: 0.53

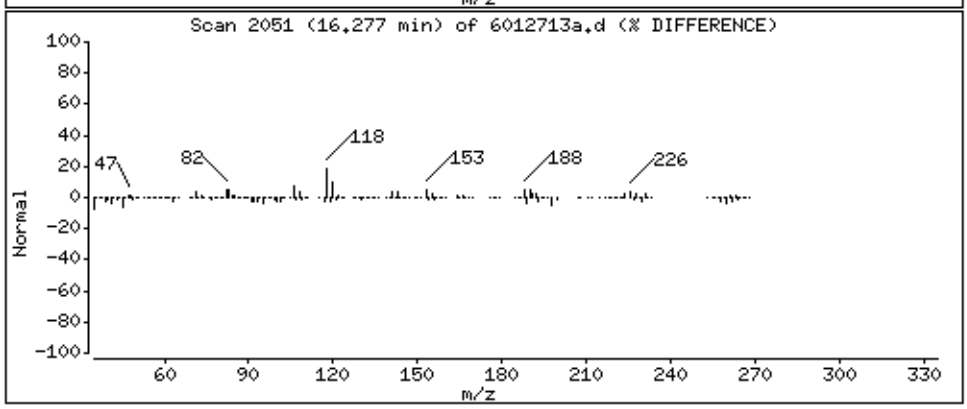
96 Hexachlorobutadiene

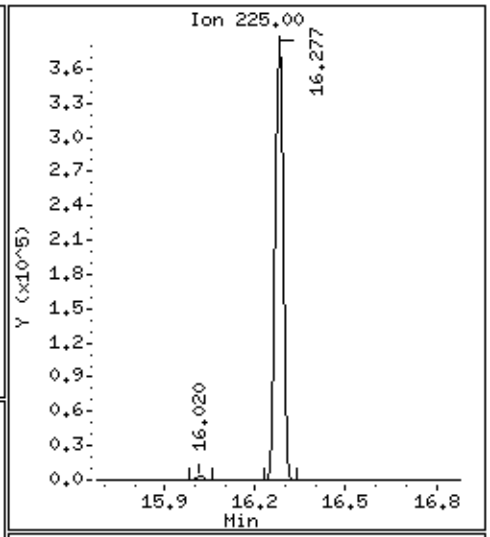
Concentration: 278.49 NG

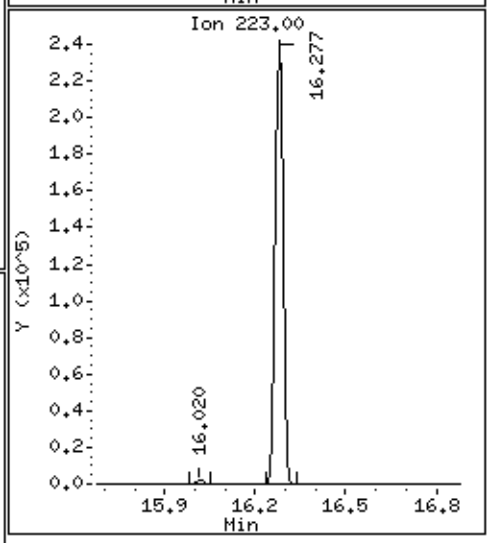












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

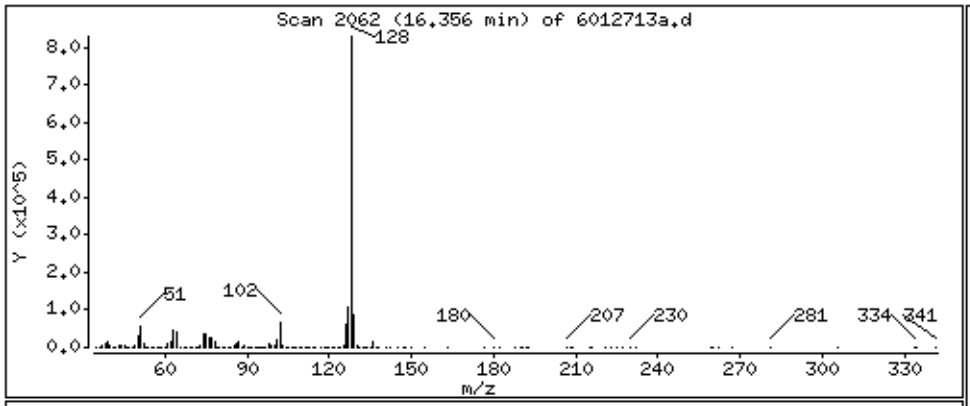
Operator: su

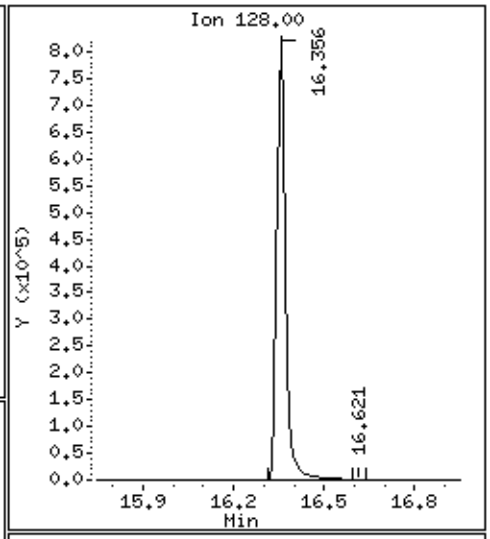
Column phase: RTx-624

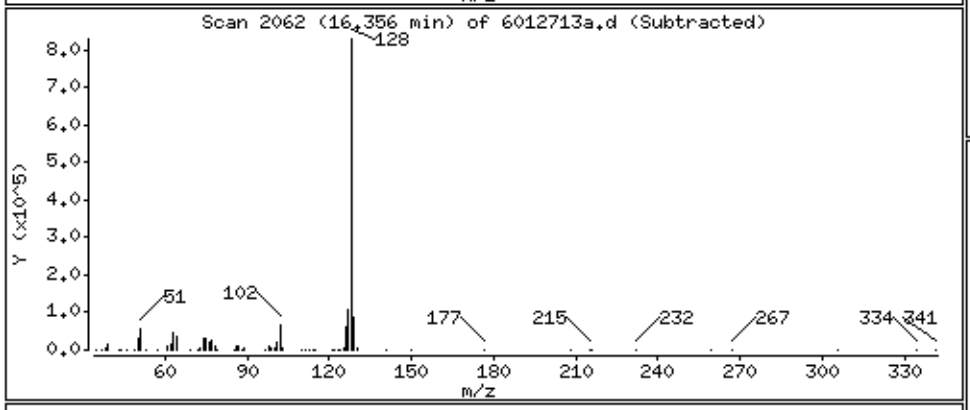
Column diameter: 0.53

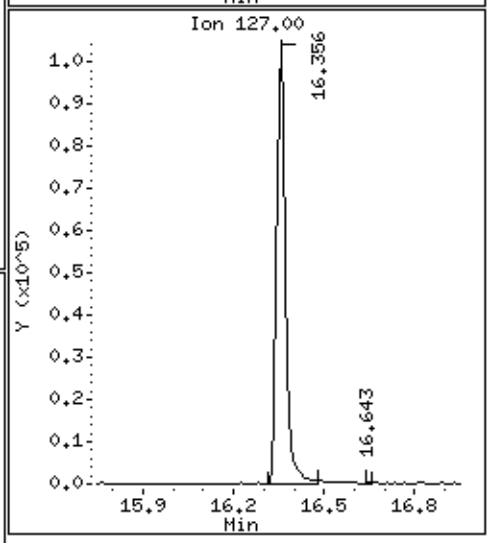
98 Naphthalene

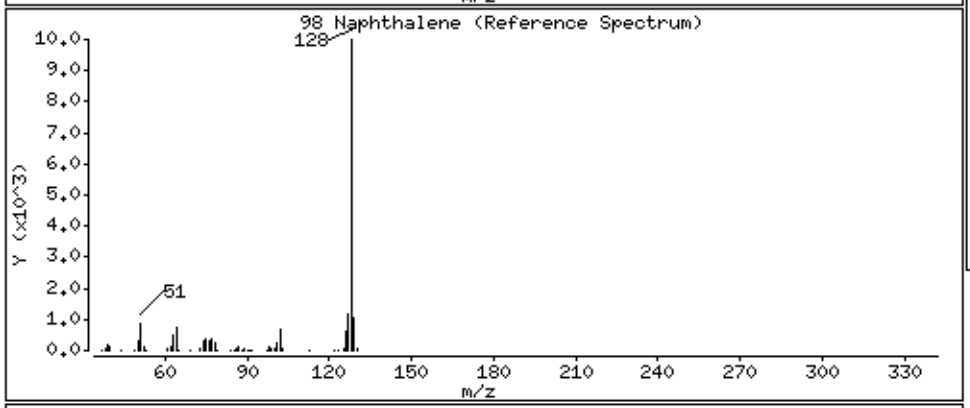
Concentration: 68.319 NG

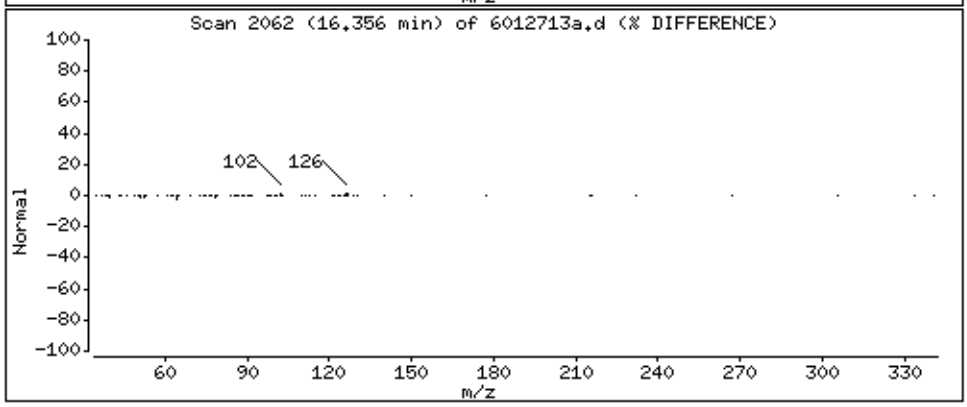












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

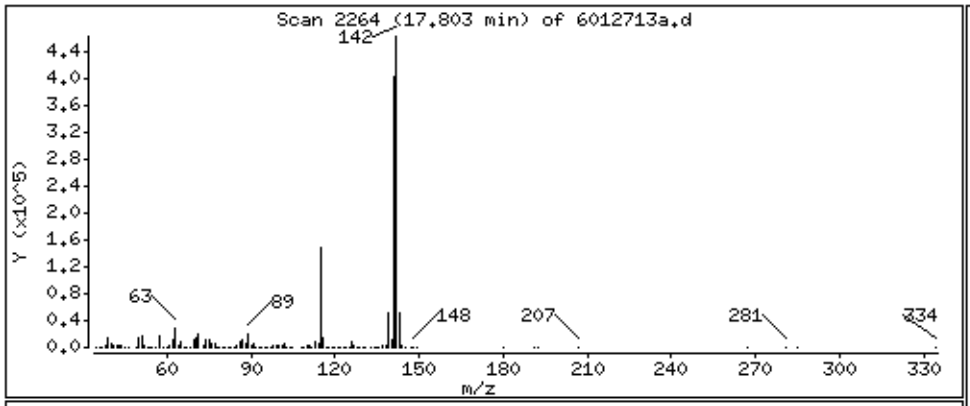
Operator: su

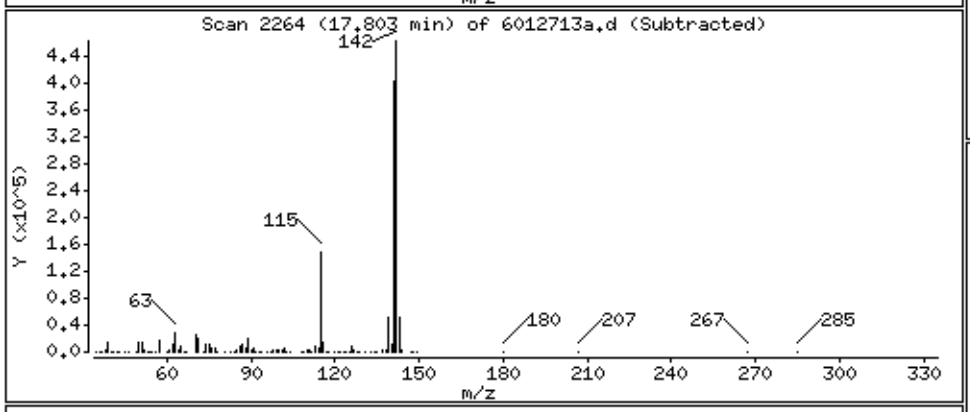
Column phase: RTx-624

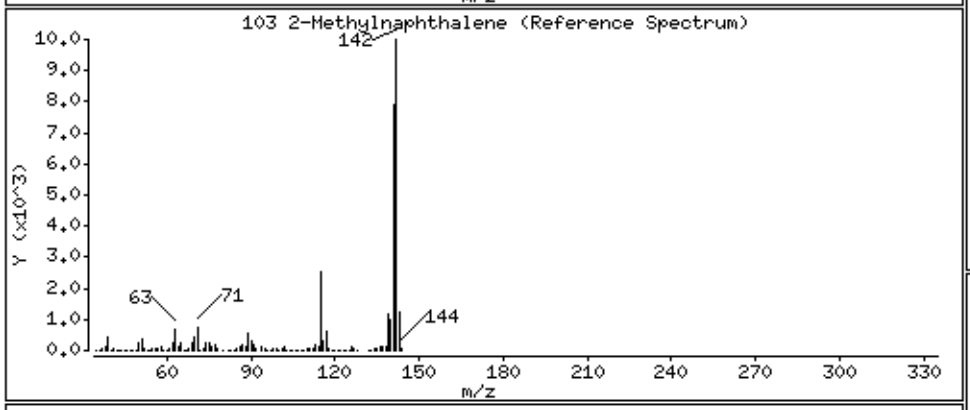
Column diameter: 0.53

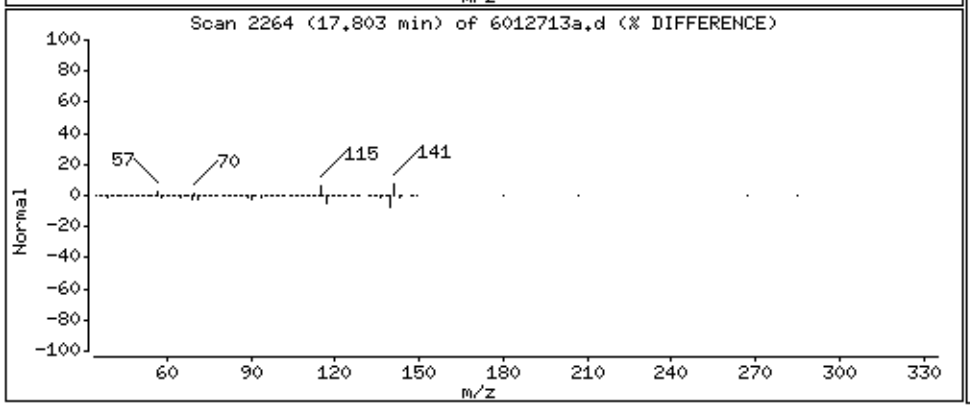
103 2-Methylnaphthalene

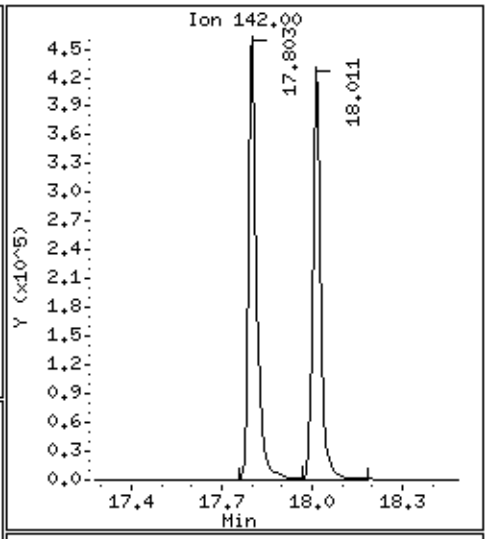
Concentration: 55.638 NG

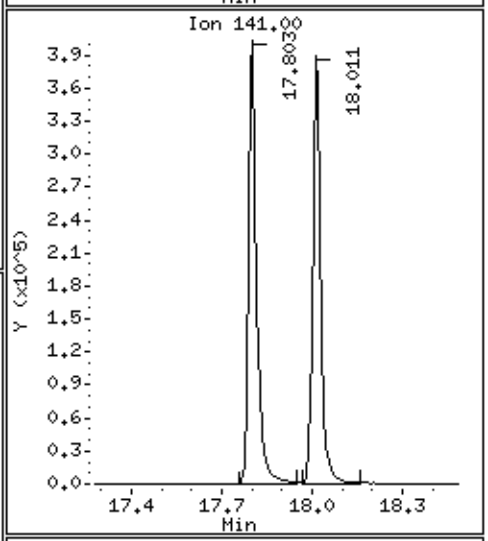


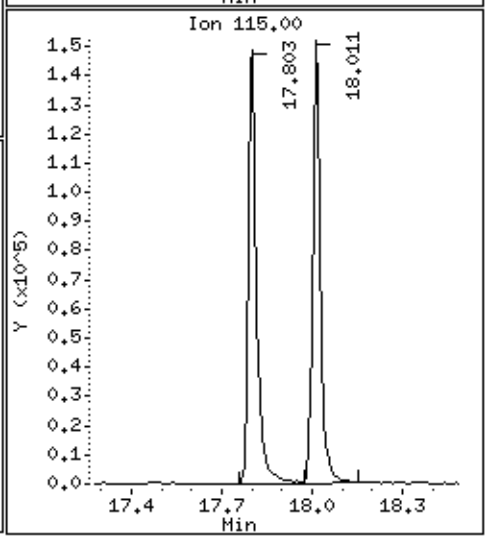












Data File: /chem/msd6.i/27jan17.b/6012713a.d

Date : 27-JAN-2017 20:03

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV; LCS

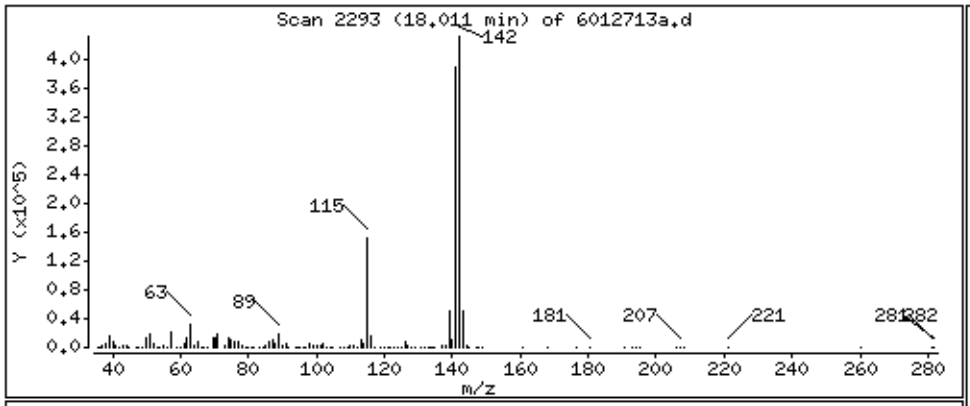
Operator: su

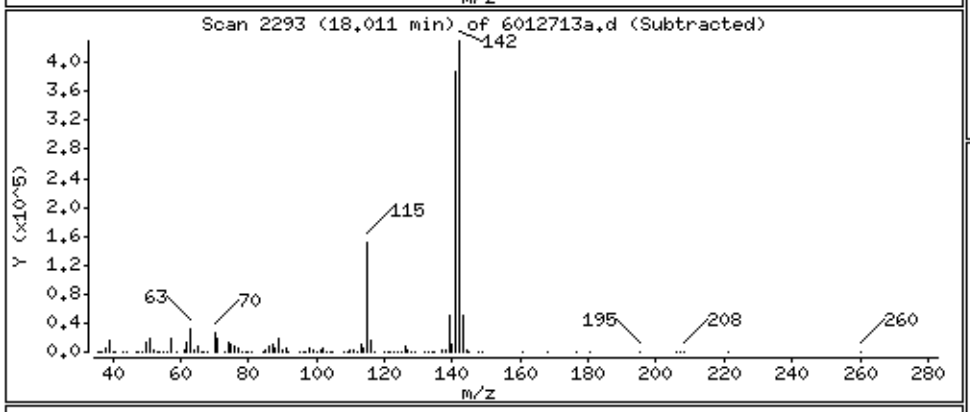
Column phase: RTx-624

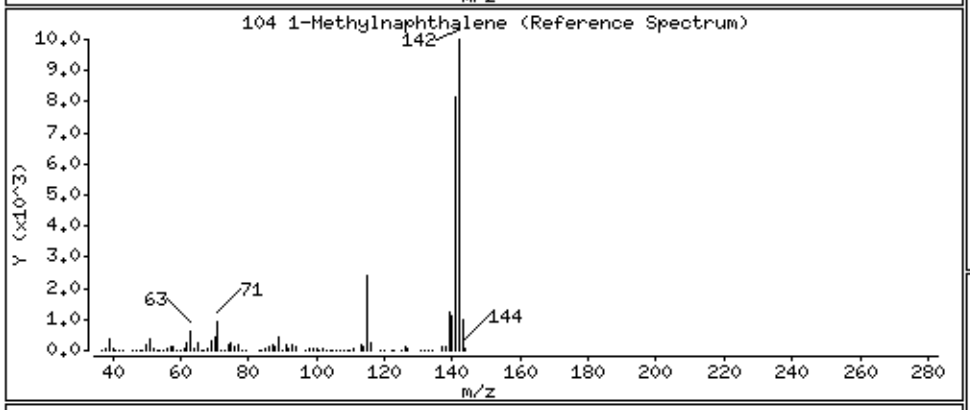
Column diameter: 0.53

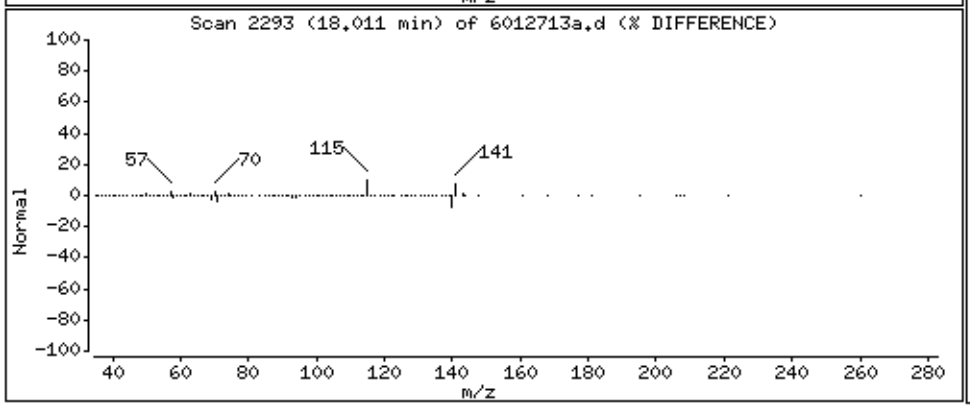
104 1-Methylnaphthalene

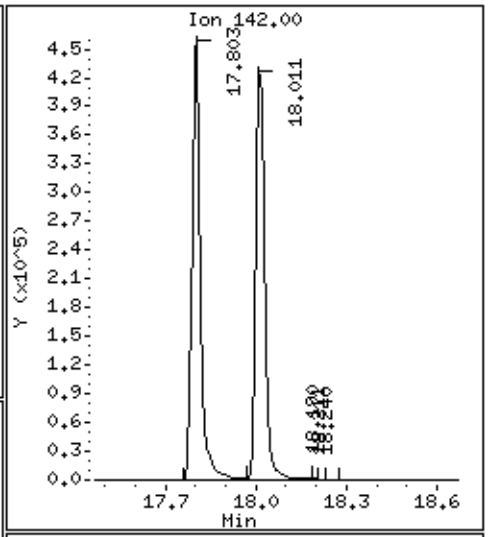
Concentration: 54.166 NG

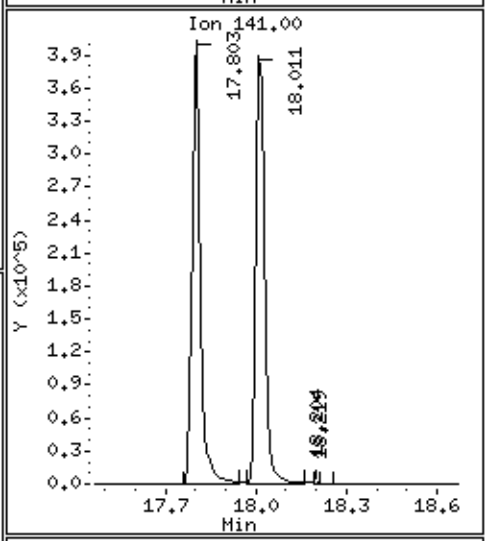


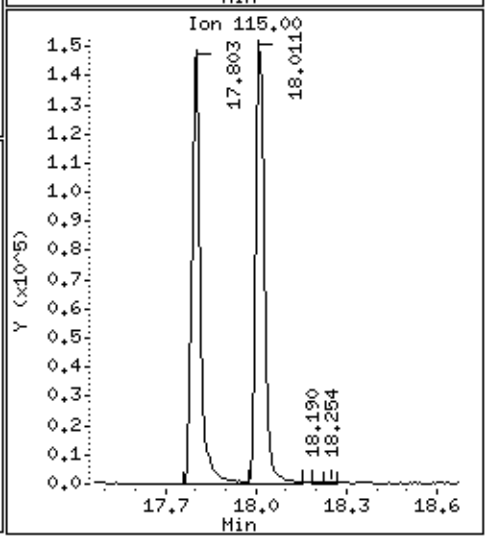












Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/27jan17.b/6012702.d
Lab Smp Id: VI VOC+PAH ICAL 1 Client Smp ID: 1/1/1
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)

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	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

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                                          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)
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                                        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
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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

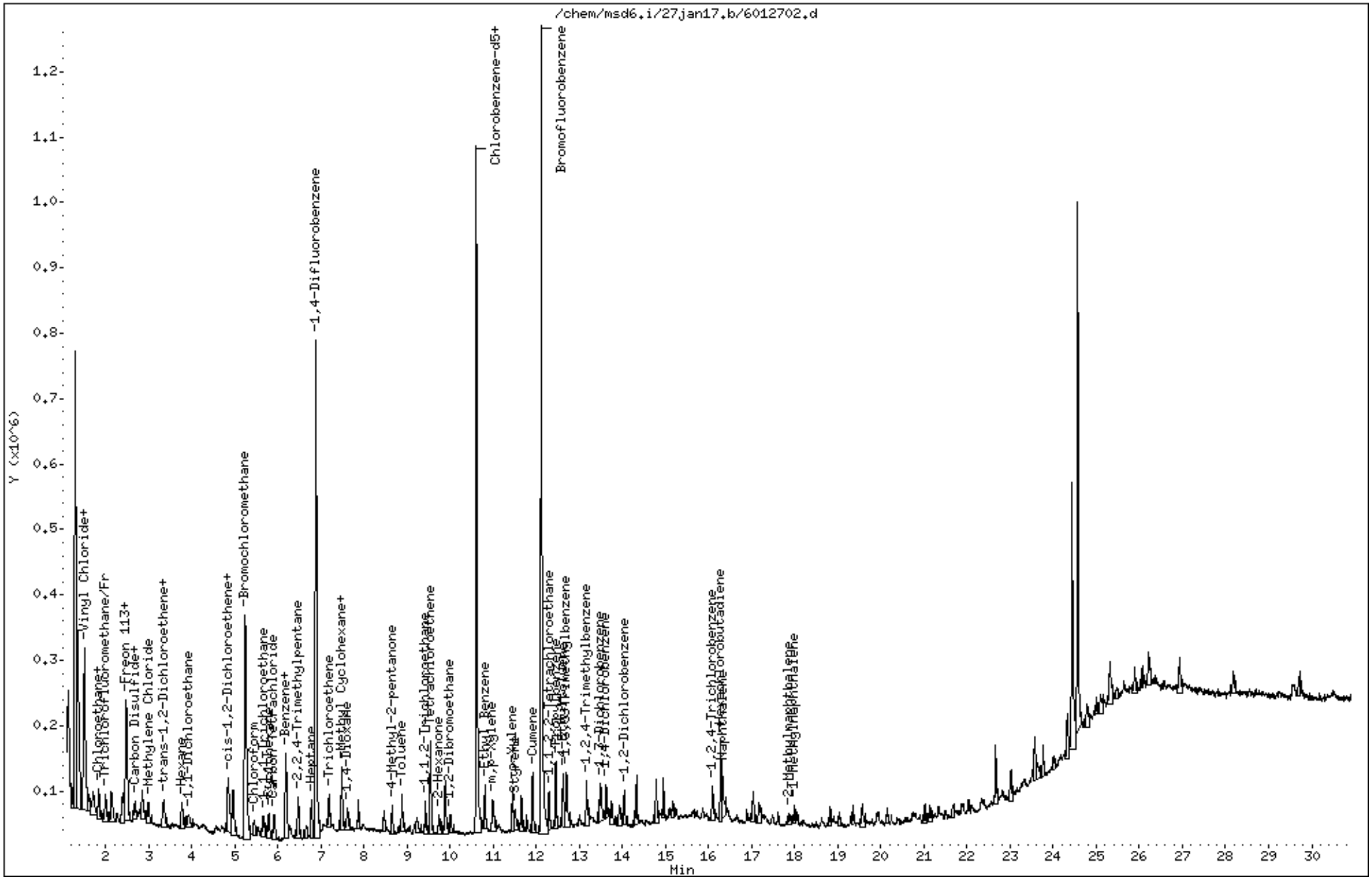
Sample Info: ;VI VOC+PAH ICAL 1; 1/1/1

Column phase: RTx-624

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

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
$ 39 1,2-Dichloroethane-d4 (continued)							
6.177	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

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		
11.435	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.

Report Date: 16-Feb-2017 13:59

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

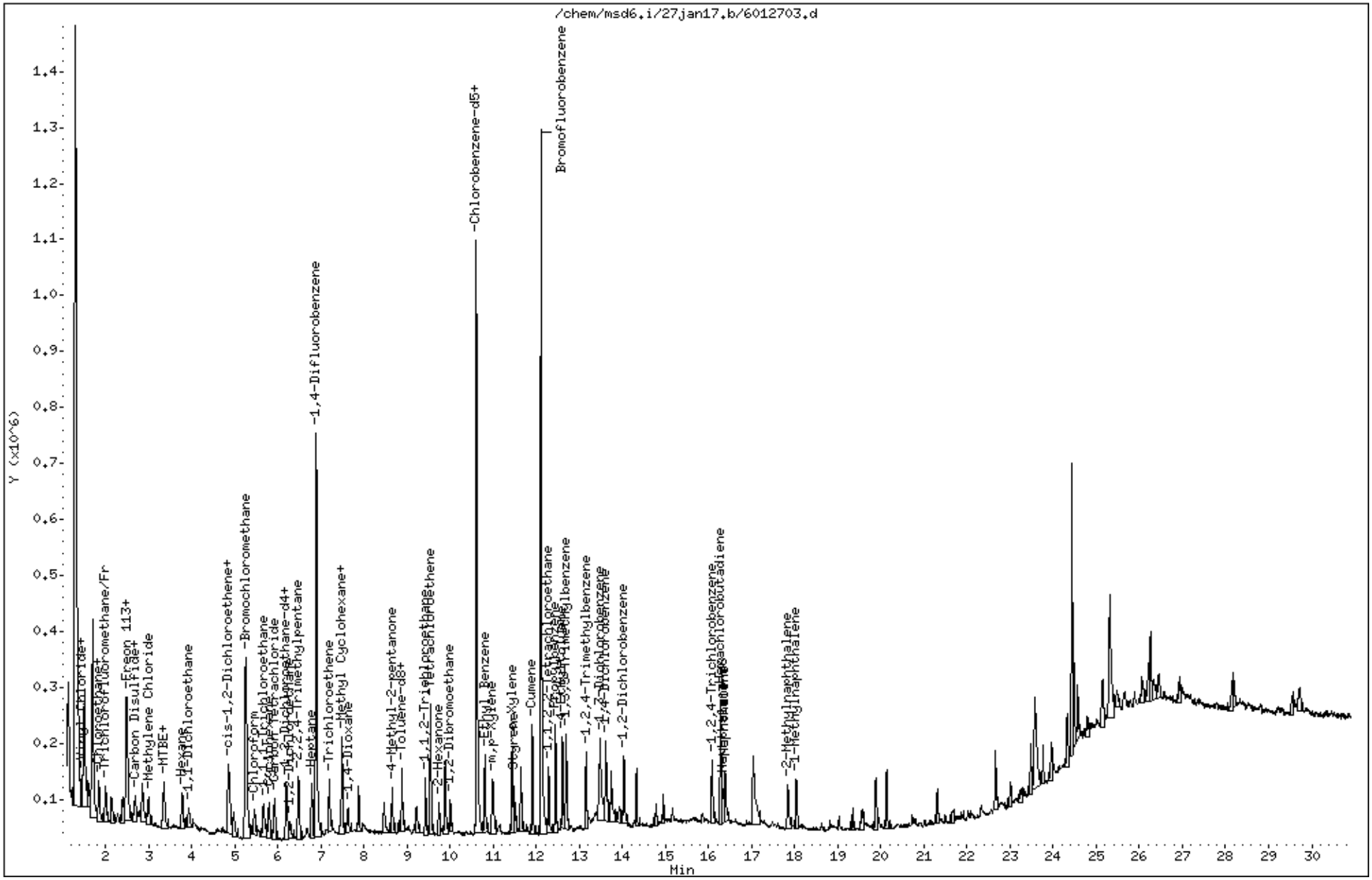
Sample Info: ;VI VOC+PAH ICAL 2; 2/2/5

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

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE (   ng)  (   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.

Report Date: 16-Feb-2017 13:59

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

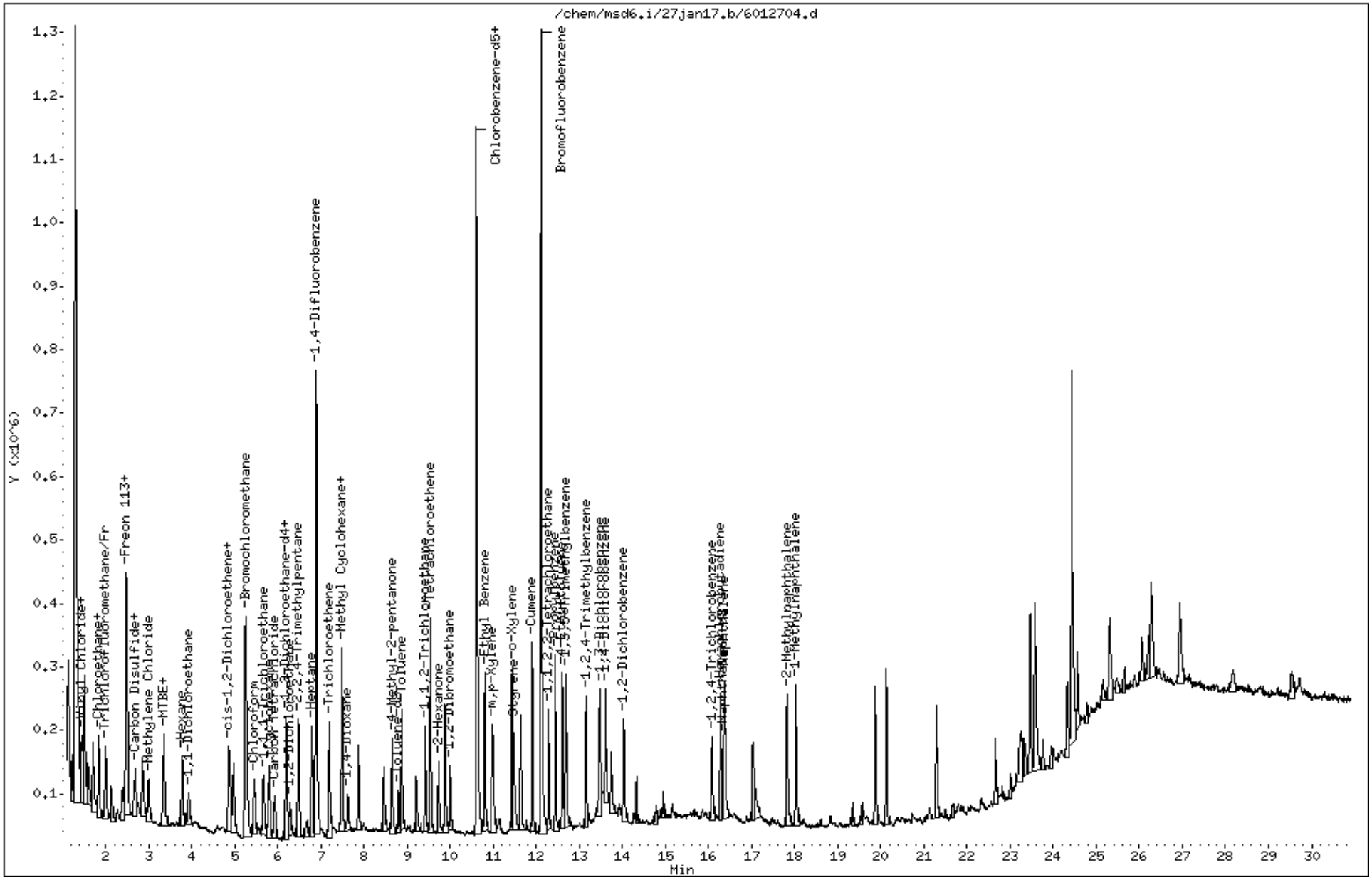
Sample Info: ;VI VOC+PAH ICAL 3; 3/5/10

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

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
$ 39 1,2-Dichloroethane-d4 (continued)							
6.163	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

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT 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

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/6012705.d

Date : 27-JAN-2017 14:04

Client ID: 6/10/25

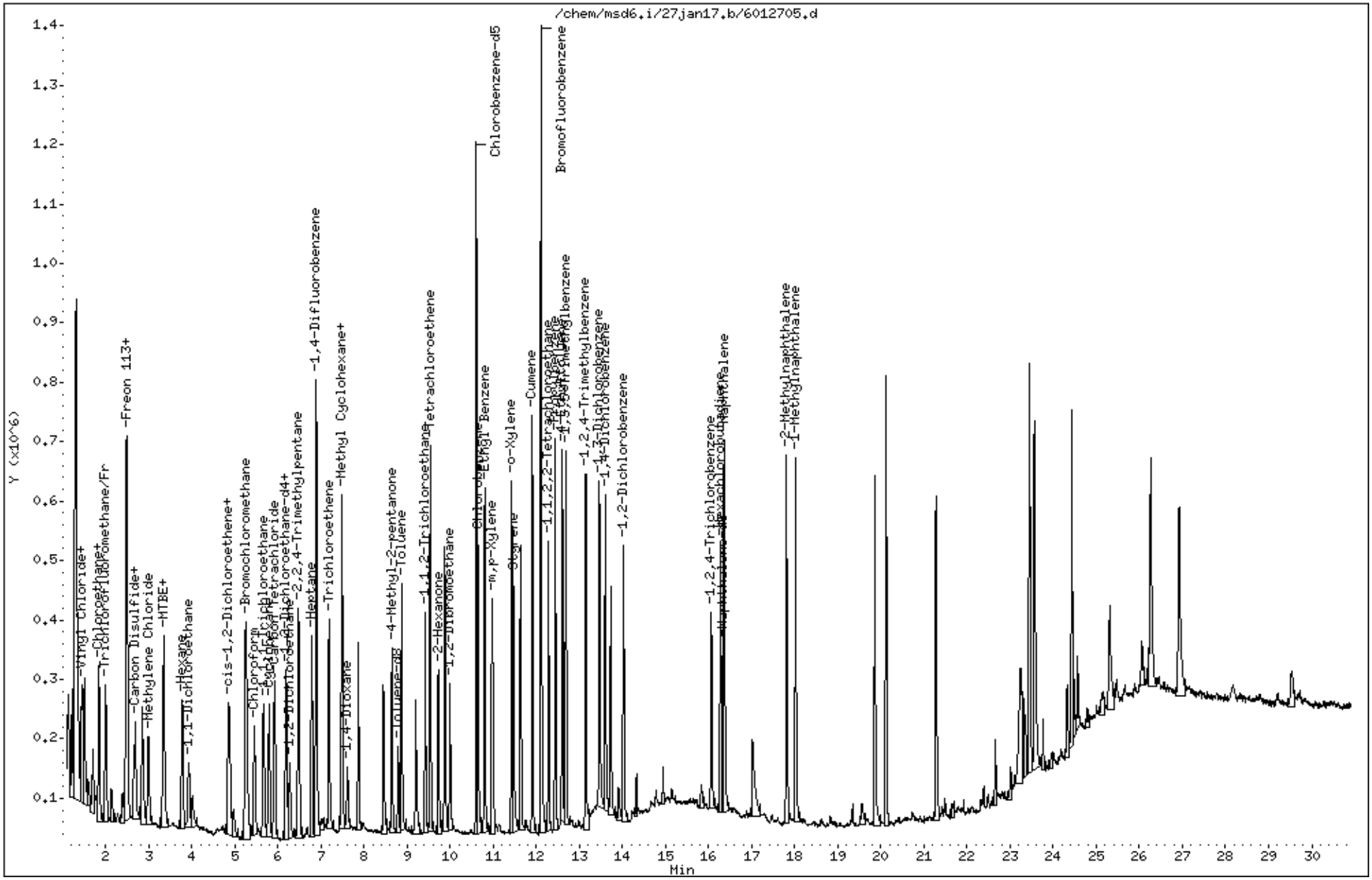
Sample Info: ;VI VOC+PAH ICAL 4; 6/10/25

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

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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
 11.450  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

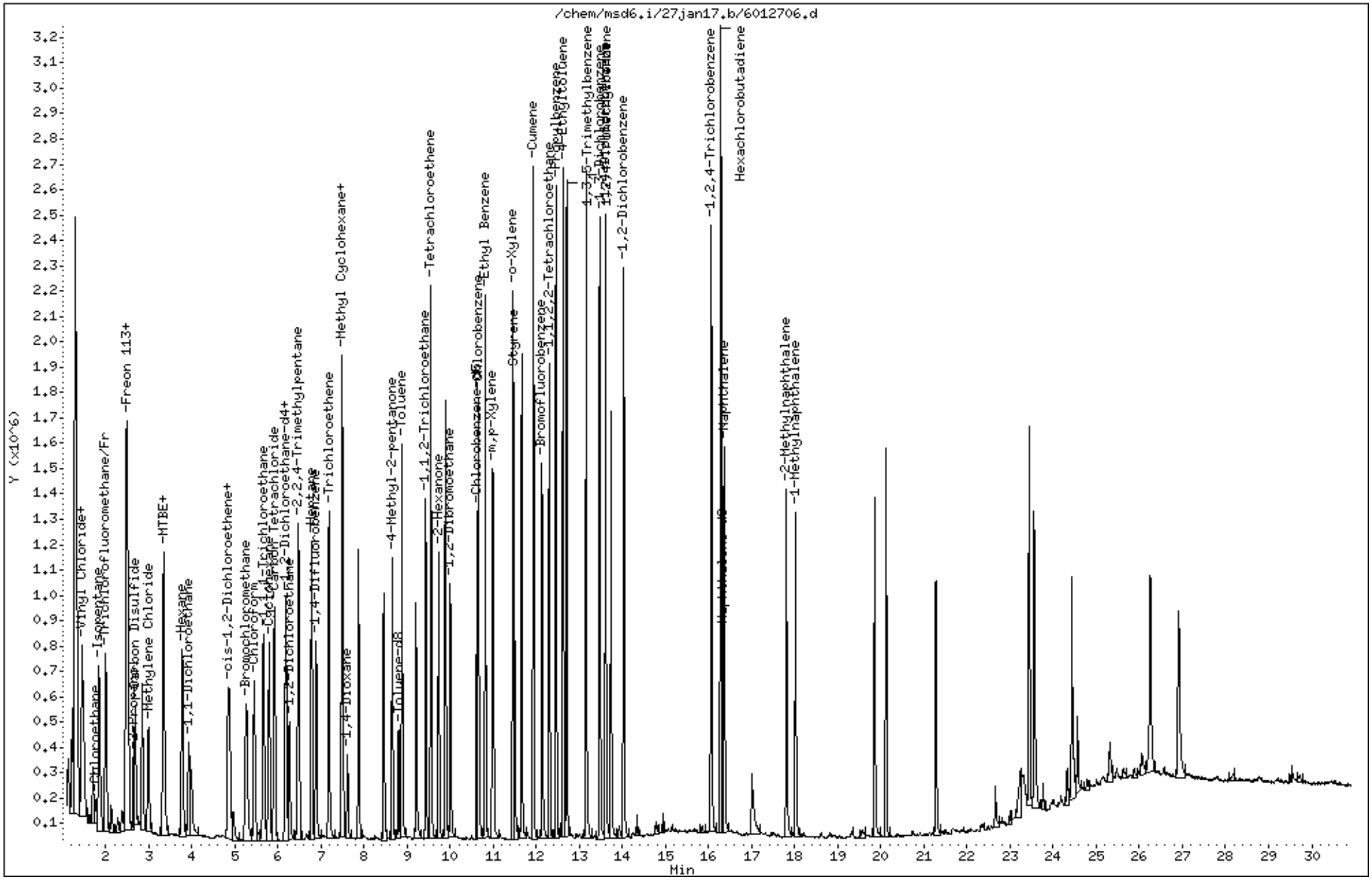
Sample Info: ;VI VOC+PAH ICAL 5; 20/25/50

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

```
                                        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
-------------------------------------------------------------------------------
```

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

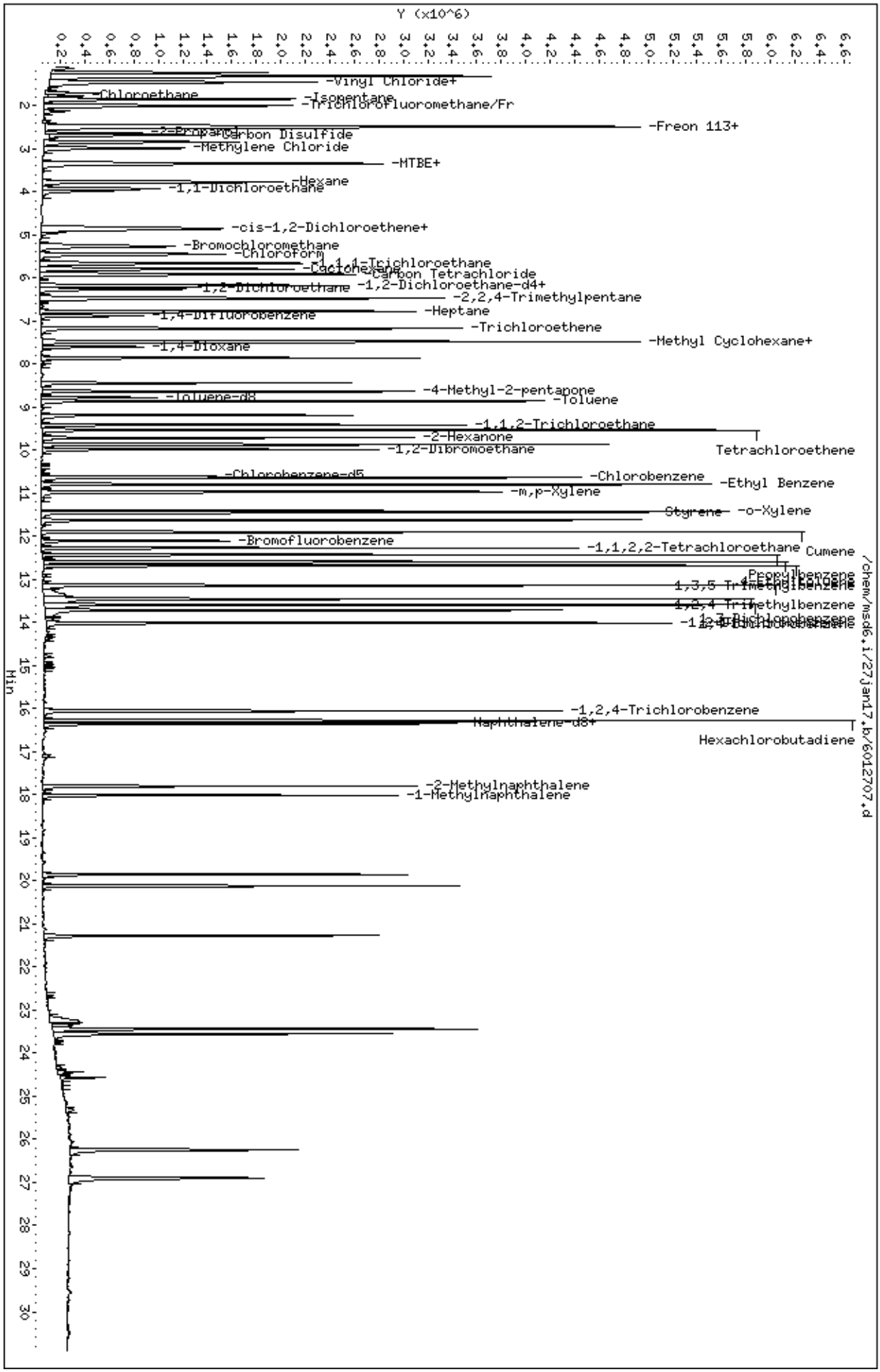
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
32 Bromochloromethan	206046	123628	288464	223219	8.33
47 1,4-Difluorobenze	822168	493301	1151035	860757	4.69
67 Chlorobenzene-d5	727418	436451	1018385	756921	4.06
79 Bromofluorobenzen	482287	289372	675202	501922	4.07

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

```
                                          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.

Report Date: 16-Feb-2017 13:59

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

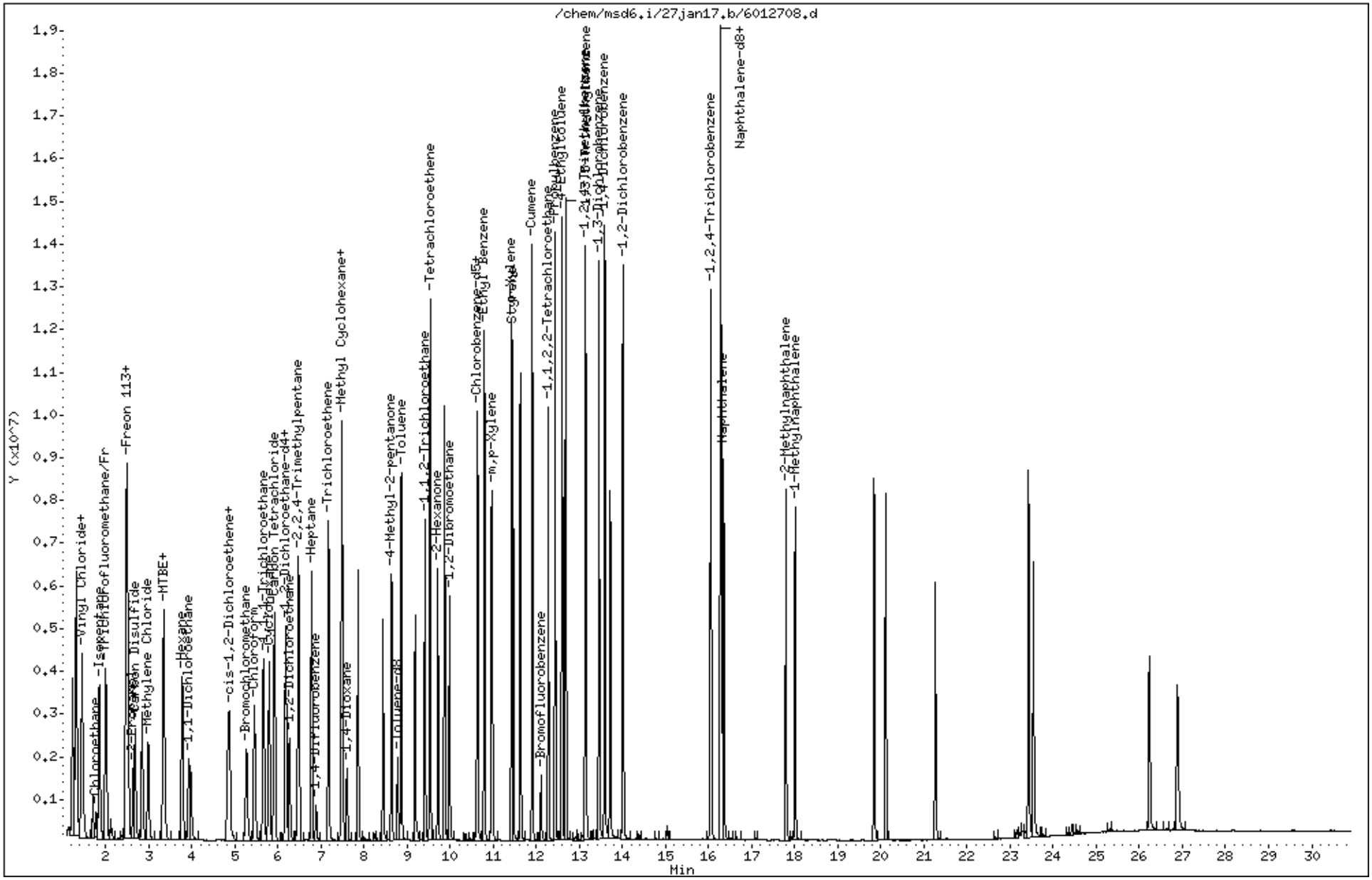
Sample Info: ;VI VOC+PAH ICAL 7; 100/100/250

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)

```
                                        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   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
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (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

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                                        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.

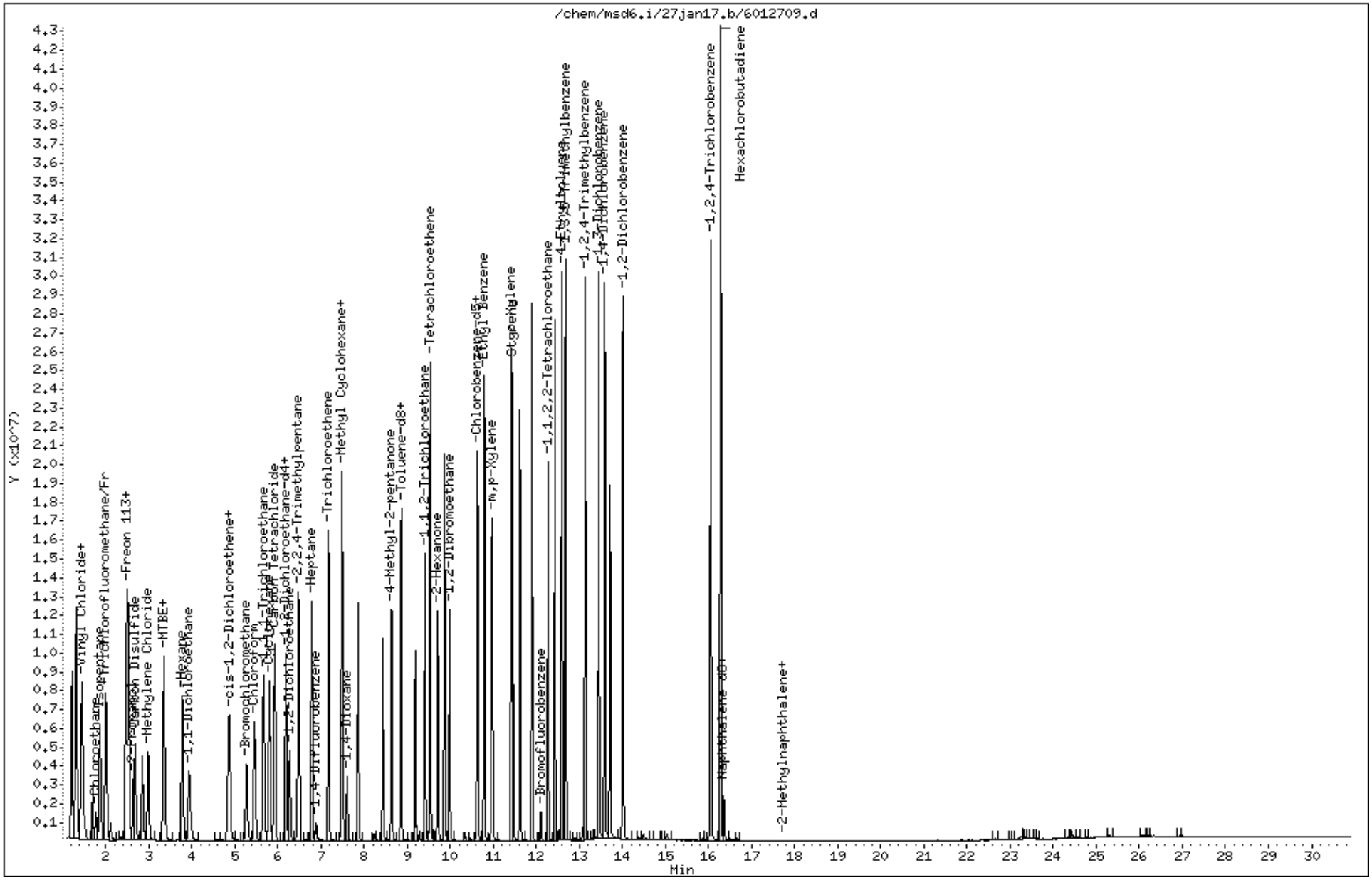
Data File: /chem/msd6.i/27jan17.b/6012709.d
Date : 27-JAN-2017 17:25
Client ID: 200/NA/NA
Sample Info: ;VI VOC+PAH ICAL 8; 200/NA/NA

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: 2516-231-100ppbv
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#: 1701454R1-16A
EPA METHOD TO-17

File Name:	**6013102R1**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 1/31/17 07:26 AM**

Compound	**%Recovery**
Naphthalene	110

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

Surrogates	**%Recovery**	**Method Limits**
Naphthalene-d8	99	50-150

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd6.i Injection Date: 31-JAN-2017 07:26
Lab File ID: 6013102R1.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/31jan17.b/617z0127via.m

COMPOUND	RRF / AMOUNT	RF25	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 97 Naphthalene-d8	1.63743	1.62280	0.010	0.89369	30.00000	Averaged
98 Naphthalene	1.78438	1.96901	0.010	-10.34677	30.00000	Averaged

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31jan17.b/6013102R1.d
Lab Smp Id: VI VOC+PAH CCV Client Smp ID: CCV
Inj Date : 31-JAN-2017 07:26
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/31jan17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:44 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	
12.101	12.101 (1.000)	174	424509	36.0000		80.00- 120.00	100.00
12.101	12.101 (1.000)	95	477530			81.24- 141.24	112.49
12.101	12.101 (1.000)	176	413310			64.86- 124.86	97.36
$ 97 Naphthalene-d8						CAS #: 1146-65-2	
16.313	16.313 (1.348)	136	478397	25.0000	24.776	80.00- 120.00	100.00
16.313	16.313 (1.348)	108	44954			0.00- 39.63	9.40
98 Naphthalene						CAS #: 91-20-3	
16.349	16.349 (1.351)	128	1404015	60.4700	66.727	80.00- 120.00	100.00
16.349	16.349 (1.351)	127	179667			0.00- 42.83	12.80

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6013102R1.d
Lab Smp Id: VI VOC+PAH CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: 2787-57, 20mL (4/12/17);2744-147-50, 1.0uL

Calibration Date: 31-JAN-2017
Calibration Time: 07:26
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	424509	254705	594313	424509	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.10	11.77	12.43	12.10	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/31jan17.b/6013102R1.d

Date : 31-JAN-2017 07:26

Client ID: CCV

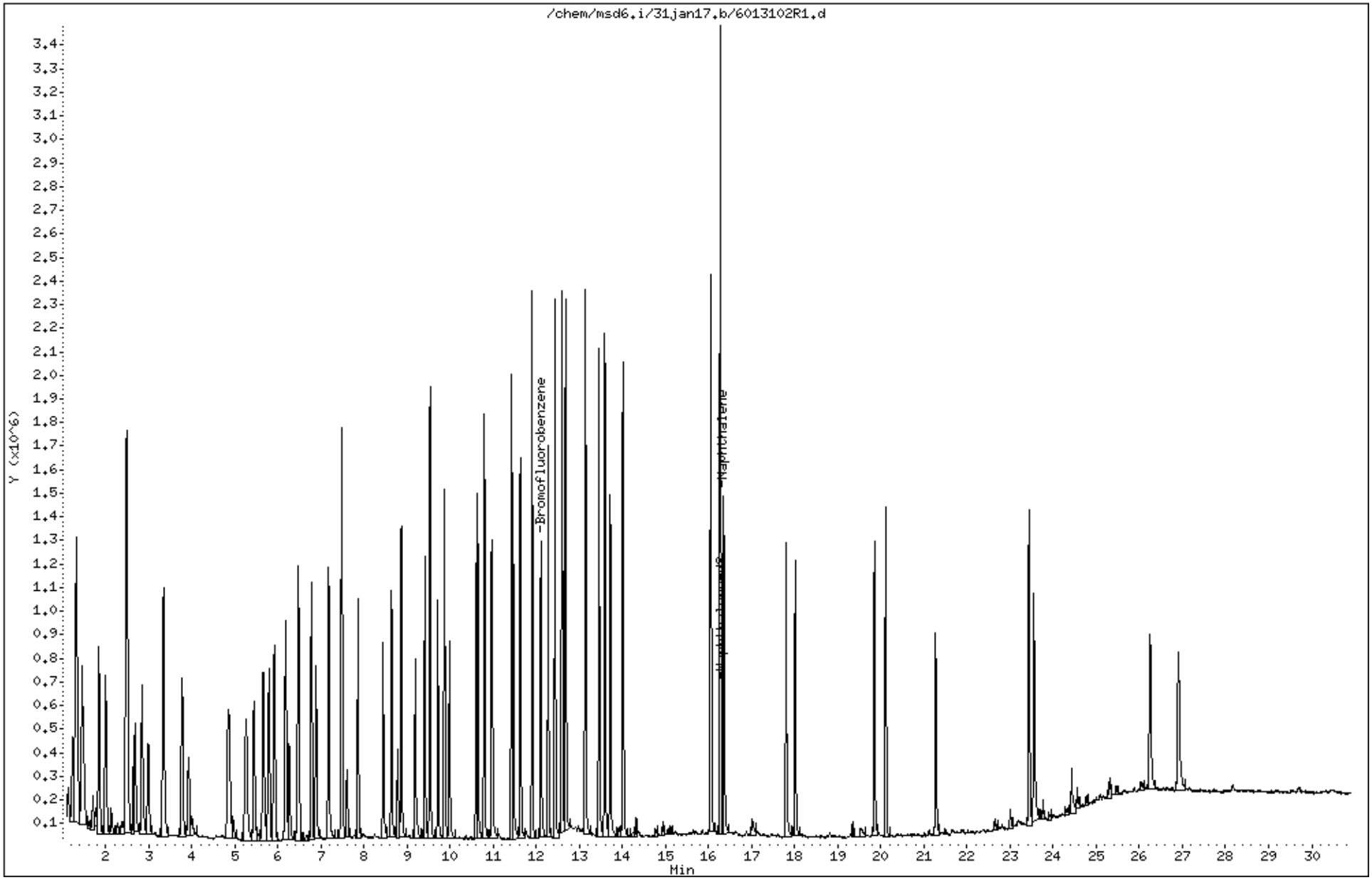
Instrument: msd6.i

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#: 1701454R1-17A
EPA METHOD TO-17

File Name:	**6013103R1**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 1/31/17 08:05 AM**

Compound	**%Recovery**	**Method Limits**
Naphthalene	121	70-130

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

Surrogates	**%Recovery**	**Method Limits**
Naphthalene-d8	103	50-150

Report Date: 03-Mar-2017 15:46

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 31jan17
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/31jan17.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	72.980	120.63	70-130

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	25.838	103.35	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31jan17.b/6013103R1.d
Lab Smp Id: VI VOC+PAH LCS Client Smp ID: LCS
Inj Date : 31-JAN-2017 08:05
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/31jan17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:44 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	12.101 (1.000)	174	455068	36.0000		80.00- 120.00	100.00
12.123	12.101 (1.000)	95	510895			81.24- 141.24	112.27
12.130	12.101 (1.000)	176	442029			64.86- 124.86	97.13
$ 97 Naphthalene-d8					CAS #: 1146-65-2		
16.313	16.313 (1.345)	136	534812	25.8383	25.838	80.00- 120.00	100.00
16.313	16.313 (1.345)	108	47707			0.00- 39.63	8.92
98 Naphthalene					CAS #: 91-20-3		
16.356	16.349 (1.348)	128	1646136	72.9800	72.980	80.00- 120.00	100.00
16.356	16.349 (1.348)	127	207528			0.00- 42.83	12.61

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6013103R1.d
Lab Smp Id: VI VOC+PAH LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: 2787-58, 20mL (4/12/17);2744-158-50, 1.0uL

Calibration Date: 31-JAN-2017
Calibration Time: 07:26
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	424509	254705	594313	455068	7.20

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
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.

Data File: /chem/msd6.i/31jan17.b/6013103R1.d

Date : 31-JAN-2017 08:05

Client ID: LCS

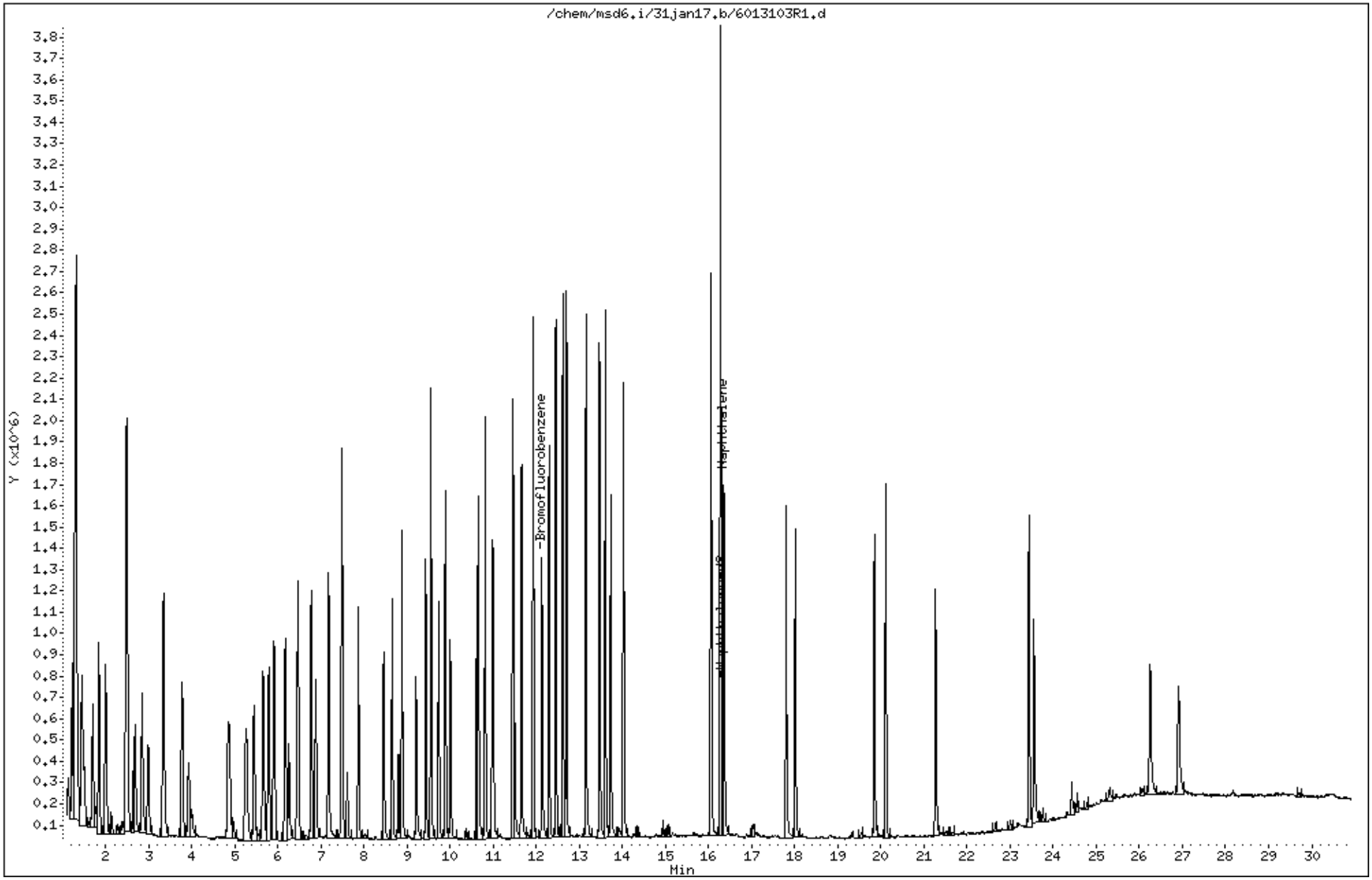
Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

Operator: su

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/31jan17.b/6013103R1.d

Date : 31-JAN-2017 08:05

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

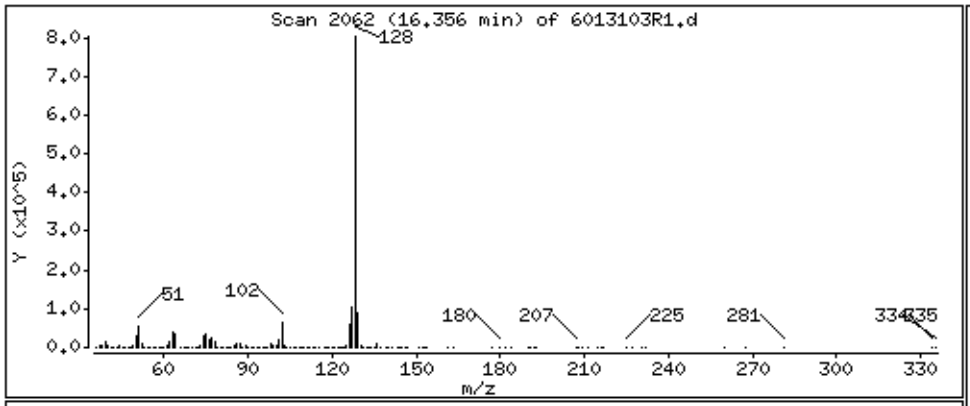
Operator: su

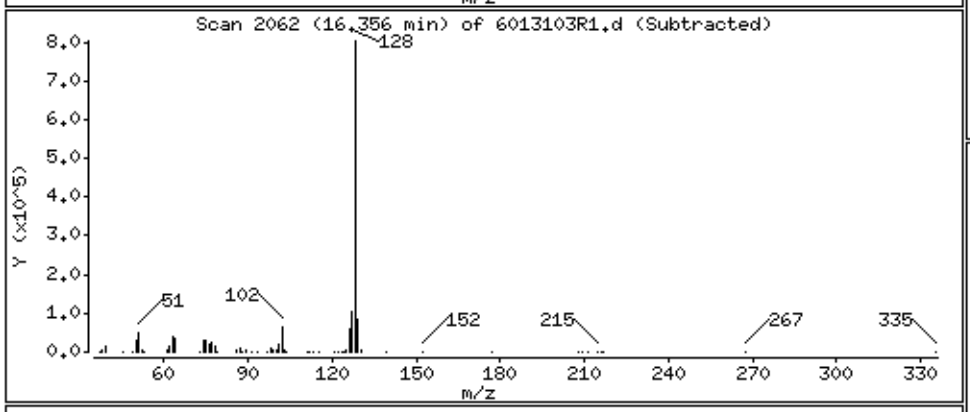
Column phase: RTx-624

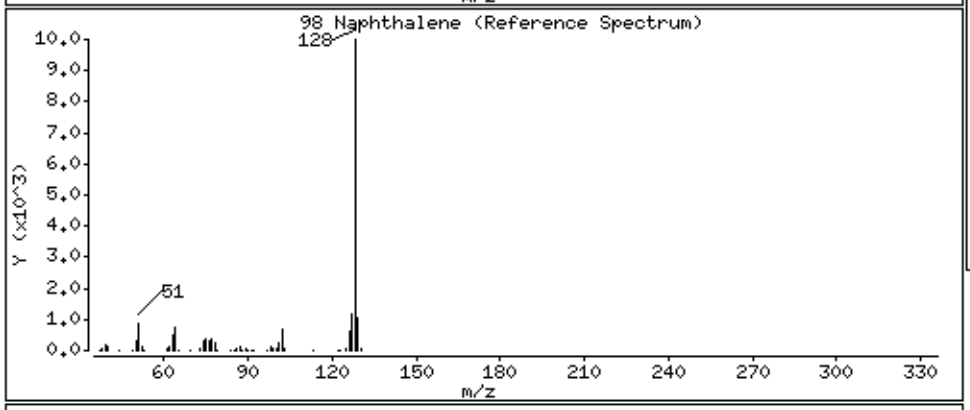
Column diameter: 0.53

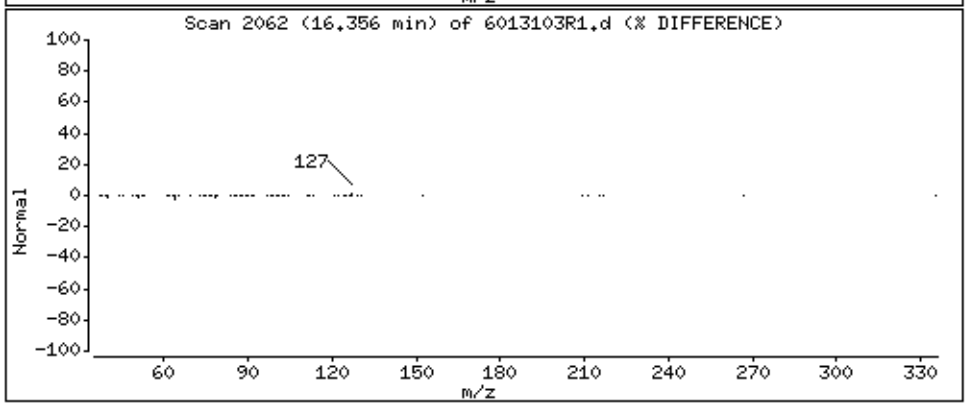
98 Naphthalene

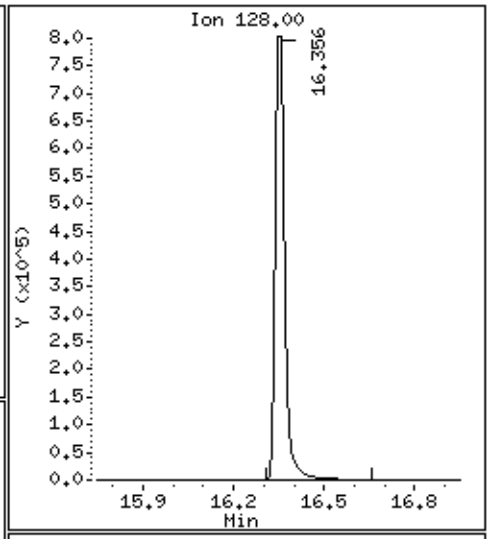
Concentration: 72.980 NG

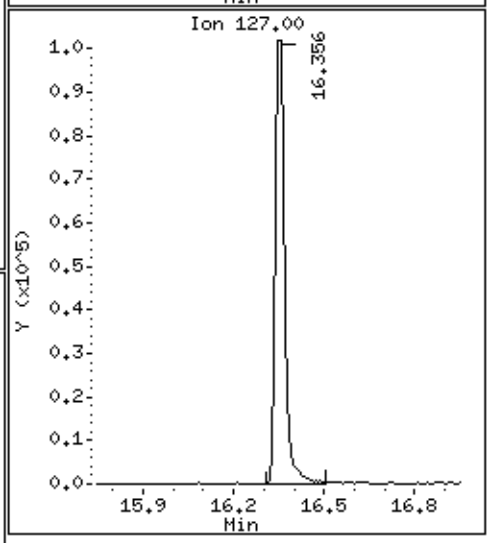












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Client Sample ID: LCSD

Lab ID#: 1701454R1-17AA

EPA METHOD TO-17

File Name:	**6013104R1**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 1/31/17 08:45 AM**

Compound	**%Recovery**	**Method Limits**
Naphthalene	117	70-130

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

Surrogates	**%Recovery**	**Method Limits**
Naphthalene-d8	100	50-150

Report Date: 03-Mar-2017 15:46

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 31jan17
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/31jan17.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	70.902	117.19	70-130

SURROGATE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
$ 97 Naphthalene-d8	25.000	25.023	100.09	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31jan17.b/6013104R1.d
Lab Smp Id: VI VOC+PAH LCSD Client Smp ID: LCSD
Inj Date : 31-JAN-2017 08:45
Operator : su Inst ID: msd6.i
Smp Info : ;VI VOC+PAH LCSD;LCSD
Misc Info : 2787-58, 20mL (4/12/17);2744-158-50, 1.0uL
Comment :
Method : /chem/msd6.i/31jan17.b/617z0127via.m
Meth Date : 03-Mar-2017 15:44 lantonic Quant Type: ISTD
Cal Date : 27-JAN-2017 14:44 Cal File: 6012706.d
Als bottle: 3 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	12.101 (1.000)	174	411803	36.0000		80.00- 120.00	100.00
12.101	12.101 (1.000)	95	465950			81.24- 141.24	113.15
12.101	12.101 (1.000)	176	400521			64.86- 124.86	97.26
$ 97 Naphthalene-d8					CAS #: 1146-65-2		
16.313	16.313 (1.348)	136	468700	25.0233	25.023	80.00- 120.00	100.00
16.313	16.313 (1.348)	108	44921			0.00- 39.63	9.58
98 Naphthalene					CAS #: 91-20-3		
16.349	16.349 (1.351)	128	1447213	70.9018	70.902	80.00- 120.00	100.00
16.349	16.349 (1.351)	127	186061			0.00- 42.83	12.86

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6013104R1.d
Lab Smp Id: VI VOC+PAH LCSD
Analysis Type: VOA
Quant Type: ISTD
Operator: su
Method File: /chem/msd6.i/31jan17.b/617z0127via.m
Misc Info: 2787-58, 20mL (4/12/17);2744-158-50, 1.0uL

Calibration Date: 31-JAN-2017
Calibration Time: 07:26
Client Smp ID: LCSD
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	424509	254705	594313	411803	-2.99

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
79 Bromofluorobenzen	12.10	11.77	12.43	12.10	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/31jan17.b/6013104R1.d

Date : 31-JAN-2017 08:45

Client ID: LCSD

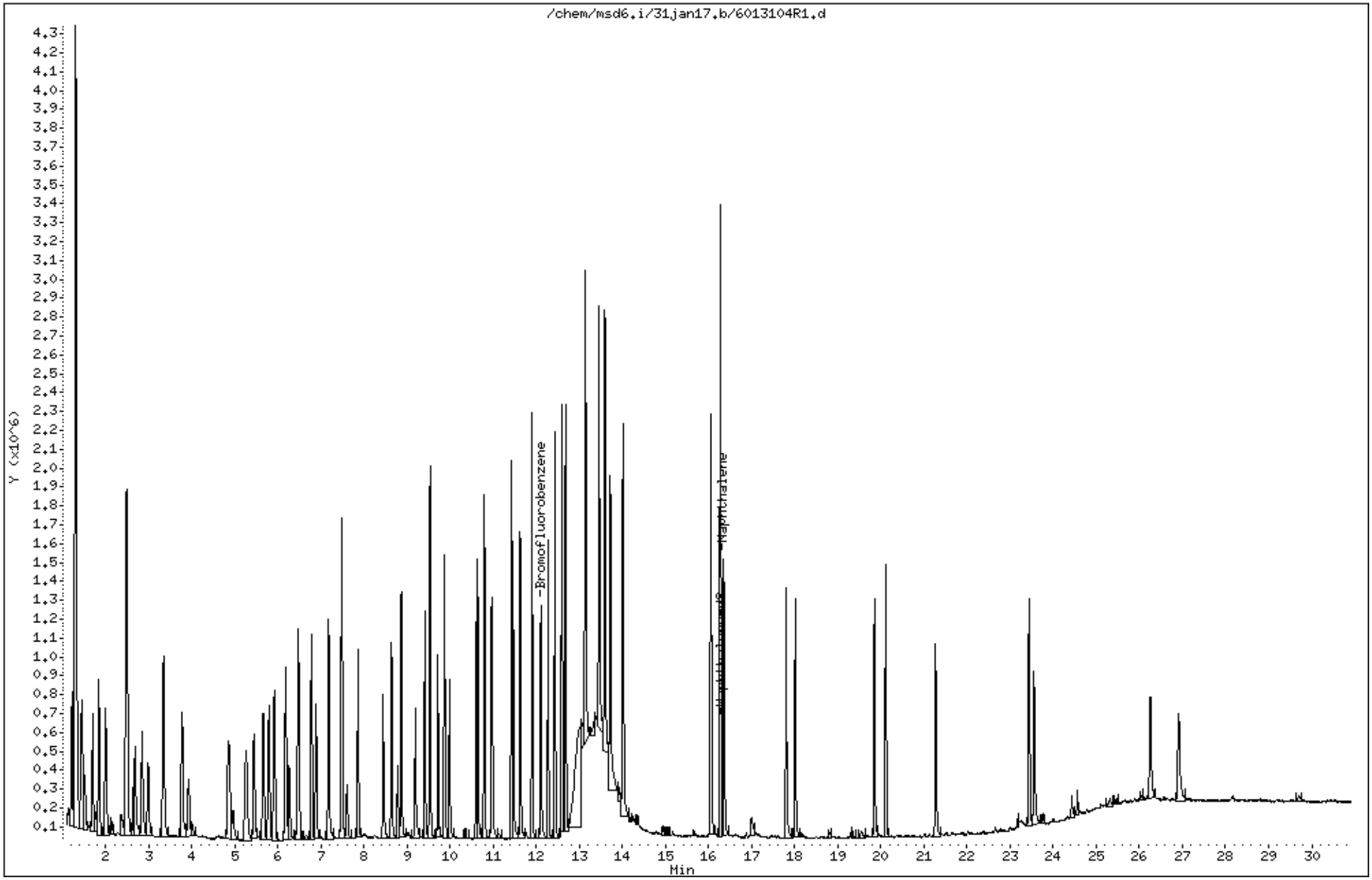
Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

Operator: su

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/31jan17.b/6013104R1.d

Date : 31-JAN-2017 08:45

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

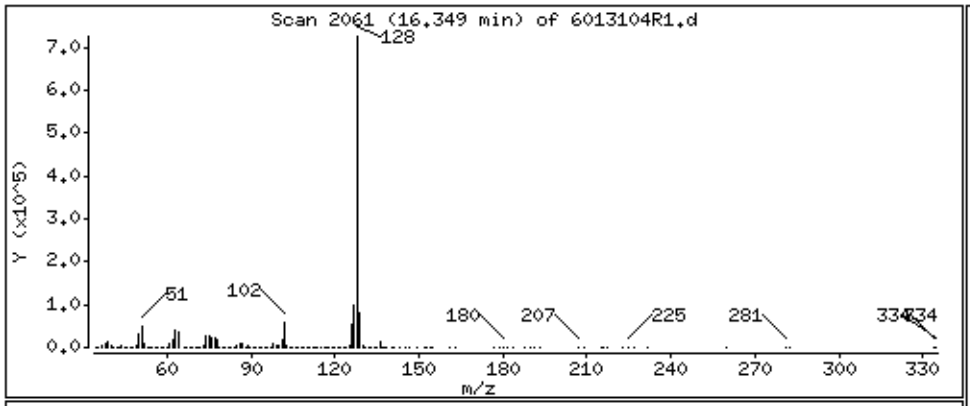
Operator: su

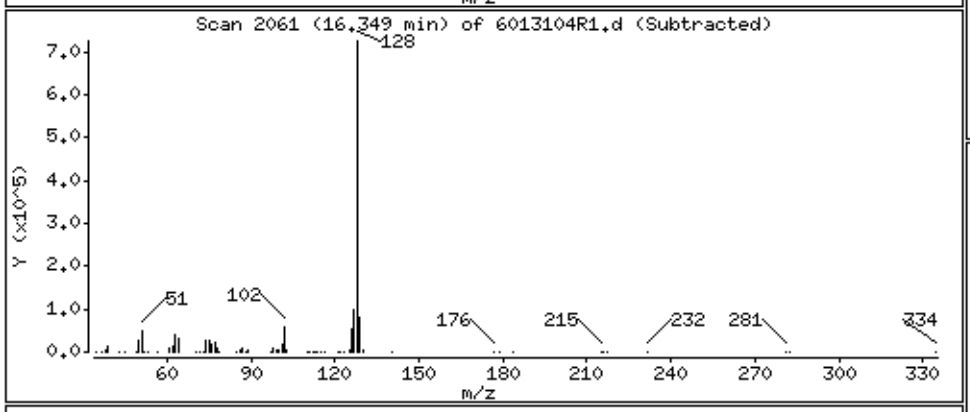
Column phase: RTx-624

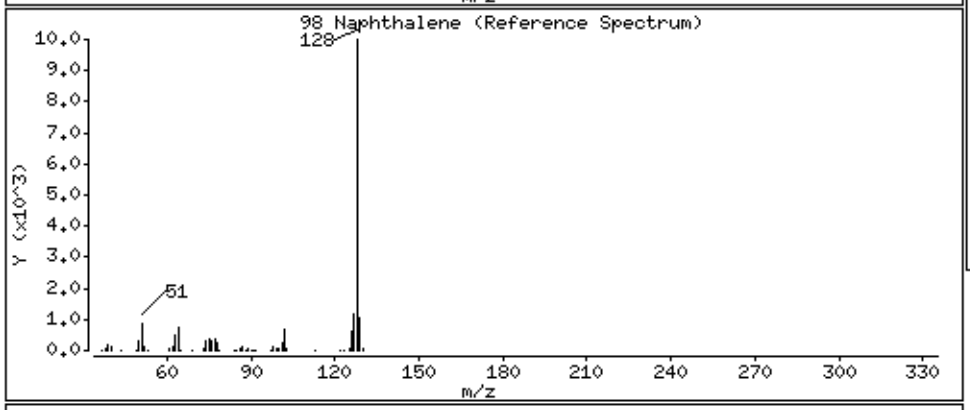
Column diameter: 0.53

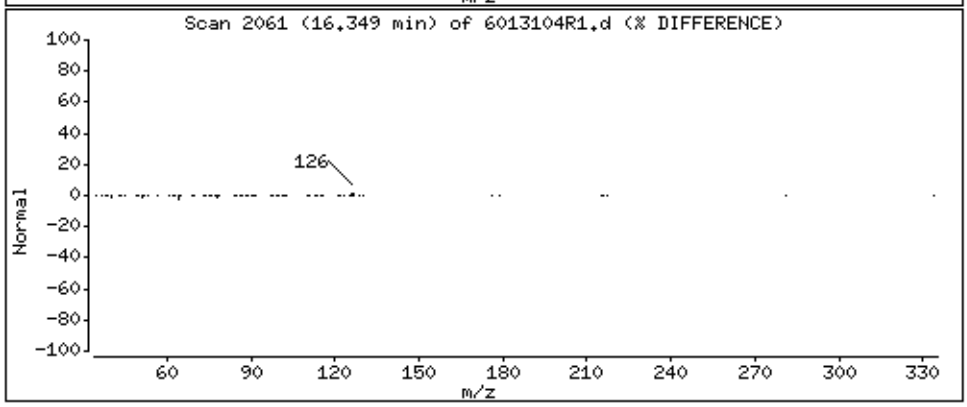
98 Naphthalene

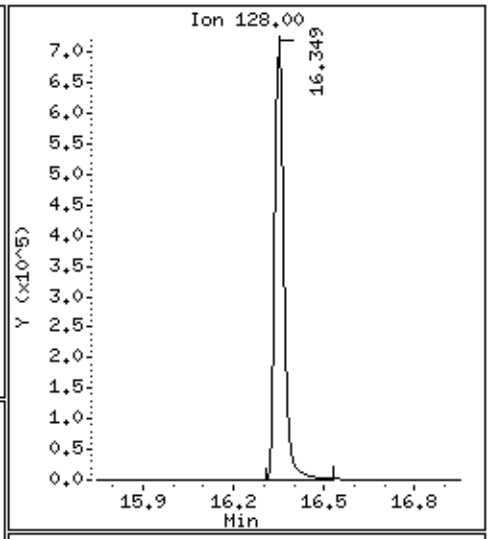
Concentration: 70.902 NG

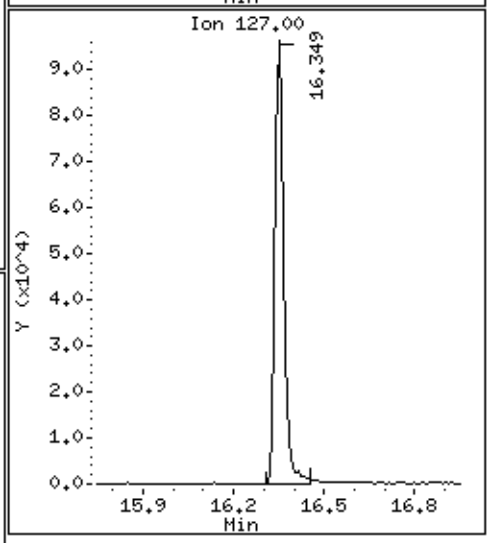












@ Air Toxics Ltd. Run Log for MSD-6 Method TO14 & TO15
BFB verification of 176/174 Ratio: (89432/91992)×100=97.22%
Standard ID 1476-2872 Exp. date 5/4/18
Bromochloromethane 193544 File ID: 6013102.d
1,4-Difluorobenzene 755030 Compound: Benzene
Chlorobenzene-d5 664168 InitialIS: SW
Bromofluorobenzene 424509
Verification CCV IS vs ICAL mid-point (-40%)
Calculation Check:

ppbv of compound = (Area of sample / Area of IS) * (Concentration of IS / RRF) = (970147 / 755030) * (23 / 0.47429) = 62.310

Method: 6172012 7vi.m

Data Directory: C:\msdchem\1\DATA\31JAN17.B\

Use	SampleName		Port pos.	Injection Time		Init.
31) ✓	6013101.D Comments					
;BFB; BFB		1476-2872, 36ng (5/4/18)	1	31 Jan 2017	6:47	SW/AG
32) ✓	6013102.D Comments 2-out					
;VI VOC+PAH CCV;CCV		2787-57, 20mL (4/12/17);2	2	31 Jan 2017	7:26	
33) ✓	6013103.D Comments 2-out 1,2,4-TCB >150%					
;VI VOC+PAH LCS;LCS		2787-58, 20mL (4/12/17);2	3	31 Jan 2017	8:05	
34) ✓	6013104.D Comments 5-out					
;VI VOC+PAH LCSD;LCSD		2787-58, 20mL (4/12/17);2	3	31 Jan 2017	8:45	
35) ✓	6013105.D Comments					
;VI Diesel CCV;CCV		2744-169-10,000, 2.0uL (7	4	31 Jan 2017	9:25	
36) ✓	6013106.D Comments					
;VI Gasoline CCV;CCV		2744-56A-10,000, 2.0uL (4	5	31 Jan 2017	10:04	
37) ✓	6013107.D Comments					
;DP Lab Blank;Lab Blank		G0153605	6	31 Jan 2017	10:44	
1)	6013108.D Comments "E" multiple compounds, cis,1,2-di-chloroethene Trichloroethene saturated, VC saturated, Tetrachloroethene					
;1701441-01A		G0144312	11	31 Jan 2017	11:58	
2) ✓	6013109.D Comments 2-out client in 3/24/17. ~~client~~ blk test					
;VI VOC+PAH CCV;CCV		288364, 2787-57, 20mL (4/	21	31 Jan 2017	12:38	
3) X	6013110.D Comments client spk test Isopentane; cis,1,2-dichloroethene >RL					
;DP Lab Blank; Lab Blank		288329	22	31 Jan 2017	13:18	
4) ✓	6013111.D Comments					
;1701454-12A		G0143438	11	31 Jan 2017	15:13	
5) ✓	6013112.D Comments					
;1701454-01A		G0147257	12	31 Jan 2017	15:53	
6) ✓	6013113.D Comments					
;1701454-02A		G0152217	13	31 Jan 2017	16:33	
7) ✓	6013114.D Comments					
;1701454-03A		G0153670	14	31 Jan 2017	17:13	
8) ✓	6013115.D Comments					
;1701454-04A		G0147082	15	31 Jan 2017	17:53	
9) ✓	6013116.D Comments					
;1701454-05A		G0144403	16	31 Jan 2017	18:33	
0) ✓	6013117.D Comments					

;1701454-06A G0149600 17 31 Jan 2017 19:13 SW/AC

11) ✓ 6013118.D Comments
;1701454-07A G0145582 18 31 Jan 2017 19:52

12) ✓ 6013119.D Comments
;1701454-08A G0149756 19 31 Jan 2017 20:32

13) ✓ 6013120.D Comments
;1701454-09A G0137150 20 31 Jan 2017 21:11

14) ✓ 6013121.D Comments
;1701454-10A G0160540 21 31 Jan 2017 21:51

15) ✓ 6013122.D Comments
;1701454-11A G0155282 22 31 Jan 2017 22:31

16) ✓ 6013124.D Comments
;1701454-13A G0140142 23 31 Jan 2017 23:10

17) ✓ 6013125.D Comments
;1701454-14A G0146189 24 31 Jan 2017 23:50
Cyclohexane, Toluene

18) × 6013126.D Comments 1,3-butadiene, Isopentane, Methylene chloride >RL
;client blank 1 296426 31 1 Feb 2017 00:29

19) × 6013127.D Comments Isopentane, Ethylbenzene >RL
;client blank 2 296430 32 1 Feb 2017 1:09 ✓

Signed [signature] Date 2/1/17

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

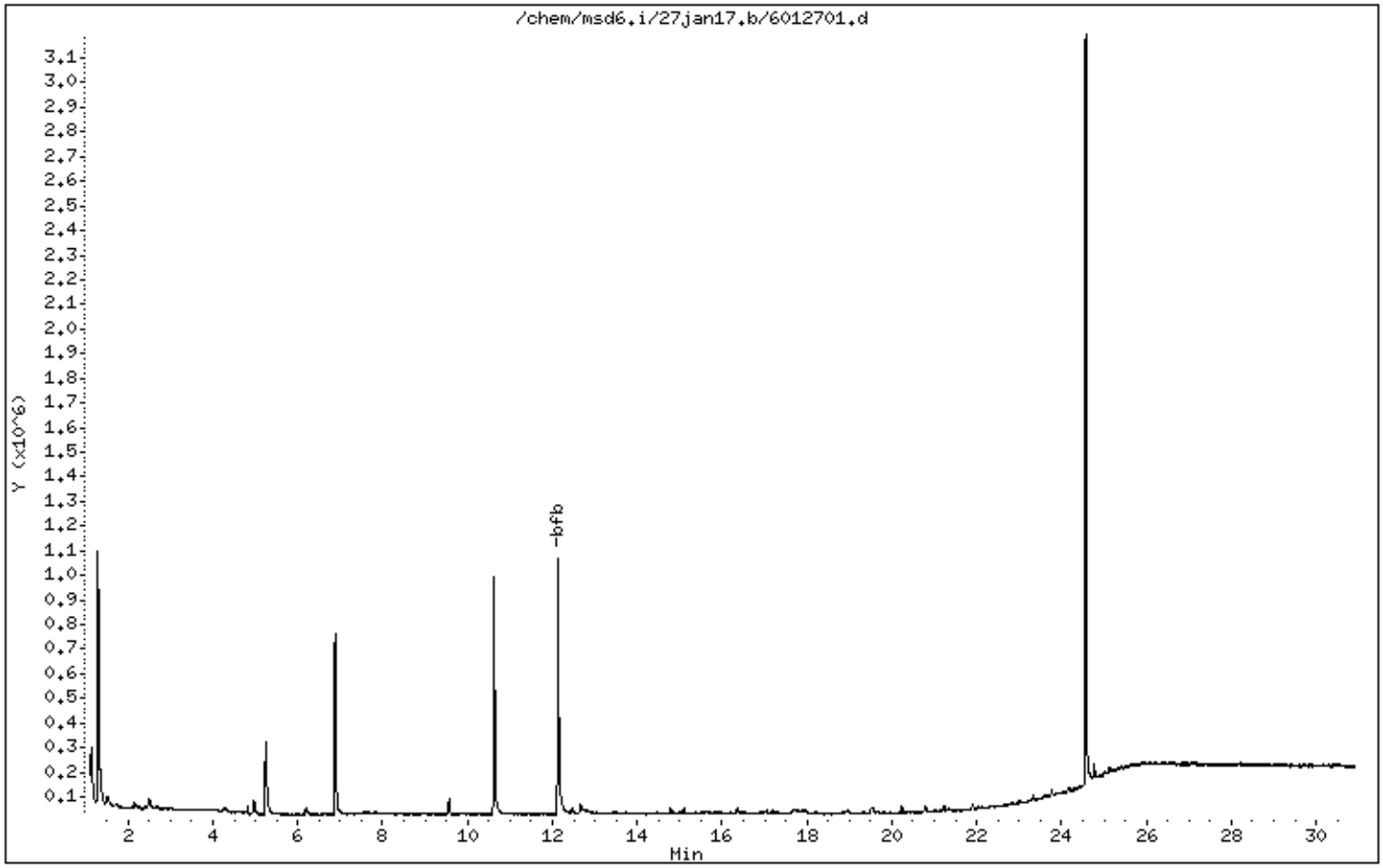
Sample Info: ;BFB; BFB

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

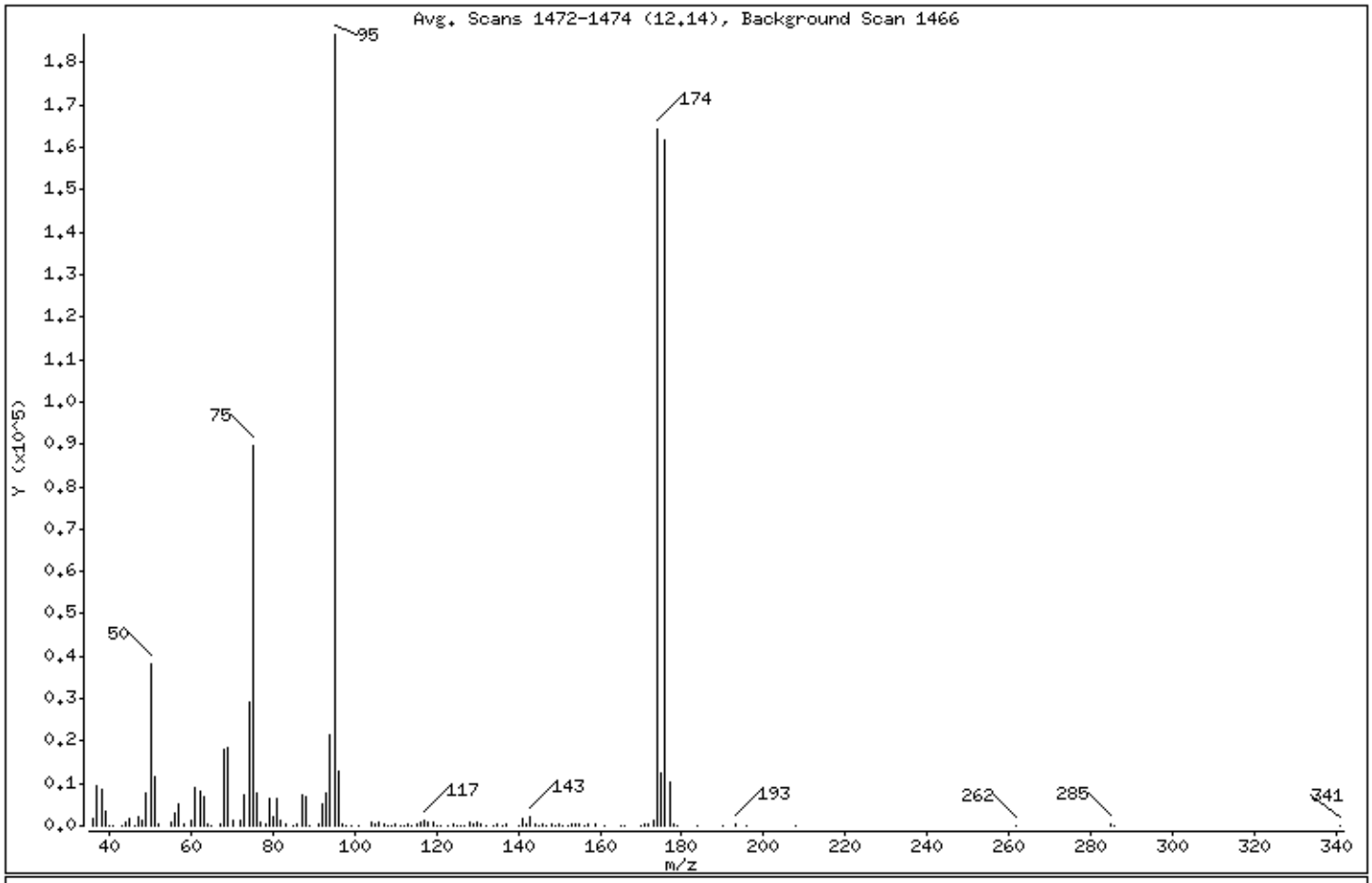
Client ID: BFB | Instrument: msd6.i

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/30jan17.b/6013001.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 30-JAN-2017 09:18
Operator : su Inst ID: msd6.i
Smp Info : ;BFB; BFB
Misc Info : 1476-2872, 36ng (5/4/18)
Comment :
Method : /chem/msd6.i/30jan17.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	
12.130	12.144	-0.014	95	221024			100.00- 100.00	100.00
12.130	12.144	-0.014	50	46383			8.00- 40.00	20.99
12.130	12.144	-0.014	75	104805			30.00- 66.00	47.42
12.130	12.144	-0.014	96	14895			5.00- 9.00	6.74
12.130	12.144	-0.014	173	1659			0.00- 1.99	0.88
12.130	12.144	-0.014	174	188352			50.00- 120.00	85.22
12.130	12.144	-0.014	175	13656			4.00- 9.00	7.25
12.130	12.144	-0.014	176	184512			93.00- 101.00	97.96
12.130	12.144	-0.014	177	11930			5.00- 9.00	6.47

Data File: /chem/msd6.i/30jan17.b/6013001.d

Date : 30-JAN-2017 09:18

Client ID: BFB

Instrument: msd6.i

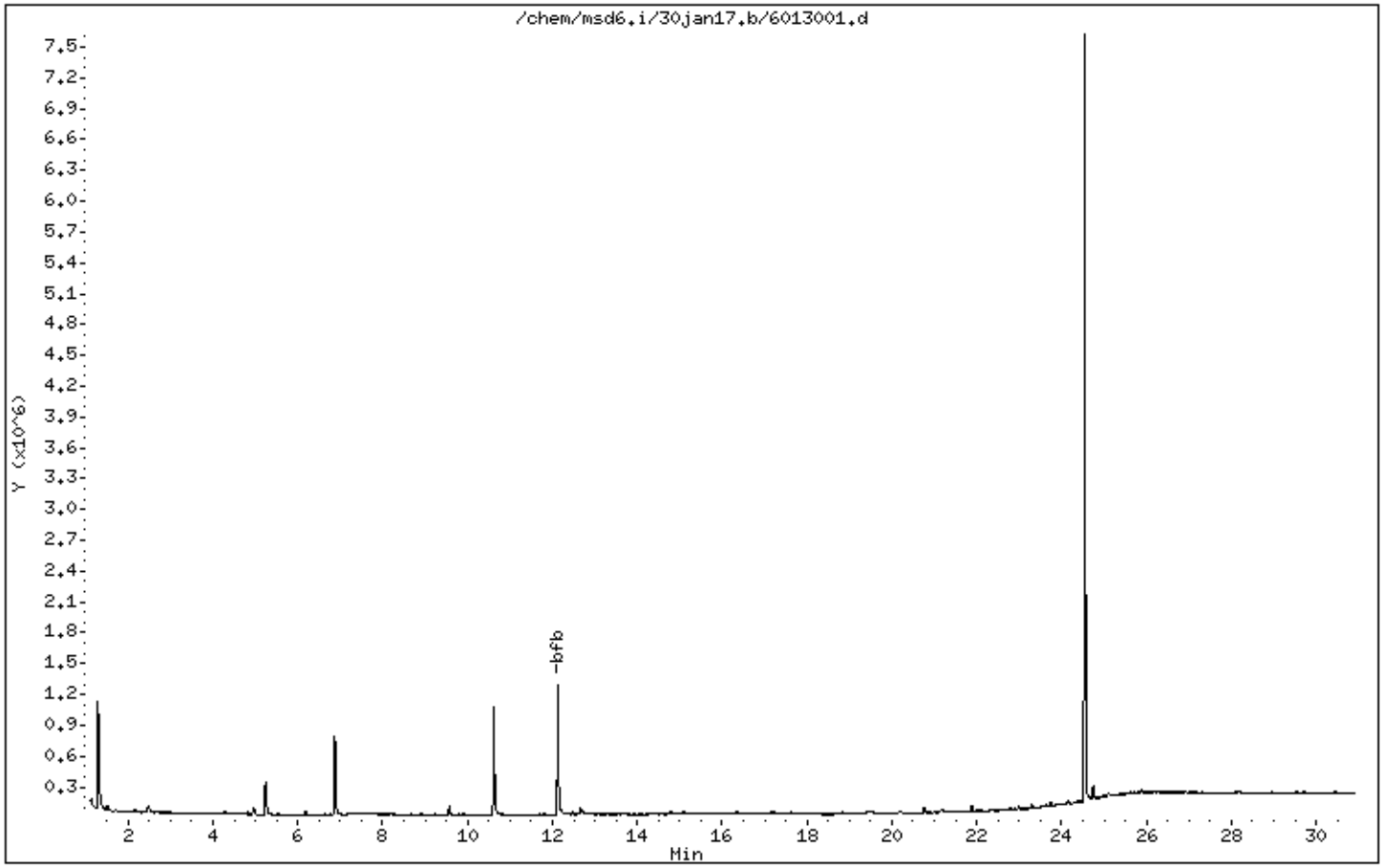
Sample Info: ;BFB; BFB

Volume Injected (uL): 1.0

Operator: su

Column phase:

Column diameter: 2.00



Data File: /chem/msd6.i/30jan17.b/6013001.d

Date : 30-JAN-2017 09:18

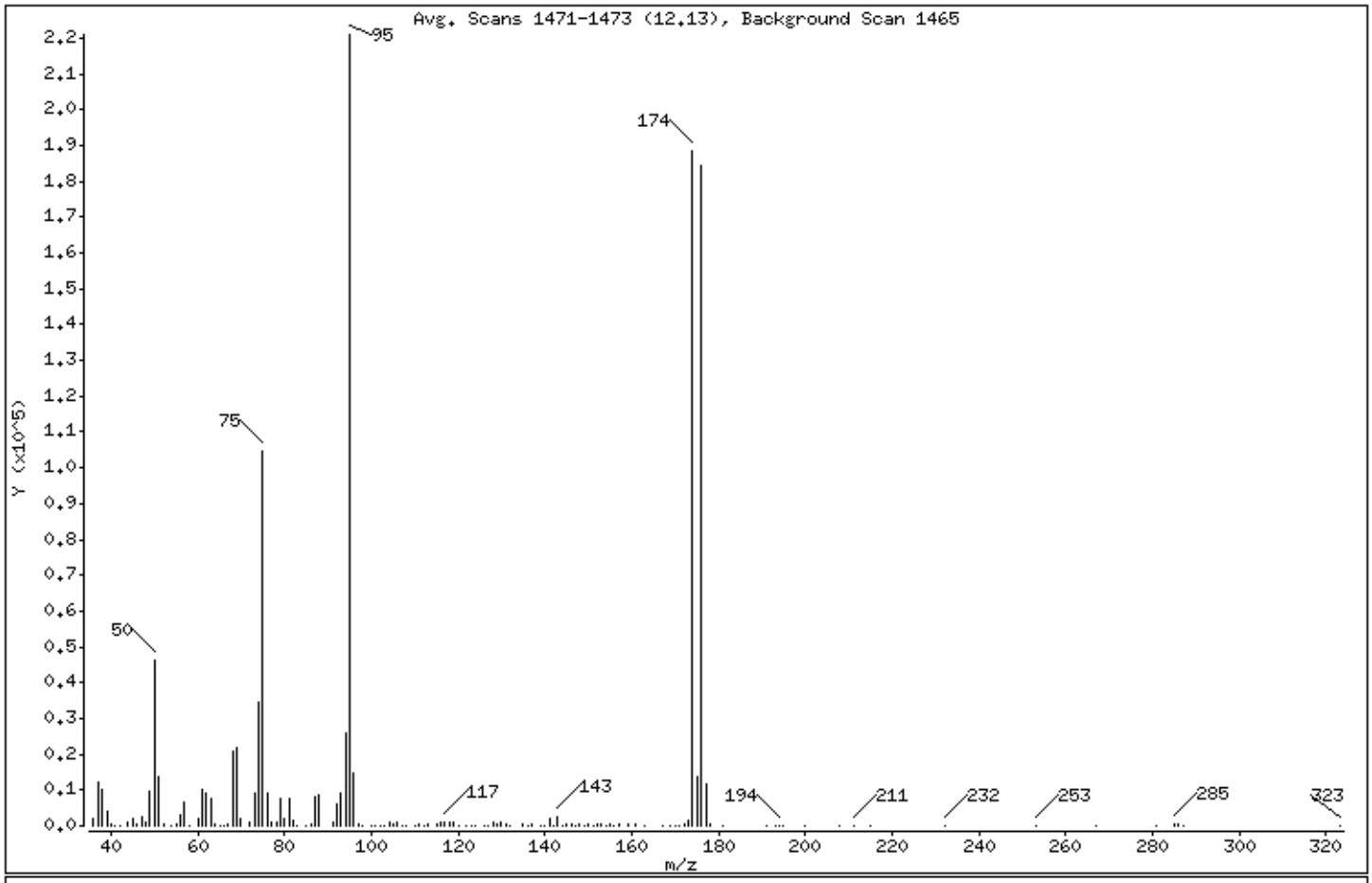
Client ID: BFB Instrument: msd6.i

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	20.99
75	30.00 - 66.00% of mass 95	47.42
96	5.00 - 9.00% of mass 95	6.74
173	Less than 1.99% of mass 174	0.75 (0.88)
174	50.00 - 120.00% of mass 95	85.22
175	4.00 - 9.00% of mass 174	6.18 (7.25)
176	93.00 - 101.00% of mass 174	83.48 (97.96)
177	5.00 - 9.00% of mass 176	5.40 (6.47)

Data File: /chem/msd6.i/30jan17.b/6013001.d

Date : 30-JAN-2017 09:18

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: 6013001.d
Spectrum: Avg. Scans 1471-1473 (12,13), Background Scan 1465
Location of Maximum: 95.00
Number of points: 138

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2001	75.00	104800	116.00	794	156.00	129
37.00	12175	76.00	9312	117.00	1267	157.00	630
38.00	10028	77.00	1029	118.00	921	159.00	386
39.00	4016	78.00	784	119.00	1064	161.00	310
40.00	364	79.00	7586	120.00	146	163.00	60
41.00	90	80.00	1917	122.00	67	167.00	55
42.00	106	81.00	7383	123.00	190	169.00	61
44.00	1192	82.00	1761	124.00	207	170.00	54
45.00	2145	83.00	182	126.00	210	171.00	99
46.00	351	85.00	119	127.00	149	172.00	305
47.00	2791	86.00	324	128.00	923	173.00	1659
48.00	1179	87.00	8269	129.00	507	174.00	188352
49.00	9519	88.00	8788	130.00	927	175.00	13656
50.00	46376	91.00	924	131.00	353	176.00	184512
51.00	13746	92.00	6347	132.00	58	177.00	11930
52.00	647	93.00	9085	135.00	612	178.00	457
54.00	10	94.00	25800	136.00	53	181.00	50
55.00	548	95.00	220992	137.00	402	191.00	4
56.00	3074	96.00	14895	139.00	218	193.00	92
57.00	6652	97.00	304	140.00	185	194.00	115
58.00	224	98.00	177	141.00	2281	195.00	51
60.00	1797	100.00	239	142.00	136	200.00	50
61.00	10146	101.00	51	143.00	2360	208.00	160
62.00	9295	102.00	75	144.00	205	211.00	161
63.00	7645	103.00	20	145.00	264	215.00	61
64.00	738	104.00	979	146.00	367	232.00	59
65.00	65	105.00	348	147.00	159	253.00	69
66.00	155	106.00	1177	148.00	634	267.00	54
67.00	610	107.00	104	149.00	210	281.00	33
68.00	20800	108.00	244	150.00	372	285.00	644
69.00	21784	110.00	237	151.00	124	286.00	284
70.00	1788	111.00	398	152.00	265	287.00	51
72.00	1160	112.00	48	153.00	290	323.00	50
73.00	8997	113.00	377	154.00	206		
74.00	34696	115.00	265	155.00	670		

Data File: /chem/msd6.i/30jan17.b/6013001.d

Date : 30-JAN-2017 09:18

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: 6013001.d
Spectrum: Avg. Scans 1471-1473 (12.13), Background Scan 1465
Location of Maximum: 95.00
Number of points: 138

m/z	Y	m/z	Y	m/z	Y	m/z	Y

Eurofins Air Toxics Inc.

Data file : /chem/msd6.i/31jan17.b/6013101.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 31-JAN-2017 06:47
Operator : su Inst ID: msd6.i
Smp Info : ;BFB; BFB
Misc Info : 1476-2872, 36ng (5/4/18)
Comment :
Method : /chem/msd6.i/31jan17.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		
12.123	12.144	-0.021	95	103643		100.00	100.00- 100.00	100.00
12.123	12.144	-0.021	50	22394		8.00	40.00- 40.00	21.61
12.123	12.144	-0.021	75	49383		30.00	66.00- 66.00	47.65
12.123	12.144	-0.021	96	6832		5.00	9.00- 9.00	6.59
12.123	12.144	-0.021	173	756		0.00	1.99- 1.99	0.82
12.123	12.144	-0.021	174	91992		50.00	120.00- 120.00	88.76
12.123	12.144	-0.021	175	6739		4.00	9.00- 9.00	7.33
12.123	12.144	-0.021	176	89432		93.00	101.00- 101.00	97.22
12.123	12.144	-0.021	177	5690		5.00	9.00- 9.00	6.36

Data File: /chem/msd6.i/31jan17.b/6013101.d

Date : 31-JAN-2017 06:47

Client ID: BFB

Instrument: msd6.i

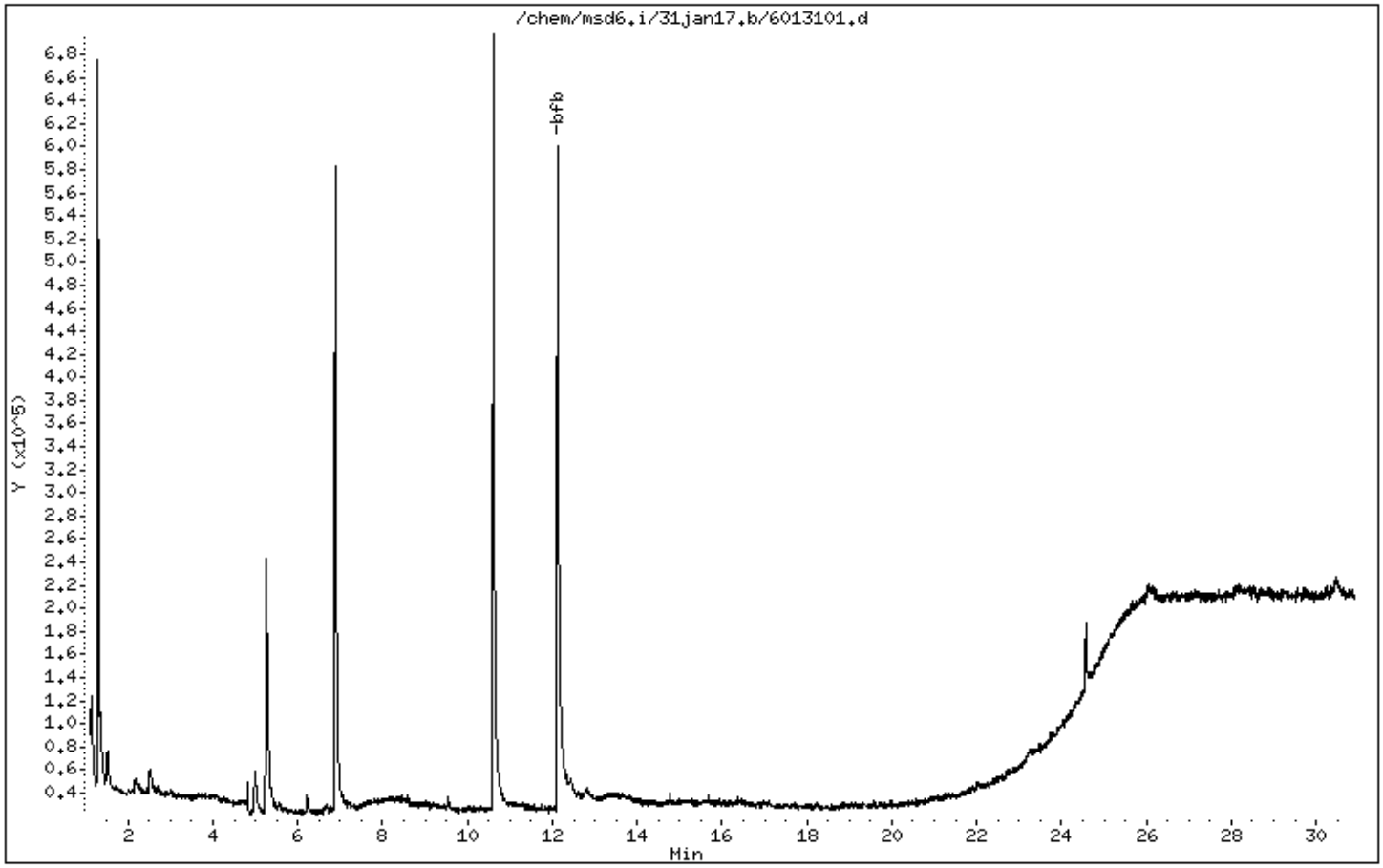
Sample Info: ;BFB; BFB

Volume Injected (uL): 1.0

Operator: su

Column phase:

Column diameter: 2.00



Data File: /chem/msd6.i/31jan17.b/6013101.d

Date : 31-JAN-2017 06:47

Client ID: BFB

Instrument: msd6.i

Sample Info: ;BFB; BFB

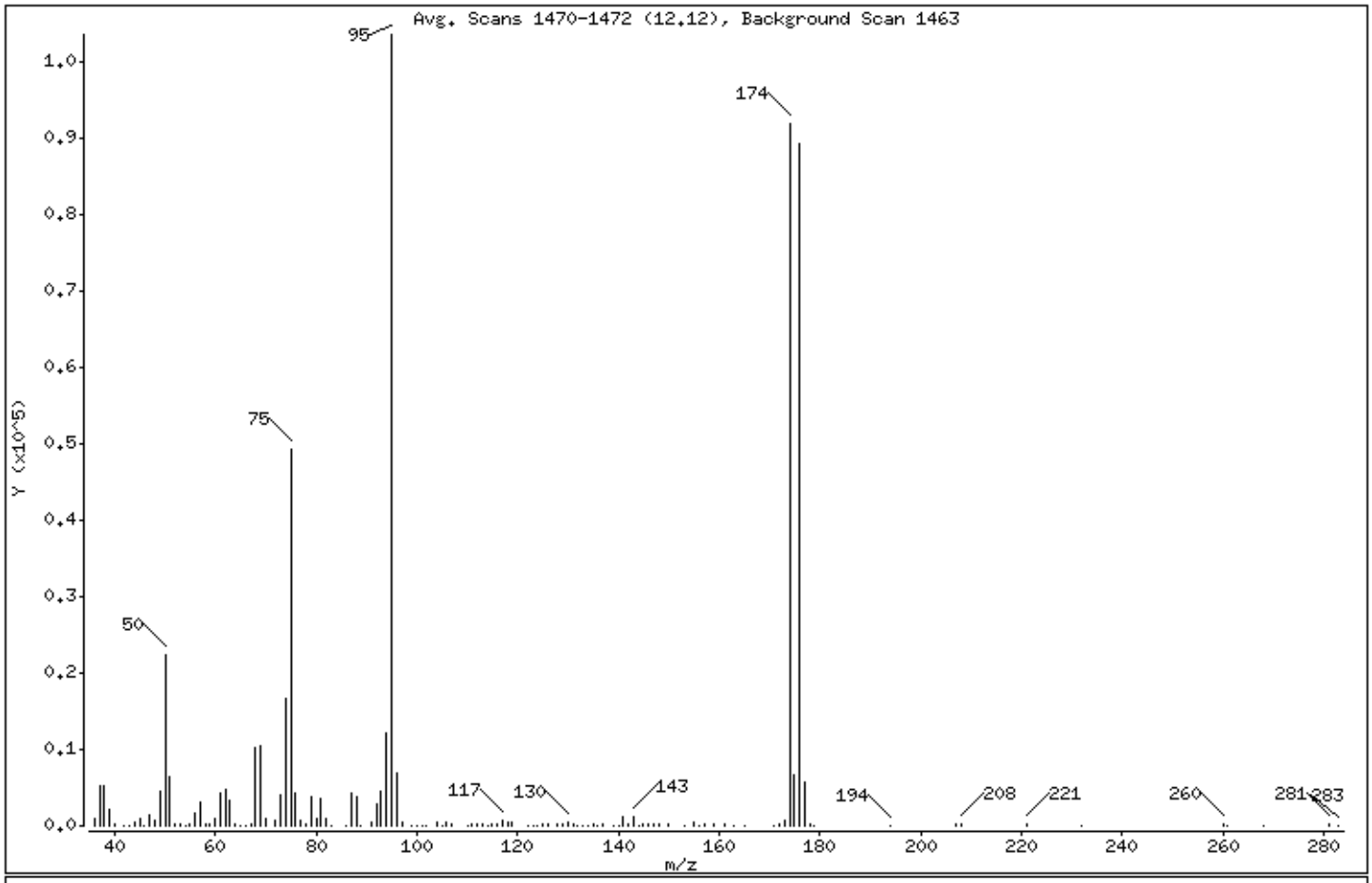
Volume Injected (uL): 1.0

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	21.61
75	30.00 - 66.00% of mass 95	47.65
96	5.00 - 9.00% of mass 95	6.59
173	Less than 1.99% of mass 174	0.73 (0.82)
174	50.00 - 120.00% of mass 95	88.76
175	4.00 - 9.00% of mass 174	6.50 (7.33)
176	93.00 - 101.00% of mass 174	86.29 (97.22)
177	5.00 - 9.00% of mass 176	5.49 (6.36)

Data File: /chem/msd6.i/31jan17.b/6013101.d

Date : 31-JAN-2017 06:47

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: 6013101.d
Spectrum: Avg. Scans 1470-1472 (12.12), Background Scan 1463
Location of Maximum: 95.00
Number of points: 128

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	992	70.00	900	111.00	213	148.00	306
37.00	5342	72.00	768	112.00	174	150.00	219
38.00	5354	73.00	4110	113.00	207	153.00	5
39.00	2081	74.00	16632	114.00	78	155.00	407
40.00	249	75.00	49376	115.00	287	156.00	51
42.00	104	76.00	4251	116.00	231	157.00	342
43.00	95	77.00	707	117.00	619	159.00	201
44.00	574	78.00	323	118.00	450	161.00	207
45.00	995	79.00	3805	119.00	492	163.00	55
46.00	86	80.00	961	122.00	50	165.00	50
47.00	1370	81.00	3549	123.00	103	171.00	115
48.00	652	82.00	891	124.00	22	172.00	192
49.00	4577	83.00	74	125.00	231	173.00	756
50.00	22392	86.00	88	126.00	129	174.00	91992
51.00	6399	87.00	4256	128.00	346	175.00	6739
52.00	187	88.00	3813	129.00	142	176.00	89432
53.00	140	89.00	52	130.00	536	177.00	5690
54.00	116	91.00	438	131.00	313	178.00	275
55.00	343	92.00	2930	132.00	58	179.00	52
56.00	1606	93.00	4539	133.00	12	194.00	67
57.00	3002	94.00	12036	134.00	50	207.00	122
58.00	132	95.00	103640	135.00	327	208.00	145
59.00	234	96.00	6832	136.00	55	221.00	167
60.00	881	97.00	365	137.00	245	232.00	29
61.00	4395	99.00	50	139.00	107	260.00	201
62.00	4733	100.00	67	140.00	57	261.00	54
63.00	3429	101.00	59	141.00	1142	268.00	56
64.00	165	102.00	65	142.00	130	281.00	237
65.00	45	104.00	548	143.00	1204	283.00	62
66.00	47	105.00	49	144.00	56		
67.00	229	106.00	384	145.00	146		
68.00	10230	107.00	240	146.00	223		
69.00	10376	110.00	83	147.00	121		

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 417 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: ☒ Normal ☐ Rush Specify

Reporting Units: ☐ ppmv ☐ ppbv ☒ ug/m3 ☐ mg/m3

Lab I.D.	Field Sample I.D.	Tube/ Cartridge	Date of Collection	Start Time	End Time	Duration	Final Volume l	Analysis Requested
01A	B131SAA-012817	147257	1/29/17	1615	0015	480 min	~~5.35~~ 17.3	Naphthalene
02A	B13IA-1-012817	152217	1/29/17	1445	1445	480 min	16.3	Naphthalene
03A	B13IA-3-012817	153670	1/29/17	1452	1452	480 min	17.0	NIAP
04A	B13IA-2-012817	147082	1/29/17	1508	1508	480 min	16.8	Naphthalene
05A	B131A-2DUP-012817	144403	1/29/17	1508	1508	480 min	16.8	Naphthalene
06A	B13SS-1-012917	149600	1/29/17	1514	1517	3 min	0.40	Naphthalene
07A	B13SS-2-012917	145582	1/29/17	1602	1605	3 min	0.40	Naphthalene
08A	B13SS-2DUP-012917	149756	1/29/17	1558	1601	3 min	0.40	Naphthalene
09A	B13SS-3-012917	137150	1/29/17	1538	1541	3 min	0.40	Naphthalene
10A	B15SS-1-012917	160540	1/29/17	1734	1737	3 min	0.40	Naphthalene

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

Pump Calibration Information
Pre-test Flow Rate: 35 ml/min
Post-test Flow Rate: 37 ml/min
Average Flow Rate: 36 ml/min

Notes:

Lab Use Only

Shipper Name	Air Bill #	Opened By	Temp ©	Condition	Custody Seals	Work Order #
FedEx		KK	12.9°C	SDR	Yes No None	1701454

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
[X] 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 ℓ	Analysis Requested
11A	BISSS-1DUP-012917	155282	1/29/17	1740	1743	3min	0.40	Naphthalene
12A	BISFB-012917	143438	1/29/17	1735	1735	—	—	Naphthalene
13A	BISIA-1DUP-012817	140142	1/29/17	1550	1550	480min	17.0	Naphthalene
14A	BISIA-1-012817	146189	1/29/17	1550	1550	480min	16.8	Naphthalene

Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time 30Jan17 1700 Fed Ex
Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time EATL 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 #
fedex		KK	12.9°C	SDR	Yes No None	1701454

Eurofins Air Toxics, Inc. **Dry Purge** **Logbook #: 2816**

Date: _____

Instrument: _____

Drying Device: Short Path Thermal Desorption Conditioning System
Manufacturer: Scientific Instrument Services, INC. Ringoes, NJ USA
Model: CS-1
Drying Gas: Nitrogen (N_2) _____

Flow Meter: _____

See page 112
Su 1/31/17

Calibration Tube#: _____

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

Position #	Workorder #/Lab ID #	Media Type	Tube ID #	Flow Rate (mL/min) Acceptance Range (mL/min): 45-55		Time		Comments
				Start	End	Start	End	
6	1701420-18A	V1	G0151834	51.2	53.0	0920	0950	
1	-19A		G0151833	49.5	48.9	0955	1025	
2	Lab Blank		G0153605	47.8	45.3	1150	1220	
3			G0152855	45.6	45.5			
4			G0147259	49.4	46.8			
1	1701454-01A	V1	G0147257	48.4	46.2	1250	1320	
2	-02A		G0152217	54.3	53.1			
3	-03A		G0153670	53.8	53.0			
4	-04A		G0147082	53.0	46.5			
5	-05A		G0144403	51.4	50.9			
6	-06A		G0149600	49.9	49.6			
1	-07A		G0145582	46.2	45.3	1325	1355	
2	-08A		G0149756	53.1	53.4			
3	-09A		G0137150	53.0	52.3			
4	-10A		G0160540	46.5	49.7			
5	-11A		G0155282	50.9	48.3			
6	-12A		G0143438	49.6	52.2			

Su
Reviewed

1/31/17
Date

Eurofins Air Toxics, Inc. **Dry Purge** **Logbook #: 2816**

Date: _____

Instrument: _____

See page 112
SU 1/31/17

Drying Device: Short Path Thermal Desorption Conditioning System
Manufacturer: Scientific Instrument Services, INC. Ringoes, NJ USA
Model: CS-1
Drying Gas: Nitrogen (N_2) _____

Calibration Tube#: _____

Flow Meter: _____

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

Position #	Workorder #/Lab ID #	Media Type	Tube ID #	Flow Rate (mL/min) Acceptance Range (mL/min): 45-55		Time		Comments
		SU 1/31/17		Start	End	Start	End	
1	1701454-13A	6 VI	G0140142	46.2	50.4	1400	1430	
2	↓ -14A	↓	G0146189	53.1	53.6	↓	↓	

SU 1/31/17

SU
Reviewed

1/31/17
Date

eurofins | Air Toxics

SAMPLE RECEIPT SUMMARY

WORKORDER 1701454R1

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: AA

Fraction	Sample #	Analysis	Collected	Amount$
01A	B1315AA-012817	Modified TO-17 VI	1/29/2017	$0.00
02A	B13IA-1-012817	Modified TO-17 VI	1/29/2017	$0.00
03A	B13IA-3-012817	Modified TO-17 VI	1/29/2017	$0.00
04A	B13IA-2-012817	Modified TO-17 VI	1/29/2017	$0.00
05A	B13IA-2DUP-012817	Modified TO-17 VI	1/29/2017	$0.00
06A	B13SS-1-012917	Modified TO-17 VI	1/29/2017	$0.00
07A	B13SS-2-012917	Modified TO-17 VI	1/29/2017	$0.00
08A	B13SS-2DUP-012917	Modified TO-17 VI	1/29/2017	$0.00
09A	B13SS-3-012917	Modified TO-17 VI	1/29/2017	$0.00
10A	B15S-1-012917	Modified TO-17 VI	1/29/2017	$0.00
11A	B15SS-1DUP-012917	Modified TO-17 VI	1/29/2017	$0.00
12A	B15FB-012917	Modified TO-17 VI	1/29/2017	$0.00
13A	B15IA-1DUP-012817	Modified TO-17 VI	1/29/2017	$0.00
14A	B15IA-1-012817	Modified TO-17 VI	1/29/2017	$0.00
15A	Lab Blank	Modified TO-17 VI	NA	$0.00
16A	CCV	Modified TO-17 VI	NA	$0.00
17A	LCS	Modified TO-17 VI	NA	$0.00
17AA	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:** 1/31/2017 **Discrepancy Type:** ☐ **1.** ☒ **2.** ☐ **3.**

Workorder(s) affected:1701454 **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:** **1/31/2017** **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: 1/31/2017

☐ 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 # 1701454	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 1/31/17 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: S1: 2 out in CCV, 2 out in LCS, 5 out in LCSD

A1	A2	A3	A4	D	Section 2 – Sample Analysis				
					Initials/Date	A1: Su 2/1/17	A2:	A3:	A4:
✓				✓	IS/Surr Recoveries, Dilution Factors, Load Volumes, leg(s) of instrument, Initial/Final Pressures, and Canister #s Verified				
NA				✓	a) Tedlar Bag IDs verified against COC b) Tedlar Bag ID confirmed with loading sequence/leg(s) of instrument				
NA				✓	Manual Integrations/Bag or Can Dilution Forms/Re-pressurization Forms/Bag-Can Transfer Forms present (circle all that apply)				
✓					12/24 Hr clock time & Hold Time met for all samples				
✓				✓	Re-analysis of sample(s) has been evaluated for comparability and/or sample(s) has/have been checked for trends (inf/Eff), field dups/trip blanks, samples following bad loads on CIAAs have been verified (system blks, confirmation runs).				
✓				✓	All runs have been evaluated for potential carry-over (TPHg/non-Target/over-range compounds/ etc.)				

Analytical and special notes: A1: Samples 01A-14A 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: Su 2/9/17	D2:	D3:	D4:
NA						CAR # (if applicable)				
✓						Spectra Verified *(documentation of spectral defense included if applicable)*				
NA						TICs resemble reference spectra/ TICs between sample dups. are consistent *(if applicable)*				
✓					✓	Lab Narrative is correct				
NA						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: Su 2/9/17	3rd Tier: LA 2/9/17 *(needed only for DOD or per client request)*	
✓		Sample Discrepancy Report (SDR) complete and approved *(if applicable)*		
NA		Manually entered results are checked		
✓		At least one result per sample is verified against Target quant sheets		
✓		Appropriate data qualifier flags are applied		
✓		Final invoice is correct/ Final PDF report, COC and EDD reviewed and correct		

Special Notes:

Note (1) *Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply*
Note (2) 3rd Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

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 mgh results for all samples using correct IRL.
1701454R1				
W	T	3T	Q	
✓			✓	Reissue Request form Present
N/A			N/A	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)
UA 3/24/17			MC 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